YAMAHA

OWNER'S MANUAL

⚠ Read this manual carefully before operating this vehicle.

TRACER 9 GT+

MOTORCYCLE

MTT890D-KR (TRACER 9 GT+)

BLG-28199-20

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EAU46094

⚠ Read this manual carefully before operating this vehicle. This manual should stay with this vehicle if it is sold.

EAU98372

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EAU10103

Welcome to the Yamaha world of motorcycling!
As the owner of the MTT890D-KR, you are benefiting from Yamaha's vast experience and newest technology regarding the design and manufacture of high-quality products, which have earned Yamaha a reputation for dependability.
Please take the time to read this manual thoroughly, so as to enjoy all advantages of your MTT890D-KR. The Owner's Manual does not only instruct you in how to operate, inspect and maintain your motorcycle, but also in how to safeguard yourself and others from trouble and injury.
In addition, the many tips given in this manual will help keep your motorcycle in the best possible condition. If you have any further questions, do not hesitate to contact your Yamaha dealer.
The Yamaha team wishes you many safe and pleasant rides. So, remember to put safety first!
Yamaha continually seeks advancements in product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your motorcycle and this manual. If there is any question concerning this manual, please consult a Yamaha dealer.

EWA10032

⚠ WARNING

Please read this manual carefully and completely before operating this motorcycle.

Important manual information

EAU10134

Particularly important information is distinguished in this manual by the following notations:

⚠	**This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.**
⚠ WARNING	**A WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.**
NOTICE	**A NOTICE indicates special precautions that must be taken to avoid damage to the vehicle or other property.**
TIP	A TIP provides key information to make procedures easier or clearer.

*Product and specifications are subject to change without notice.

EAU10202

MTT890D-KR
OWNER'S MANUAL

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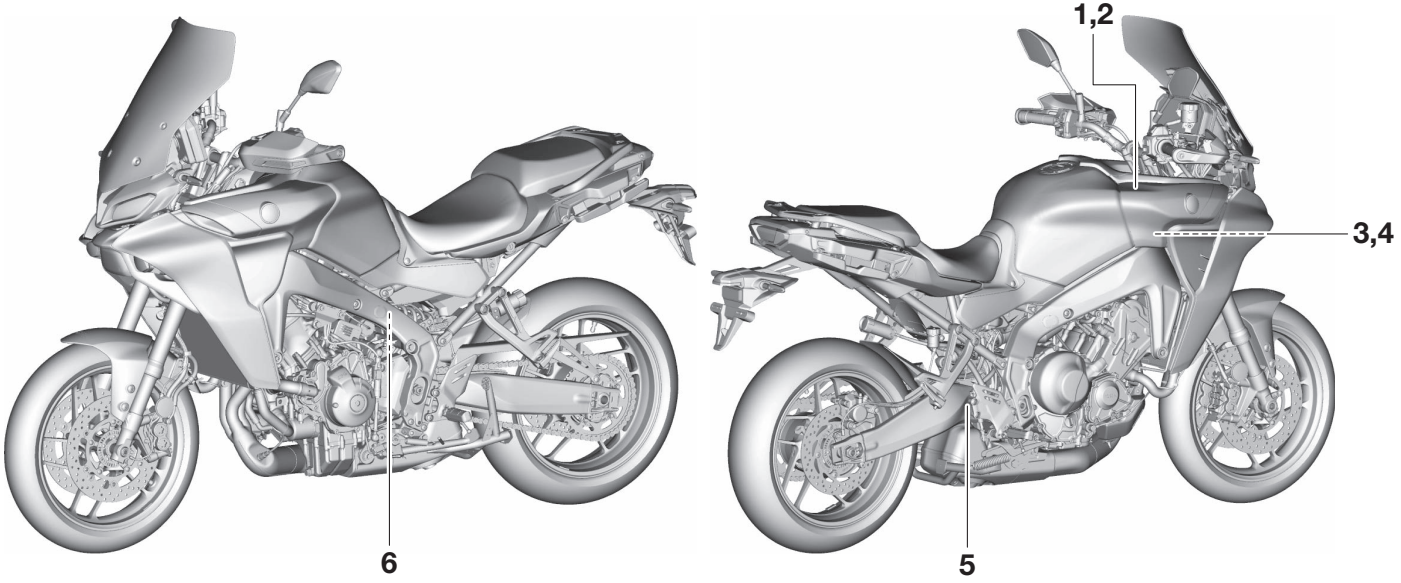
Location of important labels

EAU10387

Read and understand all of the labels on your vehicle. They contain important information for safe and proper operation of your vehicle. Never remove any labels from your vehicle. If a label becomes difficult to read or comes off, a replacement label is available from your Yamaha dealer.



1

⚠ WARNING

- **BEFORE YOU OPERATE THIS VEHICLE, READ THE OWNER'S MANUAL AND ALL LABELS.**
- **ALWAYS WEAR AN APPROVED MOTORCYCLE HELMET,** eye protection, and protective clothing.

1TP-2118K-A2

2

Use PREMIUM unleaded gasoline with min. 95 octane (RON).

2S3-2817K-11

3

STATIONARY NOISE TEST INFORMATION
TESTED 95 dB(A) AT 5000 r/min
SILENCING SYSTEM : YAMAHA
IDENTIFICATION : B7N B5UE

BLG-2118G-10

4

E13

28R-00 6225
39R-01 9956
41R-04 9706
53R-03 0797
78R-05 5215

BLG-2811P-00

5

100kPa=1bar	kPa,psi	kPa,psi
	250,36	290,42
	250,36	290,42

BM6-21668-01

6

4AA-22259-40

EAU1028C

2

Be a Responsible Owner

As the vehicle's owner, you are responsible for the safe and proper operation of your motorcycle.
Motorcycles are single-track vehicles. Their safe use and operation are dependent upon the use of proper riding techniques as well as the expertise of the operator. Every operator should know the following requirements before riding this motorcycle.
He or she should:

- Obtain thorough instructions from a competent source on all aspects of motorcycle operation.
- Observe the warnings and maintenance requirements in this Owner's Manual.
- Obtain qualified training in safe and proper riding techniques.
- Obtain professional technical service as indicated in this Owner's Manual and/or when made necessary by mechanical conditions.
- Never operate a motorcycle without proper training or instruction. Take a training course. Beginners should receive training from a certified instructor. Contact an authorized motorcycle dealer to find out about the training courses nearest you.

Safe Riding

Perform the pre-operation checks each time you use the vehicle to make sure it is in safe operating condition. Failure to inspect or maintain the vehicle properly increases the possibility of an accident or equipment damage. See page 7-1 for a list of pre-operation checks.

- This motorcycle is designed to carry the operator and a passenger.
- The failure of motorists to detect and recognize motorcycles in traffic is the predominating cause of automobile/motorcycle accidents. Many accidents have been caused by an automobile driver who did not see the motorcycle. Making yourself conspicuous appears to be very effective in reducing the chance of this type of accident.

Therefore:

- Wear a brightly colored jacket.
- Use extra caution when you are approaching and passing through intersections, since intersections are the most likely places for motorcycle accidents to occur.
- Ride where other motorists can see you. Avoid riding in another motorist's blind spot.
- Never maintain a motorcycle without proper knowledge. Contact an authorized motorcycle dealer to inform you on basic motorcycle maintenance. Certain maintenance can only be carried out by certified staff.

- Many accidents involve inexperienced operators. In fact, many operators who have been involved in accidents do not even have a current motorcycle license.
  - Make sure that you are qualified and that you only lend your motorcycle to other qualified operators.
  - Know your skills and limits. Staying within your limits may help you to avoid an accident.
  - We recommend that you practice riding your motorcycle where there is no traffic until you have become thoroughly familiar with the motorcycle and all of its controls.
- Many accidents have been caused by error of the motorcycle operator. A typical error made by the operator is veering wide on a turn due to excessive speed or undercornering (insufficient lean angle for the speed).
  - Always obey the speed limit and never travel faster than warranted by road and traffic conditions.
  - Always signal before turning or changing lanes. Make sure that other motorists can see you.
- The posture of the operator and passenger is important for proper control.
  - The operator should keep both hands on the handlebar and both feet on the operator footrests during operation to maintain control of the motorcycle.
  - The passenger should always hold onto the operator, the seat strap or grab bar, if equipped, with both hands and keep both feet on the passenger footrests. Never carry a passenger unless he or she can firmly place both feet on the passenger footrests.
- Never ride under the influence of alcohol or other drugs.
- This motorcycle is designed for on-road use only. It is not suitable for off-road use.

Protective Apparel

The majority of fatalities from motorcycle accidents are the result of head injuries. The use of a safety helmet is the single most critical factor in the prevention or reduction of head injuries.

- Always wear an approved helmet.
- Wear a face shield or goggles. Wind in your unprotected eyes could contribute to an impairment of vision that could delay seeing a hazard.
- The use of a jacket, heavy boots, trousers, gloves, etc., is effective in preventing or reducing abrasions or lacerations.
- Never wear loose-fitting clothes, otherwise they could catch on the control levers, footrests, or wheels and cause injury or an accident.
- Always wear protective clothing that covers your legs, ankles, and feet. The engine or exhaust system become very hot during or after operation and can cause burns.
- A passenger should also observe the above precautions.

Avoid Carbon Monoxide Poisoning

All engine exhaust contains carbon monoxide, a deadly gas. Breathing carbon monoxide can cause headaches, dizziness, drowsiness, nausea, confusion, and eventually death.

Carbon Monoxide is a colorless, odorless, tasteless gas which may be present even if you do not see or smell any engine exhaust. Deadly levels of carbon monoxide can collect rapidly and you can quickly be overcome and unable to save yourself. Also, deadly levels of carbon monoxide can linger for hours or days in enclosed or poorly ventilated areas. If you experience any symptoms of carbon monoxide poisoning, leave the area immediately, get fresh air, and SEEK MEDICAL TREATMENT.

- Do not run engine indoors. Even if you try to ventilate engine exhaust with fans or open windows and doors, carbon monoxide can rapidly reach dangerous levels.
- Do not run engine in poorly ventilated or partially enclosed areas such as barns, garages, or carports.
- Do not run engine outdoors where engine exhaust can be drawn into a building through openings such as windows and doors.

Loading

Adding accessories or cargo to your motorcycle can adversely affect stability and handling if the weight distribution of the motorcycle is changed. To avoid the possibility of an accident, use extreme caution when adding cargo or accessories to your motorcycle. Use extra care when riding a motorcycle that has added cargo or accessories. Here, along with the information about accessories below, are some general guidelines to follow if loading cargo to your motorcycle:

The total weight of the operator, passenger, accessories and cargo must not exceed the maximum load limit. **Operation of an overloaded vehicle could cause an accident.**

Maximum load:
193 kg (425 lb)

When loading within this weight limit, keep the following in mind:

- Cargo and accessory weight should be kept as low and close to the motorcycle as possible. Securely pack your heaviest items as close to the center of the vehicle as possible and make sure to distribute the weight as evenly as possible on both sides of the motorcycle to minimize imbalance or instability.
- Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the motorcycle before riding. Check accessory mounts and cargo restraints frequently.
  - Properly adjust the suspension for your load (suspension-adjustable models only), and check the condition and pressure of your tires.
  - Never attach any large or heavy items to the handlebar, front fork, or front fender. These items, including such cargo as sleeping bags, duffel bags, or

tents, can create unstable handling or a slow steering response.

- **This vehicle is not designed to pull a trailer or to be attached to a sidecar.**

Genuine Yamaha Accessories

Choosing accessories for your vehicle is an important decision. Genuine Yamaha accessories, which are available only from a Yamaha dealer, have been designed, tested, and approved by Yamaha for use on your vehicle.

Many companies with no connection to Yamaha manufacture parts and accessories or offer other modifications for Yamaha vehicles. Yamaha is not in a position to test the products that these aftermarket companies produce. Therefore, Yamaha can neither endorse nor recommend the use of accessories not sold by Yamaha or modifications not specifically recommended by Yamaha, even if sold and installed by a Yamaha dealer.

Aftermarket Parts, Accessories, and Modifications

While you may find aftermarket products similar in design and quality to genuine Yamaha accessories, recognize that some aftermarket accessories or modifications are not suitable because of potential safety hazards to you or others. Installing aftermarket products or having other modifications performed to your vehicle that change any of the vehicle's design or operation characteristics can put you and others at greater risk of serious injury or death. You are responsible for injuries related to changes in the vehicle.

Keep the following guidelines in mind, as well as those provided under "Loading" when mounting accessories.

- Never install accessories or carry cargo that would impair the performance of your motorcycle. Carefully inspect the accessory before using it to make sure that it does not in any way reduce ground clearance or cornering clearance, limit suspension travel, steering travel or control operation, or obscure lights or reflectors.
- Accessories fitted to the handlebar or the front fork area can create instability due to improper weight distribution or aerodynamic changes. If accessories are added to the handlebar or front fork area, they must be as lightweight as possible and should be kept to a minimum.
- Bulky or large accessories may seriously affect the stability of the motorcycle due to aerodynamic effects. Wind may attempt to lift the motorcycle, or the motorcycle may become unstable in cross winds. These accessories may also cause instability when passing or being passed by large vehicles.
- Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the

operator and may limit control ability, therefore, such accessories are not recommended.

- Use caution when adding electrical accessories. If electrical accessories exceed the capacity of the motorcycle's electrical system, an electric failure could result, which could cause a dangerous loss of lights or engine power.

Aftermarket Tires and Rims

The tires and rims that came with your motorcycle were designed to match the performance capabilities and to provide the best combination of handling, braking, and comfort. Other tires, rims, sizes, and combinations may not be appropriate. See page 9-15 for tire specifications and for information on servicing and replacing your tires.

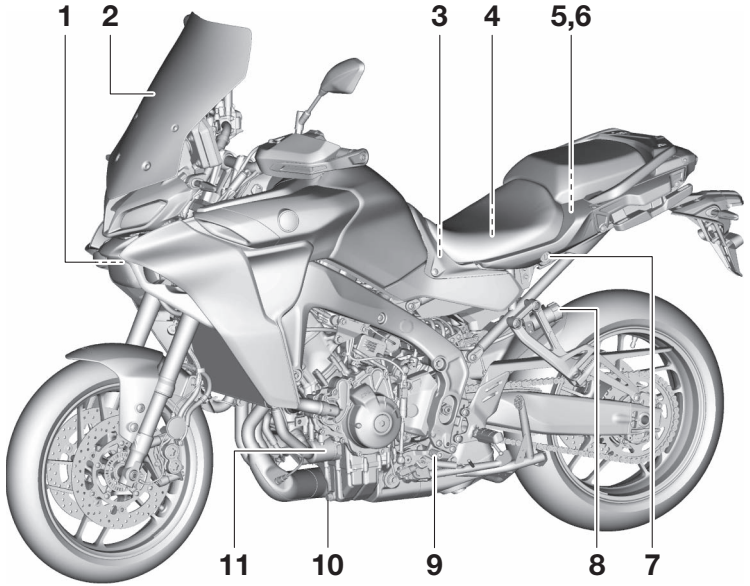
Transporting the Motorcycle

Be sure to observe following instructions before transporting the motorcycle in another vehicle.

- Remove all loose items from the motorcycle.
- Check that the fuel cock (if equipped) is in the off position and that there are no fuel leaks.
- Shift the transmission into gear (for models with a manual transmission).
- Secure the motorcycle with tie-downs or suitable straps that are attached to solid parts of the motorcycle, such as the frame or upper front fork triple clamp (and not, for example, to rubber-mounted handlebars or turn signals, or parts that could break). Choose the location for the straps carefully so the straps will not rub against painted surfaces during transport.
- The suspension should be compressed somewhat by the tie-downs, if possible, so that the motorcycle will not bounce excessively during transport.

EAU10411

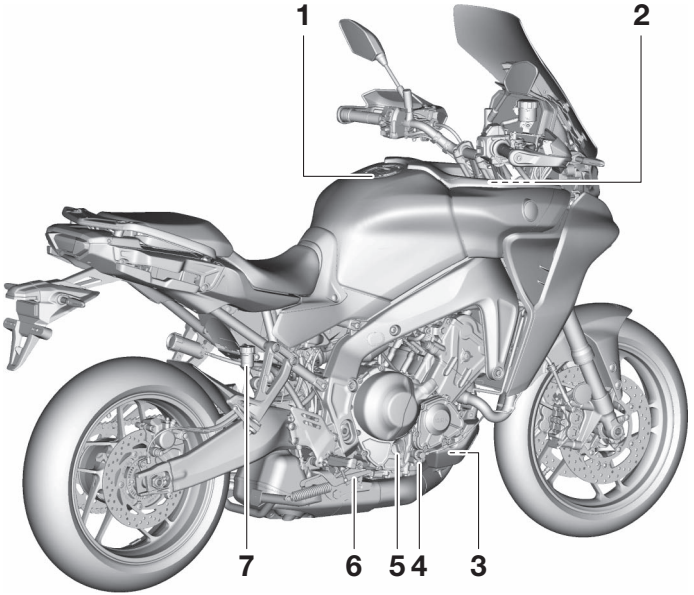
Left view



1. Millimeter-wave radar unit (page 4-1)
2. Windscreen (page 6-43)
3. Battery (page 9-28)
4. Fuses (page 9-30)
5. Storage compartment (page 6-42)
6. Tool kit (page 9-2)
7. Seat lock (page 6-38)
8. Spring preload adjuster (page 6-44)
9. Shift pedal (page 6-34)
10. Engine oil drain bolt (page 9-10)
11. Oil filter cartridge (page 9-10)

EAU10421

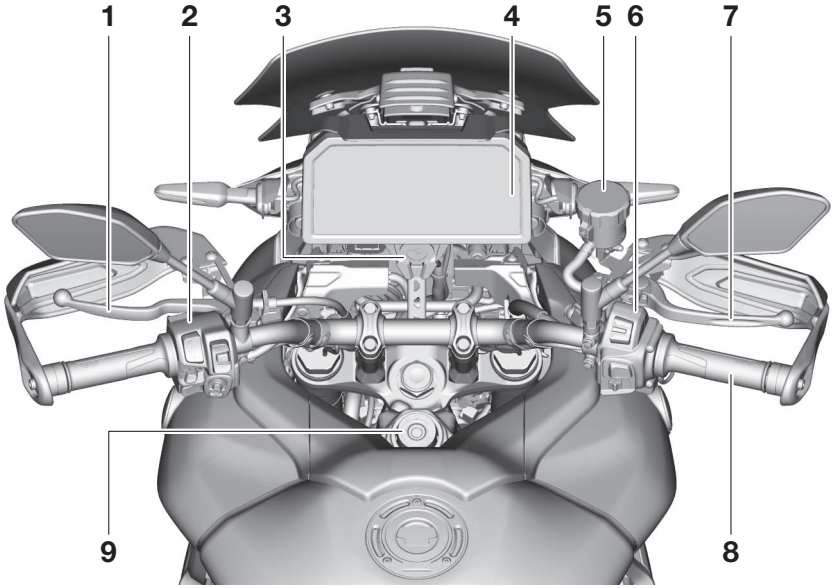
Right view



1. Fuel tank cap (page 6-35)
2. Spring preload adjuster (page 6-44)
3. Coolant reservoir (page 9-13)
4. Engine oil level check window (page 9-10)
5. Engine oil filler cap (page 9-10)
6. Brake pedal (page 6-35)
7. Rear brake fluid reservoir (page 9-20)

EAU10431

Controls and instruments

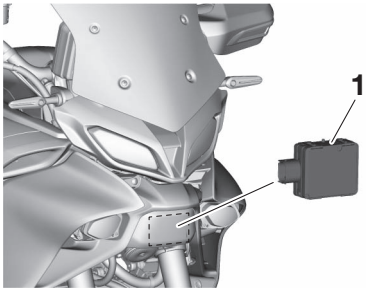


1. Clutch lever (page 6-34)
2. Left handlebar switches (page 6-3)
3. USB jack (page 6-46)
4. Multi-function meter unit (page 6-9)
5. Front brake fluid reservoir (page 9-20)
6. Right handlebar switches (page 6-3)
7. Brake lever (page 6-35)
8. Throttle grip (page 9-24)
9. Main switch/steering lock (page 6-2)

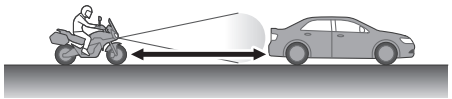
EAUA0484

Millimeter-wave radar

This vehicle is equipped with a millimeter-wave radar unit mounted on the front of the vehicle. The radar detects and measures distance to vehicles ahead, thereby allowing operation of the ACC system (page 4-2) and radar-linked UBS (page 4-11).



1. Millimeter-wave radar unit



EWA22460

⚠ WARNING

- **Do not put stickers or paint around the millimeter-wave radar unit as this may prevent the ACC system and radar-linked UBS from working properly. Also, make sure that there are no objects near the millimeter-wave radar unit that may interfere with its detection. Attaching or modifying accessories around the front of the vehicle may interfere with millimeter-wave radar detection.**
- **In the event of an accident or a fall, the millimeter-wave radar may shift and disalign, causing it to not operate properly. Have it inspected by your Yamaha dealer.**

EAUA0419

Adaptive Cruise Control (ACC) system

EWA22571

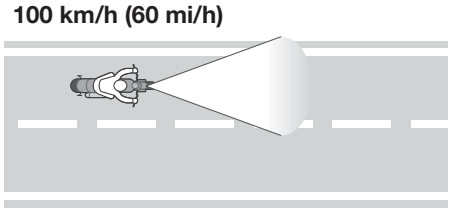
⚠ WARNING

- **The ACC system is intended to increase rider comfort and reduce fatigue. It is not a safety or collision avoidance system. The responsibility for safety lies with the rider. Riders shall always maintain awareness of their surroundings and road conditions, and actively operate the vehicle to decelerate and accelerate safely.**
- **The ACC system works best on long, straight roads such as highways. It is not a substitute for the rider's awareness of the surrounding traffic environment.**

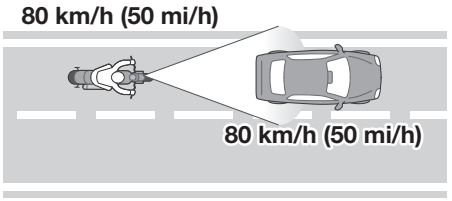
This vehicle is equipped with an adaptive cruise control (ACC) system which assists in maintaining a set cruising speed and appropriate distance from vehicles ahead with only limited input needed by the rider.

The ACC system uses the equipped millimeter–wave radar unit to detect vehicles ahead in traffic and then automatically controls the engine, brakes, and electronic suspension to maintain a set following distance.
While active, the ACC system controls vehicle speed as follows:

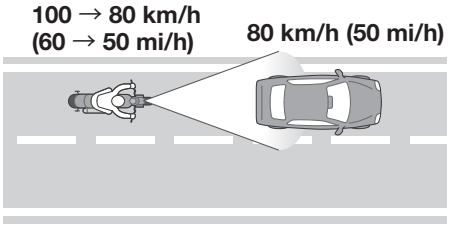
- With no vehicle ahead, vehicle speed will be the set cruising speed.



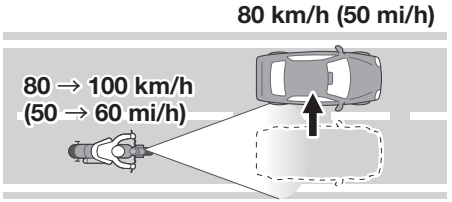
- When the system detects a vehicle ahead, it will continuously speed up/slow down to match speed with that vehicle (within limits of the set cruising speed).



- When the system detects a vehicle ahead traveling slower than the set cruising speed, it will slow down to match speed with the vehicle ahead.



- When a vehicle ahead disappears from radar detection while speed is lower than the set cruising speed, it will accelerate to the set cruising speed.



EWA22393

⚠ WARNING

- **Depending on the surrounding environment and traffic conditions, the ACC system may accelerate or decelerate unexpectedly. The rider must always be prepared to steer, accelerate, brake, and shift gears at any time.**
- **Cruising speed and following distance between vehicles shall be set according to local regulations.**
- **Set the following distance to a setting that is safe and appropriate for the weather, road and traffic conditions.**
- **To avoid accidental activation of the ACC system, turn it off (ACC indicator icon "" is off) when not in use.**
- **The ACC system may not be able to accurately detect the movement of vehicles ahead depending on the situational conditions. Operate the vehicle manually, even if the ACC system is active, in the following situations:**
  - **Another vehicle suddenly cuts in front of you**
  - **The vehicle ahead suddenly brakes**
  - **The difference in speed with the vehicle ahead is very large**
- **The millimeter-wave radar may not operate properly in the following environments:**
  - **Locations with electromagnetic interference**
  - **Tunnels**
  - **Near guardrails**
  - **Heavy rain, snow, hail, etc.**
  - **Road construction zones**
- **Do not use the ACC system in the following situations, the ACC system may not operate properly and an accident may result:**
  - **Roads with pedestrian or bicycle traffic**
  - **Heavy traffic with frequent lane changes**
  - **Bad weather**
  - **Roads with many curves**
  - **Slippery roads**
  - **Uneven roads**
  - **Unpaved roads**
  - **Roads under construction**
  - **Non-public roads**

EWA22580

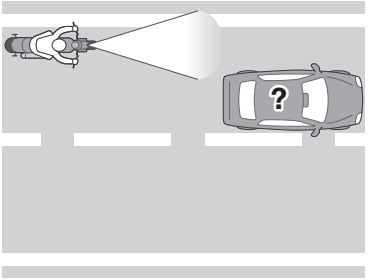
⚠ WARNING

The ACC system may not be able to accurately detect the vehicle ahead in the following situations:

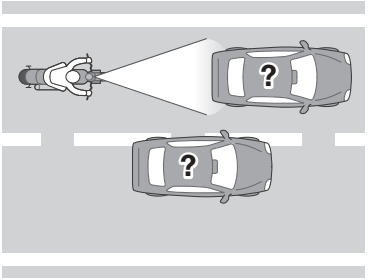
- **You are riding on the far side of the lane.**
- **The vehicle ahead is too far to either side of the lane.**

- **Riding in a meandering manner with unstable steering.**
- **The vehicle is pitched backward by excess load weight so that it points upward (weighted in excess of the maximum load).**
- **A vehicle in an adjacent lane is driving too close to your lane.**
- **Traveling steeply uphill/downhill.**

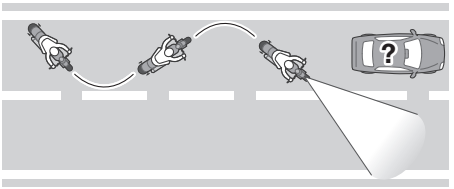
Far side of lane



Adjacent vehicle too close



Meandering (unstable) driving



EWA22520

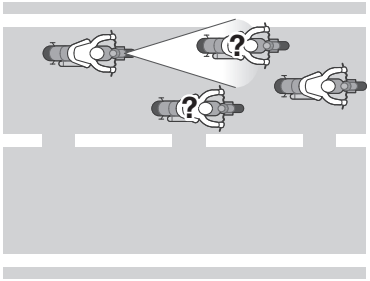
⚠ WARNING

The following items may not be detected accurately or at all, even if they are in the same lane:

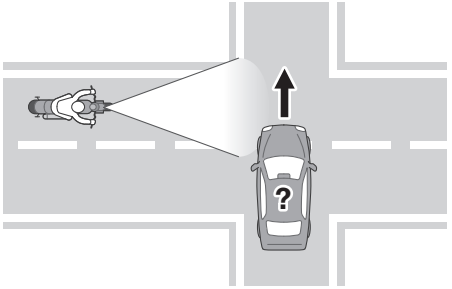
- **Vehicles parked on the road or stopped in traffic.**
- **Stationary objects (tunnels, guardrails, toll booths, etc.)**
- **Pedestrians, bicycles, animals.**
- **Motorcycles (lane splitting too closely).**
- **Unusually shaped vehicles (e.g. tall vehicles and vehicles with long cargo beds).**
- **Flying objects (balls, plastic bags, metal containers such as cans).**

- **Vehicles crossing in front of you.**

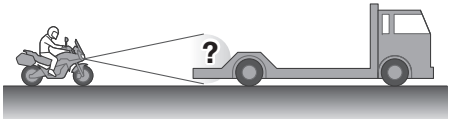
Lane splitting



Crossing vehicle



Unusually shaped vehicle

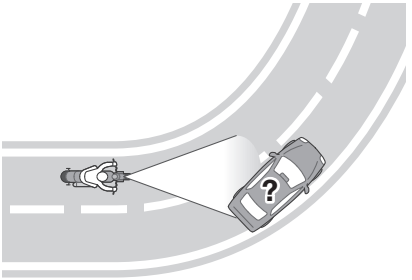


EWA22500

⚠ WARNING

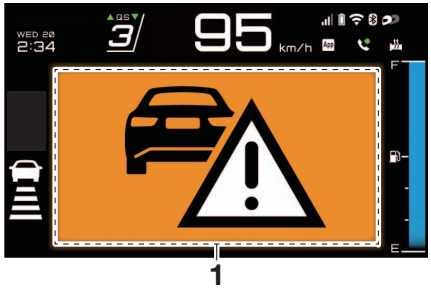
If the ACC system loses detection of the vehicle ahead or detects the wrong vehicle, it may accelerate/decelerate. Especially in sharp curves or on winding roads, the system may lose detection of the vehicle ahead or detect a vehicle in another lane due to the angle of the radar cone.

Sharp curves



EAUA0493

Rider intervention request while the ACC system is active



1. Rider intervention request

When the display screen changes to show the rider intervention request, immediately take full control of the vehicle and assess the situation. The rider intervention request will be displayed in the following situations:

- When the vehicle ahead is too close.
- Current vehicle speed is judged to be too fast compared to vehicle ahead.

Brake control (BC) is on:

- When the vehicle ahead is too close.
- When strong braking is applied by the brake assist function of the radar-linked UBS.

EWA22540

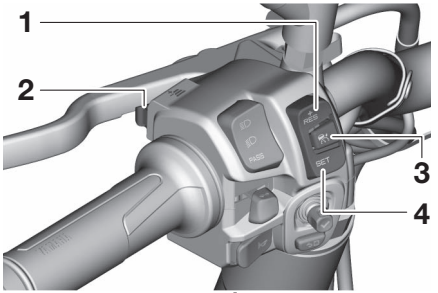
WARNING

The rider intervention request is not guaranteed to display under all circumstances. The rider intervention request may not be displayed or be delayed in some circumstances. Always be aware of the surrounding environment and traffic conditions and be ready to take full control of the vehicle.

EAUA0764

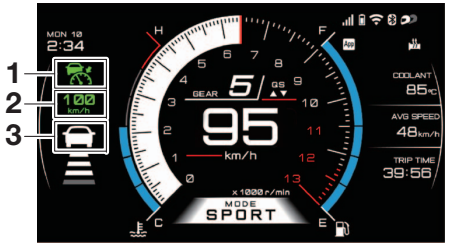
ACC system operation

Setting and activating the ACC system



1. ACC setting switch "+ RES"
2. ACC following distance setting switch "≡"
3. ACC power switch "⛐"
4. ACC setting switch "SET −"

4



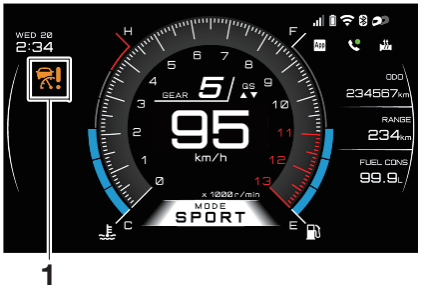
1. ACC indicator icon "/"
2. ACC speed setting display
3. Vehicle detection indicator icon ""

1. Press the ACC power switch "", the ACC indicator icon will come on in white "".
2. Press the ACC setting switch "SET" to activate the ACC system, and the ACC indicator icon will come on in green "". The vehicle's current speed will be set as the set cruising speed for the ACC system and displayed green "100" in the ACC speed setting display.

When the ACC indicator icon is on in green "" or white "" and a vehicle ahead is detected, the vehicle detection indicator icon will come on in white "".

TIP

- When using the ACC system, drive near the middle of the lane to facilitate accurate detection of vehicles ahead.
- If the stability control system is turned off, the ACC system cannot be activated. Please turn on the stability control system.
- If the ACC malfunction indicator icon "" comes on, have a Yamaha dealer inspect the vehicle.



1. ACC malfunction indicator icon ""

While the ACC system is active, pressing the ACC setting switch "+ RES" increases the set cruising speed, and pressing the ACC setting switch "SET" decreases the set cruising speed.

TIP

Each press of the ACC setting switch "+ RES" / "SET" switches the set cruising speed by 1.0 km/h (1.0 mph). Holding the ACC setting switch "+ RES" / "SET" will change it in 10 km/h (5 mph) increments.

The throttle can be used to accelerate even when the ACC system is active. The set cruising speed can be adjusted to a new speed by pressing the ACC setting switch "SET" switch. Otherwise,

the vehicle will decelerate to the set cruising speed when the throttle grip is released.
The ACC system can be used in all gears. However, if traveling below the minimum set cruising speed, the cruising speed cannot be set and the ACC system cannot be activated. The minimum set cruising speeds in each gear are as follows:

Minimum set cruising speeds:
1st gear: 30 km/h (20 mi/h)
2nd gear: 30 km/h (20 mi/h)
3rd gear: 40 km/h (25 mi/h)
4th gear: 40 km/h (25 mi/h)
5th gear: 50 km/h (30 mi/h)
6th gear: 50 km/h (30 mi/h)
Maximum set cruising speed : 160 km/h (100 mi/h)

Setting the following distance
While the ACC system is active or on standby, pressing the ACC following distance setting switch "±" cycles though 4 levels of following distance to the vehicle ahead.

The current following distance setting is indicated by the number of bars on the following distance indicator icon "".

1 bar "": Shortest (approx. 27 m at 100 km/h (0.017 mile at 62 mph))
2 bars "": Short (approx. 33 m at 100 km/h (0.021 mile at 62 mph))
3 bars "": Long (approx. 44 m at 100 km/h (0.027 mile at 62 mph))
4 bars "": Longest (approx. 55 m at 100 km/h (0.034 mile at 62 mph))

TIP
- Actual following distance for each setting varies by vehicle speed (following distance increases with speed).
- When the ACC system is turned off and then restarted, the previous following distance setting will be kept.

Deactivating / Turning off the ACC system
Perform any of the following actions to deactivate the ACC system and place it on standby. When the system enters standby, the ACC indicator icon turns white "" and the ACC speed setting display turns gray.
- Turn the throttle grip past the fully closed position in the deceleration direction.
- Apply the front or rear brake.
- Hold down the clutch lever for at least 1 second.

To turn off the ACC system, press the ACC power switch "". When the system is off, the ACC indicator icon "" and the ACC speed setting display will turn off.

How to use the resume function
To reactivate the ACC system from standby, press the ACC setting switch "RES". The vehicle speed will return to the previous set cruising speed and the ACC indicator icon will turn green "".

EWA22400

⚠ WARNING

If the previously set cruising speed is too fast for the current riding conditions, it is dangerous to use the resume function.

4

TIP

Pressing the ACC power switch "" while the ACC system is active will completely turn off the system and erase the previous set cruising speed. The resume function will not be available until a new cruising speed is set.

Automatic deactivation / turning off ACC system

The ACC system is automatically deactivated and placed in standby mode under the following conditions:

- Either the ABS or the traction control system engage.
- If the vehicle's speed exceeds 180 km/h (110 mi/h) while accelerating manually.
- If the vehicle's speed falls below the thresholds specified below:

1st gear: 25 km/h (17 mi/h) 2nd gear: 25 km/h (17 mi/h) 3rd gear: 35 km/h (22 mi/h) 4th gear: 35 km/h (22 mi/h) 5th gear: 45 km/h (27 mi/h) 6th gear: 45 km/h (27 mi/h)

Additionally, the ACC system will automatically turn off under the following conditions:

- Stop/Run/Start switch "/(/)" is set to "".
- Engine is stopped.
- Side stand is lowered.
- Traction control system is turned off.

If the ACC system turns off under the above conditions, the ACC indicator icon "" and ACC speed setting display will flash white for 4 seconds before also turning off.

To use the ACC system again, press the ACC power switch "".

EWA22410

WARNING

- **In case the ACC system is deactivated or turned off, the driver must be prepared to steer, accelerate, brake, and shift gears at any time.**
- **If the ACC system is automatically deactivated or turned off, stop the vehicle and then check your surroundings and the road surface conditions to ensure that the vehicle is suitable for riding.**

TIP

When traveling uphill or downhill, the ACC system may, in some cases, fail to maintain the set cruising speed.

- When traveling uphill, the actual vehicle speed may be less than the set cruising speed. In this case, use the throttle to accelerate to the required speed.
- When traveling downhill, the actual vehicle speed may be higher than the set cruising speed. To reduce speed, either shift to a lower gear or use the brakes.

EWA22430

WARNING

When the ACC system is active, the front and rear brakes are electronically controlled for deceleration. Continuous downhill riding may cause the brakes to overheat and reduce braking performance. When

riding downhill, shift to a lower gear and use engine braking as much as possible.

Gearshift requests

While the ACC system is active and the current gear is too low for the engine speed, the ACC upshift request indicator icon "GEAR/" will flash in the transmission gear display. If so, then shift up a gear.

If the current gear is too high for the engine speed, the ACC downshift request indicator icon "GEAR/" will flash in the transmission gear display. If so, then shift down a gear.

GEAR/	ACC upshift request indicator icon
GEAR/	ACC downshift request indicator icon

Passing assist

With the ACC system active and following a vehicle in front, pressing the turn signal switch "⇦/⇨" in the direction of the passing lane causes the system to accelerate the vehicle to assist in overtaking.

TIP

If the following distance is too short, the vehicle will not accelerate even if passing assist is used.

- If the passing assist is used but the vehicle does not change direction to overtake quickly, the vehicle will stop accelerating and return to the original following distance.
- If the passing assist is used repeatedly without changing direction to overtake, the acceleration will weaken or stop entirely. Passing assist can be used again if the vehicle changes lanes or the vehicle ahead leaves detection.
- Passing assist only operates when signaling and turning in the direction of the overtaking lane. The direction of the overtaking lane (left or right), is determined by your country's traffic laws. When entering another country where the overtaking lane is opposite, the system must analyze riding data and adjust. When this happens, the passing assist will not operate for some time until the system can adjust itself.

Other functions operated by the ACC system

The ACC system also assists the rider with the following functions:

Cornering assist function

When the ACC system is active and following a vehicle ahead, it detects lean angle and limits both acceleration and sudden increases in acceleration.

Electronically controlled suspension and brake coordination

When the ACC system is active, the engine brake and front and rear brakes are applied in sequence to decelerate the vehicle and maintain following distance. At the same time, the electronically controlled suspension system adjusts the damping force to reduce excessive forward pitch.

EAUA0467

Brake system

This vehicle is equipped with an integrated anti–lock brake system (ABS) and unified brake assist system (UBS).

How to operate the brakes:

Operate the brake lever and brake pedal the same as you would conventional brakes. If wheel slip is detected while braking, ABS will activate and a pulsating sensation may be felt at the brake lever or brake pedal. Continue to apply the brakes and let the ABS work. Do not pump the brakes as this will reduce braking effectiveness.

TIP

The ABS performs a self–diagnostic test when the vehicle starts off and reaches a speed of 5 km/h (3 mi/h). During this test, a clicking noise may be audible from the hydraulic control unit, and some vibration may be felt at the brake lever or pedal, but this is normal.

Anti–lock brake system (ABS)

The anti–lock brake system (ABS) acts on the front and rear brakes independently.

EWA16051

⚠ WARNING

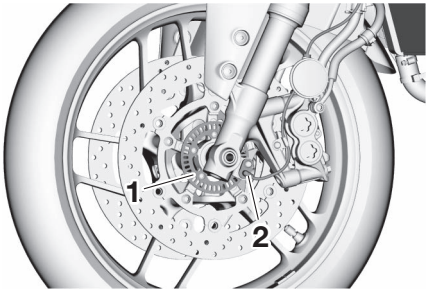
Always keep a sufficient distance from the vehicle ahead to match the riding speed even with ABS.

- **The ABS performs best with long braking distances.**
- **On certain surfaces, such as rough or gravel roads, the braking distance may be longer with the ABS than without.**

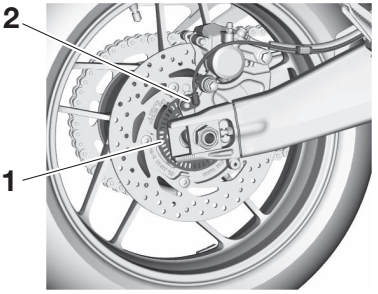
ECA20100

NOTICE

Be careful not to damage the wheel sensor or wheel sensor rotor; otherwise, improper performance of the ABS will result.



1. Front wheel sensor rotor
2. Front wheel sensor



1. Rear wheel sensor rotor
2. Rear wheel sensor

Unified brake assist system (UBS)

The unified brake assist system (UBS) is a front–rear linked braking system. The basics of using brakes on a motorcycle or scooter is to use both the front

and rear brakes at the same time. With UBS active, operating either the front or rear brake also suitably distributes braking power to the other brake. The UBS also automatically adjusts braking force while cornering.

TIP

- UBS is active only when the brakes are applied manually by the rider between speeds of 30 km/h (18 mi/h) to 150 km/h (93 mi/h).
- Depending on the rider's brake operation, UBS may continue to operate even below 30 km/h (18 mi/h).
- UBS will not work if the rider does not operate the brakes.
- When cornering, UBS may not work if your lean angle is too low.
- When UBS is activated, there may be a change in the feel of the brake lever or pedal operation, but this is not a malfunction.

To use UBS, turn on brake control (BC) (see page 6-29).

Radar–linked UBS

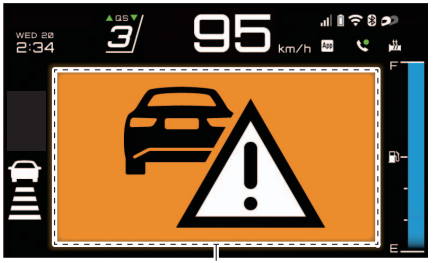
UBS also integrates data from the millimeter–wave radar unit to increase braking force appropriately based on detected distance to the vehicle ahead.

EWA22600

⚠ WARNING

The UBS and radar-linked UBS are not safety or collision avoidance systems. The responsibility for safety lies with the rider. Riders shall always maintain awareness of their surroundings and road conditions, and actively operate the vehicle to decelerate and accelerate safely.

If strong braking force is applied by the radar–linked UBS, a rider intervention request will be displayed. When the display screen changes to show the rider intervention request, immediately take full control of the vehicle and assess the situation.



1. Rider intervention request

EWA22540

⚠ WARNING

The rider intervention request is not guaranteed to display under all circumstances. The rider intervention request may not be displayed or be delayed in some circumstances. Always be aware of the surrounding environment and traffic conditions and be ready to take full control of the vehicle.

EWA22561

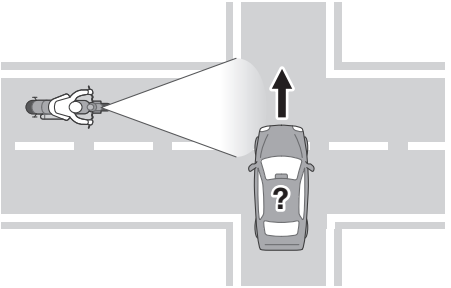
⚠ WARNING

- **Depending on the surrounding environment and traffic conditions, the radar-linked UBS may not work or decelerate unex-**

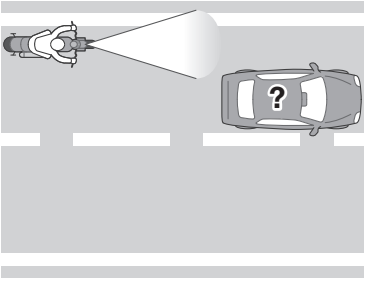
pectedly. The rider must always be prepared to steer, accelerate, brake, and shift gears at any time.

- The radar-linked UBS may not be able to accurately detect the movement of vehicles ahead depending on the situational conditions. Apply brakes manually, in the following situations:
  - Another vehicle suddenly cuts in front of you
  - The vehicle ahead suddenly brakes
  - The difference in speed with the vehicle ahead is very large
- The millimeter-wave radar may not be able to accurately detect the vehicle ahead in the following situations:
  - You are riding on the far side of the lane
  - The vehicle ahead is too far to either side of the lane
  - Riding in a meandering manner with unstable steering
  - The vehicle is pitched backward by excess load weight so that it points upward (weighted in excess of the maximum load)
  - A vehicle in an adjacent lane is driving too close to your lane
  - Traveling steeply uphill/downhill

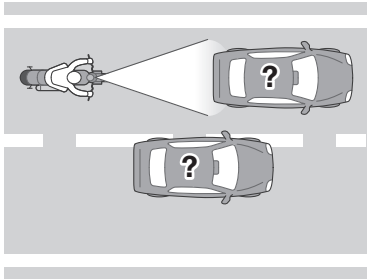
Cutting in front



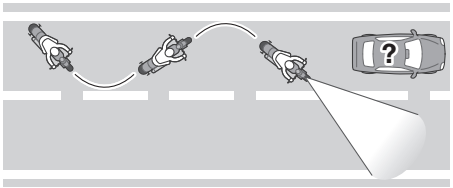
Far side of lane



Adjacent vehicle too close



Meandering (unstable) driving

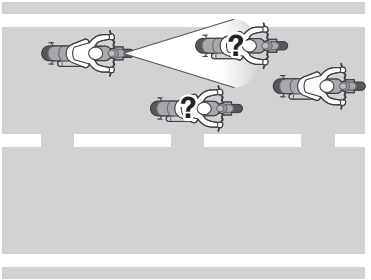


EWA22620

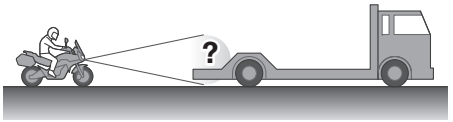
⚠ WARNING

- **The following items may not be detected accurately or at all, even if they are in the same lane:**
  - **Vehicles parked on the road or stopped in traffic**
  - **Stationary objects (tunnels, guardrails, toll booths, etc.)**
  - **Pedestrians, bicycles, animals**
  - **Motorcycles (lane splitting too closely)**
  - **Tall vehicles and vehicles with long cargo beds**
  - **Flying objects (balls, plastic bags, metal containers such as cans)**
  - **Vehicles crossing in front of you**
- **The millimeter-wave radar may not operate properly in the following environments:**
  - **Locations with electromagnetic interference**
  - **Tunnels**
  - **Near guardrails**
  - **Heavy rain, snow, hail, etc.**
  - **Road construction zones**
- **If the radar-linked UBS loses detection of the vehicle ahead or detects the wrong vehicle, it may not work or decelerate unexpectedly. Especially in sharp curves or on winding roads, the system may lose detection of the vehicle ahead or detect a vehicle in another lane due to the angle of the radar cone.**

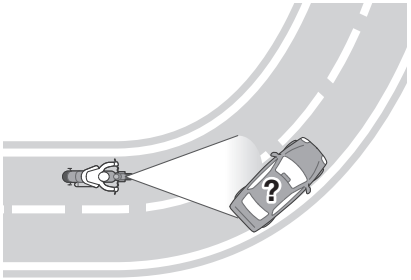
Lane splitting



Unusually shaped vehicle



Sharp curves



4

EAUA0555

Yamaha Ride Control (YRC)

Yamaha Ride Control is a system that incorporates numerous sensors and controls to support an improved riding experience. The vehicle senses and can react to forces along the longitudinal (front-to-back), lateral (left-to-right), and vertical (up-and-down) axes. Lean angle and G-force accelerations are also detected. This information is processed multiple times a second and the related physical systems are automatically adjusted as necessary. The following functions represent individual YRC items which can be turned on/off or adjusted to suit various riders and riding conditions. For setting details, see page 6-29.

EWA18221

⚠ WARNING

The Yamaha Ride Control (YRC) system is not a substitute for the use of proper riding techniques or the expertise of the operator. This system cannot prevent loss of control caused by rider errors such as traveling faster than warranted by road and traffic conditions, including loss of traction due to excessive speed when entering turns, when accelerating hard at a sharp lean angle, or while braking, and it cannot prevent front wheel slip or front wheel lift. As with any motorcycle, always ride within in your limits, be aware of surrounding conditions, and ride appropriately for those conditions. Become thoroughly familiar with the way the motorcycle handles with various YRC settings before attempting more advanced maneuvers.

Stability control system (SC)

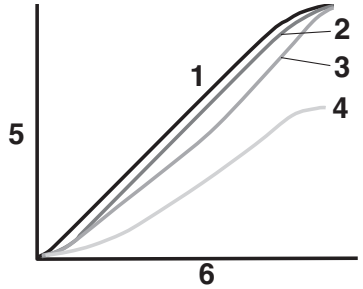
The stability control system consists of traction control (TCS), slide control (SCS), and lift control (LIF). These can be independently adjusted in the menu system (see page 6-29), or turned ON/OFF all together (see page 6-25).

TIP

- When the main switch is turned on, the stability control system automatically turns on. The stability control system can be turned

ON/OFF manually only when the main switch is turned on and the motorcycle is stopped.
- Turn the stability control system OFF to help free the rear wheel if the motorcycle gets stuck in mud, sand, or other soft surfaces.

Power delivery mode (PWR)
The power delivery mode system consists of four different control maps which regulate throttle valve opening in relation to the degree of throttle grip operation, thus providing you with a selection of modes to fit your preferences and the riding environment.



1. PWR 1
2. PWR 2
3. PWR 3
4. PWR 4
5. Throttle valve opening
6. Throttle grip operation

Traction control system (TCS)
The traction control system helps maintain traction when accelerating. If sensors detect that the rear wheel is starting to slip (uncontrolled spinning), the traction control system assists by regulating engine power as needed until traction is restored.
The traction control system automatically adjusts according to the vehicle's lean angle. To maximize acceleration, when the vehicle is upright a less amount of traction control is applied. When cornering, a greater amount of traction control is applied.

Traction control system

TIP
- The traction control system may engage when the vehicle travels over a bump.
- You may notice slight changes in engine and exhaust sounds when the traction control or other YRC systems engage.

EWA15433

⚠ WARNING

The traction control system is not a substitute for riding appropriately for the conditions. Traction control cannot prevent loss of traction due to excessive speed when entering

turns, when accelerating hard at a sharp lean angle, or while braking, and cannot prevent front wheel slipping. As with any vehicle, approach surfaces that may be slippery with caution and avoid especially slippery surfaces.

ECA16801

NOTICE

Use only the specified tires. (See page 9-15.) Using different sized tires will prevent the traction control system from controlling tire rotation accurately.

Slide control system (SCS)
The slide control system regulates engine power output when a sideward slide is detected in the rear wheel. It adjusts power output based on the lean angle of the vehicle. This system supports the traction control system to contribute to a smoother ride.

Lift control system (LIF)
The lift control system reduces the rate at which the front wheel will continue to rise during extreme acceleration, such as during starts or out-of-corner exits. When front-wheel lift is detected, engine power is regulated to slow front-wheel lift while still providing good acceleration.

Electronically controlled suspension damping system (SUS)
"SUS" is an electronically controlled suspension damping system, called KYB Actimatic© Damper System (KADS), which automatically adjusts the suspension's damping force to suit the riding situation.

EWA21170

⚠ WARNING

Do not change the suspension mode while the vehicle is moving.

The "SUS" system consists of 2 different control maps which regulate suspension damping force, thus providing you with a selection of modes to fit your preferences and the riding environment.
SUS A-1 - Sport setting with increased damping force, suitable for smoother road conditions
SUS A-2 - Comfort setting with softer damping force, suitable for rougher road conditions

Quick shifter (QS)
The quick shifter allows for clutch lever-less, electronically-assisted shifting. When the sensor on the shift rod detects the appropriate motion in the shift pedal, engine power output is momentarily adjusted to allow for the gear change to occur.
The quick shifter does not operate when the clutch lever is pulled, therefore normal shifting can be done even when the quick shifter is set to on. Check the quick shifter indicator for current status and usability information.

Quick shifter usability	Indicator
Upshifting OK	QS ▲▽
Downshifting OK	QS △▼
Quick shifter cannot be used	QS △▽
Quick shifter turned off	QS △▽

Upshifting conditions

- Vehicle speed of at least 20 km/h (12 mi/h)
- Engine speed of at least 2100 r/min
- Engine speed sufficiently below the red zone

Downshifting conditions

- Vehicle speed of at least 20 km/h (12 mi/h)
- Engine speed of at least 2000 r/min
- Engine speed sufficiently away from red zone

TIP

- "QS ▲" and "QS ▼" can be individually set.
- Shifting into or out of neutral must be done using the clutch lever.
- The quick shifter can be used together with the adaptive cruise control (ACC) system.

Brake control system (BC)

The brake control (BC) system regulates hydraulic brake pressure for the front and rear wheels when the brakes are applied. This system has two settings:

- OFF: Only the standard anti-lock brake system (ABS) is active.
- ON: Anti-lock brake system (ABS), unified brake assist system (UBS), radar-linked unified brake assist system (radar-linked UBS), and cornering assist braking are all active.

See page 4-11 for more information on the Brake System.

TIP

For skilled riders or when track riding, a variety of conditions may cause the BC system to brake faster than expected for a desired cornering speed or intended cornering line.

EWA22531

⚠ WARNING

Do not use the BC on roads other than public roads, as the BC may not operate properly and an accident may result.

EAU96128

Smart features (communication control unit)

EWA21412

WARNING

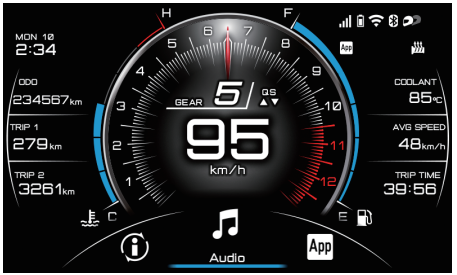
- **Failure to pay attention while riding could result in death or serious injury. Always concentrate on riding by keeping your eyes and mind on the road.**
- **Stop the vehicle before making any settings changes.**
- **Changing settings while riding can distract the operator and increase the risk of an accident.**
- **Never take your hands off the handlebars while riding.**
- **Keep volume levels low enough to maintain awareness of your surroundings and ensure safety.**

This vehicle is equipped with a smartphone connectivity system that enables you to use an extensive suite of smart features utilizing your smartphone, connected through a communication control unit (CCU).

Type of connection:	Smart Feature:
Bluetooth	GPS navigation (Audio route guidance) (See page 5-8.)
	Phone (See page 5-9.)
	Audio player (See page 6-23.)
MyRide - Link app (Bluetooth)	Notifications (See page 6-24.)
	GPS navigation (See page 5-8.)
	Weather (See page 6-25.)
	Clock (See page 6-27.)
	Language (See page 5-2.)
Wi-Fi or USB	GPS navigation (Map) (See page 5-8.)

TIP

- Some features may not be available depending on your smartphone.
- Wi-Fi connectivity is not supported in some countries. In such cases, Wi-Fi related menu items are grayed out.
- The CCU takes about 30 seconds to boot after the vehicle power is turned on. Smart features will not be available during this time and will appear grayed out in the menu system.
- After disconnecting/reconnecting the battery, the CCU takes about 1 minute to boot.



Smart features are accessed via the pop-up menu system at the bottom of the main display (see page 6-16). The menu system and all related features are controlled using the joystick/home button "⮌⌂" (see page 6-4).
First, please read how to operate the joystick/home button "⮌⌂"/pop-up menu system, and then an initial setup and connection of a smartphone to the CCU must be completed.

Joystick/Home button

1. Joystick
2. Home Button "⌂"

This manual uses the following terms to describe the usage of the joystick/home button:

Short press HB "⌂"	Briefly press the home button
Long press HB "⌂"	Press the home button for 1 second
Short press enter "✔"	Briefly press the joystick straight inward
Long press enter "✔"	Press the joystick straight inward for 1 second
Operate joystick	Move the joystick up-down-right-left

To open the pop-up menu from the main display:

- Short press HB "⌂"
- Operate the joystick left-right
- Short press enter "✔"

Menu system operation:

- Operate the joystick left-right-up-down to select and adjust menu items.
- Short press enter "✔" to execute a selection.
- Short press HB "⌂" button to return to the previous screen.
- Long press HB "⌂" button to close the menu system.

TIP

- When arrows "‹ ˆ ›" appear highlighting a menu item, operating the joystick in the direction of the arrows will adjust the highlighted function.
- Some menu pages have a back arrow "<". If so, operate the joystick left to return to the previous screen.
- Some menu items have a forward arrow ">" next to them. While the item is highlighted, operate the joystick right or press enter "✔" to open that module.

MyRide - Link app

The MyRide - Link app is needed to complete the connection between the CCU and your smartphone, especially for navigation, SNS notifications and weather.
Additionally, the following functions and features are included.

- Language setting
- Select which apps can send notifications to the vehicle (android only)
- Volume control (android only)
- Sort the order of the app icons in the "App Applications" screen of the menu system.
- Map of last parking location

TIP

- Use of MyRide - Link is subject to your agreement to the MyRide - Link terms of use.
- The MyRide - Link app may not function on all smartphones or OS (operating system) versions.
- Navigation and other features require GPS access permissions to be set as “Always allow” on your smartphone.
- Every smartphone operates differently; refer to your individual device instructions regarding connectivity, Bluetooth discovery, app permissions, and other settings.

EAUA0621

Initial setup

To use smart features:

1. Pair/connect a smartphone and the CCU via Bluetooth.
2. Download/install the MyRide - Link app on your smartphone. Search for the app in an application store. Complete the installation and pair/connect it to the CCU.
3. To use the navigation system, connect a smartphone via Wi-Fi or USB.
4. To use the audio/phone/navigation systems, pair a Bluetooth headset to the CCU.

Bluetooth Pairing/Connection

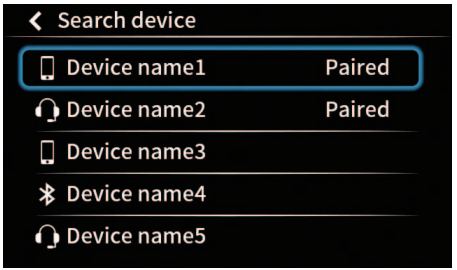
ECAN0150

NOTICE

The Bluetooth connection may not work in the following situations.

- **In a location exposed to strong radio waves or other electromagnetic noise.**
- **At facilities nearby that are emitting strong radio waves (TV or radio towers, power plants, broadcasting stations, airports, etc.).**

1. Make your smartphone discoverable via its Bluetooth settings.
2. Navigate to: “App Applications” → “Settings” → “Connections” → “Bluetooth” → “Search device” → “Smartphone” in the menu system.
   After some time, your smartphone name should appear on the list of detected nearby devices. Select it from the list.

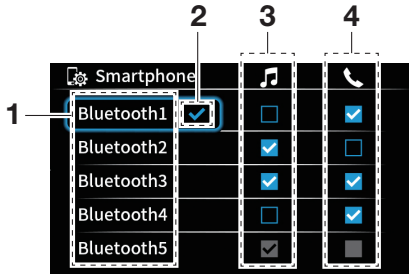


TIP

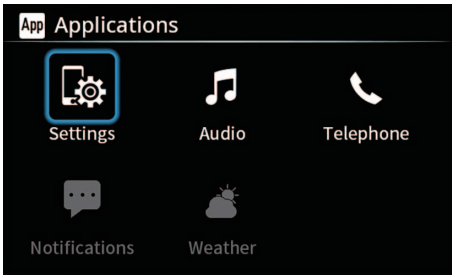
- You can also pair by navigating to "App Applications" → "Settings" → "Connections" → "Bluetooth" → "Make system discoverable" in the menu system and then search for the vehicle's CCU name in the smartphone's Bluetooth settings. The vehicle's CCU name will be displayed in the format "LB# + 10 digit number".
- After making the system discoverable, a smartphone must be connected to the CCU within 3 minutes or the connection attempt will fail.

3. A request for Bluetooth pairing should appear on your smartphone with a passkey matching the one displayed on the vehicle display. Accept the pairing request on your smartphone.

4. The vehicle display will now show two options: "Pair" / "Don't pair". Select "Pair" and the Bluetooth connection is completed. The vehicle display will transition to the "Paired device list" where your smartphone device name will be listed.



1. Device name
2. Currently connected
3. Connect for audio
4. Connect for telephone



The telephone and audio functions will become active when the Bluetooth connection is established.

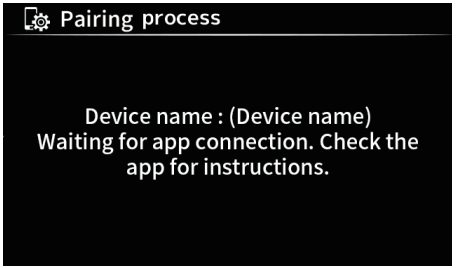
5

TIP

- A request will appear on your smartphone to share contact information with the vehicle. If you decline to upload the data to the CCU, you can do so later.
- If a Bluetooth pairing record is deleted from the smartphone, then the corresponding pairing record must be deleted from the "Paired device list" in order to pair again.
- If a Bluetooth pairing record is deleted from the "Paired device list", then the corresponding pairing record must be deleted from the smartphone in order to pair again.

MyRide - Link Pairing/Connection

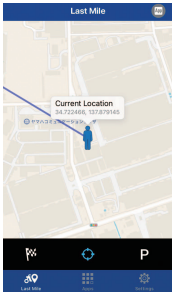
1. Make sure the vehicle is connected to your smartphone via Bluetooth.
2. Navigate to: "App Applications" → "Settings" → "Connections" → "Pairing with the MyRide Link" in the menu system.



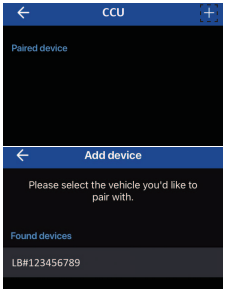
The vehicle's CCU name will be displayed in the format "LB# + 10 digit number".

TIP

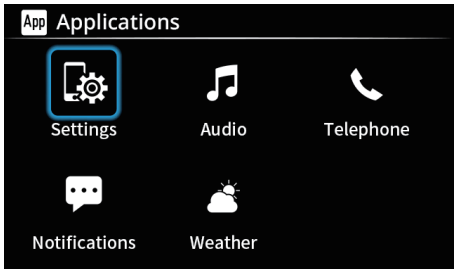
After opening "Pairing with the MyRide Link", the app must be connected within 60 seconds or an error will occur. If a failure occurs, try pairing again.



3. In the MyRide - Link app, open "Settings" and then open "Vehicles". Select the "+" in the top right corner of the screen and your vehicle CCU name will appear in the list.



4. When the CCU name is tapped, a Bluetooth pairing request will appear on your smartphone. Accept the request and the MyRide - Link app is now paired and connected with the CCU.



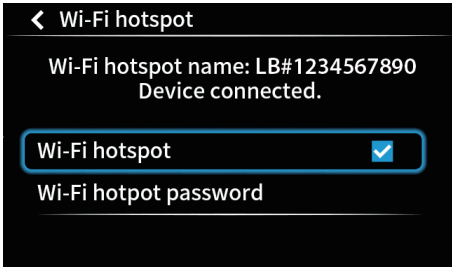
The notification and weather functions will become active when the connection between MyRide - Link and the CCU is established.

TIP

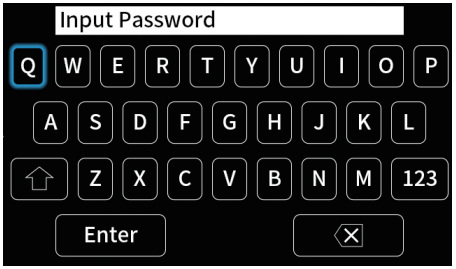
- When the vehicle is paired with a MyRide - Link app, the language will change to that which is selected in MyRide - Link. When first installed, the app adopts the system language of the smartphone. If the language is not supported on the CCU, English is automatically selected.
- If a Bluetooth pairing record is deleted from either the smartphone or the CCU, the pairing record in the MyRide - Link app must also be deleted and paired again.
- Once paired, the MyRide - Link app will open automatically when Bluetooth connection is established and will connect to the CCU automatically (android only).

Wi-Fi Connection

1. Navigate to: "Applications" → "Settings" → "Connections" → "Wi-Fi hotspot" in the menu system.



2. Open "Wi-Fi hotspot password". You can use the existing default password or create your own. The password must be at least 8 digits in length. The default password is random.



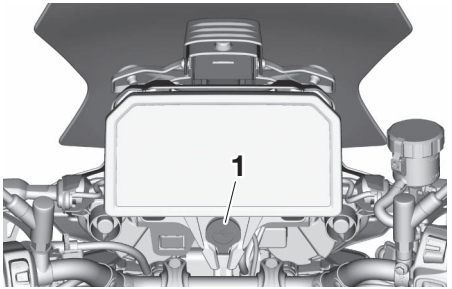
3. Make sure the blue check appears on the "Wi-Fi hotspot" item, the hotspot name will be displayed in the format "LB# + 10 digit number".
4. Search for the hotspot via your smartphone's Wi-Fi settings and connect using the password. The vehicle display will change from "No device connected." to "Device connected.".

TIP

Wi-Fi may not be supported in some countries. If so, use USB connection instead.

USB connection

Connect a smartphone via the USB jack located under the meter. (See page 6-46.)



1. USB jack

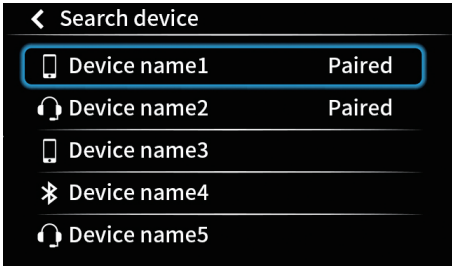
ECA27740

NOTICE

Take care to avoid damaging the USB jack.

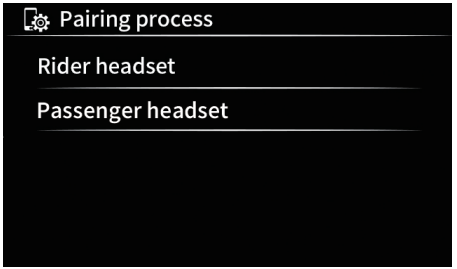
Bluetooth Headset Pairing

1. Make your headset discoverable via its Bluetooth settings.
2. Navigate to: "App Applications" → "Settings" → "Connections" → "Bluetooth" → "Search device" → "Headset" in the menu system.

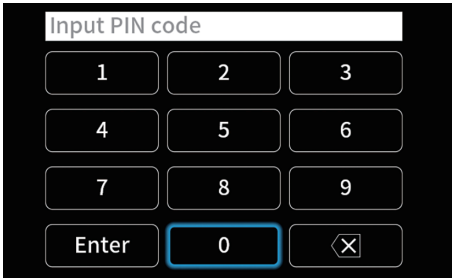


After some time, your headset device name should appear on the list of available devices. Select it from the list.

3. Select to pair as a rider or passenger headset.



At this point, a PIN code may need to be input for some headset models.



When connected, the display will switch to "Paired device list" and the headset icon "" will appear.

TIP

Once paired, a headset can be switched between rider-passenger in the "Paired device list". (See page 6-20.)

EAU96116

Navigation system: Garmin Motorize

EWA21401

WARNING

- **Always stop the vehicle before operating the navigation system.**
- **Always concentrate on riding by keeping your eyes and mind on the road.**

This vehicle is equipped with a navigation system which provides visual and audio (Bluetooth headset required) route guidance. To use the navigation system, you must first download the Garmin Motorize app from an application store onto your smartphone and then register for its paid service.

Navigation also requires the following:

- smartphone connection to the CCU via Wi-Fi or USB
- MyRide - Link app connection via Bluetooth
- headset connection via Bluetooth (audio route guidance)

TIP

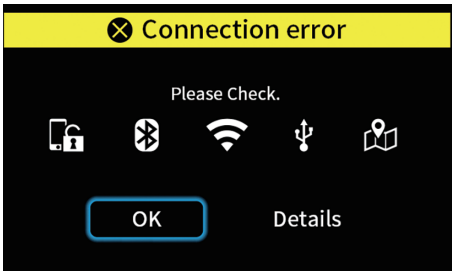
- Use of the Garmin Motorize app is subject to your agreement to the Garmin Motorize terms of use.
- Yamaha shall not be liable for any damages resulting from the use of the Garmin Motorize app.
- Please note that there is a charge (30 days free trial available).
- The smartphone must remain unlocked and the Garmin Motorize app must be kept in the foreground in order to ensure the phone does not sleep (lock). If another app's function moves the Garmin Motorize app to the background (phone call, alarm, etc.) the phone may sleep (lock) and the navigation may stop.
- The Garmin Motorize app's GPS access permissions must be set to "Always allow" on your smartphone's settings.
- The Garmin Motorize app may not work on all smartphones or OS (operating system) versions.
- iOS smartphones do not require the MyRide - Link app for the navigation system when connected via USB.

How to use the navigation system:

The navigation system is controlled using the joystick/home button:

- Long press HB "↩⌂" to access the navigation system from the main display.
- Short press enter "✔" to open the navigation system menu
- Operate the joystick up-down to control the map zoom
- Long press HB "↩⌂" to exit navigation and return to the main display.

5



5

If the navigation system cannot connect to the Garmin Motorize app then this error screen is displayed. Short press enter "✔" on "OK" to continue.

EAU96138

Telephone

This vehicle is equipped with a telephone function that utilizes your smartphone and a Bluetooth headset. To use this function, both a smartphone and a Bluetooth headset must be paired and connected to the CCU (see page 5-3). The telephone function is controlled using the joystick/home button (see page 6-4).

Receiving phone calls:

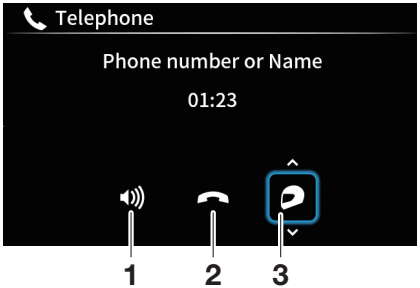
When a phone call is received to a connected smartphone, the ringtone will play through the connected headset and a telephone function will appear at the bottom of the display. Short press enter "✔" on the green phone icon to answer the call. The active phone call indicator icon "" will appear on the top of the main display for the duration of the call.

TIP

While an incoming phone call is ringing, the ringtone volume can be adjusted by operating the joystick up-down.

1. Volume
2. End call

Highlight the volume icon and operate the joystick up-down to adjust the call volume. Highlight the end call icon and short press enter "✔" to hang up the call.



1. Adjust call volume
2. End call
3. Switch call audio output between Bluetooth headset/smartphone device

Opening the pop-up menu will hide the phone function at the bottom of the display, however, it can be accessed again by navigating to "Telephone" in the menu system. While a call is active, a full-screen active call function can be accessed by navigating to "Applications" → "Telephone" in the menu system. (See page 6-23.)

TIP

Closing the active call screen using the home button "" will not end the call.

Highlight the volume icon and operate the joystick up-down to adjust the call volume level. Highlight the end call icon and short press enter "✔" to hang up the call.

Making phone calls:

1. Navigate to: "Applications" → "Telephone" in the menu system. If a call is not already active, then a recent contact list will appear. Highlight a contact and short press enter "✔" to start a call, the display will transition to the active call function.

2. You can also make a phone call directly on your smartphone and the telephone function will appear at the bottom of the vehicle display. The call audio will play through the connected Bluetooth headset.

TIP

If the contact information has not been shared from the smartphone to the CCU, then the recent contact list will only display phone numbers of call events which occur while the smartphone is connected.

EWA21420

⚠ WARNING

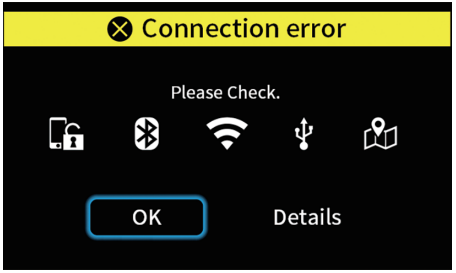
- **Do not use your smartphone while the vehicle is in motion.**
- **Never take your hands off the handlebars while riding.**
- **Always concentrate on riding by keeping your eyes and mind on the road.**
- **Keep volume levels low enough to maintain awareness of your surroundings and ensure safety.**

5

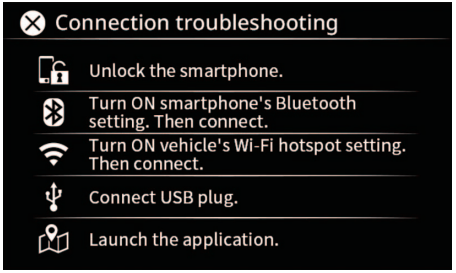
EAU96882

Connection troubleshooting

If a connection error occurs between the smartphone, MyRide - Link app, Garmin Motorize app and/or CCU, the following screen is displayed.



Select “Details” and check the connection as instructed on the screen.

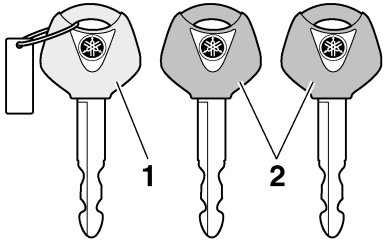


If the error persists, try the following:

1. Turn OFF the vehicle power. After 30 seconds, turn ON the vehicle power again.
2. Disconnect the USB plug. After 10 seconds, connect the USB plug again.
3. Turn OFF the smartphone’s Bluetooth. Then turn it ON again.
4. Delete Bluetooth pairing information from both the smartphone and the CCU to pair them again.
5. Reboot the MyRide - Link app and the Garmin Motorize app.

EAU1097B

Immobilizer system



1. Code re-registering key (red bow)
2. Standard keys (black bow)

This vehicle is equipped with an immobilizer system to help prevent theft by re-registering codes in the standard keys. This system consists of the following:

- a code re-registering key
- two standard keys
- a transponder (in each key)
- an immobilizer unit (on the vehicle)
- an ECU (on the vehicle)
- a system indicator light (page 6-7)

About the keys

The code re-registering key is used to register codes in each standard key. Store the code re-registering key in a safe place. Use a standard key for daily operation.

When key replacement or re-registering is necessary, bring the vehicle and the code re-registering key along with any remaining standard keys to a Yamaha dealer to have them re-registered.

TIP

- Keep the standard keys as well as keys of other immobilizer systems away from the code re-registering key.
- Keep other immobilizer system keys away from the main switch as they may cause signal interference.

ECA11823

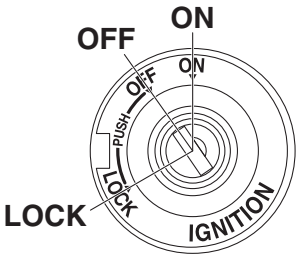
NOTICE

DO NOT LOSE THE CODE RE-REGISTERING KEY! CONTACT YOUR DEALER IMMEDIATELY IF IT IS LOST! If the code re-registering key is lost, the existing standard keys can still be used to start the vehicle. However, registering a new standard key is impossible. If all keys have been lost or damaged, the entire immobilizer system must be replaced. Therefore, handle the keys carefully.

- **Do not submerse in water.**
- **Do not expose to high temperatures.**
- **Do not place near magnets.**
- **Do not place near items that transmit electrical signals.**
- **Do not handle roughly.**
- **Do not grind or alter.**
- **Do not disassemble.**
- **Do not put two keys of any immobilizer system on the same key ring.**

EAU10474

Main switch/steering lock



The main switch/steering lock controls the ignition and lighting systems, and is used to lock the steering. The various positions are described below.

TIP

Be sure to use the standard key (black bow) for regular use of the vehicle. To minimize the risk of losing the code re-registering key (red bow), keep it in a safe place and only use it for code re-registering.

EAU84035

ON

All electrical circuits are supplied with power and the vehicle lights are turned on. The engine can be started. The key cannot be removed.

TIP

- The headlight(s) will turn on when the engine is started.
- To prevent battery drain, do not leave the key in the “ON” position without the engine running.

EAU10664

OFF

All electrical systems are off. The key can be removed.

EWA10062

⚠ WARNING

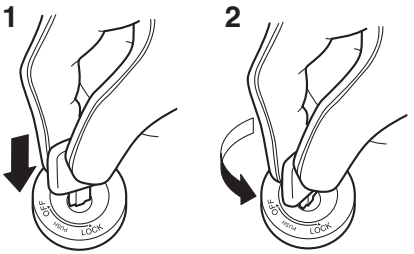
Never turn the key to “OFF” or “LOCK” while the vehicle is moving. Otherwise the electrical systems will be switched off, which may result in loss of control or an accident.

EAU73803

LOCK

The steering is locked and all electrical systems are off. The key can be removed.

To lock the steering



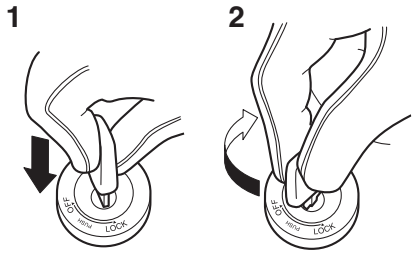
1. Push.
2. Turn.

1. Turn the handlebars all the way to the left.
2. With the key in the “OFF” position, push the key in and turn it to “LOCK”.
3. Remove the key.

TIP

If the steering will not lock, try turning the handlebars back to the right slightly.

To unlock the steering



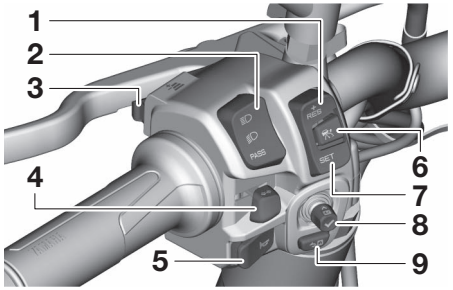
1. Push.
2. Turn.

Push the key in and turn it to “OFF”.

EAU66059

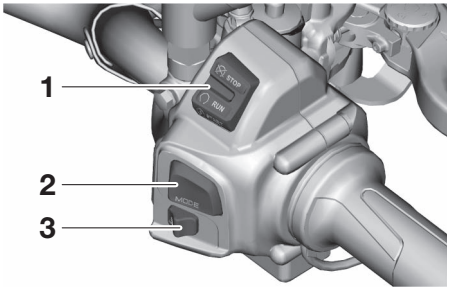
Handlebar switches

Left



1. ACC setting switch “RES”
2. Dimmer/Pass switch “≣D/≣D/PASS”
3. ACC following distance setting switch “”
4. Turn signal switch “⇦/⇨”
5. Horn switch “”
6. ACC power switch “”
7. ACC setting switch “SET”
8. Joystick
9. Home Button “”

Right



1. Stop/Run/Start switch “⊗/◯/”
2. YRC mode switch “MODE”
3. Hazard switch “”

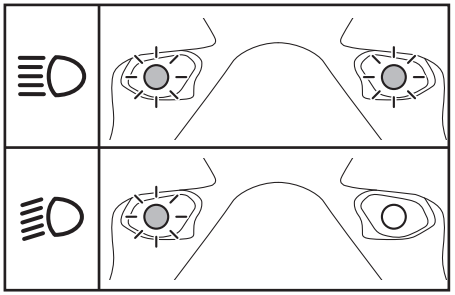
EAU54203

Dimmer/Pass switch “≣D/≣D/PASS”

Set this switch to “≣D” for the high beam and to “≣D” for the low beam.

To flash the high beam, push the switch down towards “PASS” while the headlights are on low beam.

6



EAU66040

Turn signal switch “⇦/⇨”
To signal a right-hand turn, push this switch to “⇨”. To signal a left-hand turn, push this switch to “⇦”. When released, the switch returns to the center position. To cancel the turn signal lights, push the switch in after it has returned to the center position.

EAU66030

Horn switch “”
Press this switch to sound the horn.

EAU94790

Stop/Run/Start switch “⊠/○/”
To crank the engine with the starter, set this switch to “○”, and then push the switch down towards “”. See page 8-2 for starting instructions prior to starting the engine.
Set this switch to “⊠” to stop the engine in case of an emergency, such as when the vehicle overturns.

EAU91670

Hazard switch “”
Use this switch to turn on the hazard lights (simultaneous flashing of all turn signal lights). The hazard lights are used in case of an emergency or to warn other drivers when your vehicle is stopped where it might be a traffic hazard.
The hazard lights can be turned on or off only when the key is in the “ON” position. You can turn the main switch to the “OFF” or “LOCK” position, and the hazard lights will continue to flash. To turn off the hazard lights, turn the main switch to the “ON” position and operate the hazard switch again.

ECA10062

NOTICE

Do not use the hazard lights for an extended length of time with the engine not running, otherwise the battery may discharge.

EAUA0571

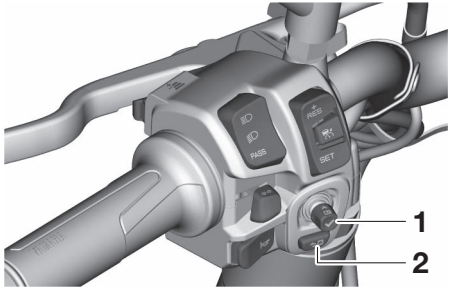
Adaptive Cruise Control switches
ACC power switch “”, ACC setting switch “RES”, ACC setting switch “SET” and ACC following distance setting switch “”.
See page 4-2 for an explanation of the adaptive cruise control system.

EAU99791

YRC mode switch “MODE”
This switch cycles the YRC mode presets. See page 6-16 and 6-29 for an explanation of the YRC settings.

EAU95874

Joystick and Home Button
The joystick/home button located on the left handlebar is used to control the pop-up menu system, navigation system, and the vehicle information display.



1. Joystick
2. Home Button "⌂"

This manual uses the following terms to describe operations:

Short press HB "⌂"	Briefly press the home button
Long press HB "⌂"	Press the home button for 1 second
Short press enter "✔"	Briefly press the joystick straight inward
Long press enter "✔"	Press the joystick straight inward for 1 second
Operate joystick	Move the joystick up-down-right-left

Main display screen:

- Operate the joystick up-down to cycle left-side vehicle information display. (See page 6-10.)
- Long press enter "✔" to mute/unmute all sound.
- Operate the joystick left-right / Short press HB "⌂" / Short press enter "✔" to open the pop-up menu. (See page 6-16.)
- Long press HB "⌂" to open the navigation display. (See page 5-8.)

Menu system operation:

- Operate the joystick left-right-up-down to select and adjust menu items.
- Short press enter "✔" to execute a selection.
- Short press HB "⌂" button to return to the previous screen.
- Long press HB "⌂" button to close the menu system.

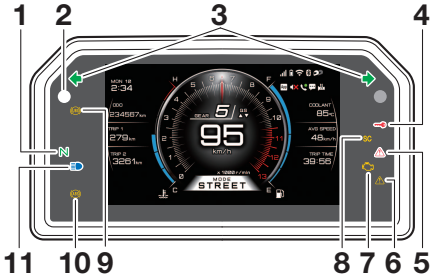
Navigation display screen:

- Short press enter "✔" to open the navigation system menu. (See page 5-8.)
- Operate the joystick up-down to control map zoom.
- Long press enter "✔" to mute/unmute all audio.
- Operate the joystick left-right / Short press HB "⌂" to open the pop-up menu.
- Long press HB "⌂" to switch to the main display. (See page 6-9.)

6

EAU77128

Indicator lights and warning lights



1. Neutral indicator light "N"
2. Shift indicator light " ○ "
3. Turn signal indicator lights " ◀ " and " ▶ "
4. Immobilizer system indicator light "🔑"
5. Oil pressure and Coolant temperature warning light "⚠"
6. Auxiliary system warning light "⚠"
7. Engine trouble warning light "🔧"
8. Stability control indicator light "SC"
9. UBS warning light " (UBS) "
10. ABS warning light " (ABS) "
11. High beam indicator light "≡D"

EAU88680

Turn signal indicator lights " ◀ " and " ▶ "

Each indicator light will flash when its corresponding turn signal lights are flashing.

EAU91820

Neutral indicator light "N"

This indicator light comes on when the transmission is in the neutral position.

EAU88690

High beam indicator light "≡D"

This indicator light comes on when the high beam of the headlight is switched on.

EAU88920

Engine trouble warning light "🔧"

This warning light comes on if a problem is detected in the engine or other vehicle control system. If this occurs, have a Yamaha dealer check the onboard diagnostic system.

TIP

When the vehicle is turned on, this light should come on for a few seconds and then go off. Otherwise, have a Yamaha dealer check vehicle.

EAU92700

ABS warning light " (ABS) "

In normal operation, the ABS warning light comes on when the vehicle is turned on, and goes off after traveling at a speed of 5 km/h (3 mi/h) or higher.

TIP

If the warning light does not work as described above, or if the warning light comes on while riding, the ABS may not work correctly. Have a Yamaha dealer check the vehicle as soon as possible.

EWA21120

⚠ WARNING

If the ABS warning light does not turn off after reaching 5 km/h (3 mi/h), or if the warning light comes on while riding:

- **Use extra caution to avoid possible wheel lock during emergency braking.**
- **Have a Yamaha dealer check the vehicle as soon as possible.**

EAUA0502

UBS warning light “ (UBS) ”

This warning light comes on when the vehicle is turned on and then goes off after you begin riding. This warning light also comes on to indicate when brake control (BC) is turned off. If this warning light comes on while already driving, then the UBS and radar-linked UBS may not be working properly.

EWA22551

⚠ WARNING

In the following cases, have the vehicle inspected immediately by a Yamaha dealer:

- **When the warning light does not come on when the vehicle is turned on.**
- **When the warning light does not turn off even after driving at a speed of 5 km/h (3 mi/h) or more.**
- **When the warning light comes on while driving with brake control (BC) on.**

TIP

The brake control may be turned off if the battery voltage falls when the engine starts. In this case, the warning light also comes on. Have a Yamaha dealer check the battery.

EAU99710

Shift indicator light “ ○ ”

This indicator light comes on when it is time to shift to the next higher gear. The engine speeds at which it comes on or goes off and other settings can be adjusted in the menu system. (See page 6-31.)

TIP

- The shift indicator light does not operate when the vehicle is in neutral or 6th gear.
- When the vehicle is turned on, this light should come on for a few seconds and then go off. If the light does not come on, or if the light remains on, have a Yamaha dealer check the vehicle.

EAU92710

Immobilizer system indicator light “ (🔑) ”

When the main switch is turned off and 30 seconds have passed, the indicator light will flash steadily to indicate the immobilizer system is enabled. After 24 hours have passed, the indicator light will stop flashing, however the immobilizer system is still enabled.

TIP

When the vehicle is turned on, this light should come on for a few seconds and then go off. If the light does not come on, or if the light remains on, have a Yamaha dealer check the vehicle.

Transponder interference

If the immobilizer system indicator light flashes in the pattern, slowly 5 times then quickly 2 times, this could be caused by transponder interference. If this occurs, try the following.

1. Make sure there are no other immobilizer keys close to the main switch.
2. Use the code re-registering key to start the engine.

3. If the engine starts, turn it off, and try starting the engine with the standard keys.
4. If one or both of the standard keys do not start the engine, take the vehicle and all 3 keys to a Yamaha dealer to have the standard keys re-registered.

EAUA0582

Stability control indicator light "SC"

This indicator light flashes when the traction control system, SCS, or LIF systems engage while riding. When stability control "SC" is set to off, the indicator will come on.

TIP

When the vehicle is turned on, this light should come on for a few seconds and then go off. If the light does not come on, or if the light remains on, have a Yamaha dealer check the vehicle.

ECA28471

NOTICE

When turning the main switch on, avoid any movement or vibration of the vehicle as it may interfere with the initialization of the IMU. If this occurs, the traction control system will not operate and the stability control indicator light "SC" will come on until the IMU can initialize.

EAU92752

Oil pressure and Coolant temperature warning light "⚠"

This warning light comes on if the engine oil pressure is low or if the coolant temperature is high. If this occurs, stop the engine immediately.

TIP

- When the vehicle is first turned on, this light should come on until the engine is started.
- If a malfunction is detected, this light will come on and the oil pressure warning icon will flash.

ECA22441

NOTICE

If the oil pressure and coolant warning light does not go off after starting the engine or if it comes on while the engine is running, stop the vehicle and engine immediately.

- **If the engine is overheating, the coolant temperature warning icon will come on. Let the engine cool. Check the coolant level (see page 9-36).**
- **If the engine oil pressure is low, the oil pressure warning icon will come on. Check the oil level (see page 9-10).**
- **If the warning light remains on after letting the engine cool and confirming the proper oil level, have a Yamaha dealer check the vehicle. Do not continue to operate the vehicle!**

EAU92731

Auxiliary system warning light "⚠"

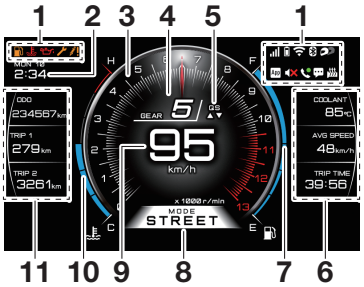
This warning light comes on if a problem is detected in a non-engine-related system.

TIP

When the vehicle is turned on, this light should come on for a few seconds and then go off. Otherwise, have a Yamaha dealer check the vehicle.

Display

EAUA0566



1. Indicator icons
2. Clock
3. Tachometer
4. Transmission gear display
5. Quick shifter indicator "QS"
6. Right-side vehicle information display
7. Fuel meter
8. YRC mode display
9. Speedometer
10. Coolant temperature meter
11. Left-side vehicle information display

TIP

- This model uses a thin-film-transistor liquid-crystal display (TFT LCD) for good contrast and readability in various lighting conditions. However, due to the nature of this technology, it is normal for a small number of pixels to be inactive.
- The display units can be switched between kilometers-miles and Celsius-Fahrenheit. (See page 6-27.)

Minimized display view (while menu system/navigation are open)

1. Indicator icons
2. Vehicle information display favorite
3. Quick shifter indicator "QS"
4. Transmission gear display
5. Speedometer
6. YRC mode display
7. Fuel meter
8. Coolant temperature meter

When the menu system or the navigation function are open, the information on the main display is relocated as shown.

Clock

The clock uses a 12-hour time system. The clock is updated automatically from connected smartphones or can also be manually set in "⚙ Machine Settings" → "Clock". (See page 6-27.)

Speedometer

The speedometer shows the vehicle's traveling speed.

Tachometer

The tachometer shows the engine speed, as measured by the rotational velocity of the crankshaft, in revolutions per minute (r/min).

ECA10032

NOTICE

Do not operate the engine in the tachometer red zone.
Red zone: 10500 r/min and above

Fuel meter

The fuel meter indicates the amount of fuel in the fuel tank. The display segments of the fuel meter disappear from "F" (full) towards "E" (empty) as the fuel level decreases. When the last segment starts flashing, refuel as soon as possible.

Coolant temperature meter

The coolant temperature varies with changes in the weather and engine load. If the coolant temperature exceeds the limit, the coolant meter will start flashing. If this occurs,stop the vehicle and let the engine cool. (See page 9-36.)

Transmission gear display

This shows which gear the transmission is in. This model has 6 gears and a neutral position. The neutral position is indicated by the neutral indicator light "N" and by the transmission gear display "N".

Quick shifter indicator "QS △▽"

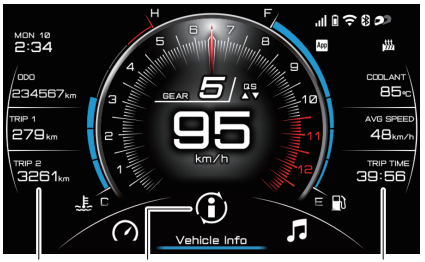
This icon indicates the status of the quick shifter.

Icon off: the quick shifter is disabled.
"QS △▽": the system is active for upshifts and downshifts.
"QS △": the system is active for upshifts only.
"QS ▽": the system is active for downshifts only.

TIP

The upshift and downshift functions are independent and can be activated separately in the menu system. (See page 6-29.)
For more information on the quick shifter see page 4-17.

Vehicle information display

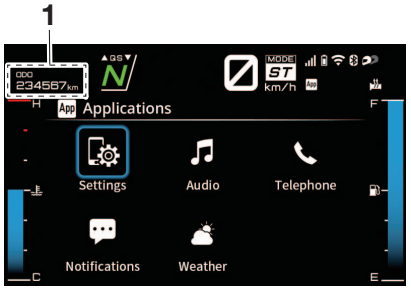


1. Left-side vehicle information display
2. "ⓘ Vehicle Info"
3. Right-side vehicle information display

The vehicle information display is split into two sections located on either side of the speedometer / tachometer on the main display. It provides the following information:

- Odometer (ODO)
- Two tripmeters (TRIP 1 / TRIP 2)
- Average fuel consumption (AVG FUEL)
- Instantaneous fuel consumption (INST FUEL)
- Fuel reserve tripmeter (TRIP F)
- Air temperature (AIR)
- Coolant temperature (COOLANT)
- Average speed (AVG SPEED)
- Trip timer (TRIP TIME)

On the left-side display, only 3 items are displayed at a time. Operate the joystick up-down to cycle the visible items.
The right-side display contains three favorite items which can be customized by navigating to "⚙ Machine Settings" → "Vehicle Info" in the menu system. (See page 6-27.)
The three favorited items are also displayed, one at a time, at the top of the navigation screen and other menu screens (minimized display view).



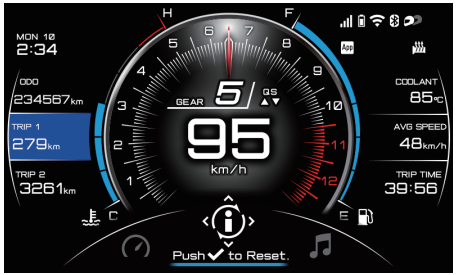
1. Vehicle information display favorite

While on the navigation screen, highlight "Ⓘ Vehicle Info" in the pop-up menu and operate the joystick up/down to cycle which information display favorite is shown at the top of the display.

TIP

If Garmin Motorize is not connected, the vehicle information favorites cannot be cycled on the minimized display view but can be changed by navigating to "⚙ Machine Settings" → "Vehicle Info" in the menu system.

To reset information display items:



1. Select "Ⓘ Vehicle Info" in the menu system. (See page 6-16.)
2. Four arrows will appear around the icon and the uppermost display item on the left side will highlight blue and "Push ✔ to Reset" will appear below the "Ⓘ". The display items on both sides can be highlighted by operating the joystick.
3. If the blue-highlighted item can be reset, the item value will flash and "Push ✔ to Reset" will be displayed. While flashing short press enter and a yes/no request will appear. Select yes, and the item will reset.

TIP

If a display item cannot be reset, "Push ✔ to Reset" will gray out. The vehicle information display items can be reset using the "All Reset" function. (See page 6-33.)

Odometer (ODO)

The odometer shows the total distance traveled by the vehicle.

TIP

ODO will lock at 999999 and cannot be reset.

Two tripmeters (TRIP 1 / TRIP 2)

TRIP 1 and TRIP 2 show the distance traveled since they were last set to zero.

TRIP 1 and TRIP 2 will reset to 0 and begin counting again after 9999.9 has been reached.

Average fuel consumption (AVG FUEL)

When using kilometers, the average fuel consumption display can be set to "km/L" or "L/100km". (See page 6-27.)

When using miles, the average fuel consumption is displayed in “MPG”.

Instantaneous fuel consumption (INST FUEL)
When using kilometers, the instantaneous fuel consumption display can be set to “km/L” or “L/100km”. (See page 6-27.)
When using miles, the instantaneous fuel consumption is displayed in “MPG”.

Fuel reserve tripmeter (TRIP F)
When the fuel tank reserve level has been reached, TRIP F automatically replaces RANGE and begins recording distance traveled from that point. After refueling and traveling some distance, TRIP F will automatically disappear.

Air temperature (AIR)
The air temperature is displayed from –9 °C (15 °F) to 50 °C (122 °F) in 1 °C (1 °F) increments. The temperature displayed may vary from the actual ambient temperature.

TIP

- “---” will be displayed if the detected temperature is lower than –9 °C (15 °F).
- “---” will be displayed if the detected temperature is higher than 50 °C (122 °F).

Coolant temperature (COOLANT)
The coolant temperature is displayed from –30 °C (–22 °F) to 130 °C (266 °F) in 1 °C (1 °F) increments.

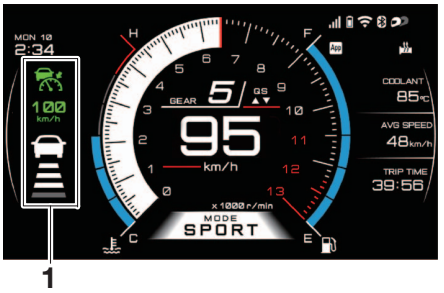
TIP

- When using Celsius, the coolant temperature display will read “–30” when the vehicle coolant temperature is below –30 °C.
  When using Fahrenheit, the coolant temperature display will read “–22” when the vehicle coolant temperature is below –22 °F.
- If the vehicle coolant temperature is too high the coolant temperature display will read “Hi”.

Average speed (AVG SPEED)
Displays the average traveling speed since last reset.

Trip timer (TRIP TIME)
Displays engine running time.

ACC display



1. ACC display

While the ACC system is active or on standby, the ACC display replaces the left-side vehicle information display.

1. ACC display

In minimized display view, with the ACC system active or on standby, the ACC display replaces the coolant temperature meter.

TIP

For more information about the ACC system, see page 4-2.

ACC indicator icon "/"

This icon comes on white to indicate the ACC system is on standby. It comes on in green to indicate ACC system is active.

ACC malfunction indicator icon ""

This icon replaces the ACC indicator icon when there is a malfunction in the system.
If this icon comes on, have a Yamaha dealer inspect the vehicle.

ACC set speed display

This displays the current set cruising speed of the ACC system.
: set cruising speed set, ACC on standby.
: set cruising speed set, ACC is active.
: set cruising speed not set.

Vehicle detection indicator icon ""

This icon comes on when the ACC system detects a vehicle ahead.

Following distance indicator icon ""

This displays the current ACC set following distance from the vehicle ahead.
: shortest distance.
: short distance.
: long distance.
: longest distance.

ACC upshift/downshift request indicator icons "GEAR/"/"GEAR/"

These icons flash inside the transmission gear display when the ACC system detects that gear shift is required to maintain the set following distance and set cruising speed.
GEAR/: upshift requested.
GEAR/: downshift requested.

Indicator icons

Low fuel indicator icon " "

This icon comes on when approximately 3.0 L (0.79 US gal, 0.66 Imp.gal) of fuel remains in the tank.

6

Coolant temperature warning icon “ ”
This icon appears when the coolant temperature is high. Stop the vehicle and turn off the engine. Allow the engine to cool.

ECA10022

NOTICE

Do not continue to operate the engine if it is overheating.

Oil pressure warning icon “ ”
This icon appears when the engine oil pressure is low. When the vehicle is first turned on, engine oil pressure has yet to build, so this icon will come on and stay on until the engine has been started.

TIP

If a malfunction is detected, the oil pressure warning icon will flash repeatedly.

ECA26410

NOTICE

Do not continue to operate the engine if the oil pressure is low.

Auxiliary system warning icon “ ”
This icon appears if a problem is detected in a non-engine-related system.

SCU malfunction warning icon “ ”
This icon appears if a problem is detected in the front or rear suspension.

Network connectivity indicator icon “ ”
This icon indicates the connected smartphone’s network connection status.
Icon off: No smartphone connected.
: A smartphone is connected but has no network connectivity.
: A smartphone is connected and has network connectivity. The icon’s segments indicate the signal strength.

Smartphone battery level indicator icon “ ”
This icon indicates the connected smartphone’s battery level.
Icon off: No smartphone connected.
: The center bar moves up and down to indicate the battery level.
: Smartphone connected via USB.

Wi-Fi connectivity indicator icon “ ”
This icon indicates Wi-Fi connection status.
Icon off: The vehicle’s Wi-Fi function is deactivated.
: The Wi-Fi function is active but is not connected to a smartphone.
: A smartphone is connected via Wi-Fi.

Bluetooth connectivity indicator icon “ ”
This icon indicates Bluetooth connection status.
Icon off: The vehicle’s Bluetooth function is deactivated.
: The vehicle Bluetooth is active but not connected to a smartphone.
: A smartphone is connected.

Headset indicator icon “ ”
This icon comes on if a Bluetooth headset is connected to the vehicle. The icon changes if the headset is changed between rider/passenger connection and if there are two headsets connected at once.

MyRide - Link app indicator icon "App"
This icon comes on when the MyRide - Link app is successfully connected to the vehicle.
App: The icon turns yellow when the connected smartphone becomes overheated.

TIP
If there is a communication error between the multi-function meter and the CCU, this icon will flash.

Audio mute indicator icon "×"
This icon indicates if audio is muted.

Telephone indicator icon "●"/"●"
This icon comes on green when there is an active call and red when there is a recent missed call. The missed call icon will disappear when the recent contact list is opened at "App Applications" → "Telephone" in the menu system.

Notification indicator icon "..."
This icon comes on when the connected smartphone receives an SNS, E-mail or other notification. After that, the icon stays on until you turn the vehicle off or check the notifications by navigating to "App Applications" → "Notifications"in the menu system.

TIP
- This function works only when the smartphone is connected to the CCU via MyRide - Link.
- Permission to access notifications must be granted to the MyRide - Link app on the smartphone.

Grip warmer indicator icon "≋"
The grip warmers can be used when the engine is running. There are 3 customizable temperature presets that can be customized between 10 different temperature levels. (See page 6-26.)
The icon displays the current temperature setting:
Icon off: Grip warmer off.
≋: Low preset
≋: Medium preset
≋: High preset

ECA17932

NOTICE
- **Be sure to wear gloves when using the grip warmers.**
- **Do not use the grip warmers in warm weather.**
- **If the handlebar grip or throttle grip becomes worn or damaged, stop using the grip warmers and replace the grips.**

Seat heater indicator icon "≋"(if equipped)
The seat heater can be used when the engine is running. There are 3 customizable temperature presets that can be customized between 10 different temperature levels. (See page 6-26.)
The icon displays the current temperature setting:
Icon off: Seat heater off.
≋: Low preset
≋: Medium preset
≋: High preset

6

ECA23980

NOTICE

- **Be sure to wear protective clothing that covers your hip and legs when using the seat heater.**
- **If the ambient temperature is 20 °C (68 °F) or higher, do not set the seat heater to the high setting.**
- **If the seat becomes worn or damaged, stop using the seat heater and replace the seat.**

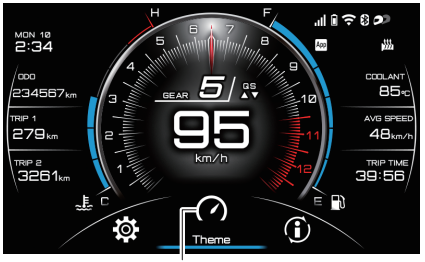
YRC mode display

This display indicates which YRC mode is currently selected: “SPORT” (SP), “STREET” (ST), “RAIN” (RN) and “CUSTOM” (CU).

Cycle through the YRC modes by using the YRC mode switch “MODE” and also customize them in the menu system. (See page 6-29.)

EAUA0548

Pop-up menu system



1. Pop-up menu

The menu system for this vehicle is controlled with the joystick/home button on the left handlebar. (See page 6-4.)

To open the pop-up menu from the main display:

- Short press HB “⮌⌂”.
- Operate the joystick left-right.
- Short press enter “✔”.

Menu system operation:

- Operate the joystick left-right-up-down to select and adjust menu items.
- Short press enter “✔” to execute a selection.
- Short press HB “⮌⌂” button to return to the previous screen.
- Long press HB “⮌⌂” button to close the menu system.

TIP

- When arrows appear “‹ ˆ ˇ ›” surrounding a menu icon, operating the joystick in the direction of the arrows will adjust the selected function.
- Some menu pages and items have a “<” / “>”. If so, operate the joystick in the indicated direction to exit/enter the module.
- If the vehicle is in motion, “SC Stability Control” and “⚙ Machine Settings” will be grayed out in the pop-up menu.

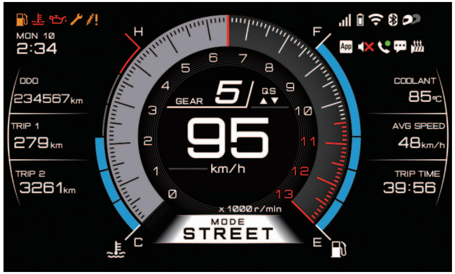
The pop-up menu is divided into the following main functions:

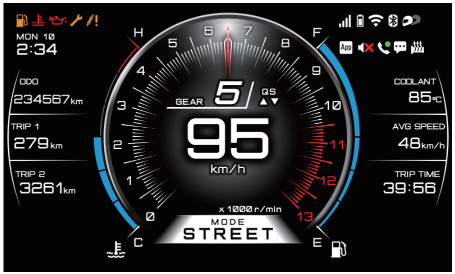
“Theme”	Select the visual theme of the display. (See page 6-17.)
“Vehicle Info”	Reset/cycle the vehicle information display items. (See page 6-17.)

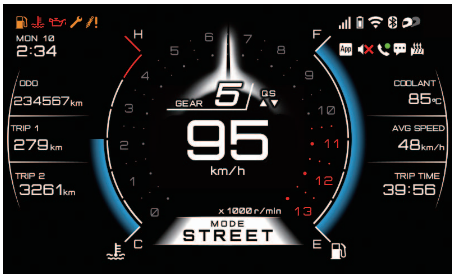
"Audio"	Access simple pop-up audio player. (See page 6-17.)
"Applications"	Access the smartphone application menu. (See page 6-18.)
"Telephone" (if call active)	Open the telephone function for an active call. (See page 6-25.)
SC "Stability Control"	Turn the stability control systems ("TCS", "SCS" and "LIF") off/on.(See page 6-25.)
"Grip Warmer"	Control the grip warmers. (See page 6-26.)
"Seat Heater"(if equipped)	Control the seat heater. (See page 6-26.)
"Machine Settings"	Adjust settings related to the vehicle's operation. (See page 6-26.)

"Theme"

The visual theme of the main display can be changed between three options. The changes are cosmetic only, the three themes function the same.







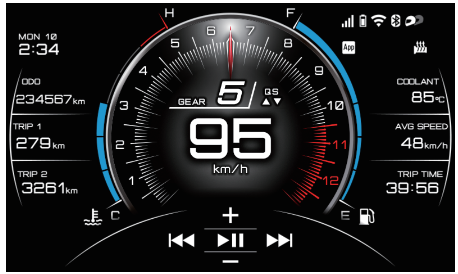
TIP

Each of the three themes has small variations which change when the YRC mode is adjusted using the YRC mode switch "MODE". (See page 6-4.)

"Vehicle Info"

This function is used to reset/cycle individual vehicle information display items. (See page 6-10.)

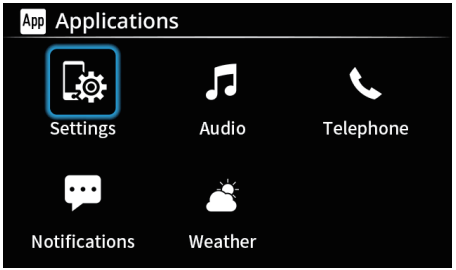
"Audio"



This opens a simplified version of the audio player. A full audio player is available by navigating to "App Applications" → "Audio". (See page 6-23.)

Operate the joystick up-down to adjust the volume. Operate the joystick left-right to skip to previous/next track. Short press enter "✔" to play/pause.

"Applications"



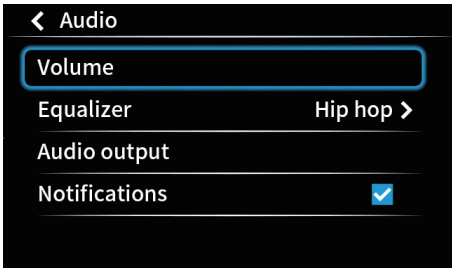
This menu contains functions and settings related to smartphones and Bluetooth headsets.

"Settings"	CCU settings (audio / connections / system)
"Audio"	Full audio player
"Telephone"	Telephone function
"Notifications"	Smartphone notification function
"Weather"	Weather information function

TIP

- The order of the icons can be organized using the MyRide - Link app.
- Icons for applications that do not have the required CCU connection established will be grayed out.

"Applications" → "Settings" → "Audio"



This module controls volume levels for connected Bluetooth headsets. The "Notifications" option turns audio alerts for notifications on/off.

TIP

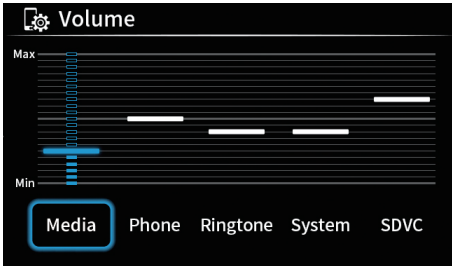
- The volume settings on the connected smartphone are not affected by setting changes in this module. If the volume is too high or low, try adjusting the volume settings on your smartphone and headset.
- The notification sounds and incoming call ringtones are determined by the smartphone settings.

"Applications" → "Settings" → "Audio" → "Volume"

EWA21430

WARNING

Keep volume levels low enough to maintain awareness of your surroundings and ensure safety.



This module controls volume settings for individual functions:

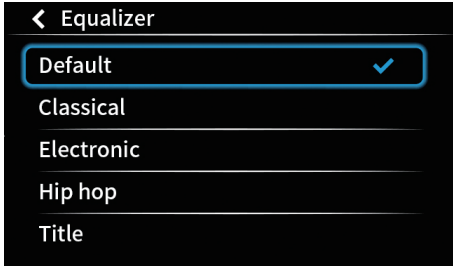
"Media": Audio player volume. 20 levels.
"Phone": Phone call volume. 20 levels.

TIP

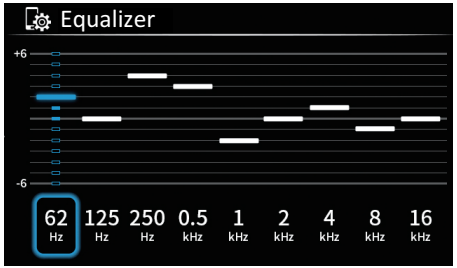
Phone call volume is also adjustable via the pop-up menu telephone function. (See page 5-9.)

"Ringtone": Incoming call ringtone volume. 10 levels.
"System": Smartphone system volume. 10 levels.
"SDVC": Speed dependent volume control (SDVC) is a feature that automatically adjusts the volume based on vehicle speed in order to counteract road noise. Low / Mid / High / OFF.

"Applications" → "Settings" → "Audio" → "Equalizer"



Audio output can be adjusted between various equalizer presets. The preset audio levels can be adjusted with the joystick and confirmed by short pressing enter "✔". After modifying an existing preset, it is saved as "Custom".



"Applications" → "Settings" → "Audio" → "Audio output"

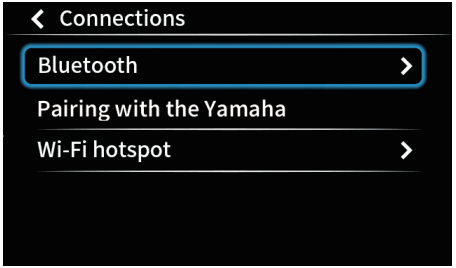
When a Bluetooth headset is connected, the headset icon "" / "" will appear on the top of the display. This setting module changes the media/navigation and phone call audio between the "Rider headset" "" and "Passenger headset" "".

TIP

Only one headset can be selected for phone call audio at a time.

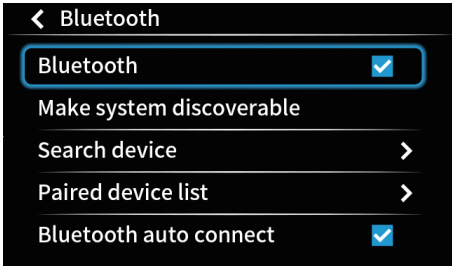
6

“ Applications” → “Settings” → “Connections”



This module contains the connection settings for Bluetooth, Wi-Fi, and the MyRide - Link app.

“ Applications” → “Settings” → “Connections” → “Bluetooth”

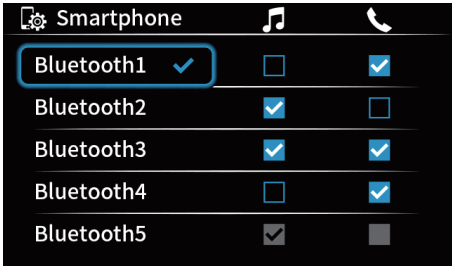


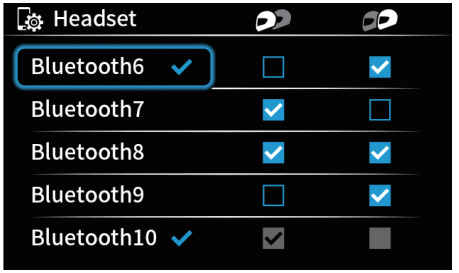
This module controls Bluetooth connections to smartphones and headsets. For instructions on pairing / connecting Bluetooth devices. (See page 5-3, 5-7.)

TIP

If “Bluetooth auto connect” is enabled, the CCU will automatically connect with any previously paired devices which are available. If “Bluetooth auto connect” is disabled, previously paired devices can be connected manually via the “Paired device list” module.

“ Applications” → “Settings” → “Connections” → “Bluetooth” → “Paired device list”





This module contains lists of previously paired devices. When a device is connected, a blue check will appear next to the device name.
Sound from smartphones can be selected for audio and phone audio.
Bluetooth headsets can be switched between rider and passenger modes.
Selecting a device name will display options for that device.

The selected device can be connected (if in range with Bluetooth active), disconnected, and the pairing record can be deleted.

TIP

- If a Bluetooth pairing record is deleted from the smartphone, then the corresponding pairing record must be deleted from the "Paired device list" in order to pair again.
  If a Bluetooth pairing record is deleted from the "Paired device list", then the corresponding pairing record must be deleted from the smartphone in order to pair it again.

"Applications" → "Settings" → "Connections" → "Pairing with the MyRide Link"
This module pairs/connects the MyRide - Link app to the CCU. (See page 5-5.)

"Applications" → "Settings" → "Connections" → "Wi-Fi hotspot"
This module controls Wi-Fi connections to smartphones. (See page 5-8.)

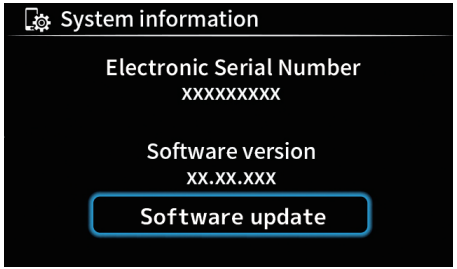
"Applications" → "Settings" → "System" → "System information"
This module displays the current system software version and allows updates via USB storage device.
Occasional software updates may be released for the CCU. Periodically check Yamaha's homepage for details.
ECA27751

NOTICE

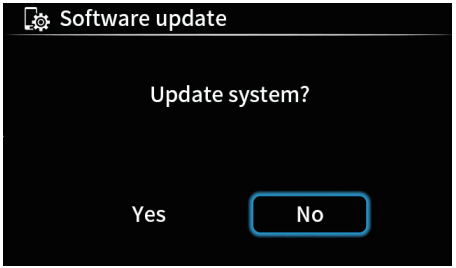
Keep the vehicle power on and do not disconnect the USB storage device until data transfer is complete.

To update system software:

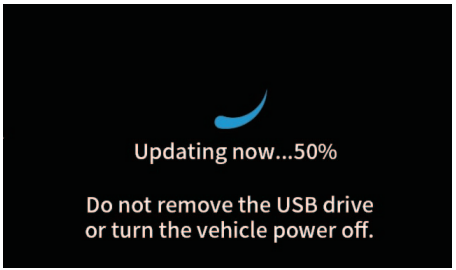
1. Visit the Yamaha homepage and download the latest software update to a USB storage device. Connect it to the USB jack. (See page 6-46.)



2. Select "Software update".



3. Select "Yes" to start the software update. When the update is completed properly, "Completed." is displayed.



6

TIP

Do not turn the vehicle power off, remove the USB drive, or put the vehicle in motion until the update is completed.

ECA27740

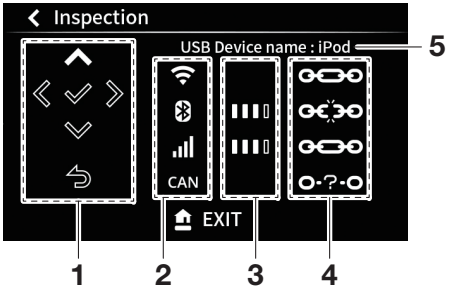
NOTICE

Take care to avoid damaging the USB jack.

6

"App Applications" → "Settings" → "System" → "Inspection mode"

This module displays the status of CCU connections and the joystick/home button.



1. Joystick / Home button status
2. Type of connection
3. Signal strength
4. Connection status
5. Connected USB device name

The types of connection are:
: Wi-Fi
: Bluetooth
: Mobile network
CAN: CAN (controller area network: connection between the CCU and the multi-function meter)

The types of connection status are:
: Connected
: Disconnected
: Connection status unknown

TIP

This module cannot be exited with short press HB. Use Long press HB to exit.

"App Applications" → "Settings" → "System" → "Legal"

Third-party license agreements can be viewed here.

"App Applications" → "Settings" → "System" → "All Reset"

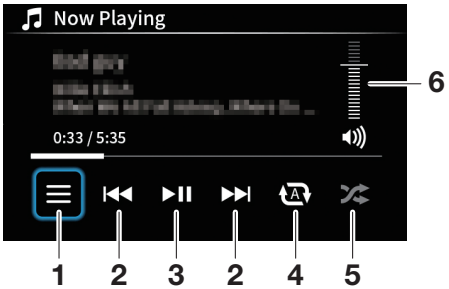
Use this module to reset the CCU and all its related settings, pairings, and stored data.

TIP

- After a reset, the CCU will several minutes to reboot.
- Before selling or changing ownership of the vehicle, reset the CCU to ensure all personal data from your smartphone (i.e., call history and contact information) is deleted.
- After the CCU is reset, Bluetooth pairing records and MyRide - Link app pairing records must be deleted from your smartphone. If this is

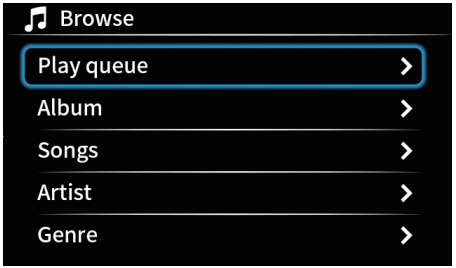
not completed, the CCU will not be able to pair with the smartphone again.
- The CCU cannot be reset while the vehicle is in motion.

"Applications" → "Audio"



1. Browse
2. Previous / Next track
3. Play / Pause
4. Repeat OFF / Repeat all / Repeat one
5. Shuffle
6. Volume level

Operate the joystick up-down to change the volume level. Operate the joystick left-right to select individual functions (Browse, Previous/Next track, Play/Pause, Repeat off/Repeat all/Repeat one) and short press enter "✔" to execute the selection.

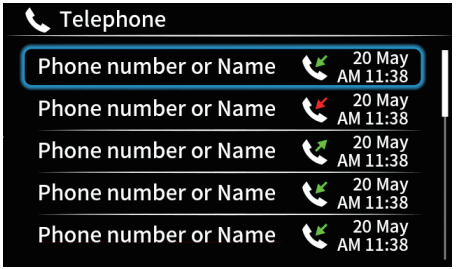


All audio track information is imported from the music player application on your smartphone.

TIP
- Audio player applications may need to be already open on the connected smartphone.
- Depending on the smartphone and music player application, the audio player may start playing automatically and the "Audio" screen functions may not work.

"Applications" → "Telephone"

If no call is active then a recent contact list will appear:



Recent call history is displayed. Short press enter "✔" to start a call with the selected contact.
: Outbound call (green arrow)
: Inbound missed call (red arrow)
: Inbound call (green arrow)

TIP
- Repeated calls for the same contact are indicated by the number next to the contact in brackets.
- The maximum number of stored items is 30; when the limit is reached, older items will be deleted.

If a call is started by selecting a name/number from the list the following active call screen will appear:

1. Adjust call volume
2. End call
3. Switch call audio output between Bluetooth headset/smartphone device

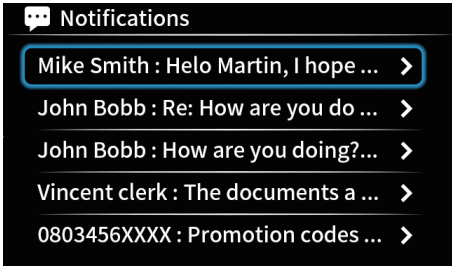
When the volume icon is highlighted, operate the joystick up-down to adjust the call volume.
Short press enter "✔" on the phone icon to end the call.

TIP

- Exiting this module with the home button will not end a call in progress. (See page 6-25.)

- Permission must be granted on the smartphone before contact information can be downloaded to the CCU.
- It takes some time to download contact information. If you receive a call before the download is complete, only the phone number will be displayed.

"Applications" → "Notifications"

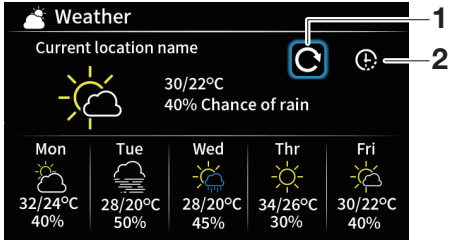


This is a list of notifications (since connection to vehicle) from the connected smartphone. Select one to read the notification message on the vehicle display. When a notification is received from the connected smartphone, the notification indicator icon "💬" will appear (see page 6-13). Select a notification by short pressing enter "✔" to view it.

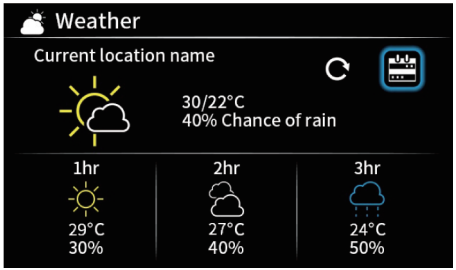
TIP

- After all new notifications have been viewed, the notification indicator icon "💬" will disappear.
- The maximum number of stored items is 100; when the limit is reached, older items will be deleted.
- If the message is too long then not all of it will be displayed.
- Messages cannot be opened and read while the vehicle is in motion.

“Applications” → “Weather”

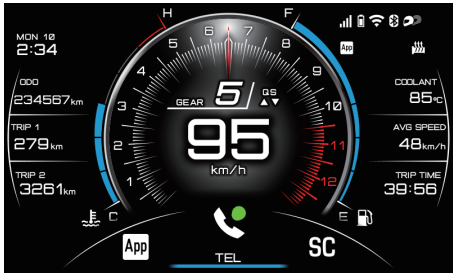


1. Update icon
2. Hourly / Daily interval icon



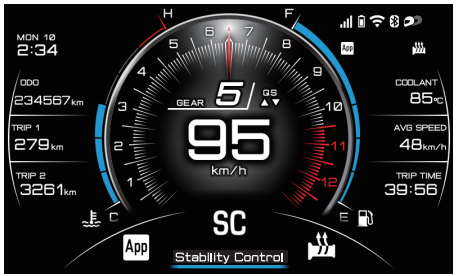
Weather information is shown here. Update the information from your smartphone using the update icon. Change the time interval of the display using the hourly/daily interval icon.

“Telephone”

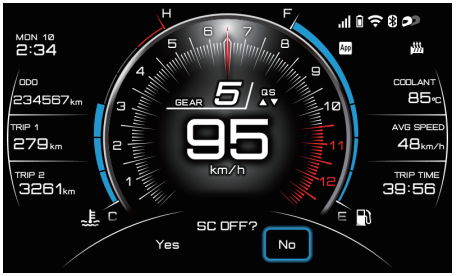


When there is an active call, this item will appear in the pop-up menu. Selecting it will open the telephone function at the bottom of the display. (See page 5-9.)

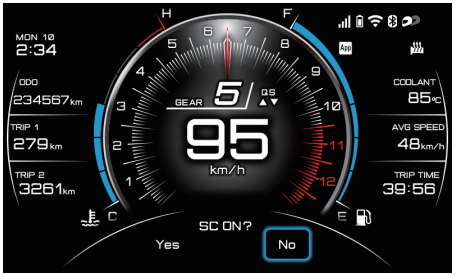
“SC Stability Control”



This option turns the stability control systems (“TCS”, “SCS” and “LIF”) on/off together. The stability control system indicator light “SC” will come on to indicate “SC OFF” status.



If stability control is already on, confirm “SC OFF” “Yes”/“No”

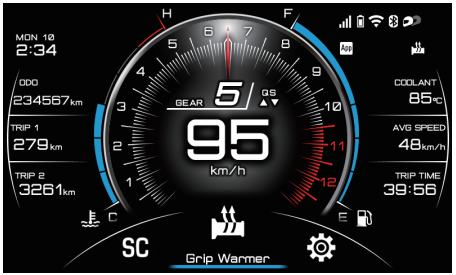


If stability control is already off, confirm “SC ON” “Yes”/“No”

TIP

- If the vehicle is in motion, the "SC" item will be grayed out.
- The stability control system turns on automatically when the vehicle power is turned on.
- If "SC Stability Control" is set to "OFF", then all the stability control systems ("TCS", "SCS" and "LIF") are turned off together.

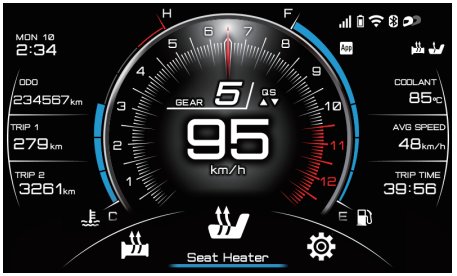
"Grip Warmer"



With this item highlighted, operate the joystick up-down to cycle between grip warmer OFF and 3 presets which can be customized in "Machine Settings" → "Grip Warmer". (See page 6-28.)

The grip warmer icon on the top right of the display shows the currently selected grip warmer preset.

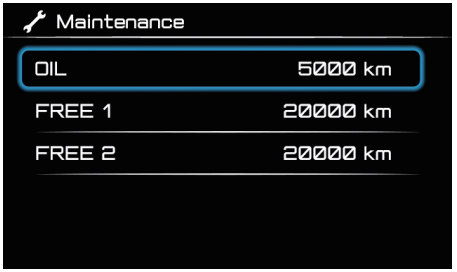
"Seat Heater"(if equipped)



With this item highlighted, operate the joystick up-down to cycle between seat heater OFF and 3 presets which can be customized in "Machine Settings" → "Seat Heater". (See page 6-28.)

The seat heater icon on the top right of the display shows the currently selected seat heater preset.

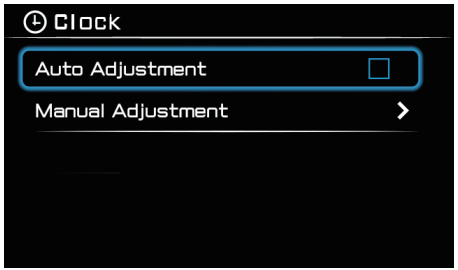
"Machine Settings" → "Maintenance"



This module allows you to record distance traveled between engine oil changes "OIL" and two other maintenance items of your choice "FREE 1" and "FREE 2".

After maintenance to one of the items has been completed, select it by short pressing enter "✔" and reset it.

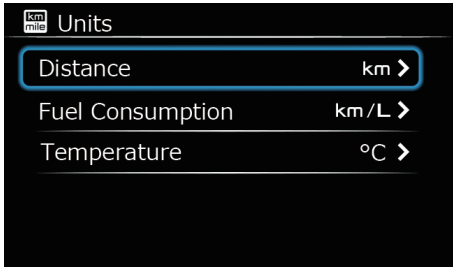
"⚙ Machine Settings" → "Clock"



The clock can be set to auto adjust in sync with a smartphone. Auto-adjustment requires a connection between the CCU and the MyRide - Link app. (See page 5-1.)

To manually adjust the clock, highlight items by operating the joystick left-right. Operate the joystick up-down to adjust the value of the highlighted item. Short press enter "✔" to set the clock and return to the previous menu.

"⚙ Machine Settings" → "Units"



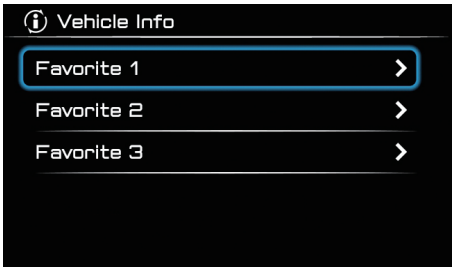
The display units can be customized as follows:

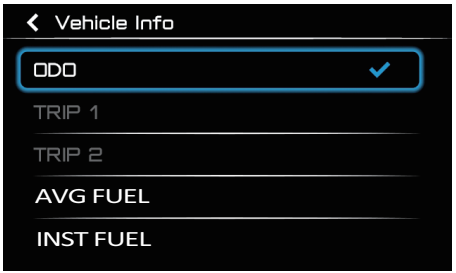
- "Distance": "km" or "mile"
- "Fuel Consumption": "km/L", "L/100km" or "MPG"
- "Temperature": "°C" or "°F"

TIP

When "mile" is selected for the mileage unit, the fuel consumption unit is automatically changed to "MPG". At this time, the "Fuel Consumption" is grayed out and cannot be selected.

"⚙ Machine Settings" → "Vehicle Info"



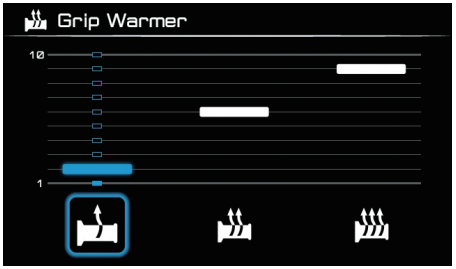


The three vehicle information display favorites can be selected here. The favorited items will appear on the right-side vehicle information display. (See page 6-17.)

TIP

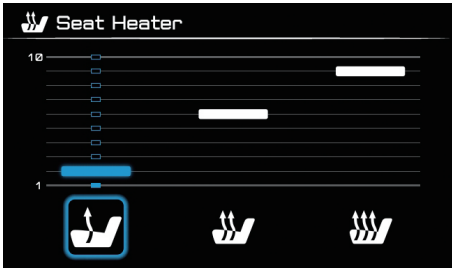
The favorites are also displayed one at a time at top of the screen while on the navigation and other menu screens. (See page 6-9.)

"⚙ Machine Settings" → "Grip Warmer"



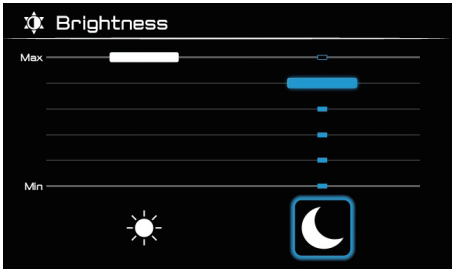
The three grip warmer presets can be customized here. Select a preset by operating the joystick left-right and adjust its heat level from 1-10 by operating the joystick up-down. Confirm the settings by short pressing enter "✔" and return to the previous menu.

"⚙ Machine Settings" → "Seat Heater"(if equipped)



The three seat heater presets can be customized here. Select a preset by operating the joystick left-right and adjust its heat level from 1-10 by operating the joystick up-down. Confirm the settings by short pressing enter "✔" return to the previous menu.

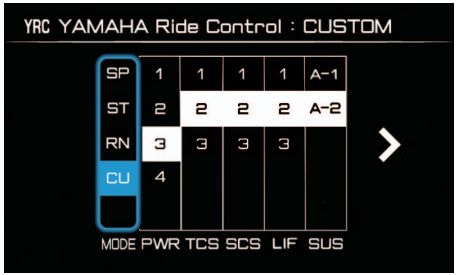
"⚙ Machine Settings" → "Brightness"

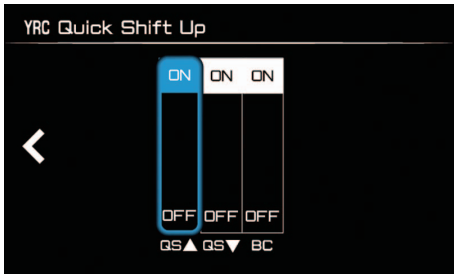


The multi-function meter is equipped with a sensor to detect ambient lighting conditions and adjust the display between day/night presets. The preset brightness levels can be customized here.

Select a preset by operating the joystick left-right and adjust its brightness level from 1-6 by operating the joystick up-down. Confirm the settings by short pressing enter "✔" and return to the previous menu.

“⚙ Machine Settings” → “YRC Setting”





This module allows you to:

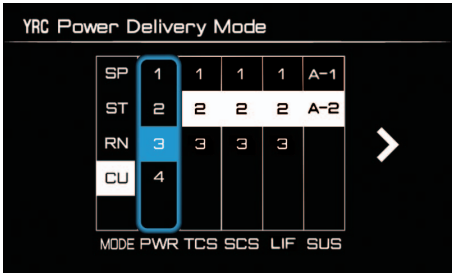
- View the four YRC mode presets: “SPORT” (SP), “STREET” (ST), “RAIN” (RN) and “CUSTOM” (CU).
- Customize the “PWR”, “TCS”, “SCS”, “LIF” and “SUS” setting levels for the “CUSTOM” YRC mode preset.

Operate the joystick left-right to select the YRC item that you want to adjust. Adjust the selected YRC item by operating the joystick up-down. Short press enter “✔” to save the settings and return to the previous menu.

TIP

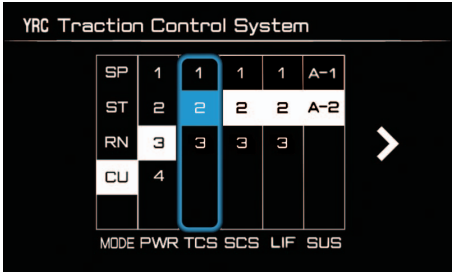
- Adjustments to the quick shifter and brake control settings affect all YRC mode presets.
- When “SC Stability Control” is turned to “OFF”, the “TCS”, “SCS” and “LIF” items in this module will be grayed out and show as “OFF”.

“PWR” (power delivery mode)



Select level 1 for sporty throttle response, level 2 for moderate throttle response, level 3 for mild throttle response and use level 4 for rainy days or whenever less engine power is desirable. (See page 4-16.)

“TCS” (traction control system)



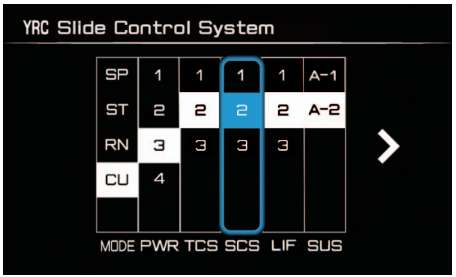
6

This model uses a variable traction control system. For each setting level, the farther the vehicle is leaned over, the more traction control (system intervention) is applied. There are 3 setting levels available. Level 1 applies the least system intervention, while level 3 applies the most overall traction control. (See page 4-16.)

TIP

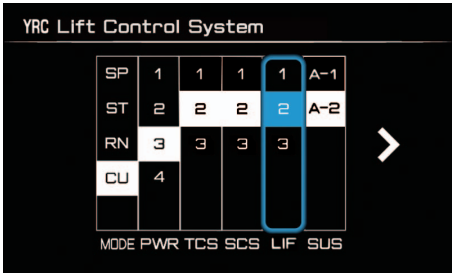
The traction control system can only be turned off completely via "SC Stability Control" of the popup menu. (See page 6-25.)

"SCS" (slide control system)



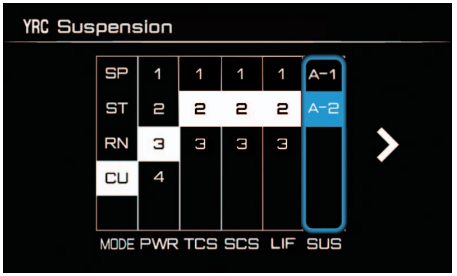
"SCS" can be set to 1, 2, and 3. Setting level 1 provides the least amount of system intervention, and setting level 3 provides the greatest amount of system intervention. (See page 4-17.)

"LIF" (lift control)



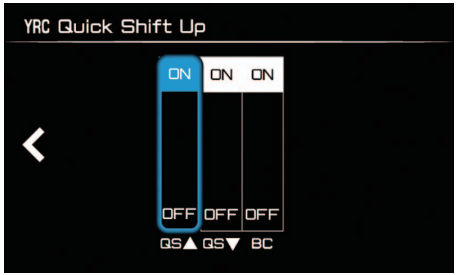
"LIF" can be set to 1, 2, and 3. Setting level 1 provides the least amount of system intervention and setting 3 most strongly reduces the amount of wheel lift. (See page 4-17.)

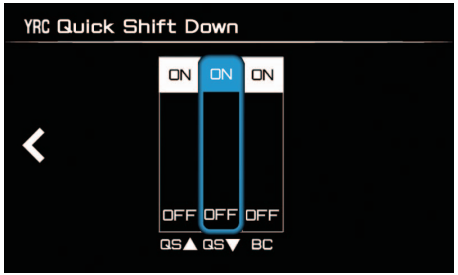
"SUS" (electronically adjustable suspension)



"SUS" can be set to A-1 and A-2. A-1 is a sporty setting with increased damping force, suitable for smoother road conditions. A-2 is a comfort setting with softer damping force, suitable for rougher road conditions. (See page 4-17.)

"QS △ / QS ▽" (quick shifter)





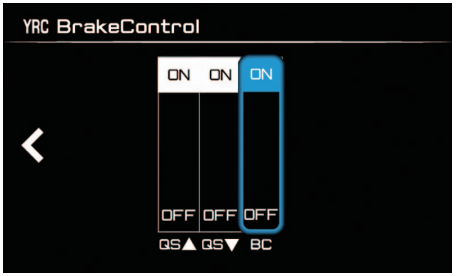
The quick shifter is divided into "QS △" (upshift) and "QS ▽" (downshift) sections. "QS △" and "QS ▽" are not linked and can be independently turned on or off. (See page 4-17.)

"OFF" turns the respective upshift or downshift function off, and the clutch lever must then be used when shifting in that direction.

TIP

Adjustments to the quick shifter settings will be reflected by the quick shifter indicator

"BC" (brake control)



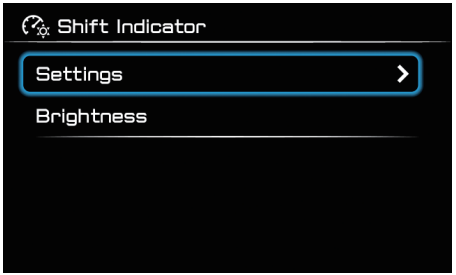
OFF: Only the standard anti-lock brake system (ABS) is active.
ON: Anti-lock brake system (ABS), unified brake assist system (UBS), radar-linked unified brake assist system (radar-linked UBS), and cornering assist braking are all active.

See page 4-11 for more information the brake system.

TIP

When the BC is on, a variety of conditions may cause the BC to operate faster than expected for a desired cornering speed or intended cornering line for skilled riders or track driving.

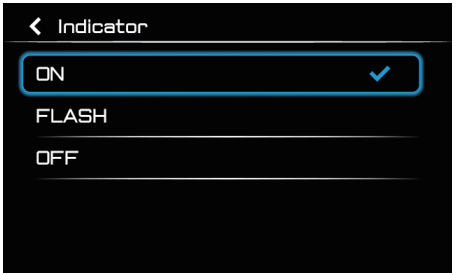
"⚙ Machine Settings" → "Shift Indicator"



This module contains settings for the shift indicator light.

6

"Machine Settings" → "Shift Indicator" → "Settings" → "Indicator"

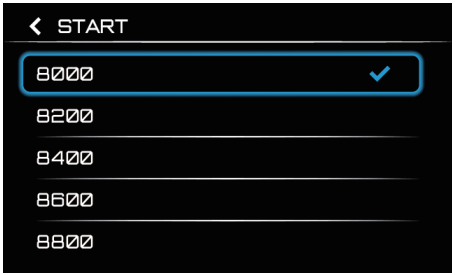


Select "ON" to have the indicator light steadily, "FLASH" to have the shift indicator flash when the indicator start threshold has been reached, or "OFF" to turn the indicator off. Confirm the settings by short pressing enter "✔" and return to the previous menu.

TIP

The shift indicator light will come on and flash as a demonstration of each setting in this module as it is selected.

"Machine Settings" → "Shift Indicator" → "Settings" → "Start"

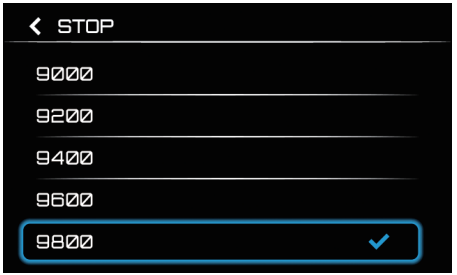


Select the r/min at which the shift indicator light will come on. The operational range is 6000–11800 r/min. It can be adjusted by 200 r/min increments. Confirm the settings by short pressing enter "✔" and return to the previous menu.

TIP

The "Start" r/min cannot be higher than the "Stop" r/min.

"Machine Settings" → "Shift Indicator" → "Settings" → "Stop"



Select the r/min at which the shift indicator light will go off. The operational range is 6200–12000 r/min. It can be adjusted by 200 r/min increments. Confirm the settings by short pressing enter "✔" and return to the previous menu.

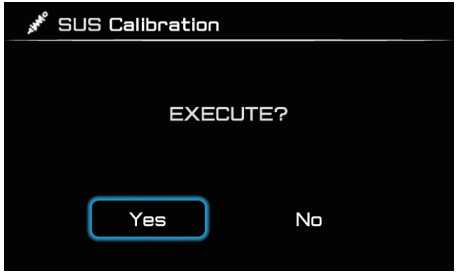
TIP

- The "Start" r/min cannot be higher than the "Stop" r/min.
- The shift indicator light does not come one when in neutral or 6th gear.

"⚙ Machine Settings" → "Shift Indicator" → "Brightness"

Select the brightness level of the shift indicator light from 1-6 by operating the joystick up-down. Confirm the settings by short pressing enter "✔" and return to the previous menu.

"⚙ Machine Settings" → "SUS Calibration"

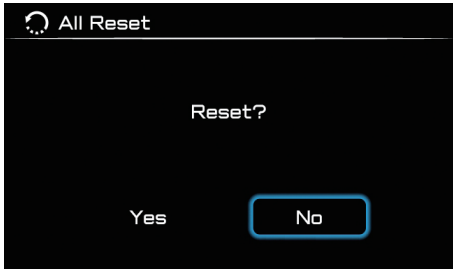


After any service to the rear suspension, a sensor calibration must be performed using this module. Select "Execute" and within approx. 10 seconds the result of the calibration (success/failed) will be displayed.

TIP

When performing the sensor calibration, place the motorcycle on the centerstand and there should be no weight on the motorcycle.

"⚙ Machine Settings" → "All Reset"



Use this module to reset all machine settings including YRC settings, display brightness, grip warmer presets, traction control, units, and all resettable vehicle information display items.

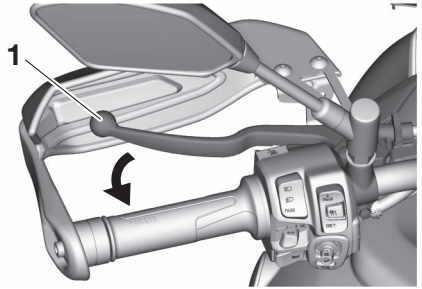
TIP

This reset does not affect the CCU. To reset the CCU see page 6-22.

6

EAU12823

Clutch lever



1. Clutch lever

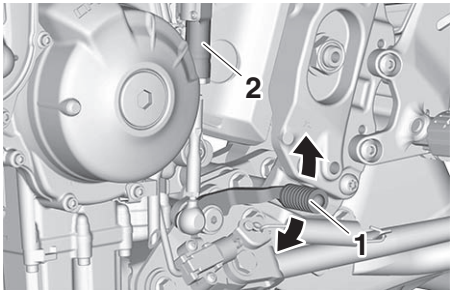
To disengage the drivetrain from the engine, such as when shifting gears, pull the clutch lever toward to the handlebar. Release the lever to engage the clutch and transmit power to the rear wheel.

TIP

The lever should be pulled rapidly and released slowly for smooth shifting. (See page 8-3.)

EAU83692

Shift pedal



1. Shift pedal
2. Shift rod

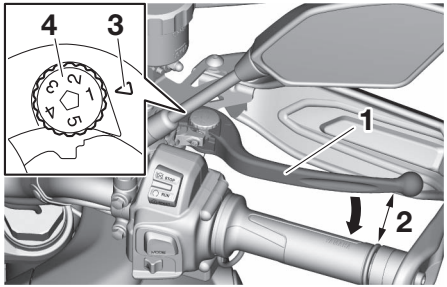
The shift pedal is located on the left side of the motorcycle. To shift the transmission to a higher gear, move the shift pedal up. To shift the transmission to a lower gear, move the shift pedal down. (See page 8-3.)
The shift rod is equipped with a shift sensor, which is part of the quick shifter. The shift sensor reads up and down movement, as well as the strength of the input force when the shift pedal is moved.

TIP

To prevent unintended shifts, the quick shifter is programmed to ignore unclear input signals. Therefore, be sure to shift using quick and sufficiently forceful inputs.

EAU26827

Brake lever

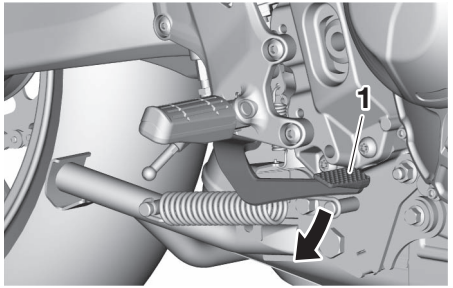


1. Brake lever
2. Distance
3. Match mark
4. Adjusting dial

The brake lever is located on the right side of the handlebar. To apply the front brake, pull the lever toward the throttle grip.
The brake lever is equipped with a brake lever position adjusting dial. To adjust the distance between the brake lever and the throttle grip, push the brake lever away from the throttle grip and rotate the adjusting dial. Make sure the setting number on the adjusting dial aligns with the match mark on the brake lever.

EAU12944

Brake pedal

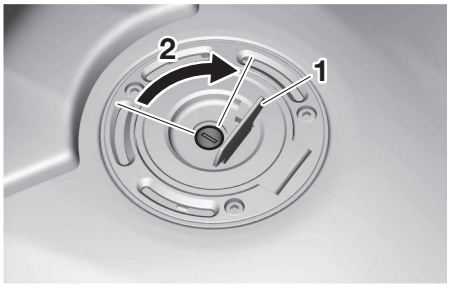


1. Brake pedal

The brake pedal is located on the right side of the motorcycle. To apply the rear brake, press down on the brake pedal.

EAU13077

Fuel tank cap



1. Fuel tank cap lock cover
2. Unlock.

To open the fuel tank cap

Open the fuel tank cap lock cover, insert the key, and then turn it 1/4 turn clockwise. The lock will be released and the fuel tank cap can be opened.

To close the fuel tank cap

With the key still inserted, push down the fuel tank cap. Turn the key 1/4 turn counterclockwise, remove it, and then close the lock cover.

TIP

The fuel tank cap cannot be closed unless the key is in the lock. In addition, the key cannot be removed if the cap is not properly closed and locked.

EWA11092

⚠ WARNING

Make sure that the fuel tank cap is properly closed after filling fuel. Leaking fuel is a fire hazard.

EAU13222

Fuel

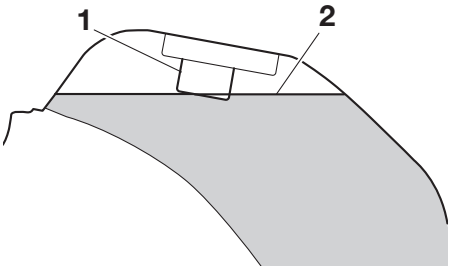
Make sure there is sufficient gasoline in the tank.

EWA10882

⚠ WARNING

Gasoline and gasoline vapors are extremely flammable. To avoid fires and explosions and to reduce the risk of injury when refueling, follow these instructions.

1. Before refueling, turn off the engine and be sure that no one is sitting on the vehicle. Never refuel while smoking, or while in the vicinity of sparks, open flames, or other sources of ignition such as the pilot lights of water heaters and clothes dryers.
2. Do not overfill the fuel tank. When refueling, be sure to insert the pump nozzle into the fuel tank filler hole. Stop filling when the fuel reaches the bottom of the filler tube. Because fuel expands when it heats up, heat from the engine or the sun can cause fuel to spill out of the fuel tank.



1. Fuel tank filler tube
2. Maximum fuel level

3. Wipe up any spilled fuel immediately. ***NOTICE:*** **Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.** [ECA10072]
4. Be sure to securely close the fuel tank cap.

EWA15152

⚠ WARNING

Gasoline is poisonous and can cause injury or death. Handle gasoline with care. Never siphon gasoline by mouth. If you should swallow some gasoline or inhale a lot of gasoline vapor, or get some gasoline in your eyes, see your doctor immedi-

ately. If gasoline spills on your skin, wash with soap and water. If gasoline spills on your clothing, change your clothes.

EAU86081

Your Yamaha engine was designed to use unleaded gasoline with a research octane number of 95 or higher. If engine knocking or pinging occurs, use a gasoline of a different brand or higher octane rating.

Recommended fuel:
Unleaded gasoline (E10 acceptable)
Octane number (RON):
95
Fuel tank capacity:
19 L (5.0 US gal, 4.2 Imp.gal)
Fuel tank reserve:
3.0 L (0.79 US gal, 0.66 Imp.gal)

Gasohol

There are two types of gasohol: gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if the ethanol content does not exceed 10% (E10). Gasohol containing methanol is not recommended by Yamaha because it can cause damage to the fuel system or vehicle performance problems.

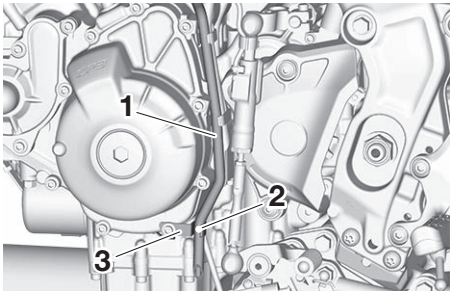
ECA11401

NOTICE

Use only unleaded gasoline. The use of leaded gasoline will cause severe damage to internal engine parts, such as the valves and piston rings, as well as to the exhaust system.

EAU86160

Fuel tank overflow hose



1. Fuel tank overflow hose
2. Original position (paint mark)
3. Clamp

The overflow hose drains excess gasoline and directs it safely away from the vehicle.

Before operating the vehicle:

- Check the fuel tank overflow hose connection.
- Check the fuel tank overflow hose for cracks or damage, and replace it if necessary.
- Make sure that the fuel tank overflow hose is not blocked, and clean it if necessary.
- Make sure that the fuel tank overflow hose is positioned as shown.

TIP

See page 9-10 for canister information.

EAU13435

Catalytic converter

The exhaust system contains catalytic converter(s) to reduce harmful exhaust emissions.

EWA10863

⚠ WARNING

The exhaust system is hot after operation. To prevent a fire hazard or burns:

- **Do not park the vehicle near possible fire hazards such as grass or other materials that easily burn.**
- **Park the vehicle in a place where pedestrians or children are not likely to touch the hot exhaust system.**
- **Make sure that the exhaust system has cooled down before doing any maintenance work.**
- **Do not allow the engine to idle more than a few minutes. Long idling can cause a build-up of heat.**

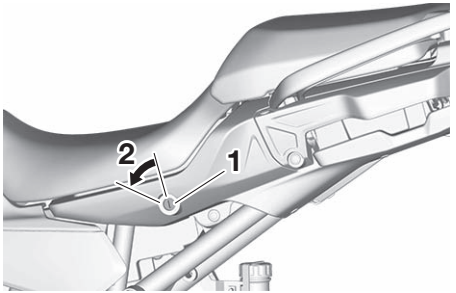
EAU92640

Seats

Passenger seat

To remove the passenger seat

1. Insert the key into the seat lock, and then turn it counterclockwise.

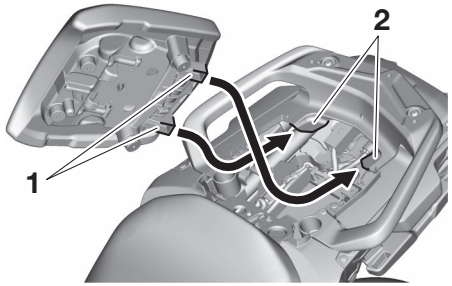


1. Seat lock
2. Unlock.

2. Lift the front of the passenger seat and pull it forward.

To install the passenger seat

1. Insert the projections on the rear of the passenger seat into the seat holders as shown, and then push the front of the seat down to lock it in place.



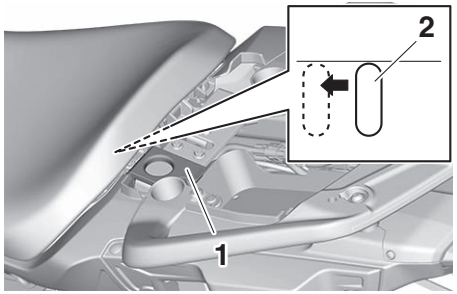
1. Projection
2. Seat holder

2. Remove the key.

Rider seat

To remove the rider seat

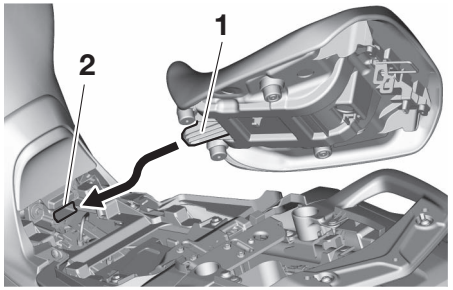
1. Remove the passenger seat.
2. Remove the cap, then push the rider seat lock lever, located under the back of the rider seat, to the left as shown, and then pull the seat off.



1. Cap
2. Rider seat lock lever

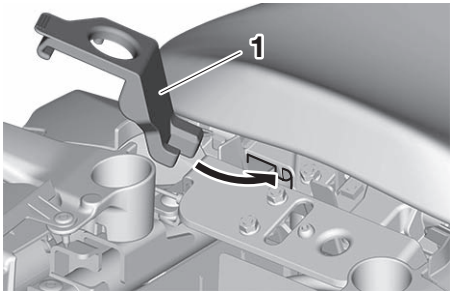
To install the rider seat

1. Insert the projection on the front of the rider seat into the seat holder as shown, and then push the rear of the seat down to lock it in place.



1. Projection
2. Seat holder

2. Install the cap.



1. Cap

3. Install the passenger seat.

TIP

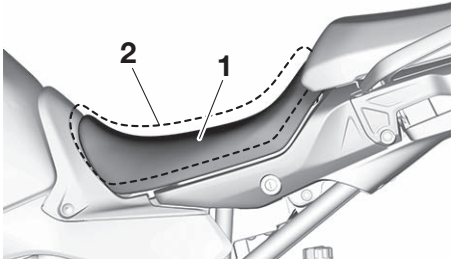
- Make sure that the seats are properly secured before riding.
- The rider seat height can be adjusted. See the following section.

6

EAU92633

Adjusting the rider seat height

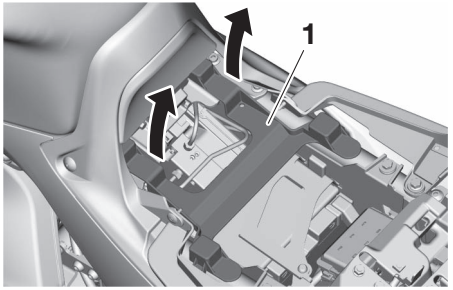
The rider seat height can be adjusted to one of two positions.



1. Low position
2. High position

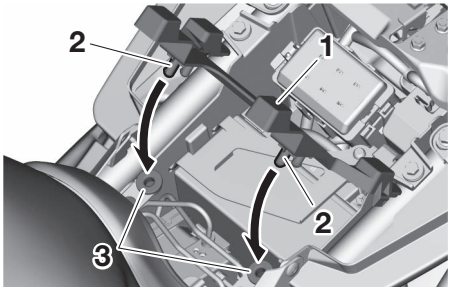
To change to the high position

1. Remove the passenger seat and rider seat.
2. Remove the rider seat height position adjuster by pulling it upward.



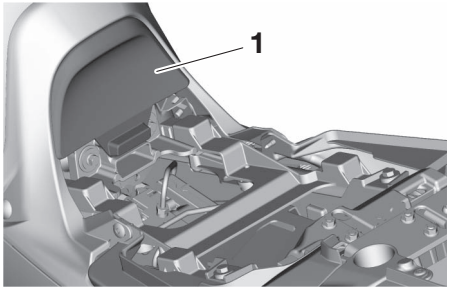
1. Rider seat height position adjuster

3. Install the rider seat height position adjuster by inserting the front projections into the grommets.



1. Rider seat height position adjuster
2. Projection
3. Grommet

4. Remove the rubber cover.

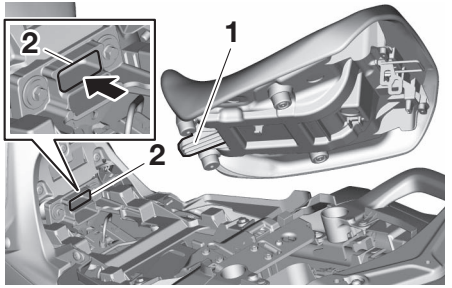


1. Rubber cover

TIP

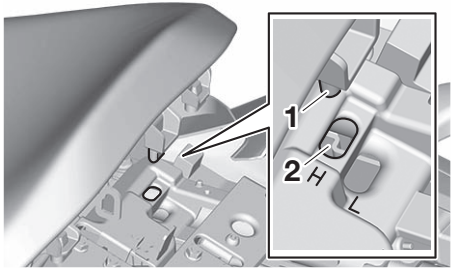
Do not lose the rubber cover.

5. Insert the projection on the front of the rider seat into seat holder B as shown.



1. Projection
2. Seat holder B (for high position)

6. Align the projection on the bottom of the rider seat with the “H” position slot, and then push the rear of the seat down to lock it in place as shown.

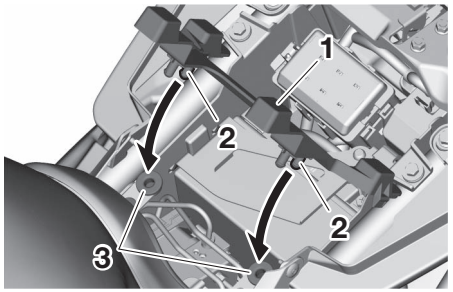


1. Projection
2. “H” position slot

7. Install the passenger seat.

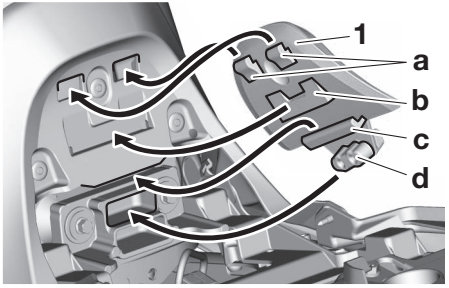
To change to the low position

1. Remove the passenger seat and rider seat.
2. Remove the rider seat height position adjuster by pulling it upward.
3. Install the rider seat height position adjuster by inserting the rear projections into the grommets.



1. Rider seat height position adjuster
2. Projection
3. Grommet

4. Install the rubber cover.

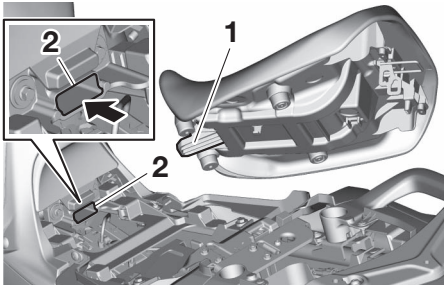


1. Rubber cover

TIP

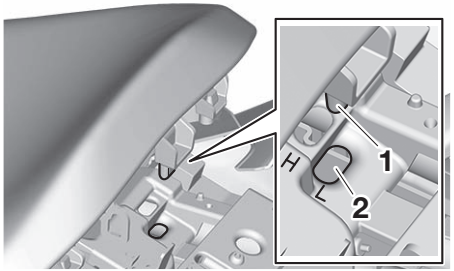
Insert the projections in order from a to d.

5. Insert the projection on the front of the rider seat into seat holder A as shown.



1. Projection
2. Seat holder A (for low position)

6. Align the projection on the bottom of the rider seat with the “L” position slot, and then push the rear of the seat down to lock it in place as shown.



1. Projection
2. “L” position slot

7. Install the passenger seat.

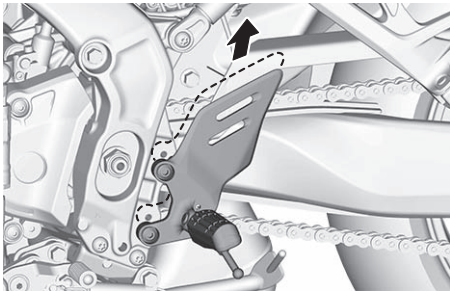
TIP

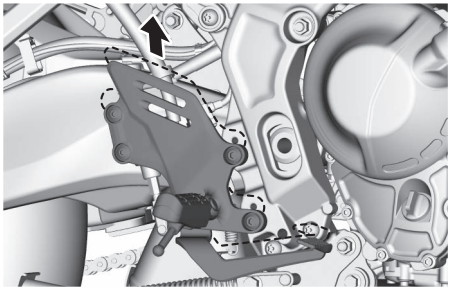
Make sure that the seats are properly secured before riding.

EAU91560

Rider footrest position

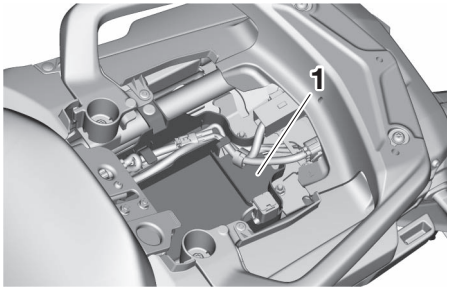
The rider footrests can be adjusted to one of two positions. From the factory, the footrests are in the low position. Have a Yamaha dealer adjust the positions of the rider footrests.





EAU62550

Storage compartment



1. Storage compartment

The storage compartment is located under the passenger seat. (See page 6-38.)

When storing documents or other items in the storage compartment, be sure to wrap them in a plastic bag so that they will not get wet. When washing the vehicle, be careful not to let any water enter the storage compartment.

EWA15401

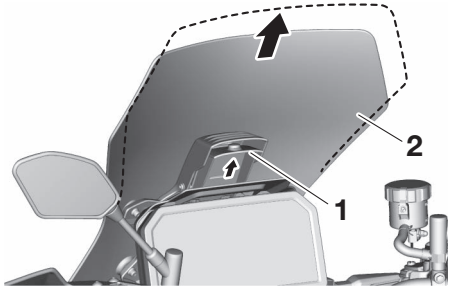
⚠ WARNING

Do not exceed the maximum load of 193 kg (425 lb) for the vehicle.

EAUA0630

Windscreen

This model is equipped with an adjustable windscreen.



1. Windscreen lock lever
2. Windscreen

To change the position of the windscreen, lift up the windscreen lock lever and slide the windscreen up or down. Release the lock lever when finished.

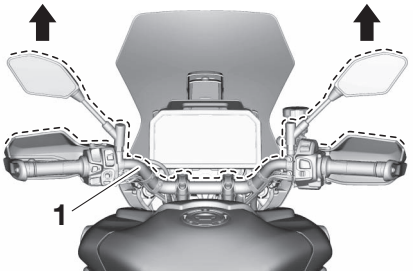
TIP

Make sure the windscreen and lock lever are properly secured before riding.

EAU46833

Handlebar position

The handlebar can be adjusted to one of two positions to suit the rider's preference. Have a Yamaha dealer adjust the position of the handlebar.

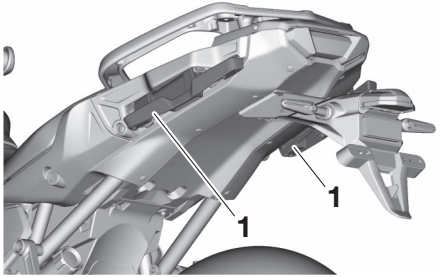


1. Handlebar

EAU99580

Sidecase support holder

This vehicle is equipped with sidecase support holders. Consult your Yamaha dealer before installing any sidecases.



1. Sidecase support holder

EAUA0641

Adjusting the front and rear suspension

This model is equipped with an electronically controlled suspension damping system (KADS). See pages 4-17 and 6-29 for more information on KADS and YRC settings related to the suspension.

TIP

After any service to the rear suspension, a sensor calibration must be performed using the pop-up menu system. See page 6-33 for more information on SUS Sensor Calibration.

Spring preload of the front fork

EWA10181

⚠ WARNING

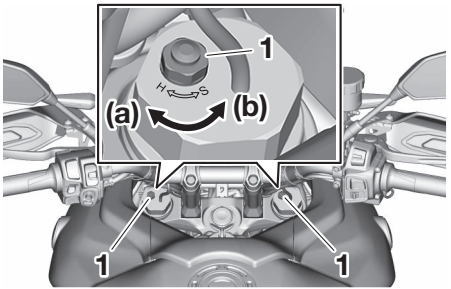
Always adjust both fork legs equally, otherwise poor handling and loss of stability may result.

ECA27260

NOTICE

Use extra care to avoid scratching the anodized finish when making suspension adjustments.

Turn the adjusting nut in direction (a) to increase the spring preload.
Turn the adjusting nut in direction (b) to decrease the spring preload.
To set the spring preload, turn the adjuster in direction (b) until it stops, and then count the turns in direction (a).



1. Spring preload adjusting nut

Spring preload setting:
Minimum (soft):
0 turn(s) in direction (a)
Standard:
2 turn(s) in direction (a)
Maximum (hard):
10 turn(s) in direction (a)

Spring preload of the shock absorber assembly

EWA10222

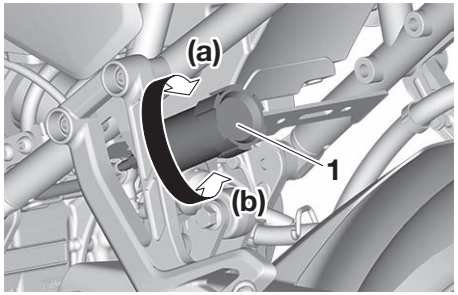
⚠ WARNING

This shock absorber assembly contains highly pressurized nitrogen gas. Read and understand the following information before handling the shock absorber assembly.

- **Do not tamper with or attempt to open the cylinder assembly.**
- **Do not subject the shock absorber assembly to an open flame or other high heat source. This may cause the unit to explode due to excessive gas pressure.**
- **Do not deform or damage the cylinder in any way. Cylinder damage will result in poor damping performance.**
- **Do not dispose of a damaged or worn-out shock absorber assembly yourself. Take the shock absorber assembly to a Yamaha dealer for any service.**

Turn the adjusting knob in direction (a) to increase the spring preload.

Turn the adjusting knob in direction (b) to decrease the spring preload.
To set the spring preload, turn the adjuster in direction (b) until it stops, and then count the clicks in direction (a).



1. Spring preload adjusting knob

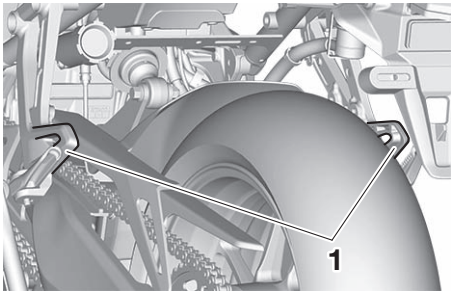
Spring preload setting:
Minimum (soft):
1 click(s) in direction (a)
Standard:
11 click(s) in direction (a)
Maximum (hard):
24 click(s) in direction (a)

TIP

When turning the spring preload adjuster in direction (b), the 0 click position and the 1 click position may be the same.

EAU84680

Luggage strap holders



1. Luggage strap holder

Use the indicated strap points to secure luggage ties to the vehicle.

EAU70642

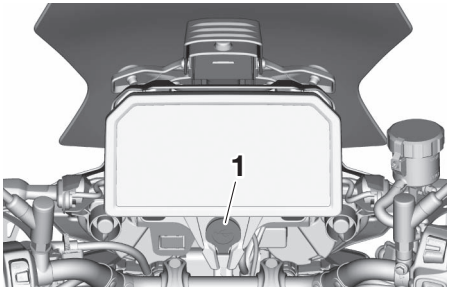
DC connectors

This vehicle is equipped with additional wiring and DC connector(s) for the installation of optional electric accessories.
Consult a Yamaha dealer for more information regarding the location and capacity of the DC connector(s) and about what accessories are capable of being installed.

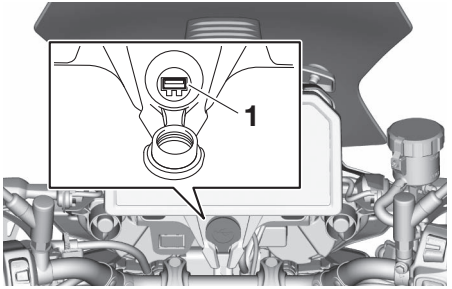
EAU99630

USB jack

This model is equipped with a 5 V USB jack. The USB jack can be used when the main switch is on.



1. USB jack cap



1. USB jack

TIP

Under some conditions, the device battery level may drop even while the USB is plugged in.

ECA27711

NOTICE

To protect the USB jack from water and collisions, install the cap when the jack is not being used.

EAU15306

Sidestand

The sidestand is located on the left side of the frame. Raise the sidestand or lower it with your foot while holding the vehicle upright.

TIP

The built-in sidestand switch is part of the ignition circuit cut-off system, which cuts the ignition in certain situations. (See the following section for an explanation of the ignition circuit cut-off system.)

EWA10242

⚠ WARNING

The vehicle must not be ridden with the sidestand down, or if the sidestand cannot be properly moved up (or does not stay up), otherwise the sidestand could contact the ground and distract the operator, resulting in a possible loss of control. Yamaha's ignition circuit cut-off system has been designed to assist the operator in fulfilling the responsibility of raising the sidestand before starting off. Therefore, check

this system regularly and have a Yamaha dealer repair it if it does not function properly.

EAU44905

Ignition circuit cut-off system

This system prevents in-gear engine starts unless the clutch lever is pulled and the sidestand is up. Also, it will stop the running engine should the sidestand be lowered while the transmission is in gear.

Periodically check the system via the following procedure.

TIP

- This check is most reliable if performed with a warmed-up engine.
- See pages 6-2 and 6-3 for switch operation information.

With the engine turned off:
1.Place vehicle on centerstand.
2.Move the sidestand down.
3.Set engine stop switch to run position.
4.Turn main switch to on position.
5.Shift transmission into neutral.
6.Push the start switch.
Does the engine start?

YES **NO** → The neutral switch may not be working. **The motorcycle should not be ridden** until checked by a Yamaha dealer.

With the engine still running:
7. Move the sidestand up.
8. Pull the clutch lever.
9. Shift transmission into gear.
10. Move the sidestand down.
Does the engine stall?

YES **NO** → The sidestand switch may not be working. **The motorcycle should not be ridden** until checked by a Yamaha dealer.

After the engine has stalled:
11. Move the sidestand up.
12. Pull the clutch lever.
13. Push the start switch.
Does the engine start?

YES **NO** → The clutch switch may not be working. **The motorcycle should not be ridden** until checked by a Yamaha dealer.

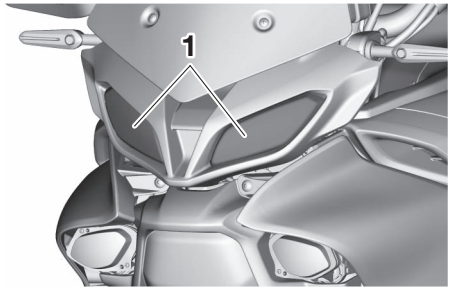
The system is OK. **The motorcycle can be ridden.**

⚠ WARNING

- **The vehicle must be placed on the centerstand during this inspection.**
- **If a malfunction is found, have the vehicle inspected before riding.**

EAU94930

Cornering lights



1. Cornering light

This model is equipped with cornering lights on each side. The cornering lights come on to help illuminate the road when the vehicle is leaned over. According to the direction of the turn, the cornering light for that side comes on.

For your safety – pre-operation checks

EAU1559B

Inspect your vehicle each time you use it to make sure the vehicle is in safe operating condition. Always follow the inspection and maintenance procedures and schedules described in the Owner's Manual.

EWA11152

⚠ WARNING

Failure to inspect or maintain the vehicle properly increases the possibility of an accident or equipment damage. Do not operate the vehicle if you find any problem. If a problem cannot be corrected by the procedures provided in this manual, have the vehicle inspected by a Yamaha dealer.

Before using this vehicle, check the following points:

ITEM	CHECKS	PAGE
Fuel	• Check fuel level in fuel tank. • Refuel if necessary. • Check fuel line for leakage. • Check fuel tank overflow hose for obstructions, cracks or damage, and check hose connection.	6-36, 6-37
Engine oil	• Check oil level in engine. • If necessary, add recommended oil to specified level. • Check vehicle for oil leakage.	9-10
Coolant	• Check coolant level in reservoir. • If necessary, add recommended coolant to specified level. • Check cooling system for leakage.	9-13
Front brake	• Check operation. • If soft or spongy, have Yamaha dealer bleed hydraulic system. • Check brake pads for wear. • Replace if necessary. • Check fluid level in reservoir. • If necessary, add specified brake fluid to specified level. • Check hydraulic system for leakage.	9-19, 9-20

ITEM	CHECKS	PAGE
Rear brake	• Check operation. • If soft or spongy, have Yamaha dealer bleed hydraulic system. • Check brake pads for wear. • Replace if necessary. • Check fluid level in reservoir. • If necessary, add specified brake fluid to specified level. • Check hydraulic system for leakage.	9-19, 9-20
Clutch	• Check operation. • Lubricate cable if necessary. • Check lever free play. • Adjust if necessary.	9-18
Throttle grip	• Check for smooth rotation and automatic return.	9-24
Control cables	• Make sure that operation is smooth. • Lubricate if necessary.	9-24
Drive chain	• Check chain slack. • Adjust if necessary. • Check chain condition. • Lubricate if necessary.	9-22, 9-23
Wheels and tires	• Check for damage. • Check tire condition and tread depth. • Check air pressure. • Correct if necessary.	9-15, 9-17
Brake and shift pedals	• Make sure that operation is smooth. • Lubricate pedal pivoting points if necessary.	9-25
Brake and clutch levers	• Make sure that operation is smooth. • Lubricate lever pivoting points if necessary.	9-25
Centerstand, sidestand	• Make sure that operation is smooth. • Lubricate pivots if necessary.	9-26
Chassis fasteners	• Make sure that all nuts, bolts and screws are properly tightened. • Tighten if necessary.	—

For your safety – pre-operation checks

ITEM	CHECKS	PAGE
Instruments, lights, signals and switches	• Check operation. • Correct if necessary.	—
Sidestand switch	• Check operation of ignition circuit cut-off system. • If system is not working correctly, have Yamaha dealer check vehicle.	6-46

EAU15952

Read the Owner's Manual carefully to become familiar with all controls. If there is a control or function you do not understand, ask your Yamaha dealer.

EWA10272

⚠ WARNING

Failure to familiarize yourself with the controls can lead to loss of control, which could cause an accident or injury.

EAU16842

Engine break-in

There is never a more important period in the life of your engine than the period between 0 and 1600 km (1000 mi). For this reason, you should read the following material carefully.

Since the engine is brand new, do not put an excessive load on it for the first 1600 km (1000 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full-throttle operation or any condition that might result in engine overheating must be avoided.

EAU17094

0–1000 km (0–600 mi)

Avoid prolonged operation above 5300 r/min. ***NOTICE:*** **After 1000 km (600 mi) of operation, the engine oil must be changed and the oil filter cartridge or element replaced.** [ECA10303]

1000–1600 km (600–1000 mi)

Avoid prolonged operation above 6300 r/min.

1600 km (1000 mi) and beyond

The vehicle can now be operated normally.

ECA10311

NOTICE

- **Keep the engine speed out of the tachometer red zone.**
- **If any engine trouble should occur during the engine break-in period, immediately have a Yamaha dealer check the vehicle.**

8

EAUA0970

Starting the engine

The ignition circuit cut-off system will enable starting when:

- the transmission is in the neutral position or
- the transmission is in gear, the sidestand is up, and the clutch lever is pulled.

To start the engine

1. Turn the main switch on and set the engine stop switch to the run position.
2. Confirm the indicator and warning light(s) come on for a few seconds, and then go off. (See page 6-6.)

TIP

- Do not start the engine if the engine trouble warning light remains on.
- The oil pressure and coolant temperature warning light should come on and stay on until the engine is started.
- The ABS warning light should come on and stay on until the vehicle reaches a speed of 5 km/h (3 mi/h).
- The UBS warning light should come on and stay on until you begin riding.

ECA24110

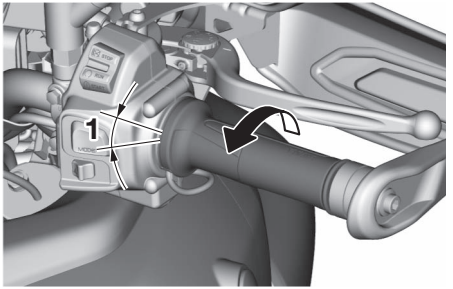
NOTICE

If a warning or indicator light does not work as described above, have a Yamaha dealer check the vehicle.

3. Shift the transmission into the neutral position.
4. Start the engine by pushing the start switch.
5. Release the start switch when the engine starts, or after 5 seconds. Wait 10 seconds before pressing the switch again to allow battery voltage to restore.

TIP

If the engine fails to start, try again with the throttle grip turned by a 1/4 turn (20 degrees) open.



1. 1/4 turn (20 degrees)

ECA11043

NOTICE

For maximum engine life, never accelerate hard when the engine is cold!

EAU68221

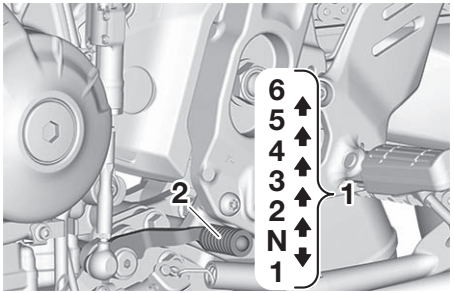
TIP

This model is equipped with:

- an inertial measurement unit (IMU). This unit stops the engine in case of a turnover. Turn the main switch off and then on before attempting to restart the engine. Failing to do so will prevent the engine from starting even though the engine will crank when pushing the start switch.
- an engine auto-stop system. The engine stops automatically if left idling for 20 minutes. If the engine stops, simply push the start switch to restart the engine.

EAU91544

Shifting



1. Gear positions
2. Shift pedal

Shifting gears lets you control the amount of engine power available for starting off, accelerating, climbing hills, etc. The gear positions are shown in the illustration.

TIP

- To shift the transmission into the neutral position (**N**), press the shift pedal down repeatedly until it reaches the end of its travel, and then slightly raise it.
- This model is equipped with a quick shifter. (See page 4-17.)

ECA22523

NOTICE

- **When shifting, press the shift pedal firmly until you feel the gear shift is complete.**
- **Even with the transmission in the neutral position, do not coast for long periods of time with the engine off, nor tow the motorcycle for long distances. The transmission is properly lubricated only when the engine is running. Inadequate lubrication may damage the transmission.**
- **Except when using the quick shifter, always pull the clutch lever when changing gears to avoid damaging the engine, transmission, and drivetrain.**

EAU85370

To start out and accelerate

1. Pull the clutch lever to disengage the clutch.
2. Shift the transmission into first gear. The neutral indicator light should go out.

8

3. Open the throttle gradually, and at the same time, release the clutch lever slowly.
4. After starting out, close the throttle, and at the same time, quickly pull the clutch lever in.
5. Shift the transmission into second gear. (Make sure not to shift the transmission into the neutral position.)
6. Open the throttle part way and gradually release the clutch lever.
7. Follow the same procedure when shifting to the next higher gear.

EAU85380

To decelerate

1. Release the throttle and apply both the front and the rear brakes smoothly to slow the motorcycle.
2. As the vehicle decelerates, shift to a lower gear.
3. When the engine is about to stall or runs roughly, pull the clutch lever in, use the brakes to slow the motorcycle, and continue to downshift as necessary.
4. Once the motorcycle has stopped, the transmission can be shifted into the neutral position. The neutral indicator light should come on and then the clutch lever can be released.

EWA17380

⚠ WARNING

- **Improper braking can cause loss of control or traction. Always use both brakes and apply them smoothly.**
- **Make sure that the motorcycle and the engine have sufficiently slowed before shifting to a lower gear. Engaging a lower gear when the vehicle or engine speed is too high could make the rear wheel lose traction or the engine to over-rev. This could cause loss of control, an accident and injury. It could also cause engine or drive train damage.**

EAU16811

Tips for reducing fuel consumption

Fuel consumption depends largely on your riding style. Consider the following tips to reduce fuel consumption:

- Shift up swiftly, and avoid high engine speeds during acceleration.
- Do not rev the engine while shifting down, and avoid high engine speeds with no load on the engine.
- Turn the engine off instead of letting it idle for an extended length of time (e.g., in traffic jams, at traffic lights or at railroad crossings).

EAU17214

Parking

When parking, stop the engine, and then remove the key from the main switch.

EWA10312

⚠ WARNING

- **Since the engine and exhaust system can become very hot, park in a place where pedestrians or children are not likely to touch them and be burned.**
- **Do not park on a slope or on soft ground, otherwise the vehicle may overturn, increasing the risk of a fuel leak and fire.**
- **Do not park near grass or other flammable materials which might catch fire.**

EAU17246

Periodic inspection, adjustment, and lubrication will keep your vehicle in the safest and most efficient condition possible. Safety is an obligation of the vehicle owner/operator. The most important points of vehicle inspection, adjustment, and lubrication are explained on the following pages.

The intervals given in the periodic maintenance charts should be simply considered as a general guide under normal riding conditions. However, depending on the weather, terrain, geographical location, and individual use, the maintenance intervals may need to be shortened.

EWA10322

⚠ WARNING

Failure to properly maintain the vehicle or performing maintenance activities incorrectly may increase your risk of injury or death during service or while using the vehicle. If you are not familiar with vehicle service, have a Yamaha dealer perform service.

EWA15123

⚠ WARNING

Turn off the engine when performing maintenance unless otherwise specified.

- **A running engine has moving parts that can catch on body parts or clothing and electrical parts that can cause shocks or fires.**
- **Running the engine while servicing can lead to eye injury, burns, fire, or carbon monoxide poisoning – possibly leading to death. See page 2-3 for more information about carbon monoxide.**

EWA15461

⚠ WARNING

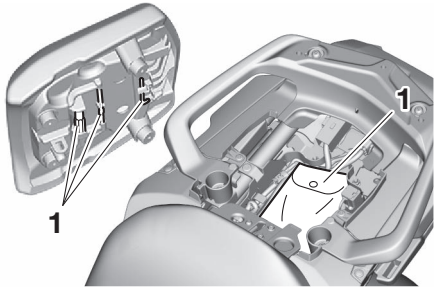
Brake discs, calipers, drums, and linings can become very hot during use. To avoid possible burns, let brake components cool before touching them.

EAU17303

Emission controls not only function to ensure cleaner air, but are also vital to proper engine operation and maximum performance. In the following periodic maintenance charts, the services related to emissions control are grouped separately. These services require specialized data, knowledge, and equipment. Maintenance, replacement, or repair of the emission control devices and systems may be performed by any repair establishment or individual that is certified (if applicable). Yamaha dealers are trained and equipped to perform these particular services.

EAU85230

Tool kit



1. Tool kit

The tool kit is in the location shown. The information included in this manual and the tools provided in the tool kit are intended to assist you in the performance of preventive maintenance and minor repairs. However, a torque wrench and other tools are necessary to perform certain maintenance work correctly.

TIP

If you do not have the tools or experience required for a particular job, have your Yamaha dealer perform it for you.

EAU71033

Periodic maintenance charts

TIP

- Items marked with an asterisk should be performed by your Yamaha dealer because these items require special tools, data, and technical skills.
- From 50000 km (30000 mi), repeat the maintenance intervals starting from 10000 km (6000 mi).
- **The annual checks must be performed every year, except if a distance-based maintenance is performed instead.**

EAU71052

Periodic maintenance chart for the emission control system

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	10000 km (6000 mi)	20000 km (12000 mi)	30000 km (18000 mi)	40000 km (24000 mi)	
1	*	**Fuel line**	• Check fuel hoses for cracks or damage. • Replace if necessary.		√	√	√	√	√
2	*	**Spark plugs**	• Check condition. • Adjust gap and clean.		√		√		
			• Replace.			√		√	
3	*	**Valve clearance**	• Check and adjust.	Every 40000 km (24000 mi)					
4	*	**Fuel injection**	• Check engine idle speed.	√	√	√	√	√	√
			• Check and adjust synchronization.		√	√	√	√	√
5	*	**Exhaust system**	• Check for leakage. • Tighten if necessary. • Replace gaskets if necessary.	√	√	√	√	√	

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	10000 km (6000 mi)	20000 km (12000 mi)	30000 km (18000 mi)	40000 km (24000 mi)	
6	*	**Evaporative emission control system**	• Check control system for damage. • Replace if necessary.			√		√	

EAU71354

General maintenance and lubrication chart

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	10000 km (6000 mi)	20000 km (12000 mi)	30000 km (18000 mi)	40000 km (24000 mi)	
1	*	**Diagnostic system check**	• Perform dynamic inspection using Yamaha diagnostic tool. • Check the error codes.	√	√	√	√	√	√
2	*	**Air filter element**	• Replace.	Every 40000 km (24000 mi)					
3		**Clutch**	• Check operation. • Adjust.	√	√	√	√	√	
4	*	**Front brake**	• Check operation, fluid level, and for fluid leakage. • Replace brake pads if necessary.	√	√	√	√	√	√
5	*	**Rear brake**	• Check operation, fluid level, and for fluid leakage. • Replace brake pads if necessary.	√	√	√	√	√	√
6	*	**Brake hoses**	• Check for cracks or damage.		√	√	√	√	√
			• Replace.	Every 4 years					
7	*	**Brake fluid**	• Change.	Every 2 years					
8	*	**Wheels**	• Check runout and for damage. • Replace if necessary.		√	√	√	√	
9	*	**Tires**	• Check tread depth and for damage. • Replace if necessary. • Check air pressure. • Correct if necessary.		√	√	√	√	√
10	*	**Wheel bearings**	• Check bearing for looseness or damage.		√	√	√	√	

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	10000 km (6000 mi)	20000 km (12000 mi)	30000 km (18000 mi)	40000 km (24000 mi)	
11	*	**Swingarm pivot bearings**	• Check operation and for excessive play.		√	√	√	√	
			• Lubricate with lithium-soap-based grease.	Every 50000 km (30000 mi)					
12		**Drive chain**	• Check chain slack, alignment and condition. • Adjust and lubricate chain with a special O-ring chain lubricant thoroughly.	Every 1000 km (600 mi) and after washing the motorcycle, riding in the rain or riding in wet areas					
13	*	**Steering bearings**	• Check bearing assemblies for looseness.	√	√		√		
			• Moderately repack with lithium-soap-based grease.			√		√	
14	*	**Chassis fasteners**	• Make sure that all nuts, bolts and screws are properly tightened.		√	√	√	√	√
15		**Brake lever pivot shaft**	• Lubricate with silicone grease.		√	√	√	√	√
16		**Brake pedal pivot shaft**	• Lubricate with lithium-soap-based grease.		√	√	√	√	√
17		**Clutch lever pivot shaft**	• Lubricate with lithium-soap-based grease.		√	√	√	√	√
18		**Shift pedal pivot shaft**	• Lubricate with lithium-soap-based grease.		√	√	√	√	√
19		**Sidestand**	• Check operation. • Lubricate with molybdenum disulfide grease.		√	√	√	√	√

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	10000 km (6000 mi)	20000 km (12000 mi)	30000 km (18000 mi)	40000 km (24000 mi)	
20		**Centerstand**	• Check operation. • Lubricate with lithium-soap-based grease.		√	√	√	√	√
21	*	**Sidestand switch**	• Check operation and replace if necessary.	√	√	√	√	√	√
22	*	**Front fork**	• Check operation and for oil leakage. • Replace if necessary.		√	√	√	√	
23	*	**Shock absorber assembly**	• Check operation and for oil leakage. • Replace if necessary.		√	√	√	√	
24	*	**Rear suspension relay arm and connecting arm pivoting points**	• Check operation.		√	√	√	√	
25		**Engine oil**	• Change (warm engine before draining). • Check oil level and vehicle for oil leakage.	√	√	√	√	√	√
26		**Engine oil filter cartridge**	• Replace.	√		√		√	
27	*	**Cooling system**	• Check coolant level and vehicle for coolant leakage.		√	√	√	√	√
			• Change.	Every 3 years					
28	*	**Front and rear brake switches**	• Check operation.	√	√	√	√	√	√
29	*	**Moving parts and cables**	• Lubricate.		√	√	√	√	√

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	10000 km (6000 mi)	20000 km (12000 mi)	30000 km (18000 mi)	40000 km (24000 mi)	
30	*	**Throttle grip**	• Check operation. • Lubricate throttle grip housing tube guides.		√	√	√	√	√
31	*	**Lights, signals and switches**	• Check operation. • Adjust headlight beam.	√	√	√	√	√	√

EAU72800

TIP

- Air filter
  - This model's air filter is equipped with a disposable oil-coated paper element, which must not be cleaned with compressed air to avoid damaging it.
  - The air filter element needs to be replaced more frequently when riding in unusually wet or dusty areas.
- Hydraulic brake service
  - Regularly check and, if necessary, correct the brake fluid level.
  - Every two years replace the internal components of the brake master cylinders and calipers, and change the brake fluid.
  - Replace the brake hoses every four years and if cracked or damaged.

EAU19653

Checking the spark plugs

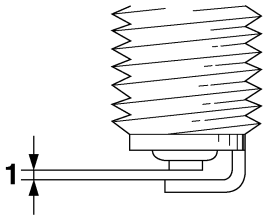
The spark plugs are important engine components, which should be checked periodically, preferably by a Yamaha dealer. Since heat and deposits will cause any spark plug to slowly erode, they should be removed and checked in accordance with the periodic maintenance and lubrication chart. In addition, the condition of the spark plugs can reveal the condition of the engine.

The porcelain insulator around the center electrode of each spark plug should be a medium-to-light tan (the ideal color when the vehicle is ridden normally), and all spark plugs installed in the engine should have the same color. If any spark plug shows a distinctly different color, the engine could be operating improperly. Do not attempt to diagnose such problems yourself. Instead, have a Yamaha dealer check the vehicle.

If a spark plug shows signs of electrode erosion and excessive carbon or other deposits, it should be replaced.

Specified spark plug:
NGK/LMAR9A-9

Before installing a spark plug, the spark plug gap should be measured with a wire thickness gauge and, if necessary, adjusted to specification.



1. Spark plug gap

Spark plug gap:
0.8–0.9 mm (0.031–0.035 in)

Clean the surface of the spark plug gasket and its mating surface, and then wipe off any grime from the spark plug threads.

Tightening torque:
Spark plug:
13 N·m (1.3 kgf·m, 9.6 lb·ft)

TIP

If a torque wrench is not available when installing a spark plug, a good estimate of the correct torque is 1/4–1/2 turn past finger tight. However, the spark plug should be tightened to the specified torque as soon as possible.

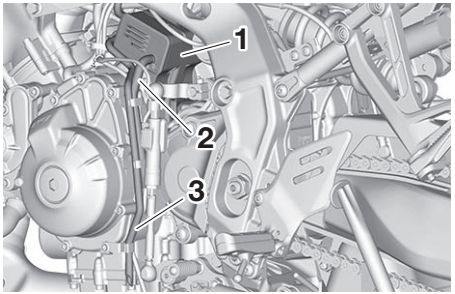
ECA10841

NOTICE

Do not use any tools to remove or install the spark plug cap, otherwise the ignition coil coupler may get damaged. The spark plug cap may be difficult to remove because the rubber seal on the end of the cap fits tightly. To remove the spark plug cap, simply twist it back and forth while pulling it out; to install it, twist it back and forth while pushing it in.

EAU36113

Canister



1. Canister
2. Canister breather
3. Fuel tank overflow hose

This model is equipped with a canister to prevent the discharging of fuel vapor into the atmosphere. Before operating this vehicle, make sure to check the following:

- Check each hose connection.
- Check each hose and canister for cracks or damage. Replace if damaged.
- Make sure that the canister breather is not blocked, and if necessary, clean it.

EAU1990H

Engine oil

The engine oil level should be checked regularly. In addition, the oil must be changed and the oil filter cartridge replaced at the intervals specified in the periodic maintenance chart.

Recommended engine oil:
See page 11-1.
Oil quantity:
Oil change:
2.80 L (2.96 US qt, 2.46 Imp.qt)
With oil filter removal:
3.20 L (3.38 US qt, 2.82 Imp.qt)

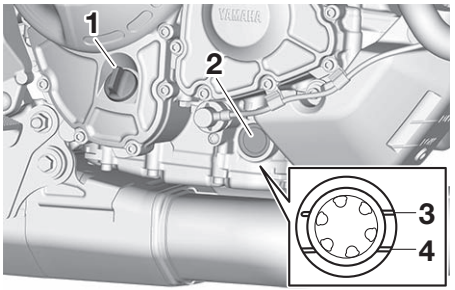
ECA11621

NOTICE

- **In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives. Do not use oils with a diesel specification of "CD" or oils of a higher quality than specified. In addition, do not use oils labeled "ENERGY CONSERVING II" or higher.**
- **Make sure that no foreign material enters the crankcase.**

To check the engine oil level

1. Start the engine, warm it up for several minutes, and then turn it off.
2. Wait a few minutes until the oil level settles and with the vehicle on a level surface, hold it upright for an accurate reading.
3. Look at the check window located at the bottom-right side of the crankcase.

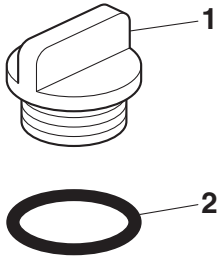


1. Engine oil filler cap
2. Engine oil level check window
3. Maximum level mark
4. Minimum level mark

TIP

The engine oil should be between the minimum and maximum level marks.

4. If the engine oil is at or below the minimum level mark, remove the oil filler cap and add oil.
5. Check the engine oil filler cap O-ring. Replace if damaged.

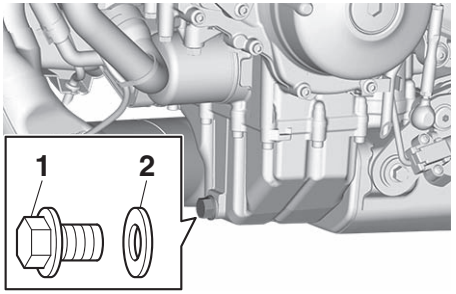


1. Engine oil filler cap
2. O-ring

6. Install the engine oil filler cap.

To change the engine oil (and filter)

1. Start the engine and allow it to idle for a few minutes to warm up the oil, and then stop the engine.
2. Place an oil pan under the engine to collect the used oil.
3. Remove the engine oil filler cap, and then the engine oil drain bolt and gasket.

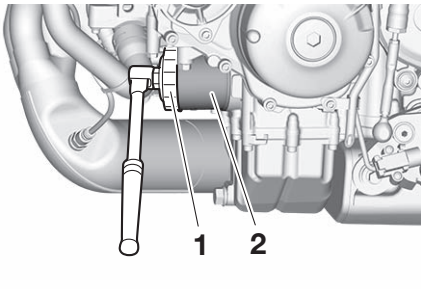


1. Engine oil drain bolt
2. Gasket

TIP

Skip steps 4–6 if the oil filter cartridge is not being replaced.

4. Remove the oil filter cartridge with an oil filter wrench.

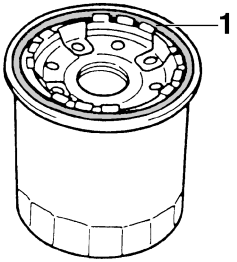


1. Oil filter wrench
2. Oil filter cartridge

TIP

An oil filter wrench is available at a Yamaha dealer.

5. Apply a thin coat of clean engine oil to the O-ring of the new oil filter cartridge.

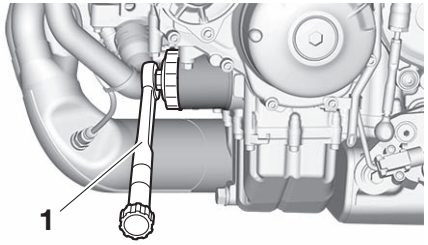


1. O-ring

TIP

Make sure that the O-ring is properly seated.

6. Install the new oil filter cartridge, and then tighten to the specified torque.



1. Torque wrench

Tightening torque:
Oil filter cartridge:
17 N·m (1.7 kgf·m, 13 lb·ft)

7. Install the engine oil drain bolt with a new gasket, and then tighten the bolt to the specified torque.

Tightening torque:
Engine oil drain bolt:
43 N·m (4.3 kgf·m, 32 lb·ft)

8. Pour the specified amount of the recommended oil into the crankcase.

TIP
Using a funnel is recommended.

9. After checking the engine oil filler cap O-ring, install the filler cap.

TIP
Wipe off any spilled oil before starting the engine.

10. Start the engine and let it idle while checking for oil leaks.

TIP
If any oil leaks are found which you cannot fix, have the vehicle inspected.

11. Stop the engine, wait a few minutes for the oil level to settle, and then check the oil level one last time. ***NOTICE:*** **Do not operate the vehicle until you know that the engine oil level is sufficient.**

[ECA10012]

EAU85450

Why Yamalube

YAMALUBE oil is a Genuine YAMAHA Part born of the engineers' passion and belief that engine oil is an important liquid engine component. We form teams of specialists in the fields of mechanical engineering, chemistry, electronics and track testing, and have them develop the engine together with the oil it will use. Yamalube oils take full advantage of the base oil's qualities and blend in the ideal balance of additives to make sure the final oil clears our performance standards. Thus, Yamalube mineral, semisynthetic and synthetic oils have their own distinct characters and value. Yamaha's experience gained over many years of research and development into oil since the 1960's helps make Yamalube the best choice for your Yamaha engine.

YAMALUBE®

EAUS1203

Coolant

The coolant level should be checked regularly. In addition, the coolant must be changed at the intervals specified in the periodic maintenance chart.

Recommended coolant:
YAMALUBE coolant
Coolant quantity:
Coolant reservoir (max level mark):
0.28 L (0.30 US qt, 0.25 Imp.qt)
Radiator (including all routes):
1.72 L (1.82 US qt, 1.51 Imp.qt)

TIP

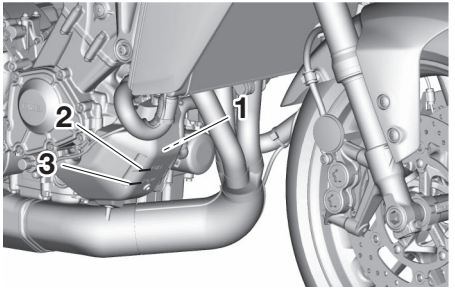
If genuine Yamaha coolant is not available, use an ethylene glycol antifreeze containing corrosion inhibitors for aluminum engines and mix with distilled water at a 1:1 ratio.

EAU20097

To check the coolant level

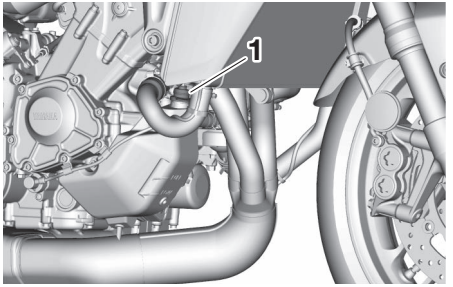
Since the coolant level varies with engine temperature, check when the engine is cold.

1. Park the vehicle on a level surface.
2. With the vehicle in an upright position, look at the coolant level in the reservoir.



1. Coolant reservoir
2. Maximum level mark
3. Minimum level mark

3. If the coolant is at or below the minimum level mark, remove the coolant reservoir cap. **WARNING! Remove only the coolant reservoir cap. Never attempt to remove the radiator cap when the engine is hot.** [EWA15162]



1. Coolant reservoir cap

4. Add coolant to the maximum level mark. ***NOTICE:*** **If coolant is not available, use distilled water or soft tap water instead. Do not use hard water or salt water since it is harmful to the engine. If water has been used instead of coolant, replace it with coolant as soon as possible, otherwise the cooling system will not be protected against frost and corrosion. If water has been added to the coolant, have a Yamaha dealer check the antifreeze content of the coolant as soon as possible, otherwise the effectiveness of the coolant will be reduced.** [ECA10473]

5. Install the coolant reservoir cap.

EAU33032

Changing the coolant

The coolant must be changed at the intervals specified in the periodic maintenance and lubrication chart. Have a Yamaha dealer change the coolant. **WARNING! Never attempt to remove the radiator cap when the engine is hot.** [EWA10382]

EAU36765

Air filter element

The air filter element must be replaced at the intervals specified in the periodic maintenance and lubrication chart. Have a Yamaha dealer replace the air filter element.

EAU44735

Checking the engine idling speed

Check the engine idling speed and, if necessary, have it corrected by a Yamaha dealer.

Engine idling speed:
1200–1400 r/min

EAU21403

Valve clearance

The valves are an important engine component, and since valve clearance changes with use, they must be checked and adjusted at the intervals specified in the periodic maintenance chart. Unadjusted valves can result in improper air-fuel mixture, engine noise, and eventually engine damage. To prevent this from occurring, have your Yamaha dealer check and adjust the valve clearance at regular intervals.

TIP

This service must be performed when the engine is cold.

EAU64412

Tires

Tires are the only contact between the vehicle and the road. Safety in all conditions of riding depends on a relatively small area of road contact. Therefore, it is essential to maintain the tires in good condition at all times and replace them at the appropriate time with the specified tires.

Tire air pressure

The tire air pressure should be checked and, if necessary, adjusted before each ride.

EWA10504

⚠ WARNING

Operation of this vehicle with improper tire pressure may cause severe injury or death from loss of control.

- **The tire air pressure must be checked and adjusted on cold tires (i.e., when the temperature of the tires equals the ambient temperature).**
- **The tire air pressure must be adjusted in accordance with the riding speed and with the total weight of rider, passenger, cargo, and accessories approved for this model.**

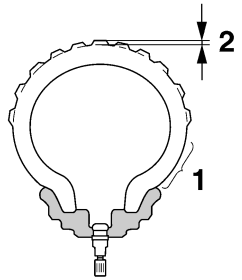
Cold tire air pressure:
1 person:
Front:
250 kPa (2.50 kgf/cm², 36 psi)
Rear:
290 kPa (2.90 kgf/cm², 42 psi)
2 persons:
Front:
250 kPa (2.50 kgf/cm², 36 psi)
Rear:
290 kPa (2.90 kgf/cm², 42 psi)
Maximum load:
Vehicle:
193 kg (425 lb)
The vehicle's maximum load is the combined weight of the rider, passenger, cargo, and any accessories.

EWA10512

⚠ WARNING

Never overload your vehicle. Operation of an overloaded vehicle could cause an accident.

Tire inspection



1. Tire sidewall
2. Tire tread depth

The tires must be checked before each ride. If the center tread depth reaches the specified limit, if the tire has a nail or glass fragments in it, or if the sidewall is cracked, have a Yamaha dealer replace the tire immediately.

Minimum tire tread depth (front and rear):
1.5 mm (0.06 in)

TIP

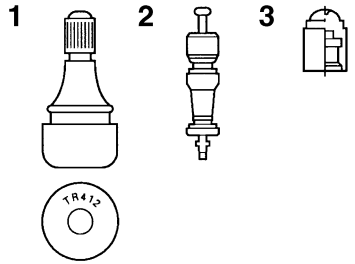
The tire tread depth limits may differ from country to country. Always comply with the local regulations.

EWA10472

⚠ WARNING

- **Have a Yamaha dealer replace excessively worn tires. Besides being illegal, operating the vehicle with excessively worn tires decreases riding stability and can lead to loss of control.**
- **The replacement of all wheel and brake-related parts, including the tires, should be left to a Yamaha dealer, who has the necessary professional knowledge and experience to do so.**
- **Ride at moderate speeds after changing a tire since the tire surface must first be "broken in" for it to develop its optimal characteristics.**

Tire information



1. Tire air valve
2. Tire air valve core
3. Tire air valve cap with seal

This model is equipped with tubeless tires and tire air valves.
Tires age, even if they have not been used or have only been used occasionally. Cracking of the tread and sidewall rubber, sometimes accompanied by carcass deformation, is an evidence of ageing. Old and aged tires shall be checked by tire specialists to ascertain their suitability for further use.

EWA10902

⚠ WARNING

- **The front and rear tires should be of the same make and design, otherwise the handling**

9

characteristics of the motorcycle may be different, which could lead to an accident.
- **Always make sure that the valve caps are securely installed to prevent air pressure leakage.**
- **Use only the tire valves and valve cores listed below to avoid tire deflation during a ride.**

After extensive tests, only the tires listed below have been approved for this model by Yamaha.

Front tire:
Size:
120/70ZR17M/C (58W)
Manufacturer/model:
BRIDGESTONE/BATTLAX SPORT TOURING T32F
Rear tire:
Size:
180/55ZR17M/C (73W)
Manufacturer/model:
BRIDGESTONE/BATTLAX SPORT TOURING T32R
FRONT and REAR:
Tire air valve:
TR412
Valve core:
#9100 (original)

EWA10601

⚠ WARNING

This motorcycle is fitted with super-high-speed tires. Note the following points in order to make the most efficient use of these tires.
- **Use only the specified replacement tires. Other tires may run the danger of bursting at super high speeds.**
- **Brand-new tires can have a relatively poor grip on certain road surfaces until they have been "broken in". Therefore, it is advisable before doing any high-speed riding to ride conservatively for approximately 100 km (60 mi) after installing a new tire.**
- **The tires must be warmed up before a high-speed run.**
- **Always adjust the tire air pressure according to the operating conditions.**

EAU21963

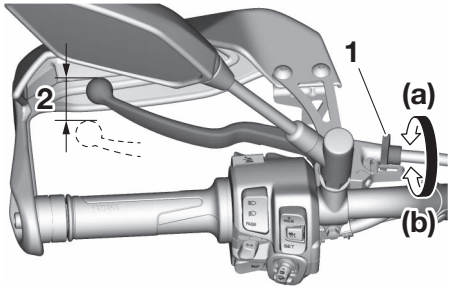
Cast wheels

To maximize the performance, durability, and safe operation of your vehicle, note the following points regarding the specified wheels.
- The wheel rims should be checked for cracks, bends, warpage or other damage before each ride. If any damage is found, have a Yamaha dealer replace the wheel. Do not attempt even the smallest repair to the wheel. A deformed or cracked wheel must be replaced.
- The wheel should be balanced whenever either the tire or wheel has been changed or replaced. An unbalanced wheel can result in poor performance, adverse handling characteristics, and a shortened tire life.

EAU22083

Adjusting the clutch lever free play

Measure the clutch lever free play as shown.



1. Clutch lever free play adjusting bolt
2. Clutch lever free play

Clutch lever free play:
5.0–10.0 mm (0.20–0.39 in)

Periodically check the clutch lever free play and, if necessary, adjust it as follows.

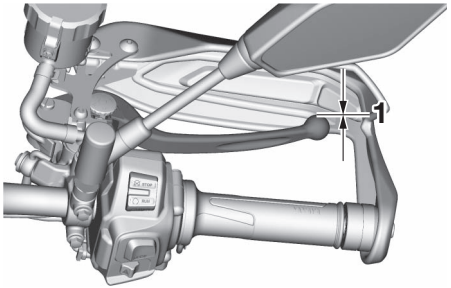
To increase the clutch lever free play, turn the clutch lever free play adjusting bolt in direction (a). To decrease the clutch lever free play, turn the adjusting bolt in direction (b).

TIP

If the specified free play cannot be obtained as described above or if the clutch does not operate correctly, have a Yamaha dealer check the internal clutch mechanism.

EAU37914

Checking the brake lever free play



1. No brake lever free play

There should be no free play at the brake lever end. If there is free play, have a Yamaha dealer inspect the brake system.

EWA14212

⚠ WARNING

A soft or spongy feeling in the brake lever can indicate the presence of air in the hydraulic system. If there is air in the hydraulic system, have a Yamaha dealer bleed the system before operating the vehicle. Air in the hydraulic system will diminish the

braking performance, which may result in loss of control and an accident.

EAU36505

Brake light switches

The brake light should come on just before braking takes effect. The brake light is activated by switches connected to the brake lever and brake pedal. Since the brake light switches are components of the anti-lock brake system, they should only be serviced by a Yamaha dealer.

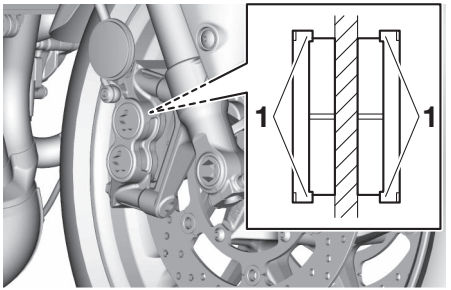
EAU22393

Checking the front and rear brake pads

The front and rear brake pads must be checked for wear at the intervals specified in the periodic maintenance and lubrication chart.

EAU36892

Front brake pads



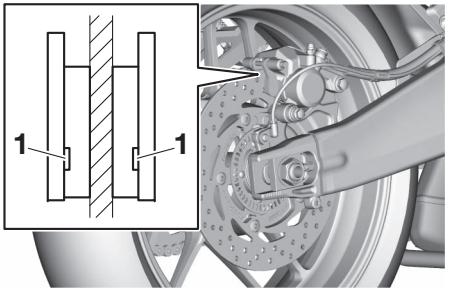
1. Brake pad wear indicator

Each front brake pad is provided with wear indicators, which allows you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the position of the wear indicators while applying the brake. If a brake pad has worn to the point that a wear indicator almost

touches the brake disc, have a Yamaha dealer replace the brake pads as a set.

EAU46292

Rear brake pads



1. Brake pad wear indicator groove

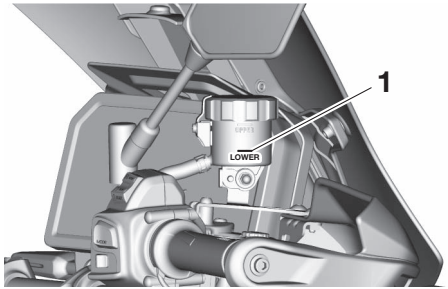
Each rear brake pad is provided with wear indicator grooves, which allow you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the wear indicator grooves. If a brake pad has worn to the point that a wear indicator groove almost appears, have a Yamaha dealer replace the brake pads as a set.

EAU40262

Checking the brake fluid level

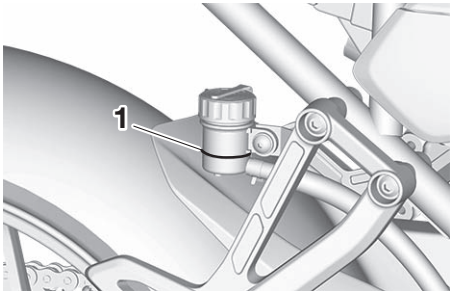
Before riding, check that the brake fluid is above the minimum level mark. Check the brake fluid level with the top of the reservoir level. Replenish the brake fluid if necessary.

Front brake



1. Minimum level mark

Rear brake



1. Minimum level mark

Specified brake fluid:
DOT 4

EWA16011

⚠ WARNING

Improper maintenance can result in loss of braking ability. Observe these precautions:

- **Insufficient brake fluid may allow air to enter the brake system, reducing braking performance.**
- **Clean the filler cap before removing. Use only DOT 4 brake fluid from a sealed container.**

- **Use only the specified brake fluid; otherwise, the rubber seals may deteriorate, causing leakage.**
- **Refill with the same type of brake fluid. Adding a brake fluid other than DOT 4 may result in a harmful chemical reaction.**
- **Be careful that water or dust does not enter the brake fluid reservoir when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock, and dirt may clog the ABS hydraulic unit valves.**

ECA17641

NOTICE

Brake fluid may damage painted surfaces or plastic parts. Always clean up spilled fluid immediately.

As the brake pads wear, it is normal for the brake fluid level to gradually go down. A low brake fluid level may indicate worn brake pads and/or brake system leakage; therefore, be sure to check the brake pads for wear and the brake system for leakage. If the brake fluid level goes down suddenly, have a Yamaha dealer check the cause before further riding.

EAU22734

Changing the brake fluid

Have a Yamaha dealer change the brake fluid every 2 years. In addition, have the seals of the master cylinders and brake calipers, as well as the brake hoses replaced at the intervals listed below or sooner if they are damaged or leaking.

- Brake seals: every 2 years
- Brake hoses: every 4 years

EAU22762

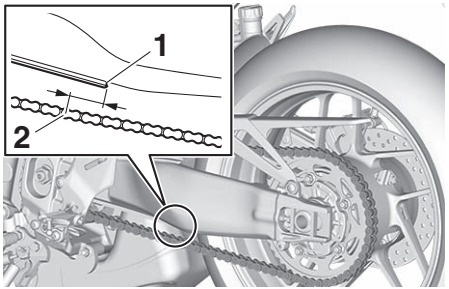
Drive chain slack

The drive chain slack should be checked before each ride and adjusted if necessary.

EAU92611

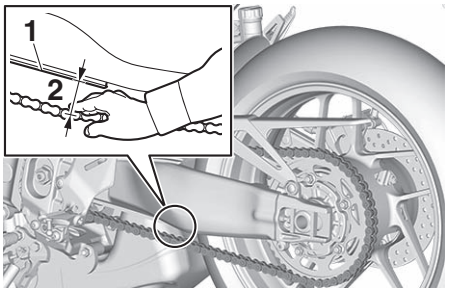
To check the drive chain slack

1. Place the motorcycle on the centerstand.
2. Shift the transmission into the neutral position.
3. Find the center point of the chain (position B) by measuring (approx. 53 mm (2.09 in)) forward from the edge of the drive chain guard as shown.



1. Edge of the drive chain guard
2. Position B

4. Push down on the center of the drive chain and measure the distance A from the drive chain guard to the middle of the chain link being pressed down at position B.



1. Drive chain guard
2. Distance A

Distance A:
45.0–50.0 mm (1.77–1.97 in)

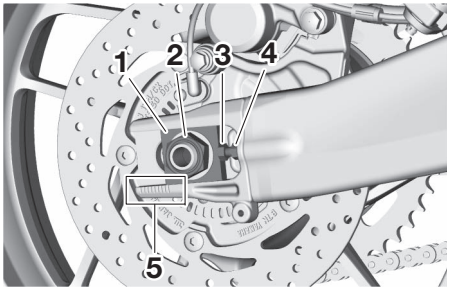
5. If distance A is incorrect, adjust it as follows. ***NOTICE:*** **Improper drive chain slack will overload the engine as well as other vital parts of the motorcycle and can lead to chain slippage or breakage. If distance A is more than 55.0 mm (2.17 in), the chain can damage the frame, swingarm, and other parts. To prevent this from occurring, keep the drive chain slack within the specified limits.** [ECA23070]

EAU92600

To adjust the drive chain slack

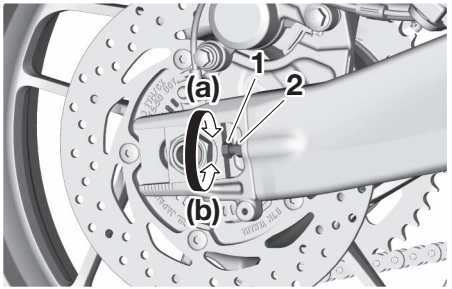
Consult a Yamaha dealer before adjusting the drive chain slack.

1. Take the motorcycle off the centerstand, and then put the sidestand down.
2. Loosen the axle nut and the locknut on each side of the swingarm.



1. Drive chain puller
2. Axle nut
3. Drive chain slack adjusting bolt
4. Locknut
5. Alignment marks

3. Place the motorcycle on the centerstand.
4. To tighten the drive chain, turn the drive chain slack adjusting bolt on each side of the swingarm in direction (a). To loosen the drive chain, turn the adjusting bolt on each side of the swingarm in direction (b), and then push the rear wheel forward.



1. Drive chain slack adjusting bolt
2. Locknut

TIP

Using the alignment marks on each side of the swingarm, make sure that both drive chain pullers are in the same position for proper wheel alignment.

5. Take the motorcycle off the centerstand, and then put the sidestand down.
6. Tighten the axle nut, then the locknuts to their specified torques.

Tightening torques:
Axle nut:
105 N·m (10.5 kgf·m, 77 lb·ft)
Locknut:
16 N·m (1.6 kgf·m, 12 lb·ft)

7. Make sure that the drive chain pullers are in the same position, the drive chain slack is correct, and the drive chain moves smoothly.

EAU23027

Cleaning and lubricating the drive chain

The drive chain must be cleaned and lubricated at the intervals specified in the periodic maintenance and lubrication chart, otherwise it will quickly wear out, especially when riding in dusty or wet areas. Service the drive chain as follows.

ECA10584

NOTICE

The drive chain must be lubricated after washing the motorcycle, riding in the rain or riding in wet areas.

1. Clean the drive chain with a drive chain cleaner and a small soft brush. ***NOTICE:*** **To prevent damaging the O-rings, do not clean the drive chain with steam cleaners, high-pressure washers or inappropriate solvents.**

   [ECA11122]
2. Wipe the drive chain dry.
3. Thoroughly lubricate the drive chain with a special O-ring chain lubricant. ***NOTICE:*** **Do not use engine oil or any other lubri-**

cants for the drive chain, as they may contain substances that could damage the O-rings. [ECA11112]

EAU23098

Checking and lubricating the cables

The operation of all control cables and the condition of the cables should be checked before each ride, and the cables and cable ends should be lubricated if necessary. If a cable is damaged or does not move smoothly, have a Yamaha dealer check or replace it. **WARNING! Damage to the outer housing of cables may result in internal rusting and cause interference with cable movement. Replace damaged cables as soon as possible to prevent unsafe conditions.** [EWA10712]

Recommended lubricant:
Yamaha cable lubricant or other suitable cable lubricant

EAU82490

Checking and lubricating the throttle grip

The operation of the throttle grip should be checked before each ride. In addition, the throttle grip housing should be lubricated by a Yamaha dealer at the intervals specified in the periodic maintenance chart.

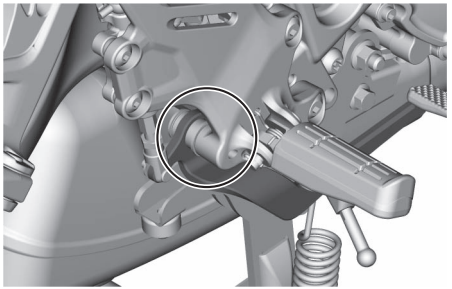
EAU44276

Checking and lubricating the brake and shift pedals

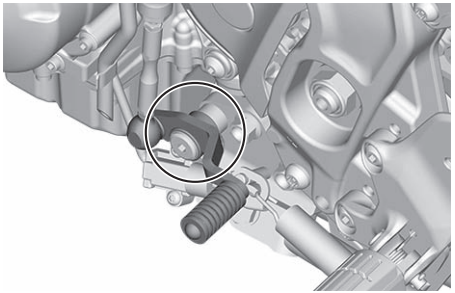
The operation of the brake and shift pedals should be checked before each ride, and the pedal pivots should be lubricated if necessary.

Recommended lubricant:
Lithium-soap-based grease

Brake pedal



Shift pedal

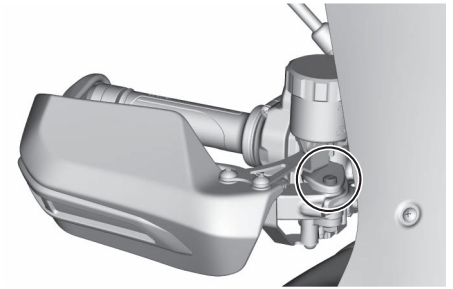


EAU23144

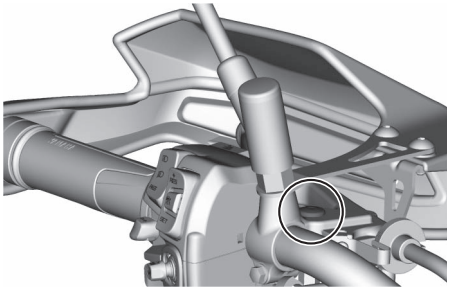
Checking and lubricating the brake and clutch levers

The operation of the brake and clutch levers should be checked before each ride, and the lever pivots should be lubricated if necessary.

Brake lever



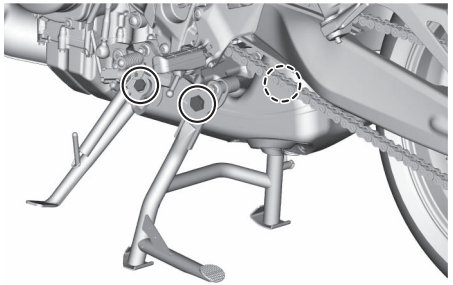
Clutch lever



Recommended lubricants:
Brake lever:
Silicone grease
Clutch lever:
Lithium-soap-based grease

EAU88860

Checking and lubricating the centerstand and sidestand



The operation of the centerstand and sidestand should be checked before each ride, and the pivots and metal-to-metal contact surfaces should be lubricated if necessary.

EWA10742

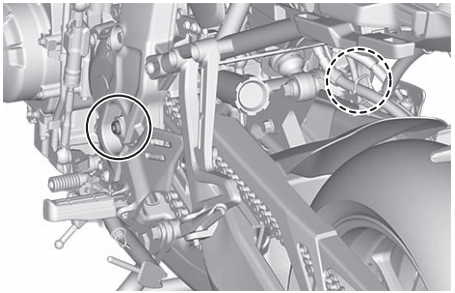
⚠ WARNING

If the centerstand or sidestand does not move up and down smoothly, have a Yamaha dealer check or repair it. Otherwise, the centerstand or sidestand could contact the ground and distract the operator, resulting in a possible loss of control.

Recommended lubricants:
Centerstand:
Lithium-soap-based grease
Sidestand:
Molybdenum disulfide grease

EAUM1653

Lubricating the swingarm pivots



The swingarm pivots must be lubricated by a Yamaha dealer at the intervals specified in the periodic maintenance and lubrication chart.

Recommended lubricant:
Lithium-soap-based grease

EAU23273

Checking the front fork

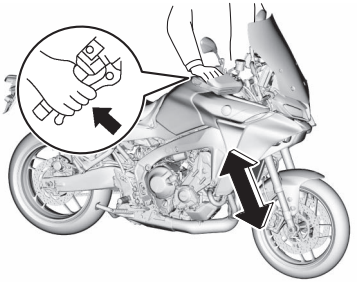
The condition and operation of the front fork must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

To check the condition

Check the inner tubes for scratches, damage and excessive oil leakage.

To check the operation

1. Place the vehicle on a level surface and hold it in an upright position. **WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over.** [EWA10752]
2. While applying the front brake, push down hard on the handlebars several times to check if the front fork compresses and rebounds smoothly.



ECA10591

NOTICE

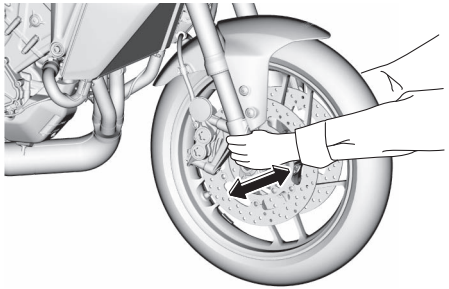
If any damage is found or the front fork does not operate smoothly, have a Yamaha dealer check or repair it.

EAU45512

Checking the steering

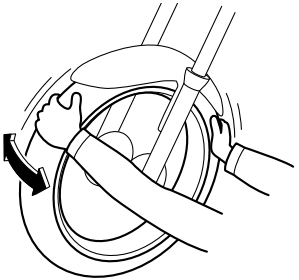
Worn or loose steering bearings may cause danger. Therefore, the operation of the steering must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

1. Place the vehicle on the centerstand. **WARNING! To avoid injury, securely support the vehicle so there is no danger of it falling over.** [EWA10752]
2. Hold the lower ends of the front fork legs and try to move them forward and backward. If any free play can be felt, have a Yamaha dealer check or repair the steering.



EAU23292

Checking the wheel bearings



The front and rear wheel bearings must be checked at the intervals specified in the periodic maintenance and lubrication chart. If there is play in the wheel hub or if the wheel does not turn smoothly, have a Yamaha dealer check the wheel bearings.

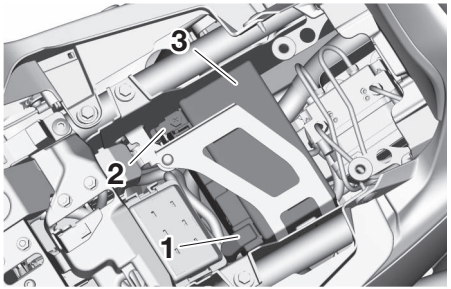
EAU93320

Battery

ECA22960

NOTICE

Use only the specified genuine YAMAHA battery. Using a different battery may cause the IMU to fail and the engine to stall.



1. Positive battery lead (red)
2. Negative battery lead (black)
3. Battery

The battery is located under the rider seat. (See page 6-38.)
This model is equipped with a VRLA (Valve Regulated Lead Acid) battery. There is no need to check the electrolyte or to add distilled water. However,

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the battery lead connections need to be checked and, if necessary, tightened.

EWA10761

⚠ WARNING

- **Electrolyte is poisonous and dangerous since it contains sulfuric acid, which causes severe burns. Avoid any contact with skin, eyes or clothing and always shield your eyes when working near batteries. In case of contact, administer the following FIRST AID.**
  - **EXTERNAL: Flush with plenty of water.**
  - **INTERNAL: Drink large quantities of water or milk and immediately call a physician.**
  - **EYES: Flush with water for 15 minutes and seek prompt medical attention.**
- **Batteries produce explosive hydrogen gas. Therefore, keep sparks, flames, cigarettes, etc., away from the battery and provide sufficient ventilation when charging it in an enclosed space.**
- **KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.**

To charge the battery

Have a Yamaha dealer charge the battery as soon as possible if it seems to have discharged. Keep in mind that the battery tends to discharge more quickly if the vehicle is equipped with optional electrical accessories.

ECA16522

NOTICE

To charge a VRLA (Valve Regulated Lead Acid) battery, a special (constant-voltage) battery charger is required. Using a conventional battery charger will damage the battery.

To store the battery

1. If the vehicle will not be used for more than one month, remove the battery, fully charge it, and then place it in a cool, dry place. ***NOTICE:*** **When removing the battery, be sure to turn the main switch off, then disconnect the negative lead before disconnecting the positive lead.** [ECA16304]
2. If the battery will be stored for more than two months, check it at least once a month and fully charge it if necessary.
3. Fully charge the battery before installation. ***NOTICE:*** **When installing the battery, be sure to turn the main switch off, then connect the positive lead before connecting the negative lead.** [ECA16842]
4. After installation, make sure that the battery leads are properly connected to the battery terminals.

ECA16531

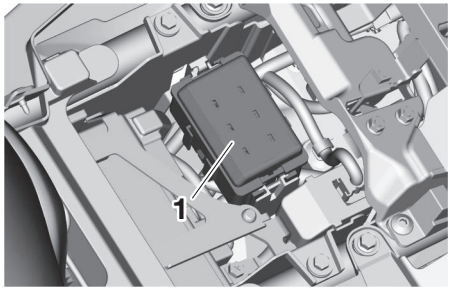
NOTICE

Always keep the battery charged. Storing a discharged battery can cause permanent battery damage.

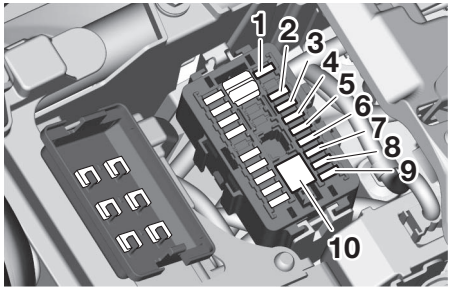
EAU92741

Replacing the fuses

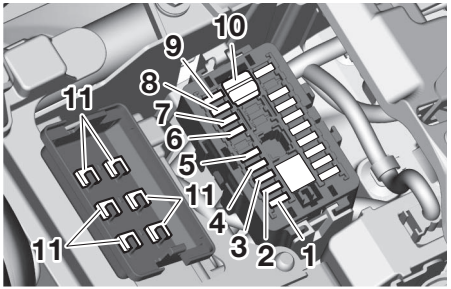
The fuse box is located under the rider seat. (See page 6-38.)



1. Fuse box



1. Brake light fuse
2. Ignition fuse 2
3. Signaling system fuse
4. Ignition fuse
5. Headlight fuse
6. ABS ECU fuse
7. Fuel injection system fuse
8. Electronic throttle valve fuse
9. Backup fuse 2
10. Main fuse



1. ABS motor fuse
2. ABS solenoid fuse
3. Radiator fan motor fuse
4. Accessory fuse 2
5. Terminal fuse 1
6. Backup fuse
7. SCU fuse
8. Heater fuse
9. Cruise control fuse
10. Fuse puller
11. Spare fuse

If a fuse is blown, replace it as follows.

TIP

- There is a spare fuse on the back side of the fuse box cover.
- Use a fuse puller to remove the fuse.

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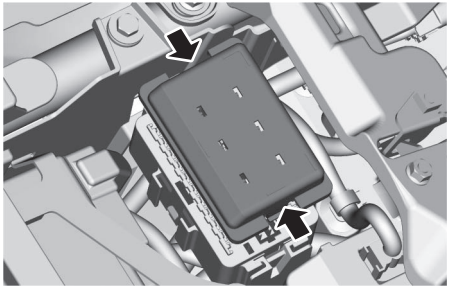
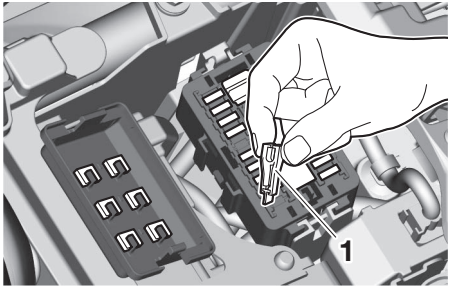
1. Turn the main switch off and turn off the electrical circuit in question.
2. Remove the fuse box cover by pressing inwards at the two points indicated on the cover and pulling upwards.



3. Remove the blown fuse using the fuse puller.



1. Fuse puller

4. Install a new fuse of the specified amperage. **WARNING! Do not use a fuse of a higher amperage rating than recommended to avoid causing extensive damage to the electrical system and possibly a fire.** [EWA15132]

Specified fuses:
Main fuse:
50.0 A
Accessory fuse 2:
5.0 A
Terminal fuse 1:
2.0 A
Heater fuse:
7.5 A
Headlight fuse:
7.5 A
Brake light fuse:
2.0 A
Signaling system fuse:
7.5 A
Ignition fuse:
10.0 A
Ignition fuse 2:
7.5 A
Radiator fan motor fuse:
15.0 A
ABS motor fuse:
30.0 A
ABS ECU fuse:
7.5 A
SCU fuse:
7.5 A
Fuel injection system fuse:
7.5 A
ABS solenoid fuse:
15.0 A
Cruise control fuse:
2.0 A

Backup fuse:
7.5 A
Backup fuse 2:
15.0 A
Electronic throttle valve fuse:
7.5 A

5. Insert the fuse puller, and then install the fuse box cover.
6. Turn the main switch on and turn on the electrical circuit in question to check if the device operates.
7. If the fuse immediately blows again, have a Yamaha dealer check the electrical system.

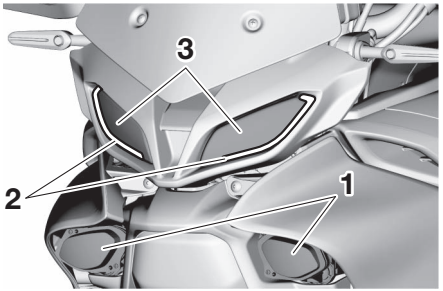
ECA27210

NOTICE

Do not drive while the fuse box cover is removed.

EAU80380

Vehicle lights



1. Headlight
2. Auxiliary light
3. Cornering light

Except for the license plate light bulb, this model's lights are all LED.
If an LED light does not come on, check the fuses and then have a Yamaha dealer check the vehicle. If the license plate light does not come on, check and replace the bulb. (See page 9-32.)

ECA16581

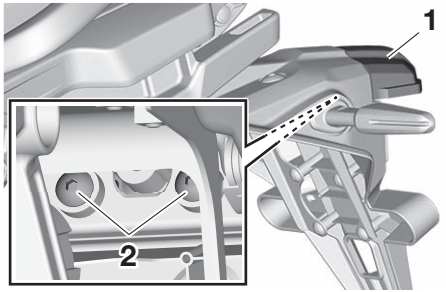
NOTICE

Do not affix any type of tinted film or stickers to the headlight lens.

EAU92581

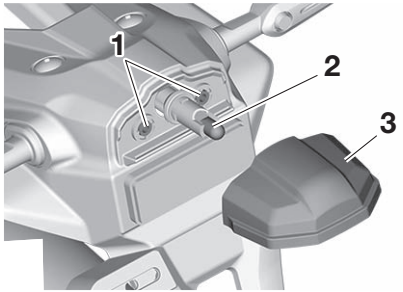
Replacing the license plate light bulb

1. Remove the bolts securing the license plate light unit.



1. License plate light unit
2. Bolt

2. Pull the license plate light unit separate from the rear fender. (Reinstall the collars if they fall out.)



1. Collar
2. License plate light bulb
3. License plate light unit

3. Remove the license plate light bulb socket (together with the bulb) by turning it counterclockwise, and then pulling it out.
4. Remove the burnt-out bulb by pulling it out.
5. Insert a new bulb into the socket.
6. Install the socket (together with the bulb) by pushing it in, and then turning it clockwise until it stops.
7. Install the license plate unit onto the rear fender.
8. Install the bolts and tighten to the specified torque.

Tightening torque:
License plate light unit bolt:
4.0 N·m (0.4 kgf·m, 3.0 lb·ft)

EAU25872

Troubleshooting

Although Yamaha motorcycles receive a thorough inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems, for example, can cause poor starting and loss of power.

The following troubleshooting charts represent quick and easy procedures for checking these vital systems yourself. However, should your motorcycle require any repair, take it to a Yamaha dealer, whose skilled technicians have the necessary tools, experience, and know-how to service the motorcycle properly.

Use only genuine Yamaha replacement parts. Imitation parts may look like Yamaha parts, but they are often inferior, have a shorter service life and can lead to expensive repair bills.

EWA15142

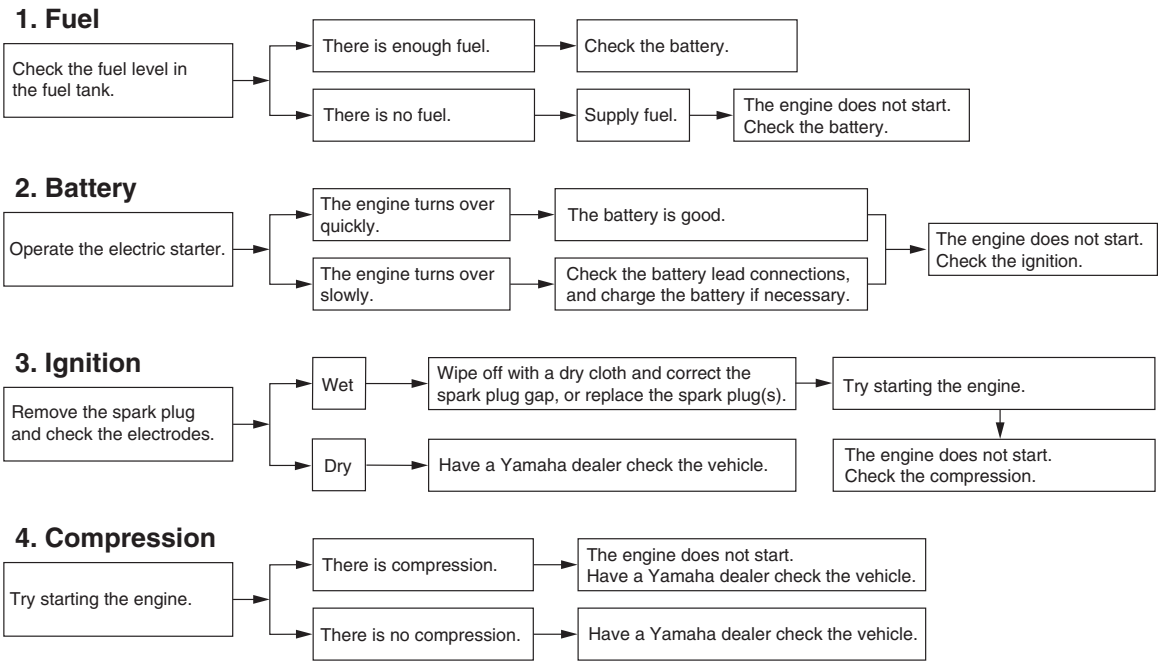
⚠ WARNING

When checking the fuel system, do not smoke, and make sure there are no open flames or sparks in the area, including pilot lights from water

heaters or furnaces. Gasoline or gasoline vapors can ignite or explode, causing severe injury or property damage.

EAU86350

Troubleshooting chart



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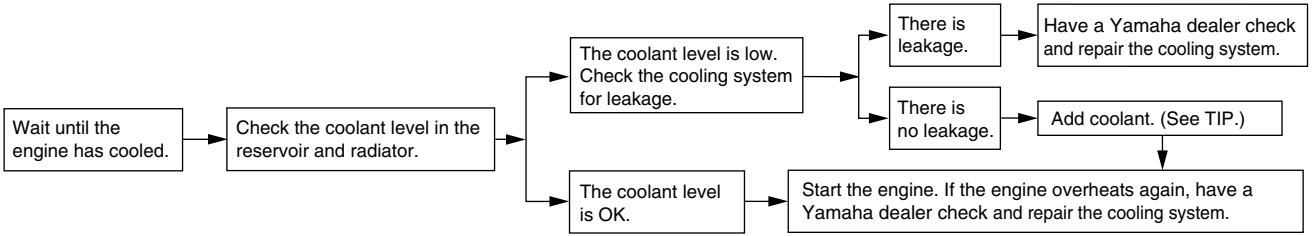
EAU86420

Engine overheating

EWAT1041

WARNING

- **Do not remove the radiator cap when the engine and radiator are hot. Scalding hot fluid and steam may be blown out under pressure, which could cause serious injury. Be sure to wait until the engine has cooled.**
- **Place a thick rag, like a towel, over the radiator cap, and then slowly rotate the cap counterclockwise to the detent to allow any residual pressure to escape. When the hissing sound has stopped, press down on the cap while turning it counterclockwise, and then remove the cap.**



TIP

If coolant is not available, tap water can be temporarily used instead, provided that it is changed to the recommended coolant as soon as possible.

EAU37834

Matte color caution

ECA15193

NOTICE

Some models are equipped with matte colored finished parts. Be sure to consult a Yamaha dealer for advice on what products to use before cleaning the vehicle. Using a brush, harsh chemical products or cleaning compounds when cleaning these parts will scratch or damage their surface. Wax also should not be applied to any matte colored finished parts.

EAU96754

Care

Frequent, thorough cleaning of the vehicle will not only enhance its appearance but also will improve its general performance and extend the useful life of many components. Washing, cleaning, and polishing will also give you a chance to inspect the condition of the vehicle more frequently. Be sure to wash the vehicle after riding in the rain or near the sea, because salt is corrosive to metals.

Special care in winter

ECA28181

NOTICE

In cold weather, when roads may be salted as a de-icing method, it's important to clean the vehicle thoroughly to remove road salt and avoid corrosion. Wheel spokes, bolts/nuts and other unpainted metal parts can be especially vulnerable to corrosion from road salt. Apply an anti-corrosion product to any vulnerable parts after washing and drying the vehicle.

TIP

- The roads of heavy snowfall areas may be sprayed with salt as a de-icing method. This salt can stay on the roads well into spring, so be sure to wash the underside and chassis parts after riding in such areas.
- Genuine Yamaha care and maintenance products are sold under the YAMALUBE brand in many markets worldwide.
- See your Yamaha dealer for additional cleaning tips.

ECA26280

NOTICE

Improper cleaning can cause cosmetic and mechanical damage. Do not use:

- **high-pressure washers or steam-jet cleaners. Excessive water pressure may cause water seepage and deterioration of wheel bearings, brakes, transmission seals and electrical devices. Avoid high-pressure**

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detergent applications such as those available in coin-operated car washers.

- **harsh chemicals, including strong acidic wheel cleaners, especially on spoke or magnesium wheels.**
- **harsh chemicals, abrasive cleaning compounds, or wax on matte-finished parts. Brushes can scratch and damage the matte-finish, use soft sponge or towel only.**
- **towels, sponges, or brushes contaminated with abrasive cleaning products or strong chemicals such as, solvents, gasoline, rust removers, brake fluid, or antifreeze, etc.**

Before washing

1. Park the vehicle out of direct sunlight and allow it to cool. This will help avoid water spots.
2. Make sure all caps, covers, electrical couplers and connectors are tightly installed.
3. Cover the muffler end with a plastic bag and a strong rubber band.
4. Pre-soak stubborn stains like insects or bird droppings with a wet towel for a few minutes.
5. Remove road grime and oil stains with a quality degreasing agent and a plastic-bristle brush or sponge. ***NOTICE:*** **Do not use degreasing agent on areas requiring lubrication such as seals, gaskets, and wheel axles. Follow product instructions.** [ECA26290]

Washing

1. Rinse off any degreaser and spray down the vehicle with a garden hose. Use only enough pressure to do the job. Avoid spraying water directly into the muffler, instrument panel, air inlet, or other inner areas such as underseat storage compartments.
2. Wash the vehicle with a quality automotive-type detergent mixed with cool water and a soft, clean towel or sponge. Use an old toothbrush or plastic-bristle brush for hard-to-reach places. ***NOTICE:*** **Use cold water if the vehicle has been exposed to salt. Warm water will increase salt's corrosive properties.** [ECA26301]
3. For windscreen-equipped vehicles: Clean the windscreen with a soft towel or sponge dampened with water and a pH neutral detergent. If necessary, use a high-quality windscreen cleaner or polish for motorcycles. ***NOTICE:*** **Never use any strong chemicals to clean the windscreen. Additionally, some cleaning compounds for plastic may scratch the windscreen, so be sure to test all cleaning products before general application.** [ECA27860]
4. Rinse off thoroughly with clean water. Be sure to remove all detergent residues, as they can be harmful to plastic parts.

After washing

1. Dry the vehicle with a chamois or absorbent towel, preferably microfiber terrycloth.
2. For drive chain-equipped models: Dry and then lubricate the drive chain to prevent rust.

3. Use a chrome polish to shine chrome, aluminum, and stainless steel parts. Often the thermally induced discoloring of stainless steel exhaust systems can be removed through polishing.
4. Apply a corrosion protection spray on all metal parts including chrome or nickel-plated surfaces. **WARNING! Do not apply silicone or oil spray to seats, hand grips, rubber foot pegs or tire treads. Otherwise these parts will become slippery, which could cause loss of control. Thoroughly clean the surfaces of these parts before operating the vehicle.** [EWA20651]
5. Treat rubber, vinyl, and unpainted plastic parts with a suitable care product.
6. Touch up minor paint damage caused by stones, etc.
7. Wax all painted surfaces using a non-abrasive wax or use a detail spray for motorcycles.
8. When finished cleaning, start the engine and let it idle for several minutes to help dry any remaining moisture.
9. If the headlight lens has fogged up, start the engine and turn on the headlight to help remove the moisture.
10. Let the vehicle dry completely before storing or covering it.

ECA26320

NOTICE

- **Do not apply wax to rubber or unpainted plastic parts.**
- **Do not use abrasive polishing compounds as they will wear away the paint.**
- **Apply sprays and wax sparingly. Wipe off excess afterwards.**

EWA20660

⚠ WARNING

Contaminants left on the brakes or tires can cause loss of control.

- **Make sure there is no lubricant or wax on the brakes or tires.**
- **If necessary, wash the tires with warm water and a mild detergent.**
- **If necessary, clean the brake discs and pads with brake cleaner or acetone.**
- **Before riding at higher speeds, test the vehicle's braking performance and cornering behavior.**

10

EAU83472

Storage

Always store the vehicle in a cool, dry place. If necessary, protect it against dust with a porous cover. Be sure the engine and the exhaust system are cool before covering the vehicle. If the vehicle often sits for weeks at a time between uses, the use of a quality fuel stabilizer is recommended after each fill-up.

ECA21170

NOTICE

- **Storing the vehicle in a poorly ventilated room or covering it with a tarp, while it is still wet, will allow water and humidity to seep in and cause rust.**
- **To prevent corrosion, avoid damp cellars, stables (because of the presence of ammonia) and areas where strong chemicals are stored.**

Long term storage

Before storing the vehicle long term (60 days or more):

1. Make all necessary repairs and perform any outstanding maintenance.
2. Follow all instructions in the Care section of this chapter.
3. Fill up the fuel tank, adding fuel stabilizer according to product instructions. Run the engine for 5 minutes to distribute treated fuel through the fuel system.
4. For vehicles equipped with a fuel cock: Turn the fuel cock lever to the off position.
5. For vehicles with a carburetor: To prevent fuel deposits from building up, drain the fuel in the carburetor float chamber into a clean container. Retighten the drain bolt and pour the fuel back into the fuel tank.
6. Use a quality engine fogging oil according to product instructions to protect internal engine components from corrosion. If engine fogging oil is not available, perform the following steps for each cylinder:
   a. Remove the spark plug cap and spark plug.
   b. Pour a teaspoonful of engine oil into the spark plug bore.
   c. Install the spark plug cap onto the spark plug, and then place the spark plug on the cylinder head so that the electrodes are grounded. (This will limit sparking during the next step.)
   d. Turn the engine over several times with the starter. (This will coat the cylinder wall with oil.) **WARNING! To prevent damage or injury from sparking, make sure to ground the spark plug electrodes while turning the engine over.** [EWA10952]
   e. Remove the spark plug cap from the spark plug, and then install the spark plug and the spark plug cap.
7. Lubricate all control cables, pivots, levers and pedals, as well as the sidestand and centerstand (if equipped).
8. Check and correct the tire air pressure, and then lift the vehicle so that all wheels are off the ground. Otherwise, turn the

wheels a little once a month in order to prevent the tires from becoming degraded in one spot.

9. Cover the muffler outlet with a plastic bag to prevent moisture from entering it.
10. Remove the battery and fully charge it, or attach a maintenance charger to keep the battery optimally charged. ***NOTICE:*** **Confirm that the battery and its charger are compatible. Do not charge a VRLA battery with a conventional charger.** [ECA26330]

TIP

- If the battery will be removed, charge it once a month and store it in a temperate location between 0-30 °C (32-90 °F).
- See page 9-28 for more information on charging and storing the battery.

Dimensions:
Overall length:
2175 mm (85.6 in)
Overall width:
885 mm (34.8 in)
Overall height:
1430/1470 mm (56.3/57.9 in)
Seat height:
820/835 mm (32.3/32.9 in)
Wheelbase:
1500 mm (59.1 in)
Ground clearance:
135 mm (5.31 in)
Minimum turning radius:
3.1 m (10.17 ft)

Weight:
Curb weight:
223 kg (492 lb)

Engine:
Combustion cycle:
4-stroke
Cooling system:
Liquid cooled
Valve train:
DOHC
Cylinder arrangement:
Inline
Number of cylinders:
3-cylinder
Displacement:
890 cm^3
Bore × stroke:
78.0 × 62.1 mm (3.07 × 2.44 in)
Starting system:
Electric starter

Engine oil:
Recommended brand:
YAMALUBE®
SAE viscosity grades:
10W-40
Recommended engine oil grade:
API service SG type or higher, JASO standard MA
Engine oil quantity:
Oil change:
2.80 L (2.96 US qt, 2.46 Imp.qt)
With oil filter removal:
3.20 L (3.38 US qt, 2.82 Imp.qt)

Coolant quantity:
Coolant reservoir (up to the maximum level mark):
0.28 L (0.30 US qt, 0.25 Imp.qt)
Radiator (including all routes):
1.72 L (1.82 US qt, 1.51 Imp.qt)

Fuel:
Recommended fuel:
Unleaded gasoline (E10 acceptable)
Octane number (RON):
95
Fuel tank capacity:
19 L (5.0 US gal, 4.2 Imp.gal)
Fuel reserve amount:
3.0 L (0.79 US gal, 0.66 Imp.gal)

Fuel injection:
Throttle body:
ID mark:
B7N1

Drivetrain:
Gear ratio:
1st:
2.571 (36/14)
2nd:
1.947 (37/19)
3rd:
1.619 (34/21)
4th:
1.381 (29/21)
5th:
1.190 (25/21)
6th:
1.037 (28/27)

Front tire:
Type:
Tubeless
Size:
120/70ZR17M/C (58W)
Manufacturer/model:
BRIDGESTONE/BATTLAX SPORT TOURING T32F

Rear tire:
Type:
Tubeless
Size:
180/55ZR17M/C (73W)
Manufacturer/model:
BRIDGESTONE/BATTLAX SPORT TOURING T32R

Specifications

Loading:
Maximum load:
193 kg (425 lb)
(Total weight of rider, passenger, cargo and accessories)

Front brake:
Type:
Hydraulic dual disc brake

Rear brake:
Type:
Hydraulic single disc brake

Front suspension:
Type:
Telescopic fork

Rear suspension:
Type:
Swingarm (link suspension)

Electrical system:
System voltage:
12 V

Battery:
Model:
YTZ10S
Voltage, capacity:
12 V, 8.6 Ah (10 HR)

Bulb wattage:
Headlight:
LED
Brake/tail light:
LED
Front turn signal light:
LED
Rear turn signal light:
LED
Auxiliary light:
LED
License plate light:
5.0 W

EAU53562

Identification numbers

Record the vehicle identification number, engine serial number, and the model label information in the spaces provided below. These identification numbers are needed when registering the vehicle with the authorities in your area and when ordering spare parts from a Yamaha dealer.

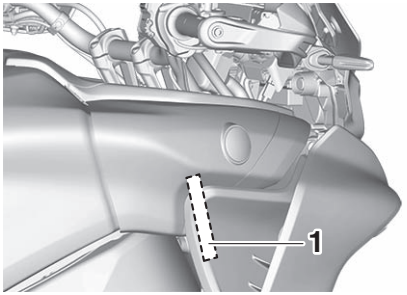
VEHICLE IDENTIFICATION NUMBER:

ENGINE SERIAL NUMBER:

MODEL LABEL INFORMATION:

EAU26401

Vehicle identification number



1. Vehicle identification number

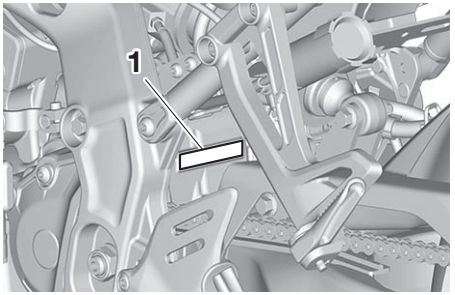
The vehicle identification number is stamped into the steering head pipe. Record this number in the space provided.

TIP

The vehicle identification number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your area.

EAU26442

Engine serial number

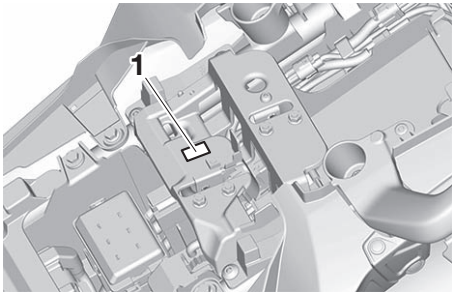


1. Engine serial number

The engine serial number is stamped into the crankcase.

EAU26471

Model label

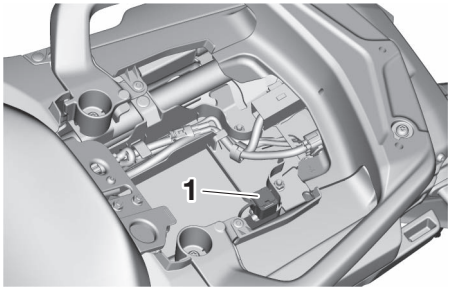


1. Model label

The model label is affixed to the frame under the rider seat. (See page 6-38.) Record the information on this label in the space provided. This information will be needed when ordering spare parts from a Yamaha dealer.

EAU69910

Diagnostic connector



1. Diagnostic connector

The diagnostic connector is located as shown.

EAUA1010

Use of your data

What vehicle data we collect and how we collect your vehicle data?
This vehicle collects three types of vehicle data through integrated Engine Control Units (ECU):
(1) Vehicle Identification Number (VIN);
(2) live data showing the performance of the vehicle such as engine/motor operating state, vehicle speed, mileage; and
(3) other data showing the status of the vehicle such as diagnostic trouble code(s) (DTC).
This is done by attaching a special Yamaha diagnostic tool to the vehicle, in circumstances where maintenance checks or service procedures are performed.
This may also be done by connecting to the Yamaha Y-Connect smart phone application and using the application in accordance with the specified terms and conditions.

How and why we use your vehicle data?
Yamaha Motor Australia Pty Ltd and/or Yamaha Motor New Zealand Limited (Collectively known as “Yamaha”) uses collected data from your vehicle to;
(1) conduct adequate maintenance service including diagnostics;
(2) implement proper warranty claim judgement;
(3) conduct research and development of vehicle(s);
(4) provide and improve quality of products, features, and services; and
(5) comply with the requirements of applicable laws and regulations.

How do we handle your vehicle information?
We may make your vehicle data available to:
(i) our subsidiaries, controlling entity, other companies within the Yamaha group, affiliates, and business partners;
(ii) government, statutory or regulatory bodies and law enforcement bodies;
(iii) dealers in your country or region; and
(iv) contractors within the scope necessary to achieve the purpose of use described (above).

Consumer information

Overseas Disclosure
Sometimes, we need to provide your information to, or get information about you from, persons located overseas. The countries we usually disclose your personal information to (outside of Australia and New Zealand) include India, Japan, Singapore, Philippines, United States of America, United Kingdom, Germany and France.

How long will we retain your vehicle data?
We will retain your vehicle data for the shortest period of time possible/the time necessary to achieve the purposes listed (above).

CONTACT US AND OPTING OUT
If you would like more information about Yamaha's approach to privacy, contact **1300 593 600 (AUS)** or **0800 926 242 (NZ)**, email corporate.services@yamaha-motor.com.au or review the applicable Privacy Policy located at the following Yamaha websites:

- Australia: https://www.yamaha-motor.com.au/privacy/policies/yamaha-motor-australia-privacy-policy
- New Zealand: https://www.yamaha-motor.co.nz/privacy/policies/yamaha-motor-newzealand-privacy-policy

EAU26571

Motorcycle noise regulation (for Australia)

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED:

Owners are warned that the law may prohibit:

a. The removal or rendering inoperative by any person other than for purposes of maintenance, repair or replacement, of any device or element of design incorporated into any new vehicle for the purpose of noise control prior to its sale or delivery to the ultimate purchaser or while it is in use; and

b. The use of the vehicle after such device or element of design has been removed or rendered inoperative by any person.

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