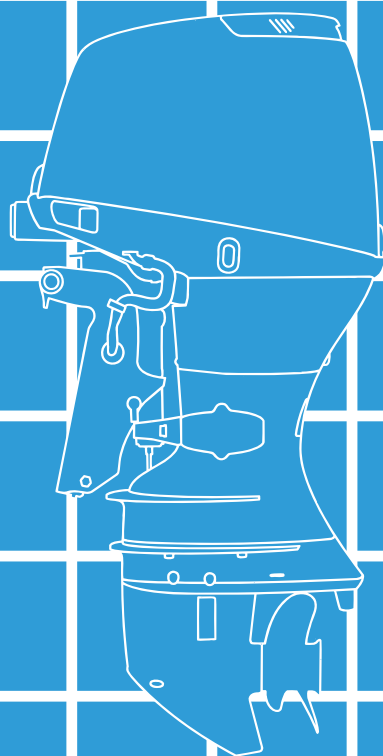


HONDA
MARINE

BF40A·BF50A

OWNER'S MANUAL



ECOLOGY CONSCIOUS TECHNOLOGY



ECOLOGY CONSCIOUS TECHNOLOGY

The “e-SPEC” mark symbolizes environmentally responsible technologies applied to Honda power equipment, which contains our wish to “preserve nature for generations to come.”

Thank you for purchasing a Honda Outboard Motor.

This manual covers operation and maintenance of the Honda BF40A/50A Outboard Motor.

All information in this publication is based on the latest product information available at the time of approval for printing.

Honda Motor Co., Ltd. reserves the right to make changes at any time without notice and without incurring any obligation.

No part of this publication may be reproduced without written permission.

This manual should be considered a permanent part of the Outboard Motor and should remain with it if it is resold.

Throughout this manual, you will see safety messages preceded by the following words and symbols. Here's what they mean:

▲ DANGER

Indicates serious injury or death WILL result if instructions are not followed.

▲ WARNING

Indicates a strong possibility that serious personal injury or death may result if instructions are not followed.

▲ CAUTION

Indicates a possibility that personal injury or equipment damage could result if instructions are not followed.

NOTICE

Indicates that equipment or property damage could result if instructions are not followed.

NOTE: Gives helpful information.

If a problem should arise, or if you have any questions about the Outboard Motor, consult an authorized Honda Outboard Motor dealer.

▲ WARNING

Honda Outboard Motors are designed to give safe and dependable service if operated according to instructions. Read and understand the Owner's Manual before operating the Outboard Motor. Failure to do so could result in personal injury or equipment damage.

- **Have your dealer install the long tiller handle.**
- **The illustration may vary according to the type.**

Honda Motor Co., Ltd. 2003, All Rights Reserved

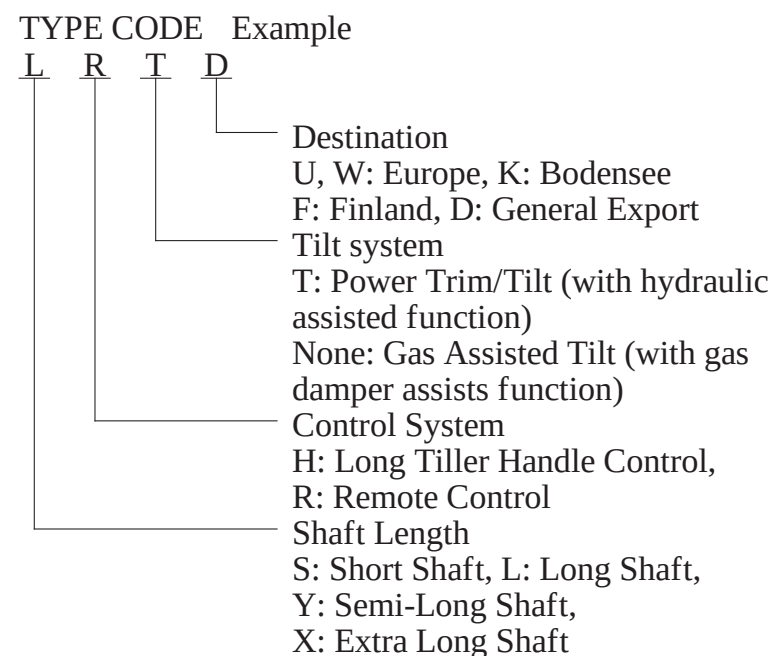
Model	BF40A						
Type	SHU SHW SHD	SRK	SRTU SRTW SRTD	LHU LHW LHD	LHTW LHTD	LRU LRW LRK LRD	LRTU LRTW LRTK LRTD
Shaft Length	S	S	S	L	L	L	L
Tiller Handle	H			H	H		
Remote Control		R	R			R	R
Gas-assisted Tilt	G	G		G		G	
Power Trim/Tilt			TT		TT		TT
Tachometer	*	*	●	*	●	*	●
Trim meter			●		●		●

NOTE: Note that the types of the outboard motor differ according to the countries where they are sold.

BF40A/50A is provided with the following types according to the shaft length, control system, and tilt system.

BF40A-SRK, LRK, LRTK (outboard motors which meet all the requirements of the emission control regulations established for Bodensee-Lake Constance).

- According to Shaft Length
S: Short Shaft
L: Long Shaft
Y: Semi-Long Shaft
X: Extra Long Shaft
- According to Control System
H: Long Tiller Handle Control
R: Remote Control
- According to tilt system
G: Gas-assisted Tilt (with gas damper assist function)
TT: Power Trim & Tilt (with hydraulic assist function)
*: Optional Equipment

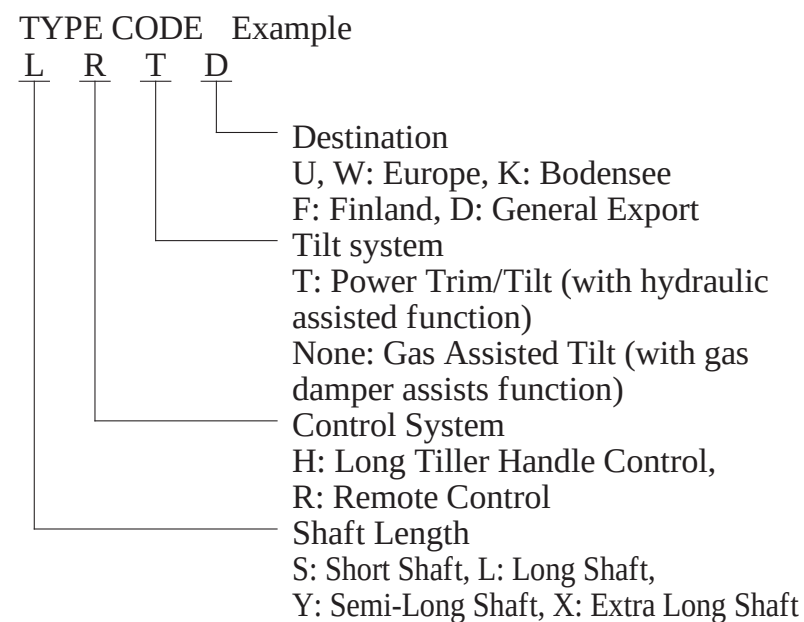


Model	BF50A									
Type	SRTU SRTW SRTD	LHU LHW LHD	LHTW LHTD	LRW LRD	LRTU LRFW LRTW LRTD	YHD	YHTD	YRTD	XHU	XRTU XRTW XRTD
Shaft Length	S	L	L	L	L	Y	Y	Y	X	X
Tiller Handle		H	H			H	H		H	
Remote Control	R			R	R			R		R
Gas-assisted Tilt		G		G		G			G	
Power Trim/Tilt	TT		TT		TT		TT	TT		TT
Tachometer	●	*	●	*	●	*	●	●	*	●
Trim meter	●		●		●		●	●		●

NOTE: Note that the types of the outboard motor differ according to the countries where they are sold.

BF40A/50A is provided with the following types according to the shaft length, control system, and tilt system.

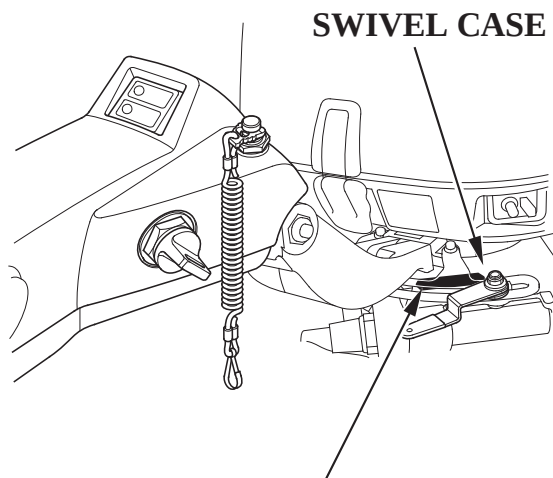
- According to Shaft Length
S: Short Shaft
L: Long Shaft
Y: Semi-Long Shaft
X: Extra Long Shaft
- According to Control System
H: Long Tiller Handle Control
R: Remote Control
- According to tilt system
G: Gas-assisted Tilt (with gas damper assist function)
TT: Power Trim & Tilt (with hydraulic assist function)
*: Optional Equipment



This Owner's Manual is using the following type names when it describes the operations special to a type.

Long tiller handle type:	H type
Remote control type:	R type
Gas-assisted tilt type:	G type
Power trim/tilt type:	T type

Check the type of your outboard motor and read this Owner's Manual thoroughly before operation. Texts with no type indication are the information and/or procedures common to all types.

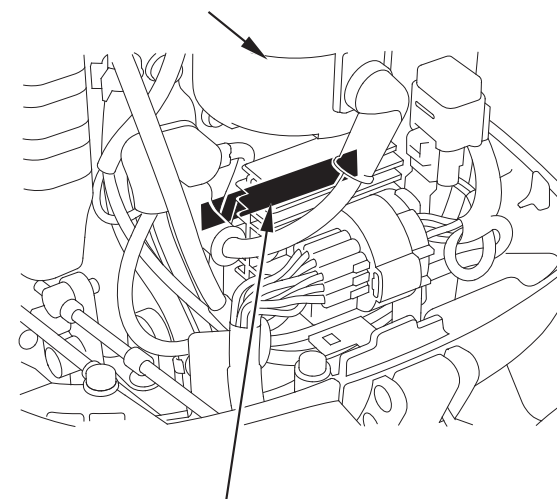


FRAME SERIAL NUMBER

Record the frame and engine serial numbers for your reference. Refer to the serial numbers when ordering parts, and when making technical or warranty inquiries.

Frame serial number:

STARTER MOTOR



ENGINE SERIAL NUMBER

The frame serial number is stamped on a plate attached to the top of the swivel case. The engine serial number is stamped on the cylinder block under the starter motor which is located in front of the motor.

Engine serial number:

1. SAFETY	8	Common	
SAFETY INFORMATION	8	Tilt Lock Lever	33
2. SAFETY LABEL LOCATIONS.....	11	Trim Tab	33
CE mark location	13	Anode Metal	34
3. COMPONENT IDENTIFICATION	14	Cooling Water Check Hole	35
4. CONTROLS	19	Cooling Water Intake Port.....	35
H type		Engine Cover Fixing Lever	36
Engine Switch.....	19	Transom Angle Adjusting Rod	36
Shift Lever.....	19	Fuel Filler Cap	37
Throttle Grip	20	Fuel Line Connector	37
Throttle Friction Dial.....	20	5. INSTALLATION	38
Emergency Stop Switch	21	Transom Height	38
Emergency Stop Switch Lanyard/Clip	21	Location	38
Oil Pressure Indicator Light	22	Installation Height	38
Overheat Indicator Light	22	Outboard Motor Installation	39
R type		Motor Angle Inspection (Cruising).....	40
Remote Control Lever	23	Motor Angle Adjustment	41
Neutral Release Lever	24	Battery Connections	42
Engine Switch.....	24	Remote Control Installation	44
Emergency Stop Switch Lanyard/Clip	25	Remote Control Box Location	44
Fast Idle Lever	26	Remote Control Cable Length	44
Oil Pressure Indicator Light/Buzzer	26	6. PRE-OPERATION CHECKS	45
Overheat Indicator Light/Buzzer.....	27	Engine Cover Removal/Installation	45
T type		Engine Oil	46
Power Trim/Tilt Switch.....	28	Fuel Level	47
Power Tilt Switch	29	GASOLINE CONTAINING ALCOHOL.....	48
Trim Meter.....	30	Battery	49
Tachometer	30	Propeller and Cotter Pin Inspection	50
Manual Relief Valve	31	Steering Handle Friction (H type).....	51
G type		Remote Control Lever Friction (R type).....	51
Tilt Lever	32	Other Checks	52

CONTENTS

7. STARTING THE ENGINE	53	Trim Tab Adjustment	84
Fuel Line Connection	53	Motor Protection System.....	85
Starting the Engine (H type).....	55	Engine Oil Pressure and Overheat Warning Systems.....	85
Starting the Engine (R type).....	60	Over-rev Limiter.....	87
Emergency Starting	65	Anodes	88
Troubleshooting Starting Problems	71	Shallow Water Operation	88
8. OPERATION.....	72	High Altitude Operation.....	89
Break-in Procedure	72	9. STOPPING THE ENGINE.....	90
H type		Stopping the Engine (H type).....	91
Gear Shifting	72	Stopping the Engine (R type).....	93
Steering	73	10. TRANSPORTING	94
Cruising	73	Fuel Line Disconnection	94
R type		Transporting.....	95
Gear Shifting	75	Trailering	96
Cruising	76	11. CLEANING AND FLUSHING	98
Common		With Water Hose Joint (Optional part).....	98
Tilting the Motor	77	Without Water Hose Joint	99
G type		12. MAINTENANCE	100
Tilting the Motor	77	Tool Kit and Spare Parts	101
Moorage.....	79	Maintenance Schedule.....	102
T type		Engine Oil.....	104
Tilting the Motor	80	Spark Plugs.....	107
Trim Meter.....	81	Battery.....	108
Power Tilt Switch.....	82	Lubrication.....	110
Manual Relief Valve	82	Fuel Filter	111
Moorage.....	83	Fuel Tank and Tank Filter	113
		Emission Control System (FOR BODENSEE-LAKE TYPE).....	114
		Fuse.....	115
		Propeller.....	116
		Submerged Motor.....	117

13. STORAGE	119
Carburetor Draining	119
Battery Storage	120
Outboard Motor Position.....	121
14. TROUBLESHOOTING	122
15. SPECIFICATIONS.....	124
16. MAJOR Honda DISTRIBUTOR ADDRESSES IN EUROPE ...	129
17. INDEX	132
WIRING DIAGRAMS	Inside Back Cover

1. SAFETY

SAFETY INFORMATION

For your safety and the safety of others, pay special attention to these precautions.

Operator Responsibility

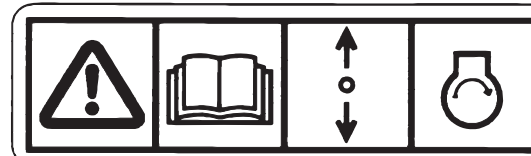


- Honda outboard motor is designed to give safe and dependable service if operated according to instructions. Read and understand the Owner's Manual before operating the outboard motor. Failure to do so could result in personal injury or equipment damage.



- Gasoline is harmful or fatal if swallowed. Keep the fuel tank out of reach of children.
- Gasoline is extremely flammable and is explosive under certain conditions. Refuel in a well-ventilated area with the engine stopped.
- Do not smoke or allow flames or sparks where the engine is refueled or where gasoline is stored.
- Do not overfill the fuel tank. After refueling make sure that the fuel tank cap is closed properly and securely.

- Be careful not to spill any fuel while refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled make sure that the area is dry before starting the engine.



- The engine can be started even if the gearshift position is in FORWARD or REVERSE when it is cranked by rope in emergency. To prevent start-in-gear, be sure to set the gearshift position to the NEUTRAL before starting the engine. Read and understand the Owner's Manual before starting the engine in emergency.

- Know how to stop the engine quickly in case of emergency. Understand the use of all controls.
- Do not exceed the boat manufacturer's power recommendation, and be sure that the outboard motor is properly mounted.
- Never permit anyone to operate the outboard motor without proper instruction.
- Stop the engine immediately if anyone falls overboard.
- Do not run the motor while the boat is near anyone in the water.
- Attach the emergency stop switch lanyard securely to the operator.
- Before operating the outboard motor, familiarize yourself with all laws and regulations relating to boating and the use of outboard motors.
- Do not attempt to modify the outboard motor.

- Always wear a life-jacket when on board.
- Do not operate the outboard motor without the engine cover. Exposed moving parts can cause injury.
- Do not remove any guards, labels, shields, covers or safety devices; they are installed for your safety.

Fire and Burn Hazards

Gasoline is extremely flammable, and gasoline vapor can explode. Use extreme care when handling gasoline.

KEEP OUT OF REACH OF CHILDREN.

- Remove the fuel tank from the boat for refueling.
- Refuel in a well-ventilated area with the engine stopped. Keep flames and sparks away, and do not smoke in the area.
- Refuel carefully to avoid spilling fuel. Avoid overfilling the fuel tank (there should be no fuel in the filler neck). After refueling, tighten the filler cap securely. If any fuel is spilled, make sure the area is dry before starting the engine.

SAFETY

The engine and exhaust system become very hot during operation and remain hot for a while after stopping. Contact with hot engine components can cause burns and may ignite some materials.

- Avoid touching a hot engine or exhaust system.
- Allow the engine to cool before performing maintenance or transporting.

Carbon Monoxide Poisoning Hazard

Exhaust contains poisonous carbon monoxide, a colorless and odorless gas. Breathing exhaust can cause loss of consciousness and may lead to death.

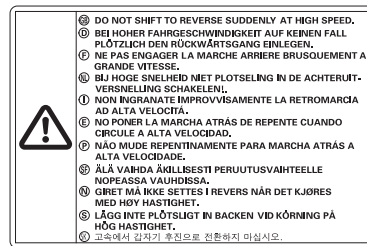
- If you run the engine in an area that is confined, or even partially enclosed, the air can become contaminated with a dangerous amount of exhaust gas. To keep exhaust gas from building up, provide adequate ventilation.

2. SAFETY LABEL LOCATIONS

[Equipped type]

These labels and indications warn you of potential hazards that can cause serious injury.
Read the labels, indications and safety notes and precautions described in this manual carefully.
If a label comes off or becomes hard to read, contact your Honda outboard motor dealer for a replacement.

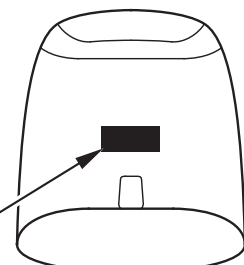
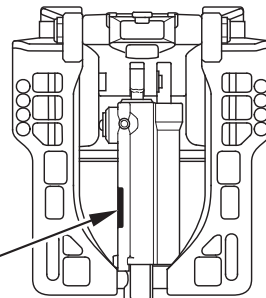
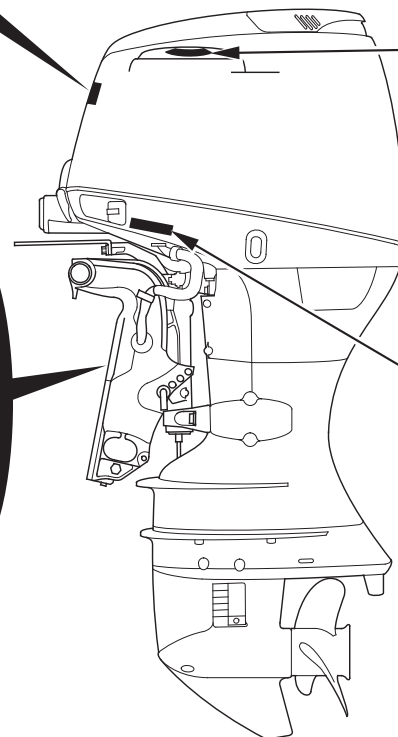
READ OWNER'S MANUAL



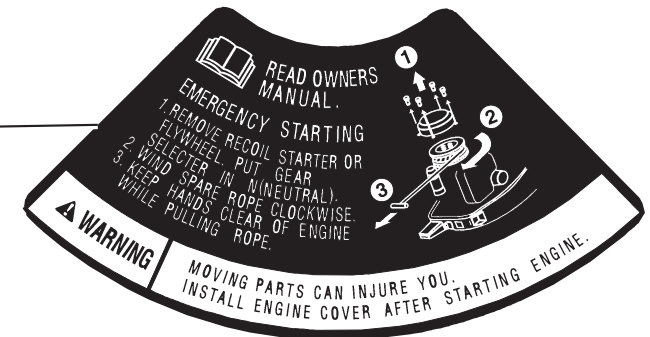
AT CAUTION



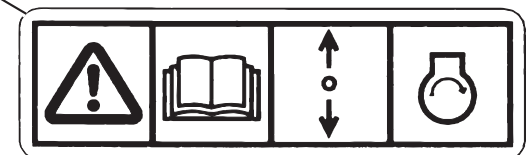
[G type]



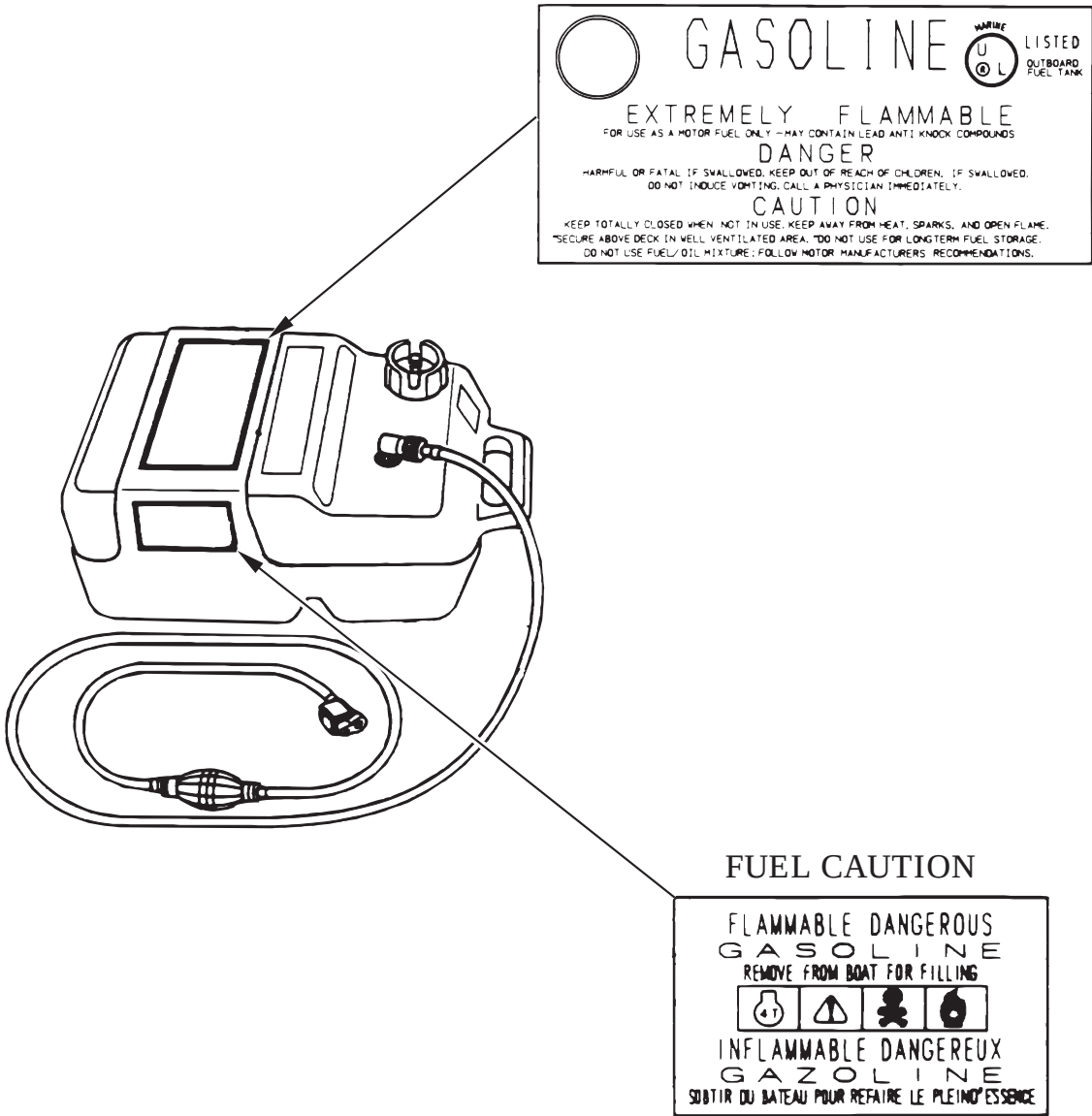
READ OWNER'S MANUAL
EMERGENCY ENGINE STARTING



READ OWNER'S MANUAL
EMERGENCY ENGINE STARTING



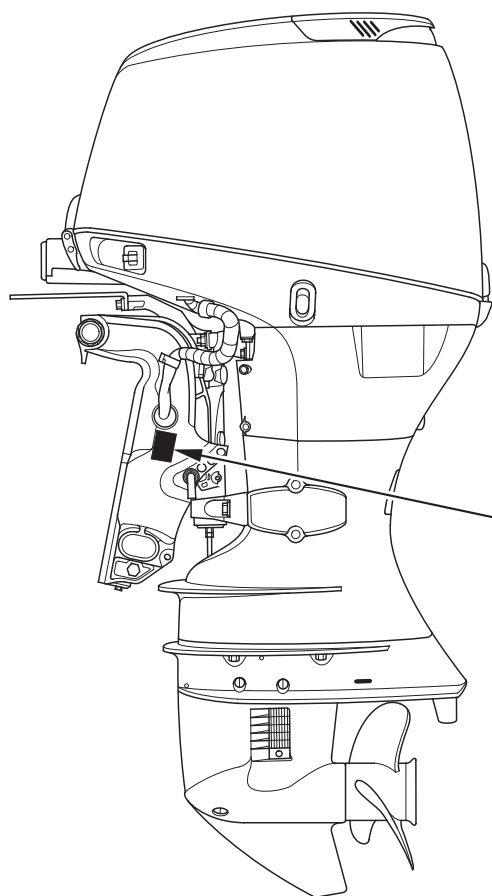
SAFETY LABEL LOCATIONS



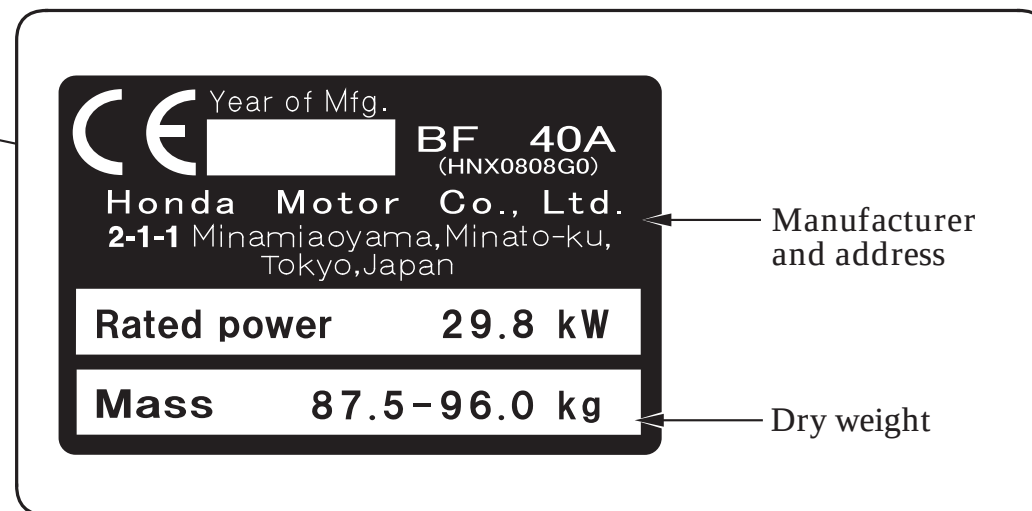
SAFETY LABEL LOCATIONS

CE mark location

[U, W and K types]



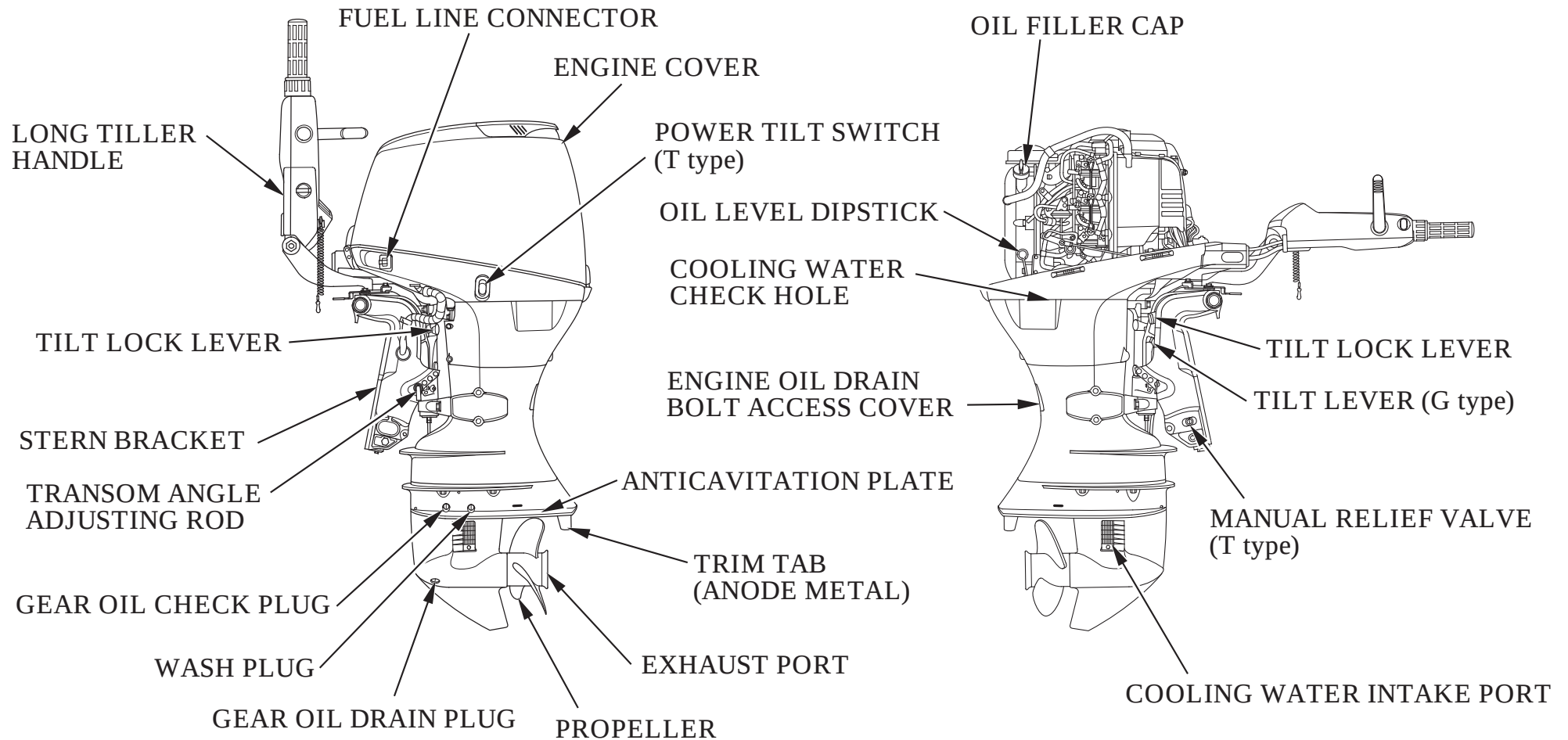
CE MARK



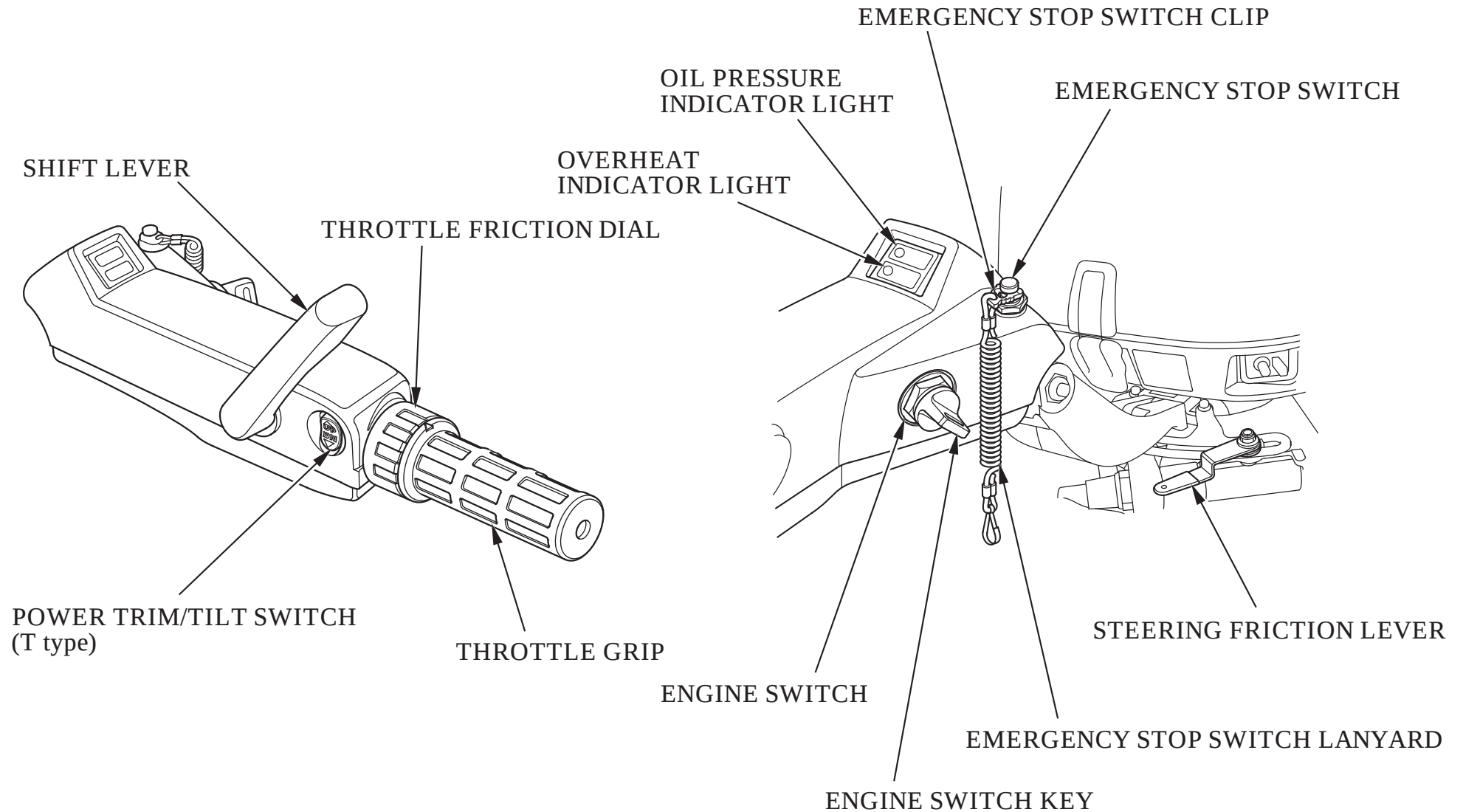
[Example of BF40A]

3. COMPONENT IDENTIFICATION

LONG TILLER HANDLE TYPE (H type)

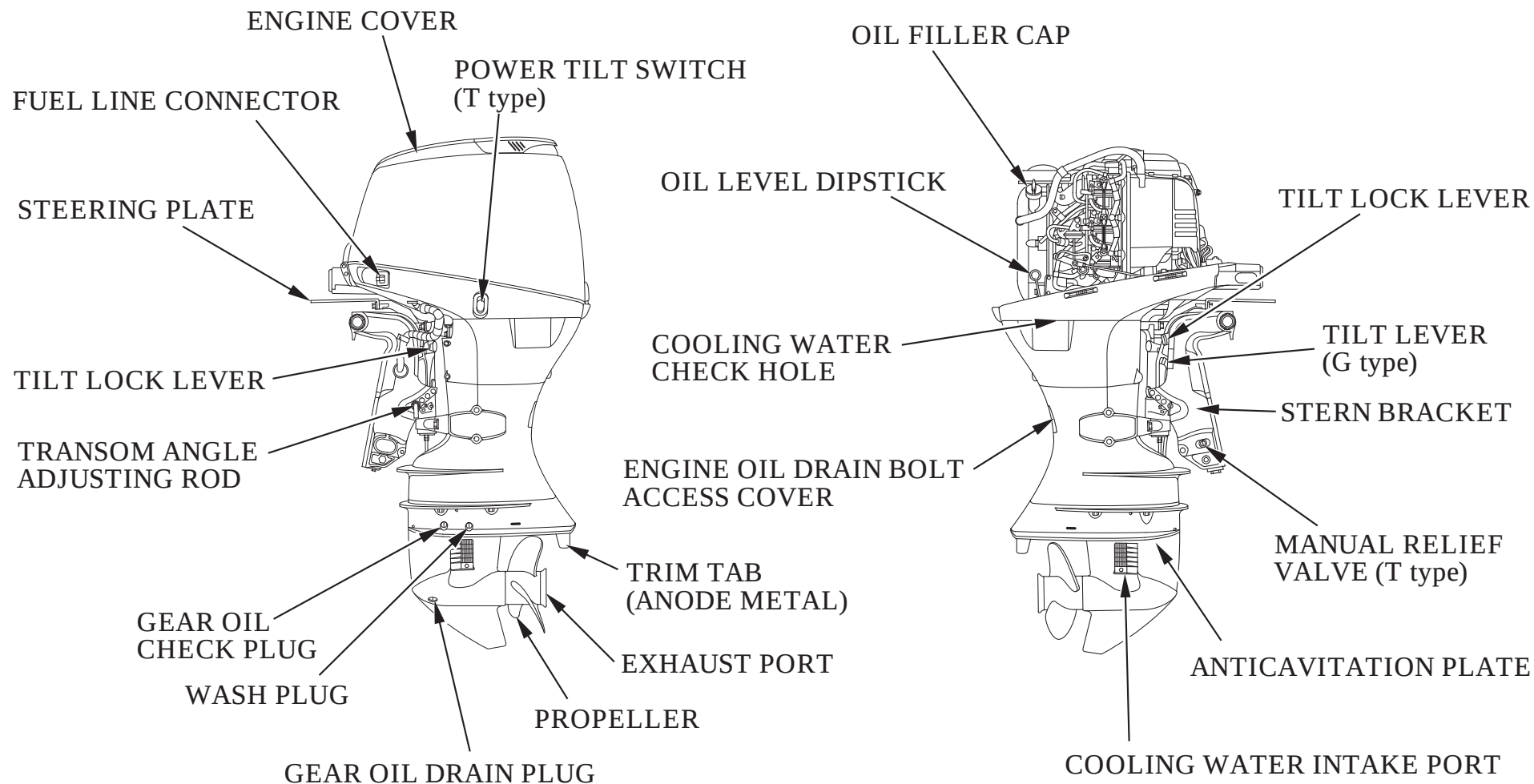


COMPONENT IDENTIFICATION

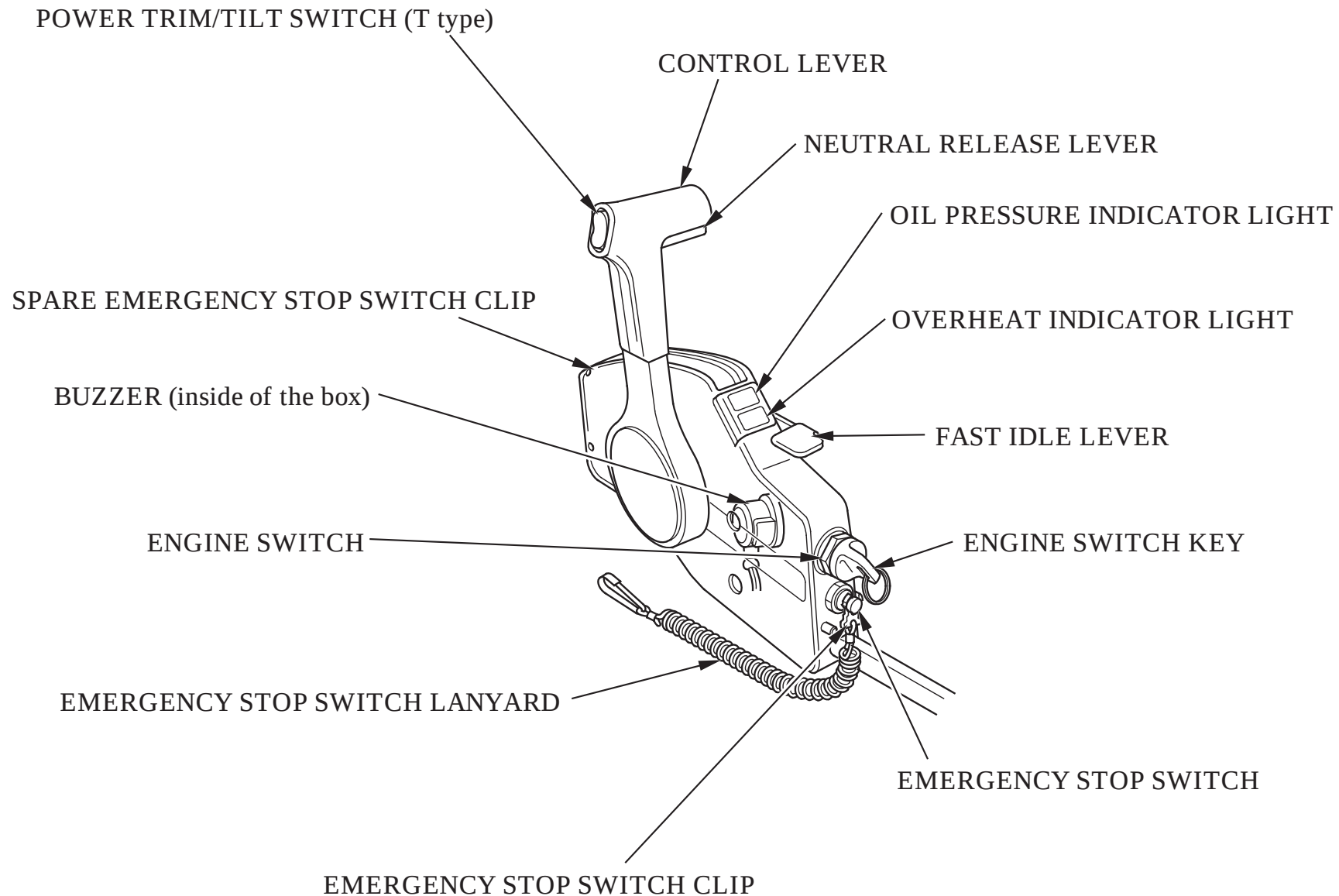


COMPONENT IDENTIFICATION

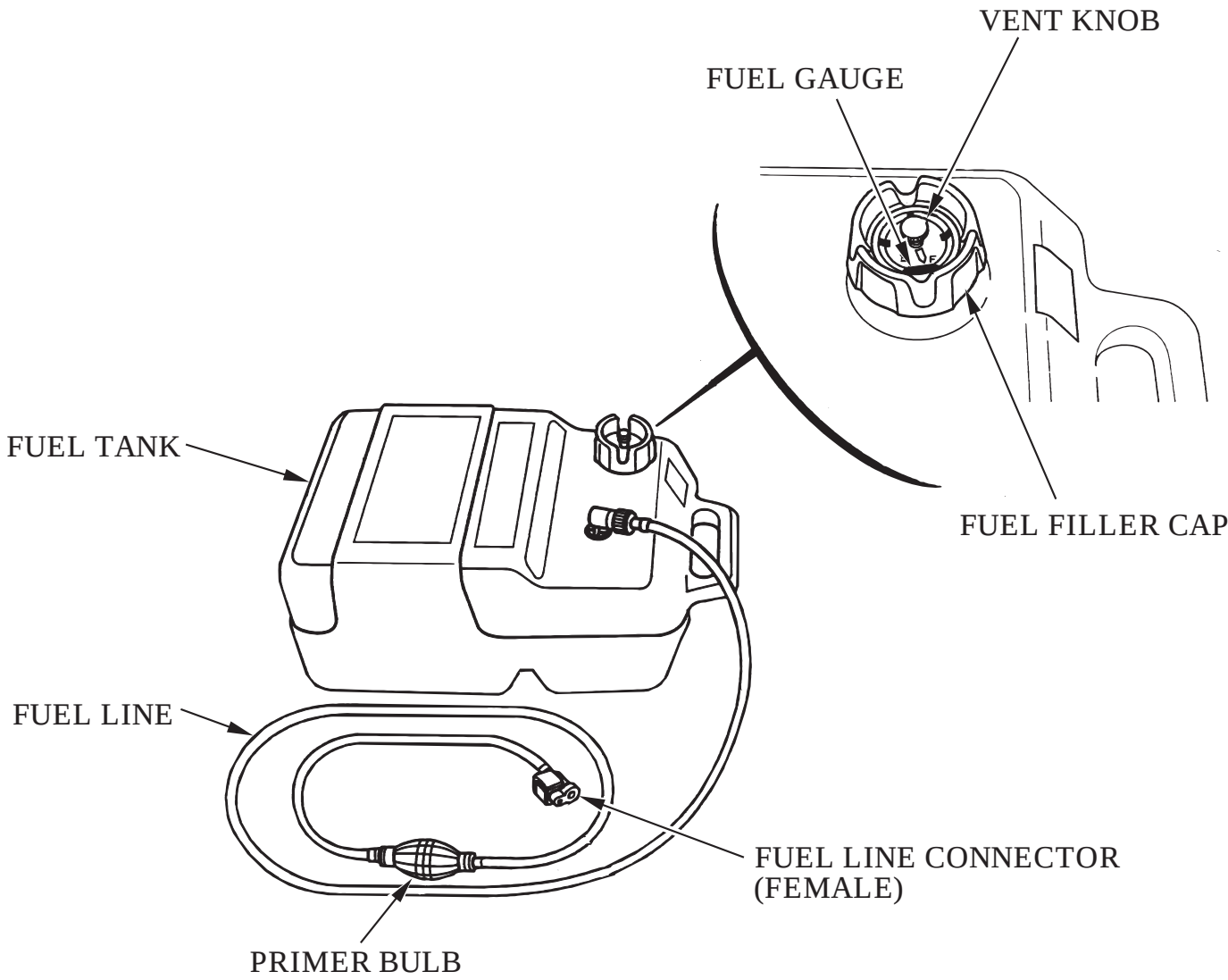
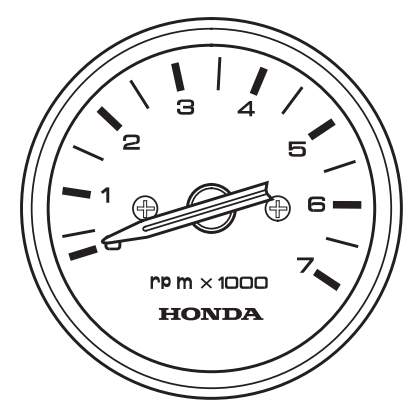
REMOTE CONTROL TYPE (R type)



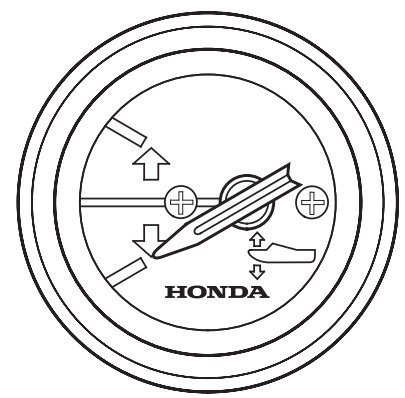
COMPONENT IDENTIFICATION



COMPONENT IDENTIFICATION



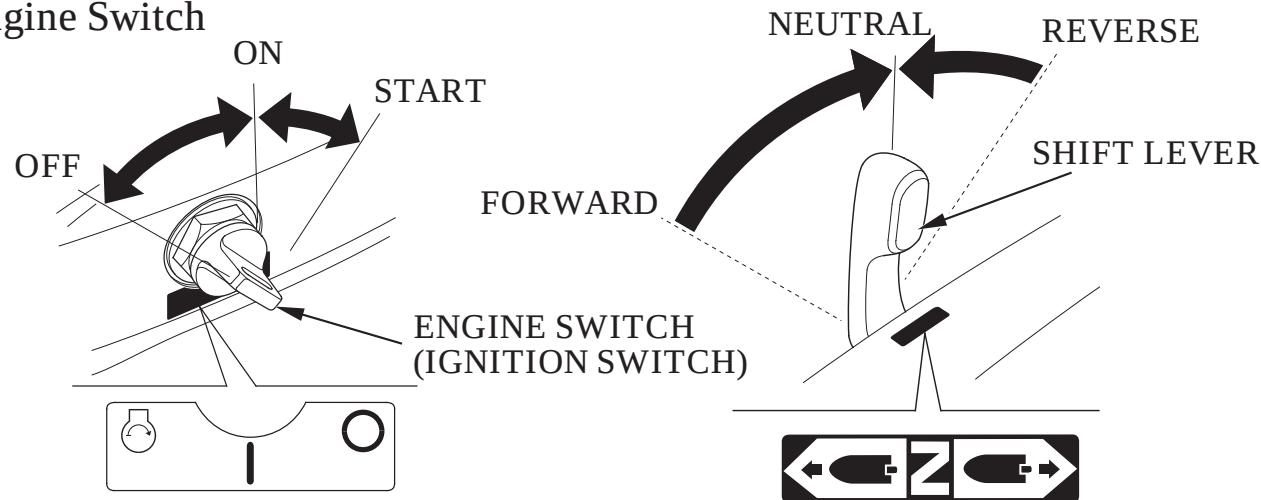
TACHOMETER
(T type and G type optional equipment)



TRIM METER
(T type)

4. CONTROLS (H type)

Engine Switch



START ON OFF

This tiller handle is equipped with an automotive type ignition switch.

Key positions:

START: to start the engine.
ON: to run the engine after starting.
OFF: to stop the engine (IGNITION OFF).

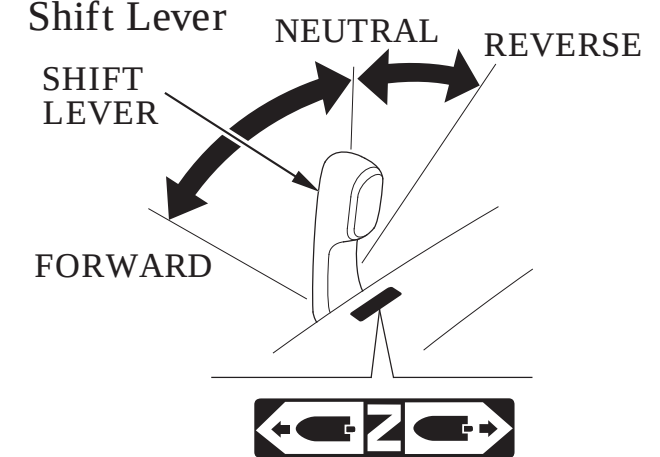
NOTICE

Do not leave the engine switch (ignition switch) ON (key in ON position) when the engine is not running as the battery will discharge.

NOTE:

The starter motor will not work unless the shift lever is in the NEUTRAL position.

Shift Lever



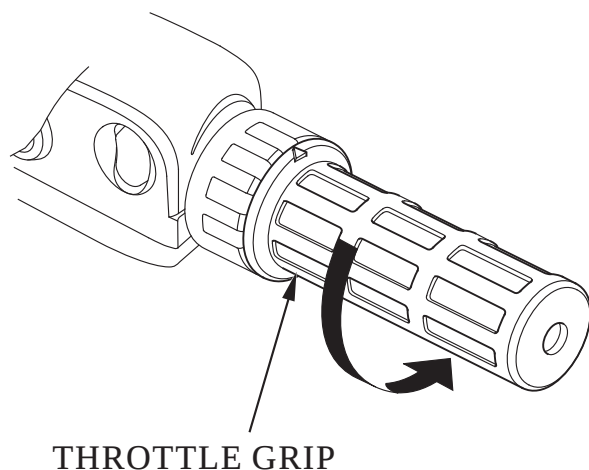
FORWARD REVERSE
NEUTRAL

Use the shift lever to run the boat in forward or reverse gear, or to cut off the engine power from the propeller. There are the three positions for the shift lever.

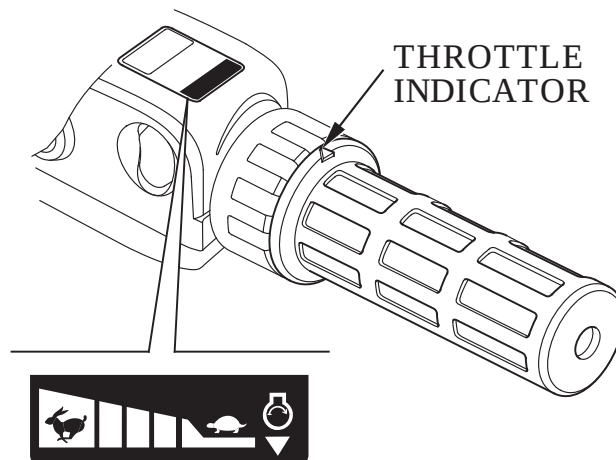
FORWARD: The boat moves ahead.
NEUTRAL: The engine power is cut off from the propeller. The boat does not move.
REVERSE: The boat reverses.

CONTROLS (H type)

Throttle Grip



Turn the grip clockwise or counterclockwise to adjust the engine speed. Turning the grip in the direction shown by arrow increases the engine speed.

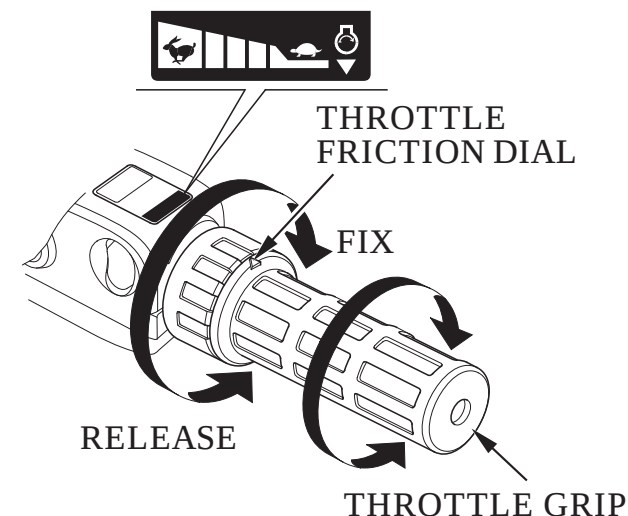


FAST SLOW

START

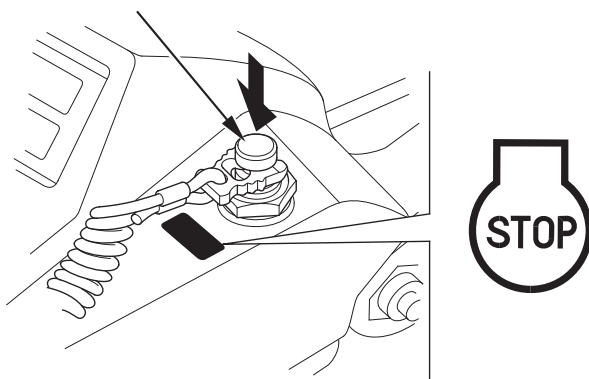
The curve on the grip indicates the engine speed.

Throttle Friction Dial



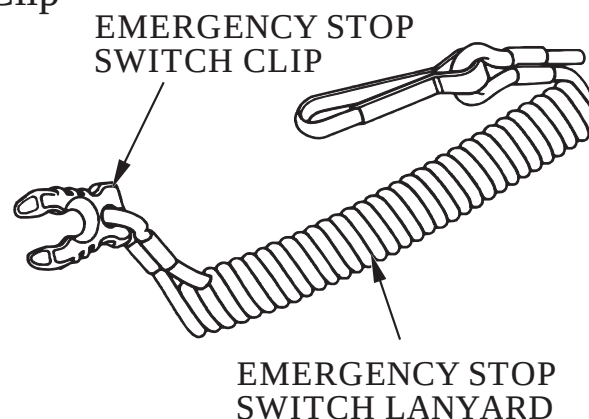
Use the engine throttle fixing dial to cruise at a certain constant speed. Turning the fixing dial clockwise fixes the throttle grip in place, and it is released by turning the fixing dial counterclockwise.

Emergency Stop Switch EMERGENCY STOP SWITCH



Press the emergency stop switch to stop the engine.

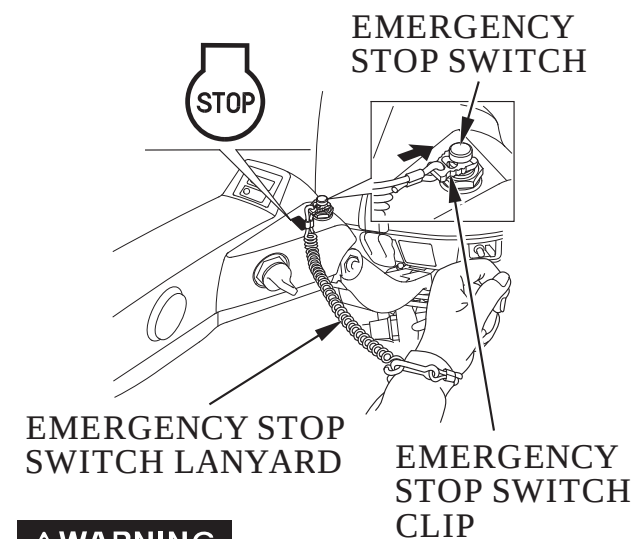
Emergency Stop Switch Lanyard/ Clip



The emergency stop switch lanyard is provided to stop the engine immediately when the operator falls overboard or away from the outboard motor.

The engine stops when the clip at the end of the emergency stop switch lanyard is pulled out of the emergency stop switch.

When operating the outboard motor, be sure to attach one end of the emergency stop switch lanyard securely to the operator's wrist.

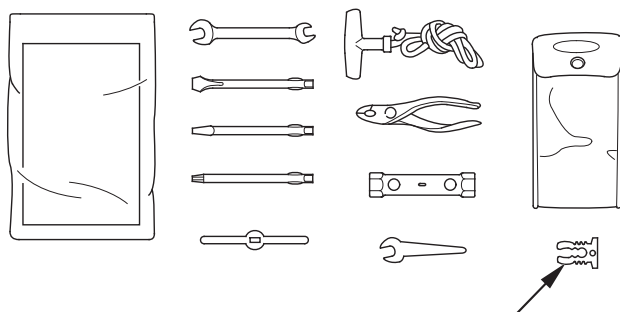


⚠ WARNING

If the emergency stop switch lanyard is not set, the boat might run out of control when the operator, for example, falls overboard and is not able to operate the outboard motor.

For the sake of the operator's and the passenger's safety, be sure to set the emergency stop switch clip located at one end of the emergency stop switch lanyard with the emergency stop switch. Attach the other end of the emergency stop switch lanyard securely to the operator's wrist.

CONTROLS (H type)



SPARE EMERGENCY STOP SWITCH CLIP

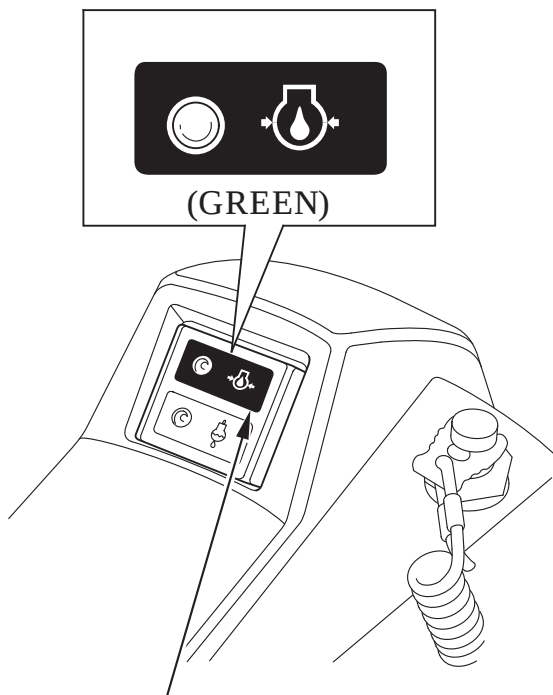
NOTE:

The engine does not start unless the emergency stop switch clip is set on the emergency stop switch.

A spare emergency stop switch clip is provided in the tool bag (see page 101).

Use the spare emergency stop switch clip to make the disabled engine start when the emergency stop switch lanyard is not available as, for example, when the operator falls overboard.

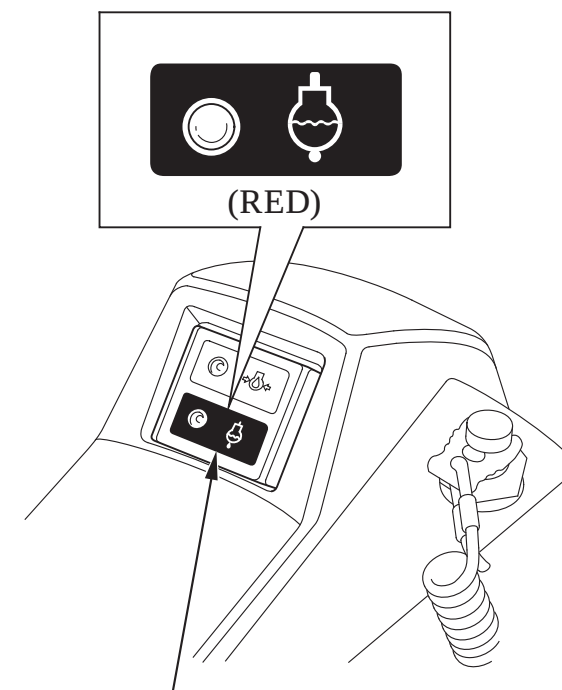
Oil Pressure Indicator Light



OIL PRESSURE INDICATOR LIGHT

When the engine oil level is low or the engine lubrication system is faulty, the oil pressure indicator light turns off and the engine speed decreases gradually.

Overheat Indicator Light

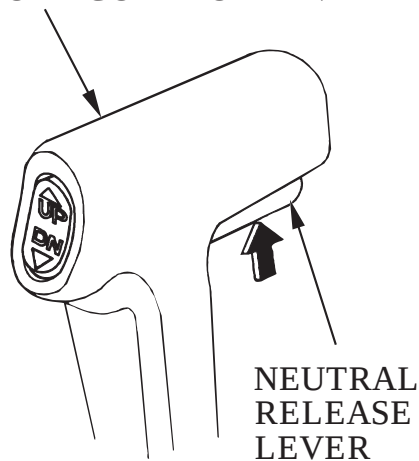


OVERHEAT INDICATOR LIGHT

When the engine cooling system is faulty, the overheat indicator light turns on and the engine speed decreases gradually.

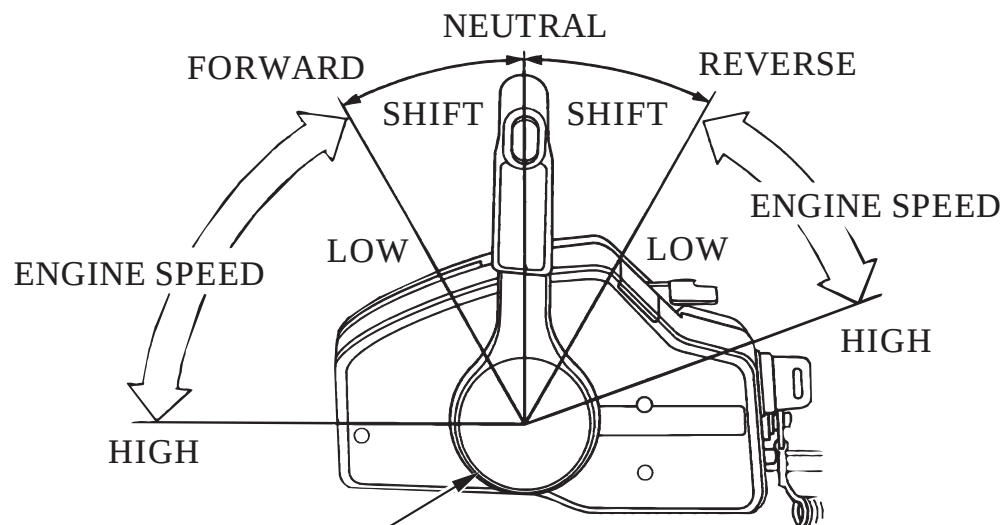
Remote Control Lever

REMOTE CONTROL LEVER



Shifting gear into forward, reverse, or neutral and the engine speed adjustment can be performed with the remote control lever.

It is necessary to pull up the neutral release lever to operate the remote control lever.



REMOTE CONTROL LEVER

FORWARD:

Moving the lever to the FORWARD position (i.e. approximately 30° from the NEUTRAL position) engages the gear into forward. Moving the lever further from the FORWARD position will increase the throttle opening and the boat forward speed.

NEUTRAL:

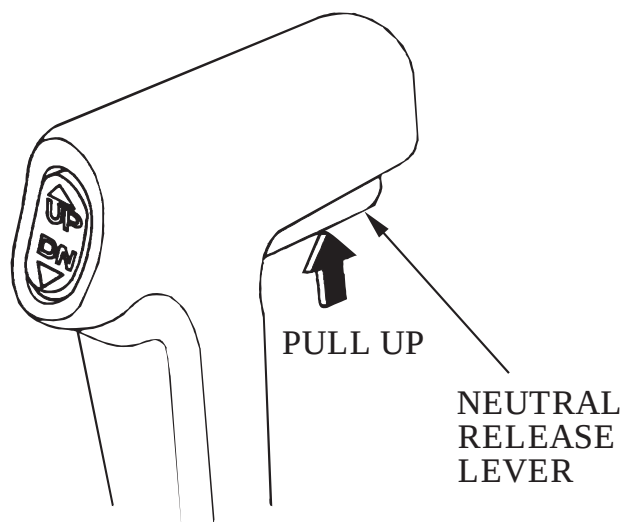
Engine power is cut off from the propeller.

REVERSE:

Moving the lever to the REVERSE position (i.e. approximately 30° from the NEUTRAL position) engages the gear into reverse. Moving the lever further from the REVERSE position will increase the throttle opening and the boat reverse speed.

CONTROLS (R type)

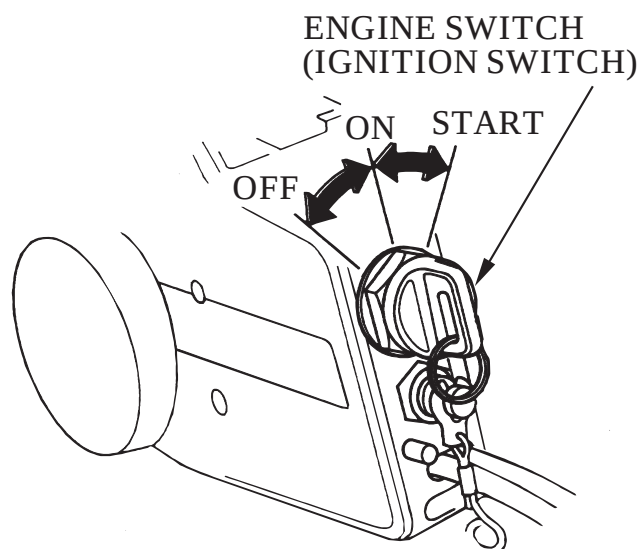
Neutral Release Lever



The neutral release lever is set on the remote control lever to prevent an accidental operation of the remote control lever.

The remote control lever does not operate unless it is moved while pulling the neutral release lever up.

Engine Switch



This remote control is equipped with an automotive type ignition switch.

Key positions:

START: to start the engine.
ON: to run the engine after starting.
OFF: to stop the engine (IGNITION OFF).

NOTICE

Do not leave the engine switch (ignition switch) ON (key in ON position) when the engine is not running as the battery will discharge.

NOTE:

The starter motor will not work unless the remote control lever is in the NEUTRAL position.

Emergency Stop Switch Lanyard/ Clip

EMERGENCY STOP
SWITCH LANYARD

EMERGENCY
STOP SWITCH

EMERGENCY STOP
SWITCH CLIP

EMERGENCY STOP SWITCH CLIP

EMERGENCY STOP
SWITCH LANYARD

The emergency stop switch lanyard is provided to stop the engine immediately when the operator falls overboard or away from the outboard motor.

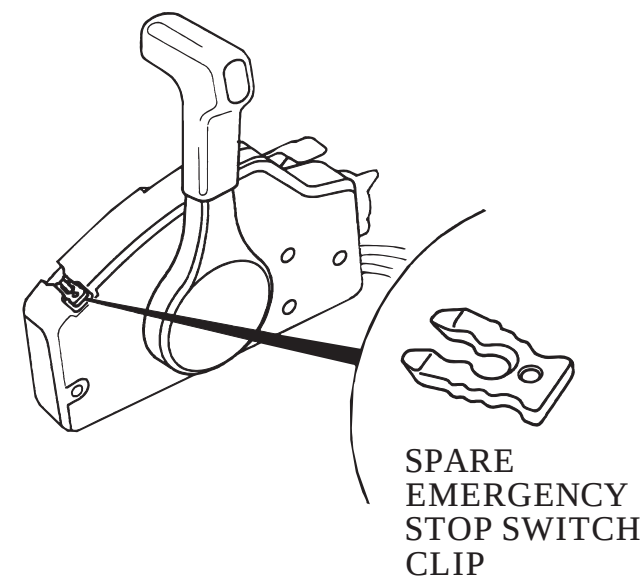
The engine stops when the clip at the end of the emergency stop switch lanyard is pulled out of the emergency stop switch.

When operating the outboard motor, be sure to attach one end of the emergency stop switch lanyard securely to the operator's wrist.

⚠ WARNING

If the emergency stop switch lanyard is not set, the boat might run out of control when the operator, for example, falls overboard and is not able to operate the outboard motor.

For the sake of the operator's safety, be sure to set the emergency stop switch clip and attach one end of the emergency stop switch lanyard to the operator's wrist securely.



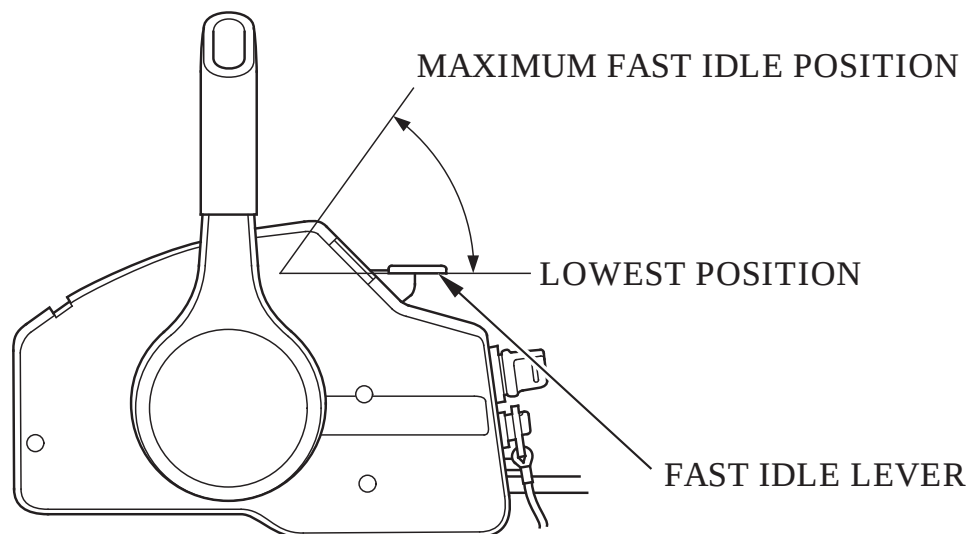
NOTE:

The engine does not start unless the emergency stop switch clip is set on the emergency stop switch.

A spare emergency stop switch clip is provided on the remote control box. Use the spare emergency stop switch clip to make the disabled engine start when the emergency stop switch lanyard is not available as, for example, the operator falls overboard.

CONTROLS (R type)

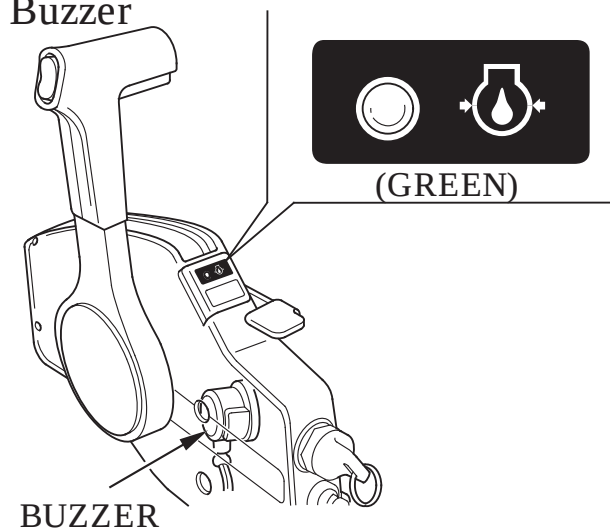
Fast Idle Lever



The fast idle lever is provided with the engine speed adjustment function. The lever does not move unless the remote control lever is in the “N” (neutral) position. Note also that the control lever does not move unless the fast idle lever is in the “full close” position.

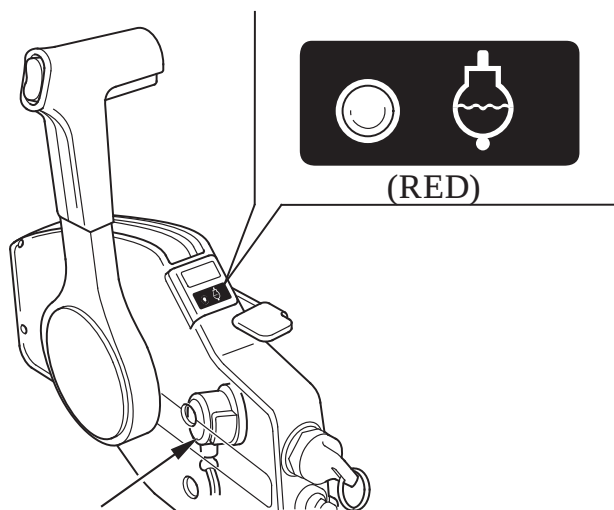
Use the fast idle lever for engine warm-up after starting a cold engine and when starting a warm engine.

Oil Pressure Indicator Light/ Buzzer



The oil pressure indicator light turns off and the buzzer sounds when the oil level is low and/or the engine lubrication system is faulty. The engine speed slows down gradually this time.

Overheat Indicator Light/Buzzer



BUZZER

The overheat indicator light turns on and the buzzer sounds when the engine cooling circuit is faulty. The engine speed slows down this time.

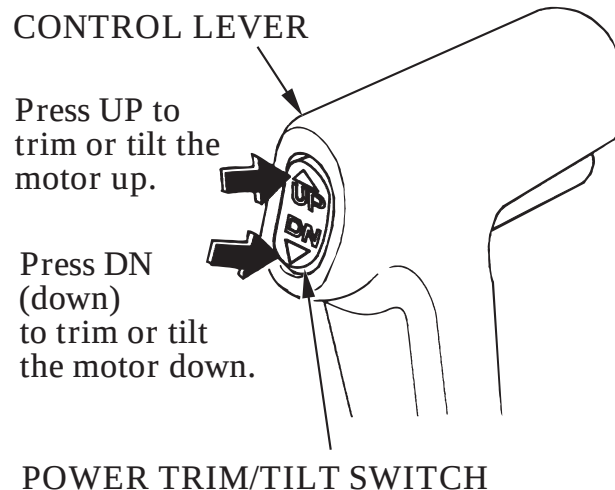
CONTROLS (T type)

Power Trim/Tilt Switch

Press the power trim/tilt switch on the control lever (R type) or the tiller handle (H type), and the motor installation angle (trim angle) and boat angle can be adjusted while sailing or stopping the boat. Acceleration, maximum high speed, operational stability and fuel consumption are improved by setting the motor at the suitable trim angle.

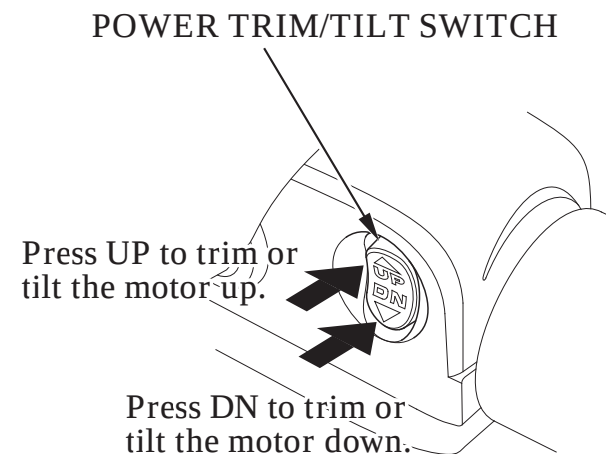
⚠WARNING

Do not trim excessively while cruising through rough waves, or it may cause an accident.



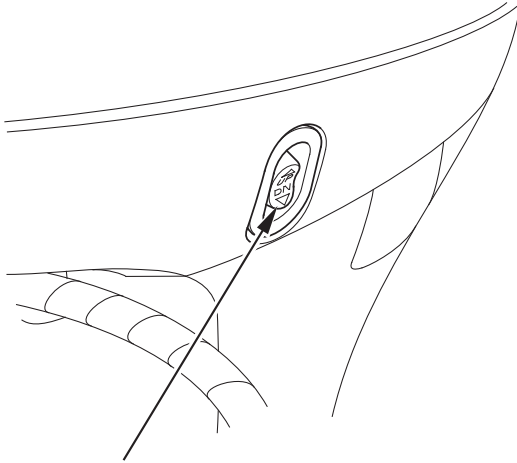
(R type)

Excessive trim angle can result in cavitation and racing of the propeller, and trimming up the motor excessively can cause damage to the impeller pump.



(H type)

Power Tilt Switch

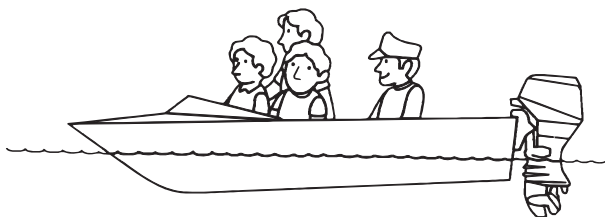


POWER TILT SWITCH

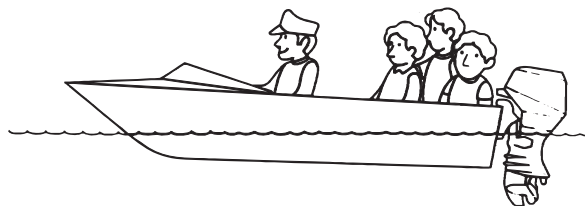
The power tilt switch located on the motor pan is a convenience switch for tilting the motor for trailering, or performing outboard maintenance. This power tilt switch should only be operated with the boat being stopped and motor off.

CONTROLS (T type)

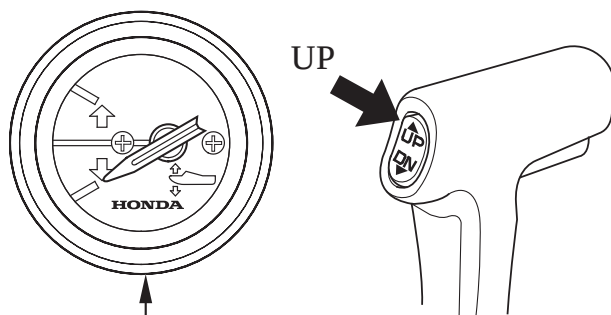
Trim Meter (T type)



Increase the trim angle by pressing UP of the power trim/tilt switch.

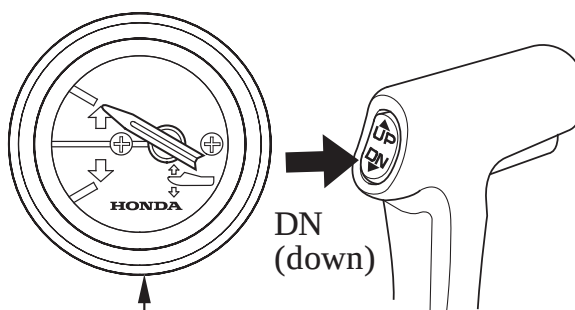


Decrease the trim angle by pressing DN (down) of the power trim/tilt switch.



TRIM METER

(R type)



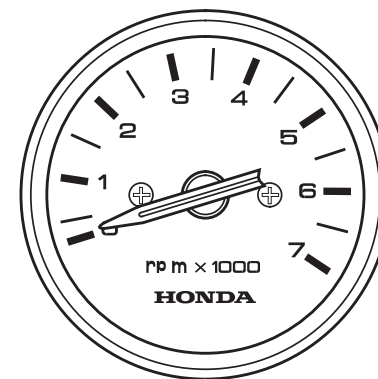
TRIM METER

(R type)

The trim meter indicates the trimming condition of the outboard motor. Referring to the trim meter, press the power trim/tilt switch and trim the boat at the best angle for optimum stability and speed.

The illustration represents R type. Perform the same procedure for the other types.

Tachometer (T type, and G type optional equipment)



TACHOMETER

The tachometer shows the engine speed in revolutions per minute.

Manual Relief Valve

If the power trim/tilt switch does not operate because of, for example, dead battery, the motor can be tilted manually by opening the manual relief valve.

To move the outboard motor by hand, turn the manual relief valve under the stern bracket 2 and a half turns counterclockwise using a screw driver.

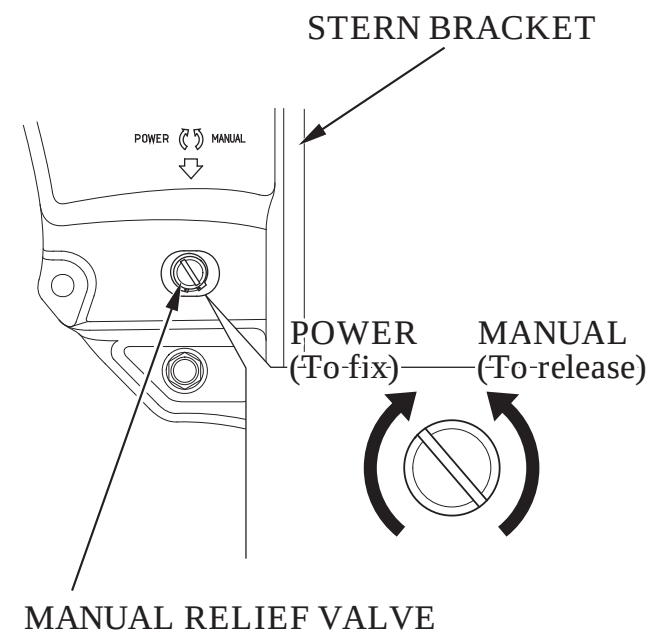
After moving the motor, turn the screw clockwise securely.

⚠ WARNING

Be sure to tighten the manual relief valve securely. The motor could rise when sailing in the reverse gear, resulting in an accidental injury to the passenger(s).

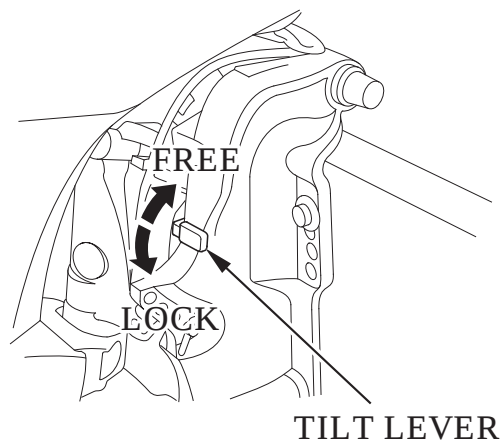
NOTICE

Do not loosen the manual relief valve more than two turns, or the outboard motor cannot be tilted up when the manual relief valve is retightened.



CONTROLS (G type)

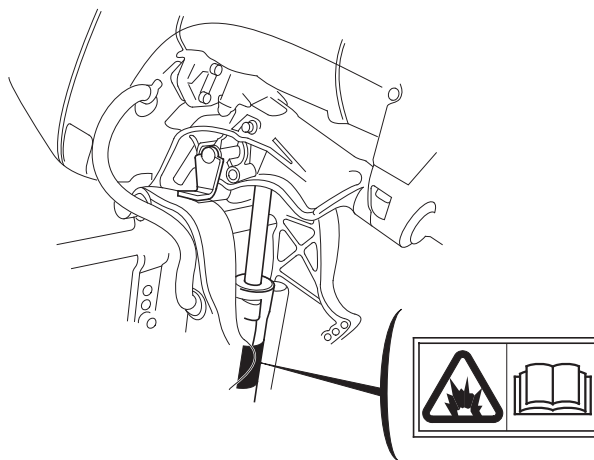
Tilt Lever



Use the tilt lever to temporarily raise the motor when the boat is sailing in the shallows, or mooring or anchoring in the shallows. Raising the tilt lever unlocks the motor and the motor can be tilted. Lowering the lever locks the motor.

⚠ WARNING

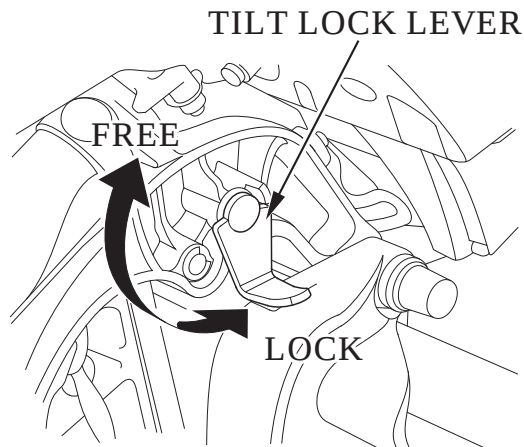
Be sure to lower the tilt lever and lock the motor before sailing. The motor could rise when sailing in the reverse gear, resulting in an accidental injury to the passenger(s).



⚠ WARNING

Do not disassemble the gas assisted damper assembly as it is filled with the high pressure gas.

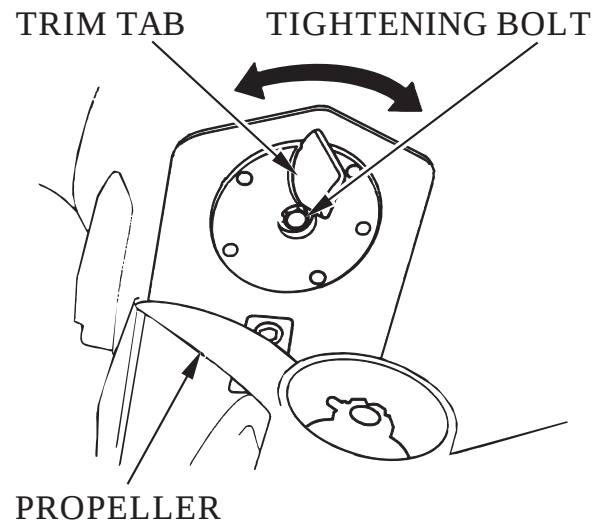
Tilt Lock Lever



Use the tilt lock lever to raise the motor and lock it in the position when the boat is moored or anchored for a long time.

Tilt the motor as far as it goes and move the lock lever in the locking direction.

Trim Tab



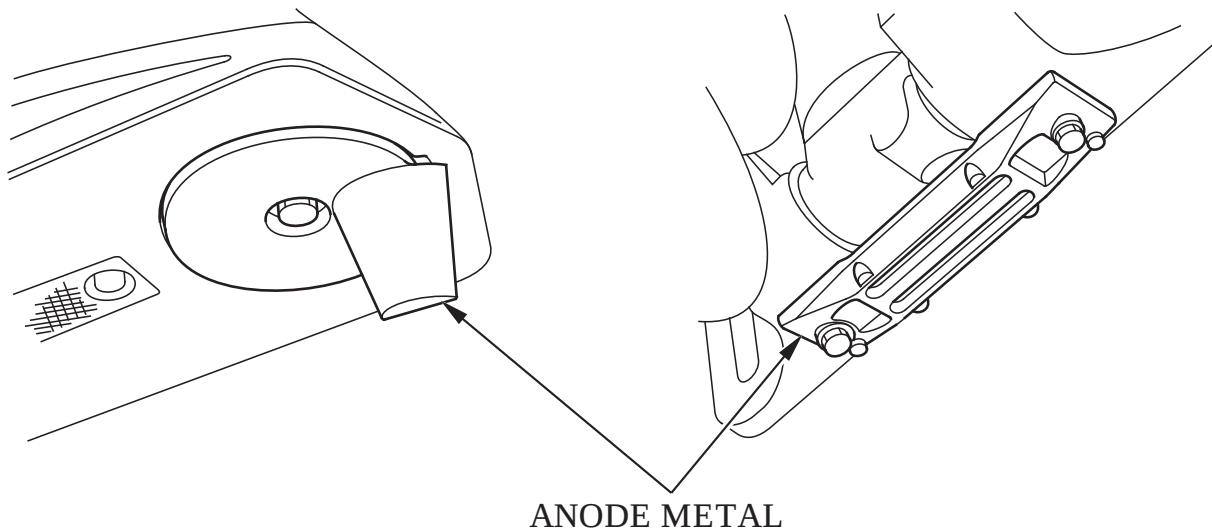
If the steering wheel/handle is pulled to the side while running at full speed, adjust the trim tab so that the boat runs straight ahead.

Loosen the tightening bolt and turn the trim tab right or left to adjust.

The trim tab also functions as the anode metal.

CONTROLS (Common)

Anode Metal

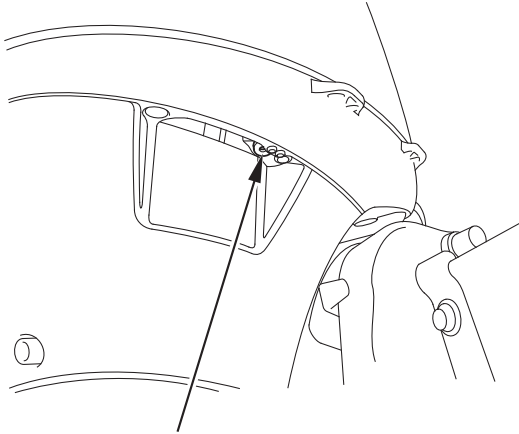


The anode metal is a sacrificed metal which protects the outboard from corrosion.

NOTICE

Do not paint the anode metal. It deteriorates the function of the anode metal, which can lead to rust and corrosion damage to the outboard motor.

Cooling Water Check Hole

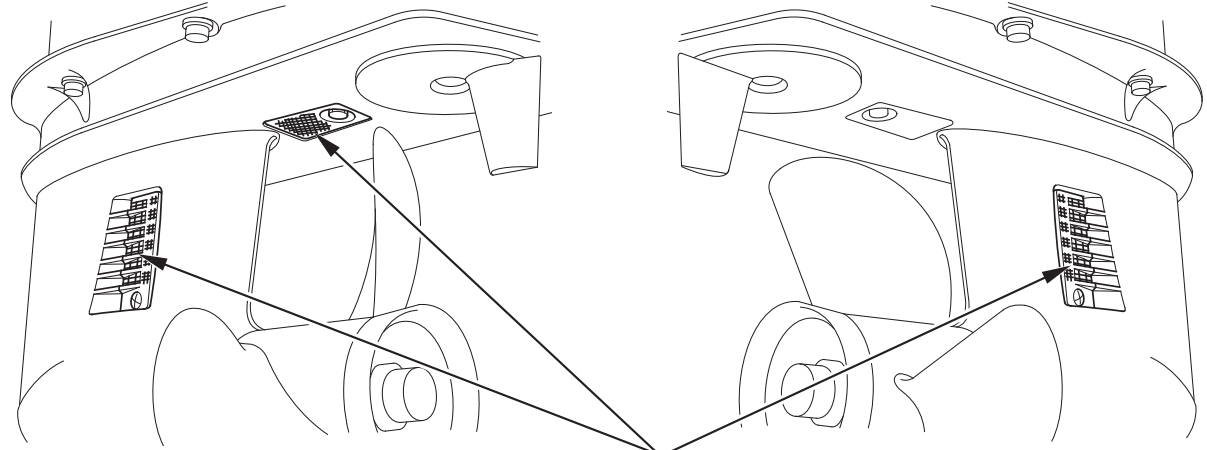


COOLING WATER CHECK HOLE

The cooling water is checked here to see whether it is circulating inside the engine properly.

After starting the engine, check at the cooling water check hole whether the cooling water is circulating through the engine.

Cooling Water Intake Port

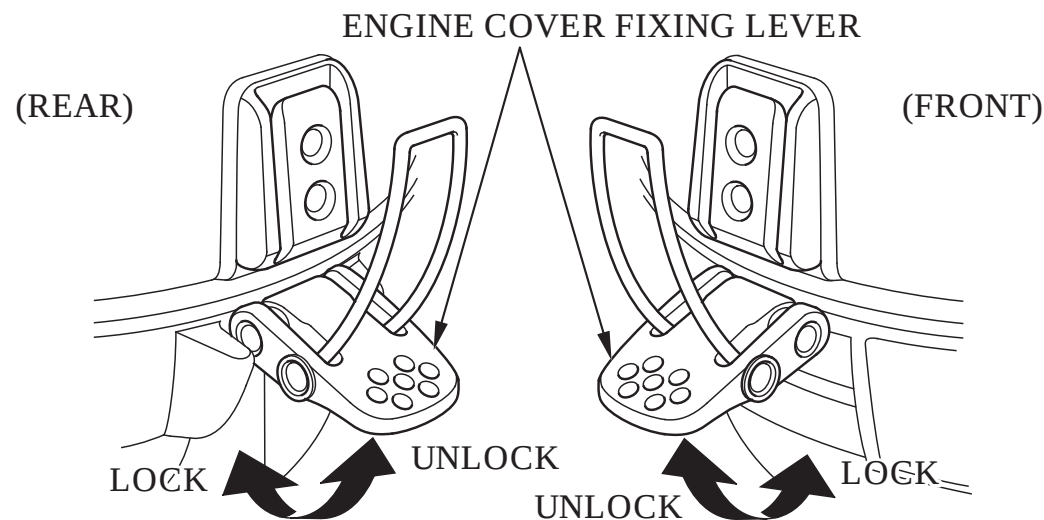


COOLING WATER
INTAKE PORT

The engine cooling water is drawn into the engine through this port.

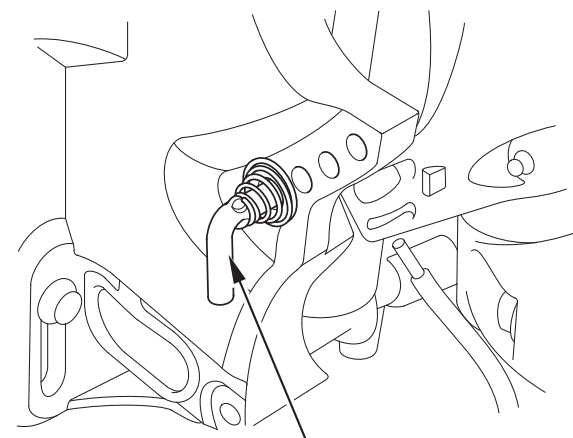
CONTROLS (Common)

Engine Cover Fixing Lever



Latch/unlatch the engine cover fixing lever to install or remove the engine cover.

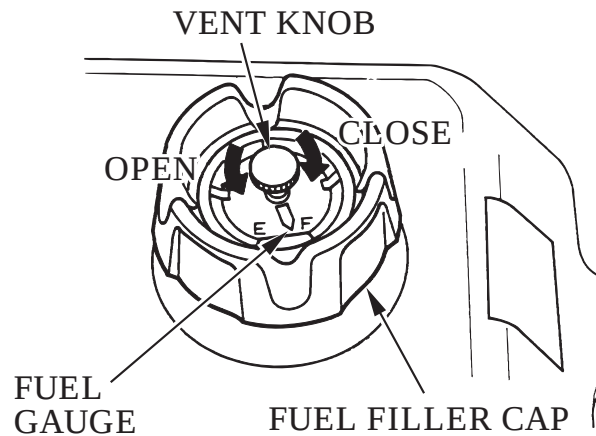
Transom Angle Adjusting Rod



TRANSOM ANGLE ADJUSTING ROD

Use the transom angle adjusting rod to adjust the motor angle properly. The motor angle can be adjusted to the five angles by changing the adjusting rod position.

Fuel Filler Cap (with vent knob and fuel gauge)

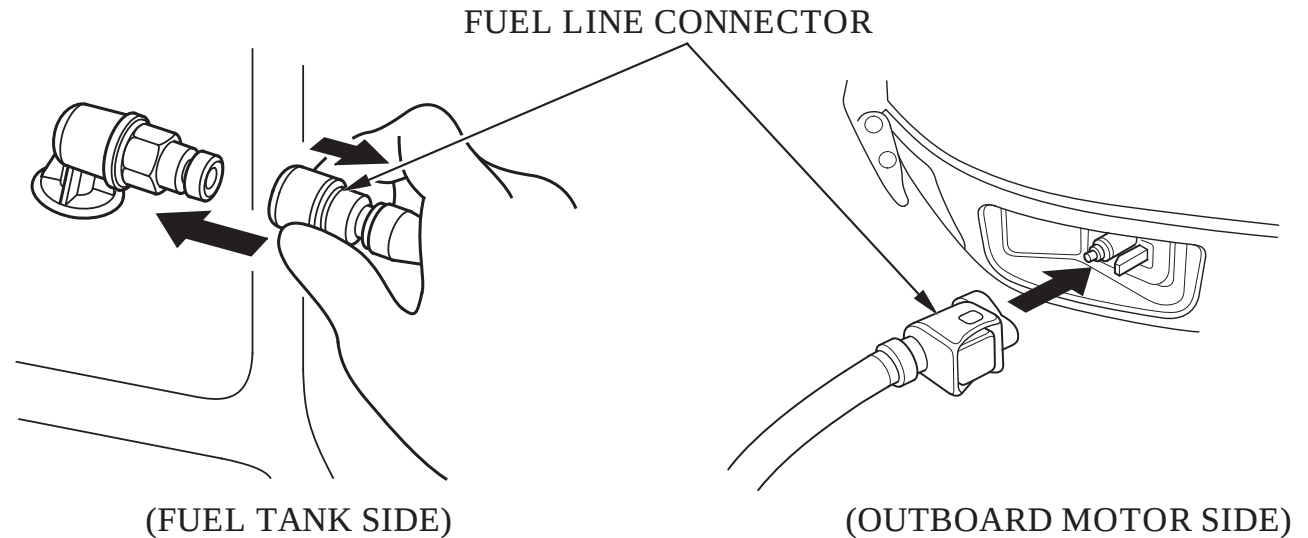


The fuel cap vent knob controls air entering and leaving the fuel tank.

The fuel gauge is part of the fuel cap, and indicates the fuel level in the tank.

When refilling the fuel tank, turn the vent knob counterclockwise to open and remove the fuel filler cap. Turn the vent knob clockwise and close it securely before transporting or storing the fuel tank.

Fuel Line Connector



The fuel line connector is used to connect the fuel line between the fuel tank and the separate outboard motor.

5. INSTALLATION

NOTICE

Improperly installed outboard motor can result in the motor dropped into the water, boat not able to cruise straight ahead, engine speed not increase, and much fuel consumption.

We recommend that the outboard motor be installed by an authorized Honda outboard motor dealer. Consult the authorized Honda dealer in your area for the Y-OP (User Optional Parts)/equipments installation and operation.

Applicable Boat
Select the boat suitable for the engine power.

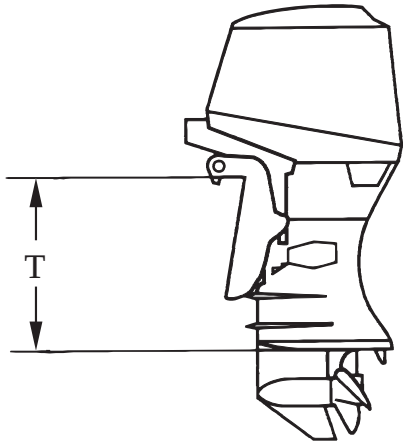
Engine power:
BF40A: 29.4 kW (40 PS)
BF50A: 36.8 kW (50 PS)

Power recommendation is indicated on most of the boats.

⚠ WARNING

Do not exceed the boat manufacturer's power recommendation. Damage and injury may result.

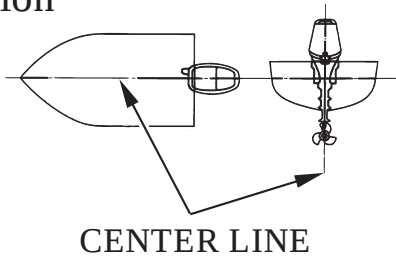
Transom Height



Type:	T (Transom Height)
S:	416 mm (16.4 in)
L:	521 mm (20.5 in)
Y:	556 mm (21.9 in)
X:	622 mm (24.5 in)

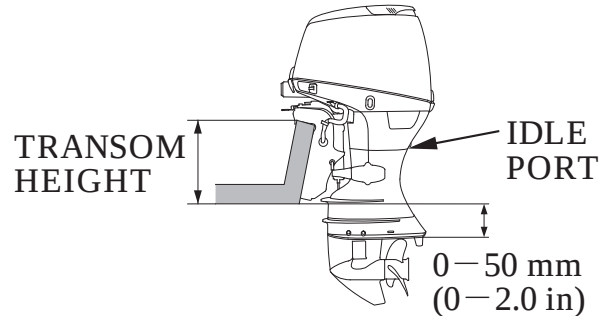
Select the outboard motor which is correct for the boat transom height of your boat.

Location



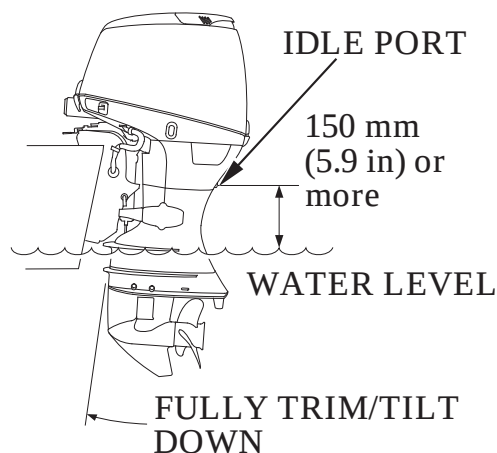
Install the outboard motor at the stern, at the center line of the boat.

Installation Height



The antiventilation plate of the outboard motor should be 0 — 50 mm (0 — 2.0 in) below the bottom of the boat.

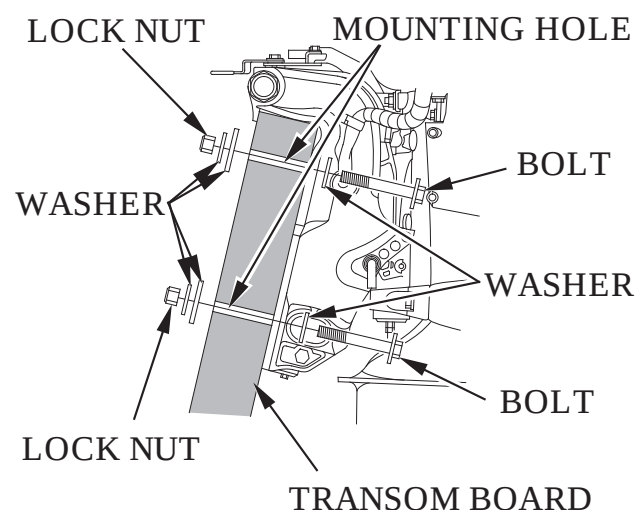
The correct dimensions differ according to the type of the boats and the configuration of the bottom of the boats. Follow the manufacture's recommended installation height.



NOTICE

- The water level must be at least 100 mm (4 in) above the anticavitation plate with the motor not running, otherwise the water pump may not receive sufficient cooling water, and the engine will overheat.
- Adverse effect to the engine can occur if the installation position of the outboard motor is too low. Trim/tilt down the outboard motor with the boat fully loaded and stop the engine. Check that the idle port is at 150 mm (5.9 in) or above from the water level.

Outboard Motor Installation



1. Apply the silicone sealant (Three Bond 1216 or equivalent) to the outboard motor mounting holes.
2. Set the outboard motor on the boat and secure with the bolts, washers, and lock nuts.

NOTE:

Standard torque:

49 – 59 N·m (5.0 – 6.0 kgf·m ,
36 – 43 lbf·ft)

The standard torque is given just as a guideline. Torque of the nut can be different according to the material of the boat. Consult with an authorized Honda outboard motor dealer.

CAUTION

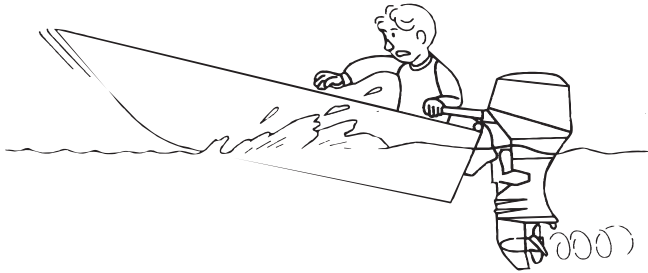
Install the outboard motor securely. Loosely mounted outboard motor can result in accidental loss of the motor and damage and injury to the equipment and personnel.

NOTICE

If the outboard motor installation height is too low, idle port can go under water, causing engine damage such as bad condition or hard starting. Stop the engine with the boat fully loaded and check whether the idle port is enough above the water level.

INSTALLATION

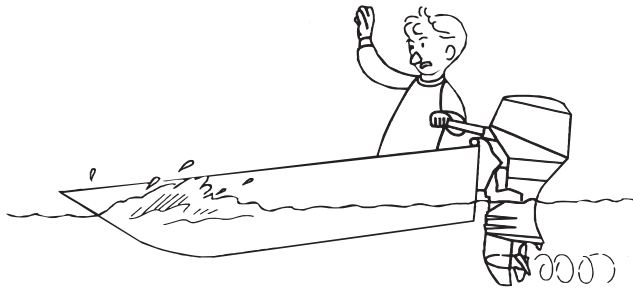
Motor Angle Inspection (Cruising)



INCORRECT
CAUSES BOAT TO “SQUAT”

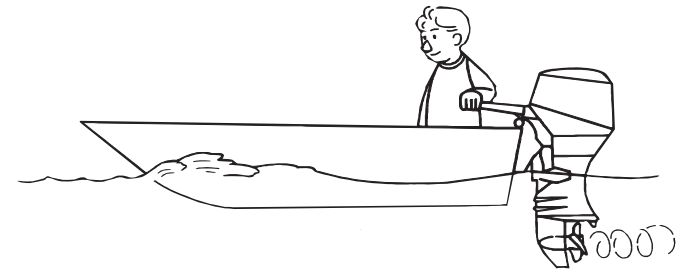
Install the outboard motor at the best trim angle for stable cruising and maximum power.

Trim angle too large: Incorrect causes boat to “squat”.



INCORRECT
CAUSES BOAT TO “PLOW”

Trim angle too small: Incorrect causes boat to “plow”.

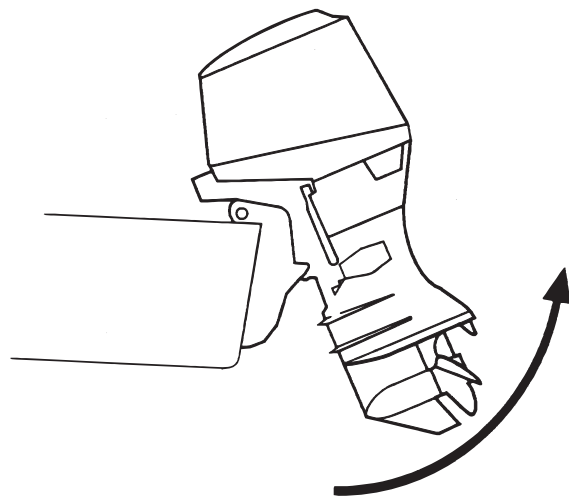


CORRECT
GIVES MAXIMUM PERFORMANCE

The trim angle differs according to the combination of the boat, outboard motor, and propeller, and the operating conditions.

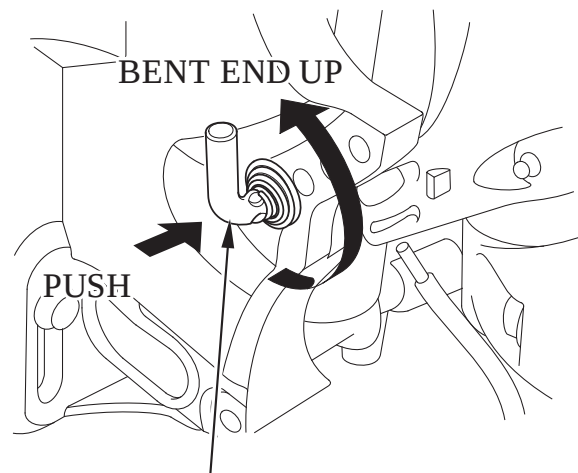
Adjust the outboard motor so that it is perpendicular to the water surface (i.e. axis of the propeller is parallel with the water surface).

< Motor Angle Adjustment >



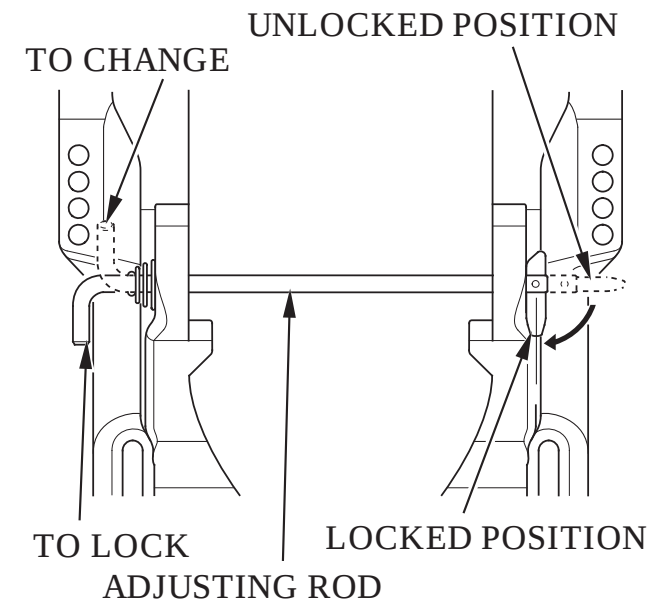
There are five adjusting stages.

1. Tilt the motor to the designated tilt angle.



TRANSOM ANGLE ADJUSTING ROD

2. Push in the adjusting rod, twist upwards to the unlocked position and pull out to remove.



3. Inserting the adjusting rod in the proper hole, twist it down to lock. After locking, pull the adjusting rod and be sure it is not withdrawn.

NOTICE

To prevent damage to the motor or boat, make sure the adjusting rod is locked.

INSTALLATION

Battery Connections

Use a battery which has 12V-65 Ah or more specifications.

The battery is an optional part (i.e. part to be purchased separately from the outboard motor).

⚠ WARNING

Batteries produce explosive gases: If ignited, an explosion can cause serious injury or blindness. Provide adequate ventilation when charging.

- **CHEMICAL HAZARD:** Battery electrolyte contains sulfuric acid. Contact with eyes or skin, even through clothing, may cause severe burns. Wear a faceshield and protective clothing.
- Keep flames and sparks away, and do not smoke in the area. **ANTIDOTE:** If electrolyte gets into your eyes, flush thoroughly with warm water for at least 15 minutes and call a physician immediately.

- **POISON:** Electrolyte is poison.

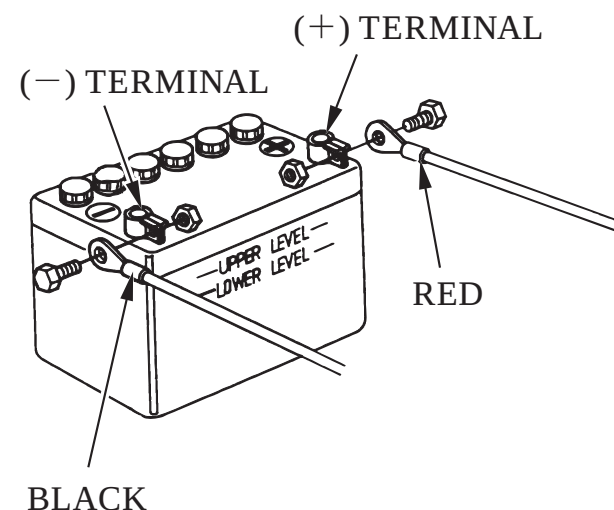
ANTIDOTE:

- External: Flush thoroughly with water.
- Internal: Drink large quantities of water or milk. Follow with milk of magnesia or vegetable oil, and call a physician immediately.

- **KEEP OUT OF REACH OF CHILDREN.**

To protect the battery from mechanical damage and to prevent the battery from falling or tipping over, the battery must be:

- Installed in the correct size corrosion-resistant battery box.
- Properly secured in the boat.
- Secured in a location free from direct sunlight and water spray.
- Secured away from the fuel tank to avoid potential sparks near the fuel tank.



Connect the battery cables:

1. Connect the cable with the red terminal cover to the positive (+) terminal of the battery.
2. Connect the cable with the black terminal cover to the negative (-) terminal of the battery.

NOTICE

- Be sure to connect the (+) side battery cable first. When disconnecting the cables, disconnect the (–) side first then the (+) side.
- Unless the cables are properly connected to the terminals, the starter motor may fail to operate normally.
- Be careful to avoid connecting the battery in reverse polarity, as this will damage the battery-charging system in the outboard motor.
- Do not disconnect the battery cables while the engine is running. Disconnecting the cables while the engine is running, will damage the outboard motor's electrical system.
- Do not place the fuel tank near the battery.
- Battery cable extension:
Extending the original battery cable will cause the battery

voltage to drop due to the increased length of the cable and number of connections. The outboard may not start if the battery voltage reaching the engine is too low.

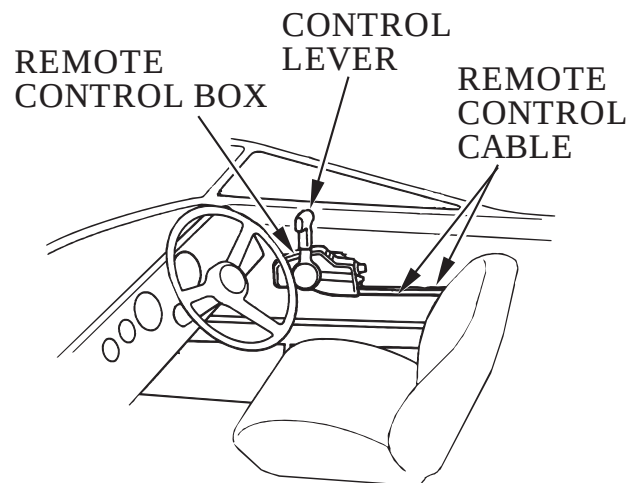
INSTALLATION (R type)

Remote Control Installation

NOTICE

Improperly installed steering system, remote control box, and remote control cable, or installing those of the different types could cause unpredictable accident. Consult an authorized Honda outboard motor dealer for proper installation.

< Remote Control Box Location >



Install the remote control box in the position where is easy to operate the control lever and switches.
Be sure that there are no obstacles on the route of the control cable.

< Remote Control Cable Length >

Measure the distance from the center of the remote control box via the transom corner to the center of the engine.

Recommended cable length is 300 mm (11.8 in) longer than the measured distance.

Set the cable along the pre-determined route and be sure that it is long enough to the route.

Connect the cable to the engine and be sure it is not kinked, bent sharp, pulled taut, or interfered while steering.

NOTICE

Do not bend the remote control cable as sharp as its route diameter is 400 mm (16 in.) or less, or it affects the service life of the cable and the remote control lever operation.

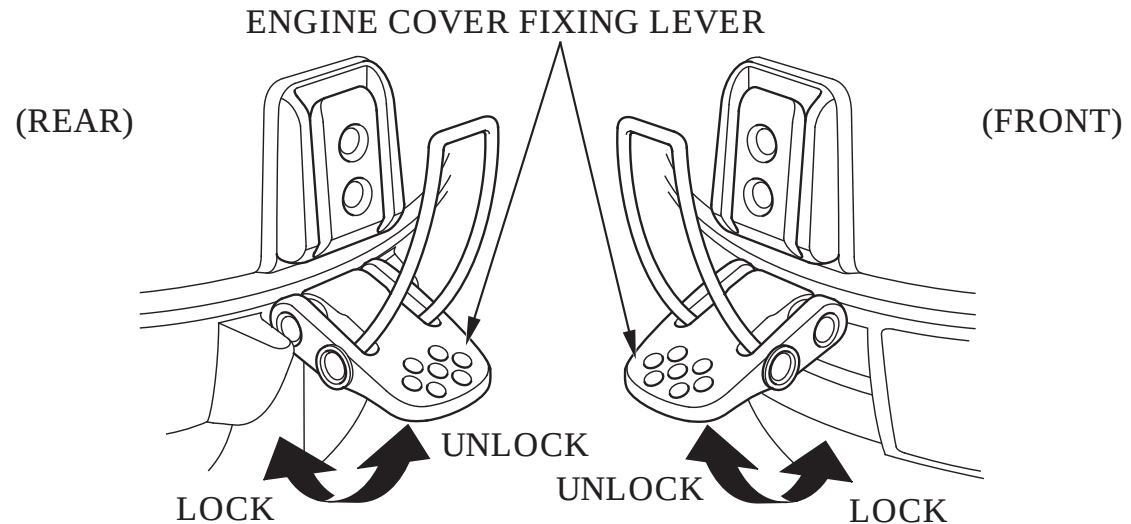
6. PRE-OPERATION CHECKS

BF40A/50A is the 4-stroke, water cooled outboard motor which uses unleaded regular gasoline for fuel. It also requires the engine oil. Check the following before operating the outboard motor.

⚠ CAUTION

Perform the following pre-operation checks with the engine stopped.

Engine Cover Removal/Installation



- To remove, raise the front and rear engine cover fixing levers and remove the engine cover.
- To install, set the engine cover, hook the front and rear latches, and push down the front and rear engine cover fixing levers.

⚠ WARNING

Do not operate the outboard motor without the engine cover. Exposed moving parts can cause injury.

PRE-OPERATION CHECKS

Engine Oil

NOTICE

- Engine oil is a major factor affecting engine performance and service life. Nondetergent and low quality oils are not recommended, because they have inadequate lubricating properties.
- Running the engine with insufficient oil can cause serious engine damage.

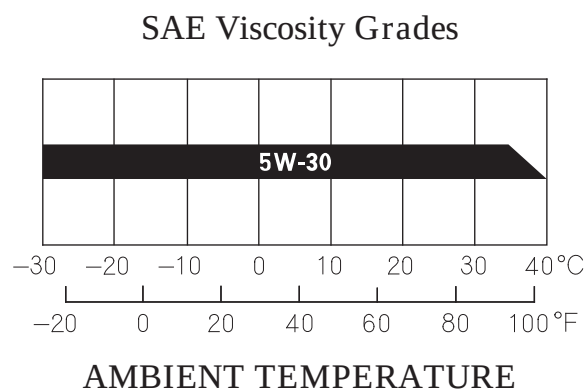
〈 Recommended oil 〉

Use Honda 4-stroke oil or an equivalent high detergent, premium quality motor oil certified to meet or exceed U.S. automobile manufacturer's requirements for Service Classification SG, SH or SJ. Motor oils classified SG, SH or SJ will show this designation on the container. Select the appropriate viscosity for the average temperature in your area.

SAE 5W-30 is recommended for general, all-temperature use.
API Service Grade: Use a Fuel Efficient SG, SH or SJ oil.

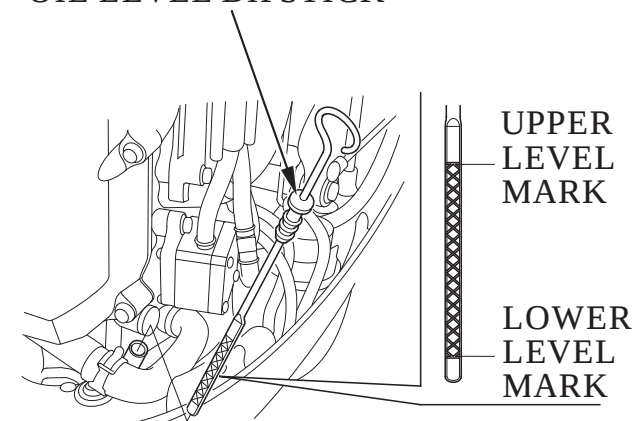
NOTE:

This oil is usually identified by words such as: "Energy Conserving II". "Gas Saving", "Fuel Saving", etc.



〈 Inspection and Refilling 〉

OIL LEVEL DIPSTICK



1. Position the outboard motor vertically, and remove the engine cover.
2. Remove the oil level dipstick and wipe with a clean rag.
3. Reinsert the dipstick all the way in, then pull it out and read the level. If near or below the lower level mark, remove the oil filler cap and fill to the upper level mark with the recommended oil. Tighten the oil filler cap securely.

PRE-OPERATION CHECKS

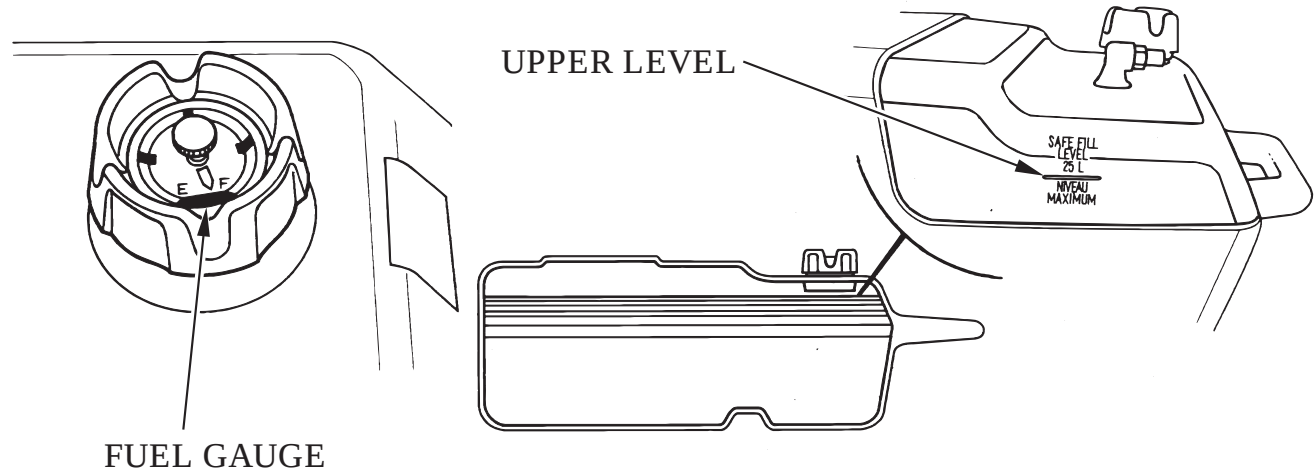
When the engine oil is contaminated or discolored, replace with the fresh engine oil (see page 104 for replacement interval and procedure).

4. Install the engine cover and lock it securely.

NOTICE

Do not overfill the engine oil. Check the engine oil after refilling. Excessive engine oil as well as the insufficient oil could cause damage to the engine.

Fuel Level



Check the fuel gauge and refill the tank to the upper level mark if necessary. Do not fill the fuel tank above the UPPER level mark.

NOTE:

Open the vent knob before removing the fuel filler cap. When the vent knob is firmly closed, the cap will be difficult to remove.

Use automotive unleaded gasoline with a Research Octane Number of 91 or higher (a Pump Octane Number of 86 or higher). Use of leaded gasoline may cause damage to the engine.

Never use an oil/gasoline mixture or dirty gasoline. Avoid getting dirt, dust or water in the fuel tank.

Fuel tank capacity (separate tank):
25 ℓ (6.6 US gal , 5.5 Imp gal)

PRE-OPERATION CHECKS

⚠ WARNING

Gasoline is extremely flammable and is explosive under certain conditions.

- Refuel in a well-ventilated area with the engine stopped.
- Do not smoke or allow flames or sparks in the area where the engine is refueled or where gasoline is stored.
- Do not overfill the fuel tank (there should be no fuel in the filler neck). After refueling, make sure the tank cap is closed properly and securely.
- Be careful not to spill fuel when refueling. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.
- Avoid repeated or prolonged contact with skin or breathing of vapor.
- KEEP OUT OF REACH OF CHILDREN.

GASOLINE CONTAINING ALCOHOL

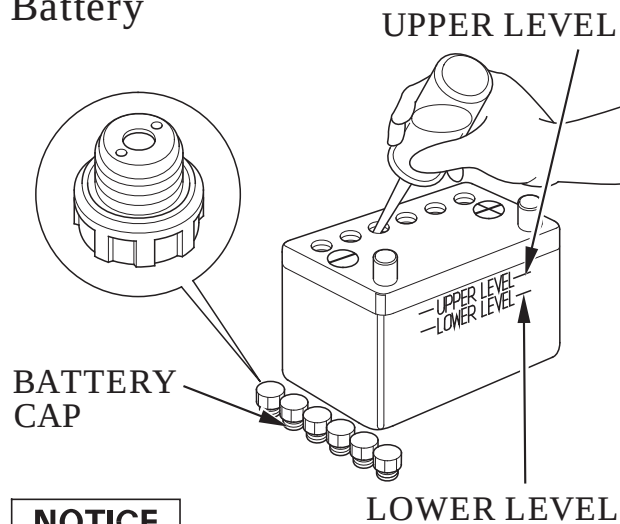
If you decide to use a gasoline containing alcohol (gasohol), be sure its octane rating is at least as high as that recommended by Honda. There are two types of “gasohol”: one containing ethanol, and the other containing methanol. Do not use gasohol that contains more than 10% ethanol. Do not use gasoline containing methanol (methyl or wood alcohol) that does not also contain cosolvents and corrosion inhibitors for methanol. Never use gasoline containing more than 5% methanol, even if it has cosolvents and corrosion inhibitors.

NOTE:

- Fuel system damage or engine performance problems resulting from the use of fuels that contain alcohol is not covered under the warranty. Honda cannot endorse the use of the fuels containing methanol since evidence of their suitability is as yet incomplete.
- Before buying fuel from an unfamiliar station, try to find out if the fuel contains alcohol, if it does, confirm the type and percentage of alcohol used. If you notice any undesirable operating symptoms while using gasoline that contains alcohol, or one that you think contains alcohol, switch to a gasoline that you know does not contain alcohol.

PRE-OPERATION CHECKS

Battery



NOTICE

Battery handling differs according to the type of the battery and the instructions described below might not be applicable to the battery of your outboard. Refer to the battery manufacturer's instructions.

Check whether the battery fluid is between the upper and lower levels, and check the vent hole in the battery caps for clogging.

If the battery fluid is near or below the lower level, add the distilled water to the upper level.

⚠ WARNING

Batteries produce explosive gases: If ignited, an explosion can cause serious injury or blindness. Provide adequate ventilation when charging.

- **CHEMICAL HAZARD:** Battery electrolyte contains sulfuric acid. Contact with eyes or skin, even through clothing, may cause severe burns. Wear a faceshield and protective clothing.
 - Keep flames and sparks away, and do not smoke in the area.
- ANTIDOTE:** If electrolyte gets into your eyes, flush thoroughly with warm water for at least 15 minutes and call a physician immediately.

- **POISON:** Electrolyte is poison.
- ANTIDOTE:**
- External: Flush thoroughly with water.
 - Internal: Drink large quantities of water or milk. Follow with milk of magnesia or vegetable oil, and call a physician immediately.
- **KEEP OUT OF REACH OF CHILDREN.**

PRE-OPERATION CHECKS

Propeller and Split Pin Inspection

⚠ WARNING

The propeller blades are thin and sharp. Careless handling of the propeller can result in injury. When checking the propeller:

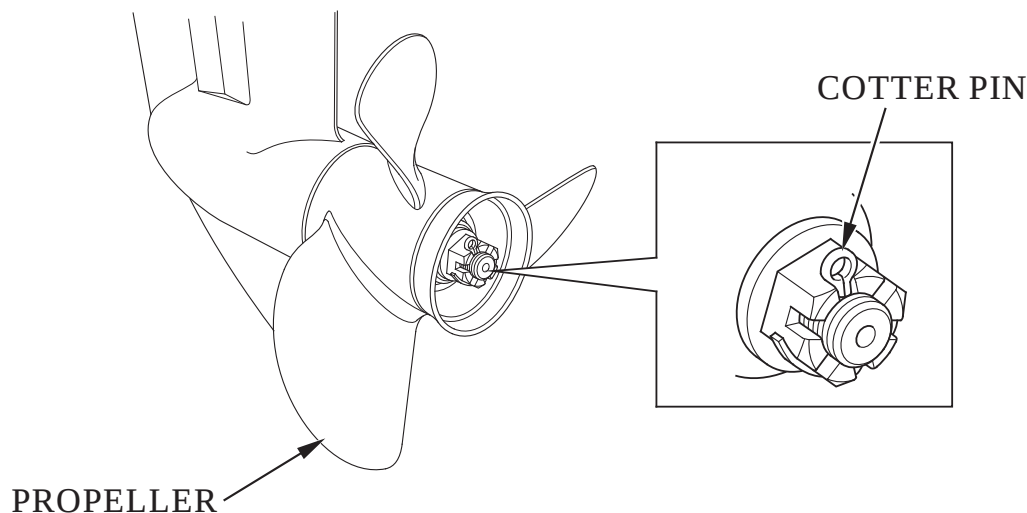
- Remove the emergency stop switch clip to prevent an accidental start of the engine.
- Wear heavy gloves.

Propeller rotates rapidly while cruising. Before starting the engine, check the propeller blades for damage and deformation and replace if necessary.

Obtain a spare propeller for the event of an unpredictable accident while cruising. If no spare propeller is available, return to the pier at low speed and replace.

Consult an authorized Honda outboard motor dealer for propeller selection.

Keep the spare plain washer, castle nut and split pin with you on your boat.

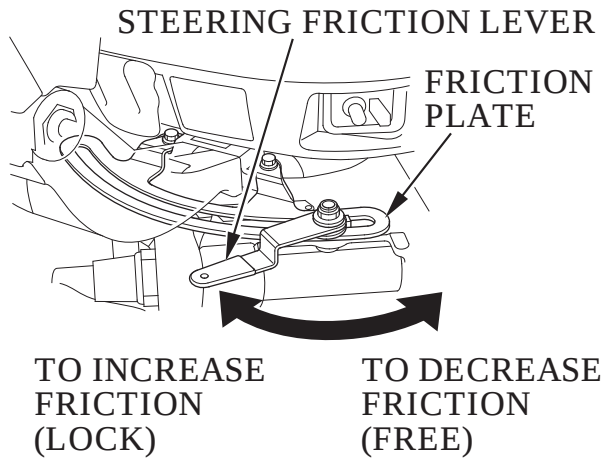


Engine speed varies according to the propeller size and the boat condition. Use of the outboard motor outside the full throttle speed range will adversely affect the engine and cause a serious problem. Use of the correct propeller assures powerful acceleration, top speed, excellency in terms of economy and cruising comfort, and it assures longer engine life as well.

Consult with your authorized Honda outboard motor dealer for proper propeller selection.

1. Check the propeller for damage, wear, or deformation.
2. Check whether the propeller is installed properly.
3. Check the cotter pin for damage. Replace whenever the propeller is faulty.

Steering Handle Friction (H type)

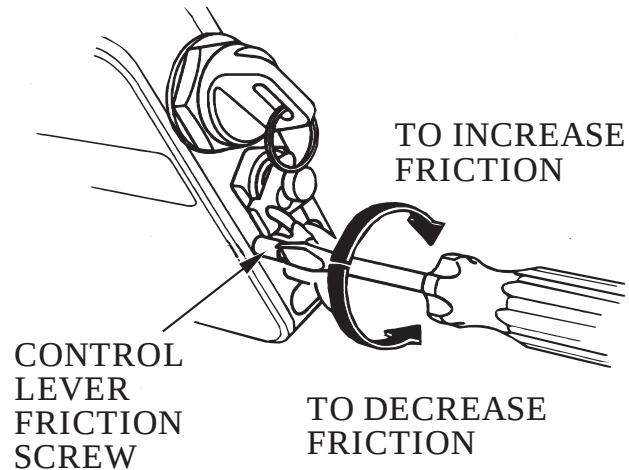


Check whether the handle moves smoothly.
For smooth steering, adjust the steering friction lever so that a slight drag is felt when turning.

NOTE:

Do not apply grease or oil on the friction plate. Grease or oil will reduce the friction of the lever.

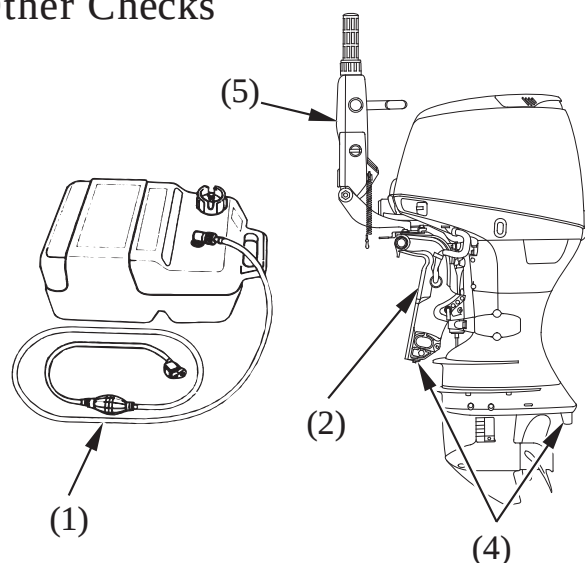
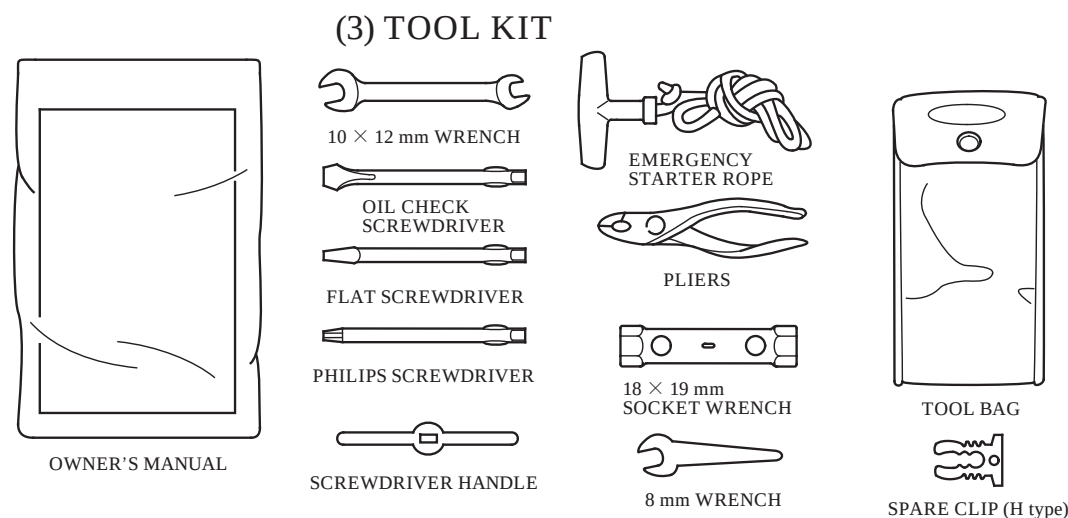
Remote Control Lever Friction (R type)



Check whether the remote control lever moves smoothly.
Friction of the lever can be adjusted by turning the control lever friction screw right or left.

PRE-OPERATION CHECKS

Other Checks



Check the following items:

- (1) The fuel hose for kinking, collapsing or a loose connection.
- (2) The stern bracket for damage.
- (3) The tool kit for missing spare parts and tools.
- (4) The anode metal for damage, looseness or excessive corrosion.

The anode metal helps to protect the outboard motor from corrosion damage; it must be exposed directly to the water whenever the motor is in use. Replace the anode metal when it

has been reduced to approximately one half of its original size.

NOTICE

The possibility of corrosion damage is increased if the anode metal is painted over or allowed to deteriorate.

- (5) The tiller handle for loose installation, wobble, or operation (H type).
- (6) The remote control lever and switch for operation (R type).

Parts/materials which should be installed on board:

- (1) Owner's Manual
- (2) Tool kit
- (3) Spare parts: spark plugs, engine oil, spare propeller, plain washer, castle nut, and split pin.
- (4) Spare emergency stop switch clip.
- (5) Other parts/materials required by laws/regulations.

7. STARTING THE ENGINE

Fuel Line Connection

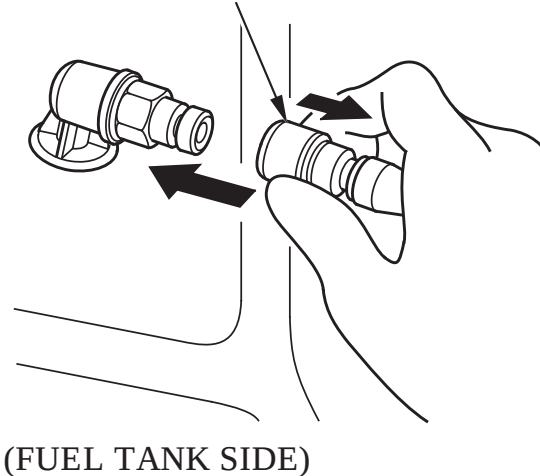
NOTE:

- Set the fuel tank securely so that it does not move or fall down while cruising.
- Position the fuel tank so the tank fuel line connector is no more than 1 m (3.3 feet) below the motor fuel line connector.
- Do not place the fuel tank more than 2 m (6.6 feet) away from the motor.
- Be sure that the fuel line is not kinked.
- Be sure to insert the outboard motor side connector in the direction as shown (the clip should be at the right side).

⚠ CAUTION

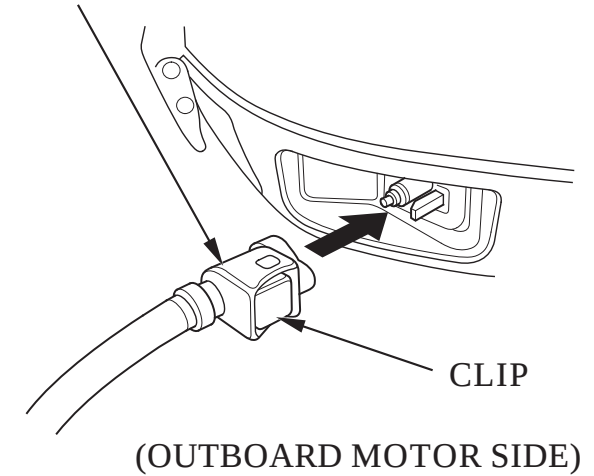
The sealing material will be damaged if the outboard end fuel line connector is inserted with force in the opposite direction, resulting in fuel leaks.

MALE FUEL LINE CONNECTOR
— TO FUEL TANK



1. Connect the fuel line to the tank. Be sure the connector is securely latched.

FEMALE FUEL LINE CONNECTOR
— TO MOTOR

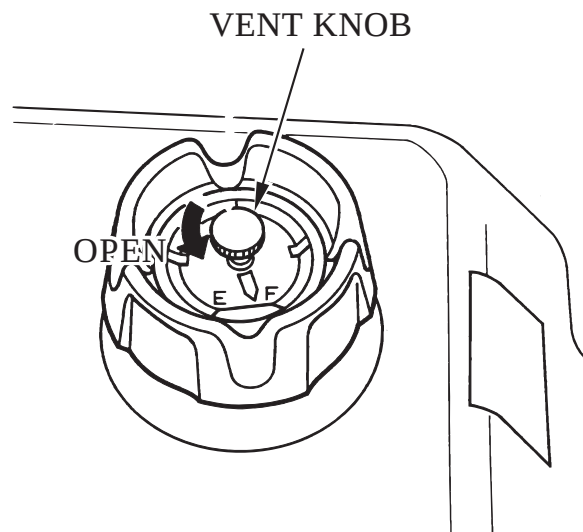


2. Connect the fuel line connector to the outboard motor. Install the outboard end fuel line connector with the clip toward the outside as shown. Be sure the fuel line connector is securely snapped in place.

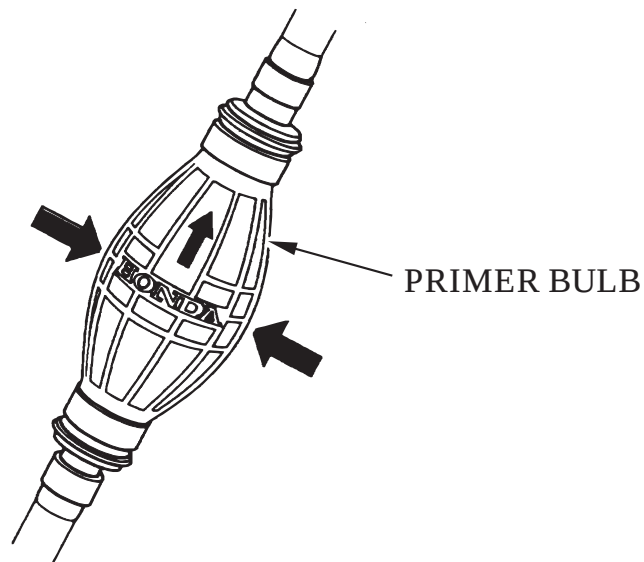
NOTICE

If the outboard end fuel line connector is forcibly installed in the reversed direction, the fuel line connector O-ring seal can be damaged. A damaged O-ring seal can cause a fuel leak.

STARTING THE ENGINE



3. Open the fuel cap vent knob 2 to 3 turns.



4. Hold the primer bulb so that the outlet end is higher than the inlet (so that the arrow on the primer bulb points up), and squeeze it until it feels firm, indicating that fuel has reached the motor. Check for leaks.

⚠ WARNING

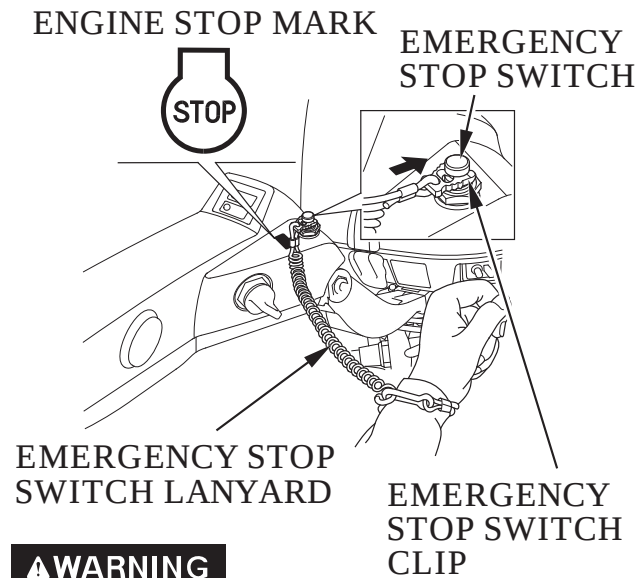
Be careful not to spill any fuel. Spilled fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.

NOTICE

Do not touch the priming bulb while running the engine. Carburetor could overflow.

STARTING THE ENGINE (H type)

Starting the Engine



⚠ WARNING

The exhaust contains poisonous carbon monoxide. Do not start the engine in a poor ventilation area such as in a boat house.

NOTICE

To prevent damage to the outboard from overheating, never run the engine with the propeller out of water.

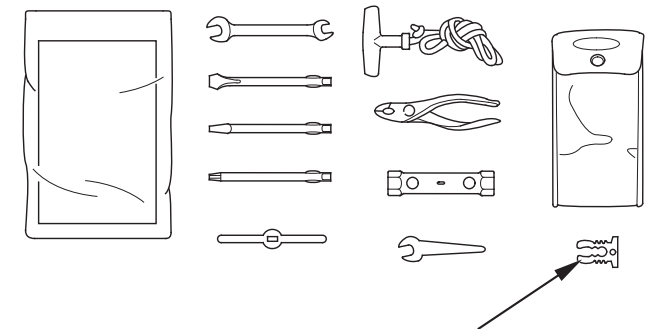
1. Insert the emergency stop switch clip at one end of the emergency stop switch lanyard into the emergency stop switch. Attach the other end of the lanyard to the operator securely.

⚠ WARNING

If the operator does not attach the emergency stop switch lanyard, and is thrown from his seat or out of the boat, the out-of-control boat can seriously injure the operator, passengers, or bystanders. Always properly attach the lanyard before starting the motor.

NOTE:

The engine will not start unless the emergency stop switch clip is engaged with the emergency stop switch.

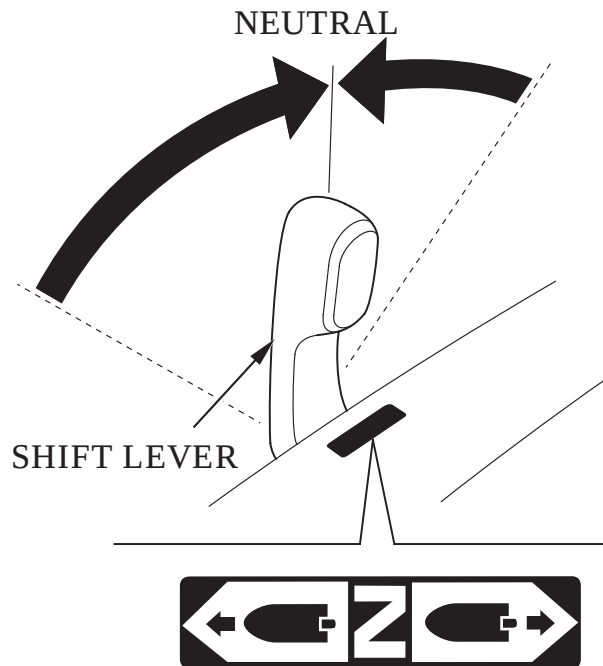


SPARE EMERGENCY STOP SWITCH CLIP

A spare emergency stop switch clip is provided in the tool bag (see page 101).

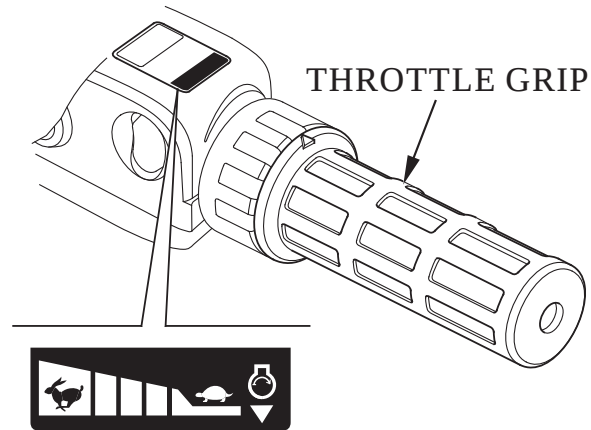
Use the spare emergency stop switch clip to make the disabled engine start when the emergency stop switch lanyard is not available as, for example, when the operator falls overboard.

STARTING THE ENGINE (H type)



NEUTRAL

2. Move the shift lever to the NEUTRAL position. The engine does not start unless the shift lever is set in the NEUTRAL position.



START

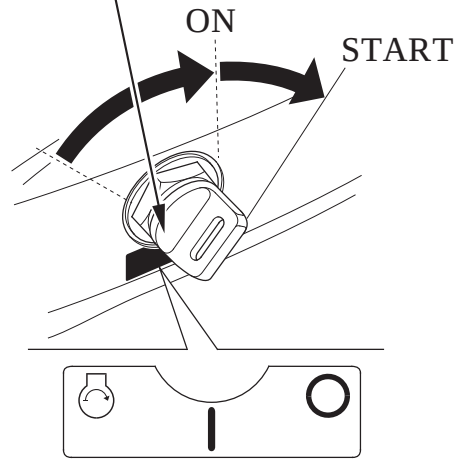
3. Align the “” mark on the throttle grip with the projected end of the “” mark on the handle.

NOTE:

This engine is equipped with an accelerator pump. Do not turn the throttle grip frequently before starting. Hard starting may result. If the throttle grip has been turned frequently before starting, open the throttle grip 1/8 – 1/4 turns and start.

STARTING THE ENGINE (H type)

ENGINE SWITCH KEY



START

4. Turn the engine switch key to the START position and hold it there until the engine starts. When the engine starts, release the key, allowing it to return to the ON position.

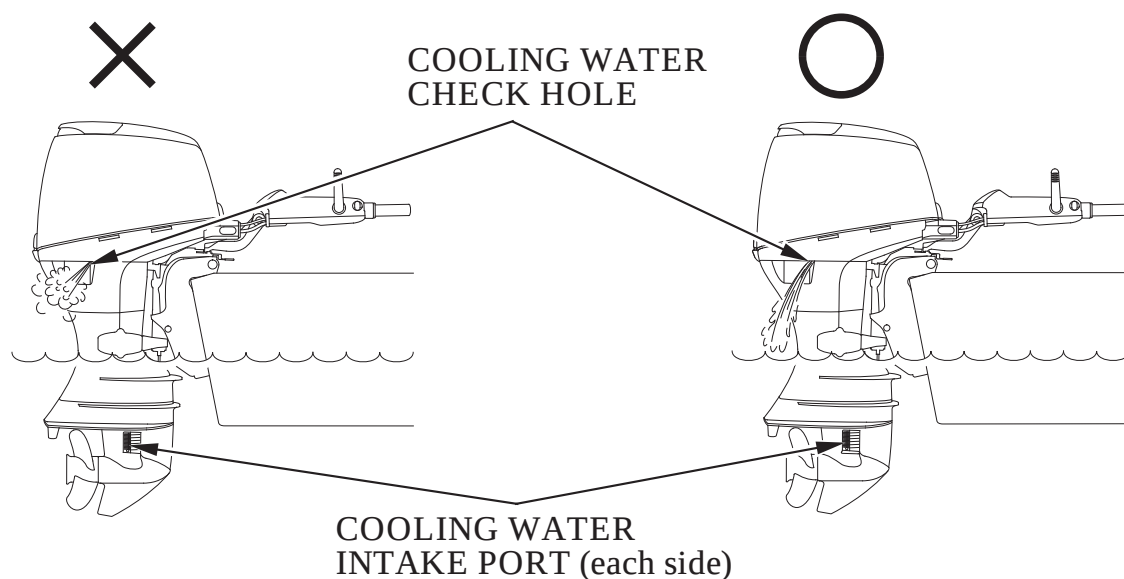
NOTICE

- The starter motor consumes a large amount of current. Do not therefore run it continuously for more than 5 seconds at a time. If the engine does not start within 5 seconds, wait at least 10 seconds before running the starter motor again.
- Do not turn the engine switch key to the START position while the engine is running.

NOTE:

The “Neutral Starting System” prevents the engine from being started unless the control lever is set in the N (neutral) position even though the engine is cranked by the starting motor.

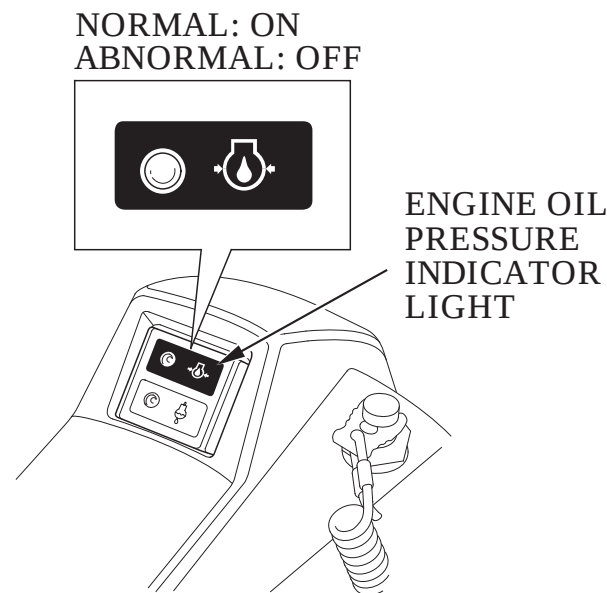
STARTING THE ENGINE (H type)



5. After starting, check whether the cooling water is flowing out of the cooling water check hole. Amount of water flowing out of the check hole might vary due to the thermostat operation, but this is normal.

NOTICE

If water does not flow out, or if steam comes out, stop the engine. Check to see if the screen in the cooling water intake port is obstructed and remove foreign materials if necessary. Check the cooling water check hole for clogging. If water still does not flow out, have your outboard motor checked by an authorized Honda outboard motor dealer. Do not operate the engine until the problem has been corrected.



6. Check to see if the oil pressure indicator light turns ON. If it does not turn on, stop the engine and perform the following inspections.
- 1) Check the oil level (see page 46).
 - 2) If the oil level is normal and the oil pressure indicator light does not turn ON, consult with an authorized Honda outboard motor dealer.

7. Warm up the engine as follows:
Above 5° C (41° F) — run the engine for 2 or 3 minutes.
Below 5° C (41° F) — run the engine for at least 5 minutes at 2,000 min⁻¹ (rpm) — 3,000 min⁻¹ (rpm).
Failure to completely warm up the engine will result in poor engine performance.

In an area where the temperature goes down below 0° C (32° F), the engine coding system may freeze. High speed operation without proper engine warm up may damage the motor.

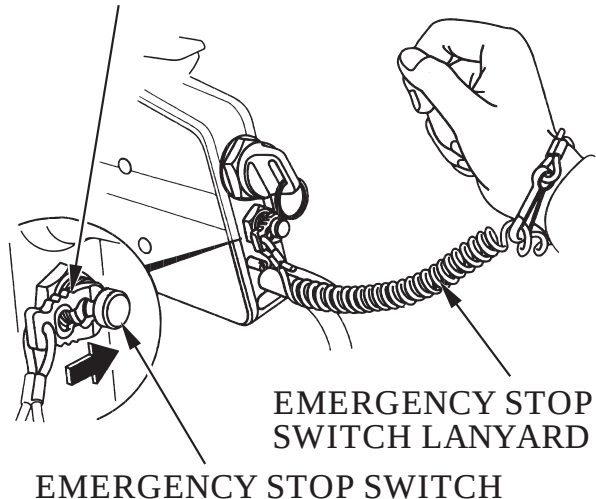
NOTE:

Before leaving the dock, check the operation of the emergency stop switch.

STARTING THE ENGINE (R type)

Starting the Engine

EMERGENCY STOP SWITCH CLIP



▲WARNING

The exhaust contains poisonous carbon monoxide. Do not start the engine in a poor ventilation area such as in a boat house.

NOTICE

To prevent damage to the outboard from overheating, never run the engine with the propeller out of water.

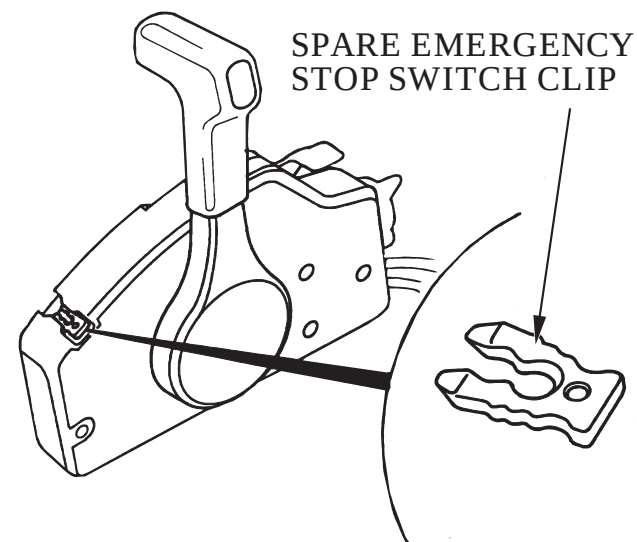
1. Insert the emergency stop switch clip at one end of the emergency stop switch lanyard into the emergency stop switch. Attach the other end of the lanyard to the operator securely.

▲WARNING

If the operator does not attach the emergency stop switch lanyard, and is thrown from his seat or out of the boat, the out-of-control boat can seriously injure the operator, passengers, or bystanders. Always properly attach the lanyard before starting the motor.

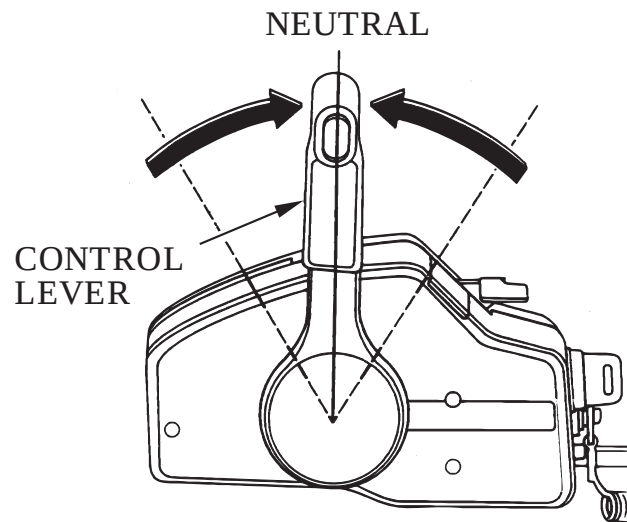
NOTE:

The engine will not start unless the emergency stop switch clip is engaged with the emergency stop switch.

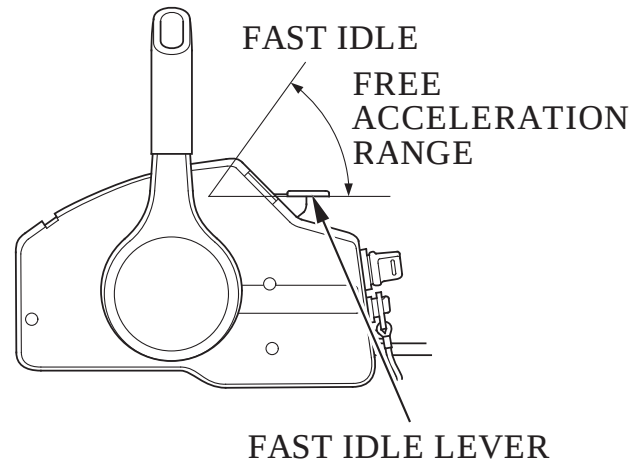


A spare emergency stop switch clip is provided on the remote control box. Use the spare emergency stop switch clip to make the emergency engine start when the emergency stop switch lanyard is not available as, for example, if the operator falls overboard.

STARTING THE ENGINE (R type)



2. Set the control lever in the NEUTRAL position.
The engine does not start unless the control lever is set in the NEUTRAL position.

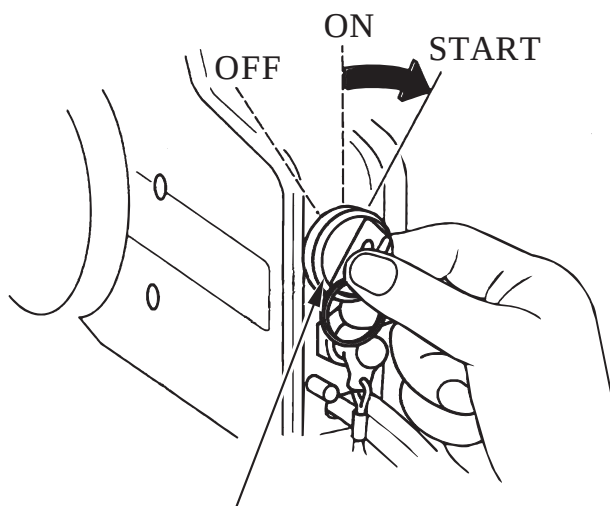


3. When the engine is cold or the ambient temperature is low, leave the fast idle lever in the initial position. (This will provide rich fuel mixture to the engine by the automatic choke.)
When the engine is warm, raise the fast idle lever to the FAST IDLE position and hold it in the position.

NOTE:

The fast idle lever does not move unless the control lever is set in the NEUTRAL position.

STARTING THE ENGINE (R type)



ENGINE SWITCH KEY

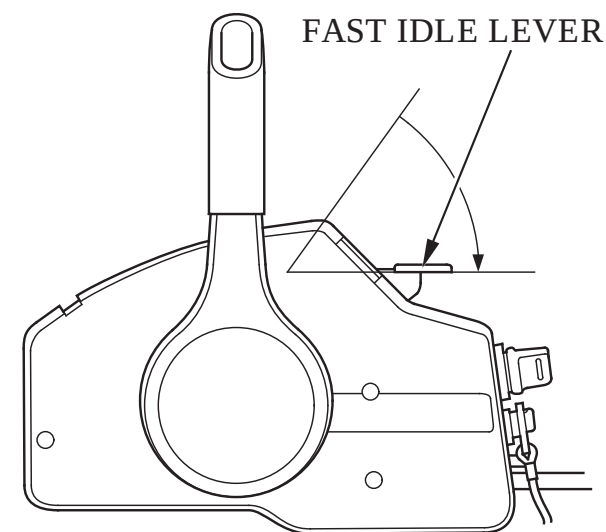
4. Turn the engine switch key to the START position and hold it there until the engine starts. When the engine starts, release the key, allowing it to return to the ON position.

NOTICE

- The starter motor consumes a large amount of current. Do not therefore run it continuously for more than 5 seconds at a time. If the engine does not start within 5 seconds, wait at least 10 seconds before running the starter motor again.
- Do not turn the engine switch key to the START position while the engine is running.

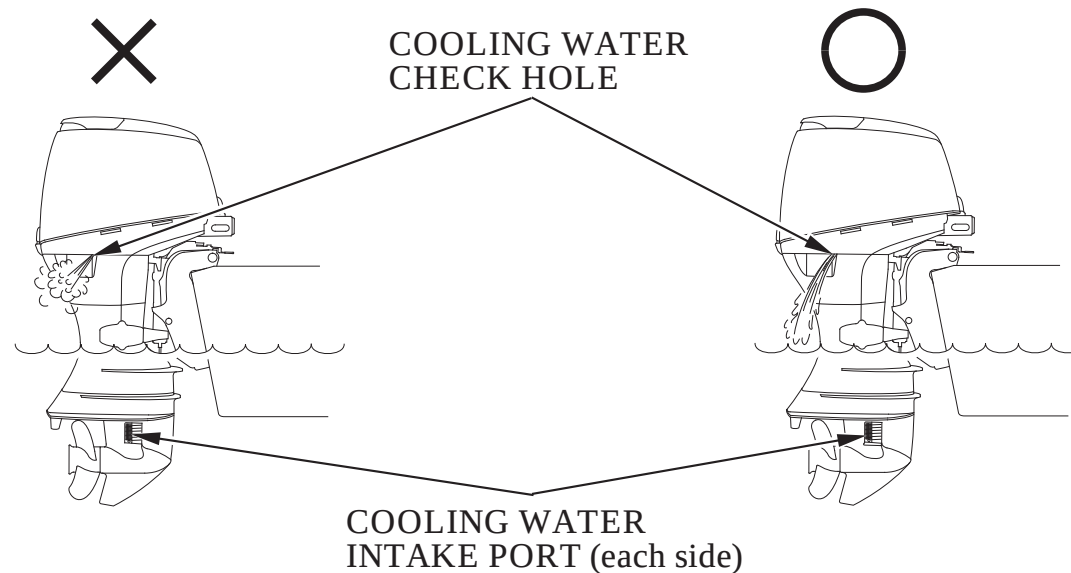
NOTE:

The “Neutral Starting System” prevents the engine from being started unless the control lever is set in the N (neutral) position even though the engine is cranked by the starting motor.



5. If the fast idle lever is raised, return the fast idle lever slowly to the position where the engine does not stall and hold the lever in the position.

STARTING THE ENGINE (R type)

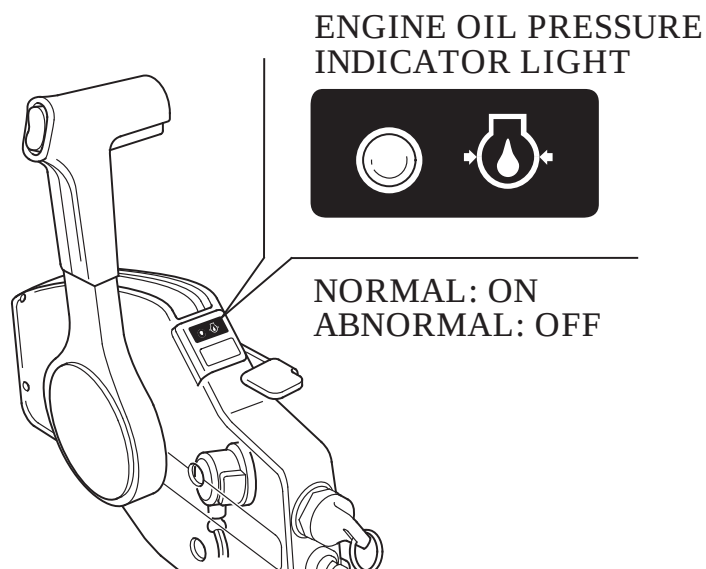


- After starting, check whether the cooling water is flowing out of the cooling water check hole. Amount of water flowing out of the check hole might vary due to the thermostat operation, but this is normal.

NOTICE

If water does not flow out, or if steam comes out, stop the engine. Check to see if the screen in the cooling water intake port is obstructed and remove foreign materials if necessary. Check the cooling water check hole for clogging. If water still does not flow out, have your outboard motor checked by an authorized Honda outboard motor dealer. Do not operate the engine until the problem has been corrected.

STARTING THE ENGINE (R type)



High speed operation without proper engine warm up may damage the motor.

NOTE:

Before leaving the dock, check the operation of the emergency stop switch.

7. Check to see if the oil pressure indicator light turns ON.

If it does not turn on, stop the engine and perform the following inspections.

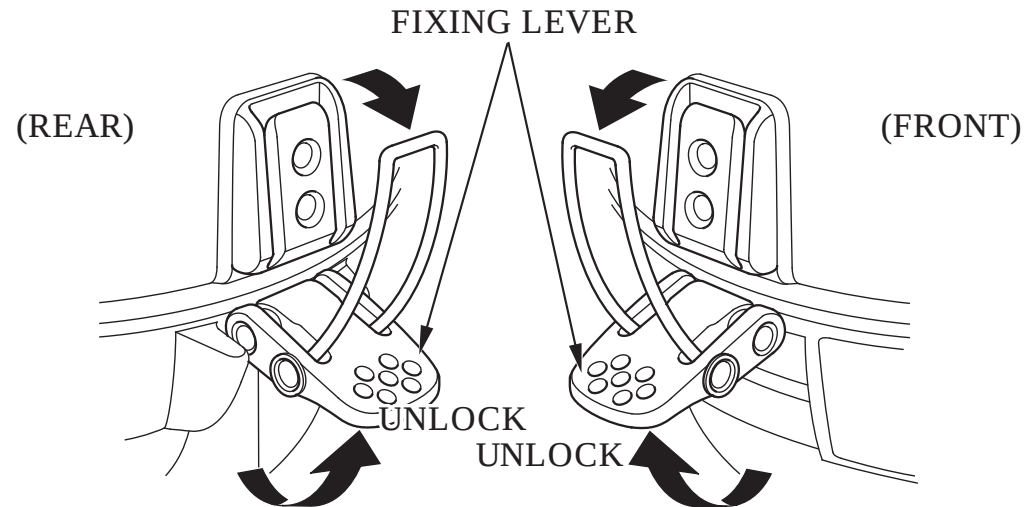
- 1) Check the oil level (see page 46).
- 2) If the oil level is normal and the oil pressure indicator light does not turn ON, consult with an authorized Honda outboard motor dealer.

8. Warm up the engine as follows:
Above 5° C (41° F) — run the engine for 2 or 3 minutes.
Below 5° C (41° F) — run the engine for at least 5 minutes at 2,000 min⁻¹ (rpm) — 3,000 min⁻¹ (rpm).
Failure to completely warm up the engine will result in poor engine performance.

In an area where the temperature goes down below 0° C (32° F), the engine coding system may freeze.

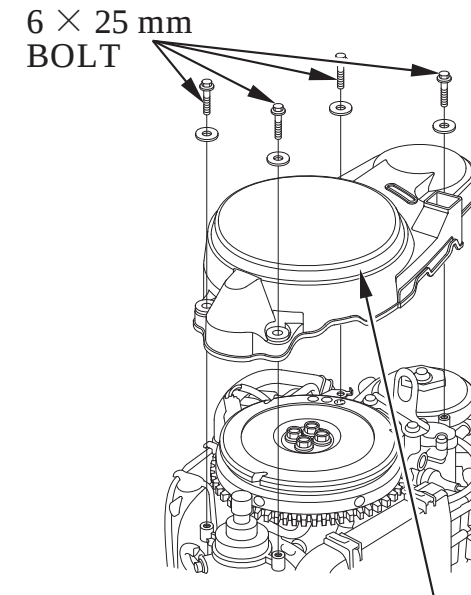
STARTING THE ENGINE (Common)

Emergency Starting



If the starting system does not operate properly for some reasons, the engine can be started using the emergency starter rope in the tool kit.

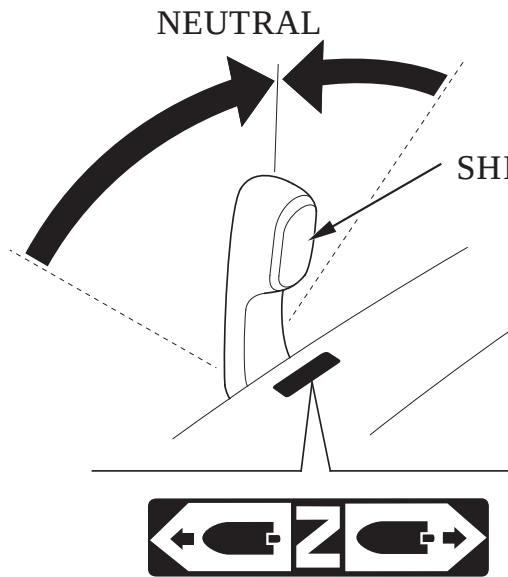
1. Raise the front and rear fixing levers, and remove the engine cover.



2. Remove the four 6 × 25 mm bolts and flywheel cover.

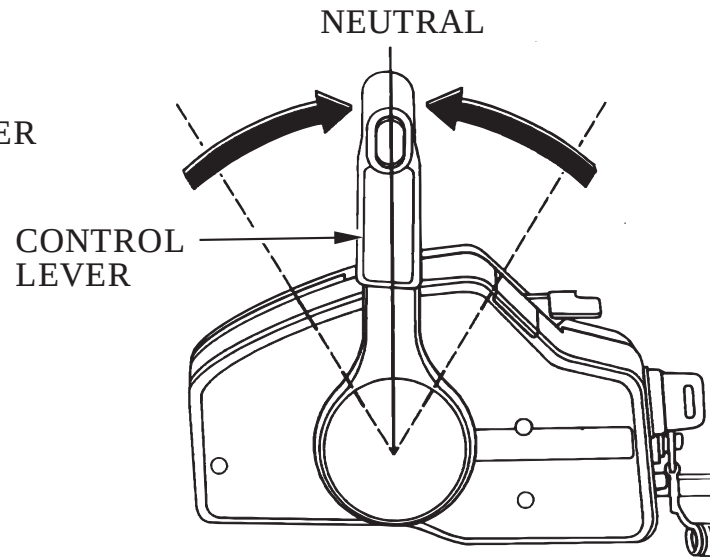
NOTE:
Take care not to lose the washers.

STARTING THE ENGINE (Common)



NEUTRAL

(H type)



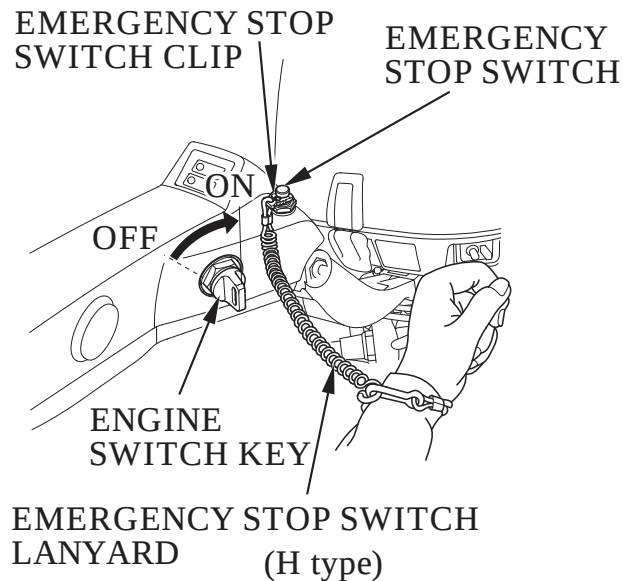
(R type)

3. Set the shift lever/control lever in the NEUTRAL position.

▲WARNING

The “Neutral Starting System” will not work in emergency starting. Be sure to set the shift lever/control lever into the NEUTRAL position to prevent start-in-gear when starting the engine in emergency. Sudden unexpected acceleration could result in serious injury or death.

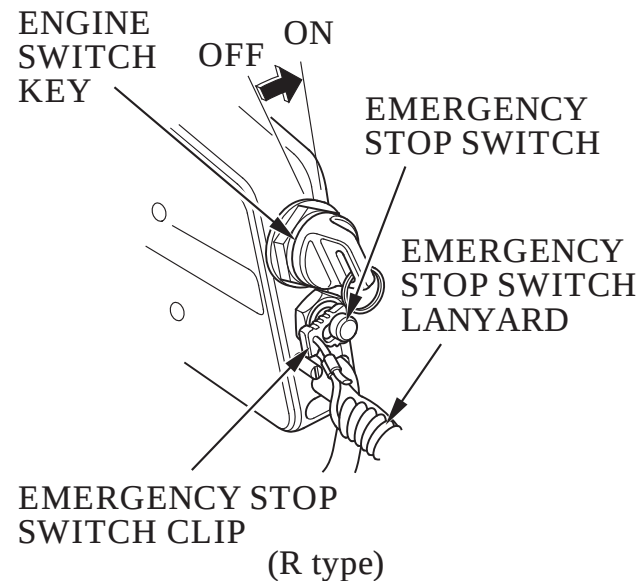
STARTING THE ENGINE (Common)



NOTICE

The propeller must be lowered into the water, running the outboard motor out of the water will damage the water pump and overheat the engine.

4. Turn the engine switch key to the ON position.
Engage the emergency stop switch clip at one end of the emergency stop switch lanyard with the emergency stop switch.



Attach the other end of the emergency stop switch lanyard securely to the operator.

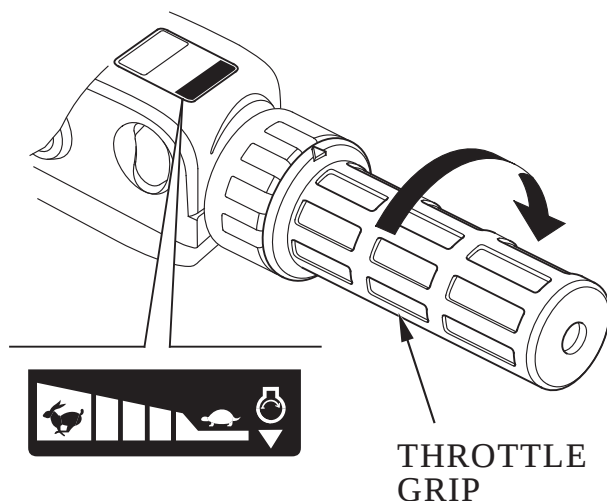
H type:

A spare emergency stop switch clip is provided in the tool bag (see page 101).

R type:

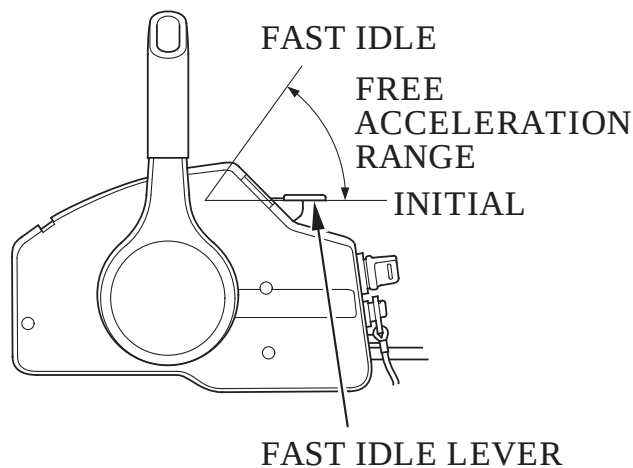
A spare emergency stop switch clip is provided on the remote control box (see page 25).

STARTING THE ENGINE (Common)



START

(H type)



(R type)

5. H type:

Align the “” mark on the throttle grip with the projected end of the “” mark on the handle.

NOTE:

This engine is equipped with an accelerator pump. Do not turn the throttle grip frequently before starting. Hard starting may result. If the throttle grip has been turned frequently before starting, open the throttle grip $1/8 - 1/4$ turns and start.

R type:

When the engine is cold or the ambient temperature is low, leave the fast idle lever in the initial position. (This will provide rich fuel mixture to the engine by the automatic choke.) When the engine is warm, raise the fast idle lever to the FAST IDLE position and hold it in the position.

NOTE:

The fast idle lever does not move unless the control lever is set in the NEUTRAL position.

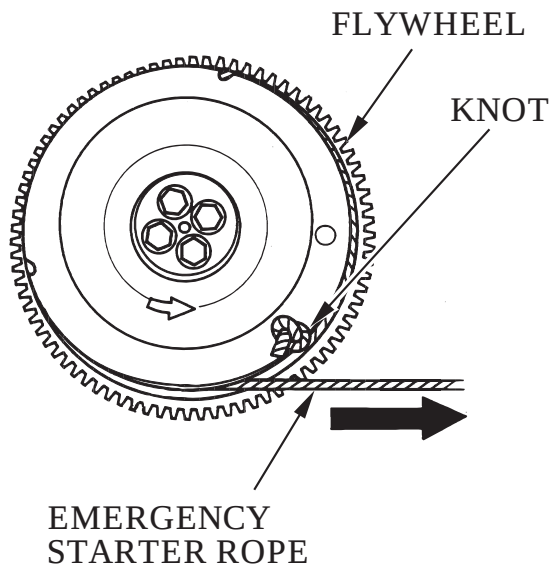
STARTING THE ENGINE (Common)

9. Reinstall the engine cover.

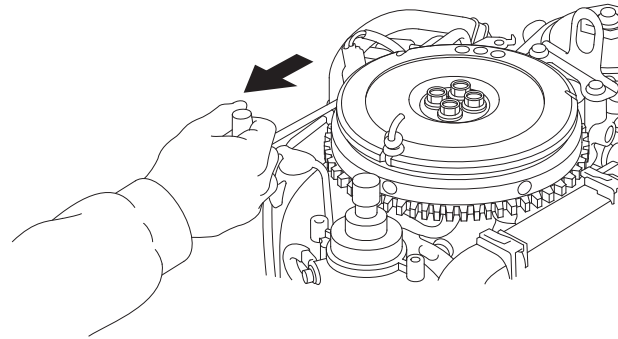
⚠WARNING

Take extreme care when installing the engine cover. The flywheel is rotating. Do not operate without the engine cover. Exposed moving parts could cause injury and starter may damage the engine.

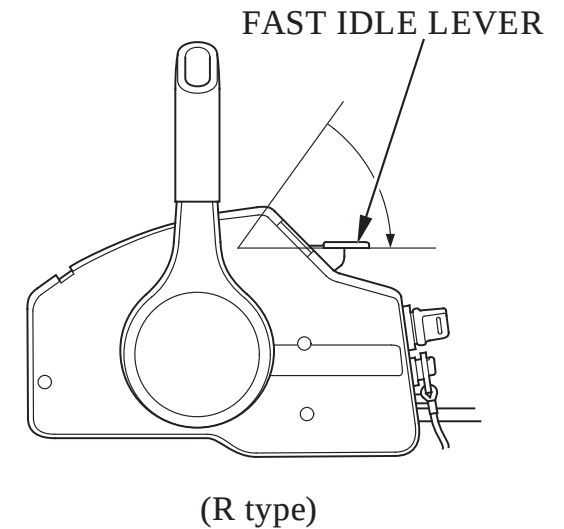
STARTING THE ENGINE (Common)



6. Set the knot at the end of the emergency starter rope in the notch in the flywheel, and while pulling the emergency starter rope counterclockwise around the flywheel.



7. Pull the emergency starter rope lightly until resistance is felt, then pull briskly.



8. R type:
If the fast idle lever is raised, return the fast idle lever slowly to the position where the engine does not stall and hold the lever in the position.

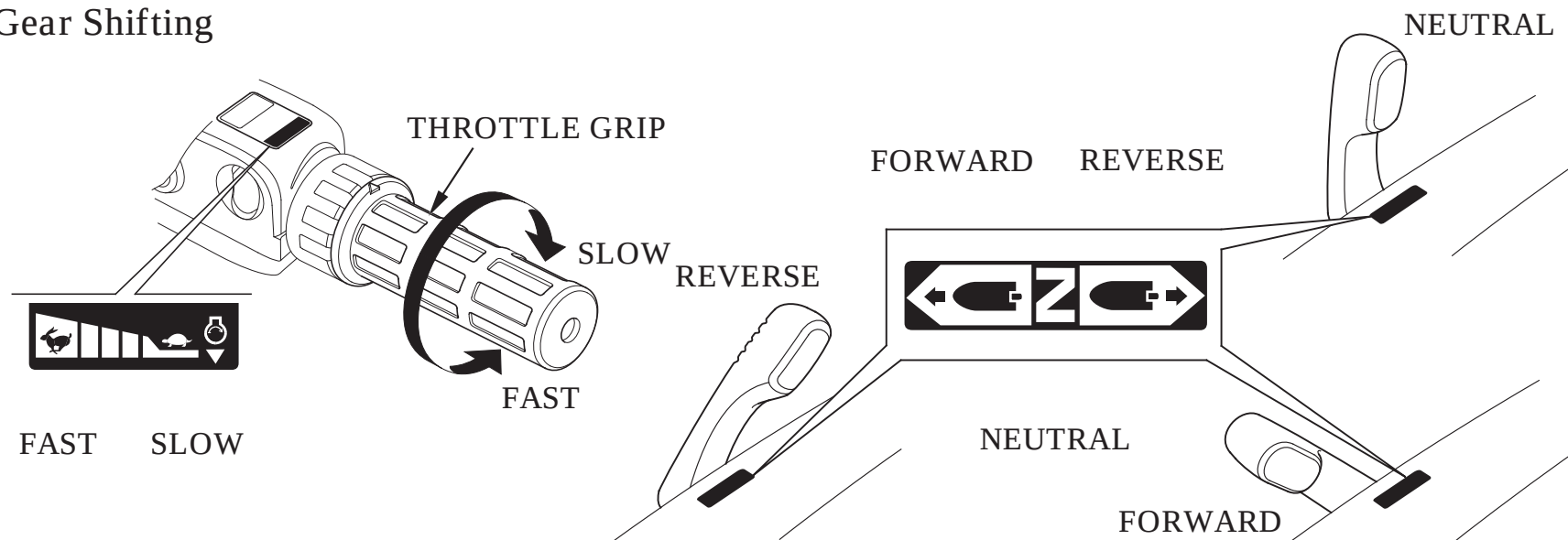
STARTING THE ENGINE (Common)

Troubleshooting Starting Problems

SYMPTOM	POSSIBLE CAUSE	REMEDY
Starter motor doesn't turn over.	<ol style="list-style-type: none">1. Engine switch OFF.2. Emergency stop switch clip is not set.3. Shift lever not in NEUTRAL position.4. Blown fuse.5. Loose battery connector.	<ol style="list-style-type: none">1. Turn engine switch key START. (page 57, 62)2. Set emergency stop switch clip. (page 55, 60)3. Set shift lever in NEUTRAL position. (page 56, 61)4. Replace fuse. (page 115)5. Connect battery cable securely. (page 42)
Starter motor turns but the engine doesn't start.	<ol style="list-style-type: none">1. Out of fuel.2. Vent knob not open.3. Priming bulb not squeezed.4. Engine flooded.5. Weak battery.6. Plug cap is not installed properly.	<ol style="list-style-type: none">1. Supply fuel. (page 47)2. Open vent knob. (page 54)3. Squeeze priming bulb to supply fuel. (page 54)4. Clean and dry spark plug. (page 107)5. Start using emergency starter rope. (page 65)6. Install plug cap securely. (page 107) <p>Have your authorized Honda outboard motor dealer charge battery.</p>

8. OPERATION (H type)

Gear Shifting



The gearshift lever has 3 positions: FORWARD, NEUTRAL, and REVERSE.

An indicator at the base of the gearshift lever aligns with the icon attached at the base of the gearshift lever.

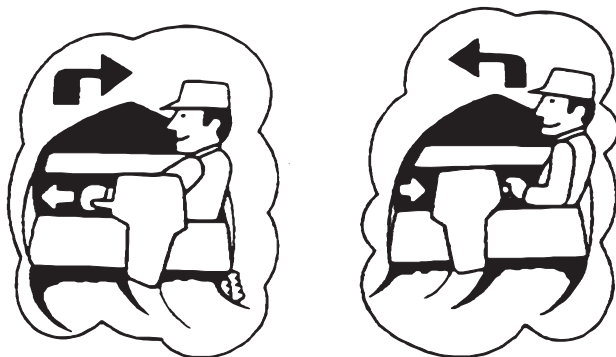
Turn the throttle grip to SLOW to decrease engine speed before moving the gearshift lever.

NOTE:

The throttle mechanism is designed to limit throttle opening in REVERSE and NEUTRAL. Do not turn the throttle grip with force in the FAST direction. The throttle can be opened to FAST only in FORWARD gear.

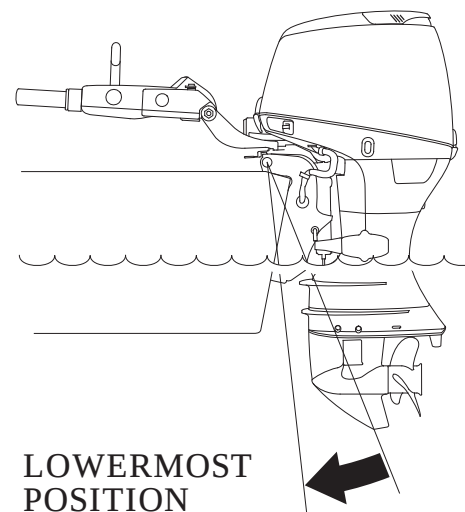
Be sure that the tilt lever is in the LOCK position. (G type)

Steering



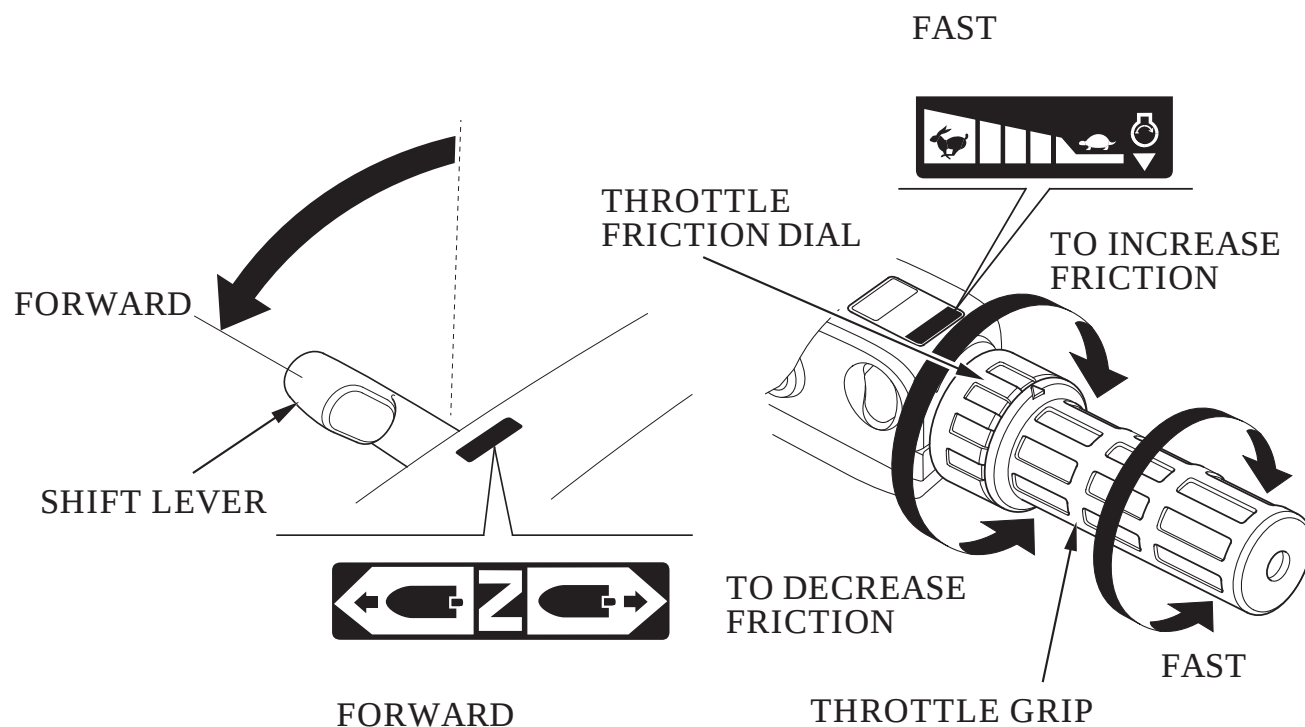
The boat swings its stern in the opposite direction in which it is to turn. To turn to the right, swing the steering handle to the left. To turn to the left, swing the steering handle to the right.

Cruising



1. On the T type, press the DN (down) portion of the power trim/tilt switch and trim the motor to the lowermost position.

OPERATION (H type)



2. With the shift lever in the **FORWARD** position, turn the throttle grip in the **FAST** direction to increase the speed.
3. For the sake of fuel economy, open the throttle about 80%.

To hold the throttle at a steady setting, turn the throttle friction dial clockwise. To free the throttle grip for manual speed control, turn the friction dial counterclockwise.

NOTE:

This outboard motor is equipped with an over-rev limiter in order to prevent a breakdown due to excessive engine speed.

Depending upon the running condition of the outboard motor (if the force applied to the propeller is light, for example), the limiter may operate, causing the engine speed to become unstable, thus preventing stable running.

If the engine speed becomes unstable when the outboard motor is run with the grip near the full open position, return the grip to the **SLOW** side until the speed becomes stable.

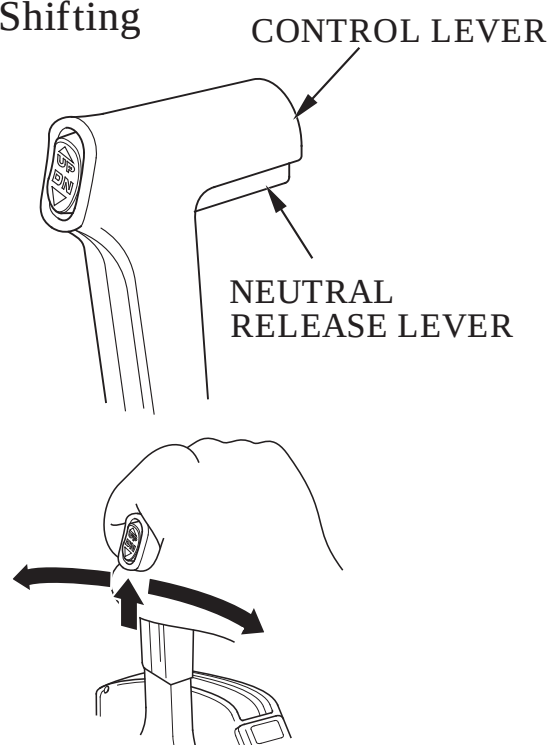
⚠ CAUTION

Do not operate without the engine cover. Exposed moving parts could cause injury; water may damage the engine.

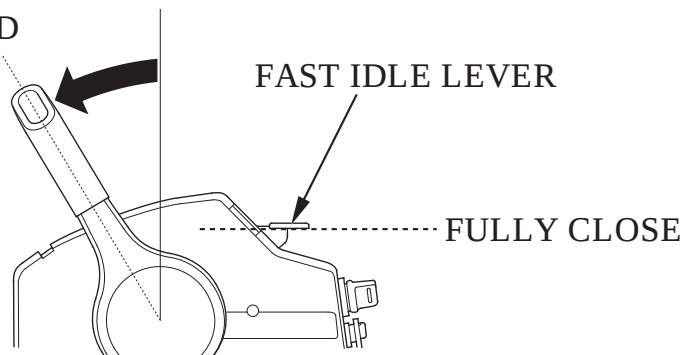
NOTE:

For best performance, passengers and equipment should be distributed evenly to balance the boat.

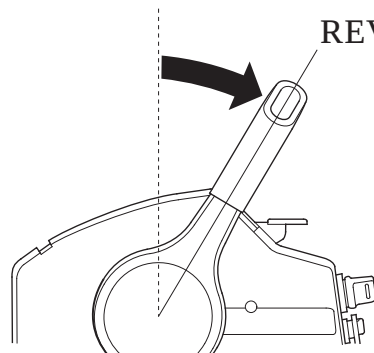
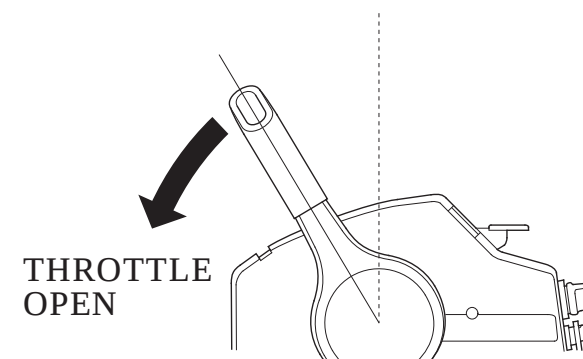
Gear Shifting



FORWARD



REVERSE



While pulling the neutral release lever, move the control lever 30° toward the FORWARD or REVERSE position to engage the clutch.

Moving the control lever further opens the throttle and the engine speed increases.

⚠ CAUTION

Avoid jerky operation of the control lever. An accident or unpredictable injury could result.

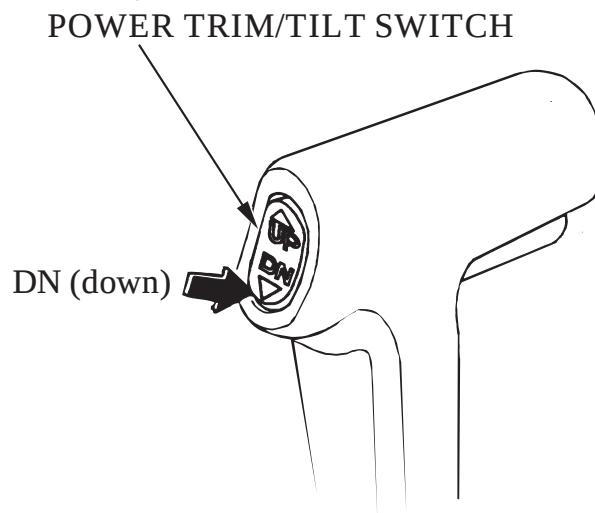
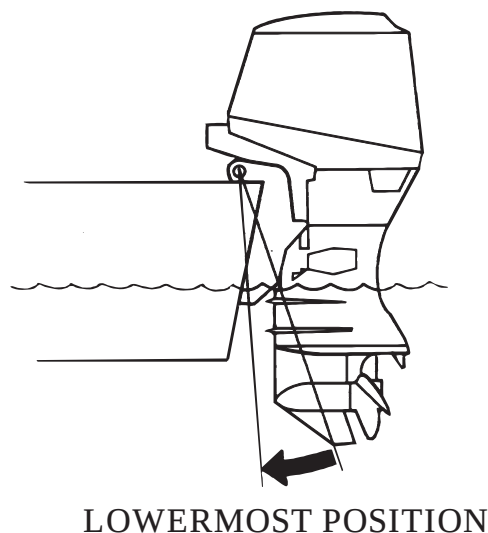
NOTE:

- The control lever might not move unless the neutral release lever is lifted fully.
- Set the fast idle lever in the fully closed throttle position, or the control lever does not operate.

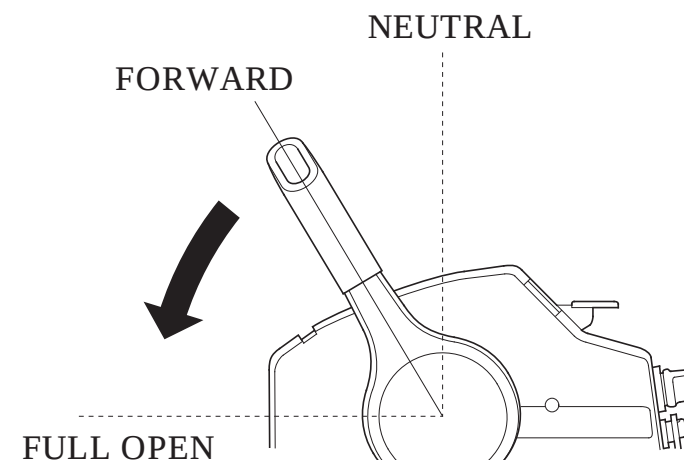
Be sure that the tilt lever is in the LOCK position. (G type)

OPERATION (R type)

Cruising



1. On the T type, press the DN (down) of the power trim/tilt switch and trim the motor at the lowermost position.



2. Move the control lever from NEUTRAL toward FORWARD position.
Moving about 30° engages the gear. Moving the control lever further opens the throttle and increases the engine speed.
3. For the sake of fuel economy, open the throttle about 80%.

OPERATION (R type)

NOTE:

This outboard motor is equipped with an over-rev limiter in order to prevent a breakdown due to excessive engine speed.

Depending upon the running condition of the outboard motor (if the force applied to the propeller is light, for example), the limiter may operate, causing the engine speed to become unstable, thus preventing stable running.

If the engine speed becomes unstable when the outboard motor is run with the control lever near the full open position, return the control lever to the LOW side until the speed becomes stable.

⚠ CAUTION

Do not operate without the engine cover. Exposed moving parts could cause injury; water may damage the engine.

NOTE:

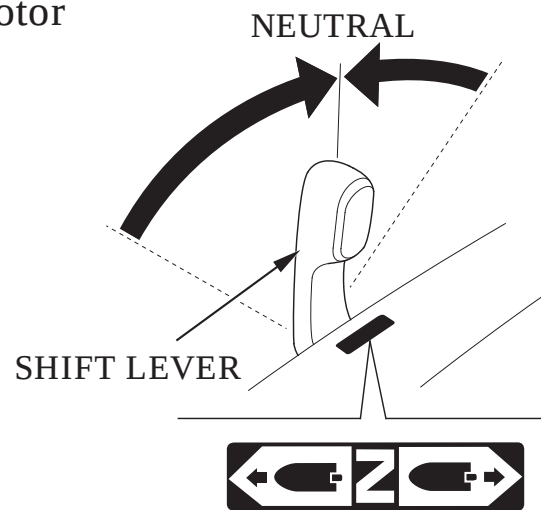
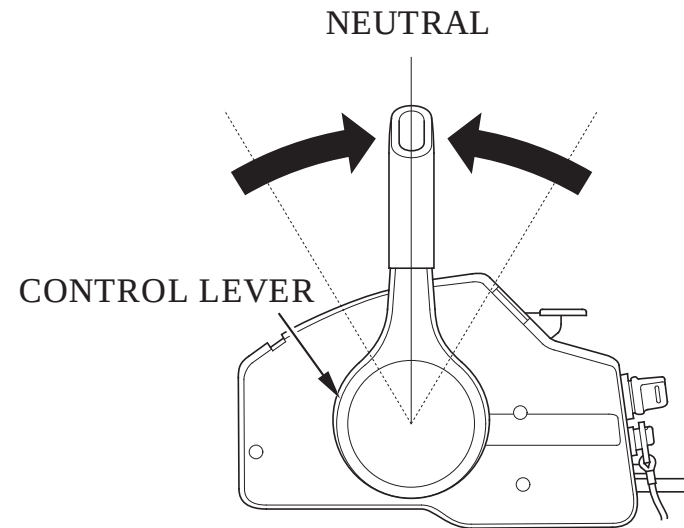
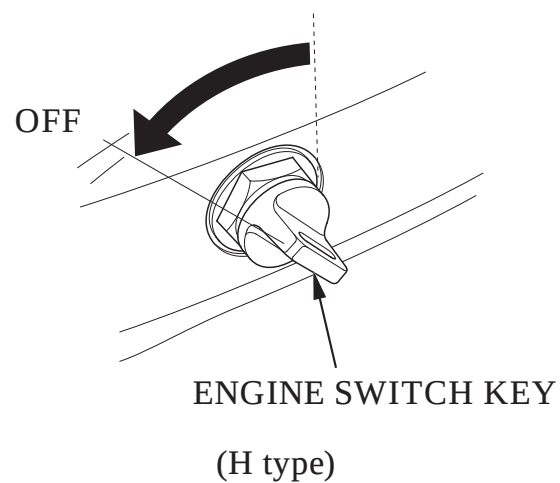
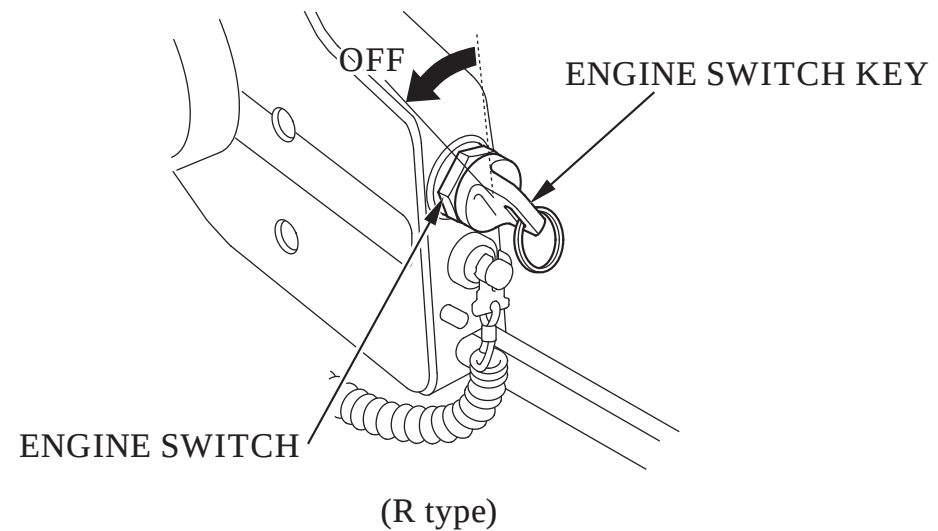
For best performance, passengers and equipment should be distributed evenly to balance the boat.

Tilting the Motor

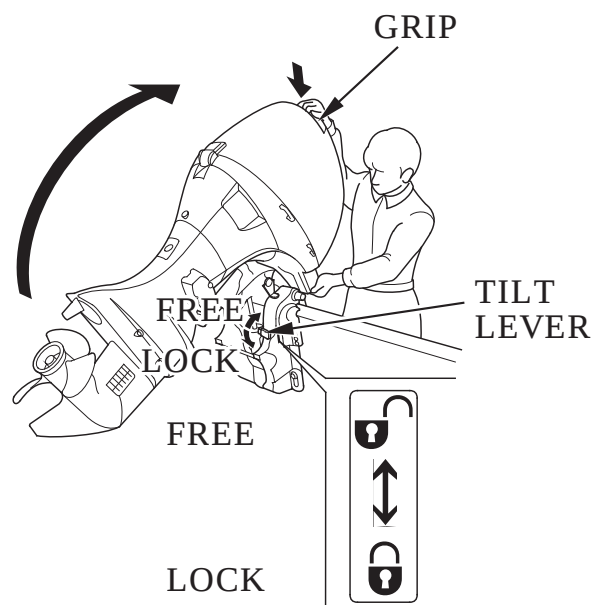
Tilt the motor to prevent the propeller and gear case from hitting bottom when the boat is beached or stopped in shallow water.

OPERATION (G type)

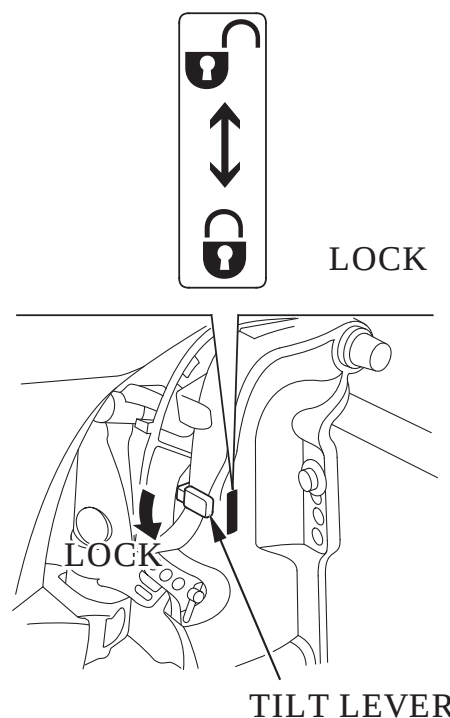
Tilting the Motor



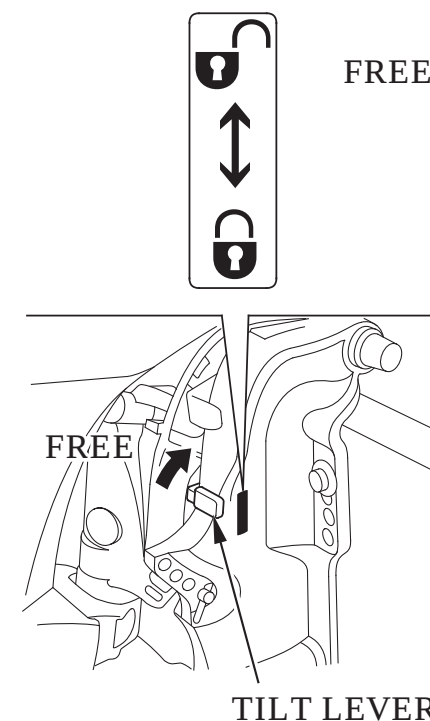
1. Move the shift lever or the control lever to the NEUTRAL position and stop the engine.



2. Move the tilt lever to the FREE position. Hold the engine cover grip and raise the motor. (The outboard motor can be tilted stagelessly.)



3. With the outboard motor tilted up at the designated position, move the tilt lever to the LOCK position to lock the motor in the position.



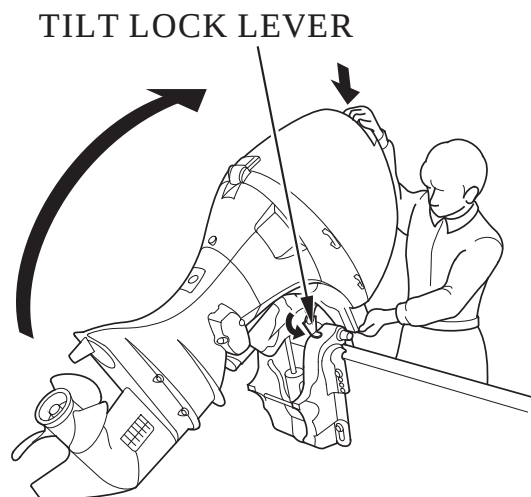
4. To return the motor, move the tilt lever to the FREE position, tilt up the motor slightly by holding the engine cover grip, and lower the engine gently to the designated position.

⚠ CAUTION

Set the tilt lever in the FREE/ LOCK positions securely.

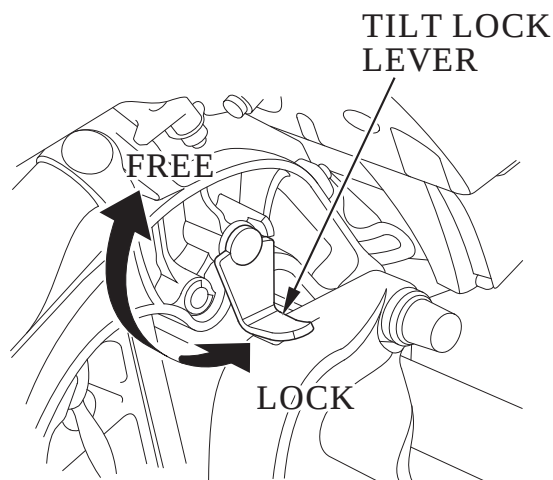
OPERATION (G type)

Moorage



Tilt-up using the tilt lock lever.
Use this mechanism when mooring
the outboard motor.

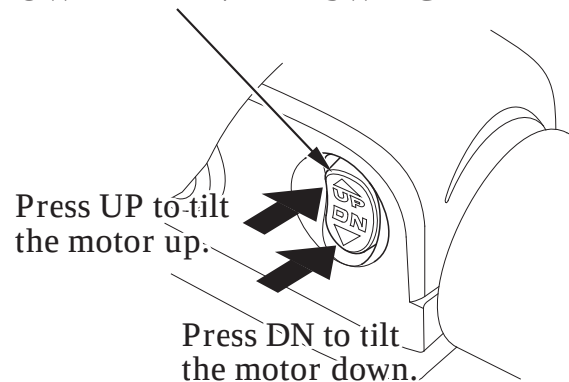
1. Move the tilt lever to the FREE position and raise the outboard motor as far as it goes by holding it by the grip of the engine cover.
2. Move the tilt lock lever to the LOCK position and lower the outboard motor slowly.
3. Move the tilt lever to the LOCK position.



4. To tilt down, move the tilt lever to the FREE position, and move the tilt lock lever to the FREE position while lifting the outboard motor to the designated position and move the tilt lever to the LOCK position.

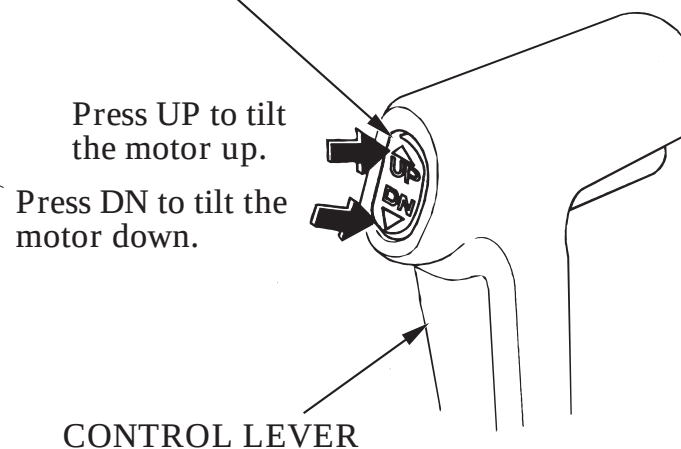
Tilting the Motor

POWER TRIM/TILT SWITCH

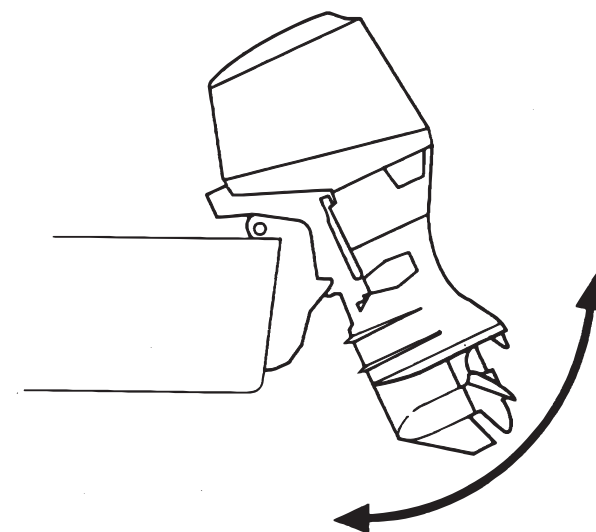


(H type)

POWER TRIM/TILT SWITCH



(R type)



The outboard motor equipped with the power trim/tilt system can adjust the motor angle (trim angle) while cruising and mooring. The motor angle can also be adjusted while cruising and accelerating to obtain the maximum speed and optimum driveability and fuel economy. Press either UP or DN (down) of the power trim/tilt switch and tilt the motor to the best position in compliance with the cruising conditions.

The power trim/tilt system operates when the switch is pressed, and it stops when the switch is released. To tilt up slightly, press on UP momentarily but securely. To tilt down slightly, press on DN (down) in the same manner.

OPERATION (T type)

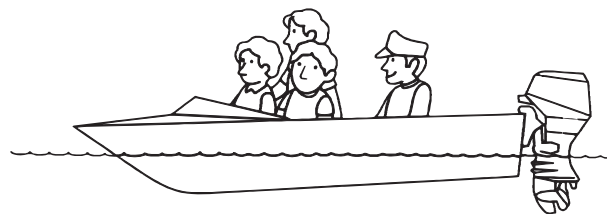
⚠ CAUTION

- Improper trim angle results in unstable steering condition.
- Do not trim excessively while cruising through rough waves, or it may cause an accident.
- Excessive trim angle can result in cavitation and racing of the propeller, and trimming up the motor excessively can cause damage to the impeller pump.

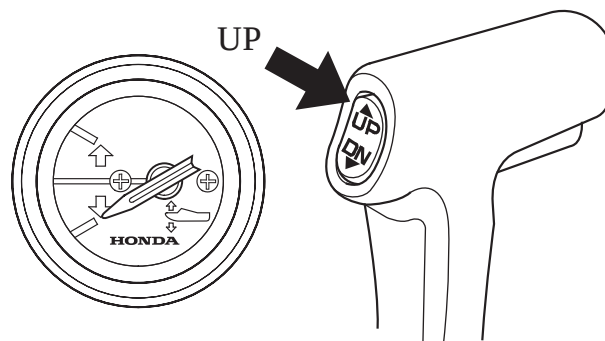
NOTE:

- When cruising against strong wind, trim down slightly to improve the stability of the boat.
- When cruising with the wind, trim up slightly to improve the stability of the boat.

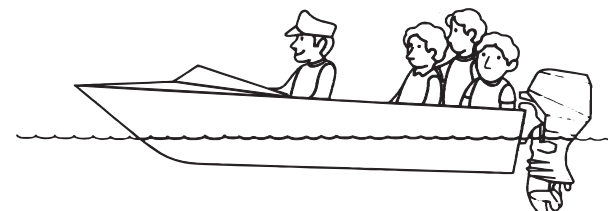
Trim Meter (T type)



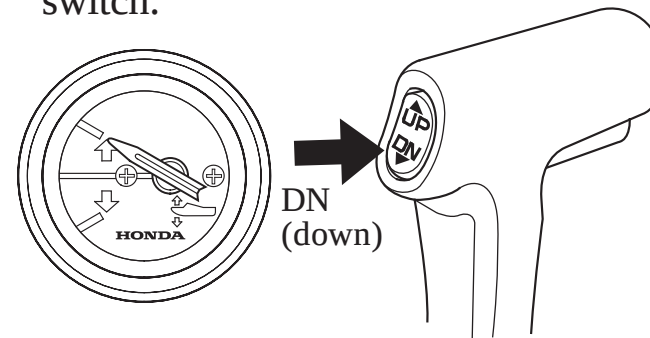
Increase the trim angle by pressing UP of the power trim/tilt switch.



(R type)



Decrease the trim angle by pressing DN (down) of the power trim/tilt switch.

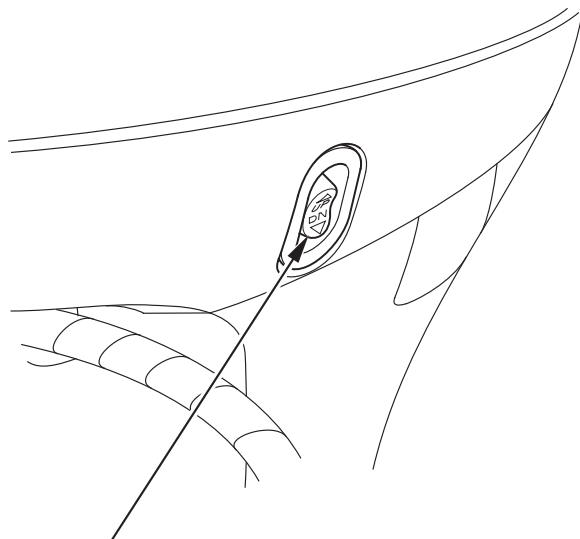


(R type)

The trim meter indicates the trimming condition of the outboard motor. Referring to the trim meter, press the power trim/tilt switch and trim the boat at the best angle for optimum stability and speed.

The illustration represents R type. Perform the same procedure for the other types.

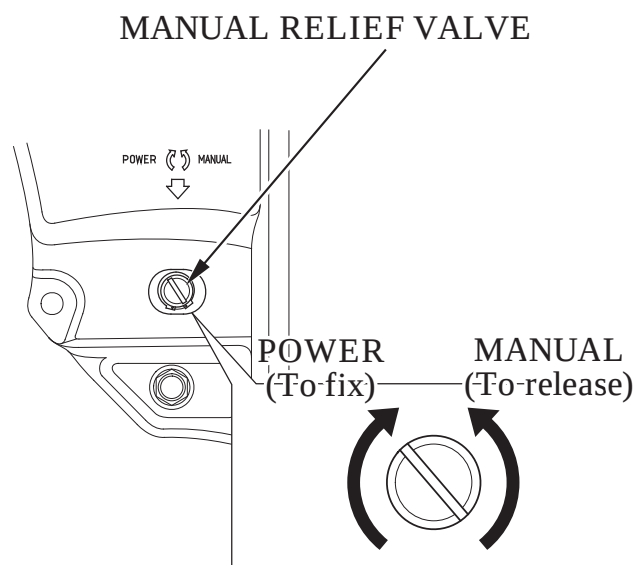
Power Tilt Switch



POWER TILT SWITCH

The power tilt switch located on the motor pan is a convenience switch for tilting the motor for training, or performing outboard maintenance. This power tilt switch should only be operated with the boat being stopped and motor off.

Manual Relief Valve



When power trim/tilt system does not operate because of dead battery or faulty power trim/tilt motor, the outboard motor can be manually tilted up or down by operating the manual relief valve. To tilt the outboard motor manually, turn the manual relief valve under the stern bracket 2 and a half turns counterclockwise using a screwdriver.

NOTICE

Do not loosen the manual relief valve more than two turns, or the outboard motor cannot be tilted up when the manual relief valve is retightened.

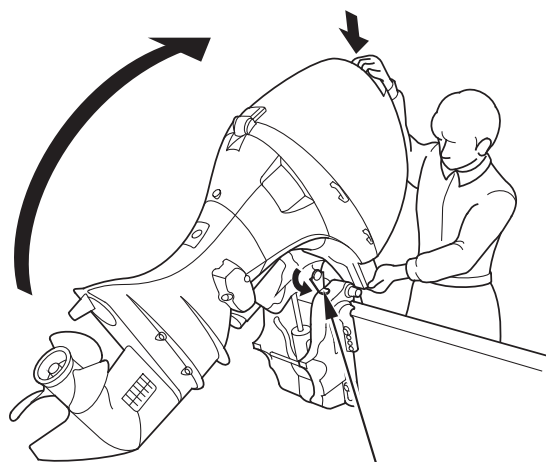
After tilting up/down manually, close the manual relief valve to lock the motor in the position.

CAUTION

The manual relief valve must be tightened securely before operating the motor or the motor could tilt when operating in reverse.

OPERATION (T type)

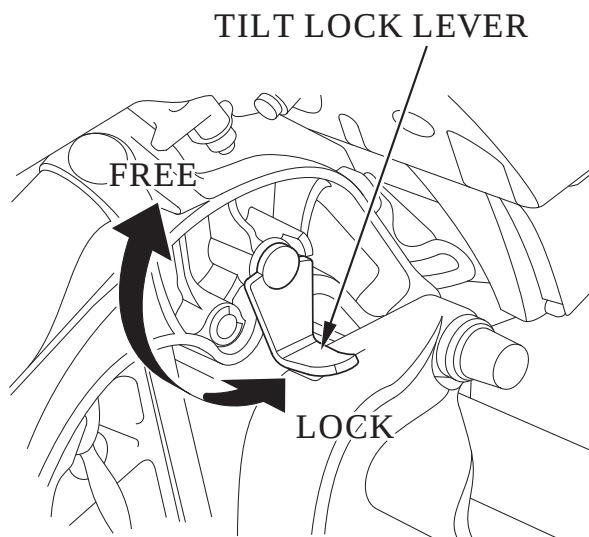
Moorage



TILT LOCK LEVER

Tilt-up using the tilt lock lever.
Use this mechanism when mooring the outboard motor.

1. Raise the motor as full as it goes using the power trim/tilt switch.
2. Move the tilt lock lever to the LOCK position and lower the outboard motor until the lock lever contacts the stern bracket.

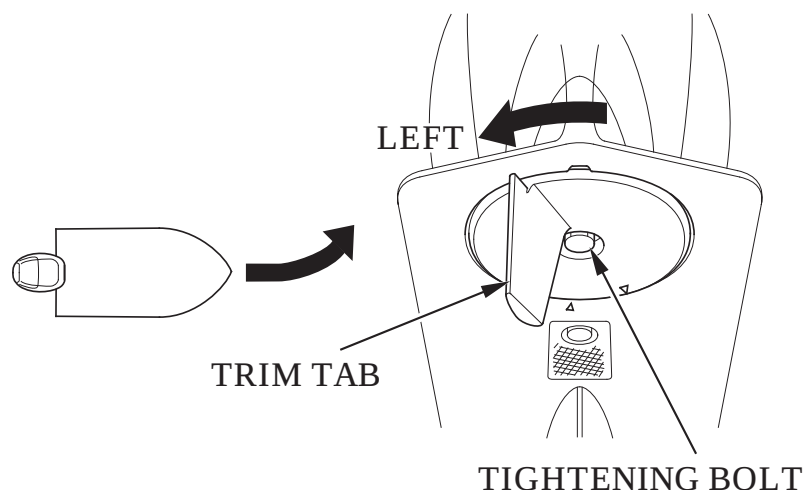


NOTE:

If more clearance is needed to swing the tilt lock lever into the LOCK position, rock the outboard motor back slightly by pulling on the engine cover grip.

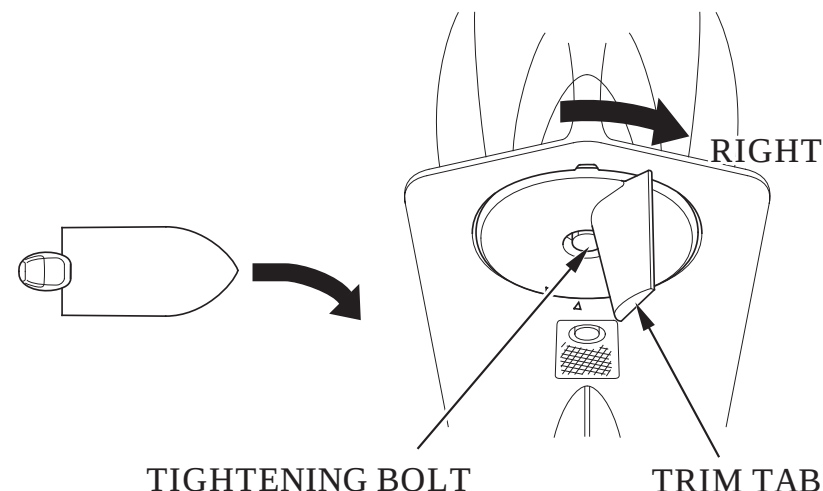
3. To tilt down, raise the outboard motor slightly, move the tilt lock lever to the FREE position, and lower the outboard motor to the designated position.

Trim Tab Adjustment



If the steering wheel/handle is pulled to one side while running at full speed, adjust the trim tab so that the boat runs straight ahead.

If less effort is required to make left turns:
Loosen the trim tab tightening bolt and turn the rear end of the trim tab toward the left. Tighten the bolt securely.



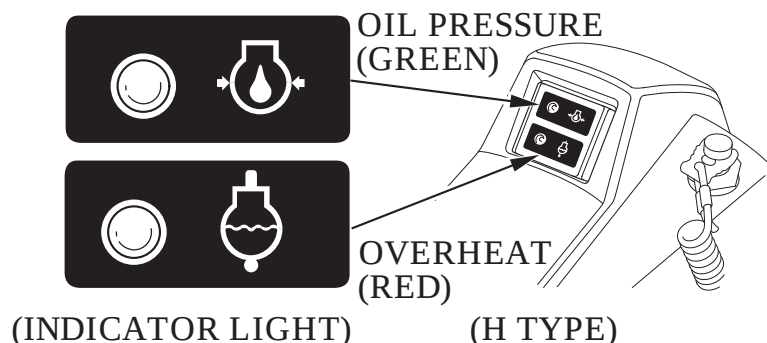
If less effort is required to make right turns:
Loosen the trim tab tightening bolt and turn the rear end of the trim tab toward the right. Tighten the bolt securely.

NOTE:

- Stable steering cannot be obtained unless the trim tab is adjusted properly.
- After adjustment, test run the boat several times to find the best adjustment position.
- Do not paint the trim tab as it also functions as an anode metal.

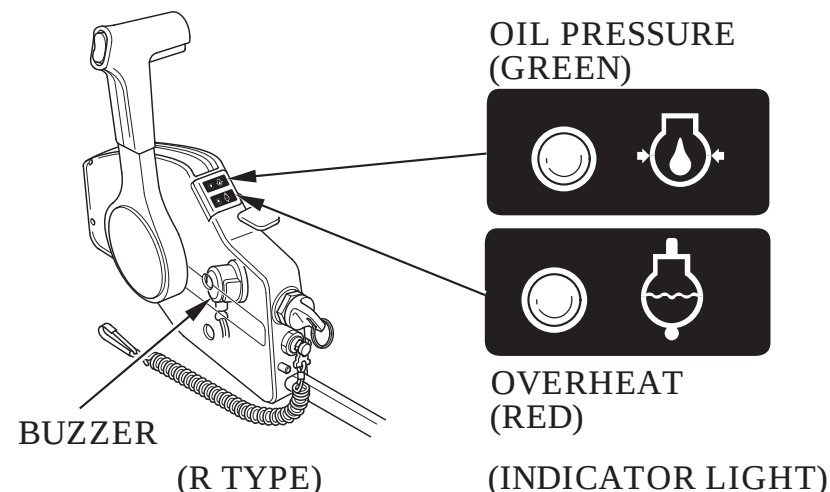
OPERATION

Motor Protection System 〈 Engine Oil Pressure and Overheat Warning Systems 〉



Oil Pressure Indicator

- When the green light is lit, oil pressure is OK.
- If oil pressure becomes low, the green light will go off, and the engine protection system will limit engine speed.
- Remote control types are also equipped with a buzzer that sounds when the green light goes off. The buzzing sound stops below an engine speed of 1,400 rpm.
- The engine speed does not increase if the throttle is opened widely.
- The engine speed increases gradually as soon as the cause of the warning is removed.



Overheat Warning Indicator

- If the engine overheats, the engine protection system will limit engine speed. If the condition persists for another 20 seconds, the engine will shut off (All types).
- Remote control types are also equipped with a warning light and a buzzer. Red light will come on and a buzzer sounds if the engine overheats.
- The engine speed does not increase if the throttle is opened widely.
- If the overheat condition continues for 20 seconds, the engine is stopped; if the normal temperature is restored within that time, the engine speed is gradually raised to the normal cruising speed.

System Symptom		Indicator light		Buzzer
		Oil pressure	Overheat	Remote control type
Normal		ON	OFF	_____
Abnormal	Low oil pressure	OFF	OFF	Continuous beep ^{*1}
	Overheat	ON	ON	Continuous beep ^{*1}
	Low oil pressure & overheat	OFF	ON	Continuous beep ^{*1}

* 1: The buzzing sound stops below an engine speed of 1,400 rpm.

When the oil pressure warning system operated (green indicator light turned off):

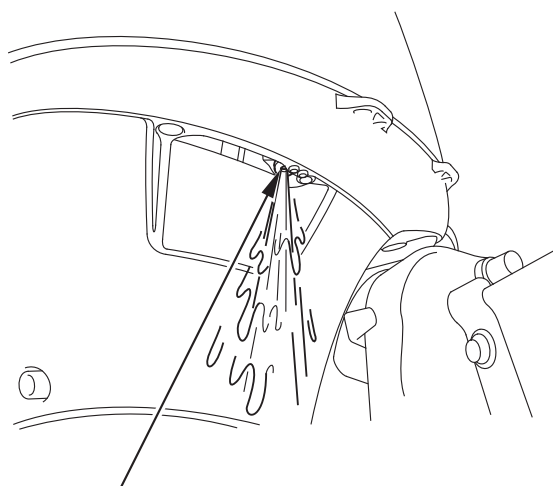
- 1) Stop the engine immediately and check the engine oil level (see page 46).
- 2) If the oil is up to the recommended level, operate the outboard motor at low speed (within 30 seconds). The warning system is normal if it stops.

NOTE:

If the throttle is closed suddenly while sailing with the throttle fully open, the engine speed temporarily drops below the specified idle speed. The oil pressure indicator light can turn off this time.

- 3) If the warning system is still operating, return to the pier at low speed and service the system.

OPERATION



WATER CHECK HOLE

When the overheat warning system operated (red indicator light turned on):

- 1) Return the shift lever to the NEUTRAL position (idle speed) immediately, and check whether water is flowing out of the cooling water check hole.

- 2) If water is flowing, continue idling (within 30 seconds).
The warning system is normal if it stops.
- 3) If the warning system is still operating, return to the pier at low speed and service the system.

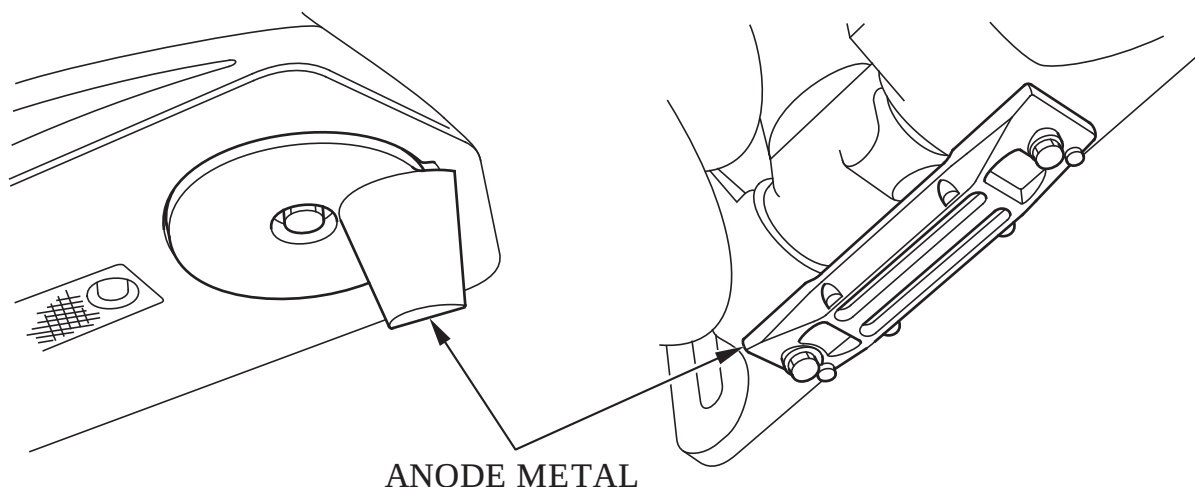
< Over-rev Limiter >

The BF40A/50A outboard motor is equipped with the over-rev limiter which operates when the engine speed increases excessively for some reasons while cruising or when the propeller races while tilting up the outboard motor or changing the cruising course.

When the over-rev limiter operated:

- 1) Slow down the engine speed immediately and check the tilt angle.
- 2) If the tilt angle is proper but the engine speed is too high, stop the engine and check the outboard motor and propeller for installation condition and damage. Correct or service if necessary.

< Anodes >



The anodes are a sacrificial material which helps to protect the outboard motor from corrosion.

NOTICE

Painting or coating the anodes will lead to rust and corrosion damage to the outboard motor.

Shallow Water Operation

NOTICE

Excessive trim/tilt angle during operation can cause the propeller to raise out of the water and cause propeller ventilation and engine over-revving. Excessive trim/tilt angle can also damage the water pump and overheat the engine.

When operating in shallow water, tilt the motor up to prevent the propeller and gear case from hitting the bottom (refer to pages 76 and 80). With the motor tilted up, operate the motor at low speed.

Monitor the cooling system indicator for water discharge. Be sure that the motor is not tilted so high that the water intakes are out of the water.

If an excessive amount of throttle is used when operating in forward gear, the motor will return to the transom angle adjusting rod. (G type)

OPERATION

High Altitude Operation

At high altitude, the standard carburetor air/fuel mixture will be excessively rich. Performance will decrease, and fuel consumption will increase.

High altitude performance can be improved by specific modifications to the carburetor. If you always operate the outboard motor at altitudes higher than 1,500 m (5,000 feet) above sea level, have your authorized Honda dealer perform these carburetor modifications.

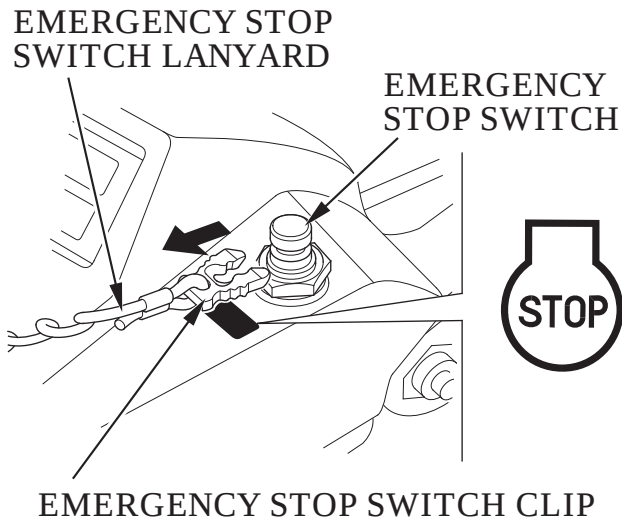
Even with suitable carburetor jetting, engine horsepower will decrease approximately 3.5 % for each 300 m (1,000 foot) increase in altitude. The effect of altitude on the horsepower will be greater than this if no carburetor modification is made.

NOTICE

Operation of the outboard motor at an altitude lower than the carburetor is jetted for may result in reduced performance, overheating, and serious engine damage caused by an excessively lean air/fuel mixture.

9. STOPPING THE ENGINE (H type)

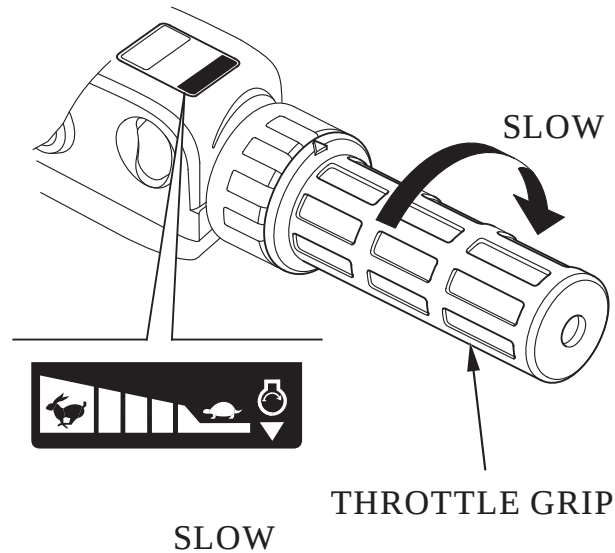
Stopping the Engine



- In an emergency;
Pull the emergency stop switch lanyard and remove the emergency stop switch clip from the switch; this will stop the engine.

NOTE:

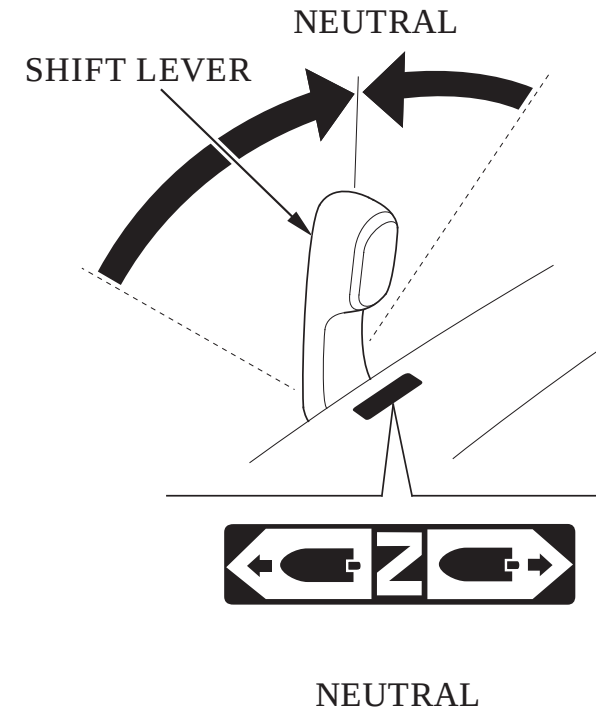
It is a good idea to stop the engine with the emergency stop switch lanyard from time to time to be sure that the switch is operating properly.



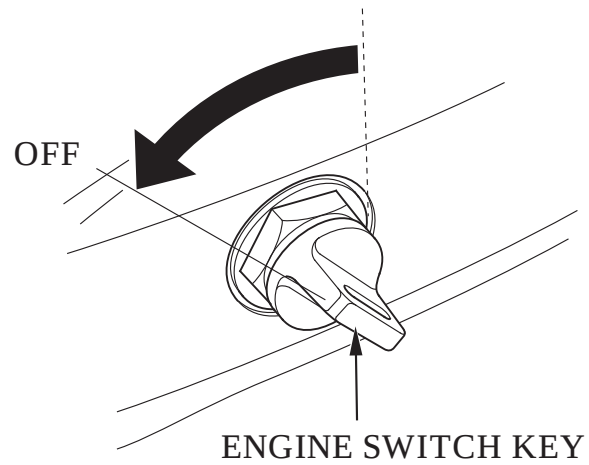
- In normal use;
1. Turn the throttle grip to SLOW position and move the shift lever to NEUTRAL.

NOTE:

After sailing with the throttle fully open, cool down the engine by running it at the idle speed for a few minutes.



STOPPING THE ENGINE (H type)



2. Turn the engine switch key to the OFF position to stop the engine.

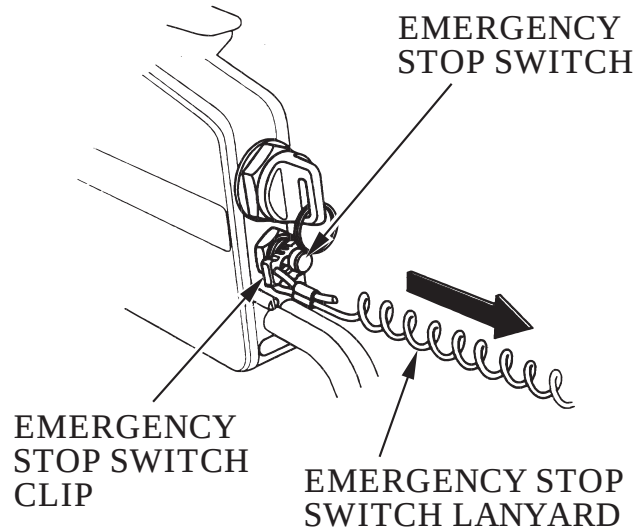
NOTE:

In the event that the engine does not stop when the engine switch is turned OFF, disconnect the fuel line connector.

3. Remove the engine switch key and store it.

STOPPING THE ENGINE (R type)

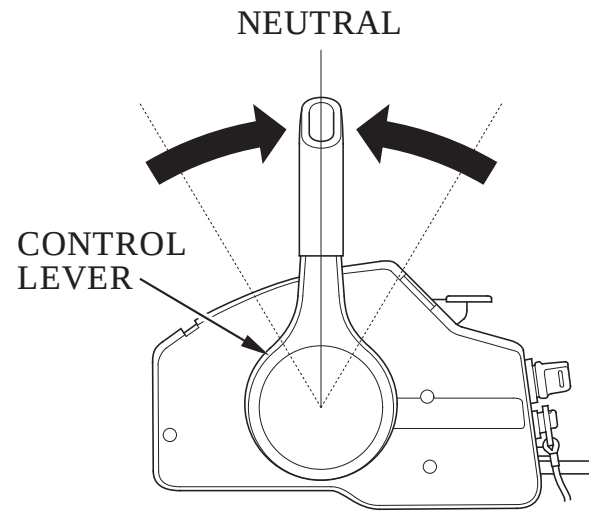
Stopping the Engine



- In an emergency;
Pull the emergency stop switch lanyard and remove the emergency stop switch clip from the switch; this will stop the engine.

NOTE:

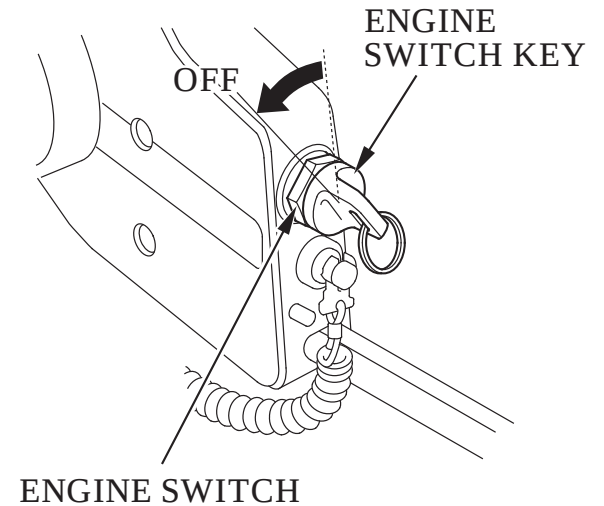
It is a good idea to stop the engine with the emergency stop switch lanyard from time to time to be sure that the switch is operating properly.



- In normal use;
1. Move the control lever to the NEUTRAL position.

NOTE:

After sailing with the throttle fully open, cool down the engine by running it at the idle speed for a few minutes.



2. Turn the engine switch key to the OFF position to stop the engine.

NOTE:

In the event that the engine does not stop when the engine switch is turned OFF, disconnect the fuel line connector and move the fast idle lever to the upmost position.

3. Remove the engine switch key and store it.

10. TRANSPORTING

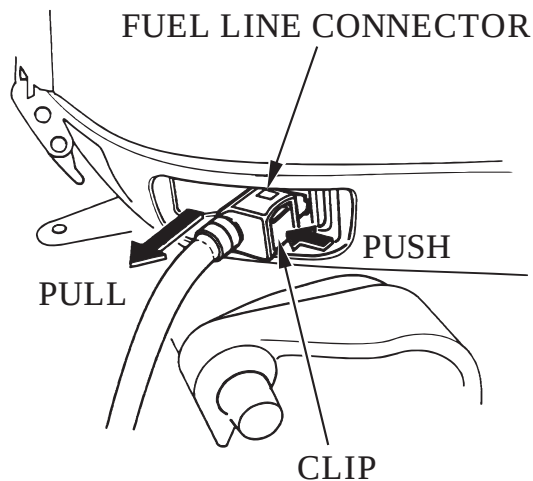
Fuel Line Disconnection

Before transporting the motor, disconnect and remove the fuel line in the following procedure.

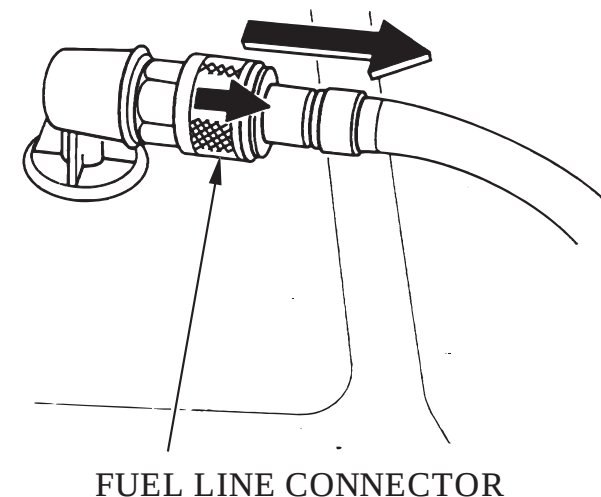
▲WARNING

Gasoline is extremely flammable, and gasoline vapor can explode, causing serious injury or death.

- Be careful not to spill fuel. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before storing or transporting the motor.
- Do not smoke or allow flames or sparks where fuel is drained or stored.



1. While pressing the fuel line connector clip, pull the fuel line connector and disconnect it from the outboard side joint.

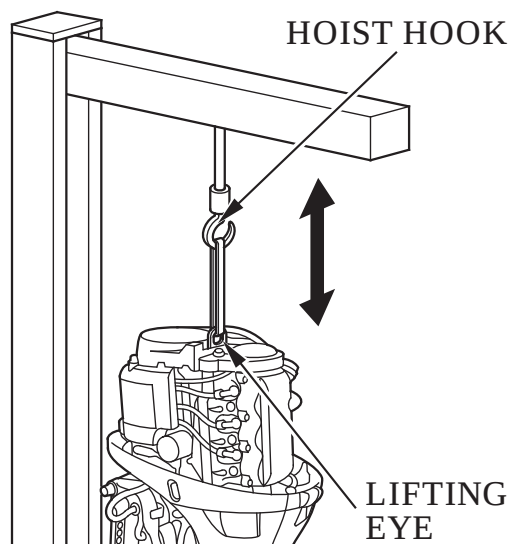


2. While pulling the fuel line connector cover, pull the fuel line connector to disconnect the fuel line connector from the fuel tank.

Transporting

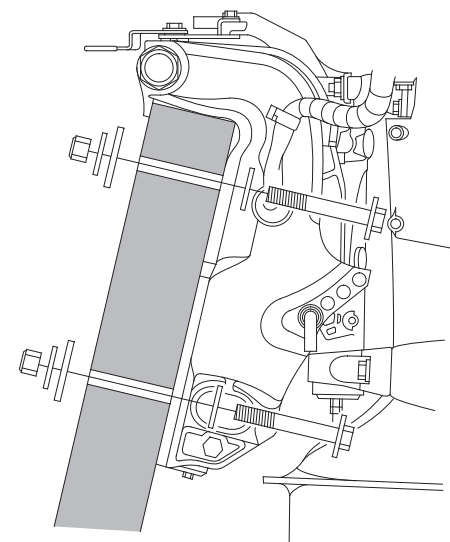
⚠ CAUTION

Do not carry the outboard motor by the engine cover. The engine cover can be unlatched and outboard motor can drop, resulting in an accidental injury and damage.



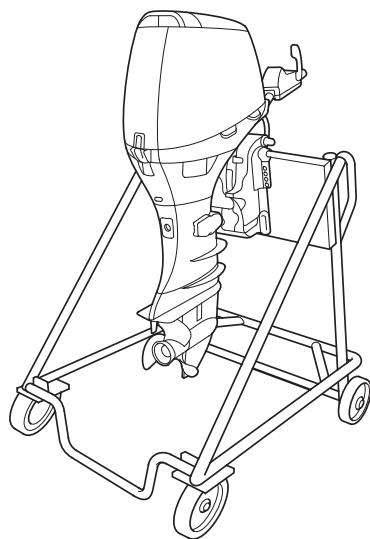
When transporting the outboard motor on a vehicle, perform the following.

1. Remove the engine cover (see page 45), and drain the carburetor (see page 119).
2. Set the hoist hook against the lifting eye and hang the outboard motor to remove it from the boat.



3. Secure the outboard motor on a motor stand with the mounting bolts and nuts.

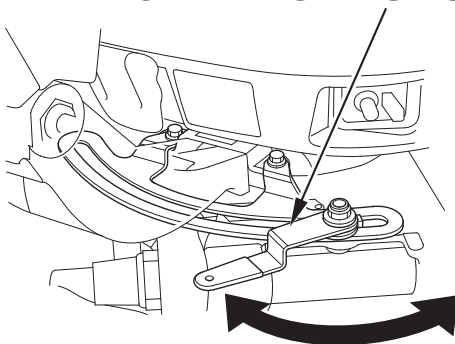
TRANSPORTING



4. Reinstall the engine cover.

Trailer

STEERING FRICTION LEVER



TO INCREASE
FRICTION
(LOCK)

TO DECREASE
FRICTION
(FREE)

(H type)

H type:

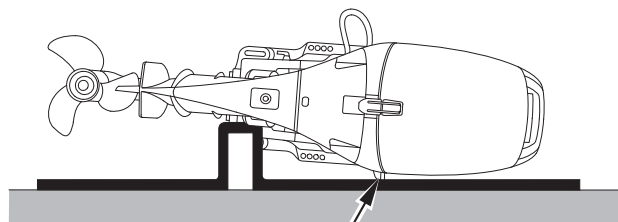
When trailing or transporting the boat with the motor attached, it is recommended that the motor remain in normal running position with the steering friction lever locked position.

NOTICE

Do not trailer or transport the boat with the motor in the tilted position. The boat or motor could be severely damaged if the motor drops.

The motor should be trailed in the normal running position. If there is insufficient road clearance in this position, then trailer the motor in the tilted position using a motor support device such as a transom saver bar, or remove the motor from the boat. Tilt lever should be in the tilted position.

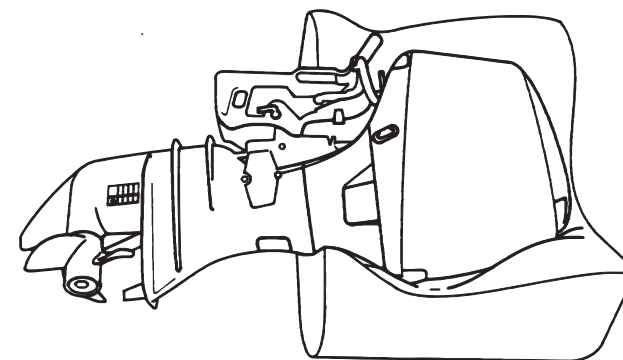
Horizontal transport or storage:
Rest the motor on the case protector.



CASE PROTECTOR

⚠ CAUTION

Before transporting the outboard motor horizontally, be sure to drain the gasoline and oil from the outboard motor as instructed on pages 104 and 119.



When you place the outboard motor horizontally to transport, be sure to place sponge or clothes under the outboard motor to protect it from impact and damage.

11. CLEANING AND FLUSHING

Thoroughly clean and flush the outboard motor with fresh water after operating in dirty water or salt water.

NOTICE

Do not apply water or corrosion inhibitor directly to the timing belt under the engine cover. If water or corrosion inhibitor penetrates the timing belt, it may be damaged. Before applying a corrosion inhibitor, cover the timing belt with a protective material to prevent damage.

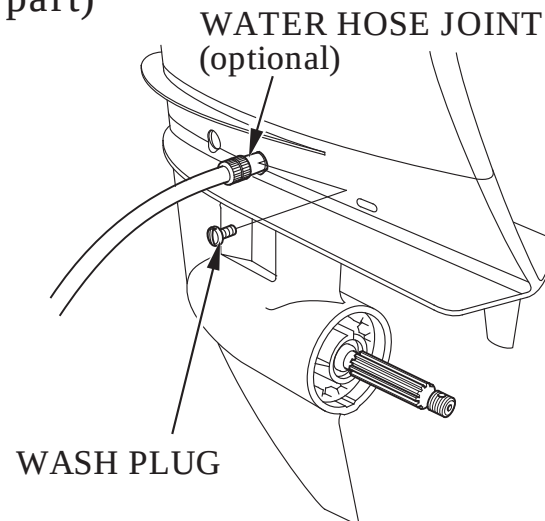
▲WARNING

- For safety, the propeller must be removed.
- Be sure the outboard motor is securely mounted, and do not leave it unattended while running.
- Keep children and pets away from the area, and stay clear of moving parts during this procedure.

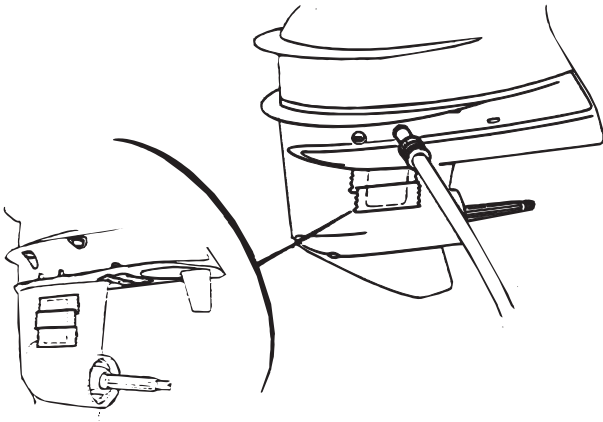
NOTICE

Running the engine without water can cause serious engine damage due to overheating. Be sure that water flows from the cooling water check hole while the engine is running. If not, stop the engine and determine the cause of the problem.

With Water Hose Joint (Optional part)

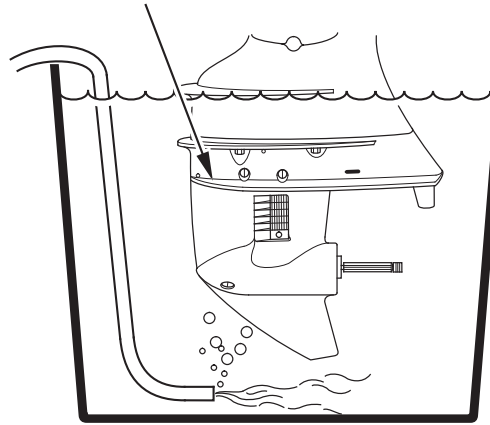


1. Wash the outside of the outboard motor with clean, fresh water.
2. Remove the wash plug.
3. Insert the water hose joint into the plug hole and connect the hose from a fresh water faucet to the hose joint.



4. Plug the three water cooling water intake ports with tape.
5. Remove the propeller (see page 116).
6. Move the shift lever or control lever to the NEUTRAL position.
7. Turn on the fresh water supply to the hose.
8. Start the engine and run in neutral position for at least 10 minutes to clean inside of the motor.

Without Water Hose Joint ANTICAVITATION PLATE



When the water hose joint is not used, stand the outboard in a suitable container of fresh water.

1. Wash the outside of the outboard motor with clean, fresh water.
2. Remove the propeller (see page 116).
3. Stand the motor in a suitable container of water. The water level must be at least 4 inches above the anticavitation plate.
4. Move the shift lever or control lever to the NEUTRAL position.

5. Turn on the fresh water supply to the hose.
6. Start the engine and run in neutral for at least 5 minutes to clean inside of the motor.

12. MAINTENANCE

Periodic maintenance and adjustment are important to keep the motor in the best operating condition. Service and inspect according to the MAINTENANCE SCHEDULE.

⚠ WARNING

Shut off the engine before performing any maintenance. If the engine must be run, make sure the area is well ventilated. Never run the engine in an enclosed or confined area. Exhaust contains poisonous carbon monoxide gas; exposure can cause loss of consciousness and may lead to death.

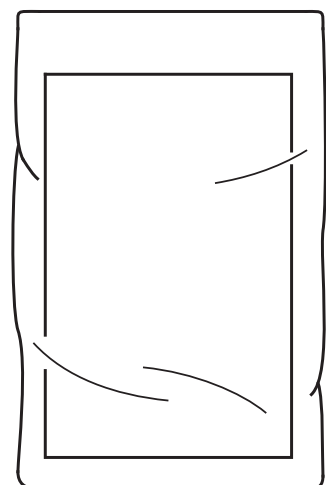
Be sure to reinstall the engine cover, if it was removed, before starting the engine. Lock it securely by lowering the fixing levers.

NOTICE

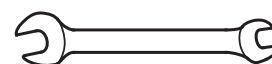
- If the engine must be run, make sure there is water at least 100 mm (4 in) above the anticavitation plate, otherwise the water pump may not receive sufficient cooling water, and the engine will overheat.
- Use only genuine Honda parts or their equivalents for maintenance or repair. The use of replacement parts which are not of equivalent quality may damage the motor.

Tool Kit and Spare Parts

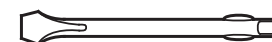
The following tools and spare parts are supplied with the outboard motor for maintenance, adjustment, and emergency repairs.



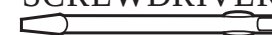
OWNER'S MANUAL



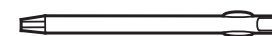
10 × 12 mm WRENCH



OIL CHECK
SCREWDRIVER



FLAT SCREWDRIVER



PHILLIPS
SCREWDRIVER



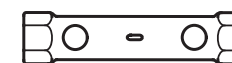
SCREWDRIVER
HANDLE



EMERGENCY
STARTER ROPE



PLIERS



18 × 19 mm
SOCKET WRENCH



8 mm WRENCH



TOOL BAG



SPARE CLIP
(H type)

MAINTENANCE

Maintenance Schedule

REGULAR SERVICE PERIOD (3) Perform at every indicated month or operating hour interval, whichever comes first.			Each use	After use	First month or 20 hrs.	Every 6 months or 100 hrs.	Every year or 200 hrs.	Every 2 years or 400 hrs.
ITEM								
*	Engine oil	Check level	○					
		Change						
	Gear case oil	Change			○ (2)	○ (2)		
	Engine oil filter	Replace					○ (2)	
	Timing belt	Check-adjust					○ (2)	
*	Carburetor linkage	Check-adjust			○ (2)	○ (2)		
	Idling speed	Check-adjust			○ (2)	○ (2)		
*	Valve clearance	Check-adjust					○ (2)	
*	Spark plug	Check-adjust				○		
		Replace						
	Propeller and cotter pin	Check	○					
	Anode	Check	○					
	Lubrication	Grease			○ (1)	○ (1)		
*	Fuel tank and tank filter	Clean					○	

* Emission item for Bordensee model.

NOTE: (1) Lubricate more frequently when used in salt water.

(2) These items should be serviced by an authorized Honda marine dealer, unless you have the proper tools and are mechanically proficient. Refer to Honda Shop Manual for service procedures.

(3) For professional commercial use, log hours of operation to determine proper maintenance intervals.

(4) When operating in salt water, turbid or muddy water, the engine should be flushed with clean water after each use.

MAINTENANCE

REGULAR SERVICE PERIOD (3) Perform at every indicated month or operating hour interval, whichever comes first.			Each use	After use	First month or 20 hrs.	Every 6 months or 100 hrs.	Every year or 200 hrs.	Every 2 years or 400 hrs.
ITEM								
*	Thermostat	Check					○ (2)	
*	Fuel filter	Check				○		
		Replace						○
*	Fuel line	Check	○					
		Replace	Every 2 years (If necessary) (2)					
	Battery and cable connection	Check level-tightness	○					
	Bolts and Nuts	Check-tightness			○ (2)	○ (2)		
*	Crankcase breather tube	Check					○ (2)	
	Cooling water passages	Clean		○ (4)				
	Water pump	Check					○ (2)	

* Emission item for Bordensee model.

NOTE: (1) Lubricate more frequently when used in salt water.

(2) These items should be serviced by an authorized Honda marine dealer, unless you have the proper tools and are mechanically proficient. Refer to Honda Shop Manual for service procedures.

(3) For professional commercial use, log hours of operation to determine proper maintenance intervals.

(4) When operating in salt water, turbid or muddy water, the engine should be flushed with clean water after each use.

MAINTENANCE

Engine Oil

Insufficient or contaminated engine oil adversely affects the service life of the sliding and moving parts.

Oil change interval:

20 operating hours after the date of purchase or first month for initial replacement, then every 100 operating hours or 6 months.

Oil capacity:

2.0 ℓ (2.1 US qt , 1.8 Imp qt)

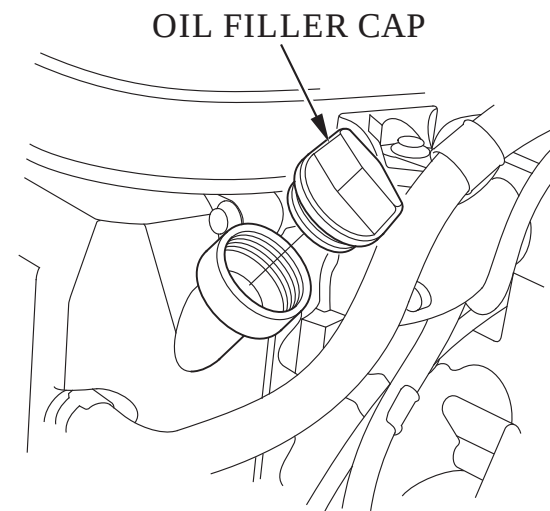
...when oil filter is not replaced.

2.1 ℓ (2.2 US qt , 1.8 Imp qt)

...when oil filter is replacement.

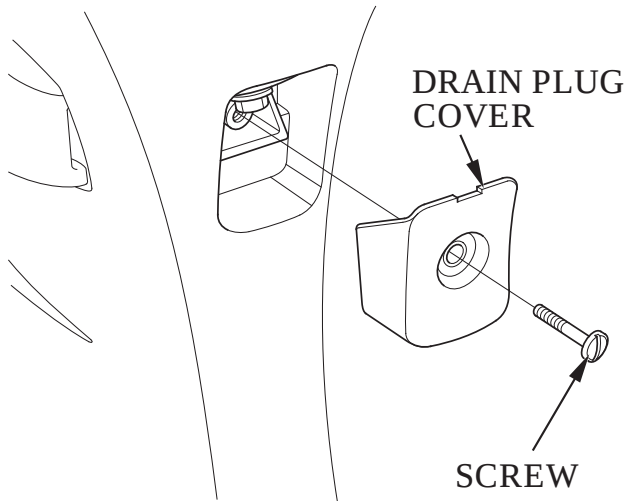
Recommended oil: SAE 5W-30 engine oil or equivalent, API Service classification SG, SH or SJ.

< Engine Oil Replacement >

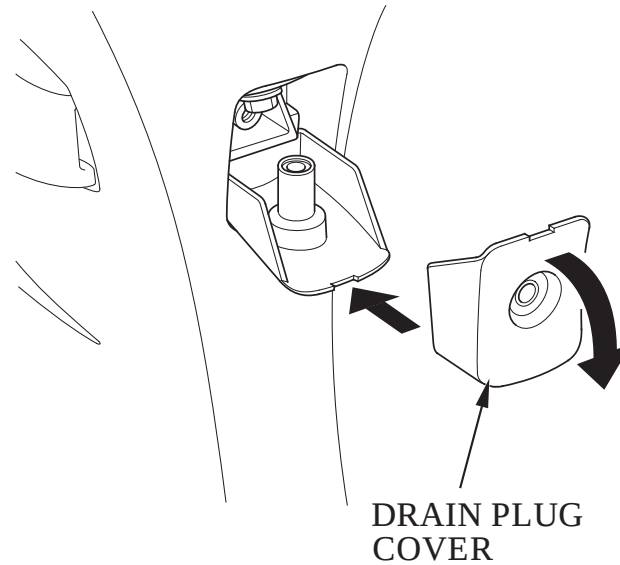


Drain the oil while the engine is still warm to assure rapid and complete draining.

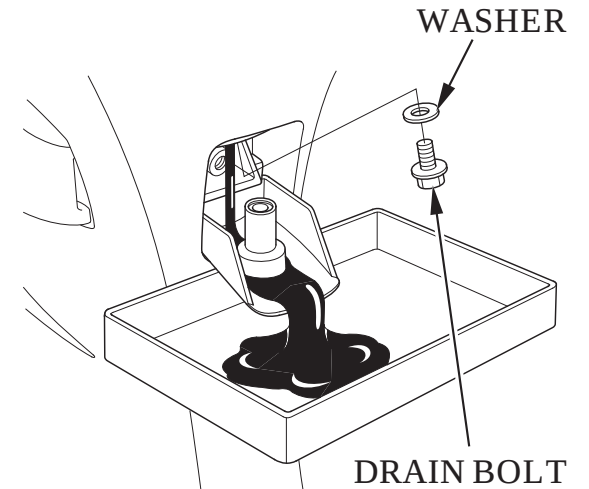
1. Position the outboard motor vertically, and remove the engine cover. Remove the oil filler cap.



2. Loosen the drain plug cover screw using a flat screwdriver and remove the drain plug cover.



3. Place the drain plug cover as shown to use it as a drain oil guide. Place a suitable container under the guide.

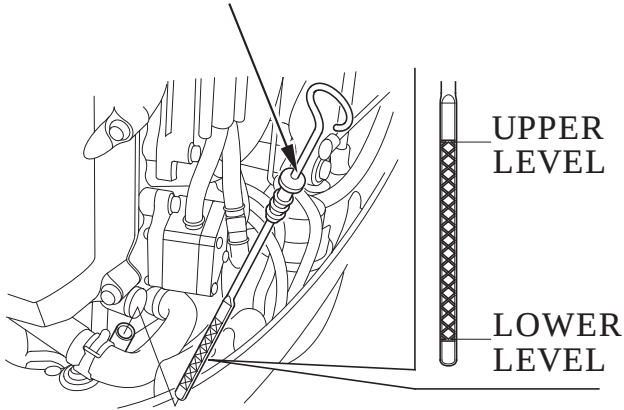


4. Remove the engine oil drain bolt and washer using the 12 mm wrench and drain the engine oil.

Install the new washer and drain bolt and tighten bolt securely.

MAINTENANCE

OIL LEVEL DIPSTICK



5. Refill to the upper level mark on the oil level dipstick with the recommended oil.

6. Reinstall the oil filler cap securely.

NOTE:

Please dispose of used motor oil in a manner that is compatible with the environment. We suggest you take it in a sealed container to your local service station for reclamation. Do not throw it in the trash or pour it on the ground.

Wash your hands with soap and water after handling used oil.

Spark Plugs

To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

⚠ CAUTION

The spark plug becomes very hot during operation and will remain hot for a while after stopping the engine. Allow the engine to cool before servicing the spark plug.

Check-Adjust interval:

Every 100 operating hours or 6 months.

Replacement interval:

Every 200 operating hours or every year.

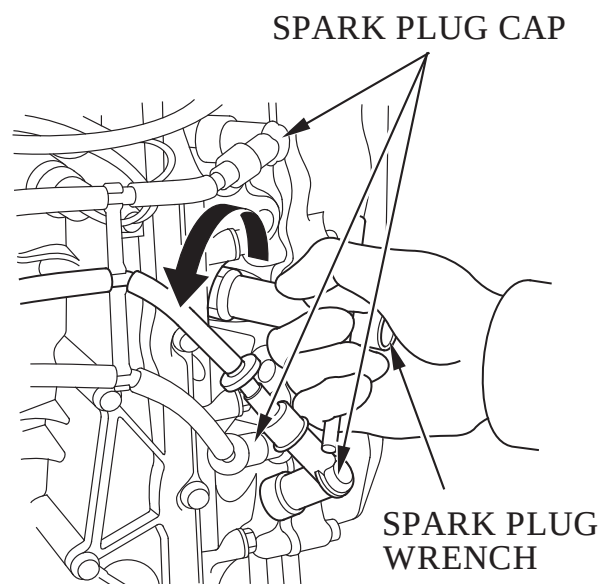
Recommended spark plug:

DR7EA (NGK)

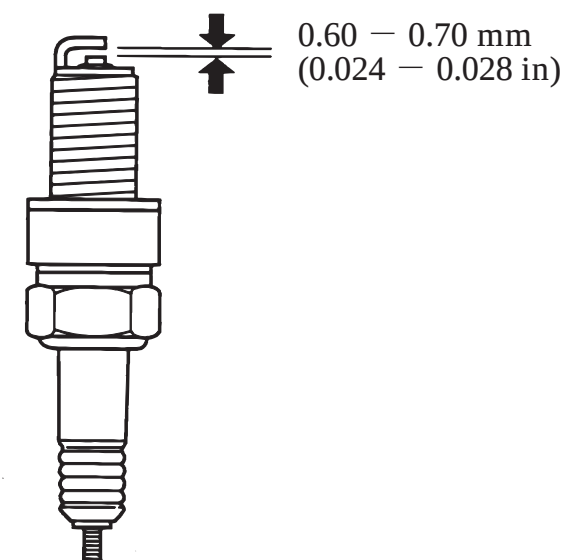
X22ESR-U (DENSO)

NOTICE

Use only the recommended spark plugs or equivalent. Spark plugs which have an improper heat range may cause engine damage.

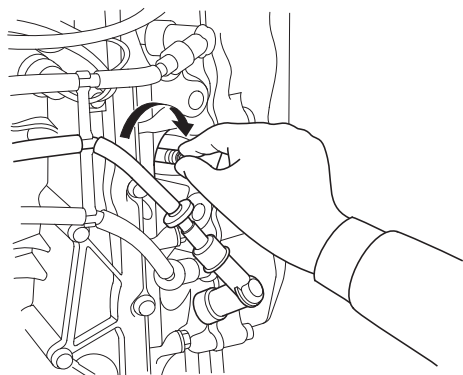


1. Remove the engine cover.
2. Remove the spark plug caps.
3. Use the wrench and screwdriver supplied in the tool kit to remove the spark plugs.
4. Visually inspect the spark plugs. Discard the spark plugs if there is apparent wear, or if the insulators are cracked or chipped. Clean the spark plugs with a wire brush if they are to be reused.



5. Measure the plug gaps with a feeler gauge. The gaps should be 0.60—0.70 mm (0.024—0.028 in). Correct as necessary by carefully bending the side electrode.

MAINTENANCE



6. Thread the plugs in by hand to prevent cross threading.
7. After the spark plugs are seated, tighten with a spark plug wrench to compress the washers.

NOTE:

If installing new spark plugs, tighten 1/2 turn after the spark plugs seat to compress the washers. If reinstalling used spark plugs, tighten 1/8—1/4 turn after the spark plugs seat to compress the washers.

NOTICE

The spark plugs must be securely tightened. An improperly tightened plug can become very hot and may cause engine damage.

Battery

NOTICE

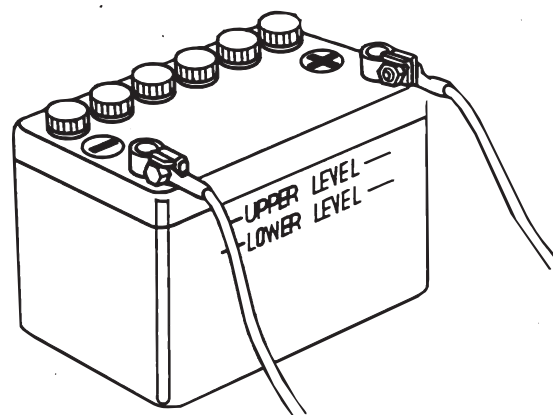
Battery handling differs according to the type of the battery and the instructions described below might not be applicable to the battery of your outboard. Refer to the battery manufacturer's instructions.

Check that the battery cables are connected securely.
If the battery terminals are contaminated or corroded, remove the battery and clean the terminals.

▲WARNING

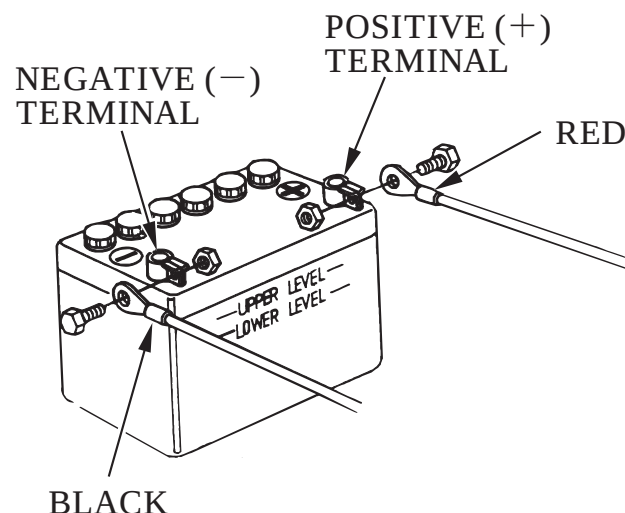
Batteries produce explosive gases: If ignited, an explosion can cause serious injury or blindness. Provide adequate ventilation when charging.

- **CHEMICAL HAZARD:** Battery electrolyte contains sulfuric acid. Contact with eyes or skin, even through clothing, may cause severe burns. Wear a faceshield and protective clothing.
- Keep flames and sparks away, and do not smoke in the area. **ANTIDOTE:** If electrolyte gets into your eyes, flush thoroughly with warm water for at least 15 minutes and call a physician immediately.
- **POISON:** Electrolyte is poison. **ANTIDOTE**
 - External: Flush thoroughly with water.
 - Internal: Drink large quantities of water or milk. Follow with milk of magnesia or vegetable oil, and call a physician immediately.
- **KEEP OUT OF REACH OF CHILDREN.**



Installation check:
Check that the cables are connected to the battery terminals securely. Tighten the terminals if they are loose.

〈 Battery Cleaning 〉



1. Disconnect the battery cable at the battery negative (−) terminal, then at the battery positive (+) terminal.
2. Remove the battery and clean the battery terminals and battery cable terminals with a wire brush or sand paper.
Clean the battery with a solution of baking soda and warm water, taking care not to get the solution or water in the battery cells. Dry the battery thoroughly.

3. Connect the battery positive (+) cable to the battery positive (+) terminal, then the battery negative (−) cable to the battery negative (−) terminal. Tighten the bolts and nuts securely. Coat the battery terminals with grease.

⚠ CAUTION

When disconnecting the battery cable, be sure to disconnect at the battery negative (−) terminal first. To connect, connect at the positive (+) terminal first, then at the negative (−) terminal. Never dis/connect the battery cable in the reverse order, or it causes a short circuit when a tool contacts the terminals.

MAINTENANCE

Lubrication

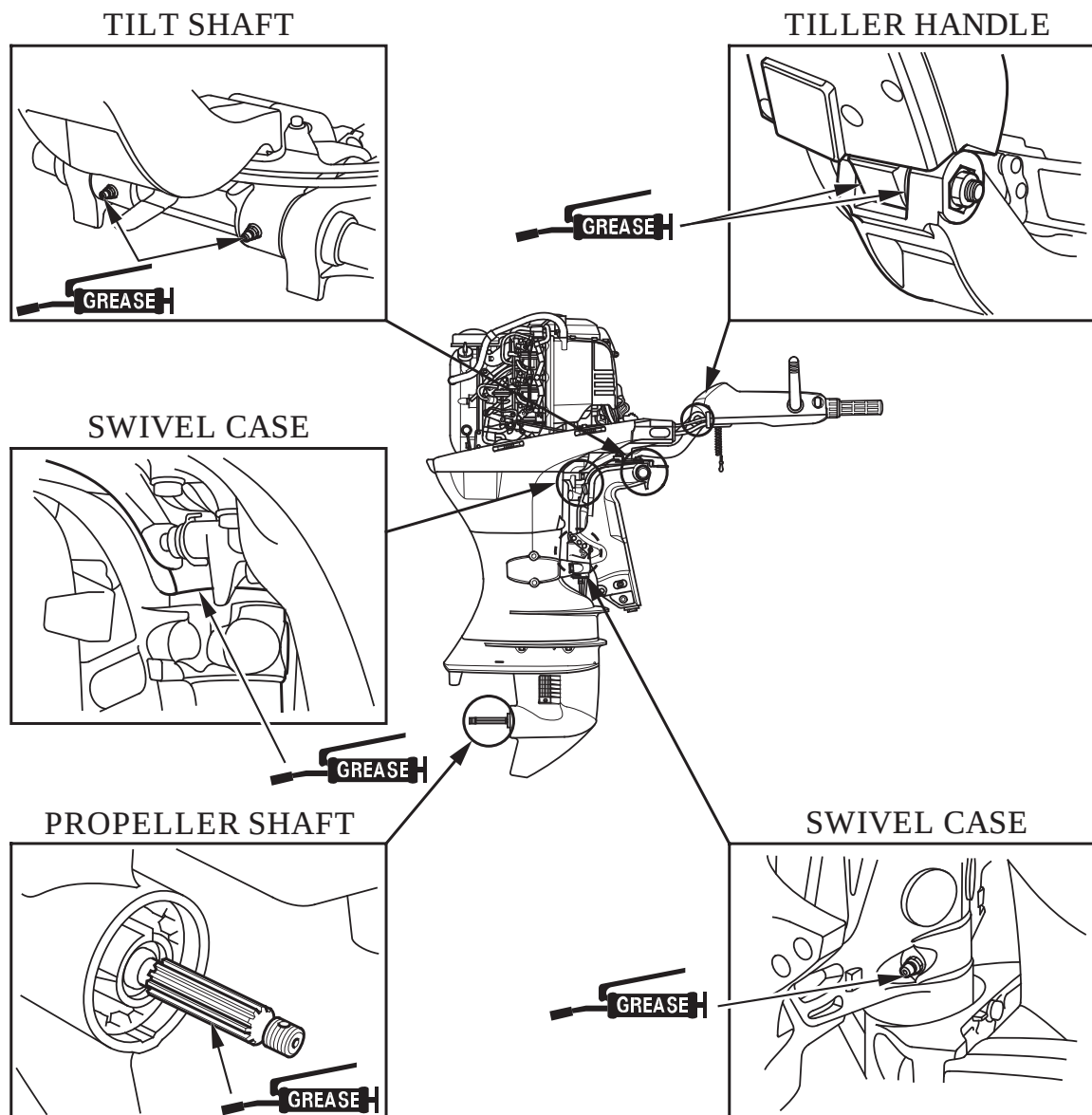
Wipe the outside of the engine with a cloth dipped in clean oil. Apply marine anticorrosion grease to the following parts:

Lubrication interval:

20 hours or a month after the date of purchase for initial lubrication, then every 100 hours or 6 months.

NOTE:

Apply anticorrosion oil to pivot surfaces where grease cannot penetrate.



Fuel Filter

The fuel filter is located between the fuel coupling and the fuel pump. Water or sediment accumulated in the fuel filter can cause loss of power or hard starting. Check and replace the fuel strainer periodically.

Inspection interval:

Every 100 operating hours or 6 months

Replacement interval:

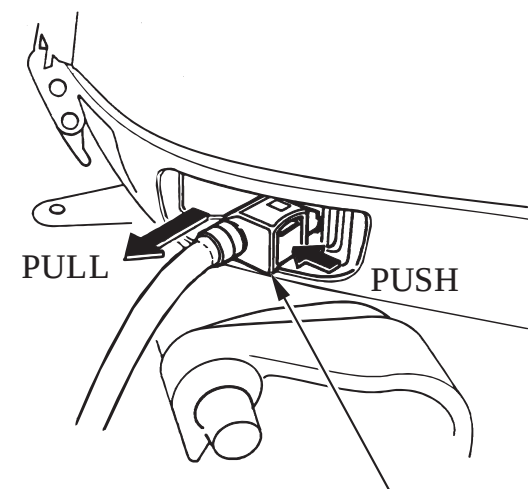
Every 400 operating hours or 2 years

⚠ WARNING

Gasoline is extremely flammable, and gasoline vapor can explode, causing serious injury or death. Do not smoke or allow flames or sparks in your working area. **KEEP OUT OF REACH OF CHILDREN.**

- Always work in a well-ventilated area.
- Be sure that any fuel drained from the outboard motor is stored in a safe container.
- Be careful not to spill fuel when replacing the filter. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.

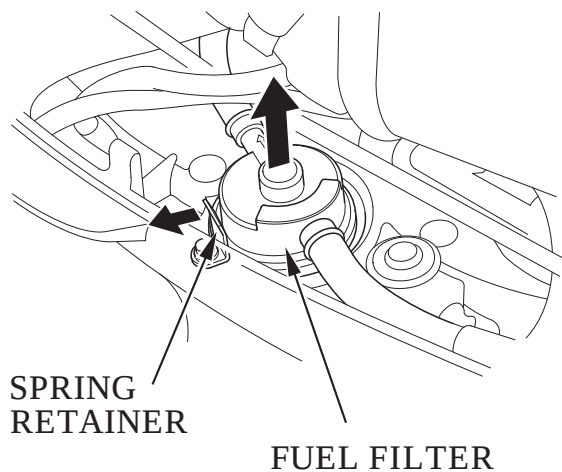
〈 Inspection 〉



FUEL LINE CONNECTOR

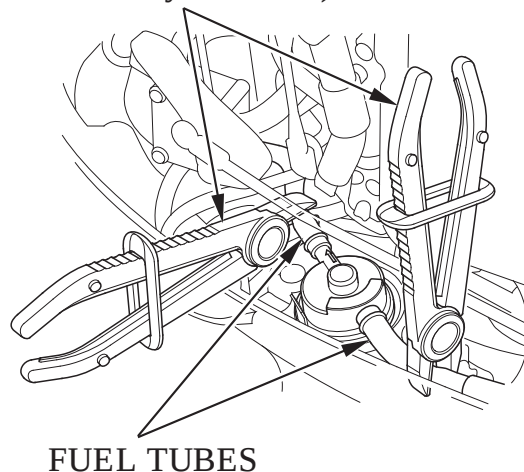
1. Disconnect the fuel line connector from the outboard motor.
2. Remove the engine cover.

MAINTENANCE



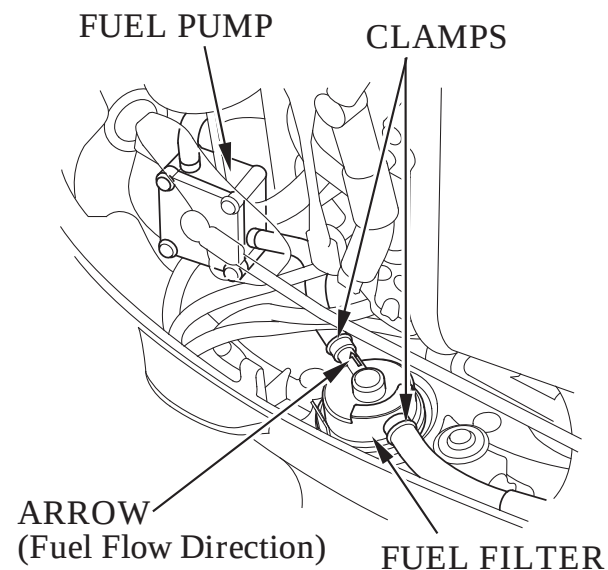
3. Pull the spring retainer toward you, raise the fuel filter, and remove it from the engine under case.
4. Check the fuel filter for water accumulation and clogging. After inspection, reinstall the fuel filter properly.

〈 Replacement 〉 HOSE CLAMP GRIPPER (Commercially available)



1. Remove the fuel filter, disconnect the right and left fuel tubes, and replace with a new fuel filter.

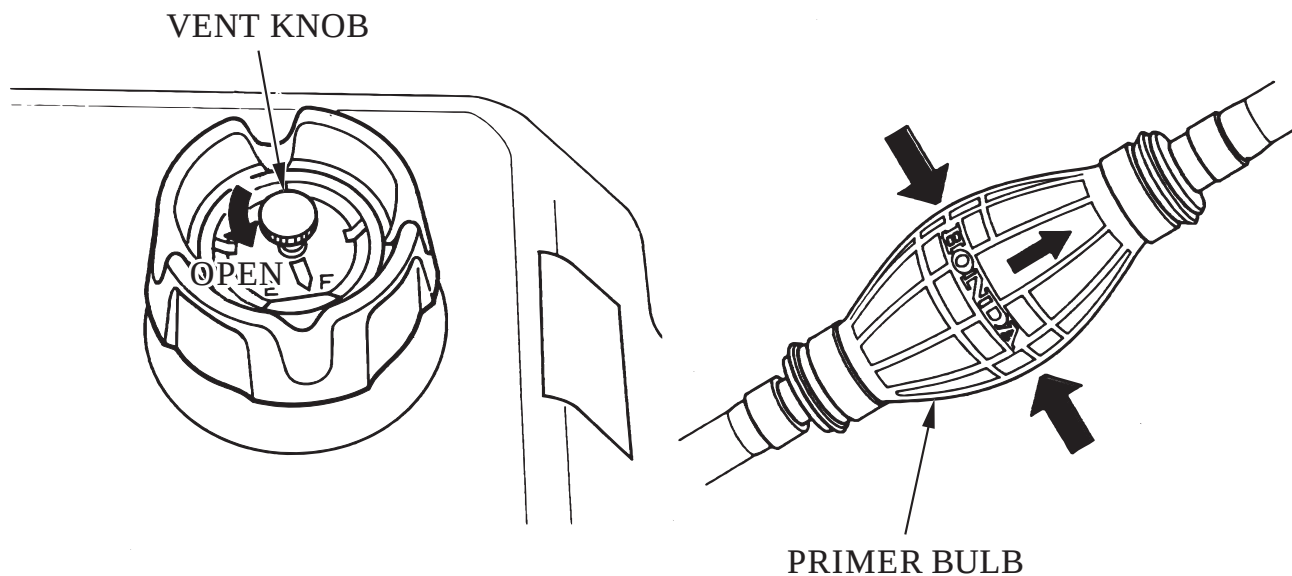
NOTE:
Before removing the filter, place clamps on the fuel tubes on each side of the filter to prevent fuel leakage.



2. Install the new fuel filter so that the arrow mark on the fuel filter is toward the fuel pump side.

NOTE:
Fuel flow will be impeded if the filter is installed backward.

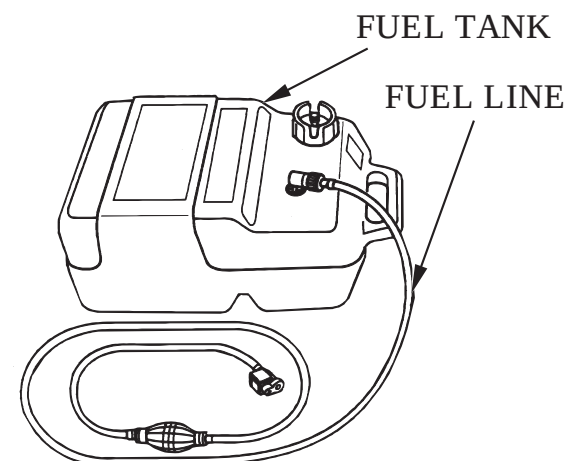
3. Connect the fuel tubes to the fuel filter securely with the tube clips.
4. Remove the hose clamp grippers.



5. Connect the fuel line connector securely.
Turn the vent knob to OPEN side, squeeze and release the priming bulb to feed the fuel, and check for leaks.

NOTE:
If loss of power or hard starting is found caused by excessive water or sediment accumulated in the fuel filter, inspect the fuel tank. Clean the fuel tank if necessary.

Fuel Tank and Tank Filter



Cleaning interval:
Every year or after every 200 hours of outboard motor operation.

⚠ WARNING

Gasoline is extremely flammable, and gasoline vapor can explode, causing serious injury or death. Do not smoke or allow flames or sparks in your working area.
KEEP OUT OF REACH OF CHILDREN.

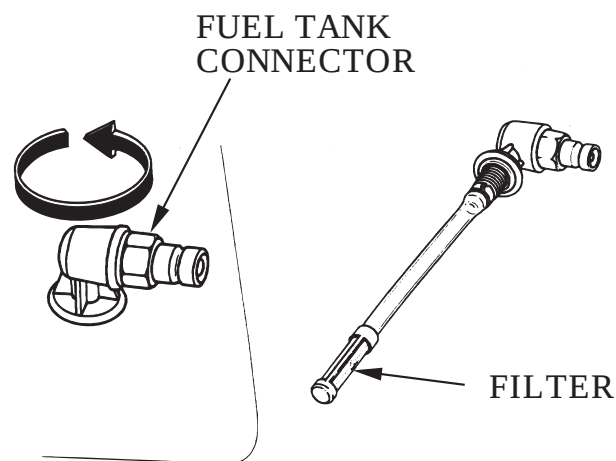
MAINTENANCE

- Always work in a well-ventilated area.
- Be sure that any fuel drained from the fuel tank is stored in a safe container.
- Be careful not to spill fuel when cleaning the tank and filter. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before starting the engine.

〈 Fuel Tank Cleaning 〉

1. Disconnect the fuel line from fuel tank.
2. Empty the tank, pour in a small quantity of gasoline, and clean the tank thoroughly by shaking it. Drain and dispose of the gasoline properly.

〈 Tank Filter Cleaning 〉



1. Turn the fuel tank connector counterclockwise and remove the tank filter.
2. Clean the filter with non-flammable solvent. Replace the fuel filter if necessary.
3. After cleaning, reinstall the tank filter securely.

Emission Control System (FOR BODENSEE-LAKE TYPE)

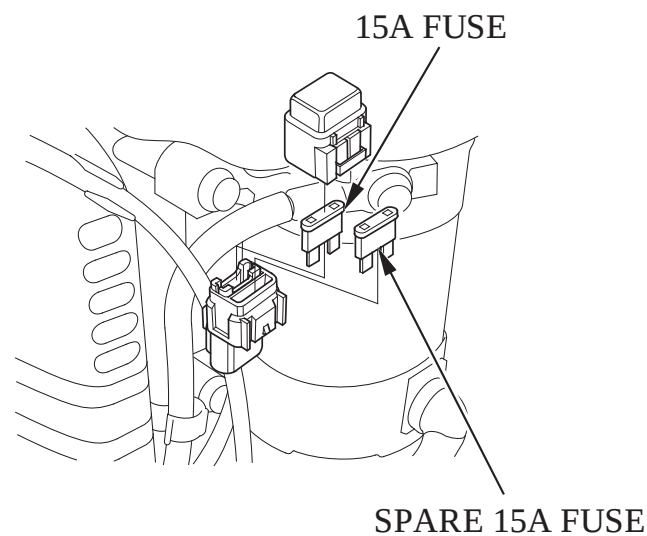
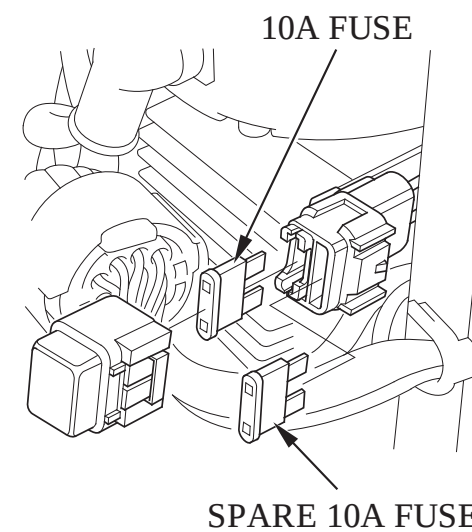
The combustion process produces carbon monoxide and hydrocarbons. Control of hydrocarbons is very important because under certain conditions, they react to form photochemical smog when subjected to sunlight. Carbon monoxide does not react in the same way, but it is toxic. Honda Motor Co., Ltd. utilizes lean carburetor settings and other system to reduce carbon monoxide and hydrocarbons.

Problems that May Affect Outboard Motor Emissions

If you are aware of any of the following symptoms, have the outboard motor inspected and repaired by your authorized Honda Dealer:

1. Hard starting or stalling after starting
2. Rough idle
3. Misfiring or backfiring during acceleration
4. Poor performance (driveability) and poor fuel economy

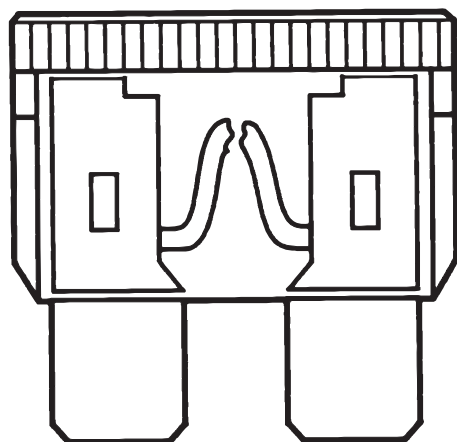
Fuse



If the fuse blows, running the engine will not charge the battery. Before replacing the fuse, check the current ratings of the electrical accessories and ensure that there are no abnormalities.

〈 How to replace the fuse 〉

1. Stop the engine.
2. Remove the engine cover.
3. Remove the fuse case lid and pull the old fuse out of the clip with your finger.
4. Push a new fuse into the clips.



BLOWN FUSE

〈 Designated fuse 〉 15A, 10A

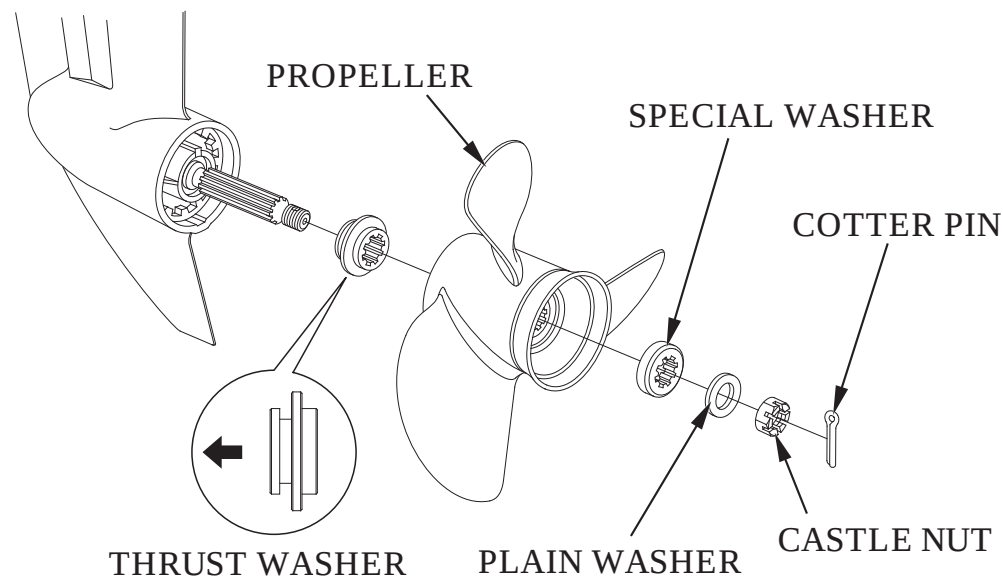
▲WARNING

Never use a fuse with a different rating from that specified. Serious damage to the electrical system or a fire may result.

NOTICE

If the fuse is blown, check the cause, then replace the fuse with a spare fuse of the same rated capacity. Unless the cause is found, the fuse may blow again.

Propeller



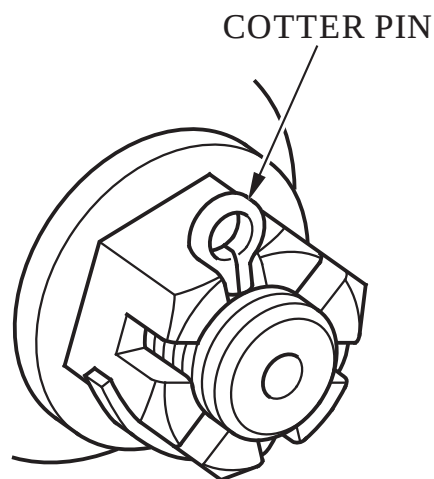
If the propeller is damaged by striking a rock, or other obstacle, replace the propeller as follows.

▲WARNING

- When replacing, remove the emergency stop switch clip to prevent an accidental startup of the engine.
- The propeller is thin and sharp. To protect your hands, wear the heavy gloves during replacement.

Replacement

1. Remove the cotter pin then remove the 16 mm castle nut, 17 mm plain washer, 10 mm special washer, propeller and thrust washer.



2. Install the new propeller in the reverse sequence to removal. Be sure to replace the cotter pin with a new one.

NOTE:

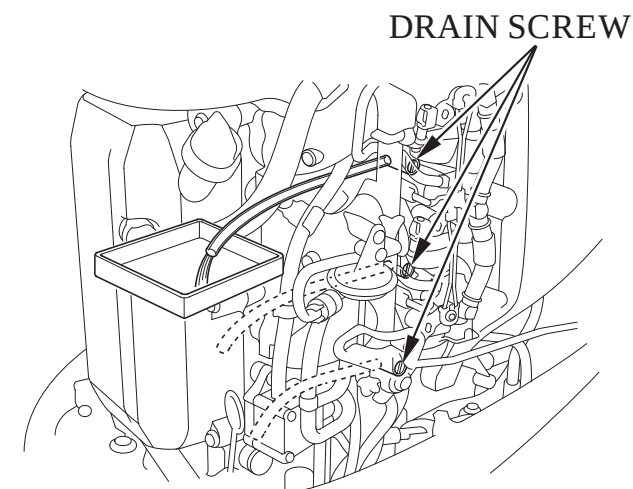
- Install the thrust washer with the grooved side toward the gear case.
- Use a genuine Honda cotter pin and bend the pin ends as shown.

Submerged Motor

A submerged motor must be serviced immediately after it is recovered from the water in order to minimize corrosion.

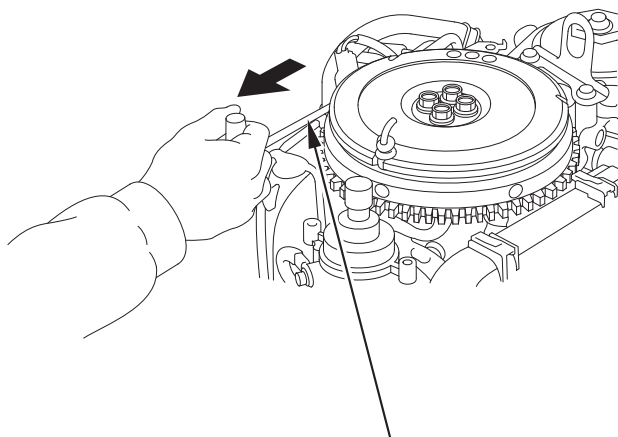
If there is a Honda outboard motor dealership nearby, take the motor immediately to the dealer. If you are far from a dealership, proceed as follows:

1. Remove the engine cover, and rinse the motor with fresh water to remove salt water, sand, mud, etc.



2. Loosen the carburetor drain screw, drain the contents of the carburetor into a suitable container, then retighten the drain screw (see page 119).
3. Remove the spark plugs. Remove the flywheel cover and wind the emergency starter rope following the emergency starting procedure (pages 65 through 70) and drain the water from the cylinder by pulling the emergency starter rope several times.

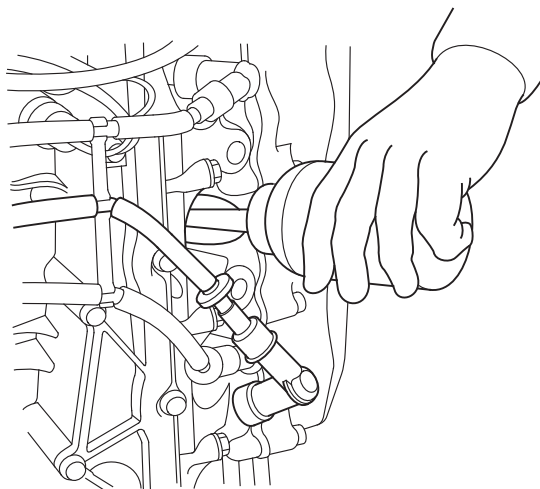
MAINTENANCE



EMERGENCY STARTER ROPE

NOTICE

If the motor was running when it submerged, there may be mechanical damage, such as bent connecting rods. If the engine binds when cranked, do not attempt to run the motor until it has been repaired.



4. Change the engine oil (see page 104).
5. Pour a teaspoon of engine oil into each spark plug hole, then pull the emergency starter rope several times to lubricate the inside of the cylinders.
Reinstall the spark plugs.
6. Install the engine cover and LOCK the FIXING LEVER securely (see page 36).

7. Attempt to start the engine.
 - If the engine fails to start, remove the spark plugs, clean and dry the electrodes, then reinstall the spark plugs and attempt to start the engine again.
 - If the engine starts, and no mechanical damage is evident, continue to run the engine for 1/2 hour or longer (be sure the water level is at least 4 inches above the anticavitation plate).
 - If there was water in the engine crankcase, or the used engine oil showed signs of water contamination, then a second engine oil change should be performed after running the engine for 1/2 hour.
8. As soon as possible, take the motor to a Honda outboard motor dealer for inspection and service.

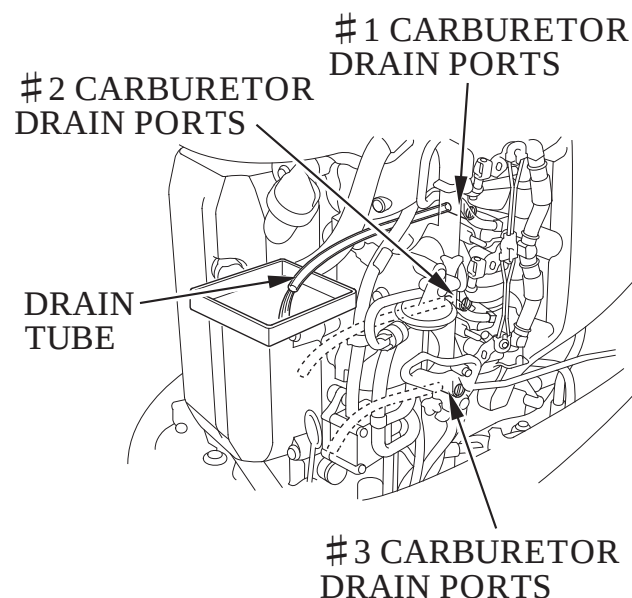
For longer service life of the outboard motor, have your outboard motor serviced by an authorized Honda outboard motor dealer before storage. However, the following procedures can be performed by you, the owner, with a minimum of tools.

Carburetor Draining

▲WARNING

Gasoline is extremely flammable, and gasoline vapor can explode, causing serious injury or death. Do not smoke or allow flames or sparks in your working area. **KEEP OUT OF REACH OF CHILDREN.**

- Be careful not to spill fuel. Spilled fuel or fuel vapor may ignite. If any fuel is spilled, make sure the area is dry before storing or transporting the motor.
- Do not smoke or allow flames or sparks where fuel is drained or stored.



1. Disconnect the fuel line connector (see page 94).
2. Remove the engine cover.
3. Pull the # 1 carburetor drain tube outside of the under case.
4. Loosen the drain screw of the # 1 carburetor and drain the carburetor. Catch the draining gasoline in a suitable container.
5. Drain the # 2 and # 3 carburetors in the same manner using the # 1 carburetor drain tube.

6. After draining thoroughly, tighten the drain screws securely. Be sure to drain thoroughly as the gasoline deteriorates as time goes by.
7. Connect the drain tube to the original position of the # 1 carburetor securely.

NOTE:

Before storing the outboard motor for a prolonged period, we recommend that you remove the fuel line connector and operate the engine at 2,000 to 3,000 min⁻¹ (rpm) until it stops.

STORAGE

Battery Storage

NOTICE

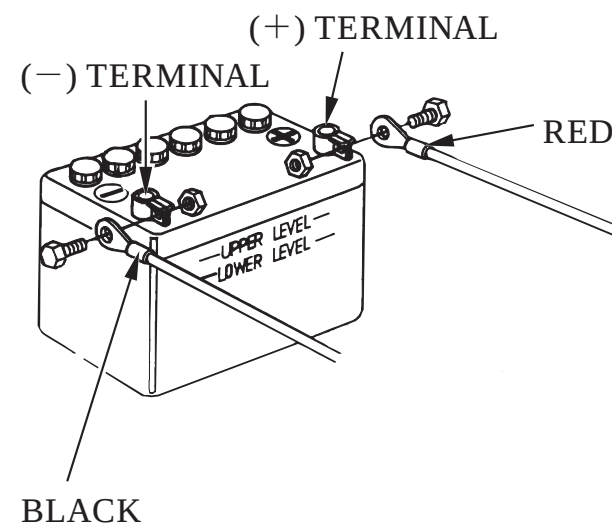
Battery handling differs according to the type of the battery. Refer to the battery manufacturer's instructions.

▲WARNING

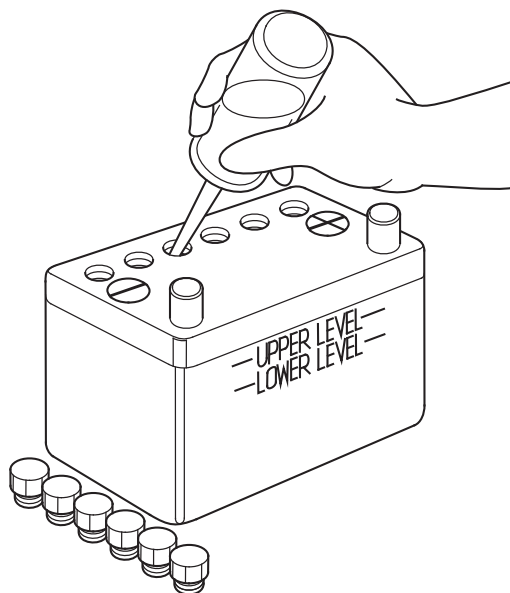
Batteries produce explosive gases: If ignited, an explosion can cause serious injury or blindness. Provide adequate ventilation when charging.

- **CHEMICAL HAZARD:** Battery electrolyte contains sulfuric acid. Contact with eyes or skin, even through clothing, may cause severe burns. Wear a faceshield and protective clothing.

- Keep flames and sparks away, and do not smoke in the area. **ANTIDOTE:** If electrolyte gets into your eyes, flush thoroughly with warm water for at least 15 minutes and call a physician immediately.
- **POISON:** Electrolyte is poison. **ANTIDOTE**
External: Flush thoroughly with water.
Internal: Drink large quantities of water or milk. Follow with milk of magnesia or vegetable oil, and call a physician immediately.
- **KEEP OUT OF REACH OF CHILDREN.**

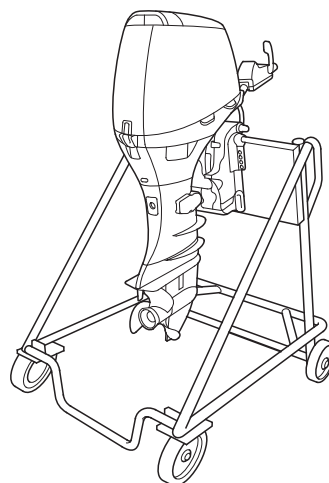


1. Disconnect the battery cable at the battery negative (−) terminal, then at the battery positive (+) terminal.
2. Remove the battery and clean the battery terminals and battery cable terminals with a wire brush or sand paper.
Clean the battery with a solution of baking soda and warm water, taking care not to get the solution of water in the battery cells. Dry the battery thoroughly.



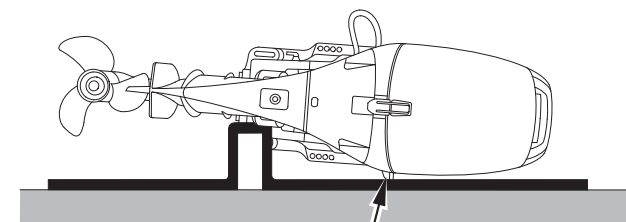
3. Fill the battery with distilled water to the upper level line. Never overfill the battery.
4. Store the battery on a level surface in a cool, dry, well ventilated place out of direct sunlight.
5. Once a month, check the specific gravity of the electrolyte and recharge as required to prolong battery life.

Outboard Motor Position



Transport and store the motor either vertically or horizontally, as shown here. Store the outboard motor in a well-ventilated area free from direct sunlight and humidity.

Vertical transport or storage:
Attach the stern bracket to a stand.



CASE PROTECTOR

Horizontal transport or storage:
Rest the motor on the case protector.

⚠ CAUTION

Any other transport or storage position may cause damage or oil leakage.

14. TROUBLESHOOTING

〈 Engine fails to start 〉

- | | | |
|--|---|--|
| 1. No fuel in tank. | → | Fill tank with fuel. |
| 2. Fuel line is flattened or kinked. | → | Check for excessively bent or pinched fuel line. |
| 3. Fuel connector is not connected properly. | → | Connect properly. |
| 4. Fuel is contaminated or stale. | → | Replace with new fuel. |
| 5. Battery is discharged. | → | Charge battery. |
| 6. Battery terminal is loose. | → | Tighten battery terminal. |
| 7. Spark plug cap is loose or disconnected. | → | Install and tighten spark plug cap securely. |
| 8. Fuse is blown out. | → | Replace with new fuse. |
| 9. Engine is started in wrong procedure. | → | Start correct procedure. |

〈 Engine speed fluctuates or engine stalls 〉

- | | | |
|--------------------------------------|---|--|
| 1. Fuel level is low. | → | Add fuel. |
| 2. Fuel line is flattened or kinked. | → | Check for excessively bent or pinched fuel line. |
| 3. Fuel filter is clogged. | → | Replace fuel filter. |
| 4. Spark plug is fouled. | → | Remove spark plug and dry and clean it. |

- | | | |
|--|---|---|
| 5. Spark plug heat range is incorrect. | → | Replace with spark plug of proper heat range. |
| 6. Spark plug gap is incorrect. | → | Adjust to proper gap. |

〈 Engine speed does not increase 〉

- | | | |
|--|---|---|
| 1. Fuel line is flattened or kinked. | → | Check for excessively bent or pinched fuel line. |
| 2. Fuel filter is clogged. | → | Replace fuel filter. |
| 3. Engine oil level is low. | → | Check engine oil and add to specified level. |
| 4. Unmatched propeller is selected. | → | Consult with an authorized Honda outboard motor dealer. |
| 5. Passengers are not distributed equally. | → | Distribute the passengers equally. |
| 6. Outboard motor is not installed properly. | → | Install the outboard motor in proper position. |

〈 Engine overheats 〉

1. Water intake port and/or water check hole are/is clogged. —→ Clean water intake port and/or water check hole.
2. Engine is overloaded because of unequally distributed passengers or excessive load on the boat. —→ Distribute the passengers equally. Do not load on the boat excessively.

〈 Engine overrevs 〉

1. Cavitation. —→ Install outboard motor in the proper position.
2. Propeller is damaged. —→ Replace propeller.
3. Unmatched propeller is selected. —→ Consult with an authorized Honda outboard motor dealer.
4. Trim angle is not correct. —→ Trim to correct angle.

〈 Power trim/tilt does not operate 〉

1. Battery is undercharged. —→ Charge battery.
2. Manual relief valve is loose. —→ Tighten manual relief valve.
3. Power trim/tilt oil level is low or air is in the oil. —→ Have your outboard motor checked by an authorized Honda outboard motor dealer.

15. SPECIFICATIONS

MODEL		BF40A			
Description Code		BAYS	SHU SHW SHD	LHU LHW	LHTW
		BAYL	—	LHD	LHTD
Type		H	HT		
Overall length	S	725 mm (28.5 in)	—		
	L	770 mm (30.3 in)			
Overall width	S	370 mm (14.6 in)	—		
	L	370 mm (14.6 in)			
Overall height	S	1,260 mm (49.6 in)	—		
	L	1,365 mm (53.7 in)			
Transom height	S	416 mm (16.4 in)	—		
	L	521 mm (20.5 in)			
Weight	S	92.0 kg (202.8 lbs)	—		
	L	94.0 kg (207.2 lbs)	96.0 kg (211.6 lbs)		
Rated power		29.4 kW (40 PS)			
Full throttle range		5,000—6,000 min ⁻¹ (rpm)			
Engine type		4 stroke OHC in-line 3 cylinder			
Displacement		808 cm ³ (49.3 cu-in)			
Spark plug gap		0.60—0.70 mm (0.024—0.028 in)			

Starter system	Electric starter
Ignition system	C.D.I.
Lubrication system	Trochoid pump pressure lubrication
Specified oil	Engine: API standard (SG, SH, SJ) SAE 5W-30 Gear case: API standard (GL-4) SAE 90 outboard motor gear oil
Oil capacity	Engine: 2.1 ℓ (2.2 US qt , 1.8 Imp qt) Gear case: 0.41 ℓ (0.43 US qt , 0.36 Imp qt)
D.C. output	12V – 10A
Cooling system	Water cooling with thermostat
Exhaust system	Water exhaust
Spark plugs	DR7EA (NGK) , X22ESR-U (DENSO)
Fuel pump	Diaphragm type fuel pump
Fuel	Automotive unleaded gasoline (91 research octane, 86 pump octane, or higher)
Tank capacity	25 ℓ (6.6 US gal , 5.5 Imp gal)
Gear change	Forward – Neutral – Reverse (dog type)
Steering angle	37.5° right and left
Transom angle	5 stages (8° -12° -16° -20° -24°)
Remote control steering system	—

Honda outboards are power rated in accordance with ISO8665 (propeller shaft output).

SPECIFICATIONS

MODEL		BF40A				
Description Code		BAYS	SRK	SRTU	LRU	LRTU
				SRTW	LRW	LRTW
				SRTD	LRK	LRTK
		BAYL	—	—	LRD	LRTD
Type		R	RT			
Overall length		685 mm (27.0 in)				
Overall width		370 mm (14.6 in)				
Overall height	S	1,260 mm (49.6 in)				
	L	1,365 mm (53.7 in)				
Transom height	S	416 mm (16.4 in)				
	L	521 mm (20.5 in)				
Weight	S	87.5 kg (192.9 lbs)	89.5 kg (197.3 lbs)			
	L	89.5 kg (197.3 lbs)	91.5 kg (201.7 lbs)			
Rated power		29.4 kW (40 PS)				
Full throttle range		5,000—6,000 min ⁻¹ (rpm)				
Engine type		4 stroke OHC in-line 3 cylinder				
Displacement		808 cm ³ (49.3 cu-in)				
Spark plug gap		0.60—0.70 mm (0.024—0.028 in)				
Starter system		Electric starter				
Ignition system		C.D.I.				
Lubrication system		Trochoid pump pressure lubrication				
Specified oil		Engine: API standard (SG, SH, SJ) SAE 5W-30 Gear case: API standard (GL-4) SAE 90 outboard motor gear oil				

Oil capacity	Engine: 2.1 ℓ (2.2 US qt , 1.8 Imp qt) Gear case: 0.41 ℓ (0.43 US qt , 0.36 Imp qt)
D.C. output	12V—10A
Cooling system	Water cooling with thermostat
Exhaust system	Water exhaust
Spark plugs	DR7EA (NGK) , X22ESR-U (DENSO)
Fuel pump	Diaphragm type fuel pump
Fuel	Automotive unleaded gasoline (91 research octane, 86 pump octane, or higher)
Tank capacity	25 ℓ (6.6 US gal , 5.5 Imp gal)
Gear change	Forward—Neutral—Reverse (dog type)
Steering angle	37.5° right and left
Transom angle	5 stages (8° -12° -16° -20° -24°)
Remote control steering system	Motor-mounted

Honda outboards are power rated in accordance with ISO8665 (propeller shaft output).

SPECIFICATIONS

MODEL		BF50A		
Description Code		BAZS	LHU LHW	LHTW
		BAZL	LHD	LHTD
Type		H	HT	
Overall length	S	_____	_____	
	L	770 mm (30.3 in)		
Overall width	S	_____	_____	
	L	370 mm (14.6 in)		
Overall height	S	_____	_____	
	L	1,365 mm (53.7 in)		
Transom height	S	_____	_____	
	L	521 mm (20.5 in)		
Weight	S	_____	_____	
	L	94.0 kg (207.2 lbs)	96.0 kg (211.6 lbs)	
Rated power		36.8 kW (50 PS)		
Full throttle range		5,500 – 6,000 min ⁻¹ (rpm)		
Engine type		4 stroke OHC in-line 3 cylinder		
Displacement		808 cm ³ (49.3 cu-in)		
Spark plug gap		0.60 – 0.70 mm (0.024 – 0.028 in)		
Starter system		Electric starter		
Ignition system		C.D.I.		
Lubrication system		Trochoid pump pressure lubrication		

Specified oil	Engine: API standard (SG, SH, SJ) SAE 5W-30 Gear case: API standard (GL-4) SAE 90 outboard motor gear oil
Oil capacity	Engine: 2.1 ℓ (2.2 US qt , 1.8 Imp qt) Gear case: 0.41 ℓ (0.43 US qt , 0.36 Imp qt)
D.C. output	12V – 10A
Cooling system	Water cooling with thermostat
Exhaust system	Water exhaust
Spark plugs	DR7EA (NGK) , X22ESR-U (DENSO)
Fuel pump	Diaphragm type fuel pump
Fuel	Automotive unleaded gasoline (91 research octane, 86 pump octane, or higher)
Tank capacity	25 ℓ (6.6 US gal , 5.5 Imp gal)
Gear change	Forward – Neutral – Reverse (dog type)
Steering angle	37.5° right and left
Transom angle	5 stages (8° -12° -16° -20° -24°)
Remote control steering system	_____

Honda outboards are power rated in accordance with ISO8665 (propeller shaft output).

SPECIFICATIONS

MODEL		BF50A			
Description Code		BAZS	SRTU SRTW SRTD	LRW	LRTU LRFW LRTW
Type		R	RT		
Overall length	S	—	685 mm (27.0 in)		
	L	685 mm (27.0 in)			
Overall width	S	—	370 mm (14.6 in)		
	L	370 mm (14.6 in)			
Overall height	S	—	1,260 mm (49.6 in)		
	L	1,365 mm (53.7 in)			
Transom height	S	—	416 mm (16.4 in)		
	L	521 mm (20.5 in)			
Weight	S	—	89.5 kg (197.3 lbs)		
	L	89.5 kg (197.3 lbs)	91.5 kg (201.7 lbs)		
Rated power		36.8 kW (50 PS)			
Full throttle range		5,500—6,000 min ⁻¹ (rpm)			
Engine type		4 stroke OHC in-line 3 cylinder			
Displacement		808 cm ³ (49.3 cu-in)			
Spark plug gap		0.60—0.70 mm (0.024—0.028 in)			
Starter system		Electric starter			
Ignition system		C.D.I.			
Lubrication system		Trochoid pump pressure lubrication			

Specified oil	Engine: API standard (SG, SH, SJ) SAE 5W-30 Gear case: API standard (GL-4) SAE 90 outboard motor gear oil
Oil capacity	Engine: 2.1 ℓ (2.2 US qt , 1.8 Imp qt) Gear case: 0.41 ℓ (0.43 US qt , 0.36 Imp qt)
D.C. output	12V – 10A
Cooling system	Water cooling with thermostat
Exhaust system	Water exhaust
Spark plugs	DR7EA (NGK) , X22ESR-U (DENSO)
Fuel pump	Diaphragm type fuel pump
Fuel	Automotive unleaded gasoline (91 research octane, 86 pump octane, or higher)
Tank capacity	25 ℓ (6.6 US gal , 5.5 Imp gal)
Gear change	Forward – Neutral – Reverse (dog type)
Steering angle	37.5° right and left
Transom angle	5 stages (8° -12° -16° -20° -24°)
Remote control steering system	Motor-mounted

Honda outboards are power rated in accordance with ISO8665 (propeller shaft output).

SPECIFICATIONS

MODEL		BF50A					
Description Code		BAZS	—	—	—	XHU	XRTU XRTW
		BAZT	YHD	YHTD	YRTD	—	—
		BAZU	—	—	—	—	XRTD
Type		H	HT		RT		
Overall length	Y	770 mm (30.3 in)			685 mm (27.0 in)		
	X	770 mm (30.3 in)	—————		685 mm (27.0 in)		
Overall width	Y	370 mm (14.6 in)					
	X	370 mm (14.6 in)	—————		370 mm (14.6 in)		
Overall height	Y	1,400 mm (55.1 in)					
	X	1,470 mm (57.9 in)	—————		1,470 mm (57.9 in)		
Transom height	Y	556 mm (21.9 in)					
	X	622 mm (24.5 in)	—————		622 mm (24.5 in)		
Weight	Y	95.0 kg (209.4 lbs)	97.0 kg (213.8 lbs)		92.5 kg (203.9 lbs)		
	X	98.0 kg (216.1 lbs)	—————		95.5 kg (210.5 lbs)		
Rated power		36.8 kW (50 PS)					
Full throttle range		5,500 – 6,000 min ⁻¹ (rpm)					
Engine type		4 stroke OHC in-line 3 cylinder					
Displacement		808 cm ³ (49.3 cu-in)					
Spark plug gap		0.60 – 0.70 mm (0.024 – 0.028 in)					
Starter system		Electric starter					
Ignition system		C.D.I.					
Lubrication system		Trochoid pump pressure lubrication					

Specified oil	Engine: API standard (SG, SH, SJ) SAE 5W-30 Gear case: API standard (GL-4) SAE 90 outboard motor gear oil	
Oil capacity	Engine: 2.1 ℓ (2.2 US qt , 1.8 Imp qt) Gear case: 0.41 ℓ (0.43 US qt , 0.36 Imp qt)	
D.C. output	12V – 10A	
Cooling system	Water cooling with thermostat	
Exhaust system	Water exhaust	
Spark plugs	DR7EA (NGK) , X22ESR-U (DENSO)	
Fuel pump	Diaphragm type fuel pump	
Fuel	Automotive unleaded gasoline (91 research octane, 86 pump octane, or higher)	
Tank capacity	25 ℓ (6.6 US gal , 5.5 Imp gal)	
Gear change	Forward – Neutral – Reverse (dog type)	
Steering angle	37.5° right and left	
Transom angle	5 stages (8° -12° -16° -20° -24°)	
Remote control steering system	—	Motor-mounted

Honda outboards are power rated in accordance with ISO8665 (propeller shaft output).

Noise and Vibration

MODELS	BF40A		BF50A	
CONTROL SYSTEM	H	R	H	R
Sound Pressure Level At Operator's Ear (98/37/EC, ICOMIA 39-94)	86 dB	79 dB	86 dB	80 dB
Sound Power Level (Reference to ISO3744)	97 dB	_____	97 dB	_____
Vibration (98/37/EC, ICOMIA 38-94)	3.0 (m/s ²) rms	Not exceed 2.5 (m/s ²) rms	3.8 (m/s ²) rms	Not exceed 2.5 (m/s ²) rms

Reference to: ICOMIA Standard: as it specifies the engine operating conditions and measurement conditions.

16. MAJOR Honda DISTRIBUTOR ADDRESSES IN EUROPE

NAME OF FIRM (COMPANY)	ADDRESS	TEL: FAX:
Honda (U.K.) Limited	470 London Road, Slough, Berkshire, SL3 8 QY, United Kingdom	Tel: 01753-590-590 Fax: 01753-590-000
Honda Europe Power Equipment S.A.	Pole 45 Rue des Chataigniers 45140 Ormes France	Tel: 2-38-65-06-00 Fax: 2-38-65-06-02
Honda Motor Europe (North) GmbH.	Sprendlinger, Landstra e 166 D-63069 Offenbach/Ma n Germany	Tel: 069-83-09-0 Fax: 069-83-09-519
Honda Belgium H.V.	Wijngaardveld 1, 9300 Aalst Belgium	Tel: 053-725-111 Fax: 053-725-100
Honda Italia Industriale S.P.A.	Via della Cecchignola, 5/7 00143 ROMA	Tel: 06-54928-1 Fax: 06-54928-400
Honda Suisse S.A.	Route des Mouli res 10 1214 Vernier, Switzerland	Tel: 022-939-09-09 Fax: 022-939-09-97
Honda Nederland B.V.	Capronilaan 1 1119 NN Schiphol-Rijk Netherlands	Tel: 020-7070000 Fax: 020-7070001
Honda Austria G.M.B.H.	Honda Strasse 1 A-2351 Wiener Neudorf Austria	Tel: 223-66-900 Fax: 223-66-4130
Honda Power Equipment Sweden AB	V stkustv gen 17 202 15 Malm , Sweden	Tel: 040-600 23 00 Fax: 040-600 23 19
Honda Produtos De For a, Portugal, S.A.	Lugar da Abrunheira S. Pedro de Penaferrim 2710 Sintra, Portugal	Tel: 351-1-9150374 Fax: 351-1-9111021
Kellogg A/S	Nyg rdsveien 67 Box 188, 1401 Ski Norway	Tel: 64-94-50-00 Fax: 64-94-69-78

MAJOR Honda DISTRIBUTOR ADDRESSES IN EUROPE

NAME OF FIRM (COMPANY)	ADDRESS	TEL: FAX:
OY Brandt AB	Tuupakantie 4 SF-01740, Vantaa Finland	Tel: 90-895-501 Fax: 90-878-5276
TIMA PRODUCTS A/S	T rnfalkevej 16, Postboks 511 DK 2650 Hvidovre Denmark	Tel: 31-49-17-00 Fax: 36-77-16-30
Greens	Polig. Industrial Congost 08530, La Garriga (Barcelona), Spain	Tel: 93-871-84-50 Fax: 93-871-81-80
Automocion Canarias S.A. (AUCASA)	Apartado, de Correos, num 206 Santa Cruz de Tenerife Canary Island	Tel: 922-61-13-50 Fax: 922-61-13-44
The Associated Motors Company Ltd.	148, Rue D' Argens, Msida Malta	Tel: 356-333001 Fax: 356-340473
Two Wheels Ltd.	Crosslands Business Park, Ballymount Road, Dublin 12, Ireland	Tel: 4602111 Fax: 4566539
General Automotive Co., S.A.	P.O. Box 1200, 101 73 Athens Greece	Tel: 346-5321 Fax: 346-7329
BG Technik s.r.o	Radlick 117/520 158 01 Praha 5 Czech Republic	Tel: 2-5694 573 Fax: 2-5694 571
Aries Power Equipment Ltd.	01-493 Warszawa, ul Wroclawska 25a Poland	Tel: 22-685 17 06 Fax: 22-685 16 03
MO. TOR. PEDO Ltd.	2040 Buda-rs, Kamaraerdei-t 3. Hungary	Tel: 23-444-971 Fax: 23-444-972

MAJOR Honda DISTRIBUTOR ADDRESSES IN EUROPE

NAME OF FIRM (COMPANY)	ADDRESS	TEL: FAX:
MDL Motors	140 Dzirnavu Street Riga LV 1050 Latvia	Tel: 371-7211071 Fax: 371-7821028
UAB "Wood Stock"	Savanoriu 174 a, LT 2600 Lithuania	Tel: 370-61-606896 Fax: 370-52-132756
Honda Slovakia spol. s r.o.	Polus Millennium Tower Vajnorska ul. 100/A 831 03 Bratislava 3 Slovak Republic	Tel: 42-1-2-4444-1156 Fax: 42-1-2-4444-1150
AS Domzale Moto Center D.O.O.	Blatnica 3a, 1236 Trzin Slovenia	Tel: 386-1-562-2242 Fax: 386-1-562-3705

A			F		
Anode Metal	34	T type.....	28	Fast Idle Lever (R type).....	26
Pre-Operation Checks	52	Cooling Water		Fuel	
Motor Protection System	87	Check Hole	35	Filler Cap	37
		Intake Port	35	Filter	
B		Cruising		Inspection	111
Battery		H type	73	Replacement	112
Cleaning.....	109	R type.....	76	Level	47
Connection.....	42			Line	
Electrolyte Level	49	E		Connection	53
Leads Inspection.....	108	Emergency		Connector	37
Storage.....	120	Starting	65	Disconnection.....	94
Break-in Procedure.....	72	Stop Switch (H type)	21	Tank	
		Stop Switch Lanyard/Clip		Cleaning.....	113
C		H type	21	Filter Cleaning.....	113
Carburetor Draining	119	R type.....	25	Fuse Replacement.....	115
CE-mark location	13	Emission Control System			
Cleaning and Flushing.....	98	(FOR BODENSEE-LAKE TYPE).....	114	G	
With Water Hose Joint (optional part)....	98	Engine		Gasoline Containing Alcohol.....	48
Without Water Hose Joint.....	99	Cover		Gear	
Component Identification		Fixing Lever	36	Shifting	
H type	14	Removal/Installation	45	H type	72
R type.....	16	Oil		R type.....	75
Controls		Level Check.....	46		
Common	33	Change.....	104	H	
G type	32	Switch (H type).....	19	High Altitude Operation.....	89
H type	19	Switch (R type).....	24		
R type.....	23	Engine Oil Pressure and Overheat			
		Warning Systems.....	85		

INDEX

I		
Installation		
Height	38	
Location	38	
Outboard Motor	39	
L		
Lubrication	110	
M		
Maintenance	100	
Schedule	102	
Major Honda Distributor Addresses		
in Europe	129	
Manual		
Relief Valve		
Controls	31	
Operation	82	
Moorage		
G type	79	
T type	83	
Motor Angle		
Adjustment	41	
Inspection	40	
Motor Protection System		
Anodes	88	
Oil Pressure Warning System	85	
Overheat Warning System	85	
Over-rev Limiter	87	
N		
Neutral Release Lever	24	
O		
Oil Pressure Indicator		
Light (H type)	22	
Light/Buzzer (R type)	26	
Operation		
H type	72	
R type	75	
Other Checks	52	
Outboard Motor		
Installation	39	
Storage Position	121	
Over-rev Limiter	87	
Overheat Indicator		
Light (H type)	22	
Light/Buzzer (R type)	27	
P		
Power Tilt Switch (T type)		
Controls	29	
Operation	82	
Power Trim/Tilt Switch (T type)		
Controls	28	
Operation	80	
Pre-Operation Checks	45	
Propeller		
Inspection	50	
Replacement	116	
R		
Remote Control (R type)		
Box		
Identification	17	
Installation Location	44	
Cable Length	44	
Installation	44	
Lever		
Controls	23	
Friction Adjust	51	

S		T	
Safety	8	Tachometer	30
Carbon Monoxide Poison Hazard.....	10	Throttle	
Fire and Burn Hazards.....	9	Friction Dial	20
Information.....	8	Grip	
Label Locations	11	H type	20
Operator Responsibility	8	Tilt Lever (G type).....	32
Shallow Water Operation	88	Tilt Lock Lever.....	33
Shift Lever		Tilting the Motor	76
Controls		G Type	77
H type	19	T Type.....	80
Operation		Tool Kit and Spare Parts	101
H type	72	Trailerling	96
Spark Plugs.....	107	Transom	
Specifications	124	Angle Adjusting Rod.....	36
Starting the Engine	53	Height	38
H type	55	Transporting	94
R type.....	60	Trim Meter	
Steering		Controls	30
H type	73	Operation	81
Steering Handle Friction	51	Trim Tab	
Stopping the Engine		Controls	33
H type	91	Adjustment	84
R type.....	93	Troubleshooting	122
Storage.....	119	Starting Problems	71
Submerged Motor.....	117		
		W	
		Wiring Diagrams	Inside Back Cover

WIRING DIAGRAM

CONTENTS

Long Tiller Handle and Power	
Trim/Tilt Type	W1
Remote Control and Power	
Tilt/Trim Type	W2
Long Tiller Handle and	
Gas-Assist Tilt Type	W3
Remote Control and Gas-Assist	
Trim Type	W4

ABBREVIATIONS

Symbol Part name

Bat	BATTERY
Bz	BUZZER
ChC	CHARGE COIL
ChR	CHARGE RECEPTACLE
CDI U	CDI UNIT
CmP	CAM PULLEY
CNBT	CONNECTOR BRACKET
EmSw	EMERGENCY STOP
	SWITCH
Fu	FUSE (10 A)
FLW	FLYWHEEL
GND	GROUND
IgC	IGNITION COIL

IgSw	IGNITION SWITCH
LtSw	LIGHTING SWITCH
LTH	LONG TILLER HANDLE
MeHrn	METER HARNESS
	(OPTIONAL)
MFu	MAIN FUSE (15 A)
MgSw	STARTER MAGNETIC
	SWITCH
NSw	NEUTRAL SWITCH
OP Sw	OIL PRESSURE SWITCH
PwC	POWER COIL
PIC	PULSER COIL
PL	INDICATOR LIGHT
PTC H	PTC HEATER
PT M	POWER TRIM MOTOR
PT RL	POWER TRIM RELAY
PT Sw	POWER TRIM SWITCH
PT/T Sw	POWER TRIM/TILT
	SWITCH
RCB	REMOTE CONTROL
	BOX
Re/Re	REGULATOR/
	RECTIFIER
SP	SPARK PLUG
St	STARTER MOTOR
STH	STANDARD TILLER
	HANDLE

Th Se	THERMOMETER
	(OVERHEAT)
Tme	TACHOMETER
TRme	TRIM METER
TrA Se	TRIM ANGLE SENSOR

WIRING DIAGRAM

WIRE COLOR CODE

Bl	BLACK
Y	YELLOW
Bu	BLUE
G	GREEN
R	RED
W	WHITE
Br	BROWN
Lb	LIGHT BLUE
Lg	LIGHT GREEN
Gr	GRAY

SWITCH CONNECTIONS

IGNITION SWITCH

	E	IG	BAT	LOAD	ST
COLOR	Bl	Bl/R	W/Bl	Bl/Y	Bl/W
OFF					
ON					
START					

POWER TRIM/TILT SWITCH

	Lg	W/Bl	Lb
UP			
NORMAL			
DOWN			

EMERGENCY STOP SWITCH

	Bl/R	Bl
PUSH or LOCK PLATE OFF		
LOCK PLATE SET		

NEUTRAL SWITCH

	Bl/W	Bl/W
NEUTRAL		
GEAR IN		

POWER TILT SWITCH

	Lg	W	Lb
UP			
NORMAL			
DOWN			



