

## PREFACE

Thank you for purchasing a Honda S-Series Remote Control for your Honda outboard motor.

This manual applies to remote control type BF20, BF25, BF30, BF35, BF40, BF45, BF50, BF75, BF90. It covers operation, maintenance, cable selection and installation, for the following remote controls:

Description	Part Number	Honda Code
Side Flush-Mount	24800-ZW7-V21	5720537
Single Top-Mount	24800-ZW7-V01	5720511
Dual Top-Mount	24800-ZW7-V11	5720529

All above remote controls include a neutral switch which will not be used on any Honda outboards. Also, all controls have a power trim/tilt switch which will not be used on Honda non-trim/tilt outboards.

This manual only covers remote control end service. Refer to the appropriate installation manual or service manual for engine end service.

For your convenience, this manual also includes warranty service information.

Before installing or operating the remote control, read this operator's manual and the owner's manual supplied with the Honda outboard motor.

The information in this operator's manual is limited in application to Honda S-Series remote controls when installed and used on Honda outboard motors.

Left and right sides of this control are determined from the operator's position, facing the direction of forward travel.

As you read this manual, you will find information that is preceded by a **NOTICE** symbol. This information is intended to help you avoid damage to your Honda, other property, or the environment.

This manual is a permanent part of the remote control and must stay with the control if resold.

All information in this publication is based on the latest product information available at the time of printing. We reserve the right to make changes at anytime without notice and without incurring any obligation.

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Switch Panel	

## IMPORTANT SAFETY INFORMATION

Most accidents with this product can be prevented if you follow all instructions in this manual and on the product. Some of the most common hazards are discussed below, along with the best way to protect yourself and others.

### Be Familiar With the Use of the Remote Control

Honda remote controls are intended to be used by an operator trained and experienced in boating safety. Do not allow a child or an inexperienced, untrained operator to take control of the helm. Operating this equipment requires special effort on your part to ensure your safety and the safety of others. Read and understand the outboard owner's manual and this operator's manual.

### Wear the Emergency Stop Switch Lanyard

For your safety, always wear the emergency stop switch lanyard with the clip installed in the emergency stop switch when operating the boat. If you fall overboard or fall away from the controls, the clip will pull out of the switch causing the engine to stop immediately and will help avoid serious accidents or fatalities.

### Wear Protective Equipment

Always wear a Personal Flotation Device (PFD) when on board. PFD's must be the right size for the user and in good condition. They should also be marked with a label that says "Coast Guard Approved Equipment." Local ordinances and your insurance company may also require other boating safety equipment.

## IMPORTANT MESSAGE TO EMPLOYERS

As an employer, you have special responsibilities to the people who work for you.

Before you ask anyone to operate this remote control and boat, you need to determine whether the person is old enough, and strong enough to safely control the helm.

If you decide they are, make sure the employee reads and understands all instructions and warnings in the outboard owner's manual, this operator's manual, and on any safety or instruction labels before operating the boat.

Allow adequate time for hands-on training by a qualified instructor, and personally supervise practice sessions until you feel sure the employee is ready to operate the boat.

Also be sure employees wear proper clothing and any other gear that may be required by local boating ordinances or your insurance company.

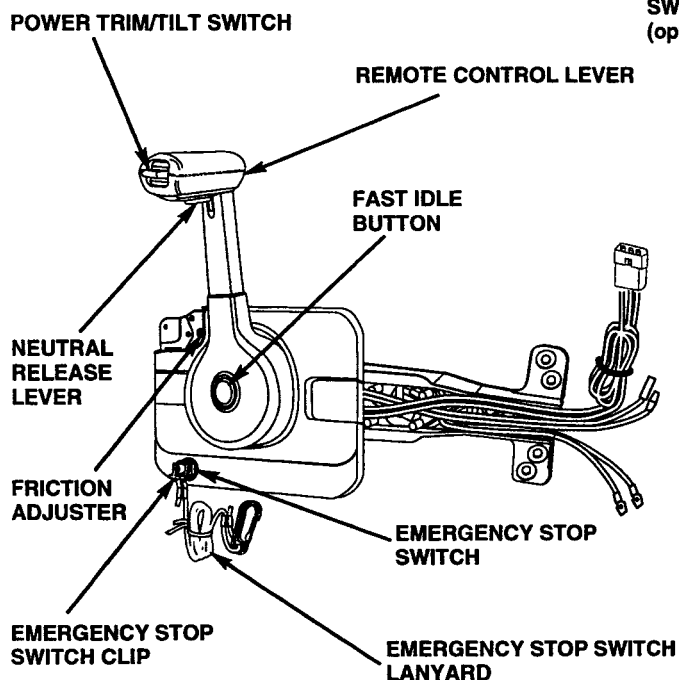
Remember, too, that you are responsible for keeping the remote control and boat properly maintained and in safe operating condition.

Your commitment to safety on the job can help prevent accidents and result in longer and more productive years of service.

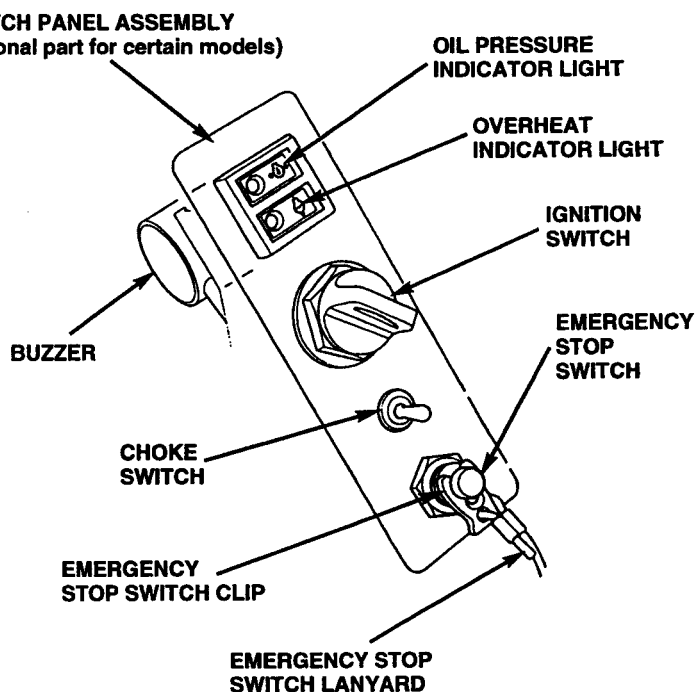
This chapter shows you where the controls are located, how the unique features of the Honda S-series remote control works, and other general related information. Have your Honda Marine Owner's Manual handy for reference while reading this chapter.

## COMPONENT IDENTIFICATION

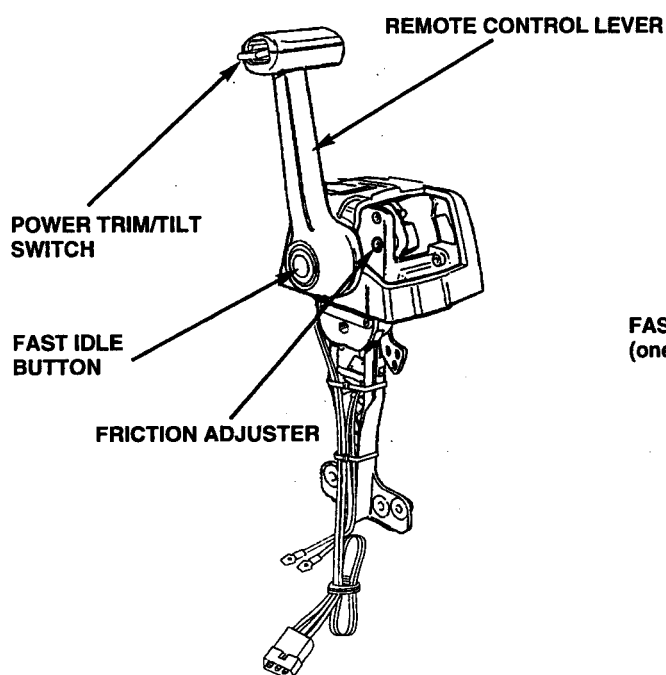
### Side Flush-Mount Control



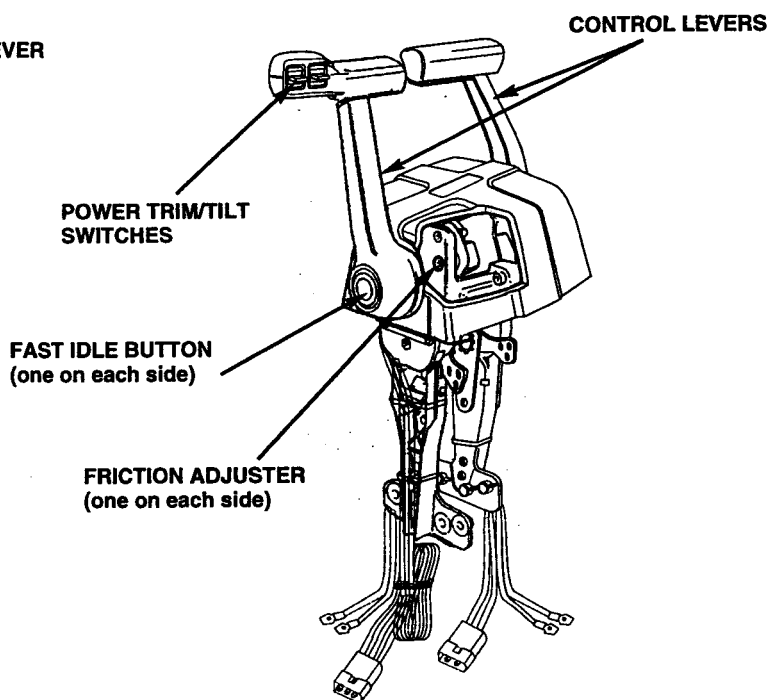
### Switch Panel



### Single Top-Mount Control



### Dual Top-Mount Control



# CONTROLS

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## DESCRIPTION OF CONTROLS

Refer to illustrations on previous page.

### Remote Control Lever

The remote control lever controls gear selection and throttle opening positions.

### Neutral Release Lever (Side Flush-Mount)

It is necessary to pull up the neutral release lever to operate the remote control lever. The neutral release lever is on the remote control lever to prevent accidental gear engagement.

### Emergency Stop Switch Lanyard (Side Flush-Mount)

The emergency stop switch lanyard is provided to stop the engine immediately in the event the operator falls overboard or away from the controls.

The emergency stop switch clip must be engaged with the emergency stop switch, or the engine will not start. When the emergency stop switch clip becomes disengaged from emergency stop switch, the engine will stop immediately.

Attach the emergency stop switch lanyard securely to the operator before operating the outboard motor.

### Power Trim/Tilt Switch (not used on non-trim/tilt outboards)

#### *For power trim*

Press the power trim/tilt switch on the remote control lever to adjust the motor trim angle to maintain proper boat trim. The power trim/tilt switch, located on the remote control lever, can be operated while the boat is under way or while stopped.

By using the power trim/tilt switch, the operator can change the trim angle of the motor to achieve maximum boat acceleration, speed, stability and maintain optimum fuel consumption.

#### *For power tilt*

Press the power trim/tilt switch on the remote control lever to adjust the motor tilt angle.

By using the power trim/tilt switch, the operator can change the tilt angle of the motor for shallow water operation, beaching, launching from a trailer, or mooring.

### Fast Idle Button

Used for engine starting and warm-up. With the fast idle button pushed in, the control lever can be moved forward or backward and throttle opening increased without engaging propeller.

The fast idle button will only disengage the shift mechanism when the control lever is in the neutral position.

### Friction Adjuster

The friction adjuster screw adds or decreases friction to the movement of the remote control lever. The proper amount of friction will prevent unwanted control lever movement.

### **GENERAL**

Perform the Pre-Operation checks listed in the outboard motor owner's manual.

Attach the emergency stop switch lanyard securely to the operator.

### **PROTECTIVE CLOTHING**

Always wear a PERSONAL FLOTATION DEVICE (PFD) when on board.

# OPERATION

## SAFETY PRECAUTIONS

Before operating the boat for the first time, please review the IMPORTANT SAFETY INFORMATION beginning on page 2 and the previous chapter, titled BEFORE OPERATION.

Even if you have operated other boats, take time to become familiar with how the controls work, and practice boating in a safe area until you build up your skills.

For your safety, avoid starting or operating the engine in an enclosed area such as a garage or boat house. Engine exhaust contains poisonous carbon monoxide gas which can collect rapidly in an enclosed area and cause illness or death.

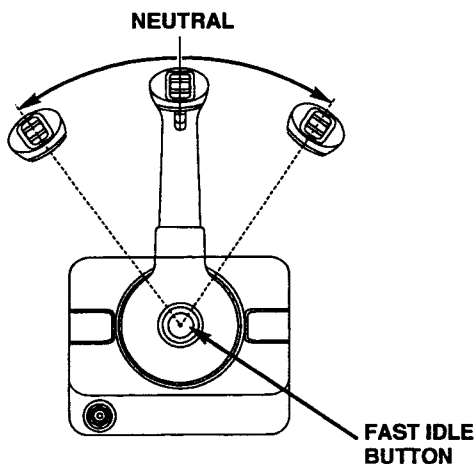
## STARTING

### Side Flush-Mount Control

Refer to the outboard motor owner's manual for detailed operation of the following:

- Indicator lights
- Cooling system indicator
- Ignition switch
- Choke switch
- Emergency stop switch

Move the control lever to the neutral position. If the engine is cold, push the fast idle button and move control lever forward or reverse, as shown below. Start and warm up the engine per the owner's manual instructions. The fast idle button can only be pushed when the control lever is in the neutral position. After engine warms up, return the control lever to the neutral position to allow the control lever to shift. The control lever cannot be moved unless the neutral lock lever is pulled up.

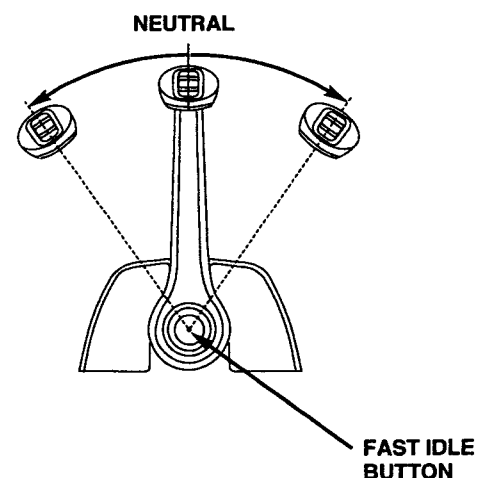


### Top Mount Control

Refer to the product owner's manual for detailed operation of the following:

- Indicator light
- Cooling system indicator
- Ignition switch
- Choke switch
- Emergency stop switch

Move the control lever(s) to the neutral position. If the engine is cold, push the fast idle button(s) and move control lever(s) forward or reverse, as shown below. Start and warm up the engine(s) per the owner's manual instructions. The fast idle button can only be pushed when the control lever is in the neutral position. After the engine(s) warms up, return the control lever(s) to the neutral position to allow the control lever to shift.



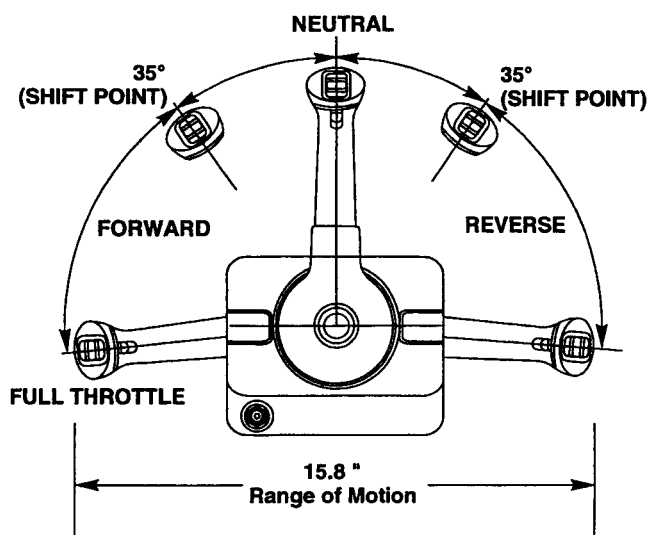
## SHIFTING

### Side Flush-Mount Control

Move the control lever approximately 35° forward to engage forward gear or approximately 35° rearward to engage reverse gear.

Advancing the control lever past the 35° shift point will increase throttle opening and boat speed.

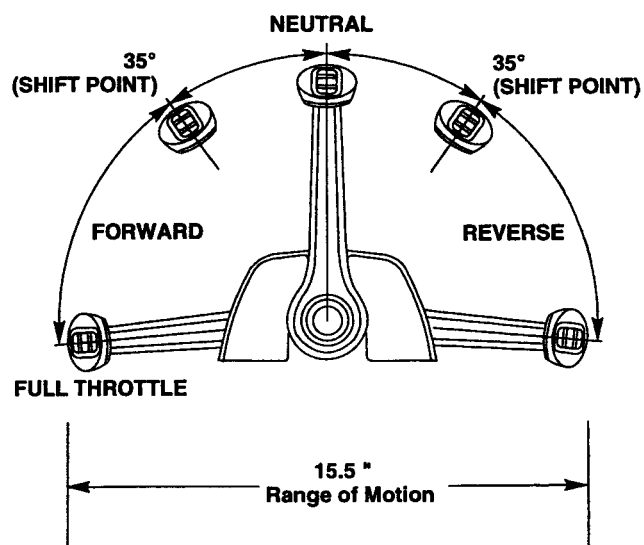
The control lever will not move unless the neutral release lever is pulled up.



### Top Mount Control(s)

Move the control lever approximately 35° forward to engage forward gear or approximately 35° rearward to engage reverse gear.

Advancing the control lever past the 35° shift point will increase throttle opening and boat speed.



### THROTTLE CABLE INSPECTION/ADJUSTMENT

Actual throttle adjustment procedures vary with each installation. For engine end adjustment, refer to the specific throttle adjustment procedure in the product shop manual. For remote control end adjustment, refer to page 19.

### CONTROL ASSEMBLY

For maximum protection, especially in a salt water environment, the control assembly and control lever should be rinsed off on a regular basis with fresh water.

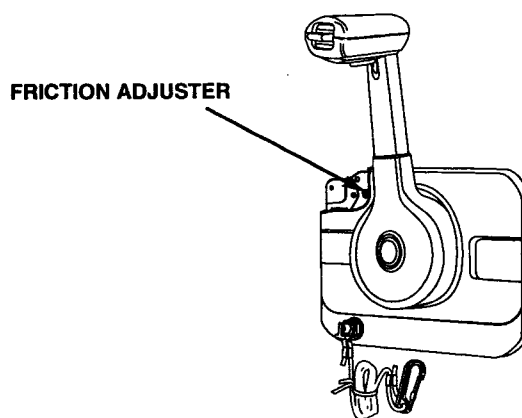
Periodically check the control mechanism for loose fasteners and signs of wear on moving parts. Keep these moving parts well lubricated with a moisture-displacing lubricant or marine grease.

Periodically check the cables and engine connections for signs of wear and corrosion. Replace as necessary.

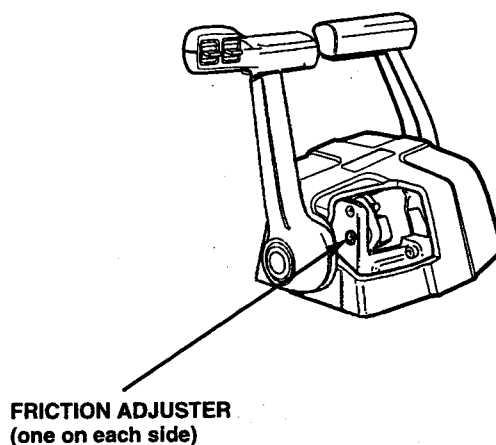
### CONTROL LEVER FRICTION ADJUSTMENT

Place the control lever in the forward or reverse position (just beyond the shift point). Remove the cover and adjust the friction screw. Turning the screw clockwise increases friction and counter-clockwise decreases friction. Adjust so that a slight amount of drag is felt when the control lever is moved through the forward or reverse range. The remote control lever should move smoothly and freely.

#### SIDE FLUSH-MOUNT



#### TOP-MOUNT





## Note to the Customer:

These installation instructions are intended for use only by professional service technicians who have the proper tools, equipment, and training to correctly and safely add equipment to your boat. These procedures should not be attempted by untrained personnel.

## IMPORTANCE OF PROPER INSTALLATION

Proper installation is essential to operator safety and the reliability of the machine. Any error or oversight made by the technician assembling and servicing a unit can easily result in faulty operation, damage to the machine, or injury to the operator.

### ⚠ WARNING

Improper service can cause an unsafe condition that can lead to serious injury or death.

Follow the procedures and precautions in installation instructions and shop manuals carefully.

Some of the most important safety precautions are given below. However, we cannot warn you of every conceivable hazard that can arise in performing this installation. Only you can decide whether or not you should perform a given task.

### ⚠ WARNING

Failure to properly follow installation instructions and precautions can cause you to be seriously hurt or killed.

Follow the procedures and precautions in installation instructions carefully.

## IMPORTANT SAFETY PRECAUTIONS

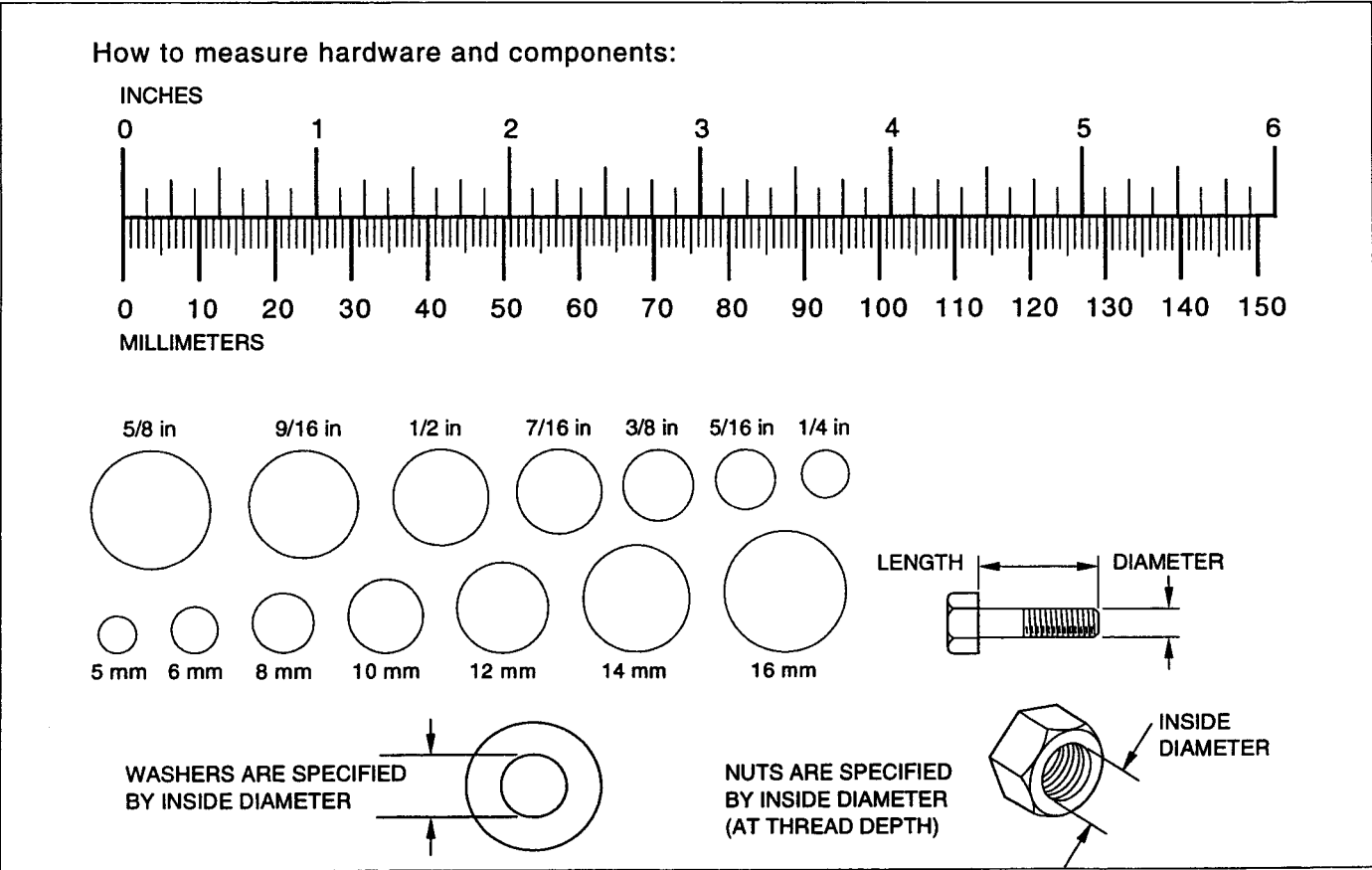
- Make sure you have a clear understanding of all basic shop safety practices and that you are wearing appropriate clothing and safety equipment. When performing this installation, be especially careful of the following:
  - ☐ Read the instructions before you begin and be sure you have the tools and skills required to perform the tasks safely.
- Make sure the engine is off before you begin any maintenance or repairs. This will help eliminate several potential hazards:
  - ☐ **Carbon monoxide poisoning from engine exhaust.**  
Be sure there is adequate ventilation whenever you run the engine.
  - ☐ **Burns from hot parts.**  
Let the engine and exhaust system cool before touching.
  - ☐ **Injury from moving parts.**  
Do not run the engine unless the instruction tells you to do so. Even then, keep your hands, fingers, and clothing away. Do not run the engine when any protective guard or shield is removed.
- To reduce the possibility of a fire or explosion, be careful when working around gasoline or batteries. Use only a nonflammable solvent, not gasoline, to clean parts. Keep all cigarettes, sparks, and flames away from the battery and all fuel-related parts.

# INSTALLATION

## TORQUE VALUES

American bolt diameter and thread size	Torque Values	
	ft-lb	N•m
1/4 inch - 20	8	10.8
5/16 inch - 18	12	16.3
3/8 inch - 16	22	29.8
1/2 inch - 13	76	103
Metric bolt diameter		
8 mm	15.9	22
10 mm	25.3	35

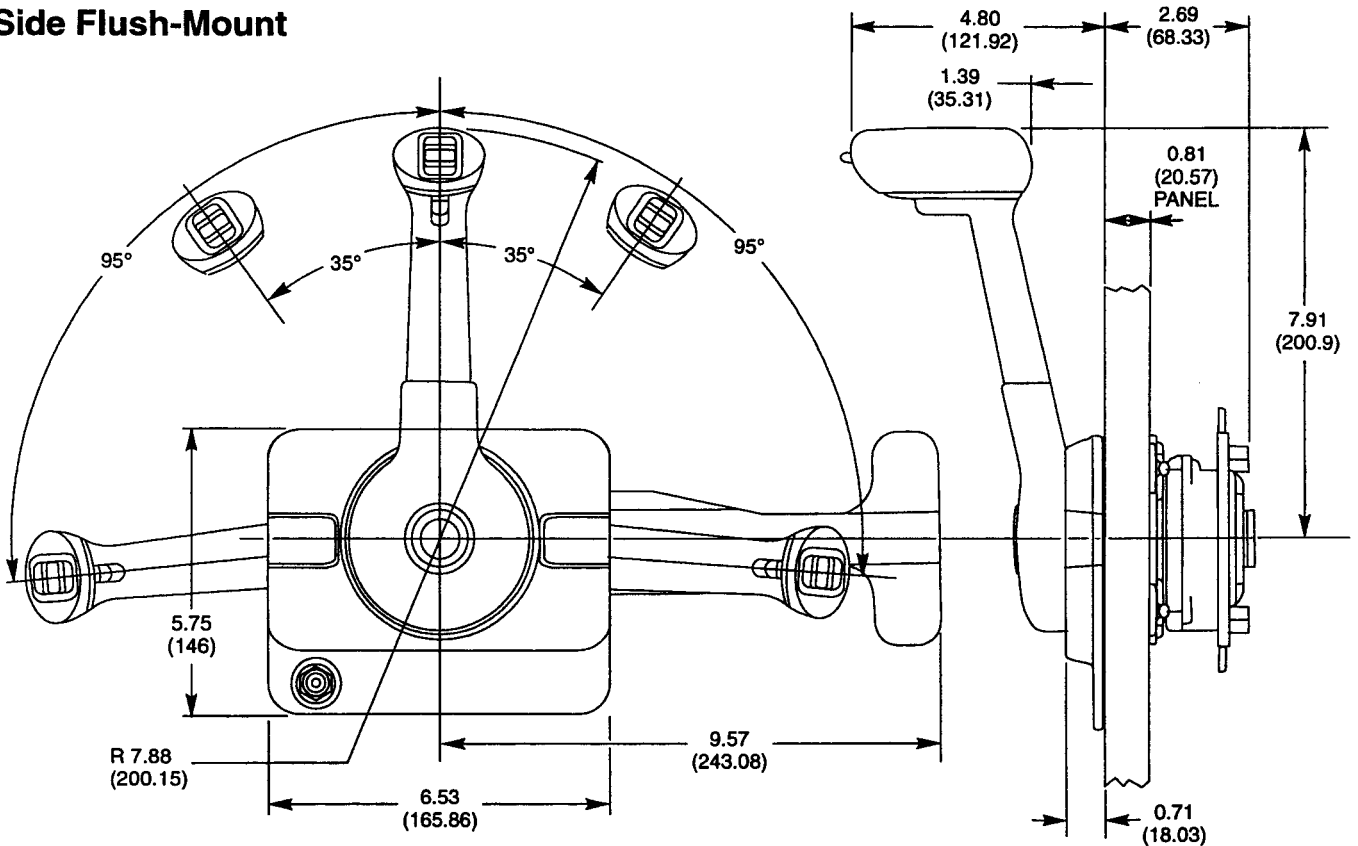
## HARDWARE MEASURING CHART



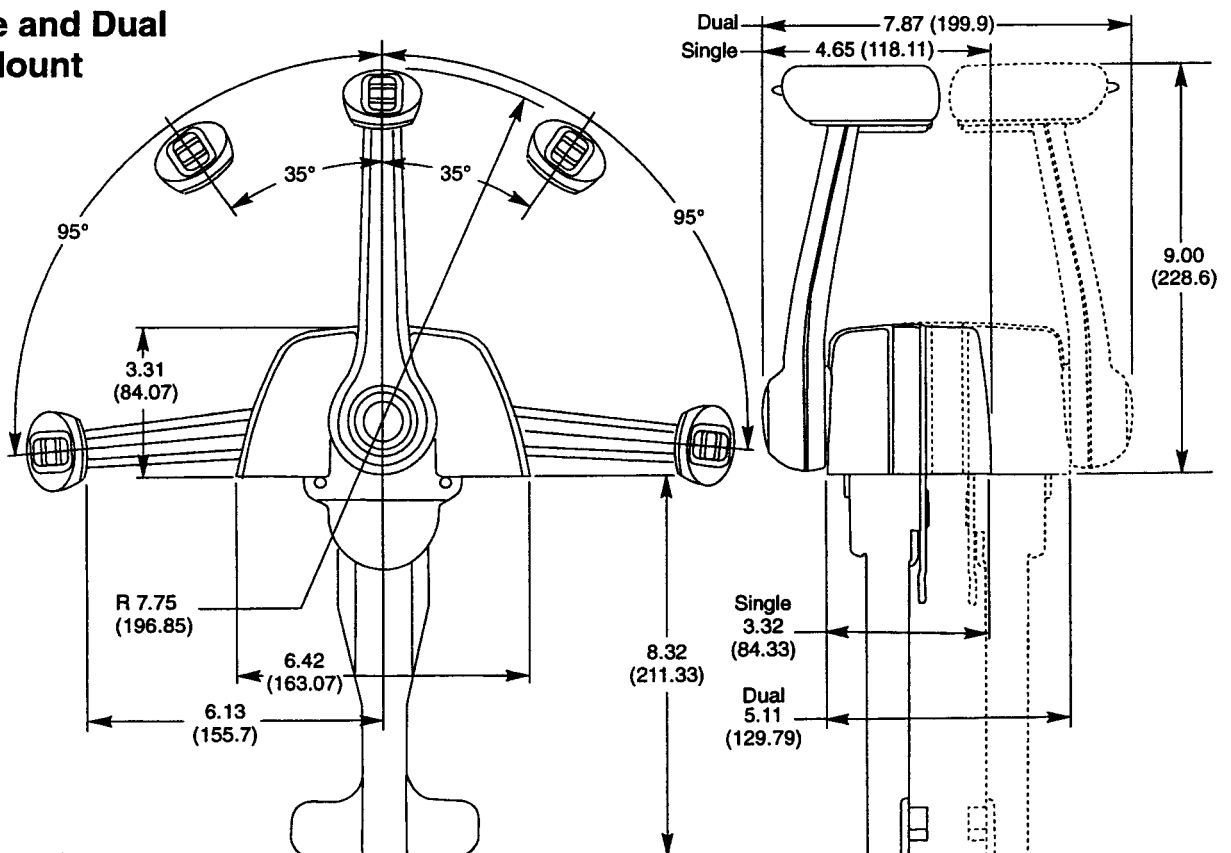
## DIMENSIONAL DRAWINGS

### Side Flush-Mount

Unit: in (mm)



### Single and Dual Top Mount



# INSTALLATION

## LOOSE PARTS

Check all loose parts against the this list.

### Side Flush-Mount Control

Ref. No	Description	Qty.
1	Side flush-mount control	1
2	Snap-on cover	2
3	Cable seat	2
4	33C cable clip	3
5	Pivot	2
6	Cotter pin	2
7	Flat head screw	2
8	Swivel bearing	2
9	Hex nut	2
10	Hex head bolt *	2
11	Locknut *	2
12	Bushing *	2
13	1/4" male spade connector (not needed)	2
14	Throttle cable spring link	1
15	Front cover	1
16	Hand lever cover	1
17	White push-rod extension	1
18	Retainer plate	1
19	Flanged nut	1
20	Operator's Manual (TM020)	1
21	Emergency stop switch	1
22	Lanyard	1
23	1/4 x 20 x 1-1/4" pan head screw	4
24	Internal tooth lock washer	4
25	Honda label	1
26	Directional label	2
27	Owner information CAUTION tag	1
28	Plug	1

### Single Top-Mount Control

Ref. No	Description	Qty.
1	Single top-mount control	1
2	Control cushion	1
3	Snap-on cover	2
4	Cable seat	2
5	33C cable clip	3
6	Pivot	2
7	Cotter pin	2

### Single Top-Mount Control (continued)

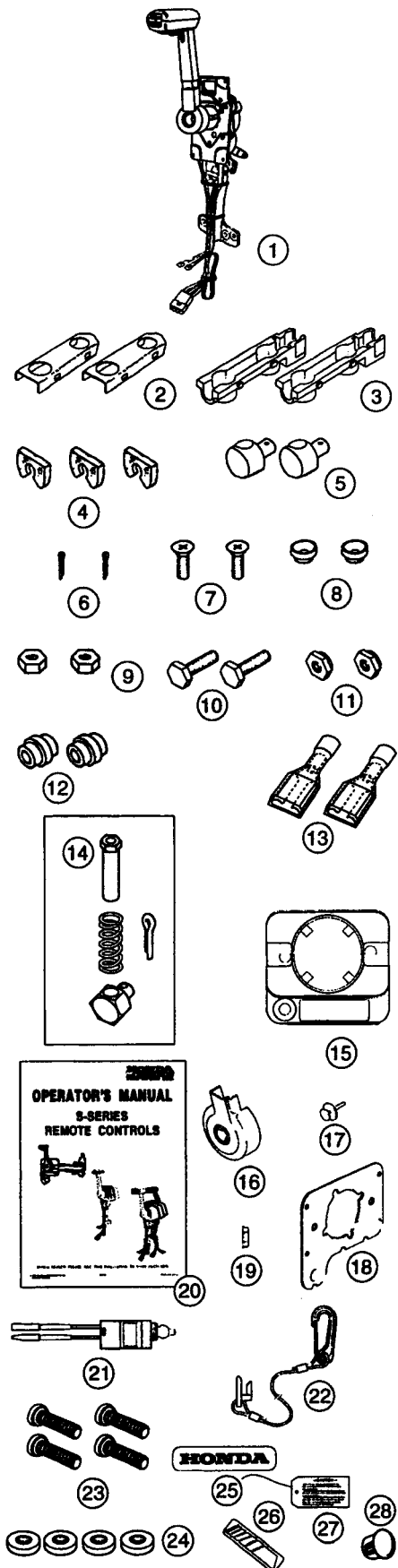
Ref. No	Description	Qty.
8	Flat head screw	2
9	Swivel bearing	2
10	Hex locknut	2
11	Hex head bolt *	2
12	Locknut *	2
13	Bushing *	2
14	1/4" male spade connector (not needed)	2
15	Operator's Manual (TM020)	1
16	Throttle cable spring link	1
17	10-32 x 1-1/2" pan head screw	4
18	Internal tooth lock washer	4
19	10-32 hex nut	4
20	Honda label	1
21	Directional label	2
22	Owner information CAUTION tag	4

### Dual Top-Mount Control

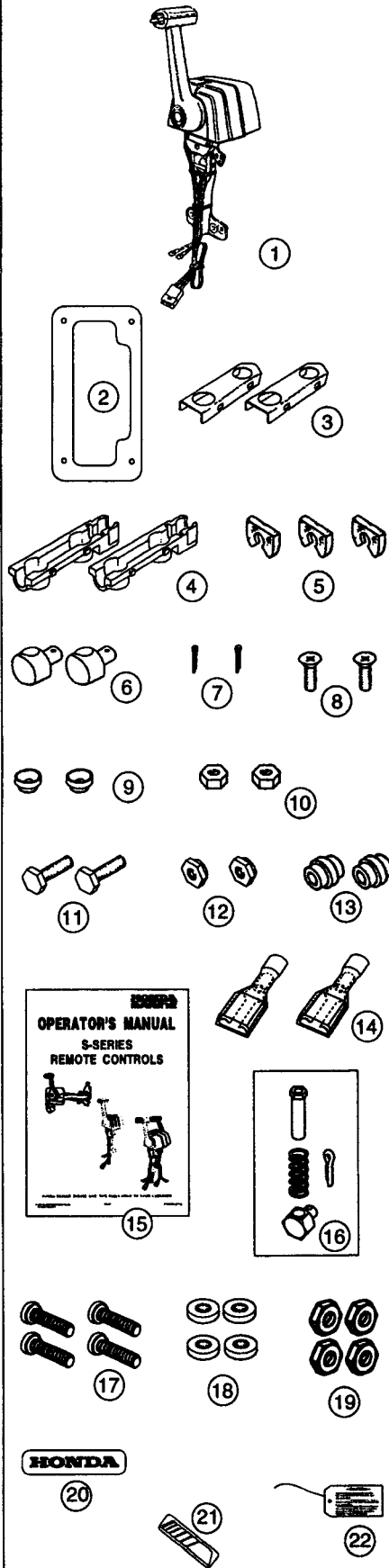
Ref. No	Description	Qty.
1	Dual top-mount control	1
2	Control cushion	1
3	Snap-on cover	4
4	Cable seat	4
5	33C cable clip	6
6	Pivot	4
7	Cotter pin	4
8	Flat head screw	4
9	Swivel bearing	4
10	Hex nut	4
11	Hex head bolt *	4
12	Locknut *	4
13	Bushing *	4
14	1/4" male spade connector (not needed)	4
15	Operator's Manual (TM020)	1
16	10-32 x 1-1/2" pan head screw	4
17	Throttle cable spring link	2
18	Internal tooth lock washer	4
19	10-32 hex nut	4
20	Honda label	1
21	Directional label	1
22	Owner information CAUTION tag	1

\* Used for Mariner cable connections.

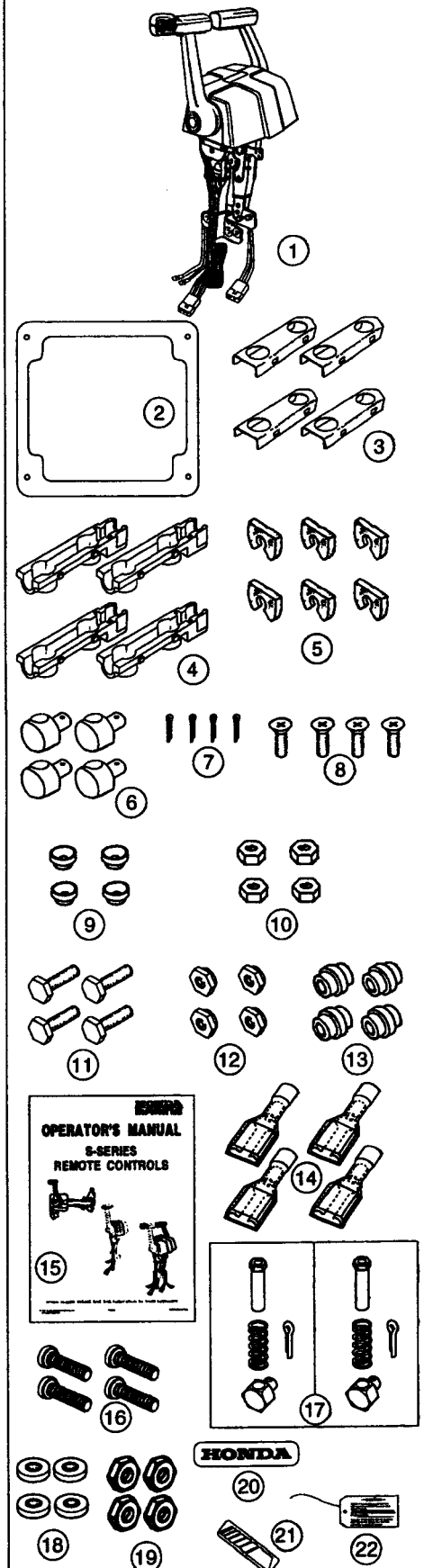
## Side Flush-Mount



## Single Top-Mount



## Dual Top-Mount



## CONTROL CABLE SELECTION

Control cables must freely extend at least 3 ft (1 m) straight out from the remote control before bending.

### Notice

If the cables are secured with cable ties in the first 3 ft (1 m) of cable travel, control lever binding and remote control wear may result.

Do not secure control cables with cable ties or cable hangers that crush or stress cables in any way. Doing so may impair remote control and/or cable operation. If necessary, cables should be supported with loose fitting hangers that allow free cable movement throughout complete control lever range.

Cable bend diameter must never be less than 24 in (600 mm). Actual bend diameter specification is determined by the cable manufacturer. If cables are routed in tight arcs, control lever resistance will increase, and smooth throttle and/or shift operation will no longer be possible. This may lead to loss of vessel control.

The cable length must be calculated in such a way that unrestricted operation is possible, even if the outboard motor(s) are tilted or turned to one side.

If the cable becomes taut at some point of the routing, or if it is hard to route the cable normally, add some extra cable length.

Side flush-mount control:

- There must be enough space behind the control for cable routing (see page 20).
- The control should be mounted on a panel that is not more than .81 in. (20.57 mm) thick.

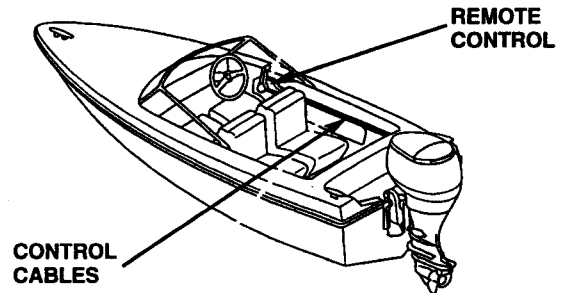
Top-mount control:

- There must be enough space under the control for control cable routing (see page 23).

Recommended installation position:

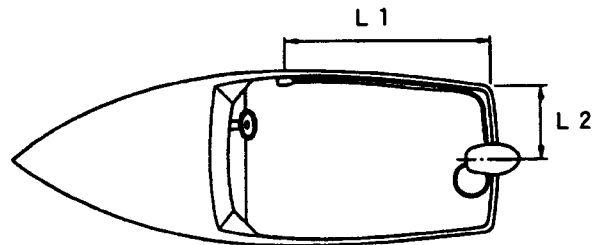
- Near a corner of the front seat, the control lever should be placed in the neutral position.
- The bottom of the remote control is at the same level as the upper surface of the seat.

1. Select a mounting location which allows easy access and unrestricted operation of the control lever. Make sure there are no parts between the remote control and the outboard motor obstructing cable operation.

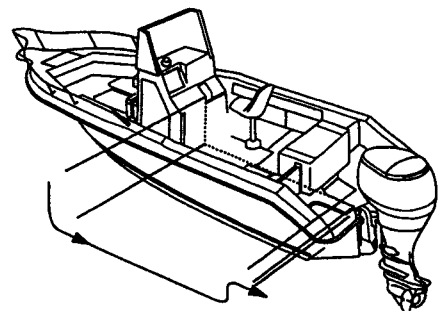


2. Calculate the control cable length. Measure the dimension L1 and L2 and calculate the control cable length as follows:

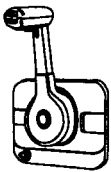
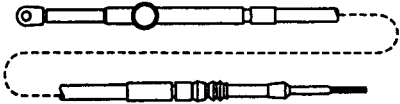
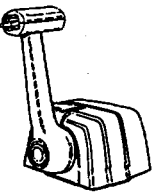
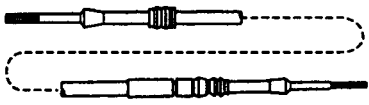
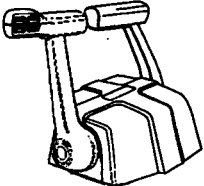
- Side flush-mount control:  
 $L1 + L2 + 48 \text{ in. (1200 mm)}$



- Mounting dual outboard motors:  
Measure L2 which is to the center of the respective outboard motor, and calculate control cable length using formula above.
- Top-mount control:  
Measure distance along actual cable routing and add 48 in. (1200 mm) to the measurement.



## REMOTE CONTROL CABLE MATCHING

Remote Control	Control Cable
<p>Side flush-mount*</p> 	<p>Mariner® cable:</p> 
<p>Top-mount*</p> 	<p>SAE J917 type cable: Morse 33C Supreme or Teleflex Universal</p> 
	

\* A throttle cable spring link is required on all Honda outboard motors except BF75/90.

Mariner Cables	
Description	Part Number
Cable, Remote Con (10')	24910-ZW1-003AH
Cable, Remote Con (11')	24911-ZW1-003AH
Cable, Remote Con (12')	24912-ZW1-003AH
Cable, Remote Con (13')	24913-ZW1-003AH
Cable, Remote Con (14')	24914-ZW1-003AH
Cable, Remote Con (15')	24915-ZW1-003AH
Cable, Remote Con (16')	24916-ZW1-003AH
Cable, Remote Con (17')	24917-ZW1-003AH
Cable, Remote Con (18')	24918-ZW1-003AH
Cable, Remote Con (19')	24919-ZW1-003AH
Cable, Remote Con (20')	24920-ZW1-003AH
Cable, Remote Con (22')	24922-ZW1-003AH
Cable, Remote Con (24')	24924-ZW1-003AH
SAE J917 type cables Morse 33C Supreme or Teleflex Universal **	
Description	Part Number
Cable, Remote Con (10')	24910-ZW1-V00AH
Cable, Remote Con (11')	24911-ZW1-V00AH
Cable, Remote Con (12')	24912-ZW1-V00AH
Cable, Remote Con (13')	24913-ZW1-V00AH
Cable, Remote Con (14')	24914-ZW1-V00AH
Cable, Remote Con (15')	24915-ZW1-V00AH
Cable, Remote Con (16')	24916-ZW1-V00AH
Cable, Remote Con (17')	24917-ZW1-V00AH
Cable, Remote Con (18')	24918-ZW1-V00AH
Cable, Remote Con (19')	24919-ZW1-V00AH
Cable, Remote Con (20')	24920-ZW1-V00AH
Cable, Remote Con (22')	24922-ZW1-V00AH
Cable, Remote Con (24')	24924-ZW1-V00AH
Throttle cable spring link	06600-ZW7-000AH

\*\* All cable ends have a 10-32 UNF-2 SAE thread and 3 inches of inner cable travel.

# INSTALLATION

## REMOTE CONTROL INSTALLATION

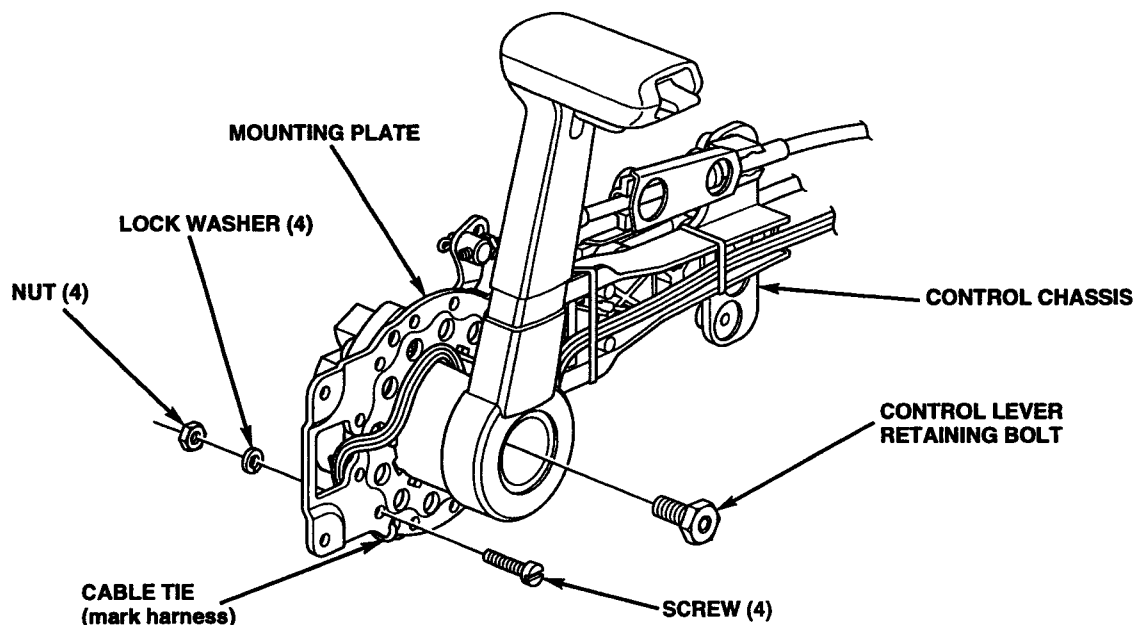
Cables and wiring should be pre-installed on the remote control before final control mounting.

### Side Flush-Mount Control

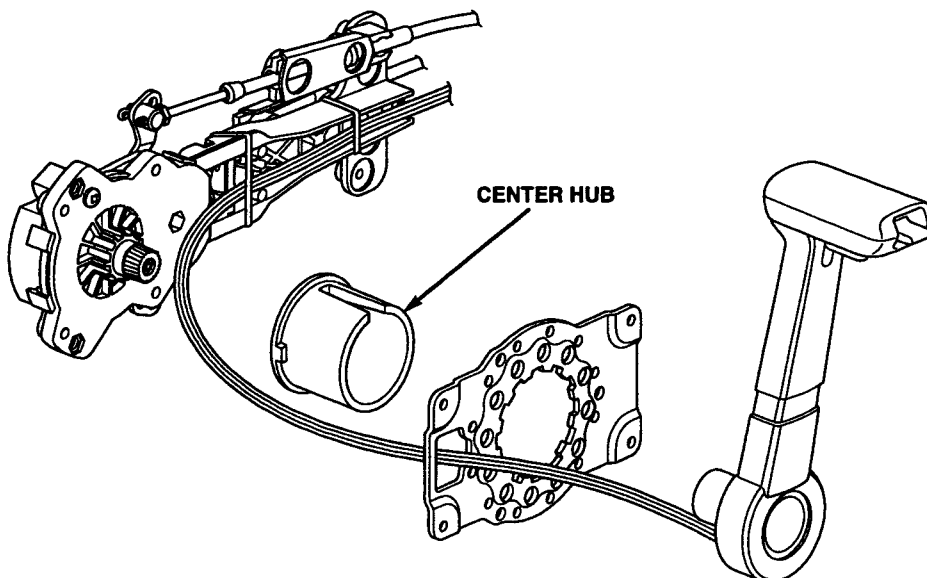
#### *Port-Side Mounting Modification*

The control lever can be repositioned to 12 different notched positions.

1. To make sure correct length of wire is reinstalled in the center hub, mark the wire harness with tape at cable tie position. Remove the four screws, lock washers, nuts, and cable tie holding mounting plate to the control chassis. Remove the control lever retaining bolt.



2. Move the control lever and mounting plate away from the control chassis. Lift and reindex the center hub on the spindle to the desired angle.



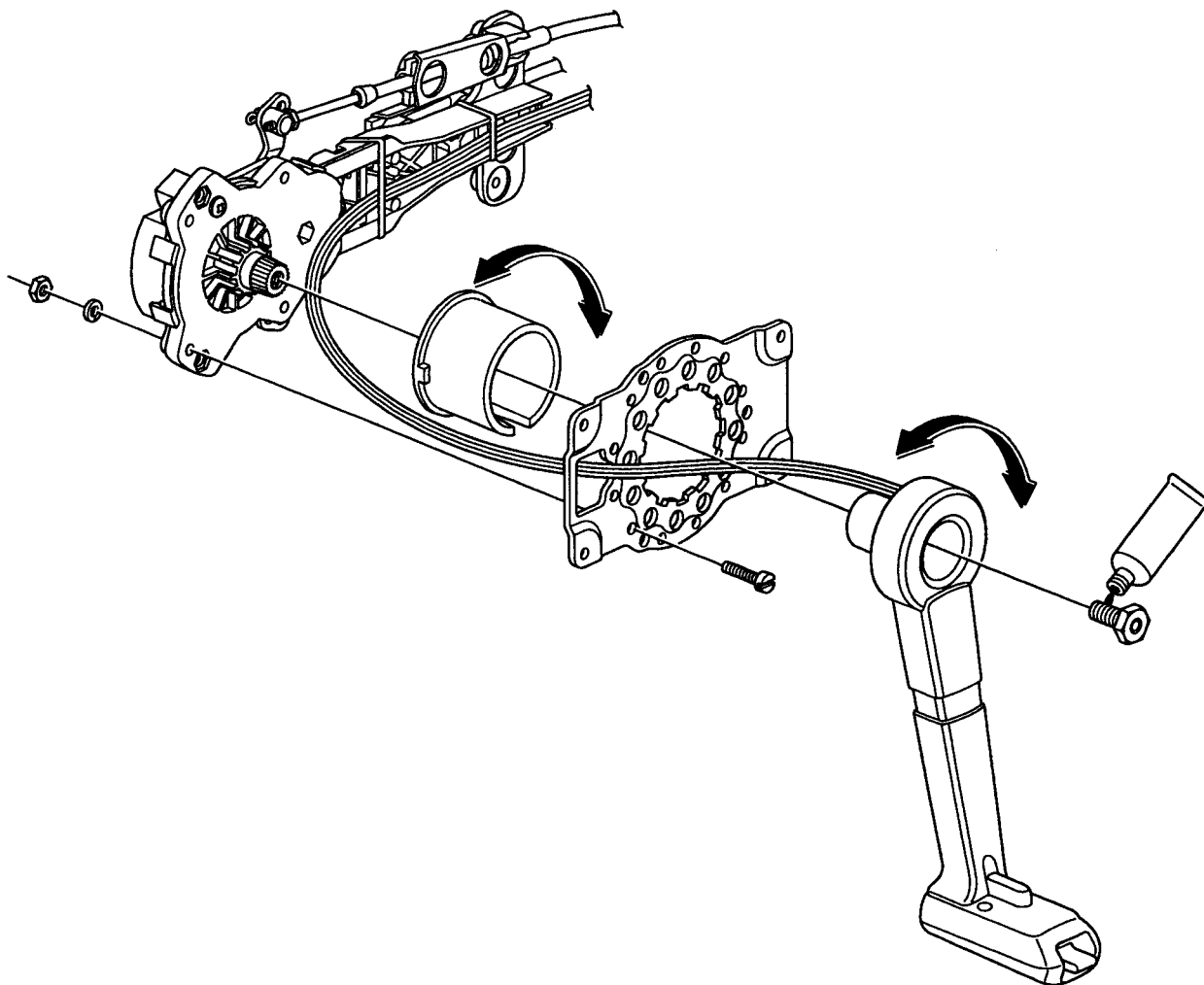


3. Reposition mounting plate onto control chassis. Install new cable tie at original position marked in step 1. Install control lever and carefully position wire harness inside center hub. Remove any oil from the retaining bolt threads and apply one or two drops of Hondalock 1 P/N 08713-0001 or commercially available Loctite® 271 to the threads. Torque hardware.

**TORQUE:**

Control lever retaining bolt 22 ft-lb (29.8 N-m)

Mounting plate retaining bolt 4.5 ft-lb (6.1 N-m)



After assembling control, operate control lever full forward and full reverse to be sure trim/tilt harness does not bind.

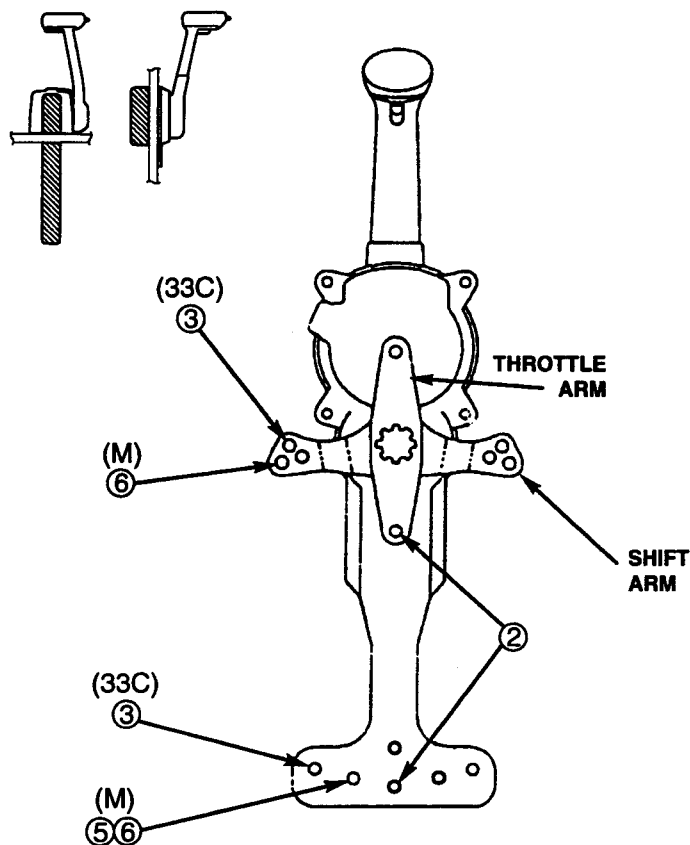
# INSTALLATION

## SHIFT AND THROTTLE CABLE CONNECTIONS (CONTROL END)

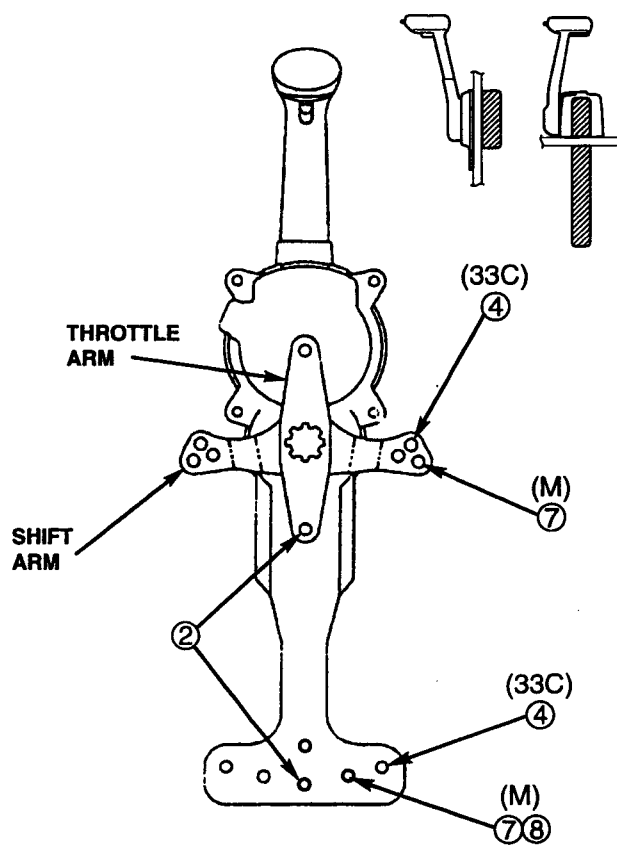
Shift cable to shift arm connections will change depending on starboard or port side installation and/or type of cable used. In the illustrations below, M stands for Mariner and 33C stands for Teleflex Universal or Morse 33C type cables.

Hole numbers on the chassis mechanism correspond to the hole numbers on the shift and throttle arms. Example: Connect cable seat to hole number 4 on the chassis and cable end fitting to hole number 4 on the shift arm.

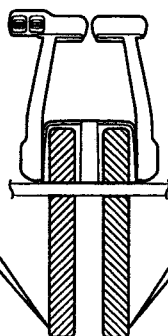
Side Flush-Mount and Single Top-Mount  
Port Side Left-Hand Operation



Side Flush-Mount and Single Top-Mount  
Starboard Side Right-Hand Operation

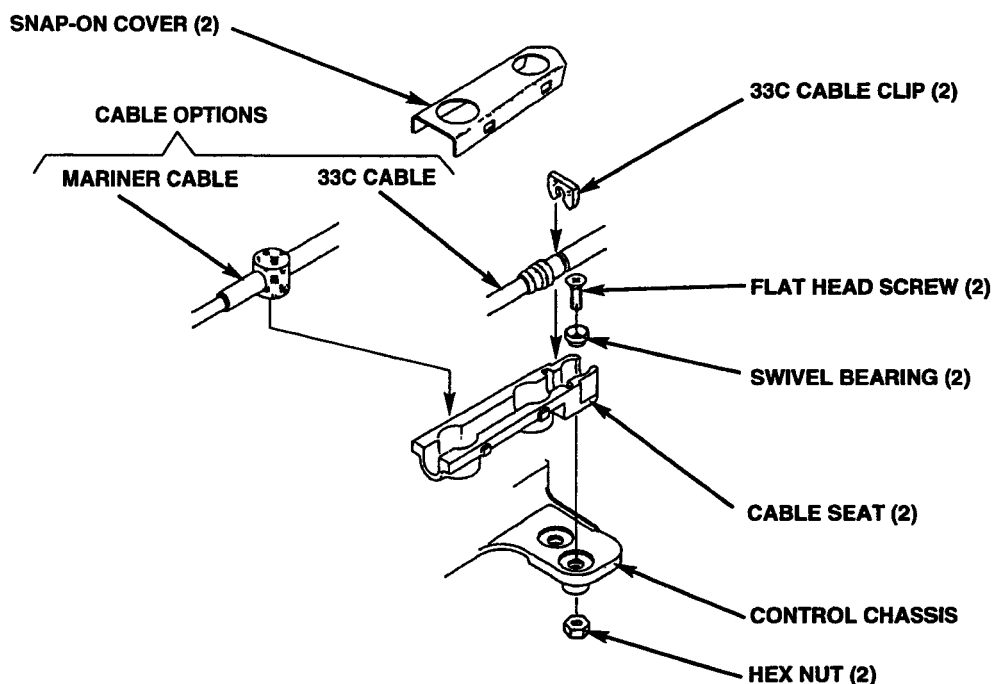


Dual Top-Mount



## Chassis Cable Connections

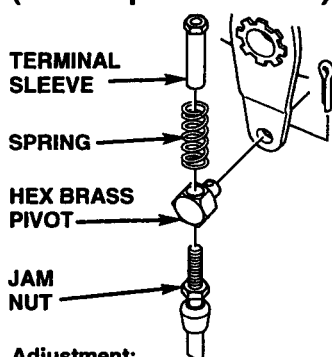
After the correct set of holes in the chassis has been determined, connect the cables as shown below.



## Shift and Throttle Arm Connections

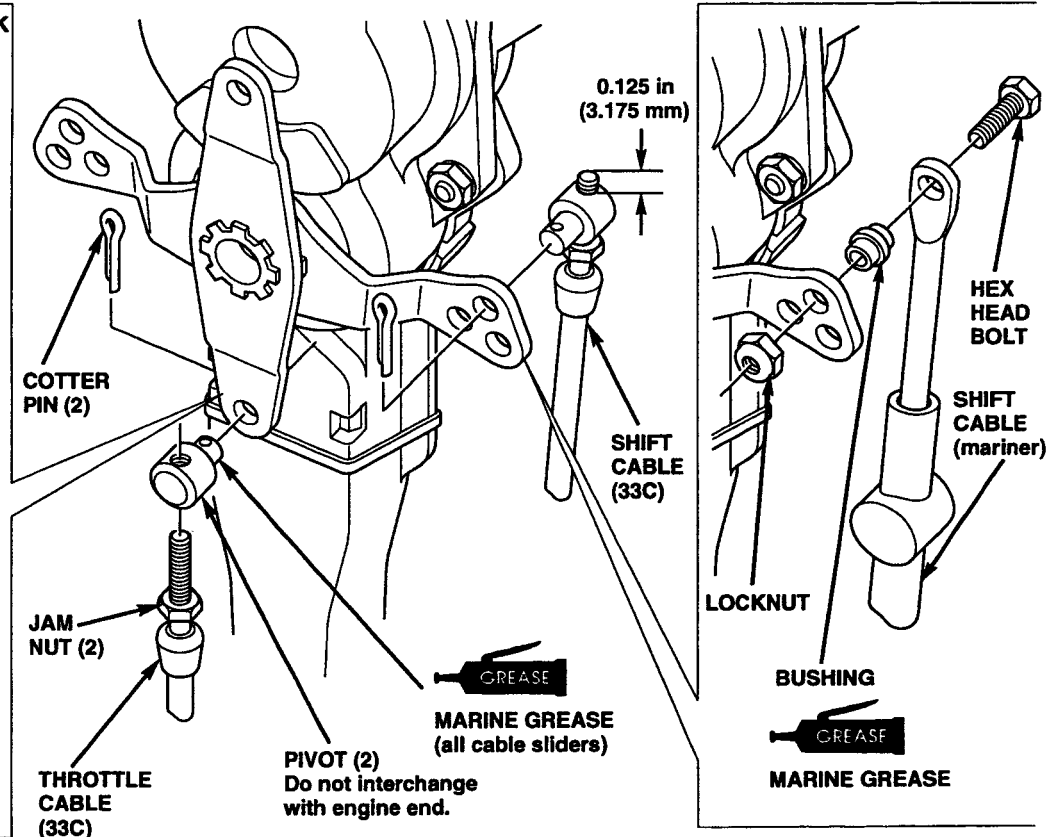
After the correct set of holes in the chassis has been determined, connect the cables as shown below.

### THROTTLE CABLE SPRING LINK (all except BF75A/90A)



#### Adjustment:

1. Do not tighten bottom jam nut on cable.
2. Insert brass pivot shaft into throttle arm hole and secure with cotter pin.
3. Put a light film of marine grease on terminal sleeve.
4. Move control lever to allow cable rod to enter brass pivot hole.
5. Insert terminal sleeve with spring through brass pivot hole and thread onto cable until it bottoms on jam nut.
6. Tighten jam nut against terminal sleeve.



# INSTALLATION

## Side Flush-Mount Installation

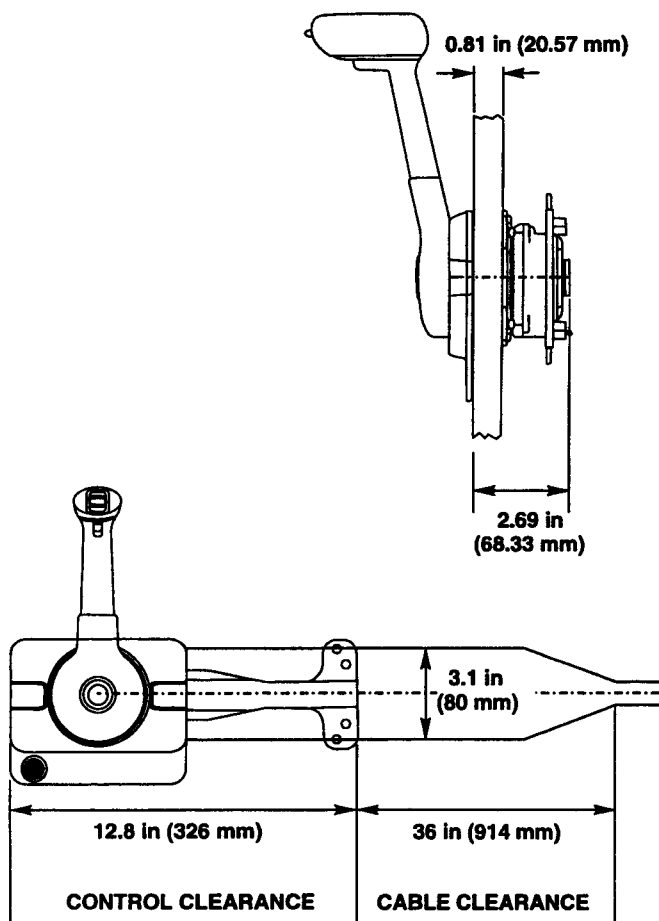
Select either a starboard or port side mounting location that allows easy access and unrestricted control lever operation. Allow adequate clearance for complete control lever travel. Make sure there is adequate clearance behind and under the console for the control cables. Also, make sure there are no parts between the remote control and the outboard motor obstructing cable operation.

The control can be installed to your desired angle. Refer to page 16 for control lever repositioning.

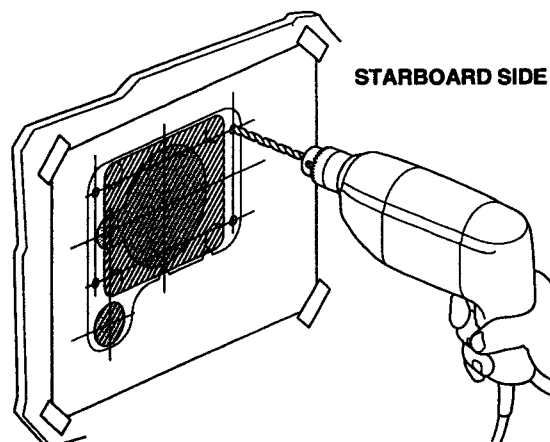
Also, the control can be installed from either inside or outside the panel. To reduce the amount of panel cutting, inside panel installation is preferred.

Maximum panel thickness for installation is 0.81 in (20.57 mm).

The following drawings show the required remote control installation clearances.



1. Attach the appropriate template, enclosed with this manual, to the mounting surface. Wear eye protection, then drill and cut as indicated on the template.

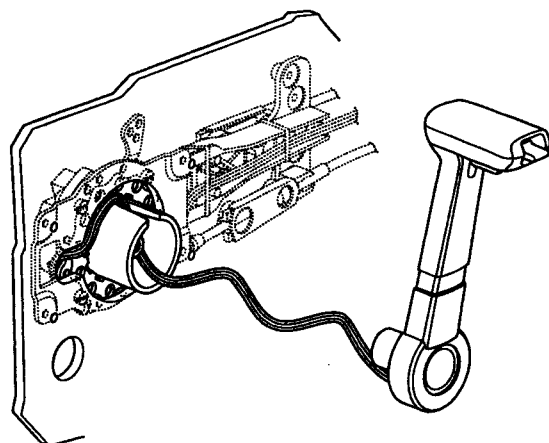


2. Control Installation:

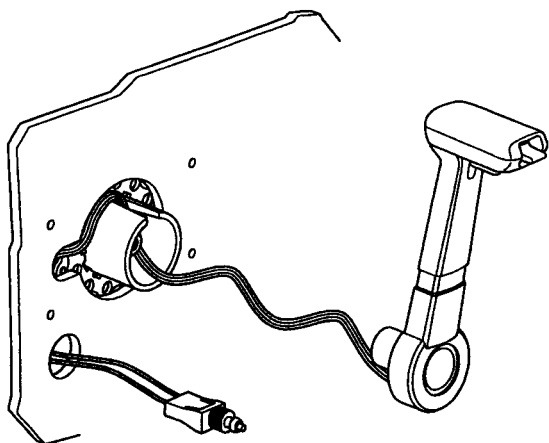
**From Inside Panel** – Remove control lever bolt and control lever from chassis spindle. Attach both control cables to chassis. Feed control lever through cutout in panel and place chassis mounting plate against panel.

**From Outside Panel** – Pull control cables through cutout and attach cables to chassis. Feed control cables and control through cutout in panel. Pull chassis mounting plate up against panel.

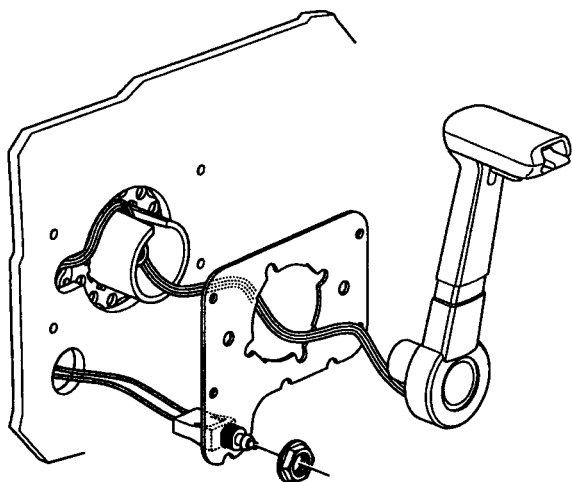
Refer to page 18 for starboard or port side cable attachment holes.



3. Route the emergency stop switch wires through panel cutout.

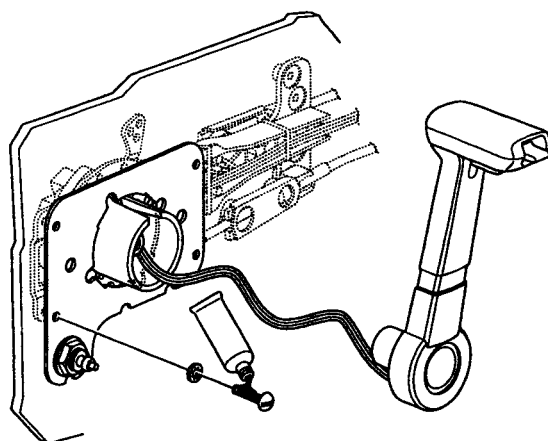


4. Temporarily install emergency stop switch on retainer plate using the emergency stop switch flanged nut.



5. Position retainer plate on panel. Apply one or two drops of thread locking agent on screw threads. Install four screws and lock washers. Tighten screws securely.

**TORQUE: 78 in-lb (8.8 N·m)**

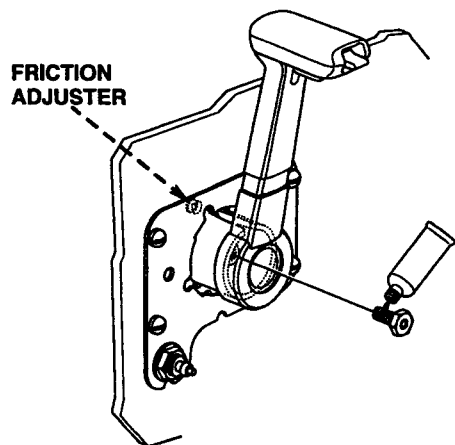


When these screws are removed after having been tightened or when reinstalling one of these screws, apply thread locking agent to the threaded portion of the screw and tighten to the proper torque.

# INSTALLATION

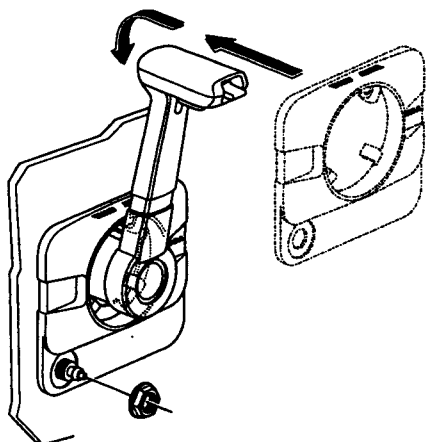
6. With the remote control in the neutral position, install the control lever. Be careful to avoid pinching the trim/tilt switch wire harness. Apply one or two drops of thread locking agent to the threaded portion of the lever mounting bolt and tighten to the specified torque.

TORQUE: 22 lb-ft (29.8 N·m)

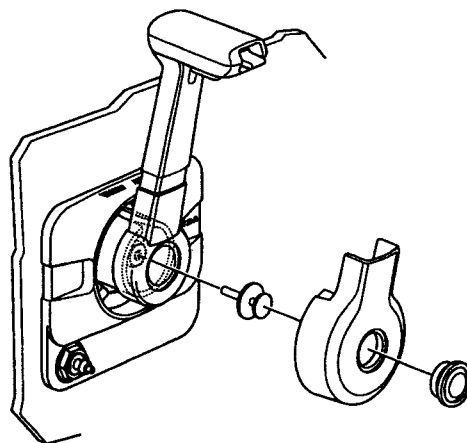


7. Adjust control lever friction. Refer to page 8.
8. Carefully remove emergency stop switch flange nut. Slide the face plate over the control lever and loosely install the flange nut. Snap face plate into position and torque flange nut.

TORQUE: 45 in-lb (5.1 N·m)



9. Install the throttle button and remote control lever cover.



10. Connect the emergency stop switch and power trim/tilt wires to the remote control wire harness. Refer to page 28.

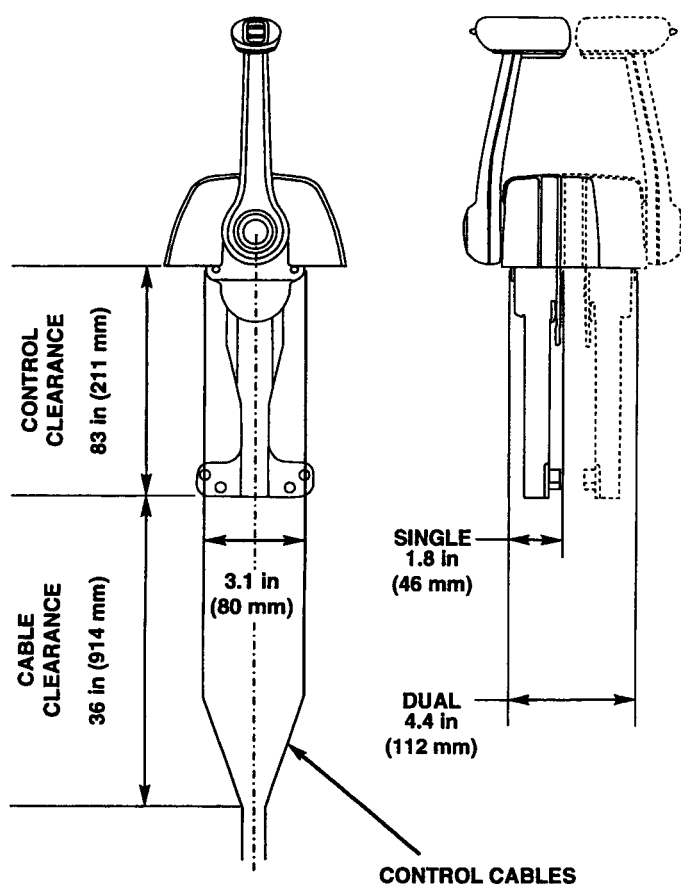
## Top-Mount Control

Select a mounting location which allows easy access and unrestricted operation of the control lever. Make sure there are no parts between the remote control and the outboard motor obstructing cable operation.

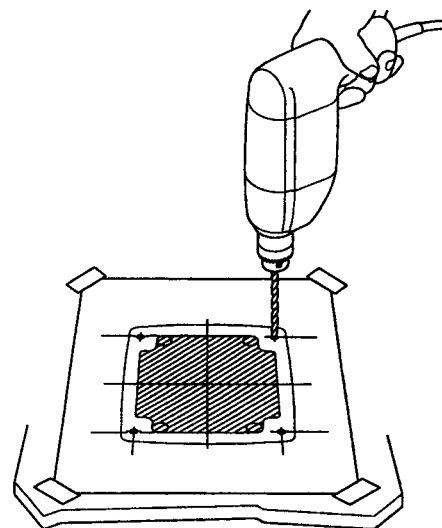
The single-lever top mount control can be mounted on either the starboard or port side.

Templates for installing single-lever and dual-lever controls are not interchangeable.

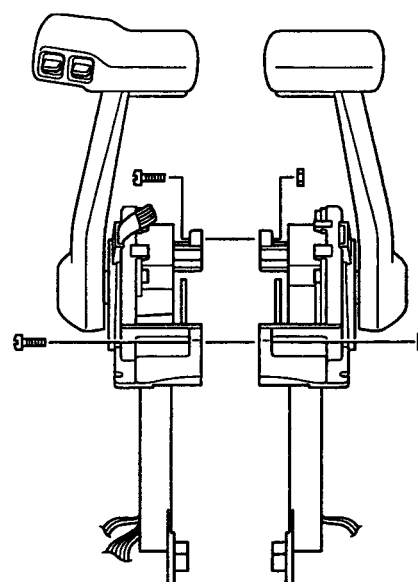
The following drawings show the required remote control installation clearances.



1. Attach the appropriate template, enclosed with this manual, to the installation surface. Wear eye protection, then drill and cut as indicated on the template. Route control cables and wire harness through panel cutout.

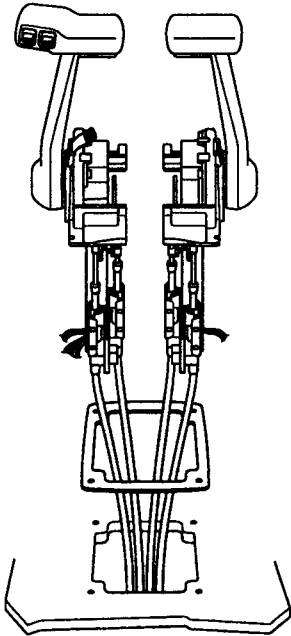


2. Remove remote control cover.
3. **Dual Control:**  
Separate controls by removing two screws shown below.

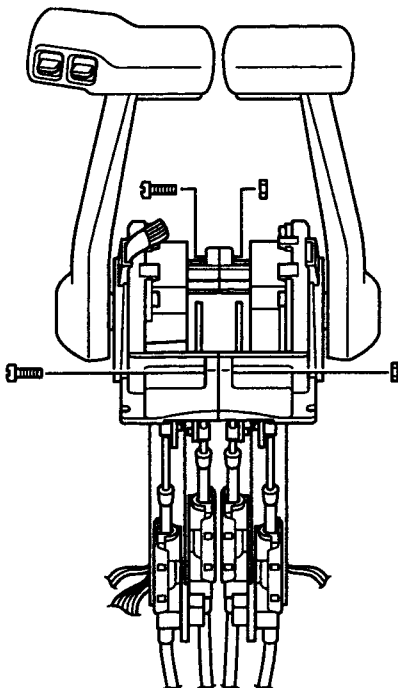


# INSTALLATION

4. Pass the control cables through cutout in panel. Slide gasket over control cables and connect control cables to control chassis. Refer to page 18 for cable attachment holes.

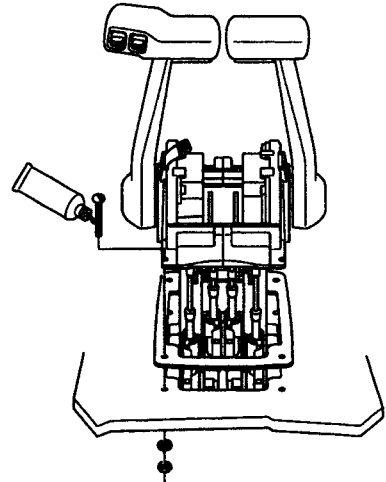


5. Attach controls by installing two screws shown below. Tighten screws securely. TORQUE: 4.5 lb-ft (6.1 N·m)

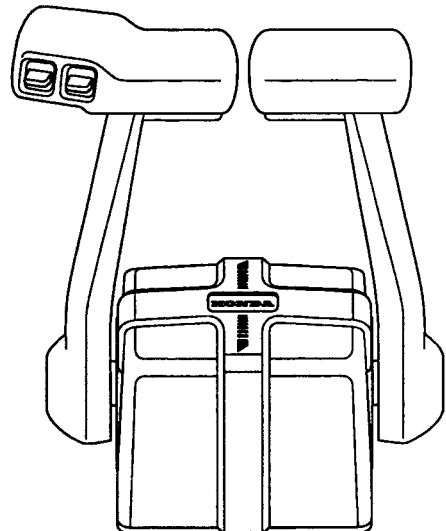


6. Route wire connectors through panel cutout. If convenient, make electrical connections at this time. Install control on panel, and apply one or two drops of thread locking agent on screw threads. Install four screws, lock washers, and nuts.

TORQUE: 4.5 lb-ft (6.1 N·m)



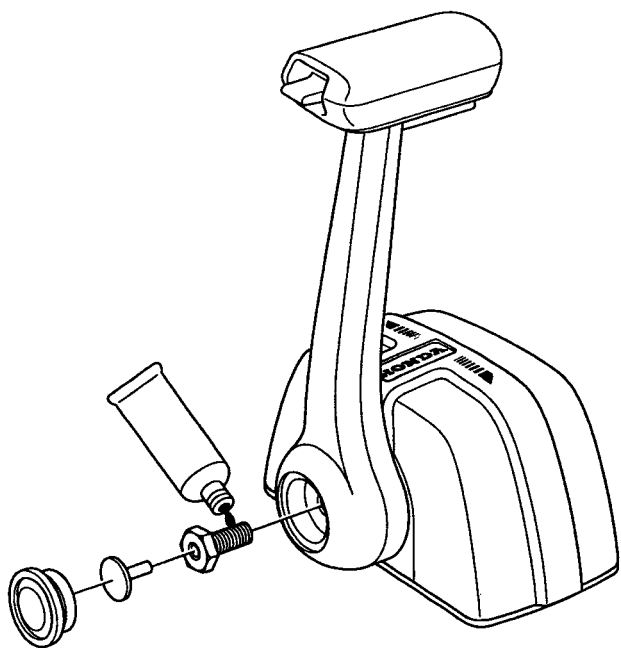
7. Adjust control lever friction. Refer to page 8.
8. Install cover, shift label(s), and Honda label.





9. If the control lever has been removed, put the remote control in the neutral position and install the control lever. Be careful to avoid pinching trim/tilt switch wire harness. Apply one or two drops of thread locking agent to the threaded portion of the lever mounting bolt and tighten to the specified torque.

**TORQUE: 22 lb-ft (29.8 N·m)**



# INSTALLATION

## SWITCH PANEL INSTALLATION

When installing Honda S-series remote control(s), the following Honda parts may be required:

Part Description	Part Number	Honda Code
Switch panel assembly*	32340-ZW1-V01	4899357
Switch panel cable ass.*	32580-ZW1-V00	4899456
Earth cord assembly* †	32600-ZW1-900	4899464
* Part included with the BF75 • BF90		
† Part only required for dual control applications		

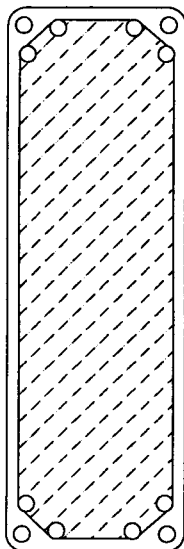
### Honda Side-Surface Mount Control Conversion:

If a Honda side-surface mount remote control is to be converted to a Honda/Morse remote control application, the part below can be used with the internal parts from the Honda side-surface mount control. Refer to switch plate kit instructions.

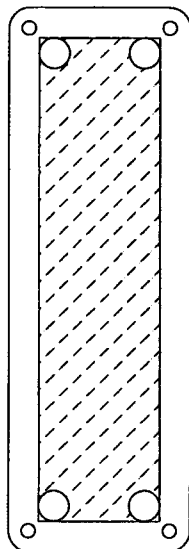
Part Description	Part Number	Honda Code
Switch plate kit	06200-ZV5-010AH	4487757

1. Locate the switch panel near the operator's position, in a position where it will not obstruct the operation of the boat.
2. Attach the template enclosed with this manual to the switch panel installation surface.
3. Wear eye protection, then drill and cut as indicated on the template.

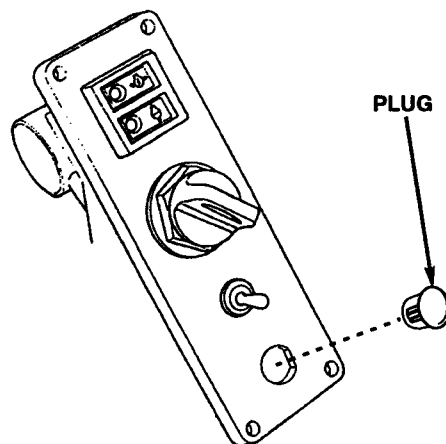
SWITCH PANEL  
TEMPLATE



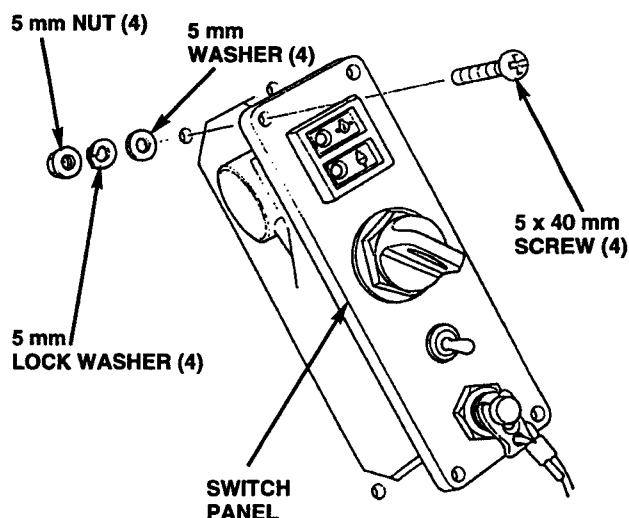
SWITCH PLATE  
TEMPLATE



1. Connect the wire harness to the remote control wire harness and the trim/tilt switch harness (see pages 28 ~ 30 for wire harness connections).
2. **Side Flush-Mount Control only** – Remove emergency stop switch from switch panel. Use the rubber connector cover and plug removed from the switch panel emergency stop switch harness to protect emergency stop switch connectors. Install plug in emergency stop switch hole.



3. Install the switch panel on the installation surface using the four 5 x 40 mm screws and four 5 mm washers, lock washers, and flange nuts.




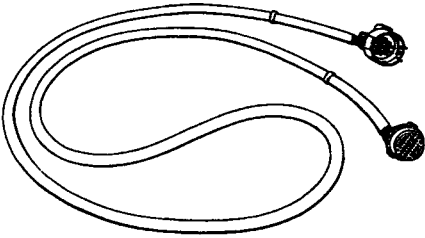
## WIRE HARNESS CONNECTIONS

When modifying the remote control wire harness or using the other harnesses:

- Check whether wire harnesses are connected as shown on the wiring diagrams on the following pages.
- Connect leads and terminals securely. If necessary, wrap connections with vinyl tape to waterproof connections.
- Use 19 guage (1.25 mm diameter) wire.

Observe the following wire harness connector instructions.

- If the standard 16.5 foot switch panel-to-engine cable harness is too short, the following optional harnesses are available:

Description	Part Number	Illustration
30 foot cable harness	32581-ZW1-V00	
7 foot cable harness extension	32570-ZW1-900	
		

Maximum combination lengths follow:

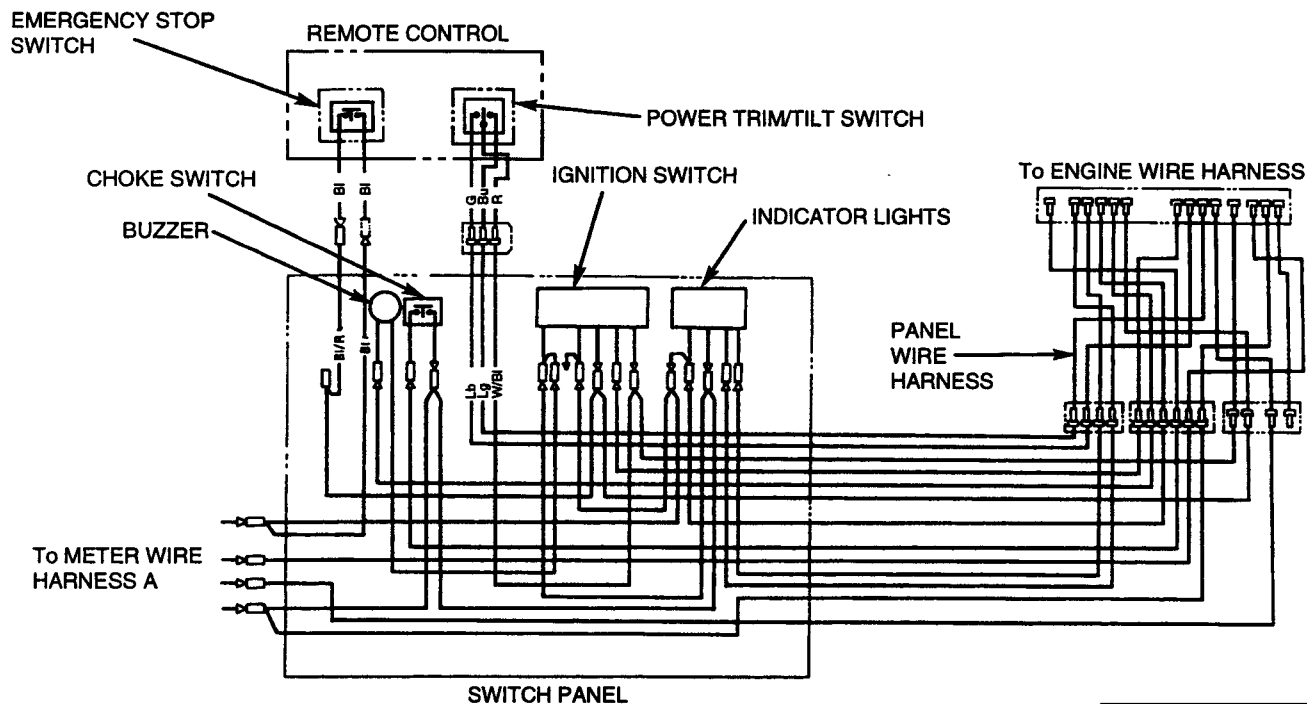
- One or two 7 ft cable harness extensions + one standard 16.5 ft cable harness = max. length 30 feet.
- One 30 ft cable harness + one or two 7 ft cable harness extensions = max. length 44 feet.

If you exceed the maximum lengths shown above, electrical devices and accessories may malfunction due to reduced current.

- Connect wire harness securely. If a terminal is oxidized or corroded, remove the oxidation or corrosion with a non-conductive plastic scrub pad or contact cleaner before reconnecting it.
- Make sure insulators completely surround connectors and that ends are not folded up.
- Do not break the coverings of the wire harness. If the coverings are broken, either repair them with electrician's tape, or replace them.
- Use vinyl tape to attach any unused terminals to the adjacent main harness to keep them from interfering with surrounding parts.
- Connect each wire harness properly as shown on the wiring diagram.
- After connecting each harness, turn the main power on to check for proper operation.

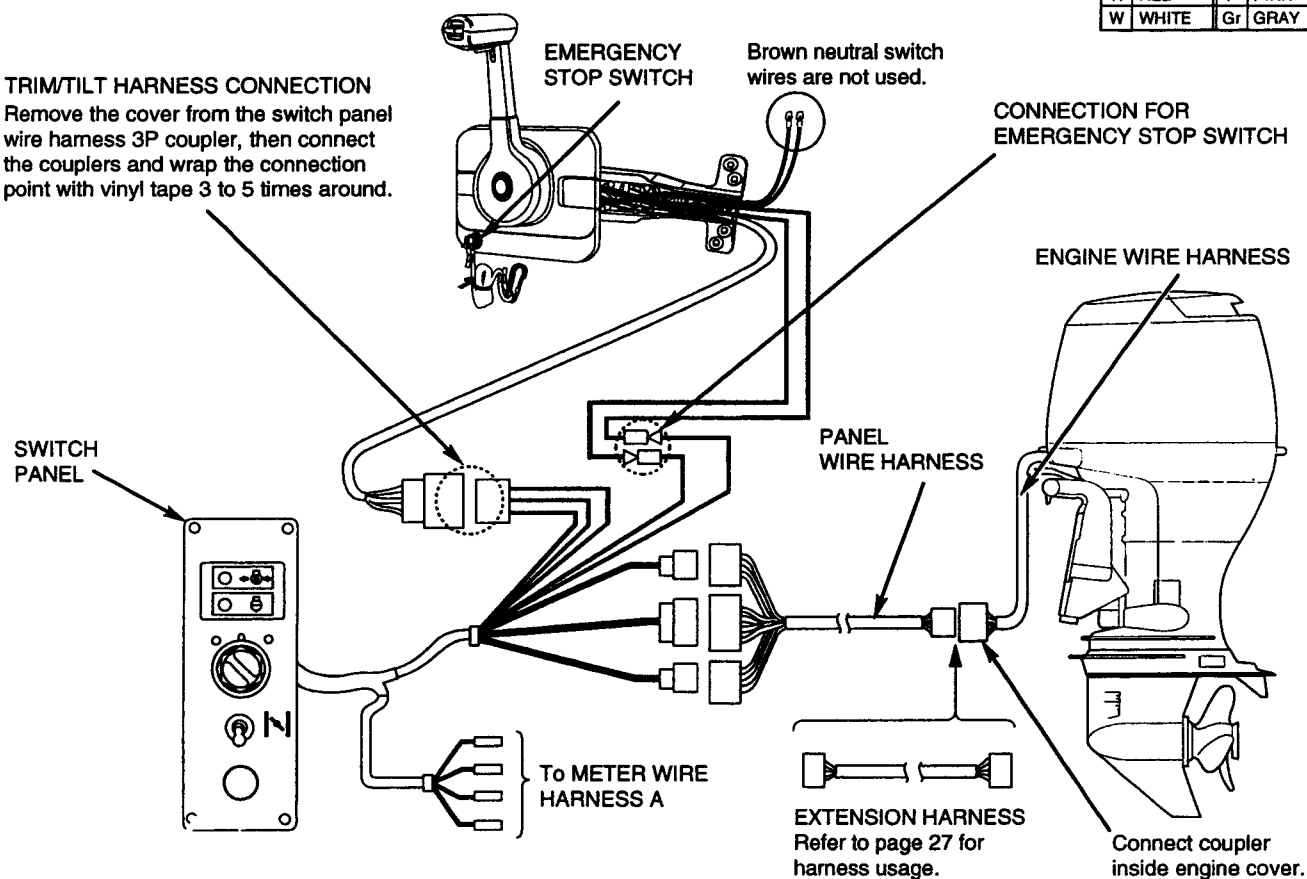
# INSTALLATION

## Side Flush-Mount

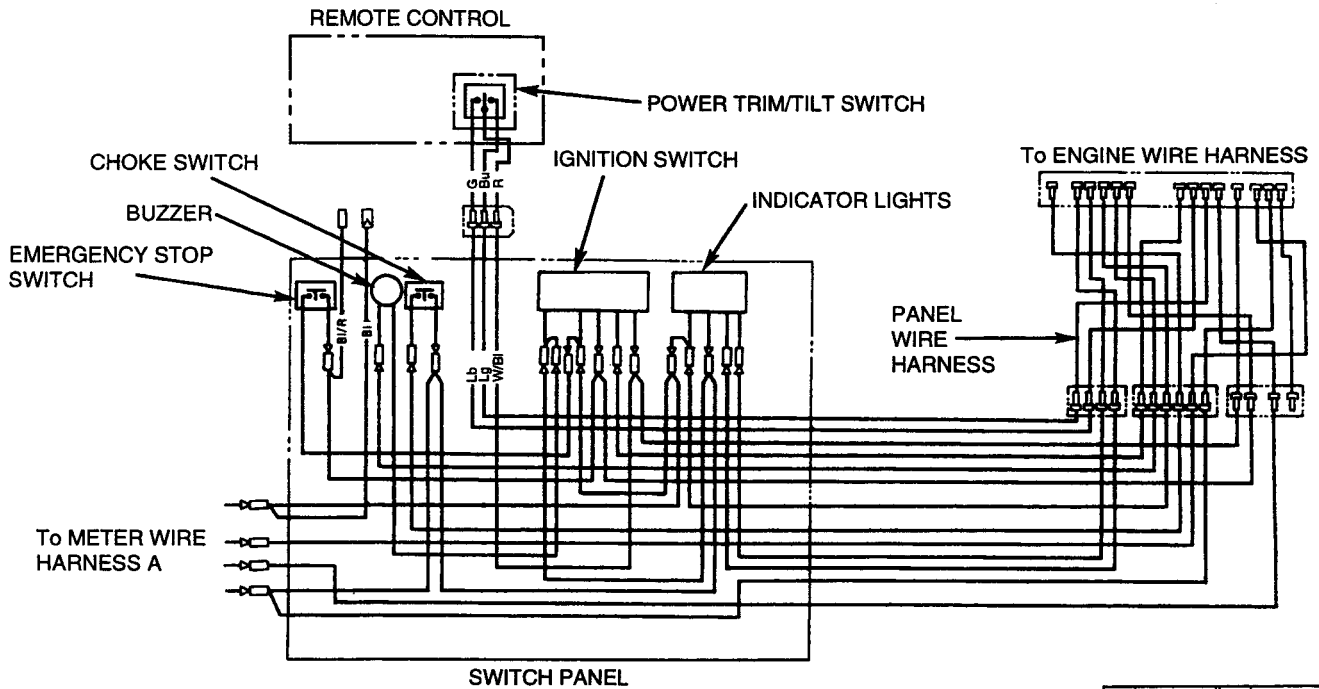


Bl	Black	Br	Brown
Y	YELLOW	O	ORANGE
Bu	BLUE	Lb	LIGHT BLUE
G	GREEN	Lg	LIGHT GREEN
R	RED	P	PINK
W	WHITE	Gr	GRAY

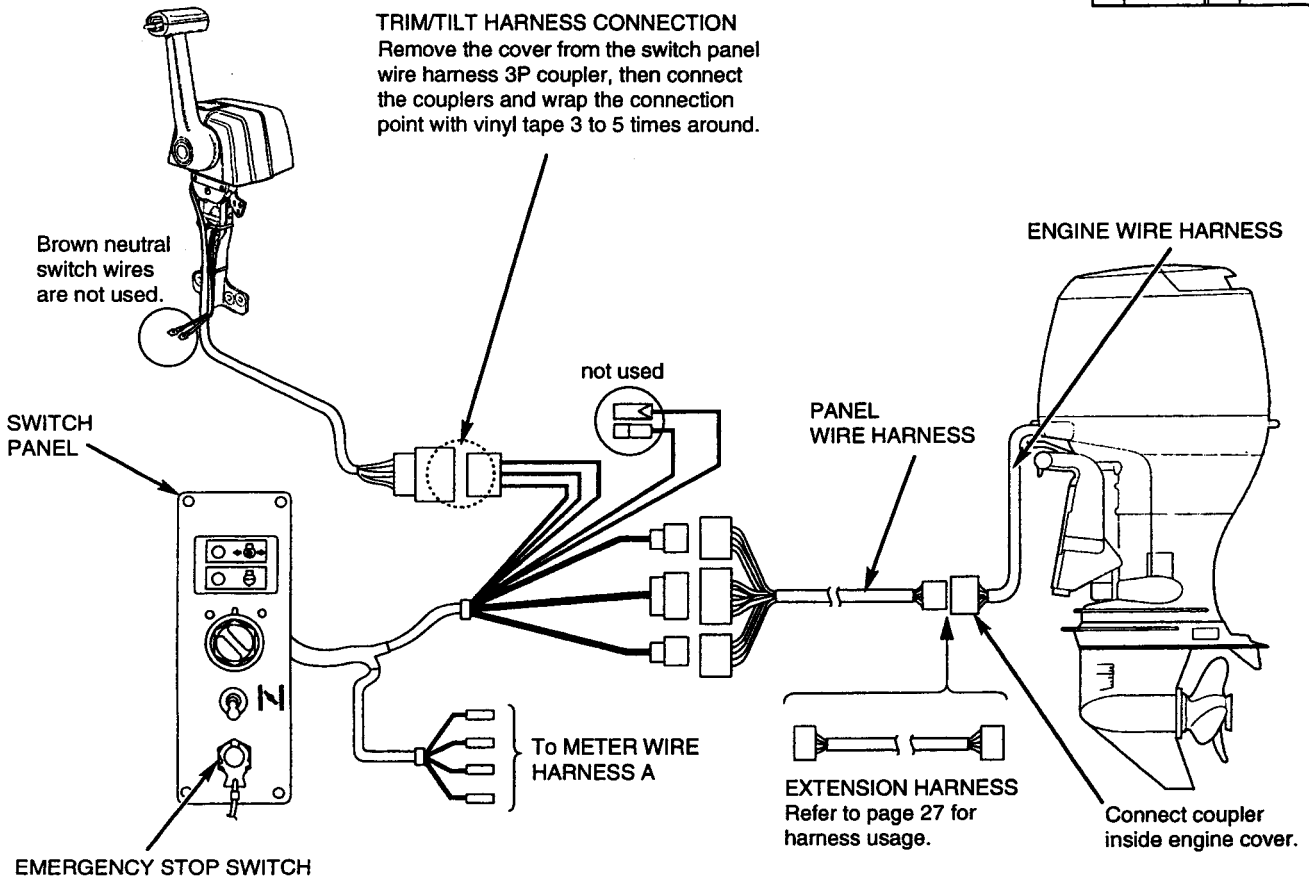
**TRIM/TILT HARNESS CONNECTION**  
Remove the cover from the switch panel wire harness 3P coupler, then connect the couplers and wrap the connection point with vinyl tape 3 to 5 times around.



## Single Top-Mount Control

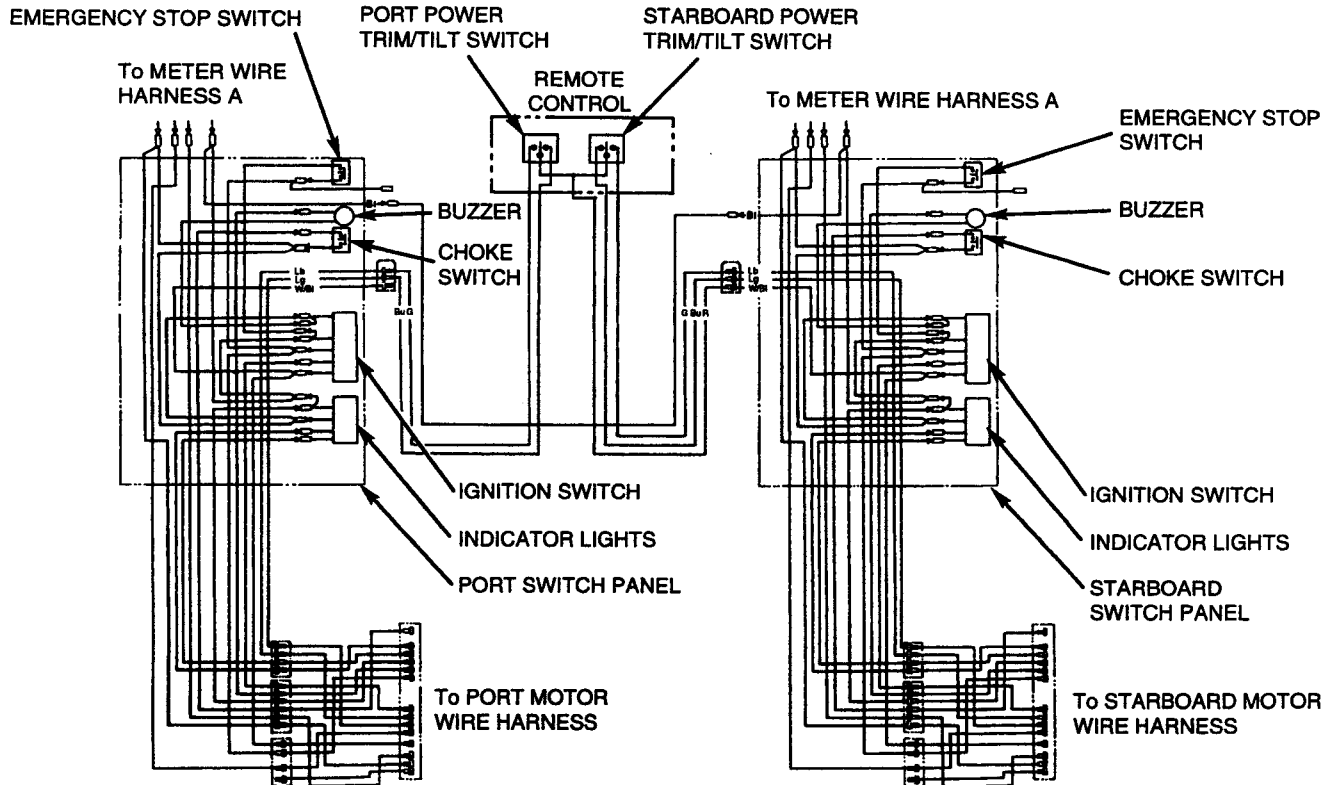


Bl	Black	Br	Brown
Y	YELLOW	O	ORANGE
Bu	BLUE	Lb	LIGHT BLUE
G	GREEN	Lg	LIGHT GREEN
R	RED	P	PINK
W	WHITE	Gr	GRAY



# INSTALLATION

## Dual Top-Mount Control

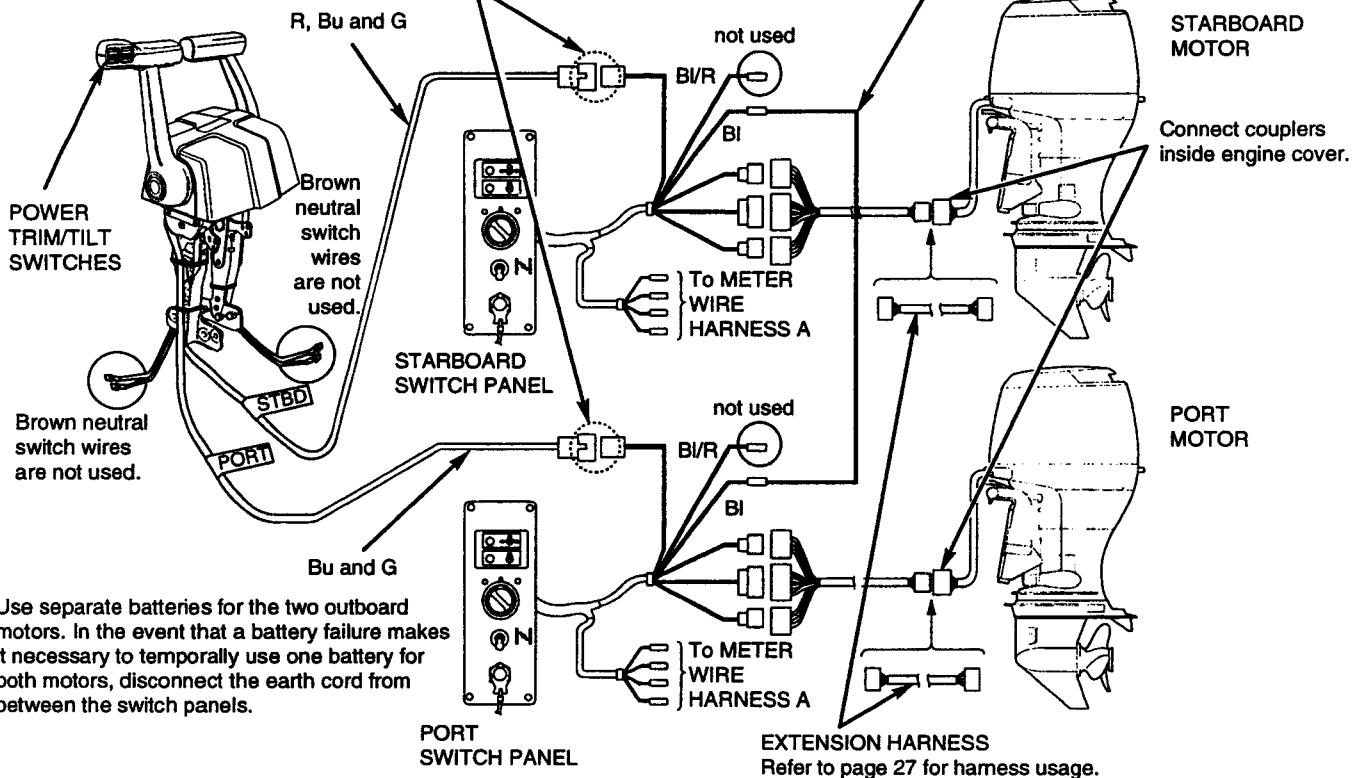


### TRIM/TILT HARNESS CONNECTION

Remove the cover from the switch panel wire harness 3P coupler, then connect the couplers and wrap the connection point with vinyl tape 3 to 5 times around.

Bl	Black	Br	Brown
Y	YELLOW	O	ORANGE
Bu	BLUE	Lb	LIGHT BLUE
G	GREEN	Lg	LIGHT GREEN
R	RED	P	PINK
W	WHITE	Gr	GRAY

EARTH CORD ASSEMBLY -- P/N 32600-ZW1-900



### HONDA PUBLICATIONS

These publications will give you additional information for maintaining your Honda outboard motor and remote control. You may order them from your Honda Marine dealer.

#### Setup and Installation Manuals

These manuals cover installation and pre-delivery service procedures for the Honda outboard motors.

#### Shop Manual

These manuals cover maintenance and overhaul procedures for a group of common Honda outboards. It is intended to be used by a skilled technician.

#### Parts Listing

These parts listings provide a complete illustrated service parts list.

### WARRANTY SERVICE INFORMATION

Honda Marine dealership personnel are trained professionals. They should be able to answer any question you may have. If you encounter a problem that your dealer does not solve to your satisfaction, please discuss it with the dealership's management. The Service Manager or General Manager can help. Almost all problems are solved in this way.

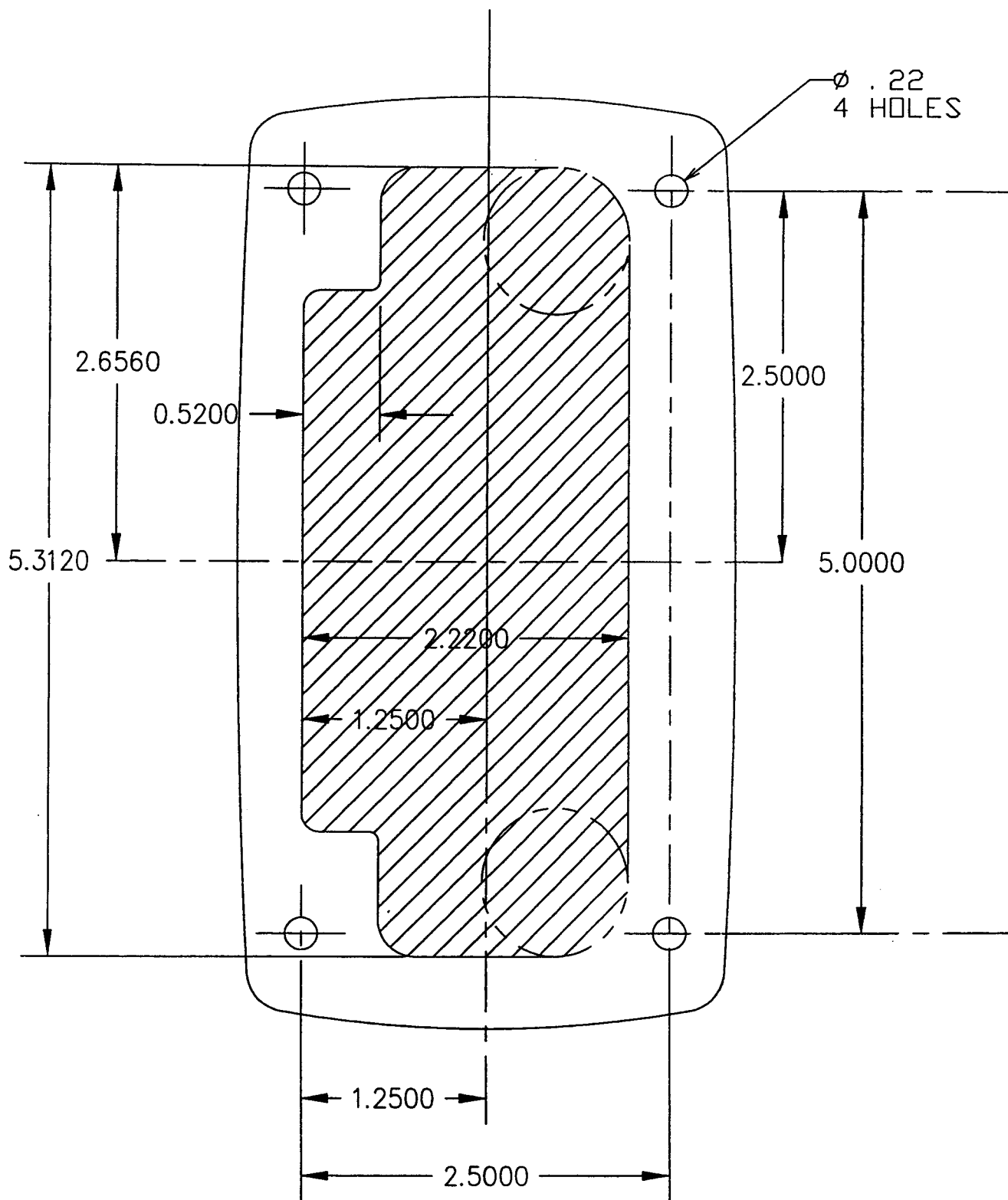
If you are dissatisfied with the decision made by the dealership's management, contact the Honda Marine Customer Relations Office.

You can write to: **American Honda Motor Co., Inc.**  
Marine Division  
Customer Relations Office  
4475 River Green Parkway  
Duluth, GA 30096-2565

Or telephone: (770) 497-6400 weekdays, 8:30 a.m. - 5:00 p.m. EST

When you call or write, please provide us the following information:

- Remote control model
- Name of the dealer who sold you the remote control
- Name and address of the dealer who services your boat and remote control
- Date of purchase
- Your name, address, and telephone number
- A detailed description of the problem



## TEMPLATES

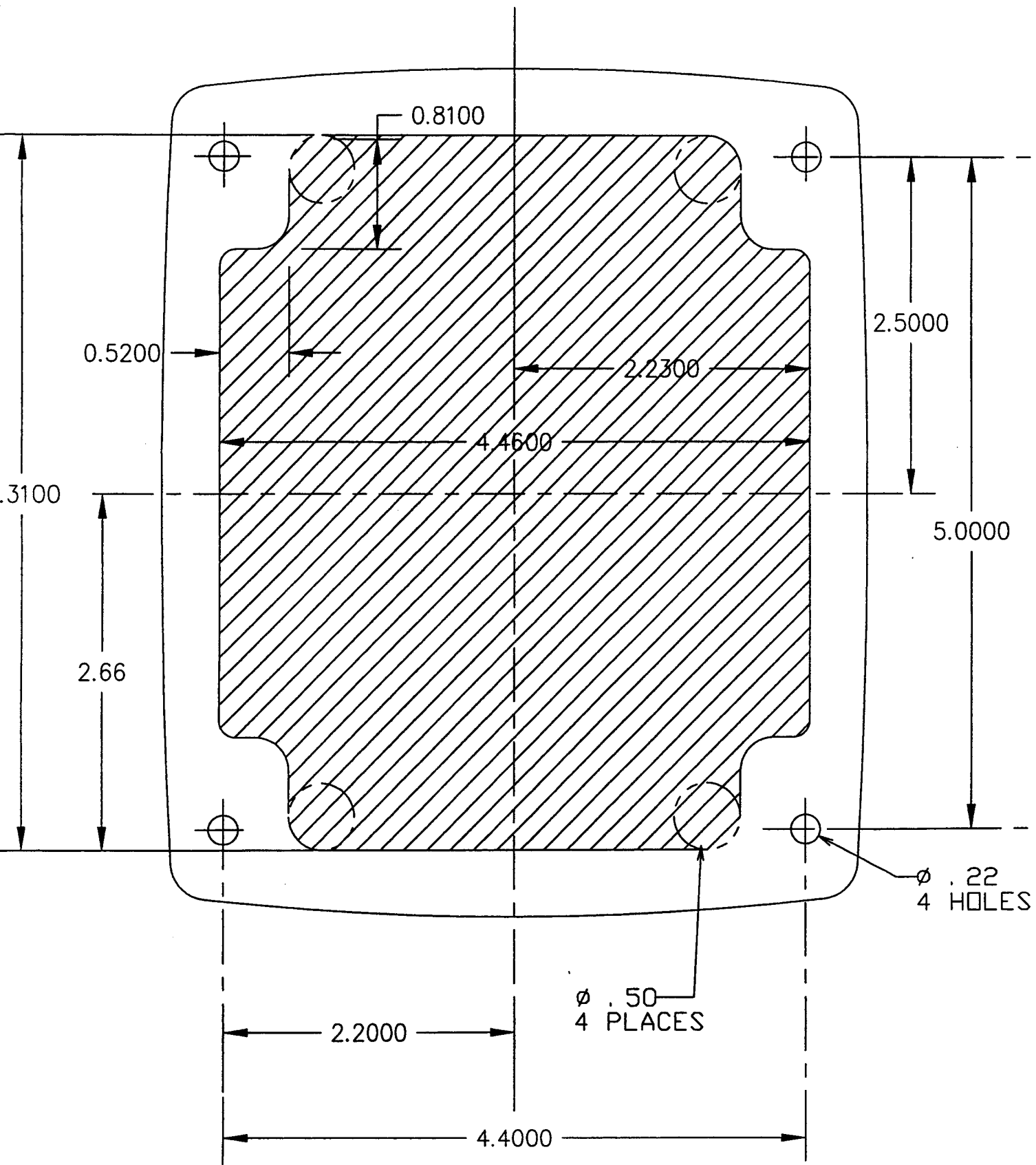
Prior to use, always measure template dimensions with a caliper or ruler to be sure dimensions are correct. Dimensions can change due to photocopying or reprinting.

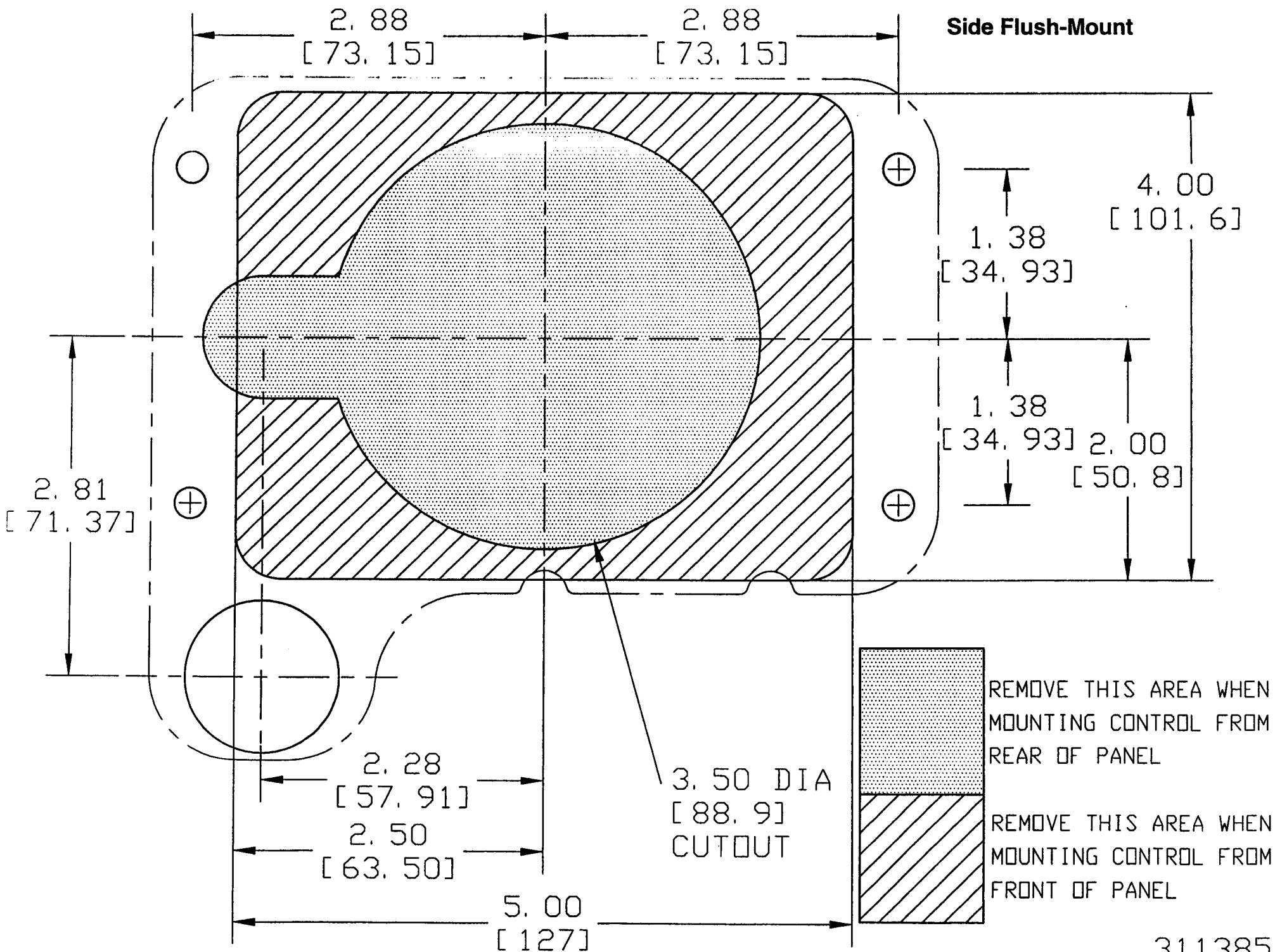
### Single Top Mount Control

309569-001



# Dual Top Mount Control





# Switch Panel

