



# PENN

## PARTS LIST FOR 520-825 SP



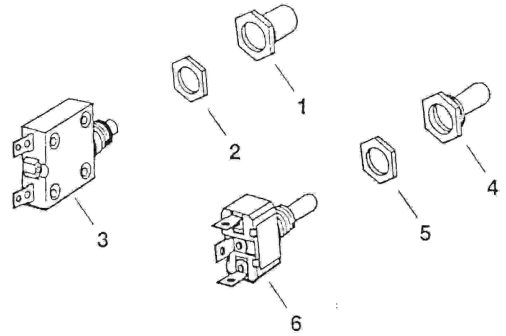
### 520-825 SP REMOTE CONTROL KIT

designed for 800/825 PENN

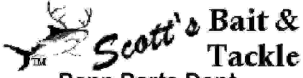
## FATHOM-MASTER®

(Black) Electric Downriggers

- Consult Dealer For Applications -



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carry anymore.

KEY NO.	DESCRIPTION	PART NO.
1	Circuit Breaker Boot	505-800
2	Circuit Breaker Nut	503A-800
3	Circuit Breaker	506-800
4	Switch Boot	504-800
5	Switch Nut	503A-800
6	Switch	503-825

# Remote Switch Mounting Instructions

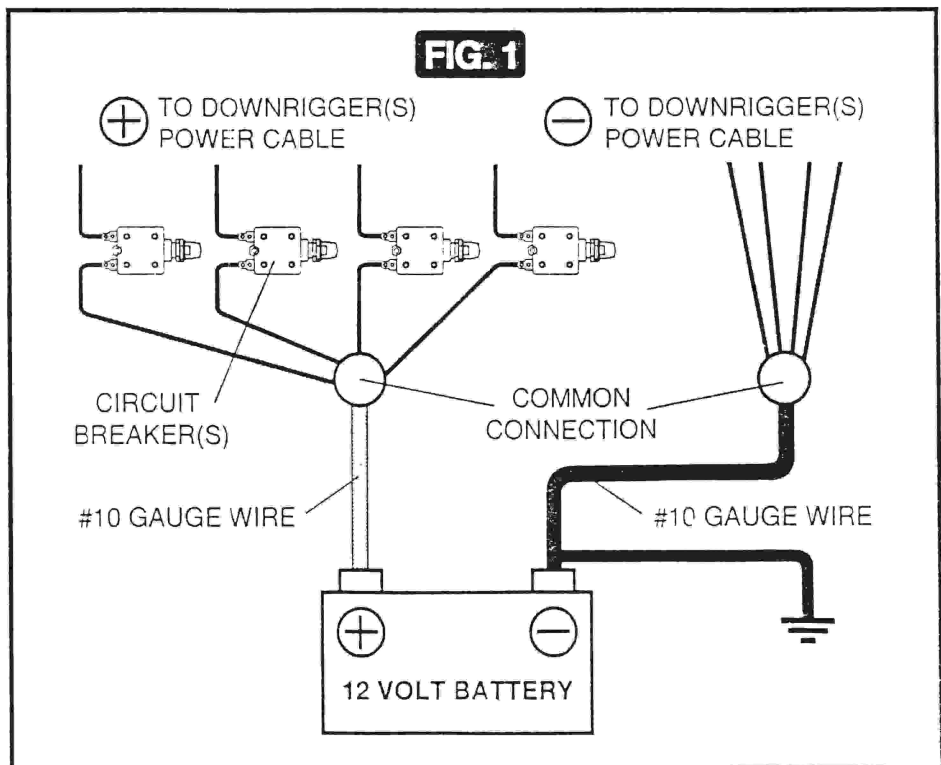
## INSTALLATION AND OPERATION

To connect the remote switch to the downrigger and ground, use #20 gauge stranded copper wire or a larger size. Use #10 gauge wire or larger on all connections between battery and downrigger. The purpose of using heavy gauge wire is to avoid voltage drop. The more voltage reaching the motor means a quicker retrieve of the trolling weight. The longer the distance the remote switch is from the downrigger and battery (actual wire length) the greater the voltage drop. If a smaller wire than #10 gauge is used, the downrigger will give sluggish performance and the motor will stall. The actual wire length is the amount of wire run from the battery to the downrigger. If the total wire length exceeds 50' (15.24M), use #8 gauge wire.

Select the remote switch location with regard to ease of operation. The switch should also be positioned so

that a minimum of side pressure is put on the toggle. The finger pressure should be directly up and down and not have a tendency to force the toggle sideways while moving the toggle.

Each downrigger must have its own switch and circuit breaker (See Fig 1). Be sure that there is enough space behind each switch and circuit breaker for wire connections.



Connect a #20 gauge wire (green) from top terminal on remote switch to green wire on downrigger power receptacle cable.

Connect a #20 gauge wire (white) from bottom terminal of remote switch to white wire on downrigger power receptacle cable.

Connect a #20 gauge wire (black) from center terminal of remote switch to any metal frame that is attached to boat's electrical ground, or directly to the ⊖ terminal of the battery. (Fig. 2)

**NOTE:** Do not use solid conductor wire. The boat's vibration may eventually break it.

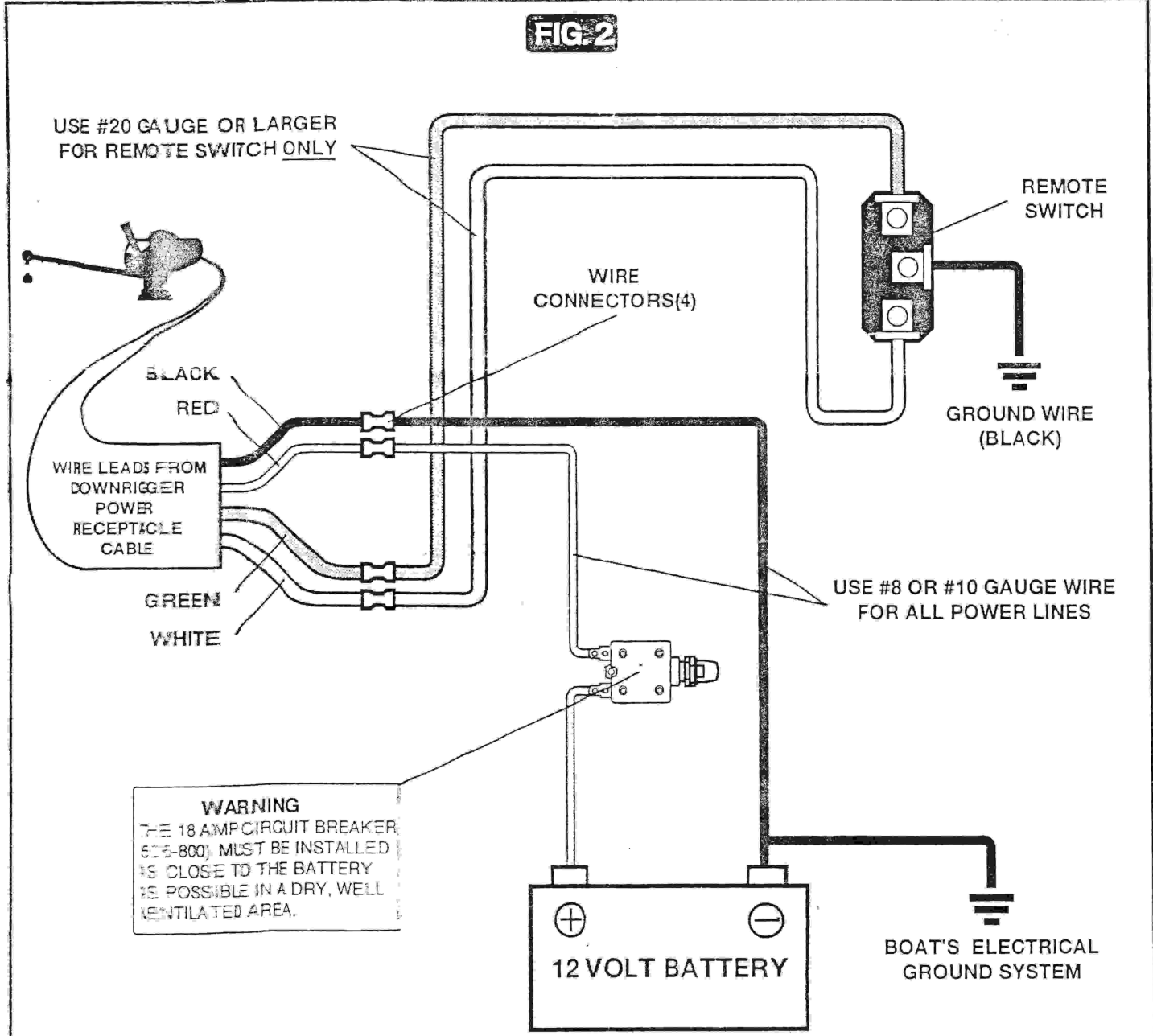
Penn suggests the following methods to connect your wiring from the battery to the downrigger and remote switch:

— Insulated ring terminals of the proper size fastened together with a short brass screw and nut. Thoroughly insulate the connections with electrical tape.

— Marine grade terminal blocks (4 position) in junction boxes.

— Insulated butt splices, wire joints, bullet connectors, tab connectors, etc. Be sure to use the proper size of connectors. Thoroughly insulate the connectors with electrical tape.

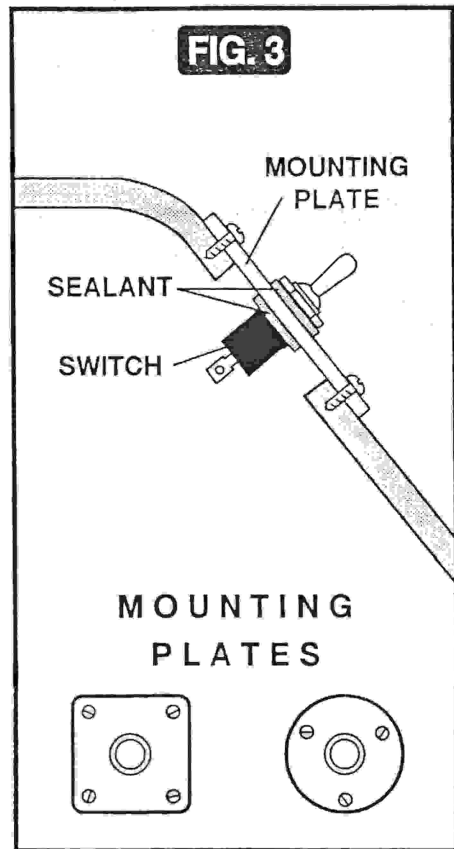
**NOTE:** The use of wire nuts is not recommended. All wire connections should be located in an area that is dry, especially if the boat is used in salt water.



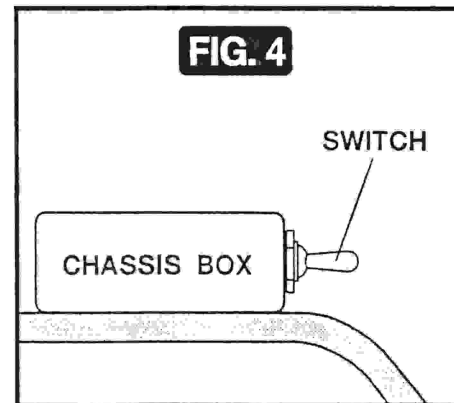
**WIRING DIAGRAM**

Because of the many different ways to install the remote switch, Penn does not furnish a mounting plate or hardware. Some suggestions to install the switch

A. A flat non-corrosive plate up to 1/8" (3.18mm) thick. This plate could be round or square. (See Fig. 3)



B. Non-corrosive chassis boxes available at electronic stores. (See Fig. 4)

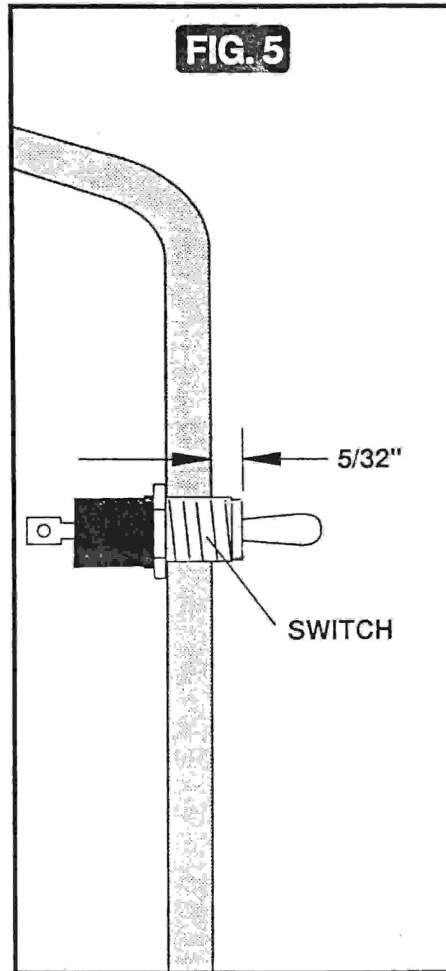


C. Non-corrosive weather-proof boxes and blank covers. See your marine dealer or electric supply store.

Whatever mounting method is chosen, the toggle stem requires a 15/32" (11.9mm) diameter hole. Do not drill any larger diameter; if the hole is oversize, water will seep past the "O" ring seal on the switch boot and eventually ruin the switch.

Do not use a 1/2" (12.7mm) diameter drill.

**NOTE:** If the switch is water damaged, the warranty is void.



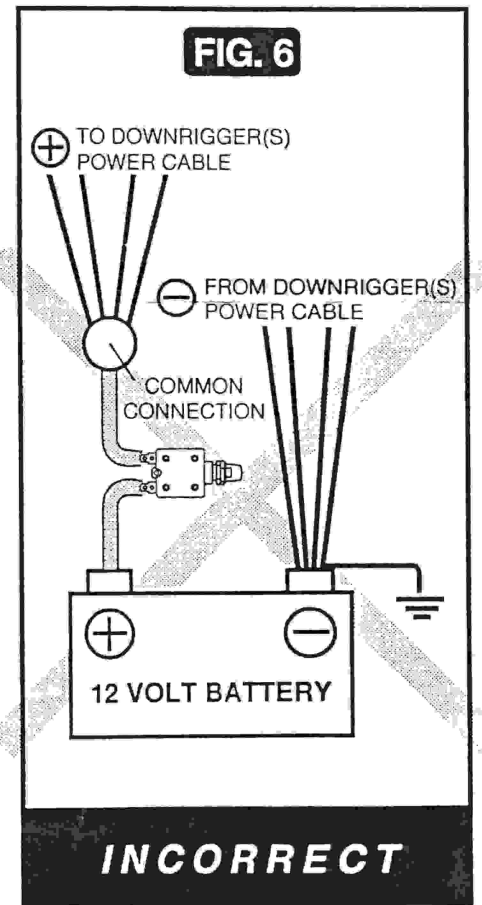
To install the switch, adjust the backing nut on the switch stem so that only 5/32" (4mm) of the stem protrudes outside the mounting surface. (See Fig. 5)

If the stem protrudes farther, the switch boot will be stretched too much.

Before installing the switch, coat the underside of the switch plate and backing nut (the side that contacts the interior mounting surface) with a silicone or latex sealant. (See Fig. 3)

For your safety and convenience, Penn uses a manually re-settable circuit breaker instead of a fuse. If a fuse blows, you have to replace it; if the circuit breaker trips, all you have to do is re-set it. (Be sure to determine why the circuit breaker tripped and take any necessary action before operating the unit again.)

The circuit breaker must be installed in a dry, well ventilated area as close to the battery as possible. The purpose of this circuit breaker is to protect the wiring that you install and the downrigger's external power cable. Failure to install the breaker could result in damage and/or fire if the cable that you install accidentally shorts out.



Each downrigger must have its own circuit breaker. Do not connect two or more downriggers to a common circuit breaker, because if the breaker trips, you will not readily know which wiring system or downrigger caused the situation. (See Fig. 6)

The switch and circuit breaker boots should be checked for cracks or tears. If they are damaged, water will enter into the switch or circuit breaker; replace immediately.

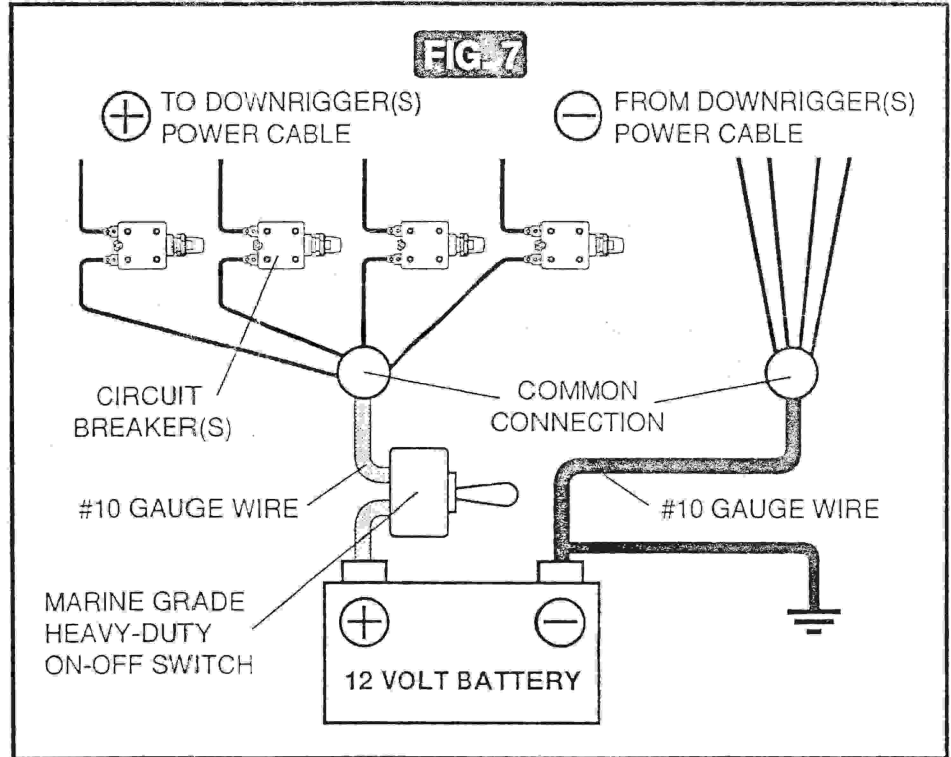
Penn does not offer this type of switch (single pole single throw). See your marine dealer or electrical

supply house for a suitable switch. (See Fig. 7)

**Note:** If the switch or circuit breaker is water damaged, the warranty is void.

**Note:** If the downriggers remain mounted on the boat between fishing trips, it is recommended that a master switch be installed. Turning off the master switch would prevent uninvited guests from accidentally turning on the downrigger(s).

The master switch must be located between the  $\oplus$  battery post and the downrigger circuit breakers in a dry and well ventilated area.



### LIMITED WARRANTY

Penn Fishing Tackle Mfg. Co. warrants your remote control switch kit to be free from defects for a period of one year from the date of purchase. This warranty does not cover damage or malfunctions caused by accident or abuse. If your remote control switch kit has a defect within terms of the warranty, you should return it to us insured at the address below. Be sure to include a note explaining the problem and a copy of the dated sales receipt from the outlet where you purchased the item. To avoid error be sure that your name, address and note is clearly and neatly written. Please include your telephone number and area code.

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### PENN FISHING TACKLE MFG. CO.

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