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PORTA HYDRAULIC TRANSOM BRACKET **INSTALLATION INSTRUCTIONS**

DO NOT USE
AUTOMATIC TRANSMISSION FLUID!!
Do not use fluids with red dyes!

IMPORTANT: Do not operate Porta Bracket or remove aluminum spacer brackets until Porta Bracket is installed on boat. Installation of the Porta Bracket without spacer brackets in the factory setting will result in loss of operating travel and may cause damage to the bracket and or the boat.

1. Center the Porta Bracket on transom.
2. Using the Porta Bracket as a template, mark the six (6) top bolt holes and four (4) bottom bolt holes (two (2) on each end) on the transom.
3. Remove Porta Bracket and drill holes. Holes **MUST BE** drilled perpendicular to transom surface for proper installation of back-up plates.
4. Coat transom contact area of bracket with a suitable adhesive sealant. Use a minimum strength of 304 1/2" stainless steel bolts with sealant and mount Porta Bracket on transom. * Transom must be flat for the Porta Bracket to operate without binding. Be sure to use back-up plates provided inside the boat. **Failure to use back-up plates may cause transom damage.**
5. Install pump inside the boat. Mount the unit securely in a vertical position with the motor UP.

6. The pump ports are embossed UP & DN. Using the holes provided, connect the UP port to the base of the cylinder. Connect the DN port to the rod end of the cylinder. Tighten gently to seal the system temporarily.

Fill pump reservoir with **10w30 or 30W motor oil, Hynautic or Seastar steering fluid** or any hydraulic oil with a viscosity range of 150-300 SSU at 100 degrees F.

**** We do not recommend the use of transmission fluid except in an emergency situation. ****

In most applications, the pump is self priming. Operate the Porta Bracket UP while keeping reservoir filled. If the bracket does not travel fully **UP**, STOP! Check reservoir oil level. Operate the pump DOWN until Porta Bracket stops moving. Do not add fluid to the pump on DOWN stroke. After cycling the Porta Bracket three (3) times, if the system has not purged or is not running smoothly through its full stroke it will be necessary to bleed off trapped air from the rod end of the hydraulic cylinder. Gently loosen the DOWN hose from the top (rod end) of the cylinder about ¼ turn. Operate system in the UP mode until air has escaped and oil comes out of the fitting. Tighten fitting, cycle the Porta Bracket 2 or 3 times. Tighten all hose connections. Check reservoir **with** the Porta Bracket in the full DOWN position (cylinder fully retracted) and fill to proper maximum level.

7. Mount control switch to dash (use pump wiring diagram provided). Connect pump solenoid: BLUE to “UP” side of switch, and GREEN to “DOWN”. Wires to battery: RED to POSITIVE, and BLACK to NEGATIVE. Wires to switch should be 14 GA or heavier. Wires to battery should be 10 GA or heavier. If using a circuit breaker, **use minimum 60 amps.**
8. Remove the two (2) aluminum spacer brackets. Replace button head bolts.

Mounting location instructions are given for general service oriented applications. Some brackets may need to be mounted higher or lower due to transom limitations or performance requirements. The following are a few points to remember during installation.

1) On 20" motors, install the Porta Bracket so its bottom surface is parallel to the boat bottom and just above the water surface at wide-open throttle. This provides maximum lift with no top end drag.

2) Engines with low water pick up nosecones can be bolted high on the Porta bracket, reducing gearcase drag and improving performance.

3) Like power trim and tilt, the Porta Bracket provides lift beyond the operation range of an outboard. For this reason, we recommend installation of early warning devices for detecting overheating conditions. Such as "hot horns", water, and temperature gauges.

** On some motor installations, there are areas where parts of the outboard or steering components may interfere with the Porta Bracket travel. Before using outboard motor trim or Porta Bracket, have someone at the helm operate all hydraulic systems slowly to their extremes while another watches the Porta Bracket, motor trim, and steering system for obstructions. Areas to watch closely are:

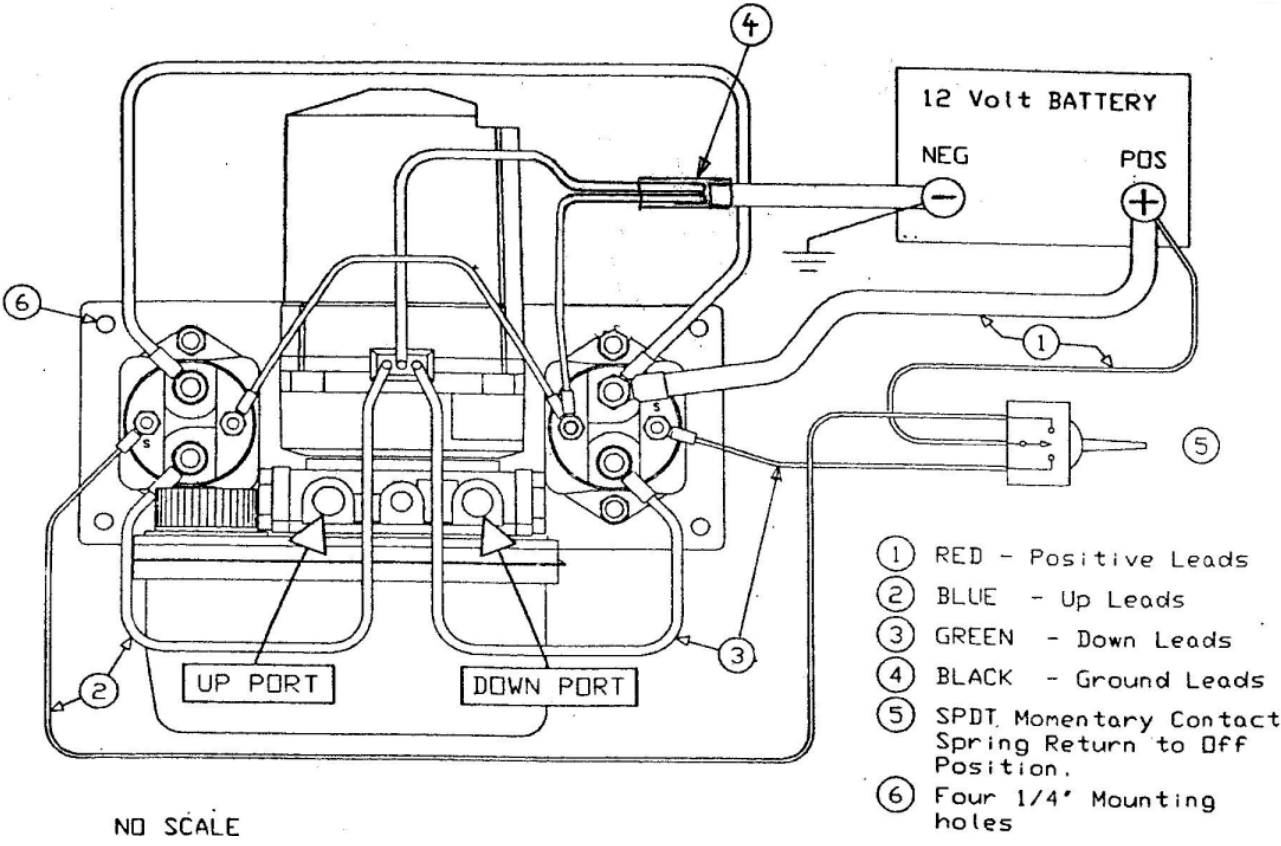
- 1) Cavitation plates on outboards that extend forward of the leading edge of the gearcase.
- 2) Add-on nosecones on lower units.
- 3) Front mounted steering components.
- 4) Zinc Anodes at the bottom of clamp bracket assemblies
- 5) Newer 4 stroke outboards with a tall clamp bracket assembly.

For example, on the 225 Yamaha you must use the second set of mounting holes down, with the zinc anode removed.

** Due to their added weight and leverage, all 30" shaft motors of any H.P., and all 4 stroke outboards over 250 hp regardless of shaft length, must be mounted only on the V8 model Porta Brackets.

If you have any questions regarding the installation of the Porta Bracket please call us at (386) 428-7417 (after hours 386-795-3195). We will be happy to assist you with any problems you may have. Thank you for buying Porta Products.

Hydraulic Pump Wire Diagram



- ① RED - Positive Leads
- ② BLUE - Up Leads
- ③ GREEN - Down Leads
- ④ BLACK - Ground Leads
- ⑤ SPDT. Momentary Contact
Spring Return to Off
Position.
- ⑥ Four 1/4" Mounting
holes