



## **TM216HWKIT\* INSTALLATION GUIDE**

**Mercury 9.9, 15 & 20 HP EFI 4-Stroke 2019 – Present**  
**Tohatsu 9.9, 15 & 20 HP EFI 4-Stroke 2019 – Present**

**For 9.9 HP engines model year 2025 and newer, start on page 6.**

\*This kit fits both Remote Shift & Throttle and Tiller Handle motors

TrollMaster is a precision throttle control designed to achieve the maximum in trolling speed accuracy. The memory feature included in this control will allow returning to the best fishing speed time and time again.

Whether you are pulling your bait or back trolling, TrollMaster is the answer to your speed control needs. Spend your time trolling, not going to the motor to adjust the speed.



**This product is designed for use on trolling motors 20hp or less only.**

**Failure to follow installation instructions may result in fluctuation in speed and responsiveness.**

**Please ensure that you follow all instructions completely to safeguard against any improper functioning and control.**

**This product is recommended to be installed by a qualified marine service center.**

**For technical help or warranty assistance, please call 1-877-938-9766 before removing installed product from boat.**



**PLEASE NOTE: This product must be used in accordance with Section 503 of the Coast Guard Authorization Act, requiring the use of an Engine Cut-off switch (ECOS) when this product is in use. As such the ECOS must also be attached to the operator of the vessel with a lanyard at all times while in use.**

## **01. PREPARATION AND INITIAL SET UP**

### **Connecting to a Power Source:**

Prior to running the wiring through the boat it's advised that you test the TrollMaster electronics by hooking to a power source, turning the controller on, plugging in the TrollMaster servo motor and if you have the TrollMaster PRO3 PLUS or ProAngler and you purchased the Panther Electro Steer to steer your kicker motor, plug in the Electro Steer and test that as well to be sure everything works properly prior to final installation. See operating instruction for further details on operating these devices.

Hook the TrollMaster to your 12 volt power source; Red wire to +12 volts DC and the Black wire to -12 volts DC. Best results are obtained when the TrollMaster device is on its own battery and not connected to the same battery as the outboard motor.

### **1.1 The following hand tools are recommended for this installation:**

- 8mm Combination Spanner
- 10mm Combination Spanner
- 11mm Combination Spanner
- Flat Bladed Screw Drive
- #Needle Nose Pliers & Wire Cutter
- 4 x Cable Ties (4-6")
- Tape measure or ruler

### **1.2 Preparation of Servo Cable Assembly**



1.2.1 Install supplied hex bolt into hole shown



1.2.2 Mount servo motor into bracket as shown noting hole selection and orientation.



1.2.3 Remove Servo Arm from motor by removing the center screw and pulling the arm away from the motor. Reinstall the arm onto the splined hub indexing as shown.

Retighten the servo arm screw and thread the wire through the brass eyelet at the end of the servo arm. Do not tighten the cable lock screw at the point.

## 02. THROTTLE LINKAGE SET UP PART 1



2.1 Locate throttle linkage on starboard side of engine.



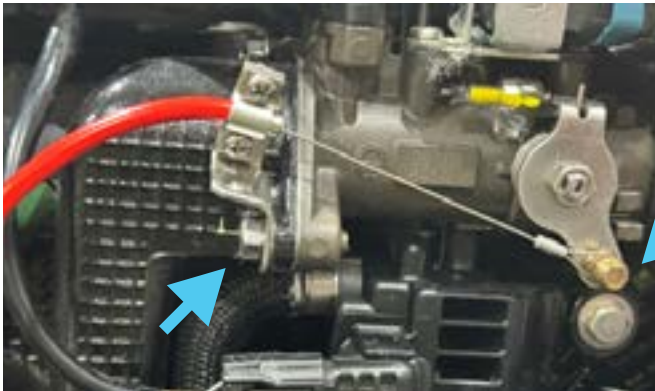
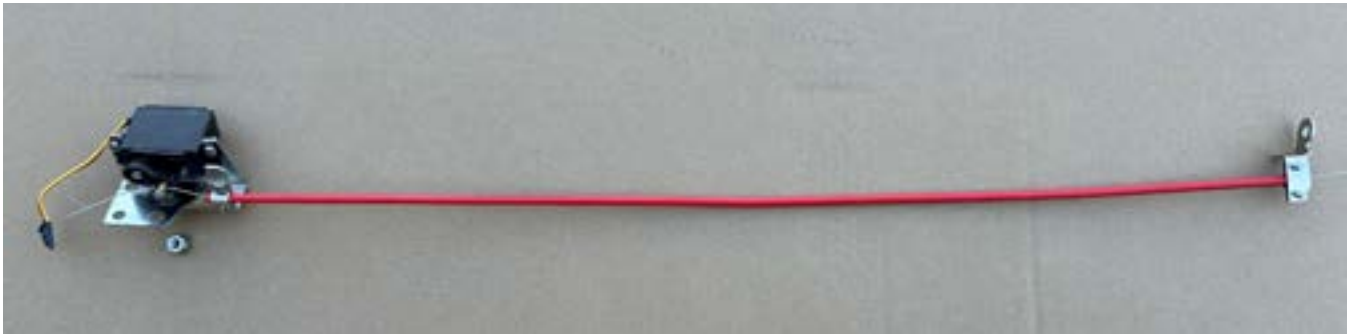
2.2 Remove throttle arm from engine pivot points by pulling firmly at each end. Once off, measure center to center distance and note value for future reference.



2.3 Remove plastic end from throttle arm and transfer it to the supplied replacement along with the jam nut. Save original throttle arm.

# 03. SERVO MOTOR MOUNTING

3.1 return to servo and cable assembly from step 1.2.3



3.2 Mount opposite end of cable to existing bolt stud as shown and tighten with 10mm wrench. Loop cable eye over engine's throttle arm pivot as shown.



3.3 Draw cable back at servo end to remove slack while ensuring engine throttle arm is resting against idle adjustment screw as shown. Tighten jam screw on servo arm to secure cable adjustment.



3.4 Anchor cable permanently by adding cable ferrule and crimp firmly while ferrule is butted against brass cable eye. Crimp using 22-18 Ga crimping tool or pliers ensuring connection is secure. Cut off excess cable.



3.5 Mount servo bracket to forward face of lifting eye. Adjust position to ensure servo motor body does not contact the plastic pull cord cover. Use a flat blade screw driver as wedge between bolt head flats and inside corner of bracket and tighten nut with 11mm wrench.



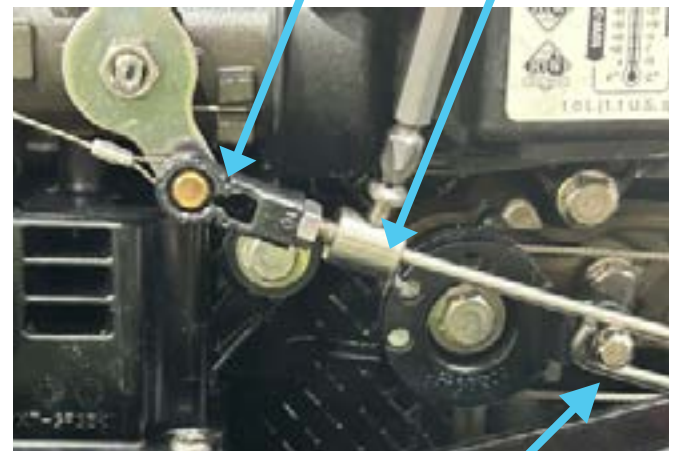
3.5.1 Contact between metal bracket and plastic rib on engine's pull cord cover is acceptable and helps to lock bracket in set position. See arrow.

## 04. THROTTLE LINKAGE SETUP PART 2

4.1 Install new throttle arm assembly from step 2.3 and adjust length to ensure formed end just contacts pivot shaft.

Length adjustment Feature 1.

Length adjustment Feature 2.



Adjust length to ensure contact here.

## 05. SERVO CABLE ROUTING



5.1 Route Servo lead wire through rubber grommet on engine cowl and route it up toward the servo motor ensuring it stays clear of high voltage wires such as spark plug lead wires and ignition coil wires.



5.2 Connect servo lead wire from controller to servo motor cable whip and secure to Forward-Neutral-Reverse cable using cable ties.

## 06. TM217HWKIT SUPPLEMENT

The TM217HWKIT supplement was incorporated into the TM216HWKIT kit to accommodate changes in engine configurations starting in model year 2024. This supplement is applicable to certain configurations of Mercury/Tohatsu EFI engines 8HP & 9.9 HP.

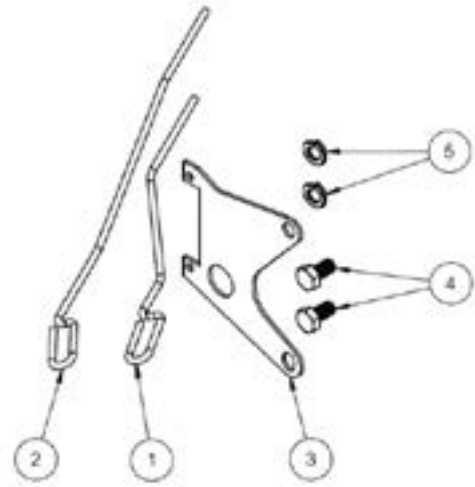
The main change with this supplement is that it locates the throttle servo on the port side of the engine rather than on the lifting eye at the top of the engines. The supplement also includes two additional throttle link options depending on if the engine has remote or tiller throttle control.

The installer should familiarize themselves with the original TM216HWKIT instructions presented in above in sections 1 through 4 and only make adjustments to use TM217HWKIT parts if necessary.

Servo wiring must be routed to avoid close proximity to high voltage EMI sources such as ignition coil wires and spark plug wires. Do not tie wrap servo lead to any high voltage wire.

**TM217HWKIT Parts included:**

1. TMTL217R Throttle Linkage – Remote Shift (Qty 1)
2. TMTL217 Throttle Linkage – Tiller Control (Qty 1)
3. TMSB217 Servo Bracket (Qty 1)
4. Fastener M6x1.0 x 12L SS18.8 (Qty 2)
5. Lock Washer M6 (Qty 2)



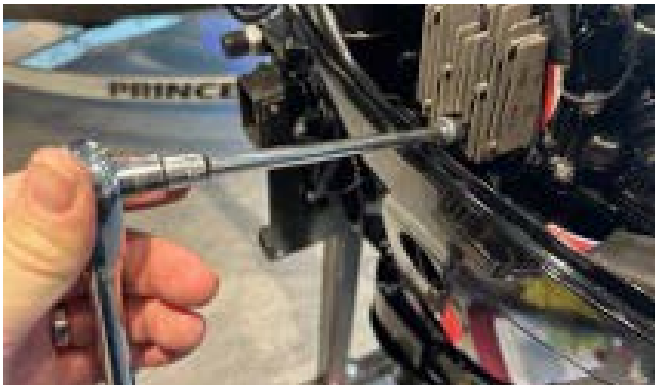
6.1 Servo bracket 3 (TMSB217) is to be used in conjunction with the servo bracket described in above section 1.2 and affixed to the port side of engine using two bolt holes used to attach the voltage regulator as shown:



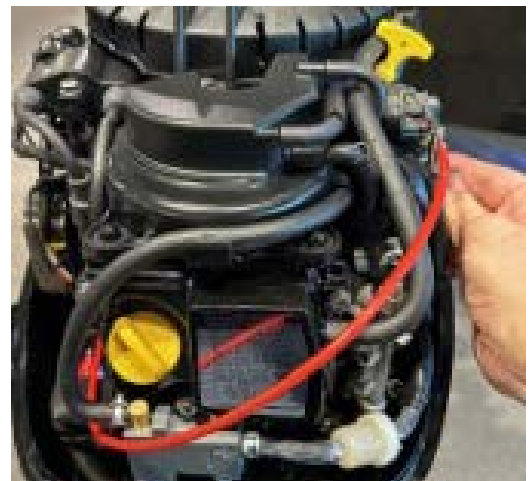
6.2 If engine does not have electric start, then servo bracket can be directly bolted to the two M6x1 holes indicated below:



6.3 If the engine has electric start, then the voltage regulator must be removed so the bracket can be installed behind the regulator such that it is sandwiched between the engine and the back of the regulator when the regulator is reattached. See voltage regulator removal below:



6.4 Servo bracket and throttle cable assembly installed on port side of engine with electric start. Throttle cable is routed around to starboard side of engine as shown below:



6.5 Replace engine throttle linkage with appropriate variant from kit (item 2 or 3). New throttle linkage is slotted where it connects to mushroom headed pivot pin on throttle body. Ensure new linkage does not fall off pin easily. Use needle nose pliers to pinch in the sides of the wire slot to ensure a snug fit over the pin while still allowing it to slide freely.



6.6 Tie down red throttle cable with zip ties so it does not rub on engine cover when it is reinstalled. Likewise tie down servo wire to ensure it is secure and not free to move around while also ensuring it is routed away from sources of high EMI such as ignition coil wires and spark plug wires.

# TROLLMASTER REPLACEMENT PARTS:

- **TrollMaster Servo Motor (TMMG1)**

Note: A Servo Arm is included with the purchase of a replacement Servo Motor.

- **TrollMaster Hardware Kit (TMXXXHRDWRKIT)**

Note: Replace the XXX with the Kit number that applies to your outboard motor. See the Application Guide for kit number. Example: TM216HRDWRKIT.

- **To Order Replacement Parts:** If you would like to order any of the above mentioned replacement parts check with your local retailer, if they do not have the item in stock they can order it for you or you can order from us directly. For pricing and availability call 1-877-938-9766 or email [sales@cmpgroup.net](mailto:sales@cmpgroup.net).

## SERVICE AND WARRANTY

Should your unit ever require service, please **do not return the product to your dealer!** Instead, call the number below for special instructions on shipping and handling. Be sure to call between 8:00 AM and 8:00 PM ET Monday through Friday. If the service required is covered by the warranty, it will be repaired or replaced as described below. If the service required is not covered by warranty (such as damage caused from improper trailering or from water intrusion, replacement parts are available for purchase and may be paid for by Visa, MasterCard or Discover.

The warranty coverage on this equipment is limited to the terms set forth below:

CMP Group LTD. warrants this product to be free of defects in material and workmanship for a period of ONE (1) YEAR from the date of original retail purchase. **Positive proof of date of purchase is required for warranty service.** If the service required is covered by warranty, the unit will be repaired or replaced with new or factory rebuilt parts at no charge. The defective components must be returned to the address specified, with shipping charges prepaid. Be sure to include your name, address, telephone number and a copy of the sales receipt showing the date of original retail purchase. All sales receipts are subject to verification.

This warranty does not apply if the unit has been damaged by accident, abuse, misuse, poor installation or misapplication, or if it has been modified from its original condition, or if any serial number has been removed or defaced or altered. **This warranty does not cover any expense to remove or reinstall the unit or any of its components.** If a returned unit is not covered by warranty, the sender will be notified and given an estimate of the charges to repair or replace the unit, together with the return shipping charges.

THIS WARRANTY DOES NOT COVER SPECIAL, INCIDENTAL, OR CONSEQUENTIAL DAMAGES RESULTING FROM ANY BREACH OF WARRANTY, OR UNDER ANY OTHER LEGAL THEORY, INCLUDING BUT NOT LIMITED TO DAMAGE TO OR REPLACEMENT OF OTHER EQUIPMENT AND PROPERTY. THE WARRANTY AND REMEDIES SET FORTH ARE EXCLUSIVE AND IN LIEU OF ALL OTHERS, WHETHER ORAL OR WRITTEN, EXPRESS OR IMPLIED. DUE TO THE SPECIAL AND UNIQUE CONDITIONS THAT MAY EXIST IN EACH APPLICATION, THE MANUFACTURER SPECIFICALLY DISCLAIMS ANY AND ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. NO DEALER, AGENT OR EMPLOYEE IS AUTHORIZED TO MAKE ANY MODIFICATION, EXTENSION OR ADDITION TO THIS WARRANTY.

Some states do not allow exclusion of incidental or consequential damages, so the above exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other legal rights, which may vary from state to state.

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