

Replacement Installation Instructions:

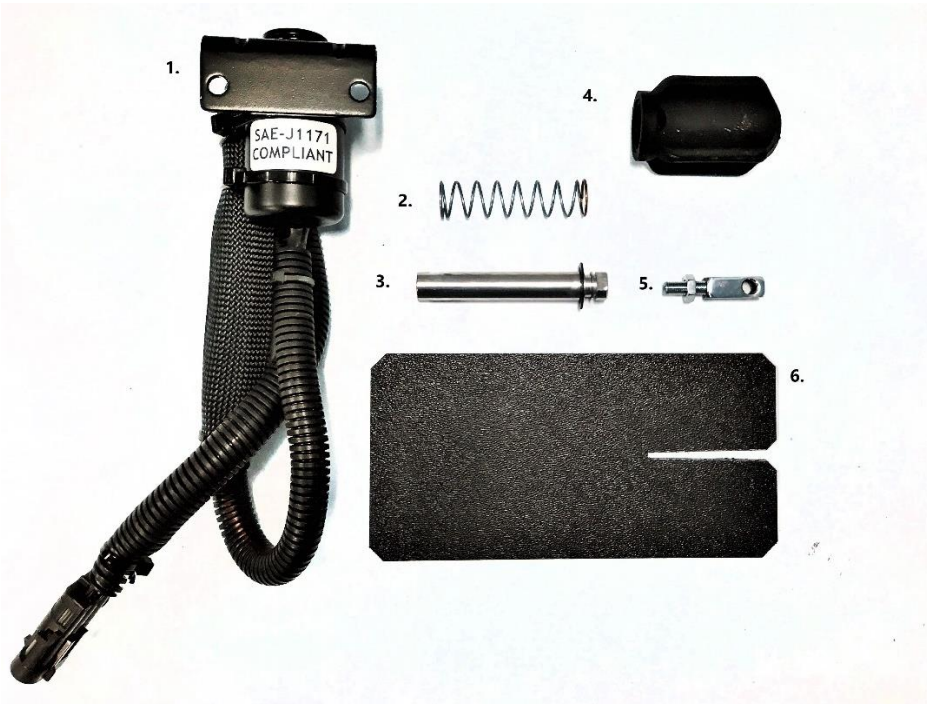
• **10875 Replacement Solenoid/Actuator**

Carefully read the following instructions and at any point you have a difficulty or need clarification, please contact us at:

- 800-486-0999 Monday thru Friday 8A.M. to 5P.M. EST.
- Email your technical questions to marine_techsupport@tmgperformance.com.

****Please note that the diverter can be shipped in for repair at the manufacturing facility for your convenience. Just contact CORSA Performance Marine to receive an RGA (return goods authorization number) prior to sending back.**

Parts Breakdown for 10875:



- 1. Body
- 2. Spring - 10173
- 3. Plunger - 10171

- 4. Boot - 10173
- 5. 3/8" Square assm.
- 6. Alignment Tool - 10114

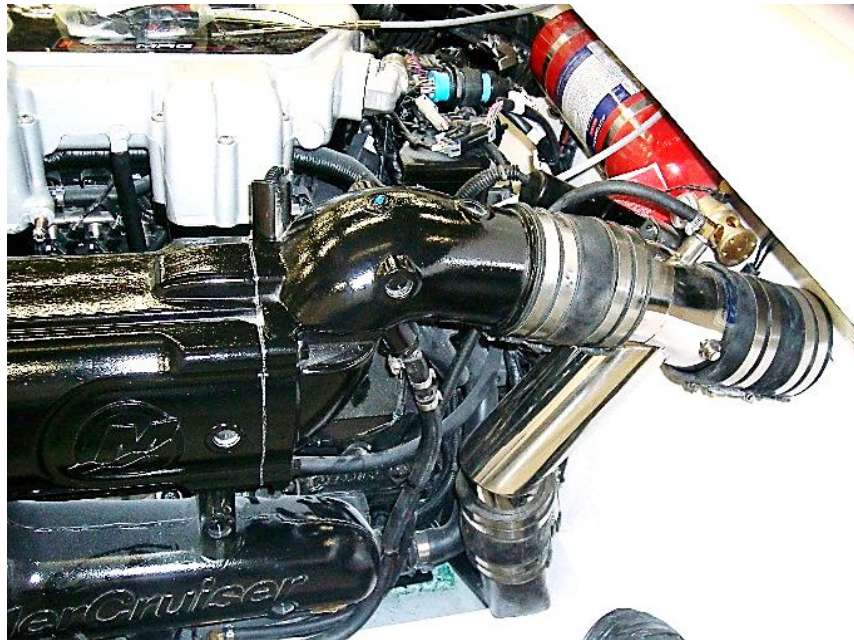
Recommended Tools:

- 3/16 Allen Wrench T-handle style or socket style
- 5/32 Allen Wrench T-handle style or socket style
- 7/16 Open ended wrench
- 3/8 Open ended wrench
- Standard screwdriver or 5/16 nut driver
- Thread lock (Loctite) Red preferred
- Alignment tool 10114, Supplied with kit
- Silicone compound -dielectric product

⚠ Please take time to read and understand these installation instructions. ⚠

Step 1: Diverter Removal

- A. **⚠** Disconnect engine battery to ensure system is not energized
- B. Unplug the solenoid from the wiring harness





- C. Remove diverter from the engine by loosening the hose clamps with either the standard screwdriver or the 5/16 nut driver.

* Hose may be difficult to remove *

Step 2: Solenoid Removal

- A. After removing the diverter from the engine unbolt the solenoid from the diverter using the 7/16 wrench and a 3/16 Allen wrench.
- B. If the solenoid is equipped with an extension bracket, unbolt the solenoid from the extension bracket.
- C. Remove e-clip from pin on linkage to fully disconnect the solenoid from the diverter
 - a. *retain parts for installation of new solenoid*

 **DO NOT** remove the extension bracket from the diverter (if equipped) 
retain nuts and bolts for later use



Step 3: Installation of New Solenoid Without Extension Bracket

- A. Place a drop of thread lock on the end of the Allen bolts and position the new solenoid onto the diverter
- B. Add thread lock to 3/8" Square assm. And install on solenoid
- C. Assemble the nuts to the Allen bolts but do not tighten completely
- D. Align 3/8" Square at the end of the solenoid between the transfer links
- E. Install pin and hardware as shown, install e-clip to secure hardware
- F. Proceed to Step 6 solenoid alignment and setup.



Step 4: Installation of New Solenoid with Extension Bracket

- A. Install new solenoid onto extension bracket apply thread lock to bolts and lightly bolt together
- B. Place a drop of thread lock on the end of the Allen bolts and position the new solenoid onto the diverter
- C. Add thread lock to 3/8" Square assm. And install on solenoid
- D. Assemble the nuts to the Allen bolts but do not tighten completely
- E. Align 3/8 square at the end of the solenoid between the transfer links
- F. Install pin and hardware as shown, install e-clip to secure hardware
- G. Proceed to Step 6 solenoid alignment and setup.



With Extension Bracket



Without Extension Bracket

Step 5: Aligning the Solenoid

****DO NOT*** tighten solenoid hardware yet*

- A. Manually operate the solenoid to ensure movement is smooth and free from binding
- B. If binding is present, make the necessary adjustments to make operation smooth
- C. If needed bracket can be bent to achieve proper alignment
- D. After aligning the solenoid, completely tighten all the nuts and bolts and manually check operation again

⚠️ Apply thread lock to hardware ⚠️



****Poor Alignment****



****Good Alignment****



⚠️ ***Failure to align the solenoid will result in erratic operation and failure*** ⚠️

Step 6: Valve Adjustment



To complete this step, the exhaust harness and battery must be connected.



Normal Acting Diverters:

- A. Energize the diverter so the valves are in the open position.
- B. Using the alignment tool (10114 included in replacement solenoid 10875)
 - i. Slide the tool into the inlet side of the diverter pipe.
 - ii. The slot in the tool should slip over the valve for correct alignment.
 - iii. If it does not align correctly, unplug the harness from the solenoid and adjust as follows:
 - A. Loosen the jamb nut located on the solenoid near the rubber boot, using a 7/16 wrench.
 - B. Position a 3/8 wrench on the flats of the solenoid plunger to extend or retract the amount of threads shown. This will in turn adjust the position of the valve disc on the inside of the exhaust pipe.
 - C. Reinstall the alignment tool to confirm the correct positioning of the valve disc.
 - D. Repeat until the valve disc is aligned with the slot on the alignment tool.
 - E. Retighten the jam nut against the solenoid plunger with a 7/16 wrench.



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 If the valve is not correctly aligned, the force of the exhaust gases pushing on the valve could cause premature failure 

Reverse Acting Diverters:

- A. Energize the diverter so the valves are in the closed position.
 - i. Ensure a 1/16" gap between the valve and the inner diameter of the tube.
 - ii. If solenoid pulls in and then releases, unplug the harness from the solenoid and adjust as follows:
 - A. Loosen the jamb nut located on the solenoid near the rubber boot, using a 7/16 wrench.
 - B. Position a 3/8 wrench on the flats of the solenoid plunger to extend or retract the amount of threads shown. This will in turn adjust the position of the valve disc on the inside of the exhaust pipe.
 - C. After a small adjustment, about a 1/2 turn check the valve disc clearance with the solenoid on.
 - D. Repeat until the proper valve disc clearance has been obtained.
 - E. Retighten the jam nut against the solenoid plunger with a 7/16 wrench.

Step 7: Solenoid Boot Inspection

 Please take a moment to inspect the solenoid boot for compression from shipping. 



Boot compressed solenoid will not work correctly and spring can be seen.



Boot is **not** compressed and spring can not be seen.

Step 8: Reinstalling Diverters

- A. Make sure mating areas are cleaned and free of any debris.
- B. Reinstall diverters as originally positioned and tighten all hose clamps.



- C. Plug solenoid electronic connector back into the harness.
- D. Check to ensure proper operation.

⚠️ Test run on flush kit or in water and check for leaks at the hose connections. ⚠️

