

Riverflow electrical notes

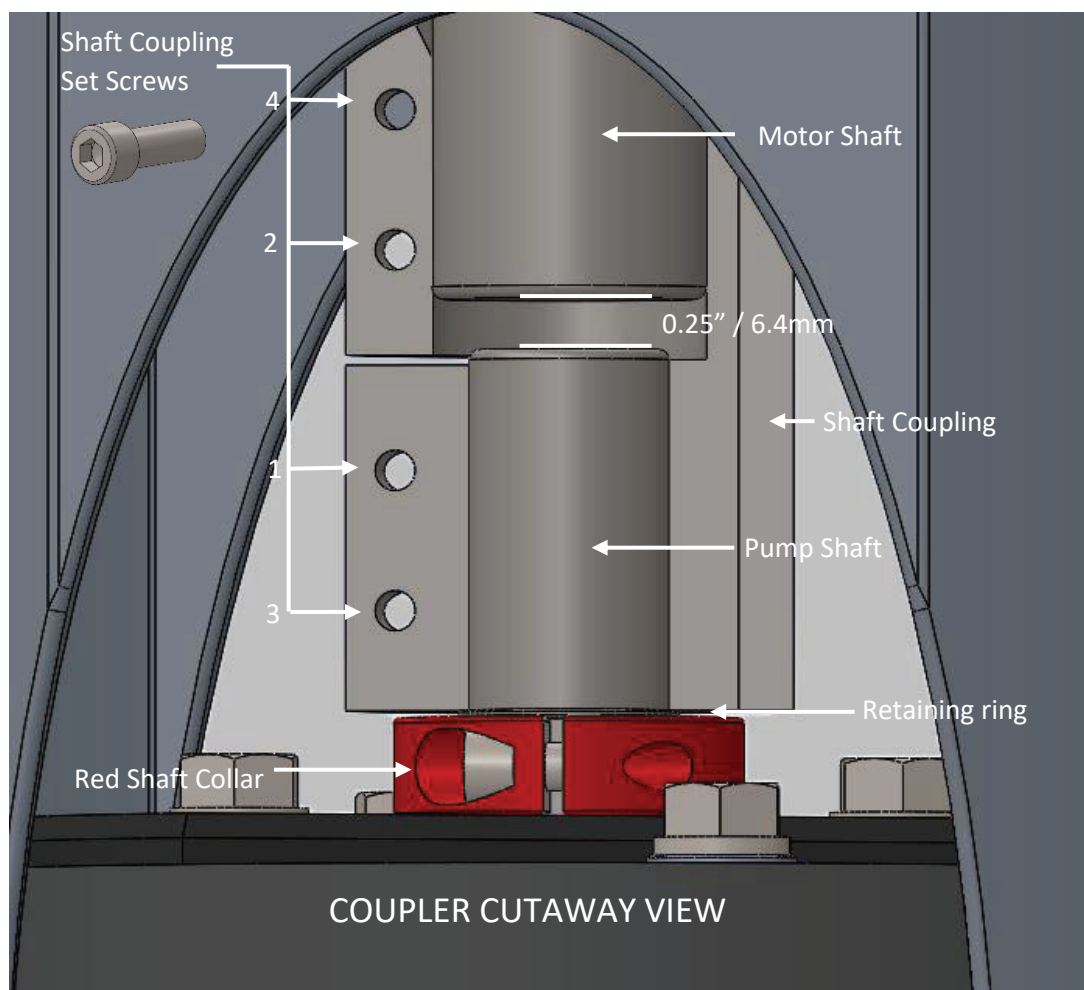
- The variable frequency drive (VFD) converts single-phase to three-phase power – The Riverflow™ Pump is driven by a three-phase industrial duty motor
- The VFD is rated for indoor installation, ventilated closet, garage, equipment room etc. If an outdoor installation is required, the VFD must be mounted in a properly sized outdoor enclosure
- Control wiring requires a shielded, 6 conductor, #18 or #20 gauge cable
- The Riverflow wired remote control box is weatherproof but should not be submerged in water

Warning

Do not start or change settings on VFD! Before contacting a certified startup technician at Current Systems Inc. PST (805) 339-9292 or EST 954-889-0311.

RIVERFLOW PUMP INSTALLATION GUIDE

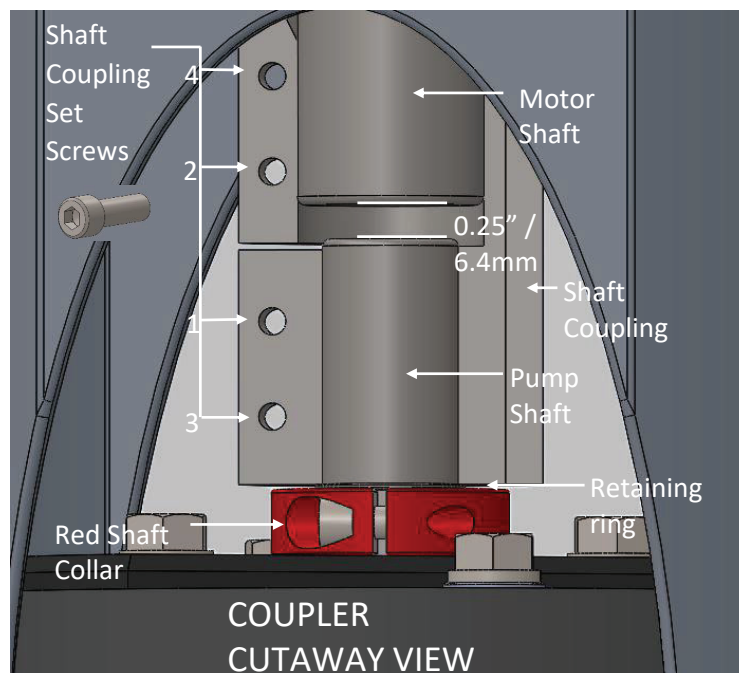
MOTOR AND SHAFT COUPLER INSTALLATION INSTRUCTIONS



1. Cut away protective plastic wrap from pump and open the motor installation kit.
2. Use the provided "T-Handle" Allen wrench for the following operations.
3. Loosen all keyless coupling set screws by 1 full turn and slide shaft coupling down till it is resting on top of the retaining ring as illustrated in the above picture.
4. Remove wooden block from top of shaft coupling and set aside.
5. Remove motor shaft key and then clean the motor shaft of any grease or debris.
6. Leaving the shaft coupling in place on the pump shaft, carefully place the motor shaft into the shaft coupling so the motor face is fully seated into the motor mount register. (Shaft keys are not required)
7. Install the four 1/2" X 1-1/8" stainless bolts, washers, and lock washers through the bottom side of the motor mount, into the face of the motor using a 3/4" socket wrench. Tighten to 15 LBS/FT

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MOTOR AND SHAFT COUPLER INSTALLATION INSTRUCTIONS



8. Make sure shaft coupling, retaining ring, and red shaft collar are fully seated as illustrated in the above picture. If so, continue to the next step. If not, then adjust as needed.

9. Tighten inner shaft coupling setscrew #1 to 100 in-LBS, then tighten inner setscrew #2 to 100 in-LBS. (See picture above)

10. Tighten outer shaft coupling setscrew #3 to 100 in-LBS, then tighten outer setscrew #4 to 100 in-LBS. (See picture above)

11. Check and re-tighten all shaft coupling setscrews to 100 in-LBS in the same order as before (#1, #2, #3, #4) a minimum of 4 times. The supplied Allen Wrench will flex approximately a $\frac{1}{4}$ " turn.

WARNING

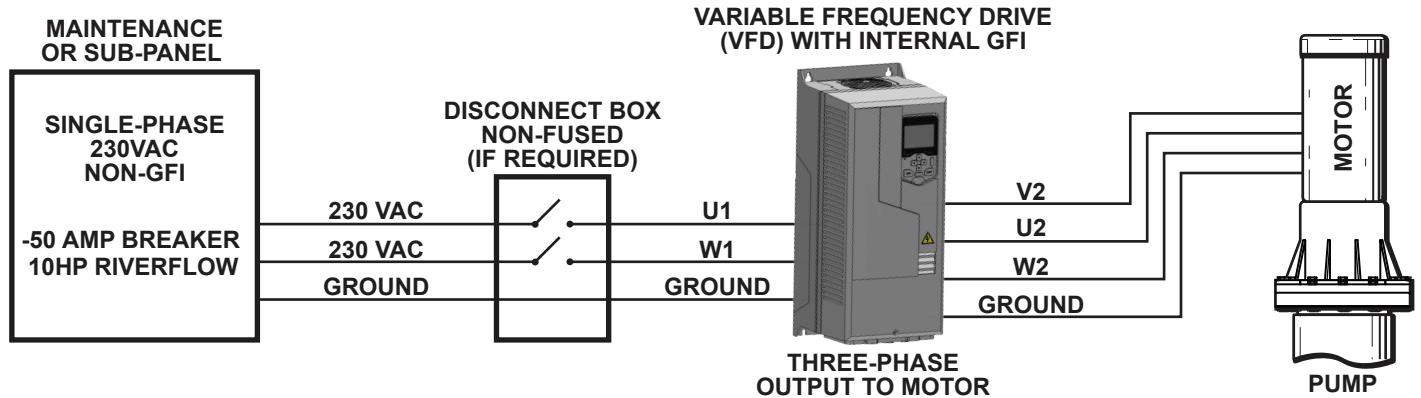
ALL MANUFACTURER'S WARRANTIES ARE VOID WHEN FAILING TO ENSURE THE SHAFT COUPLER AND SET SCREWS ARE NOT PROPERLY TIGHTENED AND SET TO 100 in-LBS. THE TIGHTENING SEQUENCE MUST BE COMPLETED A MINIMUM OF 4 TIMES. NOT FOLLOWING THIS PROCEDURE WILL RESULT IN SHAFT COUPLING FAILURE.

12. Remove red shaft collar from beneath the shaft coupling and save for future use.

13. Rotate the shaft coupling at least 360 degrees in both directions by hand. If the shaft does not rotate freely call Current Systems Technical support

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ELECTRICAL INSTALLATION RIVERFLOW VFD & MOTOR WIRING



- Motor direction counter clockwise looking at the opposite shaft end of the motor.
- Refer to the wiring diagrams for complete wiring and operation instructions.
- If the motor is covered, allow adequate ventilation with at least 6-in. clearance around the motor. Open area of vents, top and bottom, on the enclosure must total at least 100-sq. in. each.

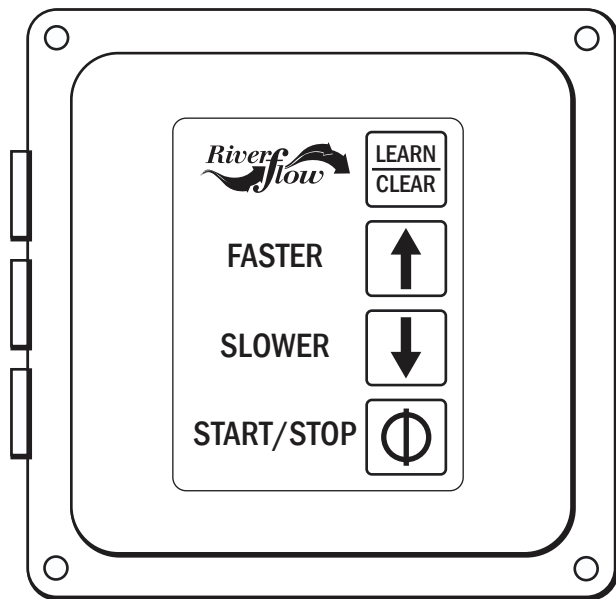




RIVERFLOW PUMP INSTALLATION GUIDE

ELECTRICAL INSTALLATION WIRELESS PUMP CONTROL

TRANSCEIVER



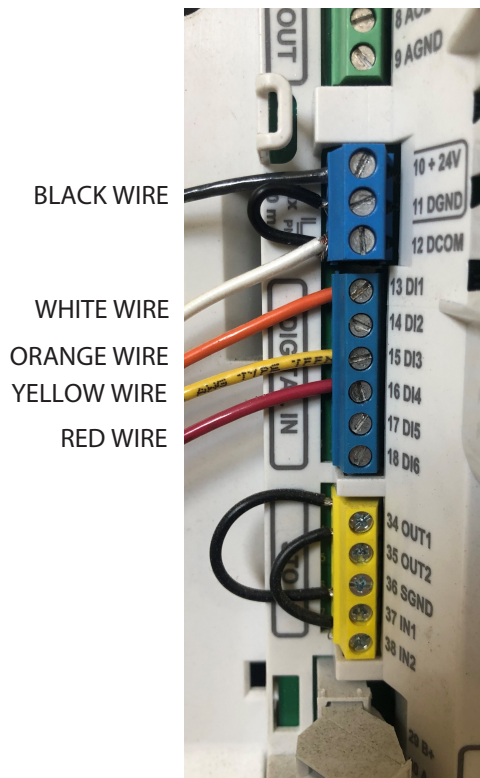
NEMA 4X
ENCLOSURE

REMOTE CONTROL

Be sure VFD is set
to Remote Control
by pressing the
LOC/REM button



ABB DC BUS VFD



DC BUS WIRE AND JUMPER LOCATIONS

BLACK WIRE TO #10
JUMPER FROM #11 TO #12
WHITE WIRE TO #12
ORANGE WIRE TO #13
YELLOW WIRE TO #15
RED WIRE TO #16
JUMPER FROM #34 TO #37
JUMPER FROM #35 TO #38

Programming the Remote Control:

Step 1: On the Transceiver, press 'learn/clear' button once
Step 2: On the Remote Control, press any button once
Finished: The remote control is now programmed

Controlling the pump speed:

Step 1: Press 'up arrow' to increase pump speed by 5% per push
Step 2: Press 'down arrow' to decrease pump speed by 5% per push

Remote Control care:

- Do not submerge
- Dry off after use
- Replace batteries with CR2032, Qty. 2

Current Systems, Inc.
West Coast (805) 339-9292
East Coast (954) 889-0311

www.riverflowpumps.com