



STYLE 9304 ELECTRIC VALVE CONTROLLER WITH PRESSURE READOUT INSTALLATION AND OPERATING INSTRUCTIONS

I. MASTER CONTROLLER INSTALLATION

NOTE: This controller may only be used with an Akron Electric Valve Actuator. Do not attempt to use it with other actuators or damage will occur. This new design controller may be used with current 2" through 3 ½" valves except the EPIC series. Also Style 7840 and 8840 Swing-Out Valves and 4" through 6" Butterfly Valves marked 64:1 on gear housing.

CAUTION: Always disconnect all wiring and cables from the valve controller before electric arc welding at any point on apparatus. Failure to do so will result in damage to the controller.

- A. Select the mounting location on the control panel for the controller. The controller is mounted from the outside of the panel and will need a clear space behind the mounting position of 2.5 inches. The dimensions of the panel cut-outs for the controller housing and mounting screws are shown on the attached template (Fig. 1) If not already made, these holes should be cut at this time. **⚠ WARNING:** The controller is a sealed unit and should not be disassembled. Disassembly will damage the seal. This can result in the controller malfunctioning.
- B. Attach the controller to the panel using the four screws provided.
- C. Connect the 12 volt electrical system of the apparatus to the controller. Use the proper wire gauge when connecting the controller to the power hook-up. Depending on the distance of the controller from the power source, the following wire gauge size is recommended.
 - 6 feet or less - 16 AWG or heavier
 - 10 feet or less - 14 AWG or heavier
 - 15 feet or less - 12 AWG or heavier
 - 25 feet or less - 10 AWG or heavier

NOTE: Any intermediate connections or loads between controller and power source can impact operation of the controller.

It is recommended that direct runs be used for all connections. Do not splice. Use good weatherproof connections. (Controller supplied with Weatherpack connector.) A minimum of 11.5 volts is required under full load (28 amps). Typical current draw is 2 to 4 amps during normal travel; however, when the mechanical stop is contacted current draw can reach 28 amps. This will activate the red and green lights on the controller. For maximum performance, engine should always be running when operating the valves.

CAUTION: Exercise caution when working with the truck electrical system. Disconnect cable from truck battery positive terminal before connecting power to controller. See truck manual for additional information. **NOTE:** It is essential that the connections must be watertight to prevent water from wicking up the wires into the controller. Therefore, the unit is provided with a weatherpack connector, (See Fig. 2) which we recommend using. The information for mating connector is provided in Figure 2.

- D. Use a 10 foot wiring harness to connect the valve motor and controller. (One additional 10' wiring harness may be added for a maximum of 20 feet.) If more than 20' is required between the Controller and the Valve, a special wiring harness is required. These special harness' are available up to 50'. Contact Customer Service for details.

Never splice a wiring harness or connect through collector (slip) rings, as voltage drop will be increased. Never install master controller in a position requiring power wire to connect through collector (slip) rings. Distances beyond 50 feet will require an auxiliary (or dual) controller. These controllers, (connected to the master controller) can operate up to 370 feet away from the master control. Also, the auxiliary cable can be spliced to connect through turret collector (slip) rings on aerial devices. *NOTE: All splices must be well sealed to prevent water from wicking through the wires into the controller.*

- E. Install the pressure transducer in the line on the downstream (discharge) side of the valve. Connect the cables to the transducer and controller.

Note: The transducer should never be installed in a drain line, nor should it be installed in a position that prevents draining during freezing conditions.

The pressure readout feature self calibrates each time unit is powered up. Therefore, there is no way and need to manually calibrate this unit.

The display will read out up to 600 PSI (4137 kPa).

- F. Once installation is complete, operate the controller Open/Close switches through a complete cycle to ascertain that the valve is operating properly and to calibrate the valve position readout.

II. AUXILIARY CONTROLLER INSTALLATION

NOTE: The auxiliary controller may only be used with Akron Master Controller.

Auxiliary control has no pressure readout feature.

- A. Auxiliary controller to be installed at desired location following same mounting instructions as the master controller.

If a customer wants to separate the auxiliary control from the master control a great distance (i.e., aerial basket, etc.), it is recommended the auxiliary be the control package the farthest distance away. The master control must be closest to the power supply, and the valve. The 6 wire connecting cable between the master and auxiliary should be spooled, if required, and no smaller than 18 AWG per strand. This will allow a separation of up to 370 feet between the master and auxiliary control package.

If a dual control package is used on an aerial, it is also recommended that the Brad Harrison receptacles be used to make the connection through the turret slip rings.

A 10 ½ foot connector cable from the Auxiliary controller is to be connected to the mating 6 inch cable on Master controller.

If additional length is needed, extensions are available. 11 foot - P/N 9303-0002, 35 foot - P/N 9303-0001, 125 foot - P/N 9303-0003

III. OPERATING INSTRUCTIONS

The electrically actuated valve is operated by the momentary Open/Close switches, (Fig. 2 & 3), of the controller mounted on the apparatus control panel. The controller features a lighted display indicating when the valve is fully open (Green), in a throttling position (Yellow) or fully closed (Red).

TO OPEN VALVE - Push the **OPEN** valve button, hold the button until the valve attains the desired position, then release the button.

TO CLOSE VALVE - Push the **CLOSE** valve button, hold the button until the valve attains the desired position, then release.

AUXILIARY CONTROLLERS

Both Master and Auxiliary controllers operate using the same procedure. However, Master controller will override any Auxiliary operations.

MANUAL VALVE OPERATION - If the valve fails to operate during use, disconnect the electrical connector on the valve. With a 7/16" wrench turn the hex head, Fig. 4, on the end of the motor drive shaft, to open or close the valve.

DANGER - Always disconnect the electrical connector on the valve when the gear cover is removed.
KEEP FINGERS AWAY FROM THE MOVING GEARS!

IV. SETTING THE OPTIONAL AUTO OPEN FEATURE

Auto Open is not preset. The following steps must be preformed to establish the Auto Open feature:

- A. To turn the Auto Open feature on:
 1. Press and hold the Open and Close Buttons simultaneously for 30 seconds, until the Yellow Light

- begins to flash.
- 2. Press the Open Button (The Yellow and Green lights will flash alternately.)
- 3. Press and hold the Open and Close Buttons simultaneously for 3 seconds. The Yellow Light will flash initially then remain lit.

The Auto Open feature is now selected.

Cycle the Valve full open to full close one time.

To verify the Auto Open feature is on, with the Valve fully closed, touch the Open Button and the Valve will fully open. Note: The Auto Open feature will apply to any Auxiliary Controller but the set up must be done using the Master Controller.

- B. To turn the Auto Open feature off:
 - 1. Press and hold the Open and Close Buttons simultaneously for 30 seconds, until the Yellow Light begins to flash.
 - 2. Press the Close Button (The Yellow and Red lights will flash alternately.)
 - 3. Press and hold the Open and Close Buttons simultaneously for 3 seconds. The Yellow Light will flash initially then remain lit.

The Auto Open feature is now cancelled.

Cycle the Valve full open to full close one time.

To verify the Auto Open feature is off, with the Valve in the fully closed, touch and release the Open Button. The Valve movement will stop as soon as the button is released.

V. GENERAL PRODUCT GUIDELINES

All fire fighting products should be carefully inspected after each use, in order to ensure no damage incurred, and they are in good working order. If not in good working order or damaged, the product should be repaired and re-tested to ensure the product meets the specification.

All Akron Brass fire fighting equipment should be operated by trained and knowledgeable fire fighters only.

All Akron Brass product is designed for fire fighting use only. If you anticipate using this product in another application, approval should be gained prior to use with our Akron Brass Customer Service Department.

All fire fighting products should be operated in accordance with nationally recognized standards and training manuals.

If any portion of the fire fighting device is not operational, do not use the product in a fire fighting application. Have it repaired and re-tested to ensure all is well before placing it back into service.

All products rigidly attached to fire trucks should be installed, as per good engineering installation practices.

Ensure the valve is mounted far enough away from the engine or exhaust systems, to ensure rubber or plastic parts do not degrade with the excessive temperature encountered

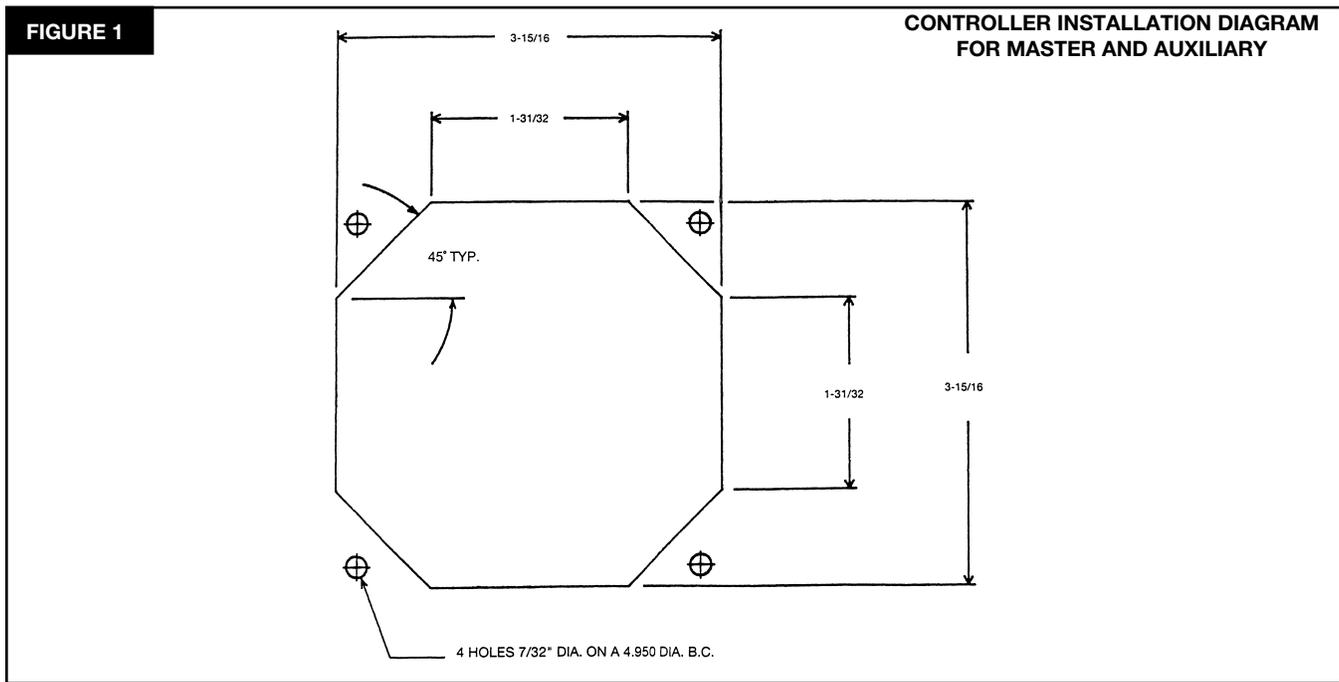
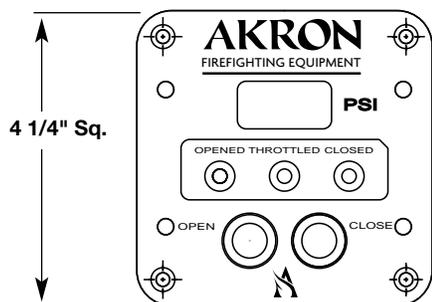
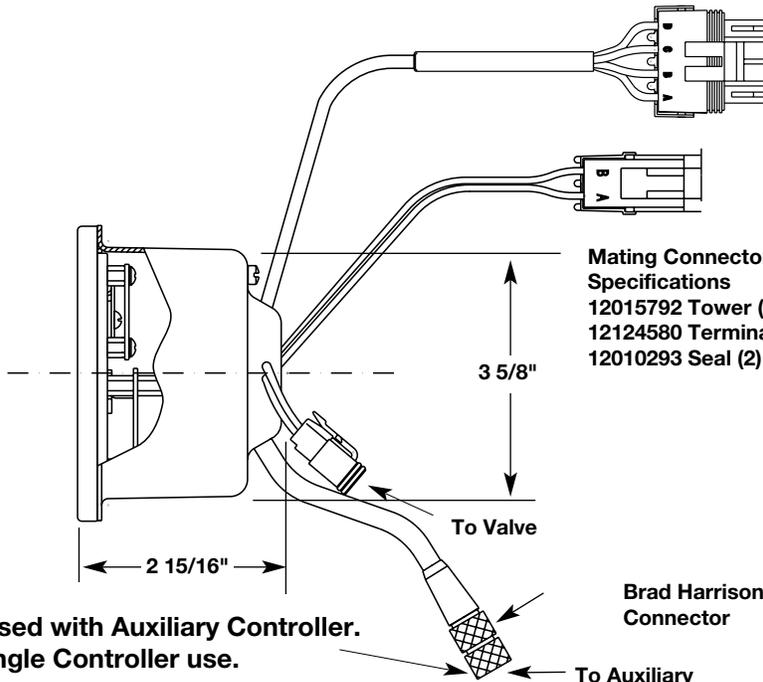


FIGURE 2

MASTER CONTROLLER



4 1/4" Sq.



Mating Connector Specifications

- 12015792 Tower (1)
- 12124580 Terminal Sleeve (2)
- 12010293 Seal (2)

Brad Harrison Connector

NOTE: 6" yellow cable only used with Auxiliary Controller. Should remain plugged for single Controller use.

FIGURE 3

AUXILIARY CONTROLLER



4 1/4" Sq.

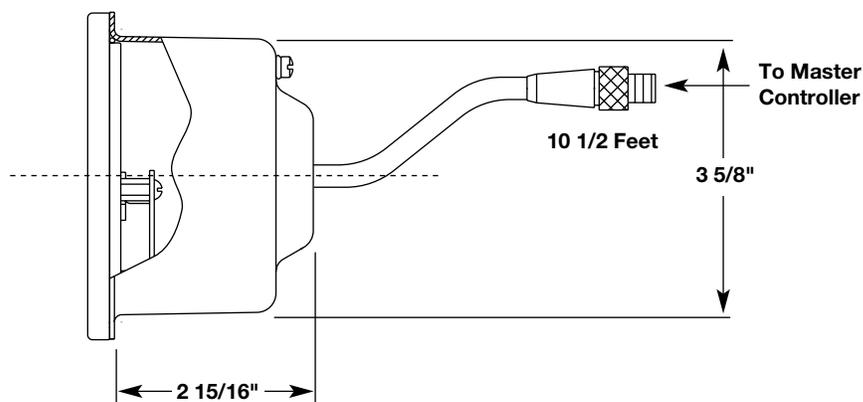
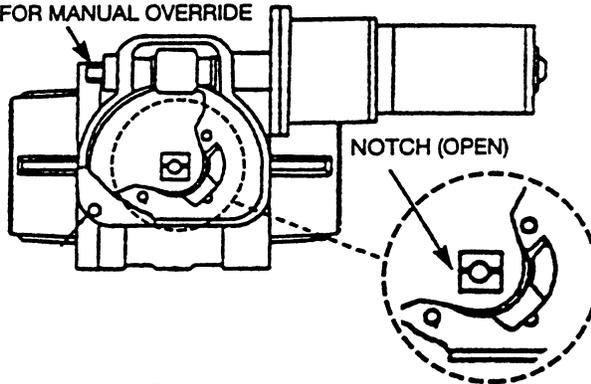


FIGURE 4

7/16" WRENCH CONNECTION FOR MANUAL OVERRIDE



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