

# Replacement Timer Delay/Switch Assembly FS-RT for WFDN waterflow detectors

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NOTICE: This manual should be left with the owner/user of this equipment.

**GENERAL INFORMATION**

This manual includes instructions for replacing the time delay/switch assembly listed above.

The waterflow device does not need to be removed from the fire sprinkler system while the timing delay/switch assembly is being replaced. Do not tamper with the mounting plate attachment screws as water leakage will occur. (See Figure 1.)

Do not replace any other component of the waterflow detector in the field. If any other functional part of the detector becomes faulty, remove and replace the entire detector. Not doing so may result in the failure of the detector to indicate a waterflow condition.

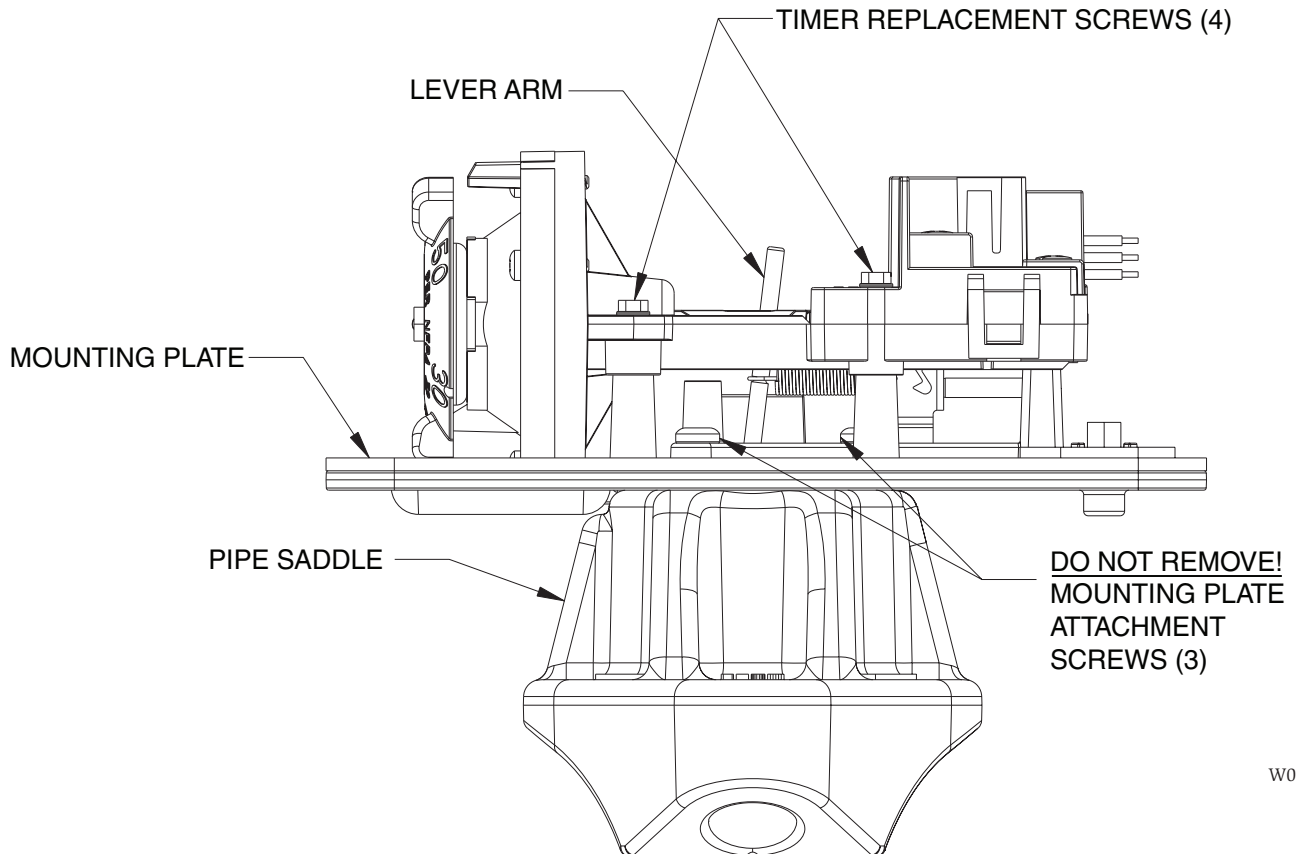
**TIMER DELAY/SWITCH ASSEMBLY REMOVAL**

1. Turn the dial to zero (0) and remove the four screws holding the timer delay/switch assembly in place.
2. Gently lift the front of the delay mechanism approximately 30 degrees to clear the paddle lever arm (see Figure 1).
3. Pull forward and rock the delay mechanism back and forth slightly to disengage the switch buttons from the timer stop.

**TIMER DELAY/SWITCH ASSEMBLY REPLACEMENT**

1. Turn the replacement timer delay/switch assembly to zero (0). (See Figure 3)
2. Orient the timer shaft as depicted in Figure 2.
3. Check the following before replacing the retaining screws (refer to Figures 1 and 2).
  - a. Firmly seat the timer delay/switch assembly on the four support posts.
  - b. Verify that the spring hook is still in the groove in the paddle lever arm. See Figure 2.
4. Replace the four retaining screws and torque using approximately 10 in-lbs. of torque.

**FIGURE 1. TIMER DELAY/SWITCH ASSEMBLY:**



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**SYSTEM CHECK**

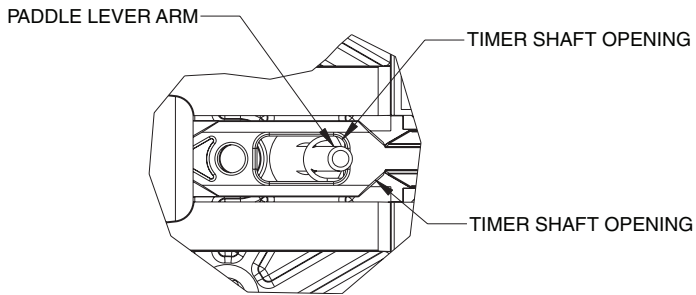
1. With the dial set to zero, actuate the lever arm forward and back checking for smooth operation of the timer delay/switch assembly. The lever arm should operate freely with no obstruction. The switches should activate when the arm is moved forward and reset when the arm is released.
2. With a continuity meter installed between the (COM) and (B) terminals on one of the switches, the following conditions should occur:

Condition	COM to B Circuit
Normal or non-flow	Open circuit
Lever actuated or waterflow in pipe (10 gpm)	Closed circuit

3. Turn dial to the desired delay setting and time the response of the system to waterflow conditions as normally done on routine system tests.
4. Insure that the system returns to the non-alarm condition after the flow in the system is discontinued.
5. Replace the cover with the two tamper screws(wrench not included).

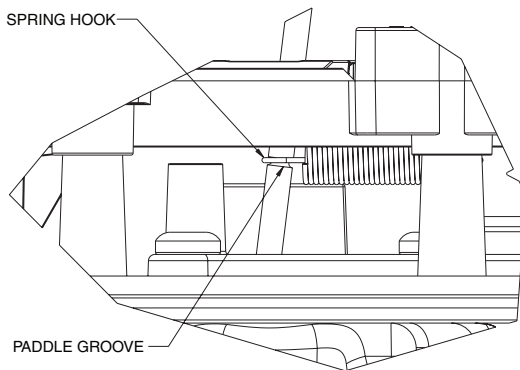
**FIGURE 2. TIMER SHAFT ORIENTATION:**

**TOP VIEW**



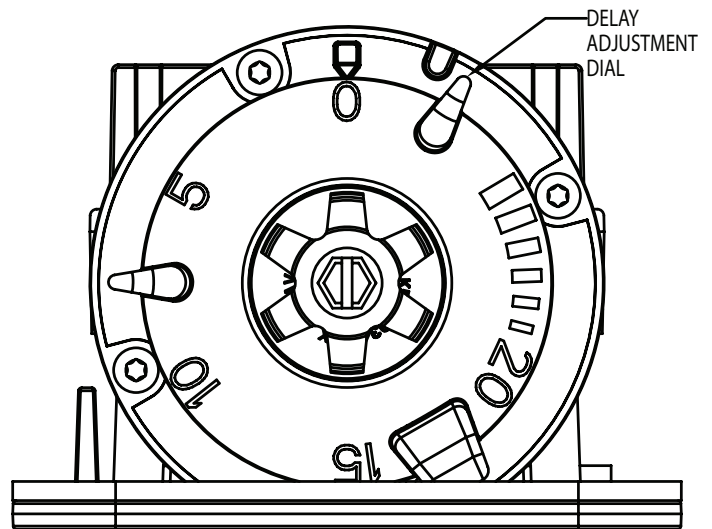
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**SIDE VIEW**



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**FIGURE 3. DELAY ADJUSTMENT DIAL:**



NOTE: RETARD TIME MAY EXCEED 90 SECONDS. ADJUST AND VERIFY THAT TIME DOES NOT EXCEED 90 SECONDS. NUMBER ON DIAL IS APPROXIMATE TIME DELAY IN SECONDS WITH AN ACCURACY OF +/- 50% PER UL.

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**Please refer to insert for the Limitations of Fire Alarm Systems**

**THREE-YEAR LIMITED WARRANTY**

System Sensor warrants its enclosed product to be free from defects in materials and workmanship under normal use and service for a period of three years from date of manufacture. System Sensor makes no other express warranty for the enclosed product. No agent, representative, dealer, or employee of the Company has the authority to increase or alter the obligations or limitations of this Warranty. The Company's obligation of this Warranty shall be limited to the replacement of any part of the product which is found to be defective in materials or workmanship under normal use and service during the three year period commencing with the date of manufacture. After phoning System Sensor's toll free number 800-SENSOR2 (736-7672) for a Return Authorization number, send defective units postage prepaid to: System Sensor, Returns Department, RA

# \_\_\_\_\_, 3825 Ohio Avenue, St. Charles, IL 60174. Please include a note describing the malfunction and suspected cause of failure. The Company shall not be obligated to replace units which are found to be defective because of damage, unreasonable use, modifications, or alterations occurring after the date of manufacture. In no case shall the Company be liable for any consequential or incidental damages for breach of this or any other Warranty, expressed or implied whatsoever, even if the loss or damage is caused by the Company's negligence or fault. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This Warranty gives you specific legal rights, and you may also have other rights which vary from state to state.