

## 1. OBJECTIVE

Details installation of the Feed Verification Meter required for inhibitor feed verification function. Part#'s **SFX-FV, SFX-FV2 & SFX-FL**

## 2. REQUIRED COMPONENTS

1. Feed Verification accessory kit consisting of the Feed Verification Meter, upgrade software chip and controller upgrade code.
2. Controllers shipped with the **SFX-FV, SFX-FV2 & SFX-FL** options should skip Step 3.2 which upgrades controller software.
3. A solenoid type chemical feed pump: LMI or PulsaFeeder type rated 8-24GPD
4. If the pumps are not beside the controller, you may have to extend the Feed Verification Meter cabling using 3 conductor or 2 pair, AWG 22 cable.

Contact Aquatrac: [www.aquatrac.com](http://www.aquatrac.com) on questions or operational issues.

## 3. INSTALLATION

### 3.1 Hardware Installation

Install the Feed Verification Meter on the discharge side of the inhibitor pump between the pump and injector and tighten the tubing 3/8" fittings. Plug the inhibitor pump into a hot plug and verify that the tubing connection to the Feed Verification Meter seal.

The Feed Verification Meter can be oriented with horizontally or vertically. Locate the Meter so that the Red & Green LEDs are visible.

#### **SFX-FL Kits**

'DigiPulse' use is limited to installation on the output of LMI pumps. Follow the instructions included with the 'DigiPulse'

### 3.2 Software Upgrade / *Skip this step if new Controller*

1. If you are running **Trackster** and the controller is running & has either the serial port or modem options, connect to the controller and use the **Save** option under the **Controller** menu option to save the current controller configuration to your PC.
2. Unplug the **Flex** or **AS** controller power cord.
3. Open the enclosure door and turn OFF the power switch on the right, bottom of the circuit board installed in the enclosure door.
4. **STATIC DAMAGE:** Touch the grounded aluminum controller backplate to discharge static before touching controller electronics. **WARNING: Static electricity can fail a controller. This fault is preventable and is therefore not covered by the manufacturer's warranty.**
5. Using a small screwdriver, remove the existing software chip installed in a socket on the sub-board located in the top, center of the controller. Be careful that you are removing the chip and not the chip socket. This chip will be labeled either **Smart 'AS'** OR **Smart 'Flex' with the Version#**
6. Install the upgrade chip, ensuring that the label is oriented the same way as the chip you removed. The chip label text should be oriented the same way as the controller serial number chip to the left of the upgrade chip.  
**CAUTION: Ensure you fully insert the upgrade chip without bending any of the pins. Ensure that the chip is correctly oriented and that all 32 pins are inserted.**
7. Turn on the controller power switch at the bottom, right of the controller board and plug in the controller power cord.
8. The LCD display should display the **POWER UP** message for several seconds and then start to scroll through all of the operating parameters.  
**WARNING: If you do not see the POWER UP message on power ON. Turn OFF the controller and review the upgrade instructions. It's likely that the upgrade chip is incorrectly installed or an 'AS' chip has been installed in a 'Flex'. A chip installed upside down will be destroyed and cannot be re-installed.**

**The controller will reset itself to its default state when it detects upgraded software. After a software upgrade, you'll have to re-enter setpoints, calibration, water meter gallons/contact, biocide timing and reset the time and date...**

Use **Trackster's Restore** feature to re-load the controller configuration, if you were previously able to save the configuration.

### 3.3 Cabling & Controller Connection

Turn OFF the controller.

#### **SFX-FV Kit**

Cable the three conductor feed verification meter cable to the controller and an unused water meter input, typically 'Q'

Connect **RED to QP**, **WHITE to Q+** & **BLACK to Q-**.

#### **SFX-FV2 Kit**

Cable the three conductor feed verification meter cables to the controller and to unused water meter inputs, typically 'Q' for Inhibitor No.1 and 'T' for Inhibitor No.2

Inhibitor No.1 meter: Connect **RED to QP**, **WHITE to Q+** & **BLACK to Q-**

Inhibitor No.2 meter: Connect **RED to TP**, **WHITE to T+** & **BLACK to T-**

#### **SFX-FL Kit**

Cable the two conductor DigiPulse cables to the controller and to unused water meter inputs, typically 'Q' for Inhibitor No.1 and 'T' for Inhibitor No.2

Inhibitor No.1 meter: Connect **WHITE to Q+** & **BLACK to Q-**

Inhibitor No.2 meter: Connect **WHITE to T+** & **BLACK to T-**

Turn ON the controller & verify that the RED **POWER** LED turns ON on each Feed Verification Meter.

### 3.4 Pump Set-up & Verify Meter Operation

Set the inhibitor pump(s) to 100% stroke & 100% frequency.

Plug the feed verified pump into a hot outlet.

Each time a mL is pumped, the GREEN SIGNAL LED will flash. Reduce the pump frequency and note that several strokes may be required per mL fed.

#### **SFX-FL Kit**

Verifying DigiPulses requires serial or modem connection to the controller with Trackster

Refer to Application Note10-07, Feed Verification, Inventory Tracking for controller configuration