



DANGER - BEWARE

Not for use with fluids that have a flash point below 100°F (37.8°C, i.e.: Petrol, alcohol, solvents). Refer to NFPA 325M (Fire Hazard Properties of Flammable Liquids, Fluids, Gases, and Volatile Solids) for flash points of common liquids. Static electricity buildup and discharge could result in arc and explosion.

SAFETY INSTRUCTIONS

To ensure safe and efficient operation, it is essential to read and follow each of the warnings and precautions relating to this equipment, the pesticide product to be transferred and applicable legislation. Do not exceed an internal meter pressure of 8.2 Bars. Improper use or installation of this product may cause serious bodily injury. The 850 Digital Meter is not a flammable fluid meter. Do NOT use with fluids with a flashpoint below 100°F such as solvents petrol and alcohol.

Please Remember.

Use pesticides wisely - Keep Pesticides out of water
Follow the Codes of Practice and support the Voluntary Initiative
Maintain your expertise by registering with the NROSO scheme

Wisdom® Systems

Chemical Transfer and Application Technology



For specialist advice, spare parts, and 24 Hr 7 Day service

Call us on: -

01844 211089 or 07836 514 819

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Tel. 01432 851212 Fax. 01432 851312

Wisdom® Systems



Chemical Transfer and Application Technology

Fitting & Operating Instructions

FasTran - 850

Closed Transfer System



Outstanding Features

- Standard Connection to **ALL** Manufacturers containers
- Faster and Cleaner than hand pouring
- Meets and exceeds British Standard BS 6356 Pt. 9.
- Quick, one-step calibration. No need to dispense fluid.
- Does not count air at the end of transfer.
- Easy access for battery change or cleaning without special tools.
- Multiple position display.
- Special unit of measure option available.
- Rugged, corrosion resistant polypropylene body.
- Consistent accuracy.
- Powered by two AA batteries.

FasTran Fitting Instructions For the system to your sprayer

The FasTran can be mounted permanently on the sprayer or attached each time it is used using a Dry break Coupling set available from Wisdom. Most installations benefit from a permanent attachment to the sprayer.

The FasTran hose is 1 1/4" diameter and all connections should be made using good quality fittings (Banjo) and sealant liquid or tape applied to threads.

The FasTran is powered by suction and this can be supplied from the sprayers Pump via the 'Fast Fill' port used for filling with water, an existing or newly fitted venturi (this must produce a minimum of -0.4 bar with the sprayer pump running at a fast idle) or a specialist transfer pump. Suitable Venturi kits are available from Wisdom. Having decided on the suction source make the appropriate connections and test the suction meets the above specification. Select a site where the unit and hose will not be trapped by a wheel or other equipment and is protected from the majority of mud that may be thrown up by the wheels. Mount the rinse socket onto a horizontal surface and connect the rinse socket to a length of 3/4" hose that can connect to both the sprayers clean water tank and a bucket when Stage 2 cleaning is carried out.

Advice on fitting the system to your sprayer and specialist parts can be obtained at any time by calling our Free Phone number 0800 783 7067.

FasTran Instructions For Use

A. Chemical Transfer

Connect the suction hose to a venturi, the sprayers fast fill port or transfer pump using quick-release dry-break coupler if fitted.

Ensure the control valve is closed. (Yellow handle.) Set current total to 0.00 – Press button 2 to reset current total to zero'.

Check the rating of the chemical viscosity. To set the "Cal Factor" before using with chemical. Contact Wisdom on Free phone 0800 783 7067 for guidance if in any doubt.

Disconnect the coupler from the rinse socket and connect it to the chemical container by inserting the bayonet fitting into the container. When inserted, rotate then press down the coupler handle to complete the connection.

With venturi unit or transfer pump operating, open the yellow control valve to begin the transfer process.

To slow down the rate of transfer, close the yellow control valve progressively until the required quantity has been transferred.

Close the control valve completely to stop the transfer.

When removing less than a complete container, record the quantity remaining on the container label before disconnecting the coupler.

NOTE: Some containers are designed to retain a small volume of chemical to prevent the residues drying out. To compensate for this the containers are filled slightly over the stated volume and it is not possible to extract the extra volume added.

Do not leave the FasTran on the container to attempt to extract the last drop! Taking air from an empty container with any equipment will cause the tank to foam. When the

container is almost empty observe the hose and meter closely and turn off the control valve as soon as air is detected. The 850-meter will stop recording flow once air is in the system.

B. Cleaning and De-contamination

Stage 1. Cleaning between loads of the same chemical types.

To empty the delivery hose and rinse the equipment, first set the digital display to FLSH by pressing button 4 for 3 seconds, then remove the coupler from the container.

With the transfer pump or venturi operating open the yellow valve to purge the FasTran and the connection hose with air. This should take approximately 5 seconds.

Fit the coupler into the rinse socket and connect it by pressing the coupler handle down. Ensure the display still shows FLSH. At approximately 10-second intervals turn off the yellow valve for 5 seconds and then open the yellow valve. Repeat this cycle to achieve 6 x 10-second rinses.

At the end of the rinse cycles raise the coupler handle, close the yellow valve and leave the coupler attached to the rinse socket in the transport position until required for the next load.

Stage 2. End of operation or end of season De-contamination

To clean the transfer equipment and your sprayer at the end of season or between different product groups (e.g. herbicides and fungicides). Follow the procedure detailed in Stage 1. And then complete the following steps in conjunction with the sprayer manufacturer's instructions for cleaning.

With the FasTran set at FLSH place the bottom end of the coupler in a solution of water and proprietary tank cleaner for example 'Agral' or 'All-Clear'

Press the coupler handle down and the yellow control valve can now be opened to allow rinsing of the coupler, flow meter and hose. Just before all of the solution is transferred turn off the yellow valve and allow the solution to soak inside the FasTran for at least 10 minutes.

At the end of the soaking period place the rinse socket hose into a clean water supply and repeat the 6 x 10-sec. rinsing procedure from stage 1.

As you clean the sprayer with the cleaning solution sprayer allow the FasTran to rinse with clean water until cleaning of the sprayer is complete.

After rinsing, close the yellow control valve and raise the coupler handle.

Press button 2 to reset total to 0.00 and secure the hose and meter for storage / transport.

NOTE: If the sprayer and meter are to be stored out side or in an area liable to frost the meter and sprayer should be washed with engine anti freeze before storage.

Digital Display Information

The display will automatically shut off after 60 seconds without use (except when left on FLSH setting). It will automatically reactivate when flow resumes. All information is retained during periods of inactivity.

General Description

The 850 Digital Meter is a nutating disk, positive displacement meter which uses magnetic coupling to convert fluid flow into digital display information. The meter can store and display the current flow amount (current total), or accumulated total flow in any of five user specified units (ounces, pints, quarts, liters, and gallons) or special units (e.g. per acre volume). The meter can be calibrated without dispensing fluid simply by selecting a calibration factor from the 20 stored settings. The 850 Digital meter will not count bulk amounts of air in the system. Two AA field replaceable batteries supply power.

Technical Features

Flow Ports: 1" NPT inlet/outlet ports, female threads

Flow Range: 2 to 20 U.S. GPM / 7.6 to 75.7 LPM

Pressure: 120 PSI / 8.2 Bars maximum at 70°F/21°C 50 psi/3.4 Bars maximum at 130°F/54°C

Temperature: Min. operating temperature = 0°F/-17°C

Max. Operating temperature = 130°F/54°C

Meter can be stored at lower temperatures, but display may not work well below 0°F

Accuracy: ± 0.5% using calibration factor ± 0.2% using liquid calibration

Units of measure: liters or US gallons, ounces, pints and quarts; special calibration option also available

Range: 9999 current total; 10,000,000 accumulated total.

Materials of Construction

Body: Polypropylene

Sensor Springs: Hastelloy-C

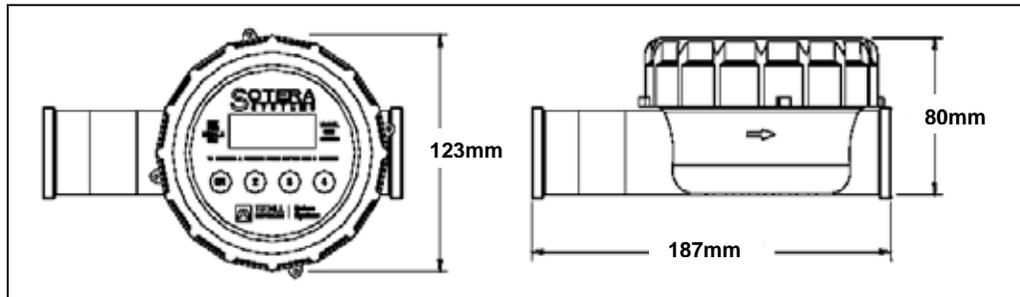
Chamber: Ryton, 302 Stainless Steel

Wetted Seals: Fluorocarbon

Electronic Module Weather & Dust Seal: Buna-N

Display: LCD (Liquid Crystal Display)

Power: Two alkaline AA batteries, included



Material Compatibility

The 850 Digital Meter is NOT compatible with very strong acids. If in doubt about compatibility of a specific fluid, contact supplier of fluid to check for any adverse reactions to the following wetted materials. The FasTran is believed to be compatible with most

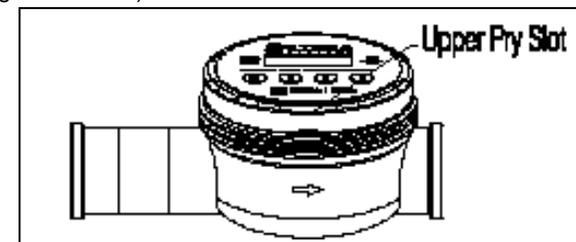
Pesticides however please ask your supplier or contact Wisdom Systems if in doubt. **The following have been tested as compatible products.**

AAtrex® 4L	Harness® Xtra
Abate 4E®	Karate®
Apron®	Laddock S-12®
Agrotain®	Lasso®
Assure II®	Manifest™
Atrazine 4L	Marksman®
Banvel®	Maxim®
Banvel SFG®	Methyl Parathion
Bicep®	Motor Oil
Bicep II®	Nufos®
Blazer®	Phosphoric Acid
Broadstrike™ + Dual®	Poast®
Broadstrike™ + Treflan™	Poast HC®
Caustic Soda (50%)	Poast Plus®
Clarity®	Princep 4L®
Command® 3ME	Prowl®
Conclude®	Prowl® 3.38EC
Conclude® Xtra	Pursuit®
Contour	Pursuit® Plus EC
Detail™	Reflex®
Diesel Fuel	Rezult®
Dividend®	Ridomil Gold®
DoublePlay®	Roundup®
Dual®	Roundup®
Dual II®	Roundup® Ultra
Eptam® 7E	Sodium Hydroxide (50%)
Ethylene Glycol	Squadron®
Fallowmaster®	Storm®
Flexstar®	Surpass® 100
Frontier®	Surpass® EC
FulTime®	Superboll®
Furadan®	TopNotch™
Fusion®	Touchdown®
Galaxy®	Treflan™
Gramoxone® Extra	Treflan™ HFP
Guardsman®	Water

Changing Meter Readout Position & Batteries

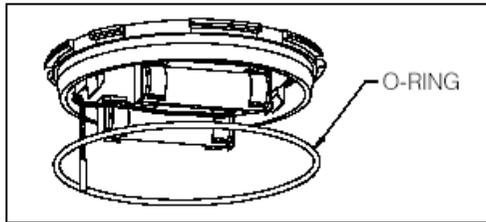
If it is necessary to change position of the meter readout, follow these steps (Refer to exploded view).

1. Unscrew meter cap by hand (item 1). Use a strap type oil filter wrench if nut is tighter than hand tight.
2. Insert a wide, flat-head screwdriver into the upper slot and gently pry up electronics module (see Figure 1 Below).



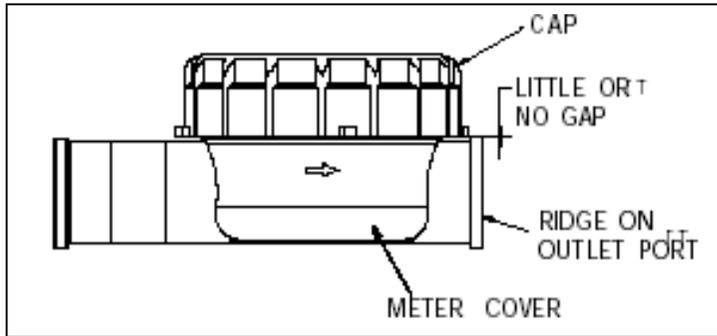
3. **DO NOT ROTATE METER COVER** - Sensor receptacle will break. Gently rotate electronics module to desired location being careful not to pull on lead wire from module to meter cover.

4. Reinstall the o-ring on electronics cover (see Figure 2 Below).

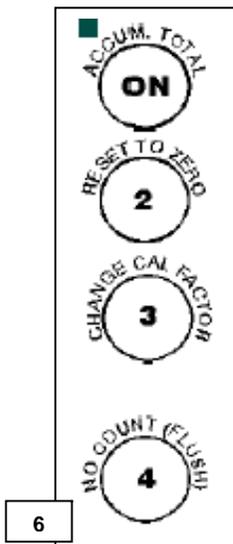


5. Press electronics module down into meter cover in the correct orientation.

6. Thread on meter cap until hand tight. To check tightness, there should be little or no gap between cap and ridge on outlet port. (See Figure 3 Below).



Operating Functions



- Turns meter on when off.
- Displays accumulated total as long as it is held on. If accumulated total is larger than 9999, the numbers will scroll across the screen.

- When held for 1 second, it resets current total to zero. Also resets to normal operating mode when in CAL or FLSH mode.

- When held for 3 seconds, it allows changes to the calibration factor displayed in the bottom left corner. Repeated activation will increment the number up to 19 and back to zero. When desired number is displayed, press button 2 to lock in the new number and return to normal operation.

- When held for 3 seconds, FLSH is displayed. Fluid dispensed will not be added to either the accumulated total or current total. Press button 2 to return to normal operation.

Operation

1. Press ON button to turn meter on. Current total, unit of measure, and calibration factor are displayed. The meter also turns on automatically and begins recording when fluid starts flowing through it.

2. Hold button 2 for one second to set current total to "0.00."

3. Begin dispensing.

NOTE: Meter display automatically goes blank after 60 seconds of inactivity and automatically comes back on when flow resumes. **No data is lost during periods of inactivity.**

The Meter should be flushed between uses with water to prevent chemicals from hardening and blocking the meter mechanism.

Calibration Factor Settings

The Calibration Factor is displayed in the bottom left of the display. The 'CAL' Factor can be set between 0 and 19 to match the liquid being measured. Generally the more viscous the liquid the larger the CAL factor needs to be to maintain an accurate measurement.

To select a calibration (CAL) factor that best fits the selected fluid, see Tables below and opposite. For many fluids it is necessary to know the temperature at which the fluid will be dispensed.

CAUTION: Wear proper safety equipment when handling hazardous fluids.

*Chart was updated April 2000 See separate table for latest additions Meters were calibrated using clean water.

**Fluid temperature in containers stored outdoors will be approximately the average of the daily high and low temperatures.

NOTE: The Chart is accurate with original factory calibration or after a water calibration.

To Change the Calibration Factor

1. Turn meter on.
2. Hold button 3 for 3 seconds. Only CAL and the number below it will be displayed. Press button 3 repeatedly to change the number. The number will flip back to zero after reaching 19.
3. Press 2 to set number.
4. Meter is now ready to use.

CALIBRATION NOTE: If the volume displayed on meter is lower than the amount dispensed, use a lower CAL factor. If volume displayed on meter is higher than the amount dispensed, use a higher CAL factor. Changing the CAL factor by one changes the accuracy by about 1%. Over time, the chamber inside the 850-meter will wear, requiring the meter to be recalibrated. When this should be done depends on the amount and type of fluid dispensed. In most crop protection fluid uses (less than 1000 gallons of a clean fluid per year), the 850-meter will remain accurate for many years without recalibration. On the other hand, dispensing an abrasive fluid may require more frequent recalibration.

Pesticide	Temperature ° Celsius					
	0	5	10	15	20	25
AAtrax®	16	16	16	15	15	14
Agrotain®						11
Atrazine 4L®						13
Banvel SGR®					5	
Bicep II®						13
Blazer®					11	
Broadstrike™ + Dual®	17	16	16	15	15	15
Broadstrike™ + Trellan™	14	14	13	13	13	13
Clarity®					11	11
Cobra®	10	9	9	9	9	8
Command 3ME®						14
Conclude Xtra®					8	8
Contour 3.38EC®	18	18	18	18	18	18
Detail™						14
DoublePlay®	11	11	11	11	11	11
Dual®	16	16	15	15	14	14
Dual II®						14
Eptam® 7E						7
Extra Point®						11
Extreme®	11	11	11	11	10	10
Fertilizer 28-0-0				9		
Fulltime®	16	16	16	16	15	15
Huradan®					15	
Fusion®	11	10	10	10	10	10
Galaxy®					8	
Gramaxone Extra 9®	9	9	9	9	8	8
Guardman®					12	
Harness® Xtra					12	13
Karate®	11	11	11	11	10	10
Liberty®	15	14	14	14	13	13
Mani est®					7	7
Marksmann®					11	11
Poast®					6	
Poast Plus®					9	
Prowl 3.3EC®					10	
Pursuit Plus EC®	13	13	12	12	11	11
Reflex®		10	9	9	8	8
Rezult®					9	9
Roundup®						15
Roundup® Ultra	16	16	16	15	15	14
Select II EC®	8	7	7	7	6	6
Squadron®						11
Storm®					9	
Surpass® 100			9	9	9	9
Surpass® EC	16	15	15	14	14	14
Talstar®	16	16	16	16	16	16
Ten Koz D-638®						10
TopNotch®	13	13	13	13	13	13
Touchdown®	16	15	14	13	12	11
Trellan™	13	13	12	12	12	12

Replacing Batteries

NOTE: Low battery icon will flash when batteries begin to lose power. Meter still functions properly for several days after the icon begins to flash. Neither calibration, current total or accumulated total quantities will be lost when replacing batteries.

To Replace Batteries (refer to exploded view above)

1. Unscrew meter cap (item 1). Use a strap type oil filter wrench or large 5" jaw pipe wrench if needed.
 2. Insert a flat-head screwdriver into the top slot (see Figure 4) and gently pry up electronics module.
 3. Gently raise electronics module being careful not to pull on lead wire between module and meter cover.
- CAUTION:** Be careful not to get fluid or dirt in electronics area.
4. Remove old batteries and insert new batteries, making sure battery polarity is correct, or meter damage could occur.
 5. Reinstall o-ring on electronics module. Align sensor stem in proper location. Press module gently down into meter cover.
 6. Thread on meter cap until hand tight. To check tightness, there should be little or no gap between cap and ridge on outlet port.

Repairs

Meters being returned for repair must be flushed thoroughly or they will not be accepted. A Material Safety Data Sheet (MSDS) describing last fluid metered must accompany any meter needing service.

If any meter components are damaged, they should be replaced. See meter drawing and parts list for correct replacement part number before ordering.

Cleaning

The 850 Meter can be flushed without adding to the accumulated total. Turn meter on by pressing the ON button. Press 4 and hold for 3 seconds. Display will show FLSH. Flush meter with suitable fluid (water is suitable for most herbicides). When completed, press 2 to leave FLSH mode and return to normal operation. Quantity of fluid flushed will not be added to total.

Thorough Cleaning (refer to exploded view)

If meter is blocked due to hardened chemical or debris, do the following:

1. Drain all fluid from meter.
2. Unscrew meter cap (item 1). Use a strap type oil filter wrench or large 5" jaw pipe wrench if necessary.
3. Insert a flat-head screwdriver in the lower slot (see Figure 7) and turn to pry up meter cover
4. The meter chamber (item 8) can now be removed.
5. Air sensor can removed by gently prying towards center of meter with a screwdriver.
6. Rinse all meter components with flushing fluid. Do NOT submerge display assembly. Be careful not to get any fluid or dirt in the electronics module.
7. Reassemble meter.

Store in a cool, dry place. Drain out all fluid that could freeze in the meter.

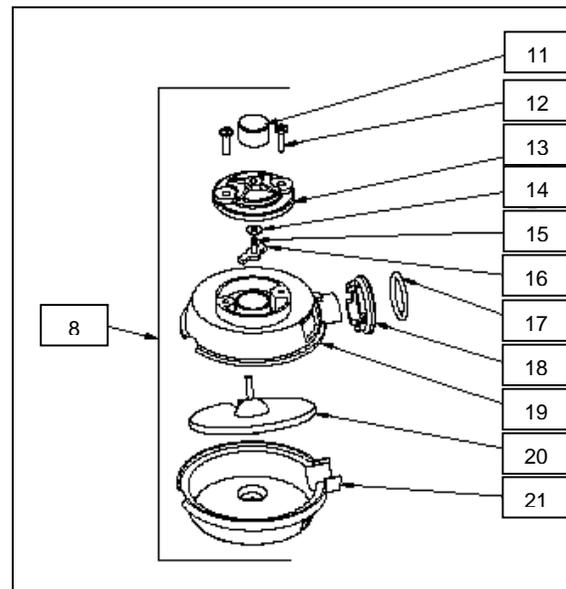
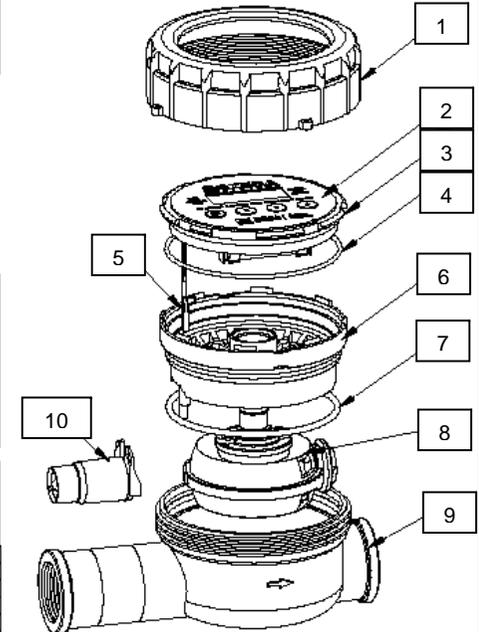
Calibration Information for typical Application Temperatures	Cal Factor
PRODUCT	
Reglone	9
Hawk	5
Linuron	16
Amistar	15
Shirlan	14
PDQ	12
Touchdown	12
IPU	15
STOMP	15
CALL Wisdom Systems for updates	

TROUBLESHOOTING GUIDE			
PROBLEM	POSSIBLE CAUSE	SOLUTION	NOTES
Motor won't turn on	<ul style="list-style-type: none"> •Dead batteries. •Damaged or contaminated electronics module 	<ul style="list-style-type: none"> •Replace batteries. •Replace electronics module & gaskets. 	Seal to electronic chamber is broken if display label is removed or punctured.
Flashing decimal	<ul style="list-style-type: none"> •Current total has rolled over 	<ul style="list-style-type: none"> •Reset meter (if desired). 	Motor will continue to operate normally.
Flashing or dim display	<ul style="list-style-type: none"> •Low batteries 	<ul style="list-style-type: none"> •Replace batteries. 	Use alkaline batteries.
Leaking fluid at inlet/outlet port	<ul style="list-style-type: none"> •Wool thread sealant •Cross-threaded port 	<ul style="list-style-type: none"> •Add Teflon pipe tape to joint. •Replace body. 	
Fluid flows; meter won't count	<ul style="list-style-type: none"> •Meter disk sticking •Damaged driver or magnet •Meter failure •Air sensor sticking 	<ul style="list-style-type: none"> •Clean out meter chamber •Repair or replace chamber assembly. •Repair or replace meter. •Remove and clean air sensor 	
Motor reads high	<ul style="list-style-type: none"> •Entrained air in system •Wrong calibration factor 	<ul style="list-style-type: none"> •Prime system, fix suction leak at pump. •Use a higher calibration factor. 	Motor will count air. Chemical formulations sometimes change.
Motor reads low	<ul style="list-style-type: none"> •Wrong calibration factor •Meter chamber is worn •Damaged or very worn chamber 	<ul style="list-style-type: none"> •Check fluid temperature •Use a lower calibration factor. •Check fluid temperature. •Recalibrate meter with water. See Appendix, page 9. •Replace chamber and recalibrate meter. 	Chemical formulations sometimes change.
Motor is not consistent	<ul style="list-style-type: none"> •Entrained air in system •Particulates in fluid •Meter has worn or damaged chamber 	<ul style="list-style-type: none"> •Prime system, fix suction leak at pump. •Put screens in front of meter. •Replace chamber. 	40 mesh minimum.
Fm0	<ul style="list-style-type: none"> •Calibration error •Damaged chamber 	<ul style="list-style-type: none"> •Recalibrate meter with more accurate container. •Replace chamber. 	Indicates fluid calibration is out of acceptable window. Volumetric container may be off, or the meter chamber may be damaged.
Fm1	<ul style="list-style-type: none"> •Damaged electronics •Software fault 	<ul style="list-style-type: none"> •Repair or replace electronics. •Press  then recalibrate meter 	Contact factory.
Lr2	<ul style="list-style-type: none"> •Bad coprom 	<ul style="list-style-type: none"> •Replace electronics 	Motor still functions, but all data will be lost if batteries are removed.

850 METER PARTS LIST			
ITM. NO.	PART NO.	DESCRIPTION	QTY.
1	820F1537	Meter Cap	1
2	850G7887	Display Label	1
3	850G7888	Electronic Module	1
4	800G7389	O-Ring, Buna-N, 96.5 mm ID (Black)	1
5	850G7802	Proximity Switch Retainer	1
6	820F1534	Meter Cover	1
7	820F1552	O-Ring, Fluorocarbon (2-240) (Brown)	1
8	825F1578	Meter Chamber Assembly (Includes items 11-21)	1
9	850G7807	Meter Body	1
10	850G7810	Air Sensor Cartridge Assembly	1

F1582, 850 METER REPAIR KIT			
ITM. NO.	PART NO.	DESCRIPTION	QTY.
4	800G7389	O-Ring, Buna-N, 96.5 mm ID (Black)	1
7	820F1552	O-Ring, Viton (2-240, Brown)	1
8	825F1578	Meter Chamber Assembly (Includes items 11-21)	1

825F1578, METER CHAMBER ASSEMBLY			
ITM. NO.	PART NO.	DESCRIPTION	QTY.
11	825F1577	Magnet Holder	1
12	800F4439	Screw, #6-20 x 1/2 Phillips	2
13	800F3965	Pinion Plate	1
14	800F3980	Washer	2
15	800F3965	Pinion Shaft	1
16	800G1304	G1304 Driver	1
17	35F6588	O-Ring (2-117)	1
18	820F1550	Seal Gland	1
19	800F3961	Meter Chamber Top	1
20	800F3941	Meter Disc	1
21	800F3962	Meter Chamber Bottom	1



The units of measure can be changed to ounces (OZ), pints (PT), quarts (QT), gallons (GAL), or liters (LITER) without recalibrating the meter. If special units are desired, see note below.

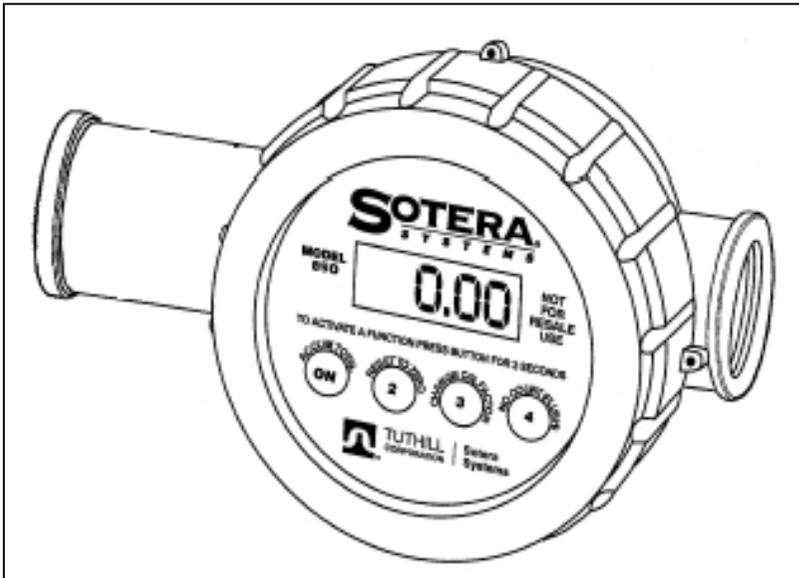
1. Hold buttons 2 and 4 for three seconds. Display will read "7r1.02".
2. Press button 3. Display will show the current units.
3. To change units press the ON button repeatedly until the desired unit is displayed.
4. Press button 2. Display will read "7r1.02".
5. To return to normal operating mode press button 2 again. The units selected will be displayed. Current or accumulated total will be changed to reflect the new units.

Special Units

To use special units, you need to know how many ounces are in your special unit. Here is an example: You want to use "acres" as your "special" unit. The fluid is to be applied at 18 ounces per acre.

These are the additional steps to set the meter to "special" units (ignore steps 4 & 5 above):

- a. After selecting "special" in step 3 above, press button 2.
- b. Enter the number of ounces in a special unit by pressing button 4 to increment the digit, and the ON button to move the flashing digit to the right. If you make a mistake, press button 2 to start back at the left most digit. Per our example, we would enter 018.0.
- c. Press the ON button again. Display will read "7r1.02".
- d. To get back to the normal operating mode, press button 2



Reset Accumulated Total

1. Press buttons 2 and 4 and hold for 3 seconds

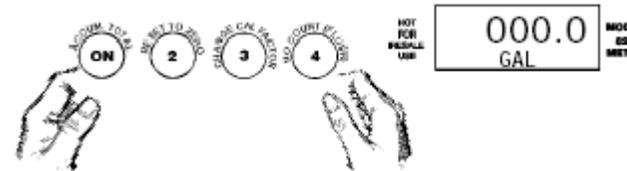


The Display will show the software version used in your meter example: 7r1.02

2. Press button 'ON' to display accumulated total, if this is over 9999 the display will scroll across the screen.



3. Hold buttons ON and 4 for 5 seconds to reset the Accumulated total to '0'



4. Press button 2 twice, to return the meter to normal operating mode

FasTran Fault Diagnosis Table

PROBLEM	POSSIBLE CAUSE	REMEDY
Too little suction produced.	<ol style="list-style-type: none"> 1. Water supply from the sprayer's pump is controlled by a pressure relief valve or reduced by any other pipe work before the Venturi. 2. Engine and pump speed too low - insufficient flow. 3. Venturi insert is too large. 4. Incorrect location of the Venturi. 5. Valves set in the wrong position. 6. Air leak at pipe and fitting joints 	<p>Increase speed.</p> <p>Remove insert and replace with smaller orifice. Check instructions for sizing. Refer to Venturi Fitting Kit instructions 2 and 3.</p> <p>Re-set to match operating instructions and re-try.</p> <p>With the unit running inspect all joints and listen for air hissing or the evidence of bubbles inside hoses.</p> <p>Re-check and fit appropriate orifice.</p>
Insufficient pressure delivered to Venturi	<ol style="list-style-type: none"> 1. Pump capacity not matched to Venturi orifice size. 2. Water supply from the sprayer's pump is controlled by a pressure relief valve or reduced by any other pipe work before the Venturi. 	<p>Check flow and pressure on the supply to the Venturi and modify pipe connections to achieve full flow from the pump to the Venturi.</p>
Suction appears to be good but product is slow to transfer	<ol style="list-style-type: none"> 1. Air leak between coupler and container valve face 2. Outer Face seal of coupler damaged 	<p>Inspect and clean surfaces. Listen for leak or apply a little water to the valve and coupler interface and observe if it is removed by suction.</p>

	<ol style="list-style-type: none"> 3. or missing Container valve dip tube cracked or damaged 4. Container valve dip tube not sealed on to valve 5. Blockage of debris in coupler or meter 6. Air leak in pipe joint 	<p>Clean surfaces. Replace the seal. Remove the dip tube check and reseal. Fill the FasTran hose with water when the suction is OFF and observe system for leaks. Repair as necessary.</p>
System does not fully clean with normal procedures	<ol style="list-style-type: none"> 1. Very viscous chemical or insufficient washing 	<p>Dismantle the FasTran remove the electronic module and soak all other parts in a warm solution of Agral or similar product and water over night. Rinse clean and re assemble.</p>
Coupler fails to engage easily with the Container valve resulting in difficult operation or leaks.	<ol style="list-style-type: none"> 1. Attempted use with incompatible valve (this may be a valve from spurious supply or a plastic version) 	<p>Contact your chemical supplier or Wisdom for a replacement valve</p>
Coupler centre valve remains in the raised position when removed from the container or rinse socket.	<ol style="list-style-type: none"> 1. Debris trapped on the valve edges. 	<p>Carefully clean the coupler in a bucket of water and rinse. Inspect the valve seal and surfaces and clean. Replace seal as appropriate.</p>
Screen is blank or fails to record	<ol style="list-style-type: none"> 1. Batteries flat 2. Meter disc blocked 3. Electronic module failed 4. Air detect unit jammed 	<p>Clean system and replace parts as required.</p>

