Operators Manual

Installation, Operation & Service

Water Meter

MODEL: GMF
LMF

Cleveland
Enodis

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SE95017 Rev. 5

TABLE OF CONTENTS

INSTALLATION

GENERAL

Installation of the Water Meter must be accomplished by qualified installation personnel working to all applicable local and national codes. Improper installation of product could cause injury or damage.

This unit is built to comply with applicable standards for manufacturers. Included among those approval agencies are: UL, NSF, ASME/Ntl.Bd., CSA, ETL, CE, and others. Many local codes exist, and it is the responsibility of the owner/installer to comply with these codes.

INSPECTION

Before uncrating, visually inspect the unit for evidence of damage during shipping. If damage is noticed, do not unpack the unit, follow shipping damage instructions.

SHIPPING DAMAGE INSTRUCTIONS

If shipping damage to the unit is discovered or suspected, observe the following guidelines in preparing a shipping damage claim.

1. Write down a description of the damage or the reason for suspecting damage as soon as it is discovered. This will help in filling out the claim forms later. If possible, take a polaroid picture.
2. As soon as damage is discovered or suspected, notify the carrier that delivered the shipment.
3. Arrange for the carrier's representative to examine the damage.
4. Fill out all carrier claims forms and have the examining carrier sign and date each form.

ASSEMBLY

The water meter only requires the mounting of the water faucet or a flexible hose. Install these only after the balance of the installation is complete.

To mount the hose assembly simply unpack it from its box and thread the swivel elbow onto the water meter. Connect the hose to the swivel elbow. Thread the filler nozzle onto the end of the hose.

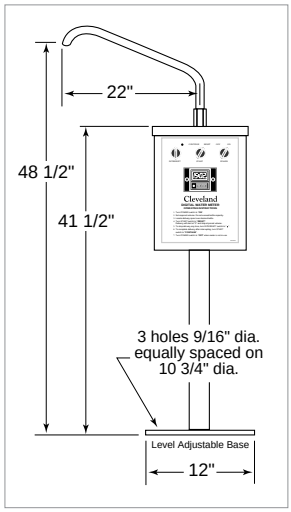
To mount the faucet assembly simply unpack it from its box and thread the swivel elbow onto the water meter.

UTILITIES

1. 115V or 220V grounded receptacle within five feet of installation location.
2. Three quarter inch potable cold water line. Unit will not withstand hot water, use only cold water.

NOTE: Units with optional Badger meters can be connected to hot water.

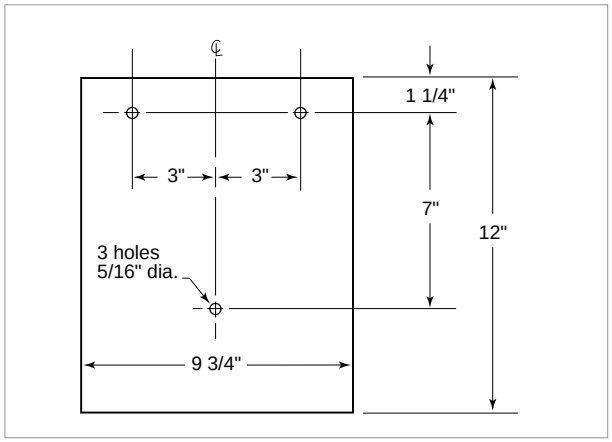
STAND OR TABLE MOUNT



Stand or Table Mounting Drawing

1. Remove Top Cover
2. Position the unit in its' permanent location. If mounting to a Cleveland Stand, bolt to the stand and position stand in its' permanent location.
3. Bolt unit in place.
4. Connect cold water supply.
5. Replace cover.
6. Install faucet or hose assembly.
7. Plug power cord into receptacle.

WALL MOUNTING



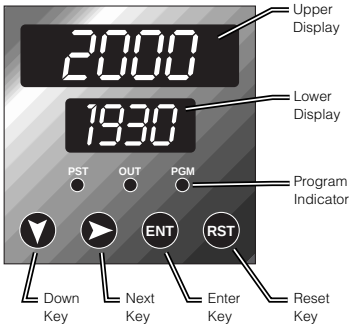
Wall Mounting Drawing

1. Determine the permanent location of the unit.
2. Locate and mark holes to drill for anchor bolts.
3. Anchor unit to the wall.
4. Connect cold water supply.
5. Replace cover.
6. Install faucet or hose assembly.
7. Plug power cord into receptacle.

OPERATING INSTRUCTIONS

GENERAL OPERATION

Note: The digital counter has been preset at the factory and should operate satisfactory. If installing a new counter (or the configuration settings to your existing digital counter become corrupted) you must configure the digital counter as shown on page 6 (***Configuring a Digital Counter***) prior to operation.



1 Turn POWER switch "ON".

2 Set required volume by first pushing the ▶ key until the digit you want to change is flashing in the lower display. Then use the ▼ key to change the value of the selected digit.

When all digits are set, press the **ENT** key.

3 Locate delivery spout over desired kettle.

4 Turn START switch to "RESET". Delivery will start at "0" and stop at preset volume.

5 To stop delivery at any time, turn INTERRUPT switch to "●".

6 To complete delivery after interrupting, turn START switch to "CONTINUE"

7 Turn POWER switch to "OFF" when meter is not in use.

CARE & CLEANING

1. Disconnect unit power source by unplugging power cord from wall receptacle.
2. Prepare a warm water and mild detergent solution.
3. Using a clean cloth wipe the units exterior. For food deposits a nylon brush can be used.

WARNING: Steel wool should never be used for cleaning the water meter. Particles of the steel wool become embedded in the surface and rust . This will weaken and corrode the stainless steel surface.

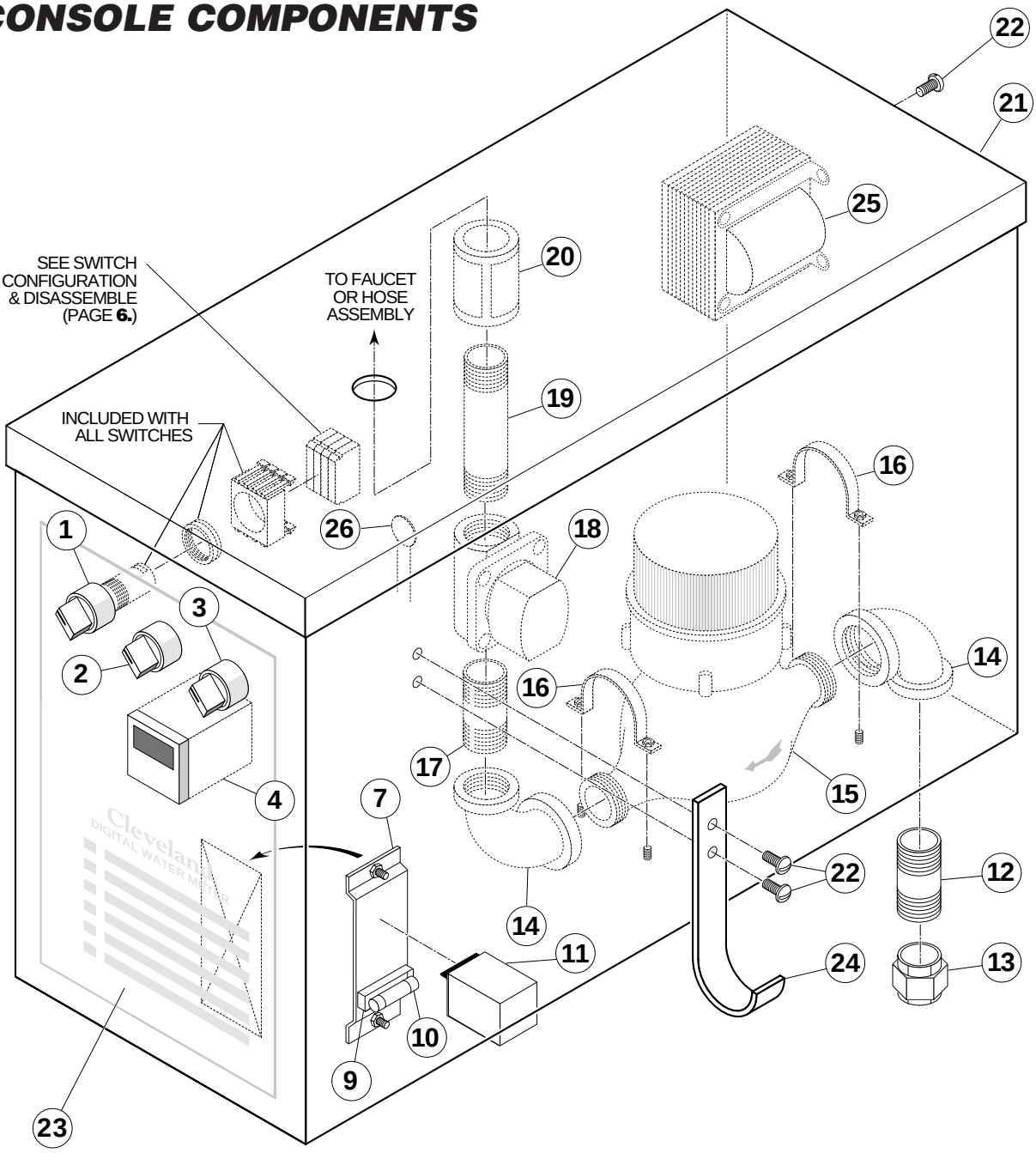
SERVICE PARTS

WARRANTY

Our Company supports a worldwide network of Maintenance and Repair Centers. Contact your nearest Maintenance and Repair Centre for replacement parts, service, or information regarding the proper maintenance and repair of your cooking equipment

In order to preserve the various agency safety certification (UL, NSF, ASME/Ntl. Bd., etc.), only factory-supplied replacement parts should be used. The use of other than factory supplied replacement parts will void warranty.

CONSOLE COMPONENTS

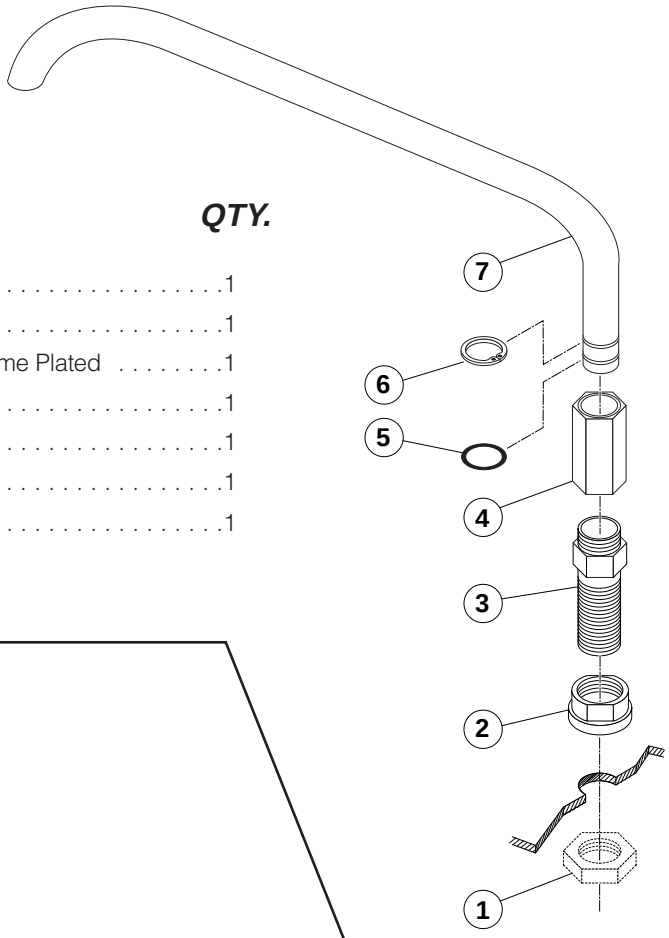


CONSOLE COMPONENTS

ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	KE01810	Momentary Spring Return Switch Assembly	1
2.	KE01811	Momentary Spring Return Switch Assembly	1
3.	KE01808	Switch Assembly, On/Off - Maintained	1
4.	KE53257	Digital Counter	1
7.	KE50343-6	Mounting Plate	1
9.	KE51139	Holder, Fuse	1
10.	KE52936	Fuse, 1 Amp.	1
11.	KE50753-10	Relay	1
12.	FI00629-1	Nipple, 3/4" x 2" lg.	1
13.	FI00096	Union, 3/4" NTP	1
14.	FI00063	90° Elbow 3/4" x 3/4" (Gallon Meters & Quart Meter)	2
	FI00365	90° Reducing Elbow 1" x 3/4" (Litre Meter)	2
15.	KE51861	Gallon Meter, cold water (Rockwell)	1
	KE52002	Litre Meter, cold water (Hays)	1
	KE54336	Gallon Meter, hot water (Badger)	1
	KE54336-1	Quart Meter, hot water (Badger)	1
16.	KE52005	Strap	2
17.	FI00629-36	Close Nipple 3/4" NPT x 1 1/2" lg.	1
18.	KE54834-5	***** *Solenoid Valve, 3/4", 120V/60 Hz., HW*	1
	SE50407	Solenoid Valve Rebuilt Kit	
	SE50401	Solenoid Valve Replacement Coil	
19.	FI00629-33	Long Nipple, 3/4" NTP x 4 1/4" lg.	1
	FI00629-8	Long Nipple, 3/4" NTP x 4 3/4" lg.	1
20.	FI00267	Coupling, 3/4" x 3/4"	1
21.	KE50719	Top Cover (Stand or Table Mounted)	1
	KE50719-1	Top Cover (Wall Mounted)	1
22.	FA11091	Screw, 8 x 32 x 3/8" lg. (Stand or Table Mounted)	2
		Screw, 8 x 32 x 3/8" lg. (Wall Mounted)	3
23.	KE95355	Front Label (English)	1
23.	KE95355-1	Front Label (French)	1
24.	KE54505	Hose Bracket	1
25.	KE54838-15	Transformer (high voltage only), 220/120V, 50/60 Hz., (220V option)	1
26.	UR50065	Varistor	1

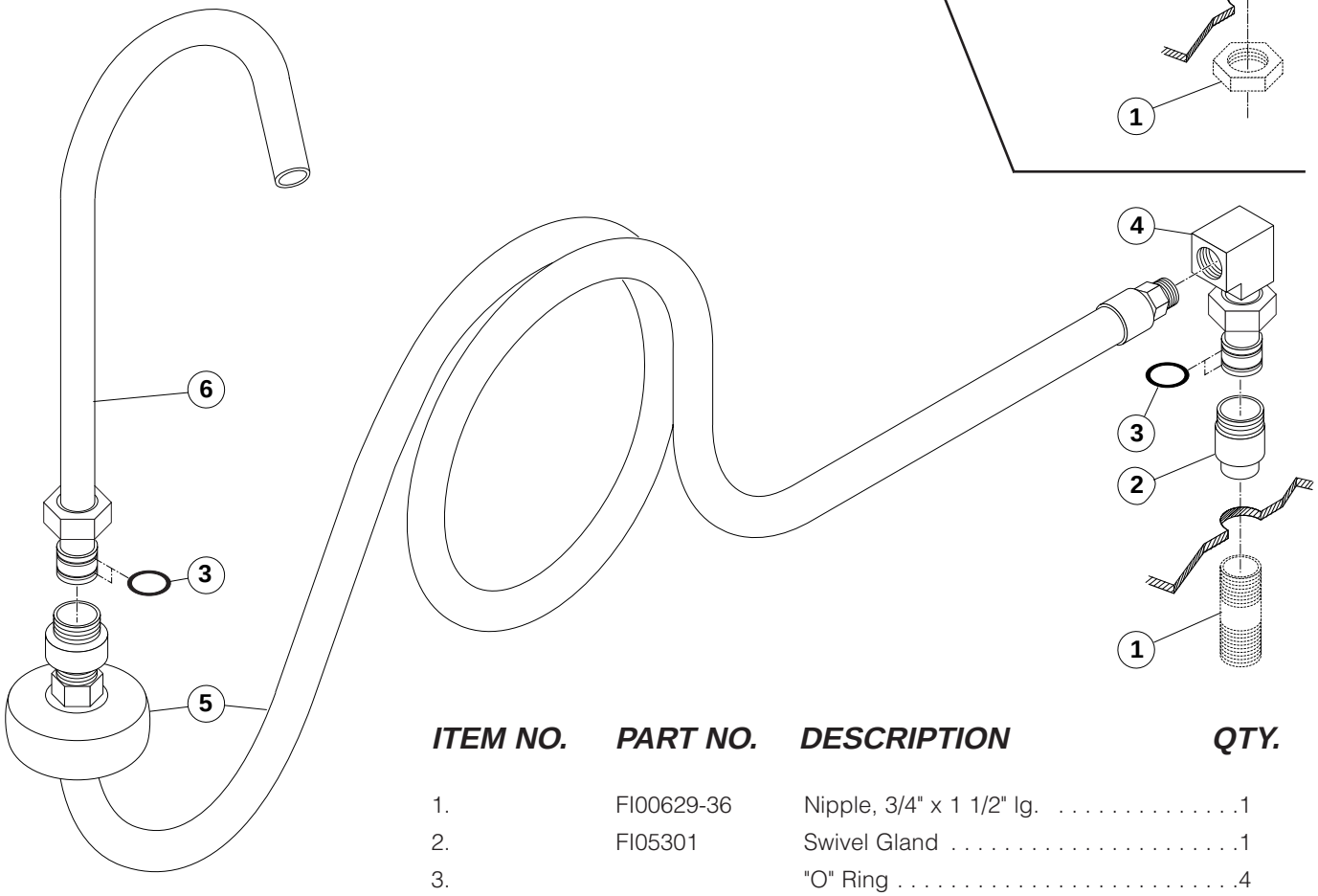
*** NOTE**: See SOLENOID VALVE MAINTENANCE section for further information.

FAUCET ASSEMBLY



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	SD50098	Locknut, 3/4" NPT	1
2.	KE51585	Faucet Spout Fitting	1
3.	SD50097	Flanged Nut, 3/4" NTP, Chrome Plated	1
4.	KE51736	Long Faucet Nut	1
5.	FA05002-19	"O" Ring	1
6.	FA95022	Retaining Ring	1
7.	KE50825-4	Faucet Spout	1

HOSE ASSEMBLY



ITEM NO.	PART NO.	DESCRIPTION	QTY.
1.	FI00629-36	Nipple, 3/4" x 1 1/2" lg.	1
2.	FI05301	Swivel Gland	1
3.		"O" Ring	4
4.	FI05302	Swivel Elbow	1
5.	KE54511	Filler Hose	1
6.	KE54512	Swivel Gooseneck Spout	1

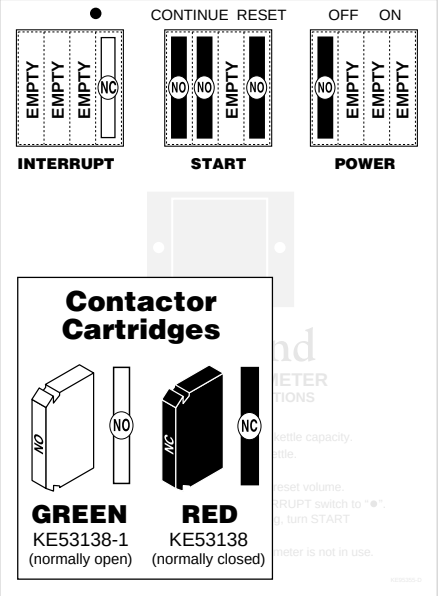
MAINTENANCE

GENERAL MAINTENANCE

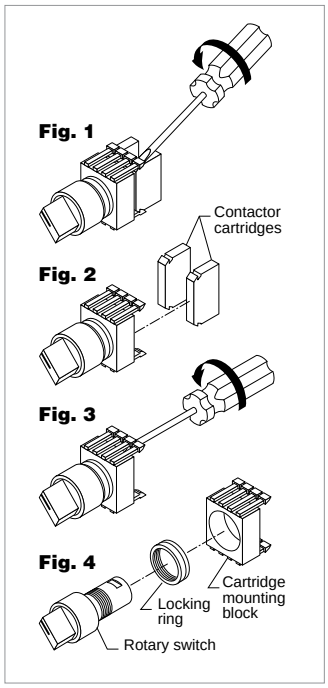
A Water Meter requires very little preventive maintenance, other than daily cleaning. The only item subject to wear is the "O" rings on the discharge assembly. These must be replaced when the problem is discovered.

WARNING: It is imperative to the life of the equipment that any failed seal be replaced immediately.

SWITCH CONFIGURATION & DISASSEMBLY



Contactor Locations Drawing



Switch Assembly Drawing

DISASSEMBLY OF SWITCH ASSEMBLY

1. Place slotted screwdriver between contactor cartridge and cartridge mounting block as shown in **Fig.1**.

2. Twist screwdriver to free cartridge.

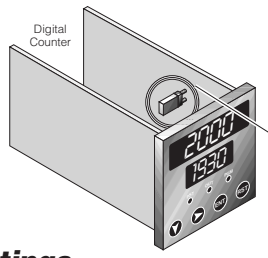
3. Place screwdriver under tab in the back of the cartridge mounting block as shown in **Fig. 3**.

4. Twist screwdriver to remove block from the rotary switch.

3. Unscrew locking ring to remove rotary switch.

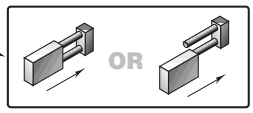
CONFIGURING A DIGITAL COUNTER

This procedure is only necessary when installing a replacement counter or settings to existing counter become corrupted.



Changing to Configuration Mode

1 To enter Configuration Mode, turn POWER switch "OFF" and remove counter from its' housing.



2 Change the position of the jumper. **Note**: The actual position is irrelevant, as long as the position is changed.

3 Replace the counter in its' housing and turn POWER switch "ON".

Editing the Parameter Settings

After changing the jumper position (see above instructions - ***Changing to Configuration Mode***), edit the parameters as follows:

Note: The **PGM** (program) indicator will flash while the counter is in the configuration mode.

1 Use the ▼ key to step through the parameters.

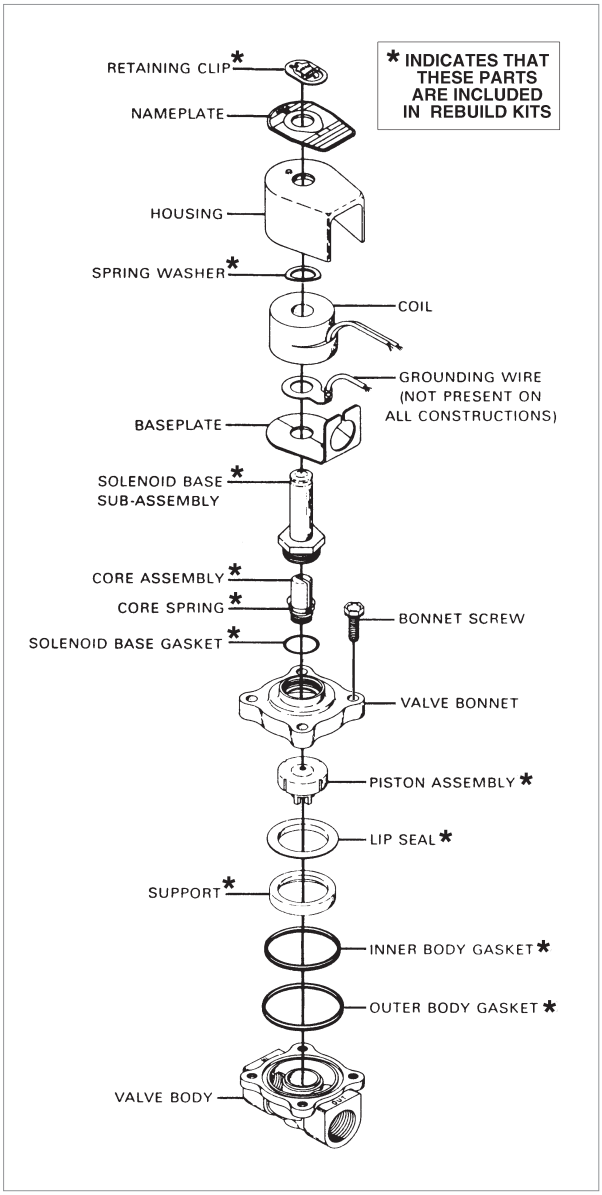
2 When the desired parameter description is shown in the upper display (see *Parameters Chart*), press the ▶ key to enter the edit mode and to scroll through the available settings.

3 When the desired setting is shown, press the **ENT** key.

4 To exit the Configuration Mode, momentarily remove power from counter or press and hold down the **RST** key for at least two seconds.

Parameters Chart	***Parameter Description*** *(Upper Display - in order of appearance)*	***Required Settings*** *(Lower Display)*
	Use ▼ key to step through parameters.	Use ▶ key to step to setting shown below.
Counter Speed	SPEE	20 — *20 Hz.*
Input Operation	InPu	A-B — *A-B (Add/Subtract)*
Panel Reset Key	PrES	EnAb — *Enable*
Auto Reset	ArES	EnAb — *Enable*
Input Pull-Ups	PULL	no — *No (Current-Sourcing)*
Count Direction	Cdir	uP — *Up-Counting*
Lock Strategy	Loc	nonE — *None*

SOLENOID VALVE MAINTENANCE



Solenoid Valve Exploded View Drawing

Ordering Information

Parts marked with an asterisk (*****) in the Solenoid Valve Exploded View Drawing are supplied in the Rebuild Kits.

Valve# ***(Description)***		**Rebuild Kit#**	**Replacement Coil#**
CT50182	*(2", 120V/60 Hz.)*	SE50400	SE50401
CT50244	*(1", 120V/60 Hz.)*	SE50402	SE50401
CT50245	*(1", 120V/60 Hz.)*	SE50403	SE50404
KE51652	*(3/4", 120V/60 Hz.)*	SE50405	SE50406
KE51656	*(3/4", 120V/60 Hz., HW)*	SE50407	SE50401
KE52668	*(3/8", 120V/60 Hz.)*	SE50408	SE50404
KE53007	*(1 1/4", 120V/60 Hz.)*	SE50409	SE50404
KE53159	*(3/4", 120V/60 Hz.)*	SE50410	SE50404

NOTE: It is not necessary to remove the valve from the pipeline for repairs.

WARNING: Turn off electrical power supply and depressurize valve before making repairs.

Cleaning

All solenoid valves should be cleaned periodically. The time between cleanings will vary depending on the medium and service conditions. In general, if the voltage to the coil is correct, sluggish valve operation, excessive noise or leakage will indicate that cleaning is required . Clean valve strainer or filter when cleaning the valve.

Preventive Maintenance

1. Keep the medium flowing through the valve as free from dirt and foreign material as possible.
2. While in service, the valve should be operated at least once a month to insure proper opening and closing.
3. Depending on the medium and service conditions, periodic inspection of internal valve parts for damage or excessive wear is recommended. Thoroughly clean all parts. Replace worn or damaged parts. However, for best results, replace all parts as supplied with a Rebuild Kit.

Causes of Improper Operation

1. *Faulty Control Circuits:* Check the electrical system by energizing the solenoid. A metallic "click" signifies that the solenoid is operating. Absence of the "click" indicates loss of power supply . Check for loose or blown fuses, open circuited or grounded coil, broken lead wires or splice connections.
2. *Burned-Out Coil:* Check for open-circuited coil. Replace coil as necessary. Check supply voltage; it must be the same as specified on nameplate.
3. *Low Voltage:* Check voltage across the coil lead. Voltage must be at least 85% of nameplate rating.
4. *Incorrect Pressure:* Check valve pressure. Pressure to valve must be within range specified on nameplate.
5. *Excessive Leakage:* Disassemble valve and clean all parts. If leakage continues, replace all parts as supplied with a Rebuild Kit.

Coil Replacement

WARNING: Turn off electrical power supply.

1. Disconnect coil lead wires and green grounding wire if present.
2. Remove retaining clip, nameplate and housing.

WARNING: When metal retaining clip disengages, it will spring upward.

3. Slip spring washer and coil off the solenoid base subassembly.
4. Coil is now accessible for replacement. Reassemble in reverse order of disassembly. Use Solenoid Valve Exploded View Drawing for identification and placement of parts.

CAUTION: Solenoid must be fully reassembled because the housing and internal parts complete the magnetic circuit.

Valve Disassembly

WARNING: Depressurize valve and turn off electrical power supply.

1. Disassemble valve in an orderly fashion. Use exploded view for identification and placement of parts.
2. If necessary, disconnect coil lead wires, grounding wire (if present), and rigid conduit from solenoid housing,
3. Remove retaining clip and slip the entire solenoid enclosure off the solenoid base sub-assembly.

WARNING: When metal retaining clip disengages, it will spring upward,

4. Unscrew solenoid base sub-assembly and remove core assembly, core spring, and solenoid base gasket.
5. Remove bonnet screws, valve bonnet, piston assembly, lip seal, support, inner and outer body gaskets.
6. All parts are now accessible to clean or replace; Replace worn or damaged parts. However, for best results, replace all parts as supplied with an Rebuild Kit.

Valve Reassembly

1. Reassemble in reverse order of disassembly. Use exploded view for identification and placement of parts.
2. Lubricate all gaskets with DOW CORNING 111® Compound lubricant or an equivalent high-grade silicone grease.
3. Position support and inner and outer body gaskets in valve body.
4. Position lip seal, flanged end up, onto piston assembly. Install piston assembly with lip seal into support in valve body cavity.
5. Replace valve bonnet and bonnet screws. Torque bonnet screws in a crisscross manner to 95 ±10 inch-pounds (10,7 ±1,1 newton-meters).
6. Replace solenoid base gasket, core assembly, and solenoid base sub-assembly. Torque solenoid base sub-assembly to 175 ±25 inch-pounds (19,8 ±2,8 newton-meters).
7. Replace solenoid enclosure and retaining clip.
8. Restore line pressure and electrical power supply to valve.
9. After maintenance is completed, operate the valve a few times to be sure of proper opening and closing.

SPARE PARTS LIST

PART NO.	*DESCRIPTION*	*QTY.*
KE51139	Fuse Lamp	1
KE51656	Solenoid Valve	1
UR50065	Varistor	1
KE50753-9	Relay	1
FA05002-19	"O" Ring	2
KE53138-1	Contactor Cartridge, green, normally open	1
KE53138	Contactor Cartridge, red, normally closed	1

WIRING DIAGRAMS