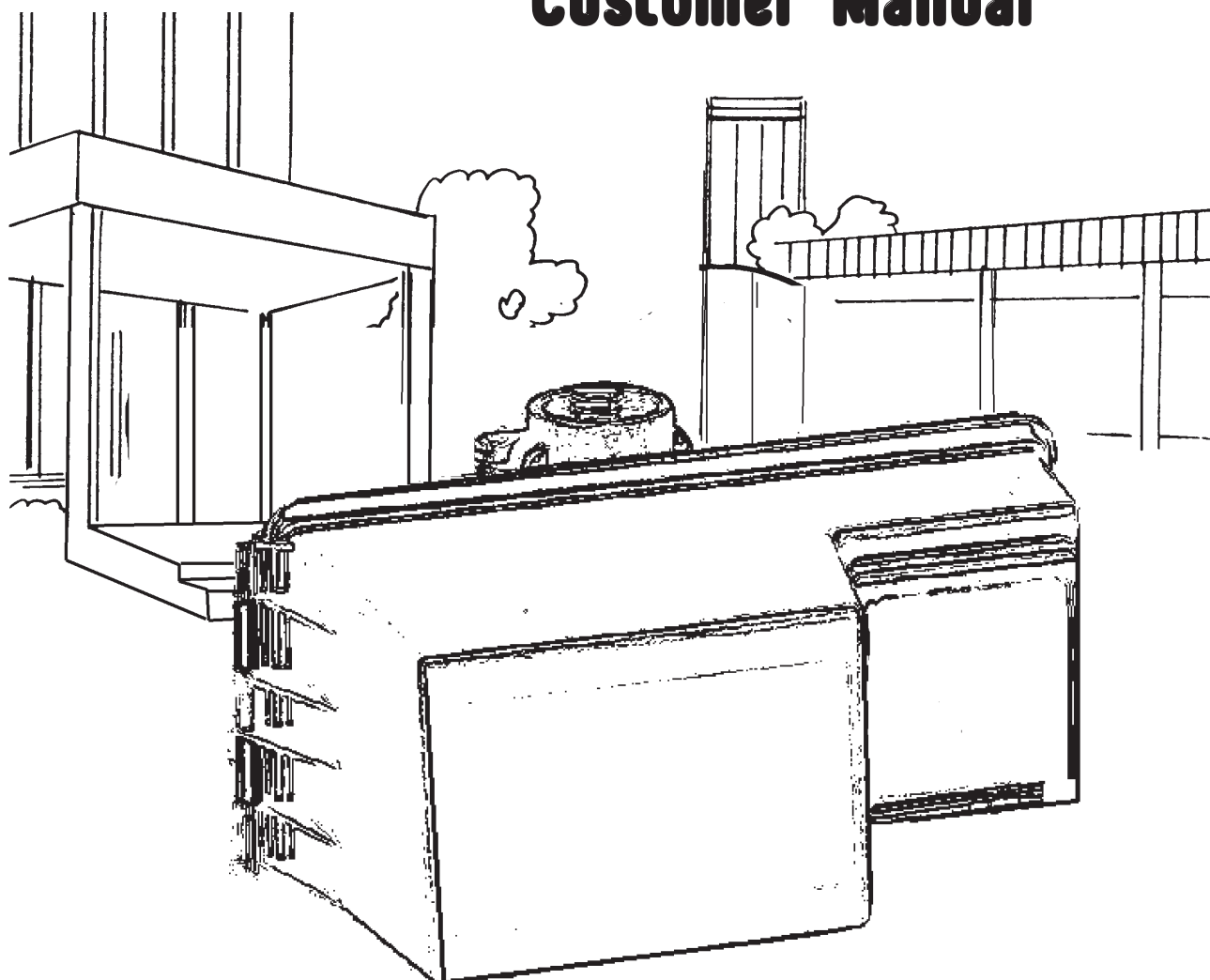


# **Model 3150ET/FILTER Customer Manual**



# MODEL 3150ET/FILTER

## installation data

JOB NO: .....

MODEL NO: .....

MEDIA VESSEL SIZE: ..... DIA. x ..... HIGH

MEDIA TYPE: .....

MEDIA VOLUME: ..... LITRES

### 3150ET/FILTER CONTROL VALVE SPECIFICATIONS & SETTINGS:

1) \*Type of Timer: 3200/ET

2) Recovery programme settings:

a) Backwash ..... min.

b) Gravity settle ..... min.

c) Rapid Rinse ..... min.

3) Drain Line Flow Control ..... US gpm / lpm.

4) Electrical: 24 volt 50 Hz 55VA

FOR SERVICE CONTACT:

# MODEL 3150ET/FILTER

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## *general installation checklist*

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**WATER PRESSURE:** A minimum water pressure of 1,8 bar is required for the recovery control valve to operate effectively. The maximum water pressure must not exceed 8,6 bar.

**ELECTRICAL FACILITIES:** A continuous 24 volt, 50 Hz. current supply is required. Make certain the current supply is always live and cannot be turned off with another switch.

**EXISTING PLUMBING:** Existing plumbing should be free from hardness scale and iron buildup. Piping that is built up heavily with hardness scale and/or iron should be replaced. If piping is clogged with iron, a separate iron filter unit should be installed ahead of the water filter.

**LOCATION OF FILTER AND DRAIN:** The filter should be located close to a drain.

**BYPASS VALVES:** Always provide for the installation of a bypass valve system.

**CAUTION:** Water pressure is not to exceed 8,6 bar. Water temperature is not to exceed 43°C. The unit must not be subjected to freezing conditions.

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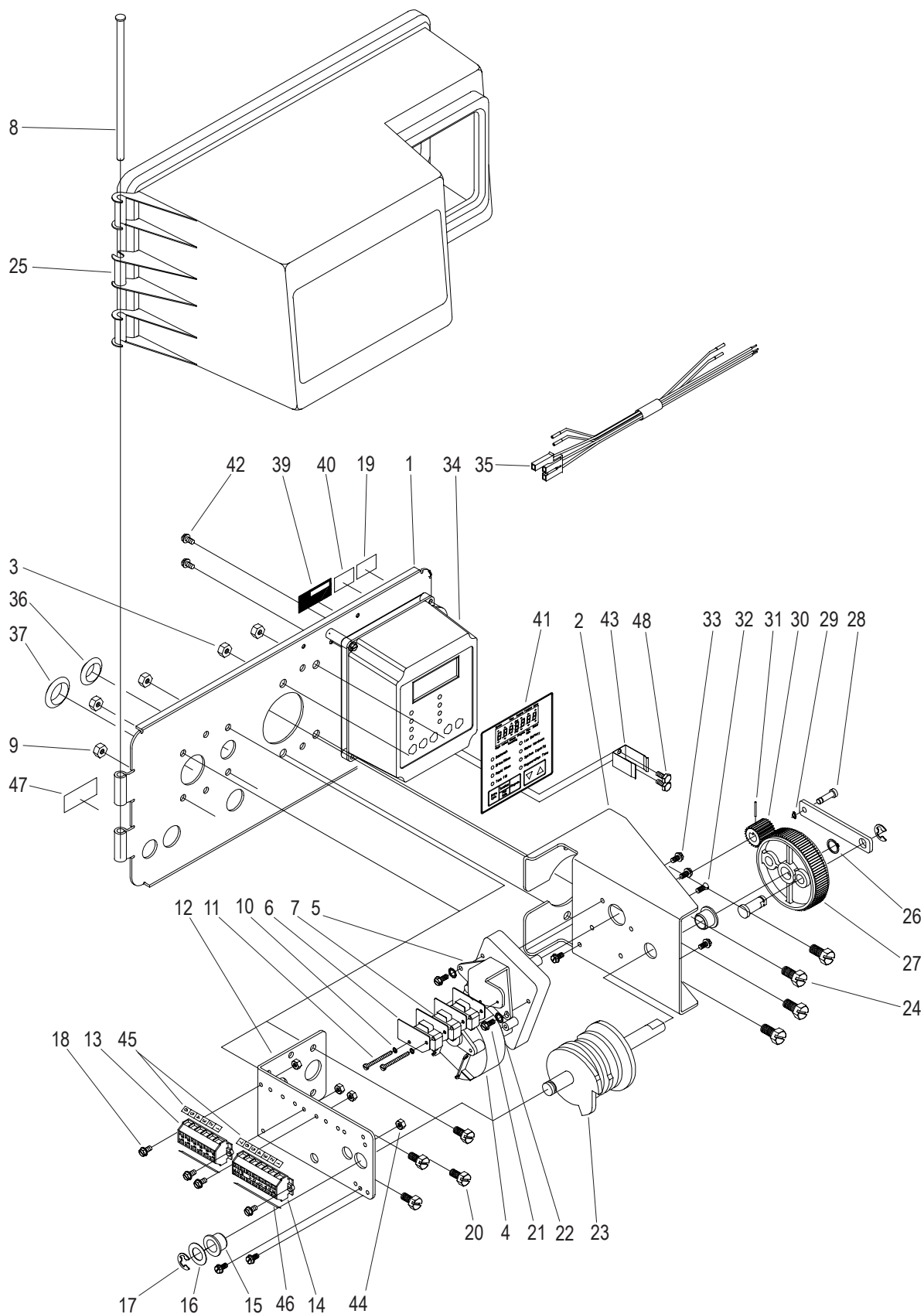
## INSTALLATION AND START-UP INSTRUCTIONS

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- 1). Place the filter pressure vessel in position, making sure the vessel is level and on a firm base.
- 2). All plumbing should be in accordance with local water bylaws. The minimum pipe size for the drain line should not be less than 1in N.B. and must be capable of passing the backwash flow (*see page 2 for DLFC size*) without undue backpressure
- 3). Fit the control valve in the pressure vessel face pipework.
- 4). Place the installation in the bypass position. Turn on the main water supply. Open a cold water outlet nearby and let it run for a few minutes or until such time as the pipework system is flushed free from foreign material that may have resulted from the installation.
- 7). Place the installation in the service position and let the water flow slowly into the filter vessel. Air should be expelled via the open water outlet and this should be closed when the water runs free of air entrapment.
- 8). Electrical: All electrical connections must be made according to the appropriate codes. Connect the system to a suitable transformer if required.

# MODEL 3150ET/FILTER

## *control drive assembly*



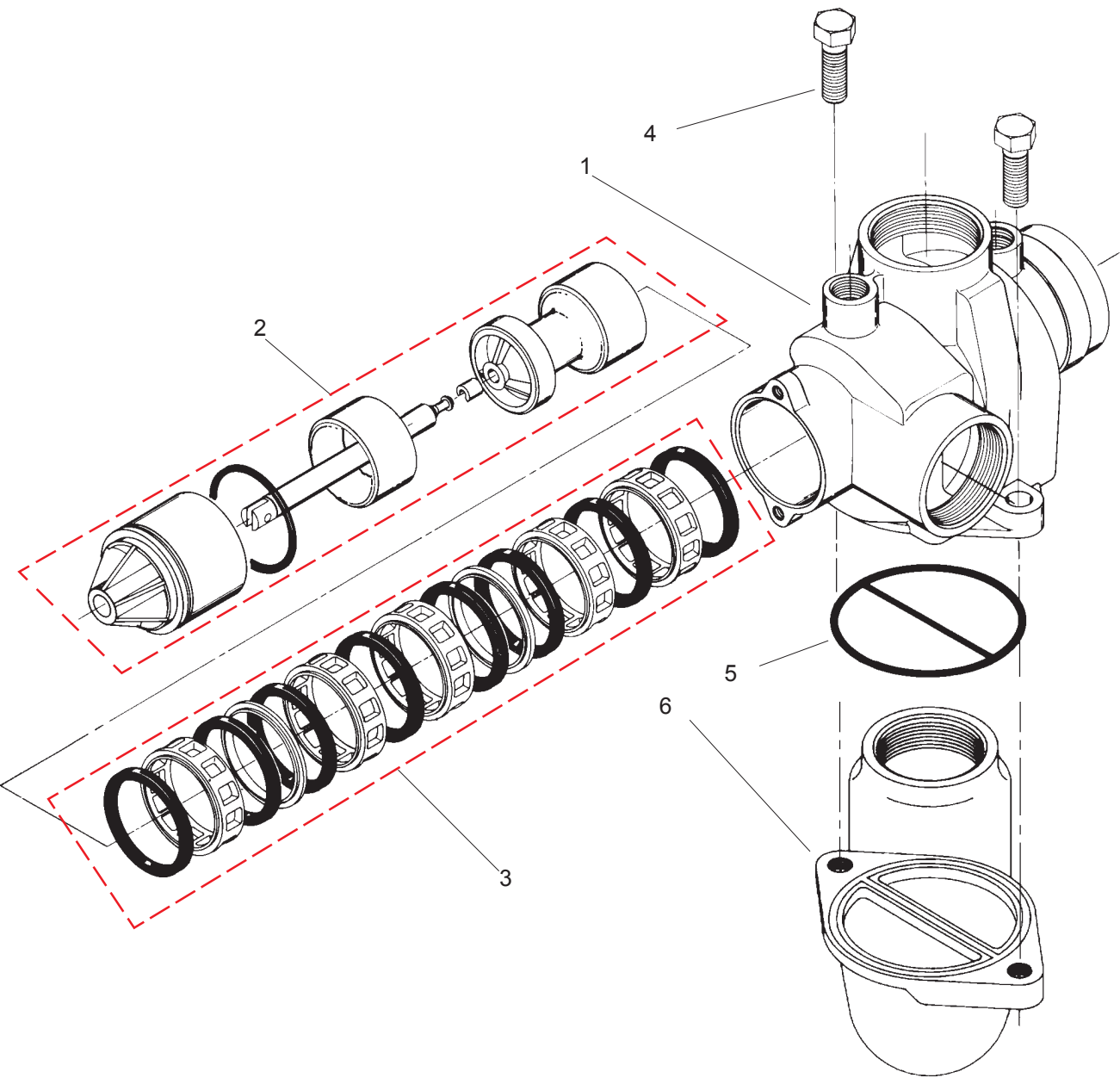
# MODEL 3150ET/FILTER

## *control drive assembly*

Item	Qty	Part No.	Description
1	1	19304-02	Back plate
2	1	15120-01	Motor mounting bracket
3	2	16346	Nut 1/15-18
4	1	16501	Drive motor 24vac 50/60 Hz
5	1	17797	Switch mounting plate
6	4	10302	Insulator
7	3	10218	Microswitch
8	1	17845-03	Hinge pin
9	4	11235	Nut 1/4 -20
10	2	13365	Lockwasher
11	2	12624	Screw
12	1	16053	Brine side bracket
13	1	15226-6	Terminal strip - 6 position - Grey
14	1	15226-7	Terminal strip - 7 position - Orange
15	2	16052	Bushing
16	1	16059	Washer
17	1	16051	Retaining ring
18	4	13296	Screw
19	1	24388	Voltage label 24v
20	4	10231	Screw
21	2	17567	Screw
22	2	12288	Washer
23	1	16494-05	Downflow cam assy
24	4	21354	Screw
25	1	26637	Cover assy
26	1	16050	Retaining ring
27	1	16046	Drive gear assy
28	1	11709	Drive link pin
29	1	11898	Clip
30	1	16045	Drive pinion
31	1	15493	Roll pin
32	1	11080	Screw
33	3	10872	Screw
34	1	26475	Timer assy - 3200ET 24vac
35	1	14822-02	Wire harness
36	1	19691	Hole plug 3/4in
37	1	19591	Hole plug 7/8in
38	2	16376	Motor clip - <i>not shown</i>
39	1	21271	Serial number label
40	1	23474	"Assembled By" label
41	1	26515-1	Downflow switch pad label
42	2	10300	Screw
43	1	17831-01	Battery clip
44	4	12732	Nut
45	4	15250	Terminal strip label 6/7 position
46	1	18694	Terminal strip label "Low Voltage"
47	1	26210	CE label
48	2	11086	Screw - Batery clip
49	2	11085	Nut - Battery clip - <i>not shown</i>
50	2	18748	Plug 0.75in hole - <i>not shown</i>
51	1	17421	Plug 1.21in hole - <i>not shown</i>
52	1	19590	Plug 0.875 hole - <i>not shown</i>

# MODEL 3150ET/FILTER

## *valve body assembly - NBP*



# MODEL 3150ET/FILTER

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## *valve body assembly - NBP*

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Item	Qty	Part No.	Description
1	1	15114	Valve body
2	1	26496	Piston assembly - NBP Black
3	1	18022	Seal and spacer kit
4	2	25165	Screw TH 12x35
5	1	15112	Seal
6	1	17407	Adaptor - Side mount

# MODEL 3150ET/FILTER

## *normal control operation*

### Time Based Recovery Initiation Systems

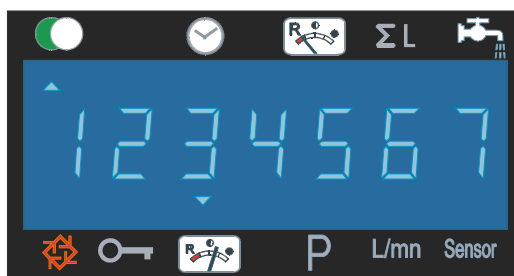
The display will show:



In normal operation the time of day ( 24 hour format ) will be displayed at all times. The control will operate normally until the point when the recovery initiation parameters have been met. The recovery process will then commence.

### Volume Based Recovery Initiation Systems

In normal operation the display will alternate between the above display and the volume remaining display shown below.



Water flow through the system is indicated by the meter arrow flashing in a direct relationship to the flow rate. As treated water is produced, the volume remaining display will count down towards zero. On reaching that point, the recovery process will commence. The volume unit of measurement is  $m^3$ .

### Control Operation During Programming

The control will only enter the Programme Mode with the valve in the service position and with AC power supplied and connected. While in programme mode the control will continue to operate normally, monitoring water usage and updating variable display data. Control programming data is stored permanently in memory, regardless of AC power or battery backup power.

### Lockout Input Operation

The lockout arrow will turn on whenever a Lockout Signal ( *if utilised* ) is received by the control. Any control instruction to initiate a recovery will be delayed until such time as the lockout signal is removed.

# MODEL 3150ET/FILTER

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## *normal control operation*

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### Keypad Operation

#### **Extra Cycle button**

Pushing this button will initiate a recovery cycle regardless of control status as follows:

1. With time only or immediate volume based initiation, the extra recovery will commence straight away.
2. With delayed volume based initiation, the extra recovery will commence at the pre-defined time.  
Note: This time delay can be overridden by keeping the button depressed for 5 seconds.

#### **Totalizer / Flow Rate button**

Pushing this button alternates the display of totalizer volume or flow rate information.

1. Totalizer display - An arrow confirms what is being displayed. The information displayed is the total volume throughput of the system since it was last reset. The unit of measurement is m<sup>3</sup>. Note: The maximum display is 9999999 m<sup>3</sup> after which the system resets to zero. You can manually reset the control to zero by depressing the button for 25 seconds.
2. Flow Rate display - An arrow confirms what is being displayed. The information displayed is the current flow rate in litres per minute.

#### **Program button**

This button is used by the installer / system engineer to define the operating characteristics of the control and the system. It is not a USER function button.

#### **Set buttons**

These two arrow buttons are used to adjust the current time of day when the system is in normal service. They can also be used to increase or decrease the remaining time in a recovery stage although this should only be done with caution. Note: Recovery time adjustments made are not retained by the system on completion of the particular cycle.

#### **Low Battery indicator**

When the control is connected to AC power, this red LED will show if the 9v alkaline battery needs replacing or is missing or not properly connected. A fully charged battery will maintain variable display information for up to 24 hours.

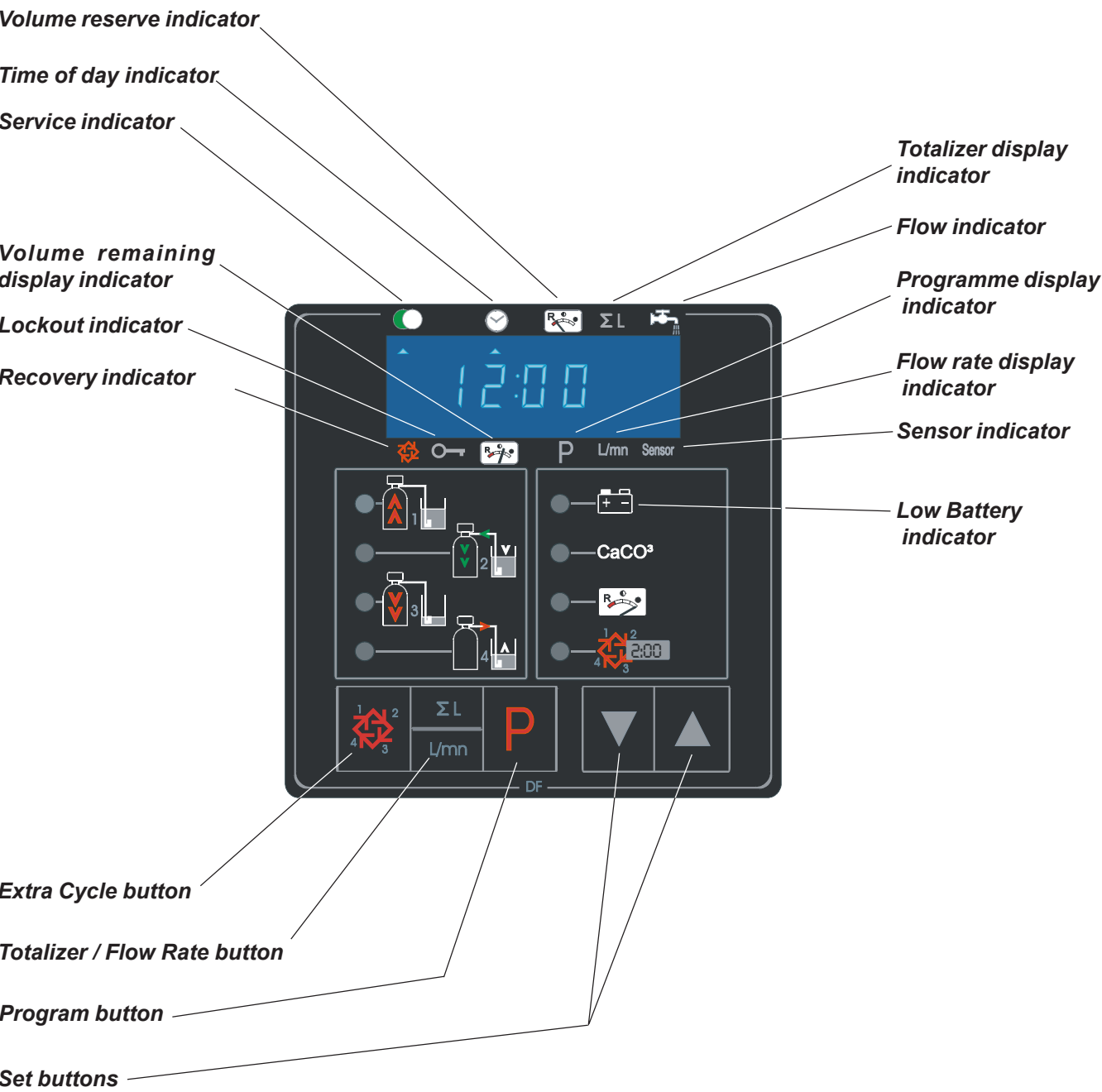
Note: Do not use re-chargable batteries. The control does not provide re-charging facilities.

# MODEL 3150ET/FILTER

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## *control function and indicator guide*

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# MODEL 3150ET/FILTER

## wiring diagram for valve drive & timer

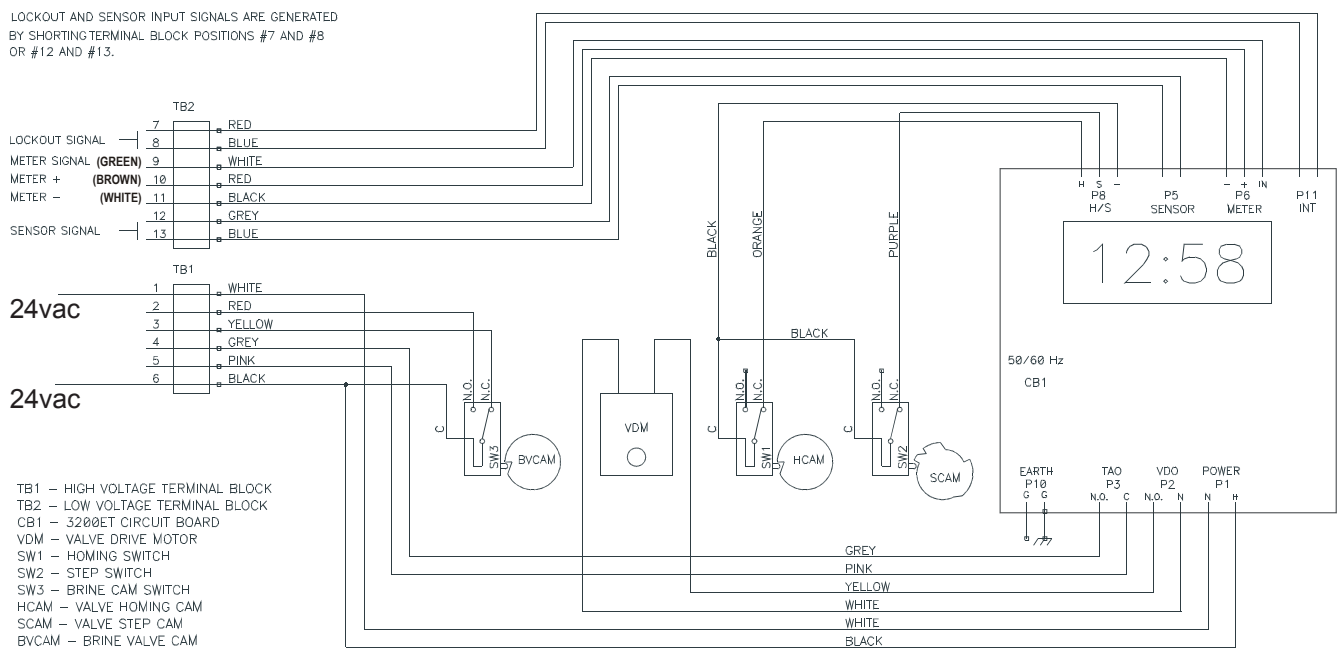
Electrical supply connections:

24vac 50 Hz. 60 Va

Negative to TERMINAL 1

Positive to TERMINAL 6

LOCKOUT AND SENSOR INPUT SIGNALS ARE GENERATED  
BY SHORTING TERMINAL BLOCK POSITIONS #7 AND #8  
OR #12 AND #13.



# MODEL 3150ET/FILTER

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