

ENCHLOR INC.

1700 SERIES GAS DETECTOR

1710 Single Point

1720 Dual Point

**INSTALLATION AND OPERATION
MANUAL**

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1700 Series Monitor

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SPECIFICATION:

| | |
|-------------------|--|
| Power Supply | 115/230 VAC Switch selectable. |
| Power Consumption | 12W |
| Display | LCD, backlit, 16 characters by 2 lines, 5mm character height, 5x8 character matrix. |
| Pushbuttons | Four, tactile dome. |
| Relays | Three, Mechanical (AC or DC) |
| Buzzer. | 103 DB |
| Rating | 1.2A, 125VAC. Optional: 5A @ 250VAC. |
| Analog Input | two, 4 to 20mA. |
| Analog Output | Isolated 4 to 20mA, 0-500ohm load, active. |
| Digital Output | 20mA Serial (remote computer) |

QUICK START

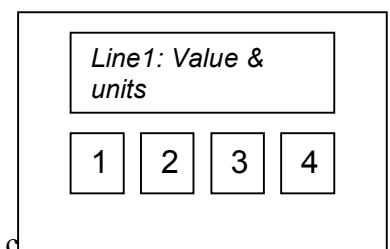
INSTALLATION:

- 1). Mount the 1700 Series Monitor at eye level. Mount the sensor 12" off the floor. The 1700 Series Monitor is provided with 12' of cable for the sensor.
- 2). Attach the cable from the 1700 Series Monitor to the sensor. The red LED will go on when powered up.
- 3). The 1700 Series Monitor requires 117VAC (+/-10%) power at 48-62Hz and 1/4 amp.

After proper installation the monitor is ready to operate.

DISPLAY:

The top line of the LCD display is formatted to show a selected value along with its engineering units. The second line normally provides function labels for the four pushbuttons located below the function. The pushbuttons do not have any labels.



1700 Series Monitor OPERATION:

MAIN RUN SCREEN:

The value displayed is the type of sensor and its scaled output in ppm. Below the sensor type and value is a fifty segment bar-graph representation of the monitors full scale and the 4mA to 20mA output (PO1). To enter the configuration and calibration screens press SET. The display will prompt you to enter a password.

| | | |
|-----|---------|-----|
| SO2 | 0.0 ppm | SET |
| | | |

| | | |
|---|-----|---------------------------------------|
| 1 | | |
| 2 | | |
| 3 | | |
| 4 | SET | Press SET to enter a password screen. |

PASSWORD ENTRY SCREEN:

From the run screen, press SET and the user will be prompted to enter a password (default is 000). If the password is correct, the MONITOR SETUP SCREEN will be displayed. If an incorrect password is entered, The MAIN RUN SCREEN will be displayed.

| |
|----------------|
| ENTER PASSWORD |
| ? ? ? ENT |

| | | |
|---|--------|---|
| 1 | ?, 0-9 | Steps from 0 to 9 and then back to 0. |
| 2 | ?, 0-9 | Steps from 0 to 9 and then back to 0. |
| 3 | ?, 0-9 | Steps from 0 to 9 and then back to 0. |
| 4 | ENT | Press ENT to enter monitor setup screen.. |

MONITOR SETUP SCREEN:

From the Monitor Setup screen, you can select CAL, ALM or RUN. The Calibration screen provides the ability to calibrate the analog input and output. The alarm screen provides the ability to set the Danger and Critical values.

| |
|---------------|
| MONITOR SETUP |
| CAL ALM RUN |

| | | |
|---|-----|--|
| 1 | CAL | Enter calibration screen. |
| 2 | ALM | Enter danger and critical alarm setup screen |
| 3 | | |
| 4 | RUN | Go back to the main run screen. |

1700 Series Monitor ALARM:

SELECT ALARM:

From the MONITOR SETUP SCREEN, press the pushbutton under ALM.

| |
|--------------------|
| MONITOR SETUP |
| CAL ALM RUN |

| | | |
|---|------------|----------------------------------|
| 1 | CAL | Enter calibration screen |
| 2 | ALM | Enter alarm select screen |
| 3 | | |
| 4 | RUN | Go back to the main run screen |

ALARM SCREEN:

Press the pushbutton under CRT or DGR, to configure. Press ESC to return.

| | | | |
|-----|-----|-----|-----|
| SEL | SO2 | CH1 | ALM |
| CRT | DGR | | ESC |

| | | |
|---|-----|---|
| 1 | CRT | Critical alarm screen to set value for relay contact. |
| 2 | DGR | Danger alarm screen to set value for relay contact. |
| 3 | | |
| 4 | ESC | Go back to the monitor setup screen. |

CRITICAL ALARM SETUP SCREEN:

From the critical alarm setup screen you can view the current value. To change, press the pushbutton under UP or DWN to change the value. Press the pushbutton under SET to enter the new value and return back to alarm setup screen.

| | |
|----------|------|
| CRITICAL | 10.0 |
| UP DWN | SET |

| | | |
|---|-----|------------------------------------|
| 1 | UP | To increase the value. |
| 2 | DWN | To decrease the value. |
| 3 | | |
| 4 | SET | Go back to the alarm setup screen. |

DANGER ALARM SETUP SCREEN:

From the danger alarm setup screen you can view the current value. To change, press the pushbutton under UP or DWN to change the value. Press the pushbutton under SET to enter the new value and return back to alarm setup screen

| | |
|--------|-----|
| DANGER | 2.0 |
| UP DWN | SET |

| | | |
|---|-----|------------------------------------|
| 1 | UP | To increase the value. |
| 2 | DWN | To decrease the value. |
| 3 | | |
| 4 | SET | Go back to the alarm setup screen. |

1700 Series Monitor CALIBRATION:

SELECT CALIBRATION

From the MONITOR SETUP SCREEN, press the pushbutton under CAL.

| |
|--------------------|
| MONITOR SETUP |
| CAL ALM RUN |

| | | |
|---|------------|-----------------------------------|
| 1 | CAL | Enter calibration screen.. |
| 2 | ALM | Enter alarm select screen. |
| 3 | | |
| 4 | RUN | Go back to the main run screen |

CALIBRATION SCREEN:

Press the pushbutton under CH1 or IOU.T. Press ESC to return.

| |
|---------------|
| CALIBRATION |
| CH1 IOU.T ESC |

| | | |
|---|-------|--|
| 1 | CH1 | Press to calibrate 4-20mA analog input.. |
| 2 | | |
| 3 | IOU.T | Press to calibrate 4-20mA analog output. |
| 4 | ESC | Will ask to set new password yes /no |

CALIBRATE ANALOG INPUT CH1 SCREEN:

A device generating a calibrated 4-20mA output is required. The current analog input is displayed in the top right of the screen. Use a calibrated analog input or other device to calibrate the zero and full scale value.

| | |
|----------|--------|
| SET CH1 | 0.0ppm |
| ZRO SPAN | ESC |

| | | |
|---|------|--|
| 1 | ZRO | Press to enter the value being input as the calibrated zero. |
| 2 | SPAN | Press to enter the value being input as the calibrated standard. |
| 3 | | |
| 4 | ESC | Go back to the calibration screen. |

CALIBRATE ANALOG OUTPUT IOUT SCREEN:

A DMM is required to proceed with calibration. Attach a DMM, press the pushbutton under 4mA or 20mA to enter setup screen.

| |
|--------------------|
| SET ANALOG OUT |
| 4mA 20mA EXIT |

| | | |
|---|------|------------------------------------|
| 1 | 4mA | Press to enter 4mA setup screen. |
| 2 | 20mA | Press to enter 20mA setup screen. |
| 3 | | |
| 4 | EXIT | Go back to the CALIBRATION screen. |

SET 4.0mA ANALOG OUTPUT:

A DMM is required to proceed with calibration. While viewing the DMM, press the pushbutton under up or down to new value. Press the pushbutton under SET to enter the new value and return back to set analog output screen.

| |
|-----------------|
| SET 4.00mA OUT |
| UP DWN SET |

| | | |
|---|-----|---|
| 1 | UP | Press to drive analog output up. View on DMM. |
| 2 | DWN | Press to drive analog output down, View on DMM. |
| 3 | | |
| 4 | SET | Press SET to enter the new value and return to SET ANALOG OUT screen. |

SET 20.0mA ANALOG OUTPUT:

A DMM is required to proceed with calibration. While viewing the DMM, press the pushbutton under UP or DWN to new value. Press the pushbutton under SET to enter the new value and return back to Set Analog Output screen.

| |
|-----------------|
| SET 20mA OUT |
| UP DWN SET |

| | | |
|---|-----|--|
| 1 | UP | Press to drive analog output up. View on DMM. |
| 2 | DWN | Press to drive analog output down, View on DMM. |
| 3 | | |
| 4 | SET | Press SET to enter the new value and return to set analog output screen. |

1700 Series Monitor BATTERY STATUS:

MAIN RUN SCREEN:

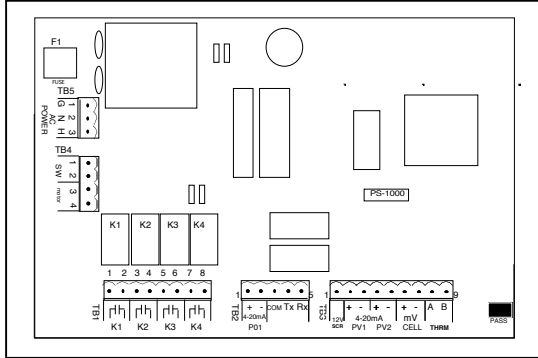
If the monitor is equipped with the battery backup option the battery status can be displayed from the main run screen. To display battery status depress #1 pushbutton. When pressed the battery status will be displayed for 30 sec. After 30 sec. The display will revert to the Main Operate Screen.

| | |
|----------------|---|
| BATTERY STATUS | F |
| E | |

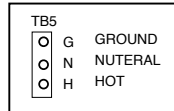
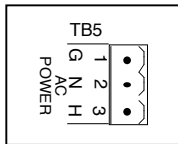
| | | |
|---|--|---|
| 1 | | Press to display battery status. In battery power mode, hold to power down. |
| 2 | | |
| 3 | | |
| 4 | | |

1700 Series Monitor WIRING:

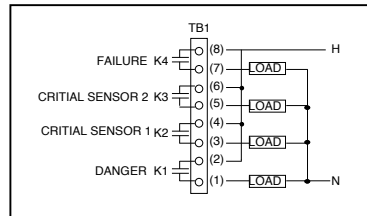
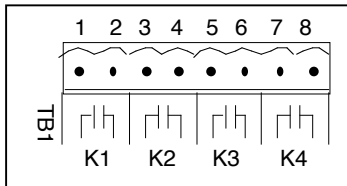
TERMINATIONS:



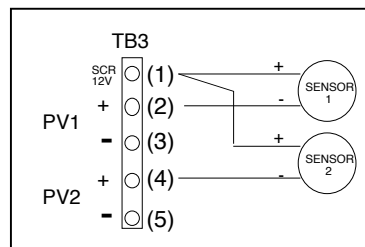
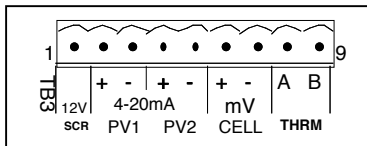
POWER:



ALARMS:



SENSOR INPUT:



ANALOG OUTPUT:

