

Pressure Reservoir

User Guide

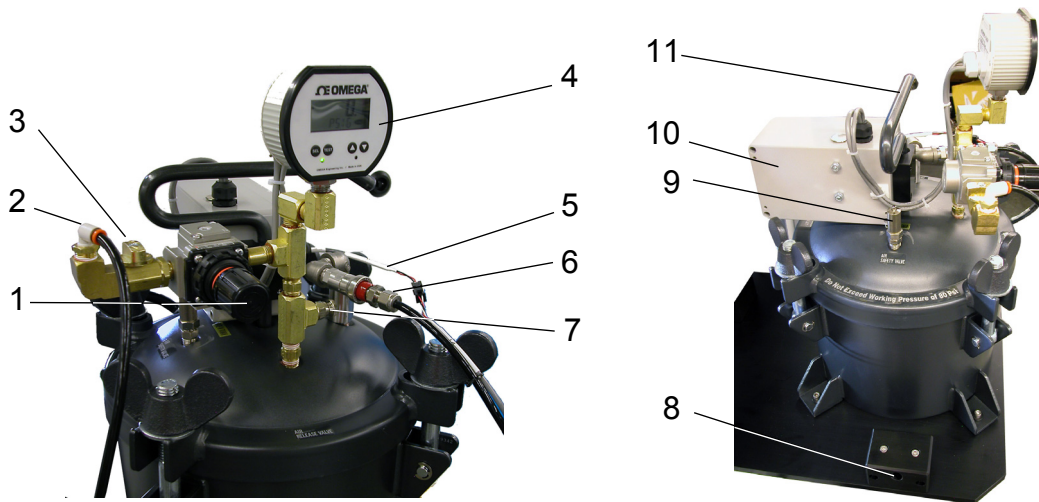
PN 22200605, version 1.0

Safety

CAUTION: Always release air pressure from the reservoir prior to removing the lid or the fluid outlet quick release (Figure 1, Item 6) from the reservoir.

Part Identification

Figure 1: Reservoir parts identified



1	air pressure regulator	Controls the amount of system air pressure allowed into the reservoir.
2	air inlet fitting	Connects system air to the reservoir air pressure regulator.
3	inlet pressure ball valve	Stops inlet pressure without releasing pressure from reservoir.
4	air pressure gauge	Displays the amount of air pressure contained by the reservoir.
5	cable assembly	Connects reservoir level detect sensor to the system.
6	fluid outlet quick release	Used to disconnect the fluid line from the reservoir. <i>ALWAYS release pressure from the reservoir prior to disconnecting this line.</i>
7	air pressure release valve	Used to manually release pressure from the reservoir.
8	support bracket	Supports reservoir lid by the lid handle.
9	air safety release valve	Automatically releases air pressure in excess of 80 psi. This valve can be manually adjusted to release air at lower pressures.
10	fluid level detector	(inside electrical box) Optically detects when reservoir contents have decreased to a low level. System alerts the user to the condition by displaying a low material level message on the system monitor.
11	lid handle	Used to remove and hang reservoir lid.

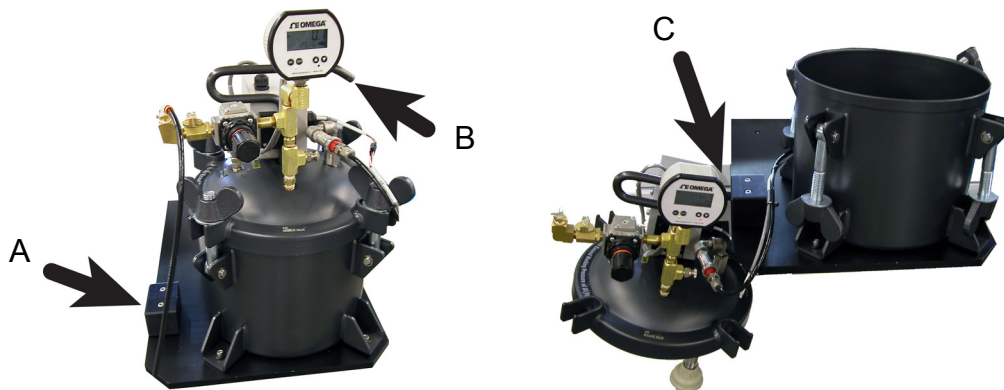
Operations

Disassemble Reservoir

1. Turn off the inlet pressure ball valve (Figure 1, Item 3).
2. Release pressure using the air pressure release valve (Figure 1, Item 7).
3. After the air pressure gauge (Figure 1, Item 4) reads zero (0), disconnect the fluid outlet quick release (Figure 1, Item 6) from the reservoir.
4. Unscrew the four wing nuts.
5. Remove the lid and hook the end of the handle (Figure 2, Item B) in the support bracket (Item A) so it hangs as shown (Item C).

NOTE: Be sure to fully support the weight of the reservoir lid when removing the lid from the reservoir.

Figure 2: Reservoir lid hanging in support bracket



A	support bracket
B	lid handle
C	end of lid handle inserted into support bracket

Reassemble Reservoir

To reassemble the reservoir, perform disassembly steps in reverse order.

Refill Reservoir

1. [Disassemble Reservoir](#) per instructions.
2. Fill the reservoir liner with material to a maximum of 1-1/2" (3.8 cm) below the top edge of the liner.
3. [Reassemble Reservoir](#) per instructions.

Adjustments

No adjustments should be necessary. If you want to re-train the low level setting for the fluid level detect sensor, refer to [Photoelectric Sensor Operation](#) (pg 4).

Maintenance

Clean Reservoir

To clean the reservoir:

1. [Disassemble Reservoir](#) (pg 2) per instructions.
2. Remove the reservoir liner and dispose of it properly per MSDS waste disposal instructions.
3. Insert a new reservoir liner and fill it with material per [Refill Reservoir](#) (pg 2).
4. [Reassemble Reservoir](#) (pg 2) per instructions.

Spare Parts

To locate the following parts, refer to [Mechanical Assembly Drawing - 22291127](#) (pg 7).

Table 1: Suggested Spare Parts

Description	Part Number	Qty
Liner, Reservoir	10/4489	10
Cable Assembly (from IO to Reservoir)	22298364	1

Specifications

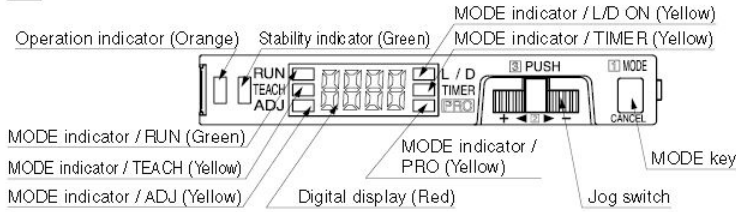
- Reservoir Capacity 2.5 gallons (9.46 liters)
- Air Pressure from machine to reservoir maximum 80 psi (5.6259 kg/cm)

Appendices

- [Photoelectric Sensor Operation](#) (pg 4)
- [Mechanical Assembly Drawing - 22291127](#) (pg 7)
- [Electrical Schematic - 22293246](#) (pg 8)

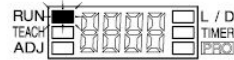
Photoelectric Sensor Operation

■ PART DESCRIPTION



■ OPERATION PROCEDURE

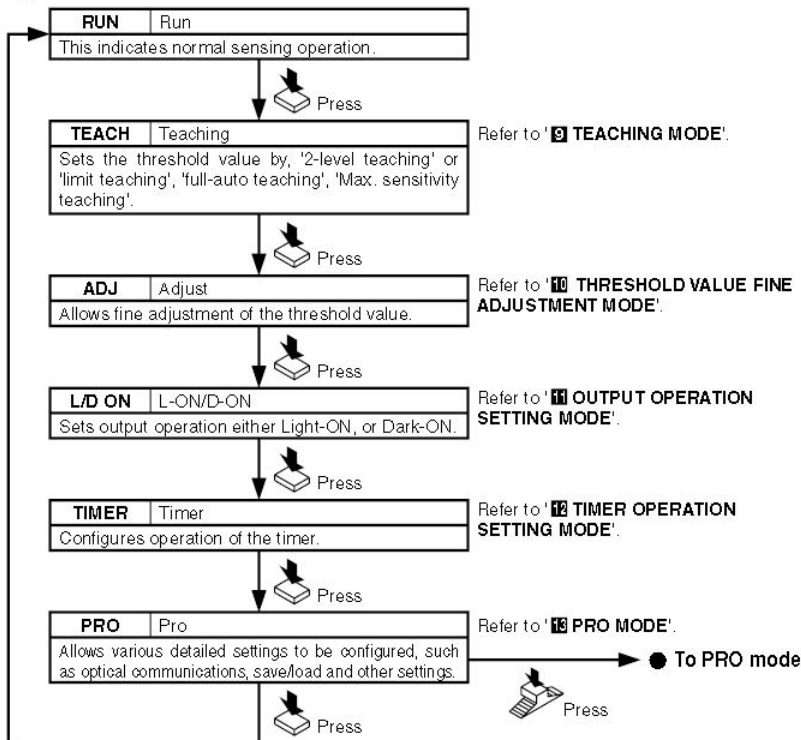
- When the power supply is switched on, communication self-check is carried out and normal condition is displayed [MODE indicator / RUN (green)] lights up and the digital display shows the incident light intensity.



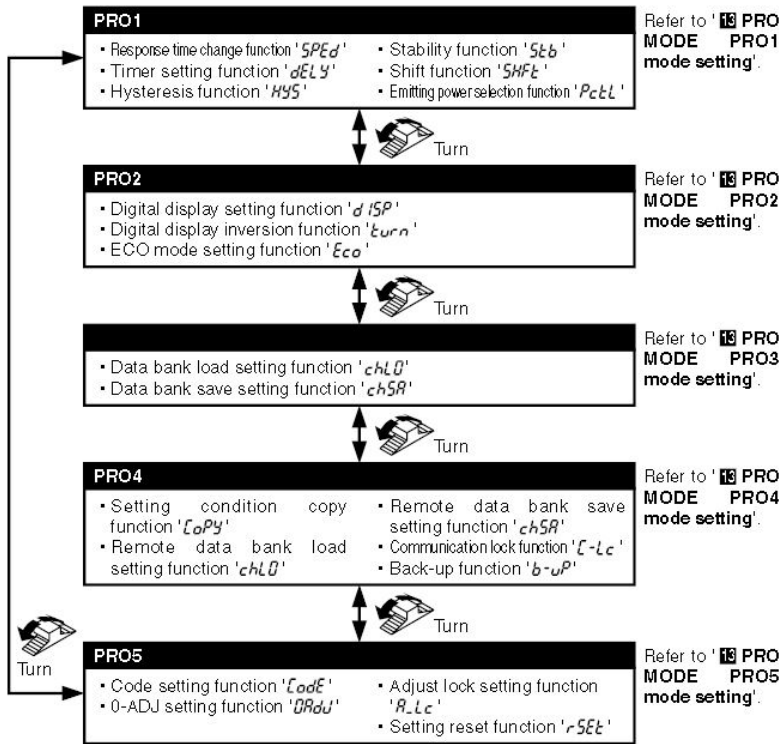
MODE key	Press	Jog switch	
		Turn	
		'+' side	'-' side

- *1: When Jog switch is pressed, the setting is confirmed.
- *2: When MODE key is pressed for 2 sec., or more, the sensor returns to the 'RUN' mode.
- *3: Cancellation is possible by pressing MODE key during setting.
- *4: When Jog switch is turned in the 'RUN' mode, the current threshold value is displayed. And then, the current incident light intensity display appears again automatically.

● NAVI mode



● PRO mode



TEACHING MODE

In case of 2-level teaching

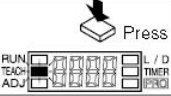


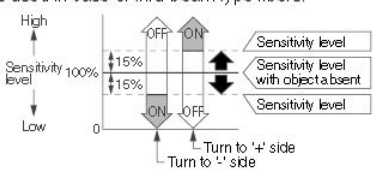
● This is the method of setting the threshold value by teaching two levels, corresponding to the object present and object absent conditions. Normally, setting is done by this method.

Step	Display	Description
①	1234	<ul style="list-style-type: none"> Set the fiber within the sensing range. Press MODE key to light up MODE indicator / TEACH (yellow).
②	567	<ul style="list-style-type: none"> Press Jog switch in the object present condition. If the teaching is accepted, the read incident light intensity blinks in the digital display.
③	1234	<ul style="list-style-type: none"> The MODE indicator / TEACH (yellow) blinks. Press Jog switch in the object absent condition.
④	900d HR-d	<ul style="list-style-type: none"> If the teaching is accepted, the read incident light intensity blinks in the digital display and the threshold value is set at the mid-value between the incident light intensities in the object present and the object absent conditions. After this, the judgment on the stability of sensing is displayed. In case stable sensing is possible: '900d' is displayed. In case stable sensing is not possible: 'HR-d' is displayed.
⑤	900	<ul style="list-style-type: none"> The threshold value is displayed.
⑥	1234	<ul style="list-style-type: none"> The incident light intensity appears in the digital display and the setting is complete.

Note: In case of using the fibers, if Jog switch is pressed in the object absent condition at ② and ③, the sensitivity is set to the maximum.

In case of limit teaching

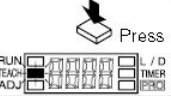

- This is the method of setting the threshold value by teaching only the object absent condition (stable incident light condition). This is used for detection in the presence of a background body or for detection of small objects.

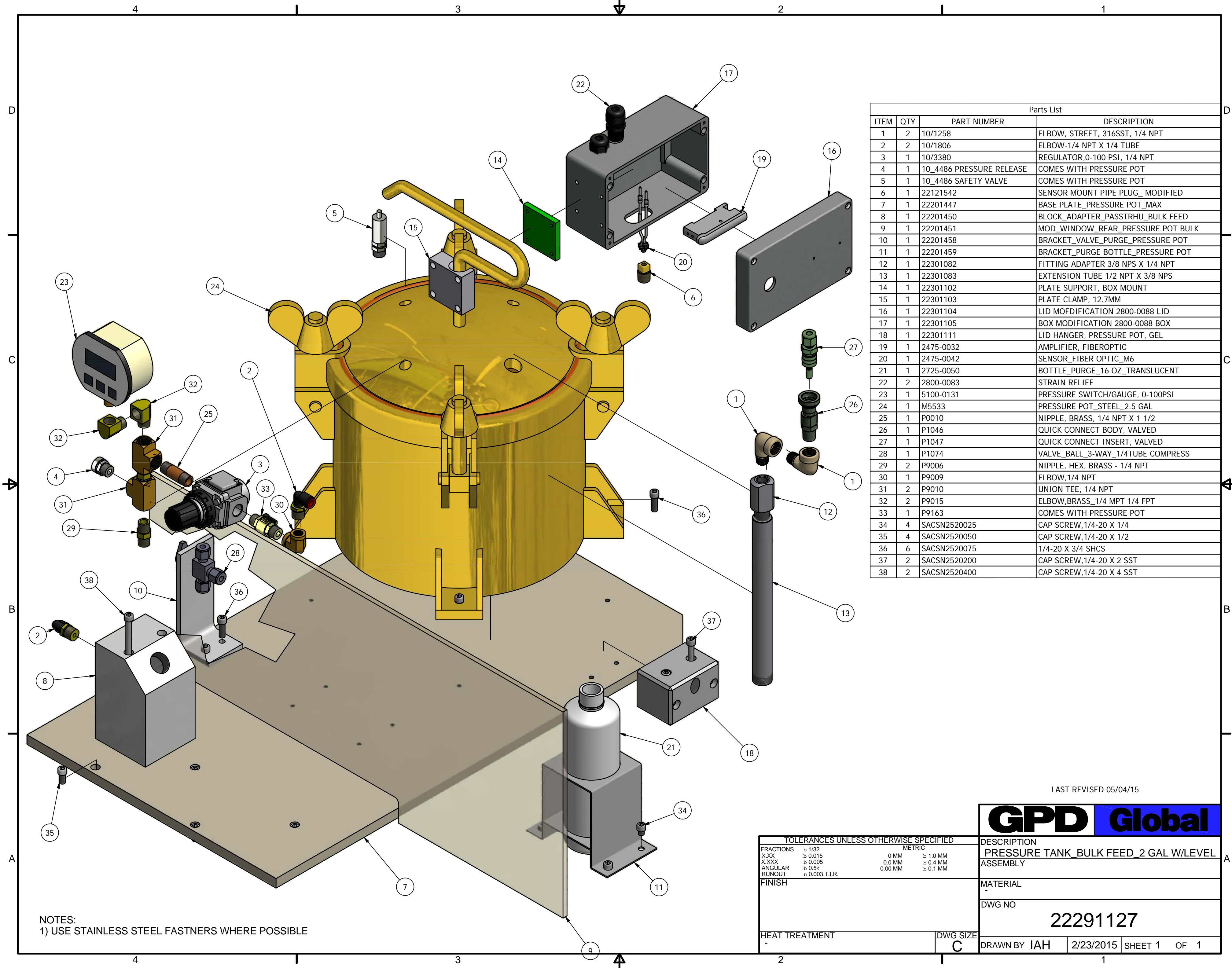
Step	Display	Description
①	1234	<ul style="list-style-type: none"> Set the fiber within the sensing range. Press MODE key to light up MODE indicator / TEACH (yellow). 
②	1234	<ul style="list-style-type: none"> Press Jog switch in the object absent condition. If the teaching is accepted, the read incident light intensity blinks in the display. 
③	1234	<ul style="list-style-type: none"> The MODE indicator / TEACH (yellow) blinks. Turn Jog switch to the '+' side or the '-' side. 
④		<ul style="list-style-type: none"> If Jog switch is turned to the '+' side, ' ' scrolls (twice) the display from right to left, and the threshold level is shifted to a value approx. 15% higher (lower sensitivity) than that set at ②. Turn to '+' side (Note) This is used in case of reflective type fibers. If Jog switch is turned to the '-' side, ' ' scrolls (twice) the display from left to right, and the threshold level is shifted to a value approx. 15% lower (higher sensitivity) than that set at ②. Turn to '-' side (Note) This is used in case of thru-beam type fibers. 
⑤	Good HRrd	<ul style="list-style-type: none"> After this, the judgment on whether the set shift amount is possible or not will be displayed. When the shift is possible: 'Good' is displayed. When the is not possible: 'HRrd' is displayed.
⑥	1420	<ul style="list-style-type: none"> The threshold value is displayed.
⑦	1234	<ul style="list-style-type: none"> The incident light intensity appears in the digital display and the setting is complete.

Note: The approx. 15% amount of shift is the initial value. The amount of shift can be changed in the PRO mode from approx. 5 to 80% (5% step). Refer to ' **PRO MODE / PRO1 mode setting** ' for the setting method.

In case of full-auto teaching

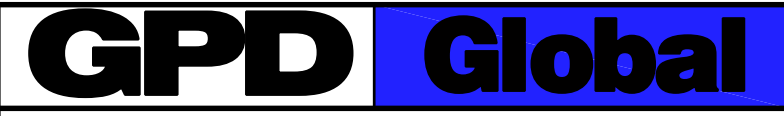
- Full-auto teaching is used when it is desired to set the threshold value without stopping the assembly line, with the object in the moving condition.

Step	Display	Description
①	1234	<ul style="list-style-type: none"> Set the fiber within the sensing range. Press MODE key to light up MODE indicator / TEACH (yellow). 
②	567	<ul style="list-style-type: none"> Press Jog switch continuously for 0.5 sec. or more with the object moving on the assembly line. (The incident light intensity is displayed during sampling.) 
③	Auto	<ul style="list-style-type: none"> 'Auto' is displayed on the digital display. Release the jog switch when the object has passed.
④	Good HRrd	<ul style="list-style-type: none"> If the teaching is accepted, the read incident light intensity blinks in the digital display and the threshold value is set at the mid-value between the incident light intensities in the object present and the object absent conditions. After this, the judgment on the stability of sensing is displayed. In case stable sensing is possible: 'Good' is displayed. In case stable sensing is not possible: 'HRrd' is displayed.
⑤	900	<ul style="list-style-type: none"> The threshold value is displayed.
⑥	1234	<ul style="list-style-type: none"> The incident light intensity appears in the digital display and the setting is complete.



Parts List			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	2	10/1258	ELBOW, STREET, 316SST, 1/4 NPT
2	2	10/1806	ELBOW-1/4 NPT X 1/4 TUBE
3	1	10/3380	REGULATOR,0-100 PSI, 1/4 NPT
4	1	10_4486	PRESSURE RELEASE COMES WITH PRESSURE POT
5	1	10_4486	SAFETY VALVE COMES WITH PRESSURE POT
6	1	22121542	SENSOR MOUNT PIPE PLUG_ MODIFIED
7	1	22201447	BASE PLATE_PRESSURE POT_MAX
8	1	22201450	BLOCK_ADAPTER_PASSTRHU_BULK FEED
9	1	22201451	MOD_WINDOW_REAR_PRESSURE POT BULK
10	1	22201458	BRACKET_VALVE_PURGE_PRESSURE POT
11	1	22201459	BRACKET_PURGE BOTTLE_PRESSURE POT
12	1	22301082	FITTING ADAPTER 3/8 NPS X 1/4 NPT
13	1	22301083	EXTENSION TUBE 1/2 NPT X 3/8 NPS
14	1	22301102	PLATE SUPPORT, BOX MOUNT
15	1	22301103	PLATE CLAMP, 12.7MM
16	1	22301104	LID MODIFICATION 2800-0088 LID
17	1	22301105	BOX MODIFICATION 2800-0088 BOX
18	1	22301111	LID HANGER, PRESSURE POT, GEL
19	1	2475-0032	AMPLIFIER, FIBEROPTIC
20	1	2475-0042	SENSOR_FIBER OPTIC_M6
21	1	2725-0050	BOTTLE_PURGE_16 OZ_TRANSLUCENT
22	2	2800-0083	STRAIN RELIEF
23	1	5100-0131	PRESSURE SWITCH/GAUGE, 0-100PSI
24	1	M5533	PRESSURE POT_STEEL_2.5 GAL
25	1	P0010	NIPPLE, BRASS, 1/4 NPT X 1 1/2
26	1	P1046	QUICK CONNECT BODY, VALVED
27	1	P1047	QUICK CONNECT INSERT, VALVED
28	1	P1074	VALVE_BALL_3-WAY_1/4TUBE COMPRESS
29	2	P9006	NIPPLE, HEX, BRASS - 1/4 NPT
30	1	P9009	ELBOW,1/4 NPT
31	2	P9010	UNION TEE, 1/4 NPT
32	2	P9015	ELBOW,BRASS_1/4 MPT 1/4 FPT
33	1	P9163	COMES WITH PRESSURE POT
34	4	SACSN2520025	CAP SCREW,1/4-20 X 1/4
35	4	SACSN2520050	CAP SCREW,1/4-20 X 1/2
36	6	SACSN2520075	1/4-20 X 3/4 SHCS
37	2	SACSN2520200	CAP SCREW,1/4-20 X 2 SST
38	2	SACSN2520400	CAP SCREW,1/4-20 X 4 SST

LAST REVISED 05/04/15

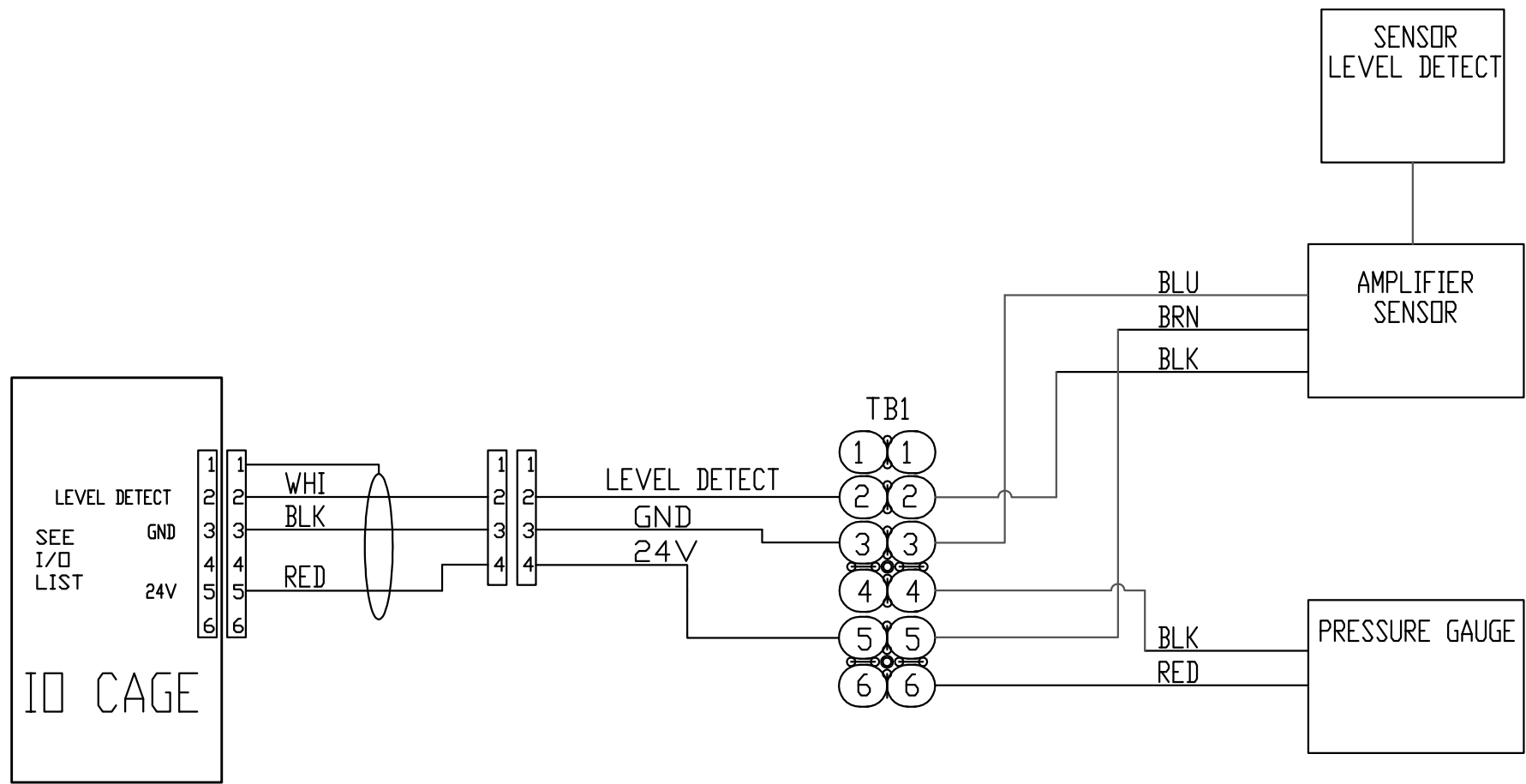


TOLERANCES UNLESS OTHERWISE SPECIFIED			
FRACTIONS	b 1/32	METRIC	
X.XX	b 0.015	0 MM	b 1.0 MM
X.XXX	b 0.005	0.0 MM	b 0.4 MM
ANGULAR	b 0.5°	0.00 MM	b 0.1 MM
RUNOUT	b 0.003 T.I.R.		
FINISH			
-			
HEAT TREATMENT		DWG SIZE	
-		C	

DESCRIPTION	PRESSURE TANK_BULK FEED_2 GAL W/LEVEL ASSEMBLY
MATERIAL	-
DWG NO	22291127
DRAWN BY	IAH
DATE	2/23/2015
SHEET	1 OF 1

NOTES:
1) USE STAINLESS STEEL FASTNERS WHERE POSSIBLE

Revision History		
Revision	Date	Description
A	4-15-15	INITIAL RELEASE



DRAWN BY	DATE	NAME	DRAWING NUMBER	REV
GM	4-15-15	LEVEL DETECT, PRESS. GAUGE, BULK FEED	22293246	A