

OPERATING AND MAINTENANCE INSTRUCTIONS

Part Number 123800-001

MODEL 123717-001

AIR FLOW SENSOR

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FAX: (303) 934-5581

PELSUE AIR FLOW SENSOR

1.0 GENERAL

1.1 This manual covers the description, operation, and maintenance of the Pelsue Model 123717-001 Air Flow Sensor.

PLEASE TAKE THE TIME TO READ THIS PAMPHLET BEFORE OPERATING THE AIR FLOW SENSOR.

1.2 This Air Flow Sensor, when used with any brand ventilation blower, is specifically designed to provide an audible and visual warning for a loss of airflow.

2.0 SAFETY PRECAUTIONS

2.1 The Air Flow Sensor should not be used in an environment containing flammable gasses.

2.2 Improper use of the Air Flow Sensor may result in a false alarm when the air flow is not obstructed or no alarm when the air flow is obstructed.

2.3 Always make sure that the Air Flow Sensor hose is free of debris that would restrict or stop air from traveling down the hose to the sensor.

3.0 MAINTENANCE AND REPAIR

DO NOT OPEN THE ENCLOSURE TO REPAIR THE AIR FLOW SENSOR YOURSELF. THIS MUST BE DONE AT A REPAIR CENTER.

3.1 If the airflow sensor becomes wet turn the power off and allow the Air Flow Sensor to dry.

3.2 See page 4 for a list of indicators and warnings.

3.3 For additional service information contact:

T.A. Pelsue Service Department
2500 South Tejon Street
Englewood, Colorado 80110
Phone: (303) 936-7432 or 800-525-8460
Fax: (303) 934-5581

4.0 PRODUCT DESCRIPTION

4.1 A circuit board encased in a plastic container wrapped in a shock absorbing gasket. A strap is included to attach the Air Flow Sensor to a safe place. A PVC hose, extending from the Air Flow Sensor, is attached to a spring clamp.

4.2 DIMENSIONS AND WEIGHTS
Width: 3.125" (7.94 cm)
Length: 6.375" (16.19 cm)
Height: 1.50" (3.81 cm)
Weight: 1 pound (0.45 Kg)

5.0 MAJOR COMPONENT DETAILS

5.1 *Circuit Board P/N 123854-001:* The circuit board is powered by three 1.2V, 300mAh, size AAA nickel-cadmium rechargeable batteries. Three LED lights, red, green and yellow, are used to relay information from the circuit board to the user. A speaker is in place to create the audible alarm. A pressure sensor on the circuit board is used to detect the air flow. An on/off switch powers the board on and off.

5.2 *Enclosure P/N 123827-002*: This enclosure, with the rubber gasket, is shock, dirt and splash resistant.

6.0 START UP AND OPERATING PROCEDURES

READ ENTIRE START UP AND OPERATING PROCEDURE BEFORE OPERATING THE AIR FLOW SENSOR.

6.1 PRE-START PROCEDURE

A. Start air flow by switching on ventilator/blower. If needed, attach blower hose and extend into the area requiring ventilation.

B. Using the Velcro strap, attach the air flow sensor to a dry area, and away from direct heat. It is best to position the Air Flow Sensor in such a way that the user will be able to see the visual warning indicating the loss of air flow.

6.2 START PROCEDURES

A. Turn on the Air Flow Sensor before attaching the Air Flow Sensor hose clip into the air flow. A red light will appear.

B. Wait approximately 5 seconds for a green light to appear.

C. Attach the Air Flow Sensor hose clip to the blower or the blower hose. The Air Flow Sensor hose must be pointing into the flow of air.

D. The Air Flow Sensor is operational when the green light begins to blink and a single chirp sounds every 30 seconds.

6.3 SHUTDOWN PROCEDURE

A. Turn off Air Flow Sensor.

B. Unclip Air Flow Sensor hose clip from the blower or blower hose.

6.4 RECHARGE PROCEDURE

A. Only use the supplied A/C adapter.

B. Plug the adapter into the Air Flow Sensor.

C. Plug the adapter into a 120V, 60Hz electrical outlet.

D. A full recharge requires approximately 8 hours.

7.0 LIST OF INDICATORS AND WARNINGS

7.1. A solid red light, immediately after turning on the Air Flow Sensor, indicates that the sensor is measuring ambient pressure.

7.2. A solid green light, shortly after startup, indicates that the Air Flow Sensor should be placed into the flow of air to measure the blower pressure.

7.3. If all lights turn off then the batteries are too low to operate the Air Flow Sensor.

7.4. If the green light is blinking once every second and a chirp occurs every 30 seconds then the Air Flow Sensor has a good battery charge and is monitoring the air flow.

7.5. When the green light is blinking once every second and three chirps occur every 30 seconds the Air Flow Sensor is operating correctly, but the batteries are getting low.

7.6 If the air flow drops by approximately 50% the red light will blink once per second and the buzzer will alternate on and off every half second.

7.7 A large temperature change reduces the accuracy of the Air Flow Sensor. If a large temperature change occurs an alarm will sound for one half second every two seconds while the green light blinks. If this occurs, turn the Air Flow Sensor off and follow the start procedures from the beginning (Section 6.2).












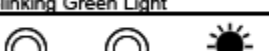
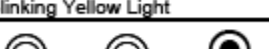
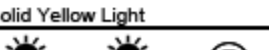
7.8 The Air Flow Sensor can detect some situations that indicate that a failure of an electronic component may have occurred. If a problem is detected the red and green lights will alternate off and on while the buzzer is sounding. If this occurs, turn the Air Flow Sensor off and follow the start procedure from the beginning (Section 6.2). If the warning occurs again the Air Flow Sensor should be returned to the factory for investigation of the problem.




7.9 When the Air Flow Sensor is charging the yellow light will be lit.

7.10 When the Air Flow Sensor is finished charging the yellow light will blink every two seconds.

7.11 If the batteries become too hot during charging the yellow light will blink every half second. Charging will resume when the batteries cool.

8.0 WARNINGS AND INDICATOR CHART

	 NO SOUND	 CONSTANT BEEP	 CHIRP EVERY 1/2 SECOND	 CHIRP EVERY 2 SECONDS	 CHIRP EVERY 30 SECONDS	 TRIPLE CHIRP EVERY 30 SECONDS
 All Lights Turn Off	SEE SECTION 7.3					
 Solid Red Light	SEE SECTION 7.1					
 Solid Green Light	SEE SECTION 7.2					
 Blinking Red Light			SEE SECTION 7.6			
 Blinking Green Light				SEE SECTION 7.7	SEE SECTION 7.4	SEE SECTION 7.5
 Blinking Yellow Light	SEE SECTION 7.10 / 7.11					
 Solid Yellow Light	SEE SECTION 7.9					
 Blinking Red and Green Light		SEE SECTION 7.8				

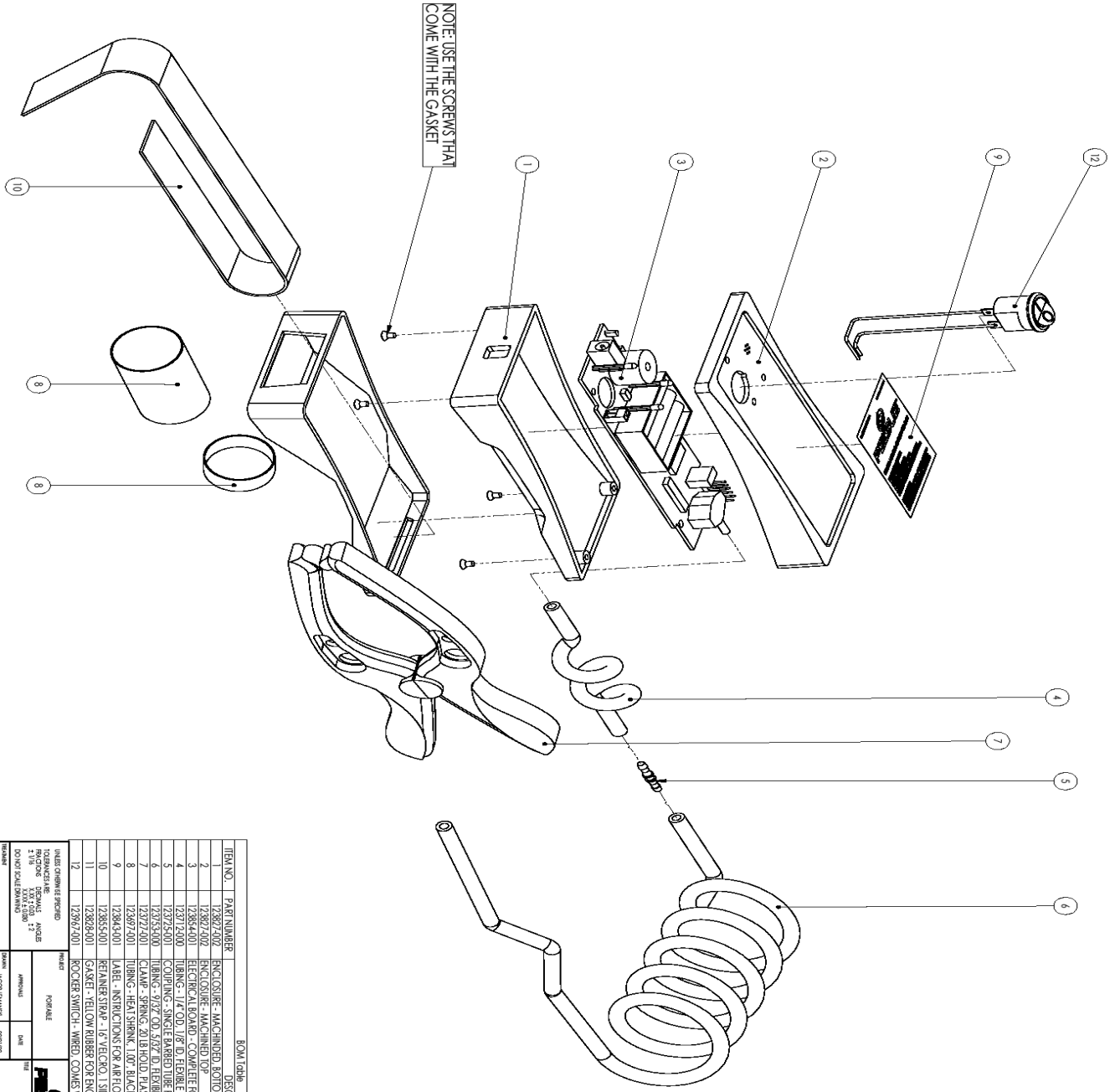
LEGEND	
	BLINKING LIGHT
	SOLID LIGHT
	NO LIGHT

9.0 PARTS LIST

<u>ITEM #</u>	<u>PART #</u>	<u>DESCRIPTION</u>	<u>QUANTITY</u>
1	123827-002	Enclosure – machined, bottom	1
2	123827-002	Enclosure – machined, top	1
3	123854-001	Circuit board – for air flow sensor	1
4	123712-000	Tubing – 1/4” OD, 1/8” ID, PVC	6”
5	123725-001	Coupling – tube fitting, .125” ID	1
6	123753-000	Tubing – 9/32” OD, 5/32” ID, PVC	15’
7	123727-001	Clamp – spring, 20 lb. hold	1
8	123697-001	Heat shrink – tubing, 1” ID	4”
9	123843-001	Label – instructions for air flow sensor	1
10	123855-001	Retainer strap – 16” Velcro	1
11	123828-001	Gasket – yellow rubber for enclosure	1
12	123967-001	Rocker switch – pre-wired	1

MODEL 123717-001

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NOTE: USE THE SCREWS THAT COME WITH THE GASKET

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	123872-002	ENCLOSURE - MACHINED BOTTOM	1
2	123872-002	ENCLOSURE - MACHINED TOP	1
3	123844-001	ELECTRICAL BOARD - COMPLETE FOR AIR FLOW SENSOR	1
4	123712-000	TUBING - 1/4" OD - 1/2" ID FLEXIBLE PVC, BLACK	5
5	123725-001	COUPLING - SINGLE BARBED TUBE FITTING FOR 1/2" ID, BLACK	15
6	123753-000	TUBING - 9/16" OD, 5/16" ID, HEAVY PVC, BLACK	15
7	123721-001	CLAMP - SPRING, 20 LB HOLD PLASTIC, 4" REACH, 8.5" OVERBALL LENGTH	4
8	123897-001	TUBING - HEAVY SHRINK, 1.00" BLACK	1
9	123843-001	LABEL - INSTRUCTIONS FOR AIR FLOW SENSOR	1
10	123853-001	RETAINER'SHIP - 1/8" VELCRO, 1 SIDE-HOOK, 1 SIDE-FIT	1
11	123828-001	GASKET - YELLOW RUBBER FOR ENCLOSURE	1
12	123967-001	ROCKER SWITCH - WIRED COMES WITH CIRCUIT BOARD	1

UNLESS OTHERWISE SPECIFIED		FINISH	FORM
TOLERANCES ARE:		ASSEMBLY	DATE
1/16" ±	FRACTIONAL DIMENSIONS	ASSEMBLY	
±0.005	DECIMAL DIMENSIONS	DATE	
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MODEL 123717-001

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REVISIONS				
ZONE	REV	DESCRIPTION	DATE	BY
ALL	00	ISSUED FOR FABRICATION	2/19/08	LEMANISKI

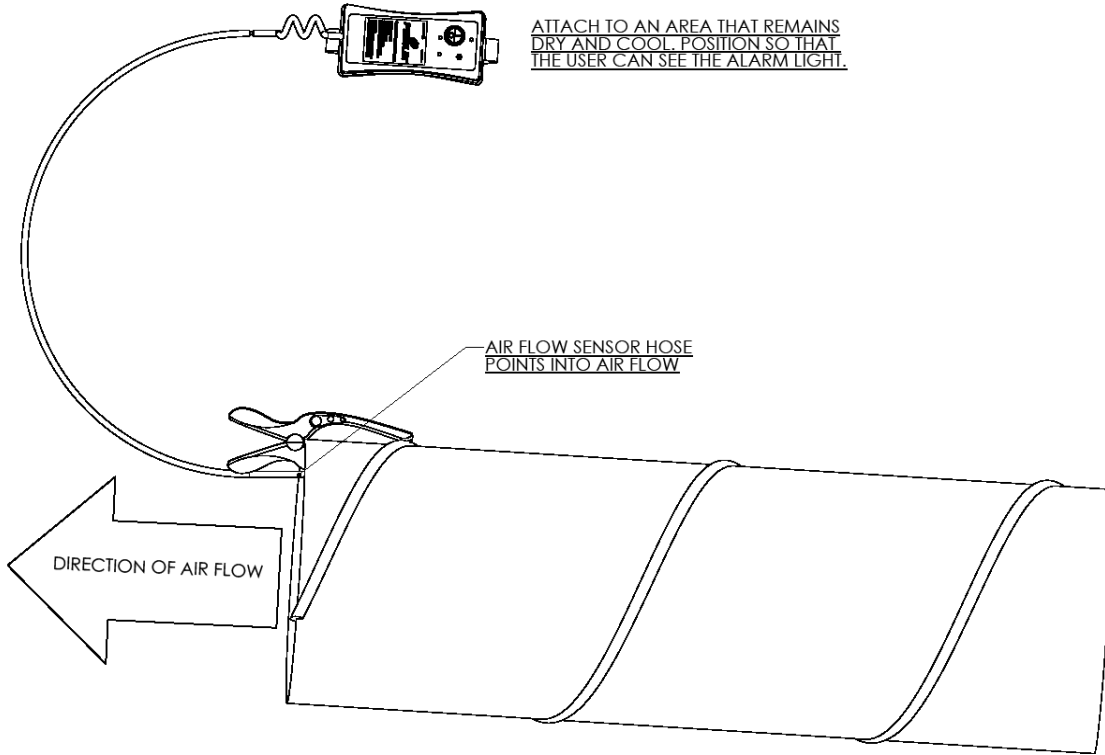


IMAGE OR DRAWING SPECIFIC TO THIS DRAWING	CONTRACT NO. PORTABLE	2500 SOUTH TEJON STREET ENGLEWOOD, COLORADO 80110 USA	
TO: BRANCHES AND FRANCHISES	APPROVALS	DATE	TITLE
SECURITY OFFICERS		02/19/08	AIR FLOW SENSOR SET UP FOR USE WITH VIBRATOR HOSE
DO NOT SCALE DRAWING	DRAWN BY: COB LEMANISKI		
TREATMENT: N/A	CHECKED & RELEASED:	SRE	FROM NO.
FINISH: N/A		C	DWG. NO. 123717-2
PART NUMBER 123717-001	DRIVE: SHVCL	SCALE: 1:3	SHEET 1 OF 1

NOTES: