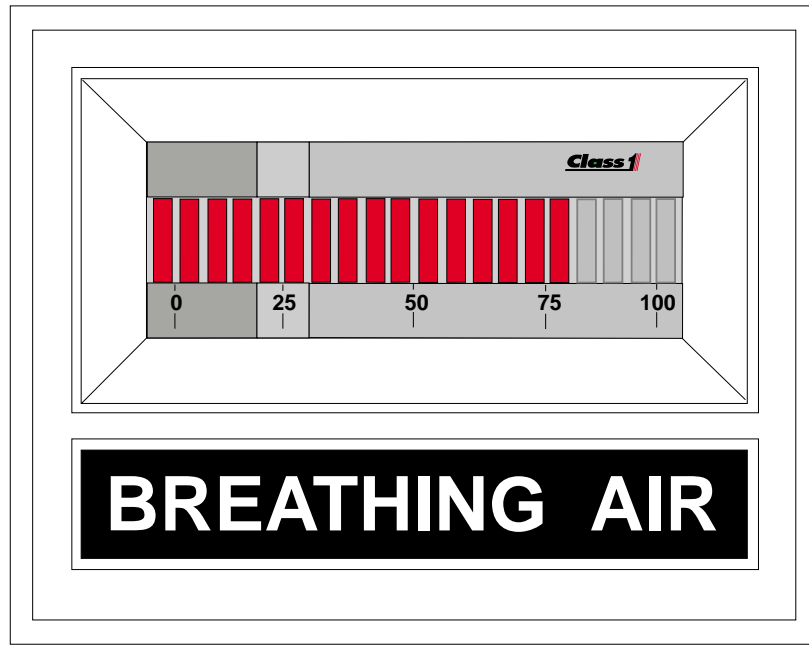


Name	Digital Breathing Air Remaining System	Engineering Standard Number <b>C1-102263-A</b>
Identifier	Instructions	



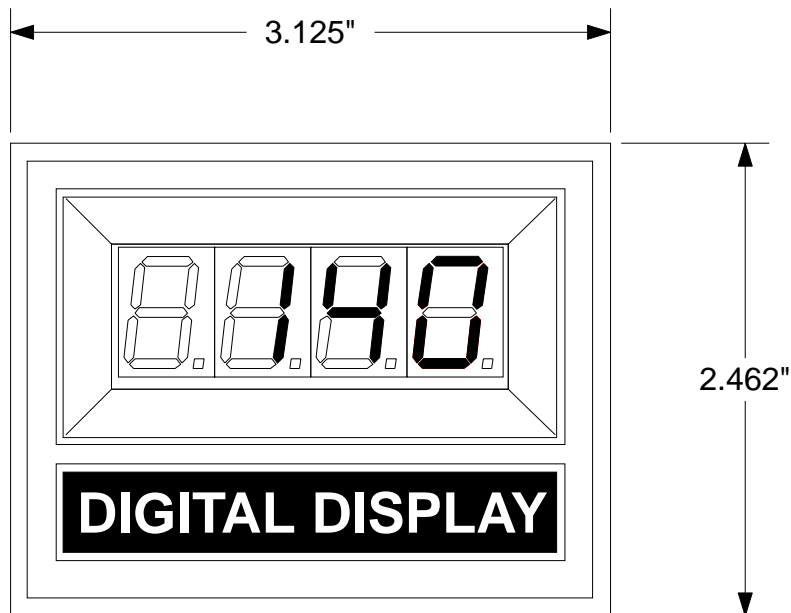
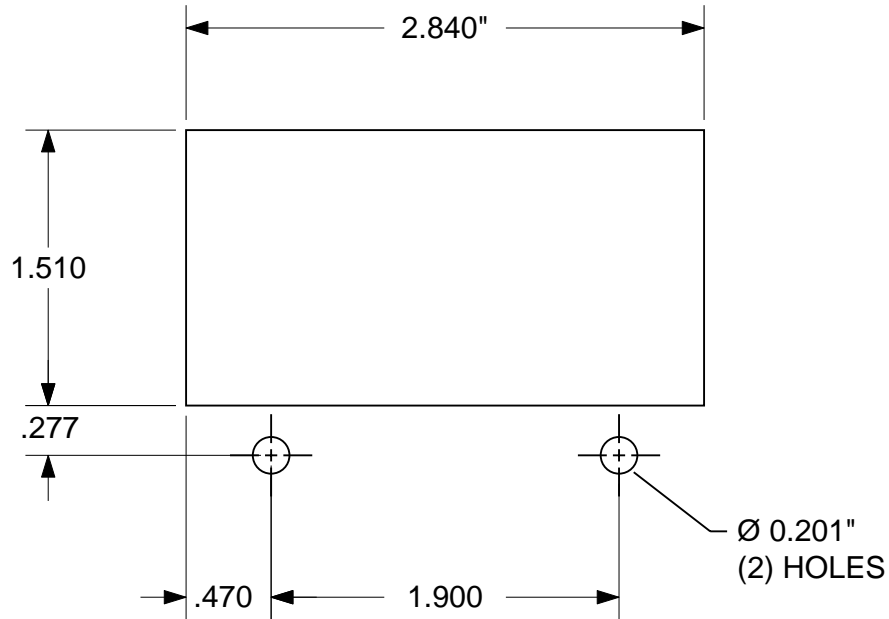
The **Class 1** Breathing Air Display is designed to provide firefighters with a visible indication of breathing air remaining and an audible warning when there is less than 20% air remaining. The alarm will not activate when there is less than 50 PSI of air in the system, this silences the alarm when the air supply is turned off.

The display represents air volume information in an easy to interpret LED bargraph display as a percentage of maximum calibrated pressure. The Breathing Air Display includes a visual warning and an auxiliary warning alarm output.

When the relative volume of air remaining reaches 25%, the bars will begin to flash and the alarm output becomes active when system pressure drops to 20%. The alarm can be silenced with an alarm silence switch. Once the alarm is silenced, it will remain silent for five (5) minutes or until the unit is turned off and then back on, and is reset whenever the volume of air exceeds 20%.

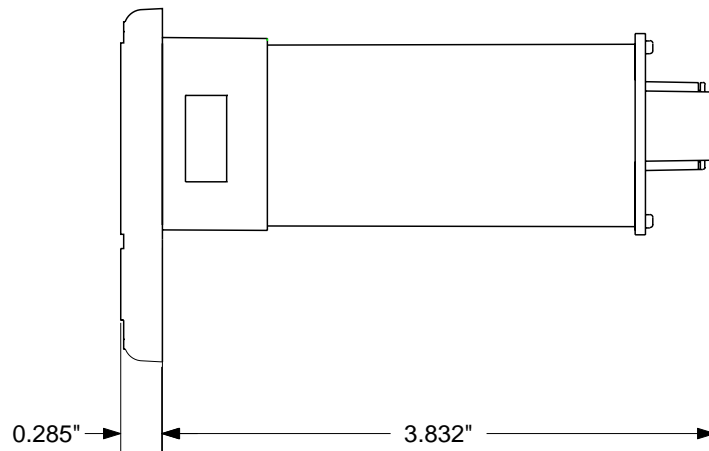
Name	Digital Breathing Air Remaining System	Engineering Standard Number <b>C1-102263-A</b>
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The **Class 1** digital display mounts in a 2.85" by 1.55" cutout.  
Overall area necessary for installation is 2.5" by 3.2".  
Two 0.20 diameter holes are provided for mounting screws.

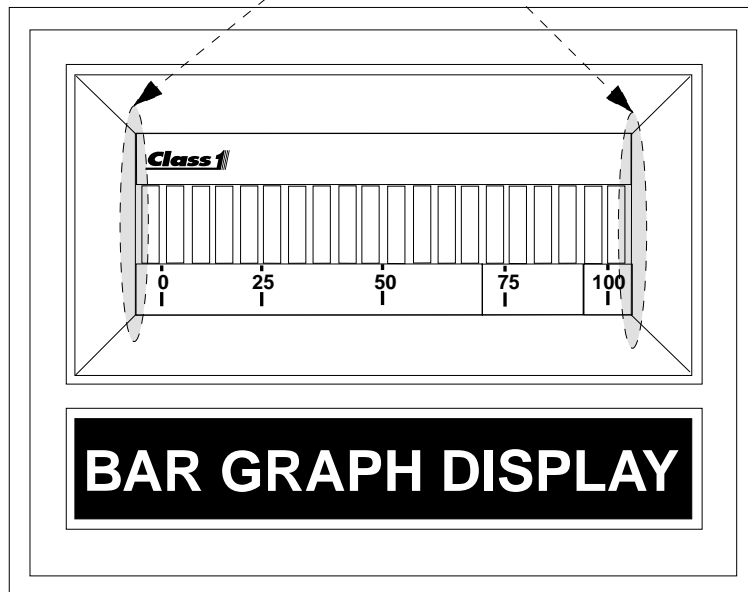


Name	Digital Breathing Air Remaining System
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Location of magnetic switches



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Identifier	Instructions	

### Display Calibration for Gauges with bargraph displays

The calibration mode is entered by the use of a “password”. There are two magnetic switches, one located at each side of the display. These switches are activated with the use of a magnet. Switch activation is visually confirmed by the toggling of the four closest bars on the display to the switch. If they are on they will turn off, if they are off they will turn on.

If the password is correctly entered, the leftmost bar will turn on and flash. This indicates that the display is ready to be calibrated for the low set point.

With the system adjusted to the minimum calibration point (the system should be empty or at the lowest pressure condition) activate the left switch and then the right switch. The rightmost bar will begin to flash, indicating the display is ready for the high set point calibration.

Adjust the system to it’s maximum operating condition. Activate the right switch followed by the left switch.

The display will return to normal operation and indicate current system status as a percentage of maximum capacity.

### Calibration for Breathing Air Gauge installations:

Empty Cylinder (Closed Valve)

With the air bottle closed and the system purged, enter the calibration password.

**L**<sub>LEFT</sub> **L**<sub>LEFT</sub> **L**<sub>LEFT</sub> **R**<sub>RIGHT</sub> **R**<sub>RIGHT</sub> **R**<sub>RIGHT</sub>

The left (0%) bar will flash to indicate that you are ready to calibrate for an empty system.

Activate the left switch followed by the right switch.

The right (100%) bar will flash to indicate that the display is ready to calibrate for a full system.

Maximum Air (Full Cylinder/Open Valve)

With a full air bottle and the valve open actuate the right switch and then the left switch.

**Calibration is complete.**

Calibration should be accomplished using an air cylinder filled to the locally established maximum pressure.

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All of the digital displays have a built in lamp test feature.

The password to activate this function is **L L R L L**.

When activated, all segments on the display LED's will illuminate for a few seconds and then return to normal operation.

The digital displays that utilize a pressure sensor have a sensor check feature.

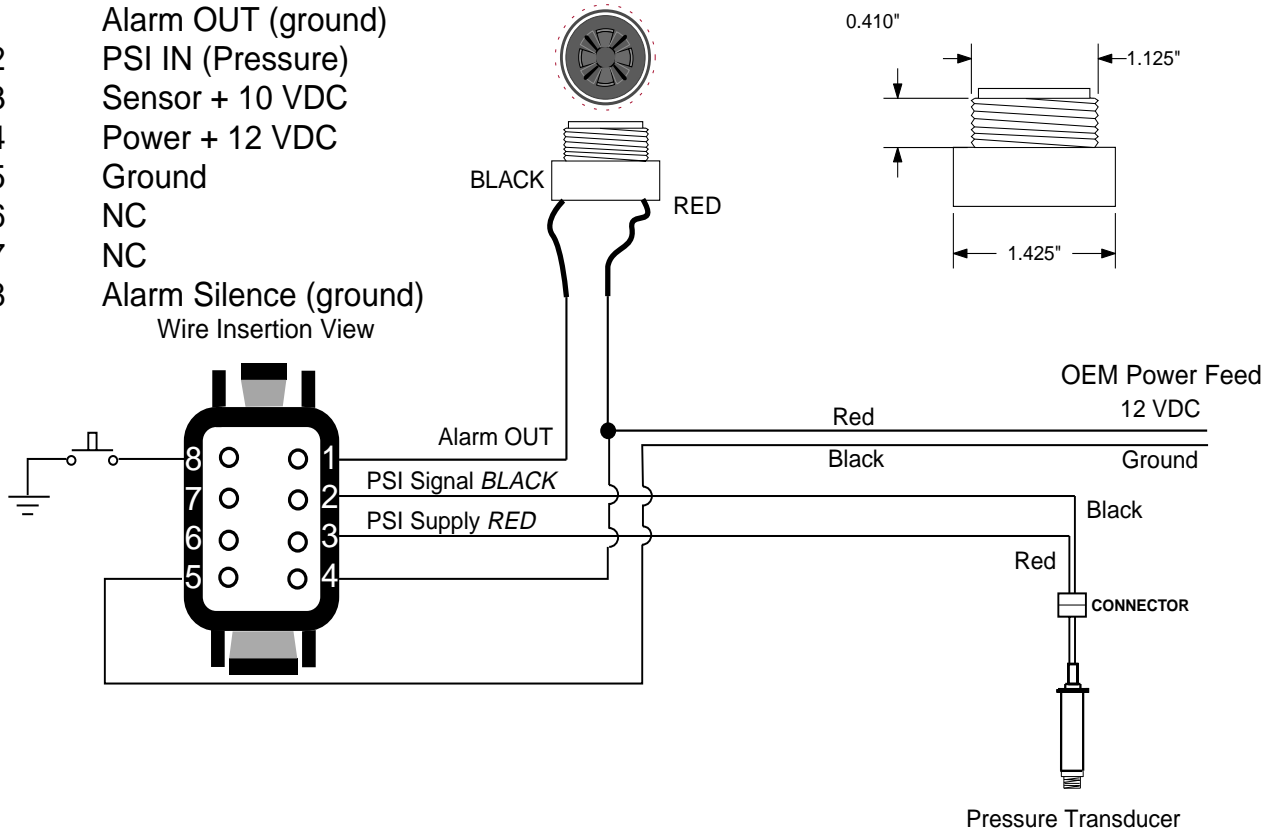
The password to activate this function is **L R R L R R**.

Name	Digital Breathing Air Remaining System	Engineering Standard Number <b>C1-102263-A</b>
Identifier	Instructions	

## Wiring Diagram for the Digital Breathing Air Remaining Gauge.

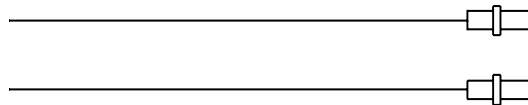
DTM06-08SA  
0462-201-20141 20 Ga.

- 1 Alarm OUT (ground)
- 2 PSI IN (Pressure)
- 3 Sensor + 10 VDC
- 4 Power + 12 VDC
- 5 Ground
- 6 NC
- 7 NC
- 8 Alarm Silence (ground)

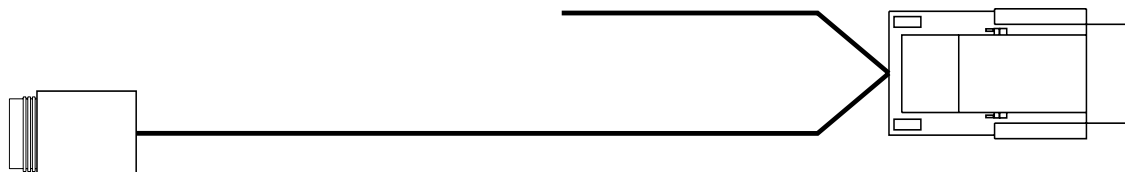


### PROVIDED HARNESS

PIN	COLOR
1	RED
2	BLACK



PIN	COLOR
1	PLUG
2	BLACK
3	RED
4	RED
5	BLACK
6	PLUG
7	PLUG
8	PLUG

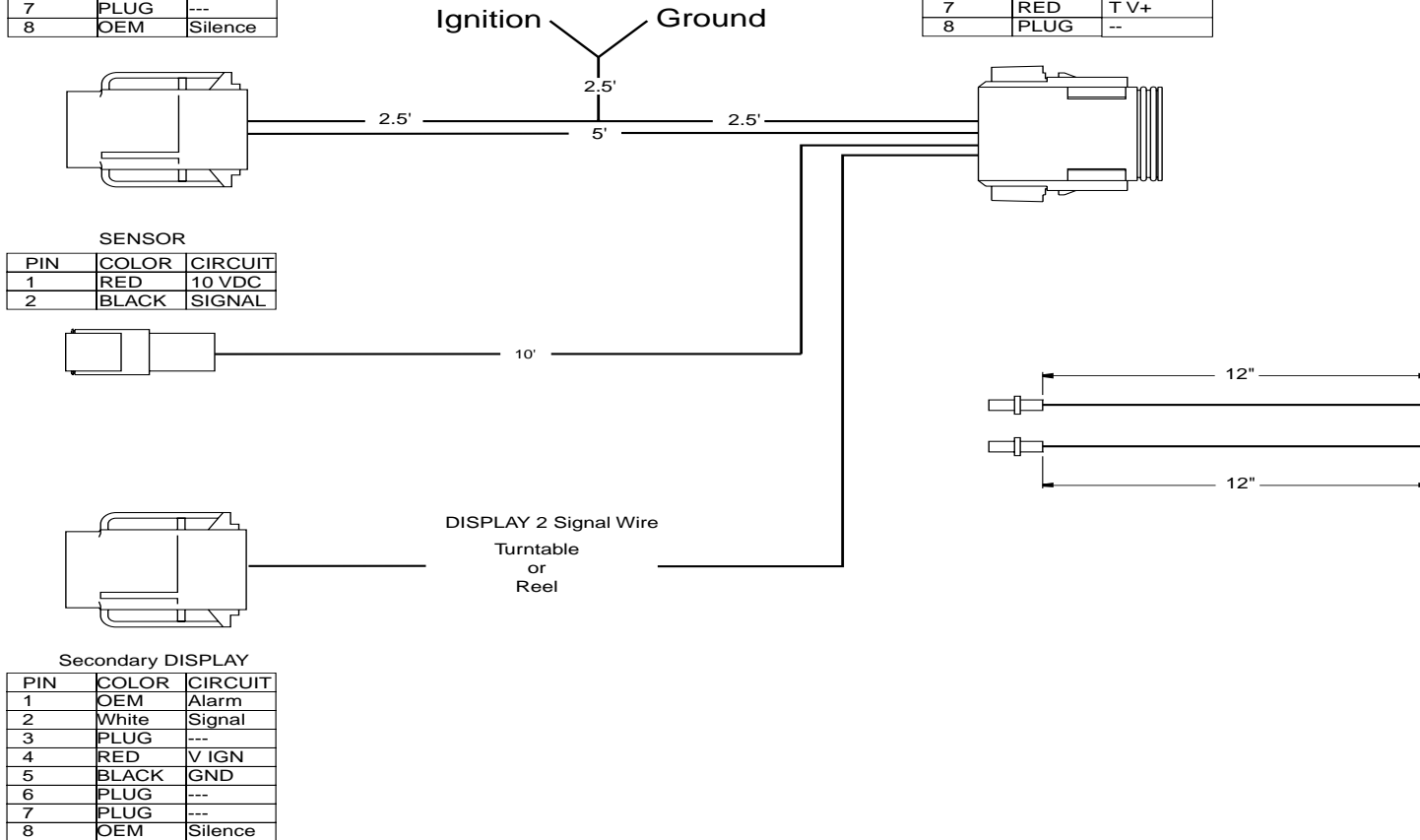


PRIMARY DISPLAY

PIN	COLOR	CIRCUIT
1	OEM	Alarm
2	BLACK	Signal
3	RED	10 VDC
4	RED	V IGN
5	BLACK	GND
6	Black	Sensor -
7	PLUG	---
8	OEM	Silence

DUAL OUTPUT CONVERTER

PIN	COLOR	CIRCUIT
1	BLACK	SIGNAL 1
2	WHITE	SIGNAL 2
3	BLACK	XDucer IN
4	RED	V IGN
5	BLACK	GND
6	PLUG	--
7	RED	T V+
8	PLUG	--

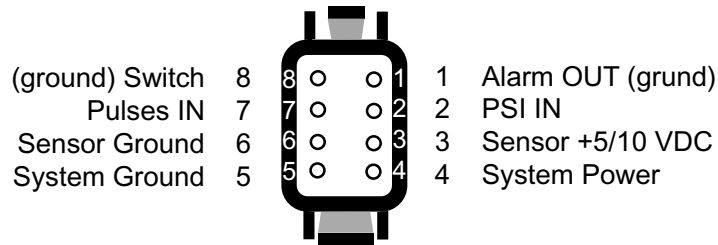


Wiring a dual display, single transmitter installation uses a PN103282 Dual Current Amplifier and a dual harness PN 103283.

Connections are as shown. For a secondary display where a minimal wire configuration is needed, contact Class1 Product Support (1-800-533-3569).

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Identifier	Instructions	

DTM06-08SA  
0462-201-20141 20 Ga.



Wire Insertion View

**The display does not illuminate.**

The display must have power at terminal 4 and ground at terminal 5. With the connector removed, check between pins 4 and 5 for 12 VDC, if 12 volts is present with the correct polarity, replace the display. If voltage and/or ground is not present, check the vehicle wiring and display harness terminations.

**The air gauge has a single bar traveling back and forth across the display.**

There is a problem with the pressure transducer (PN **102162**) or wiring. At the transducer connector, check for 10 VDC between the red wire and ground. This is sent from the display and must be correct for the transducer to function. Connect the red wire to the transducer and check for current at the black wire. This is a current (4-20mA) 7500 PSI transducer. With an empty tank, this voltage should be 4 mA and at 3000 PSI approximately 10.5 mA., if it is not, replace the transducer. Check for current at the display pin 2 signal). If there is no current, check the wiring from the transducer to the display. If the current is present at pin 2, replace the display.