

# **STATIC PRESSURE** **MONITOR KIT**

## **Installation Instructions**

**For Model: 641-089A**



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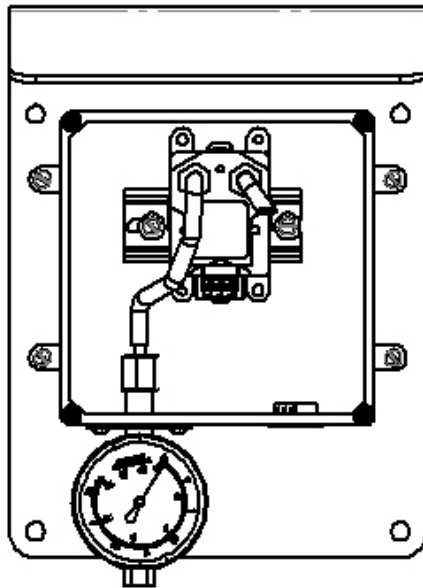
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## INTRODUCTION

This manual is intended for use with the Shivers Static Pressure Monitor Kit. This kit will allow monitoring of static pressure within the range of 0 – 15” of water column (w.c.). It will work with the Premier or convert touch screen controllers.

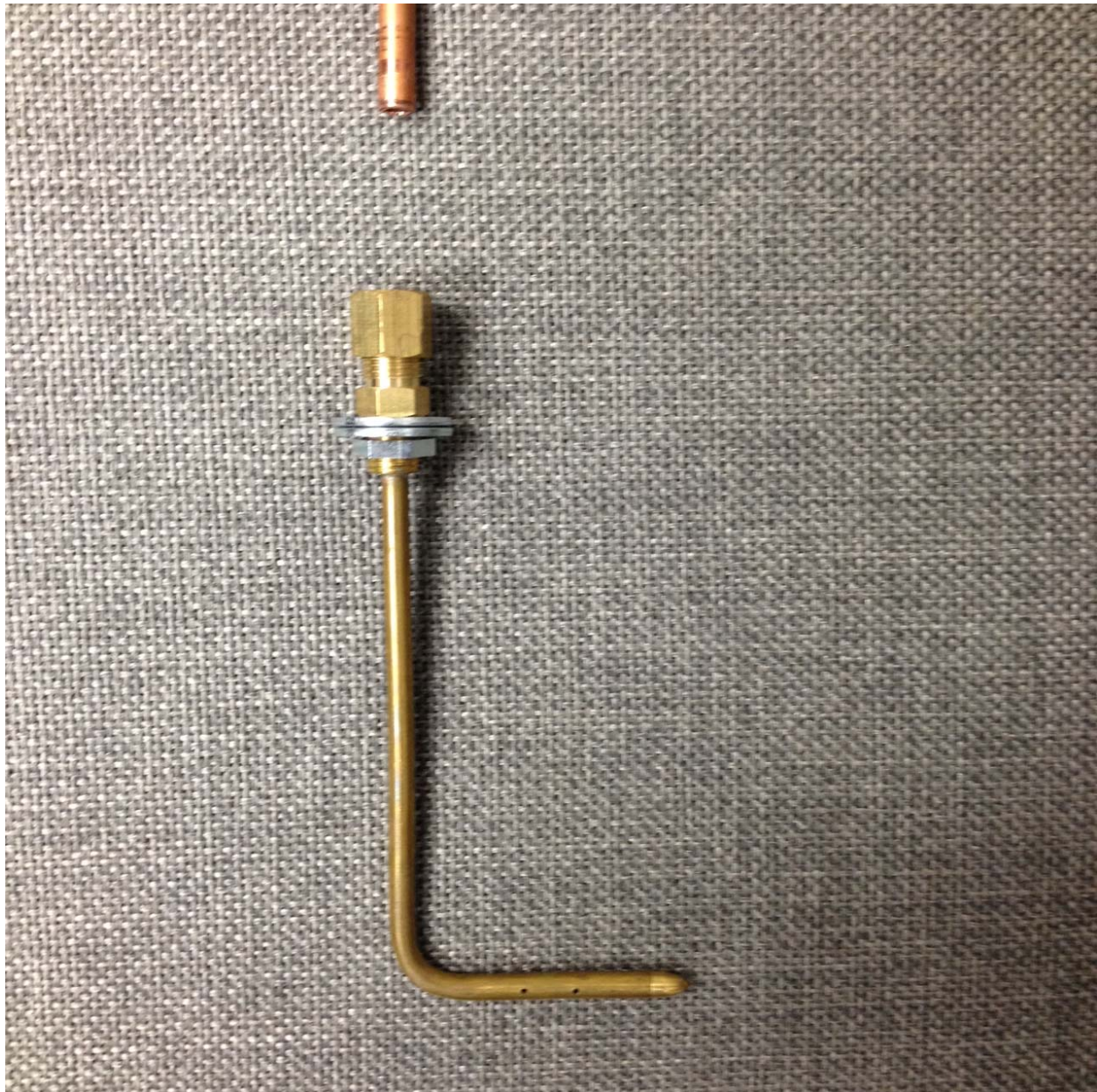
## TRANSDUCER BOX INSTALLATION

Mount the transducer box in a convenient location. It is usually mounted on the grain bin sidewall, but it could be anywhere. Just allow for easy viewing of the static pressure gauge and easy service of the components. Use the four self-drilling screws provided, or use appropriate hardware obtained locally.



## PITOT TUBE INSTALLATION

Mount the pitot tube tip into the location where the static pressure will be measured. Drill a 13/64" (0.203") diameter hole and insert the pitot tube tip. Connect the pitot tube to the transducer box with 1/4" OD copper tubing. A compression fitting is provided at each end. Five feet of copper tubing is provided. If more is needed, it may be obtained locally. It is unknown how far away the transducer box can be from the pitot tube tip, but it could possibly be up to 100 feet. Just make sure the connections do not leak. Secure the tubing to the bin wall so it will not get damaged. Nylon loop clamps and small self-drilling screws are provided. Static pressure can be viewed on the gauge.



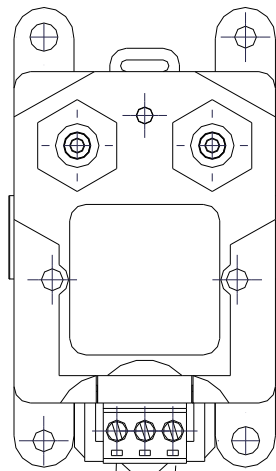
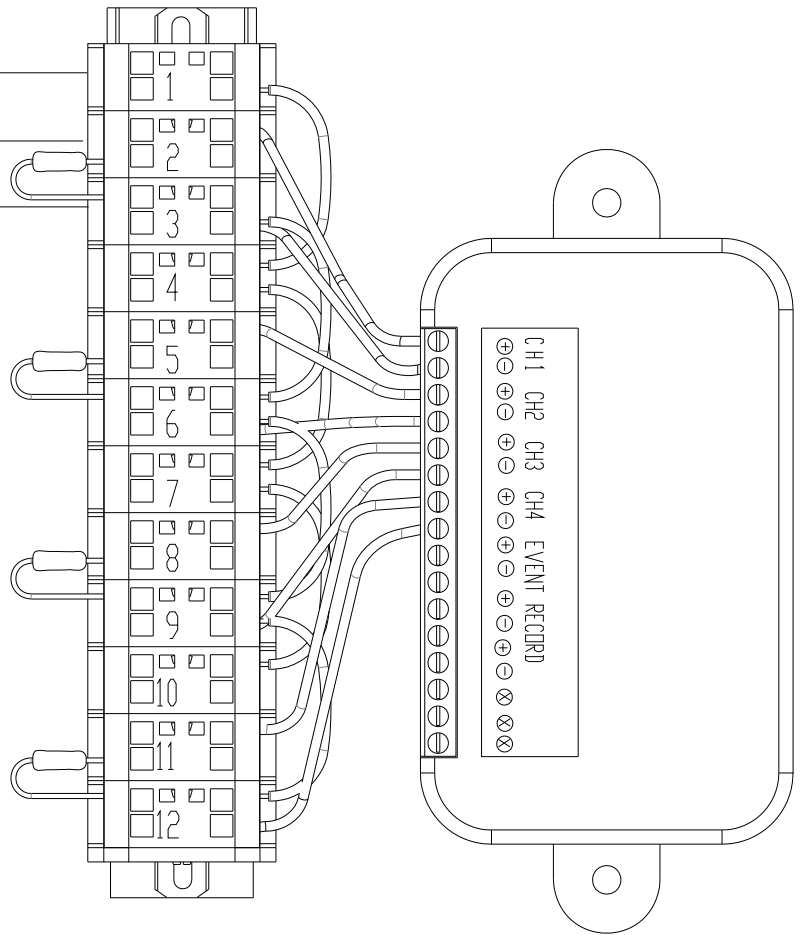
Locate the terminal strip labeled 1-12 (P-11601).



Wire the shielded 2 conductor cable's red wire to the #1 on the terminal strip and the + on the static pressure transducer. Wire the black wire to the #2 on the terminal strip and the - on the static pressure transducer. Wire the drain to #3 on the terminal strip and trim the drain on the transducer side of the cable. The shielded 2 conductor needs to be in the conduit from the transducer box to the box that contains the touch screen.

2 CONDUCTOR  
SHIELDED

RED  
BLACK  
DRAIN



CLOSE UP VIEW OF  
TRANSDUCER TERMINAL

RED  
BLACK

DRAIN NOT CONNECTED  
AT THIS END

# **TROUBLE SHOOTING**

## **STATIC PRESSURE ALWAYS SHOWS NEGATIVE.**

- 1). Make sure DataQ has green light. Check the USB cable connection to the DataQ and the USB on the touch screen.
- 2). No 24 VDC power available. Make sure power adapter is plugged in. Check voltage on the terminal strip #1 and #3.
- 3). Bad connection, broken cable to the pressure transducer. Make sure that there is a green light on pressure transducer.
- 4). Bad pressure transducer or datalogger.

## **STATIC PRESSURE DOESN'T CHANGE**

Pitot tube tip or tubing may be plugged/frozen. Unplug Hi port tubing and see if reading goes to zero.

## **STATIC PRESSURE ALWAYS READS LOW**

- 1). Make sure there isn't a leak in the tubing. Check the tubing connections.
- 2). Check voltage input into DataQ. Static Pressure =  $3.75 \times (\text{Voltage Reading}) - 3.75$ . Voltage reading can be checked at ch1+ and ch1- on the DataQ, or #2 and #3 on the terminal strip.
- 3). Static pressure transducer may have gone out of calibration. Re-calibrate or replace transducer. Calibrate the transducer by adjusting the 2 pots on the front of the transducer. The zero pot is on the left side of the transducer and the span pot is on the right side of the transducer.