

ASSEMBLY AND INSTALLATION INSTRUCTIONS FOR 80257 BELT CONVEYOR MOISTURE CONTROL

The 80257 Belt Conveyor Moisture Control measures moisture content of seed cotton travelling on a belt conveyor from a module feeder to a hot air pickup point. A sensor, floating on top of the seed cotton, detects changes in cotton moisture content before drying. Drying system temperatures are set automatically with the use of a Samuel Jackson Feedforward Moisture Control.

Following are guidelines for assembling and installing the Floating Sensor Assembly and Feedforward Moisture Control.

The following parts are shipped with the 80257 Belt Conveyor Moisture Control.

- 1 18930 FLOATING SENSOR ASSEMBLY
- 1 18390 MOISTURE TRANSMITTER ASSEMBLY
- 1 18350A COTTON MOISTURE CONTENT CONTROLLER/DISPLAY

The 18930 Floating Sensor Assembly is shipped completely assembled. Refer to Figure 1 for identification of the assembly parts.

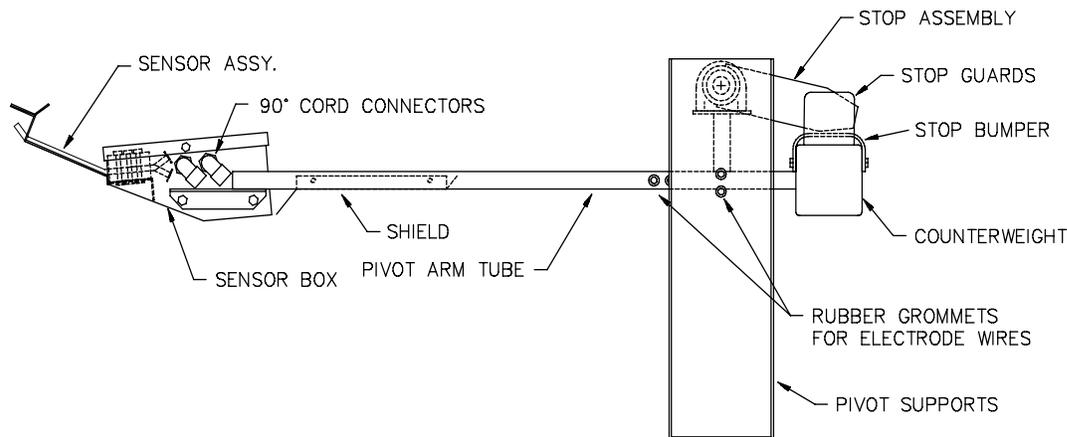


FIGURE 1: 18930 FLOATING SENSOR ASSEMBLY

14-3390.1

To begin installation, measure the inside distance between the flanges at the top of the conveyor trough. The Pivot Supports adjust for inside widths from 32 inches to 40 1/2 inches.

For conveyor widths under 32 inches, cut equal lengths off the 1 inch shaft on each Pivot Support to allow for the desired width. Refer to Figure 2 for view of Pivot Supports on conveyor trough and identification of the Shaft Locks and Stop Assembly.

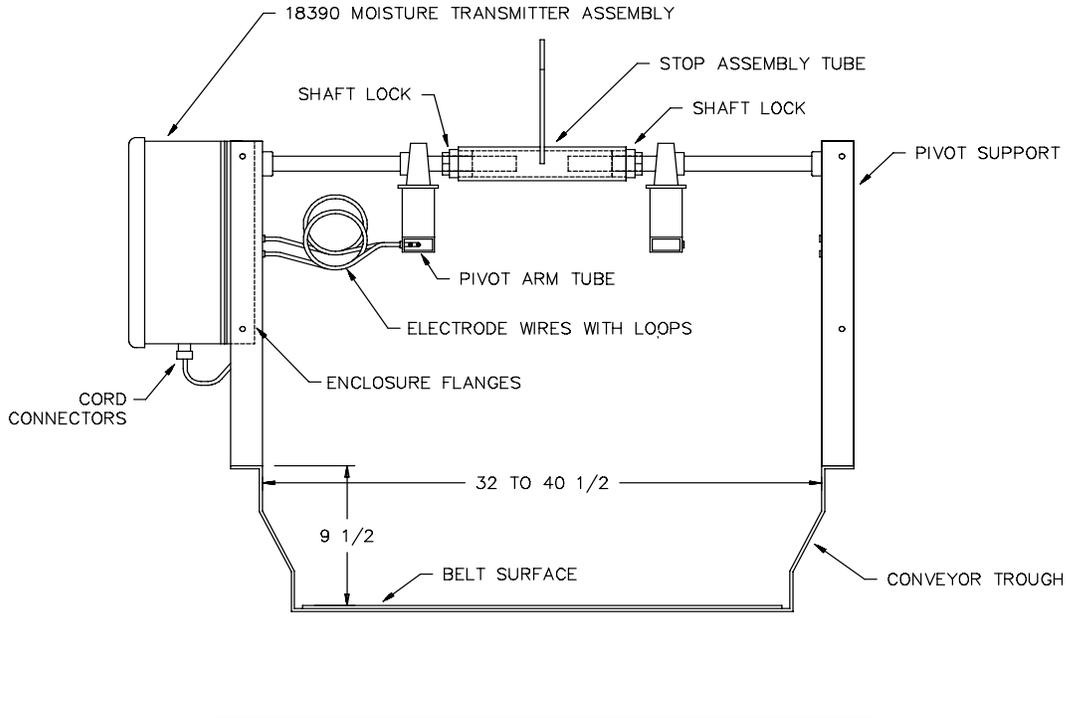


FIGURE 2: PIVOT SUPPORT WIDTH AND HEIGHT OVER BELT ADJUSTMENT

14-3390.2

Measure the distance from the top of the belt to the top of the conveyor flanges. If this distance is between 8 1/2 to 10 1/2 inches, the Pivot Supports will bolt directly to the top conveyor flanges. If the distance is under 8 1/2, use spacers to build a platform for each Pivot Support foot to 9 1/2 inches off belt. If the distance is over 10 1/2 inches, modify the trough sides so the Pivot Support feet are 9 1/2 inches off belt.

The shafts from each Pivot Support slide through Shaft Locks into the Stop Assembly Tube. After adjusting the Pivot Supports to the proper width, hand tighten the Shaft Locks. Make sure the Stop is centered between the two Stop Guards. The Shaft Locks will require final tightening after adjusting sensor's lowest travel position above belt.

Locate center of Pivot Supports at least 46 inches away from the start of the hot air pickup point, i.e., edge of Hot Box II. The Floating Sensor Assembly requires 60 inches of trough length. When using a travelling head type module feeder, make sure the cross conveyor from the disperser cabinet cannot travel closer than 14 inches to the center of the Pivot Supports. Refer to Figure 3 for view of locating Floating Sensor Assembly on the conveyor trough.

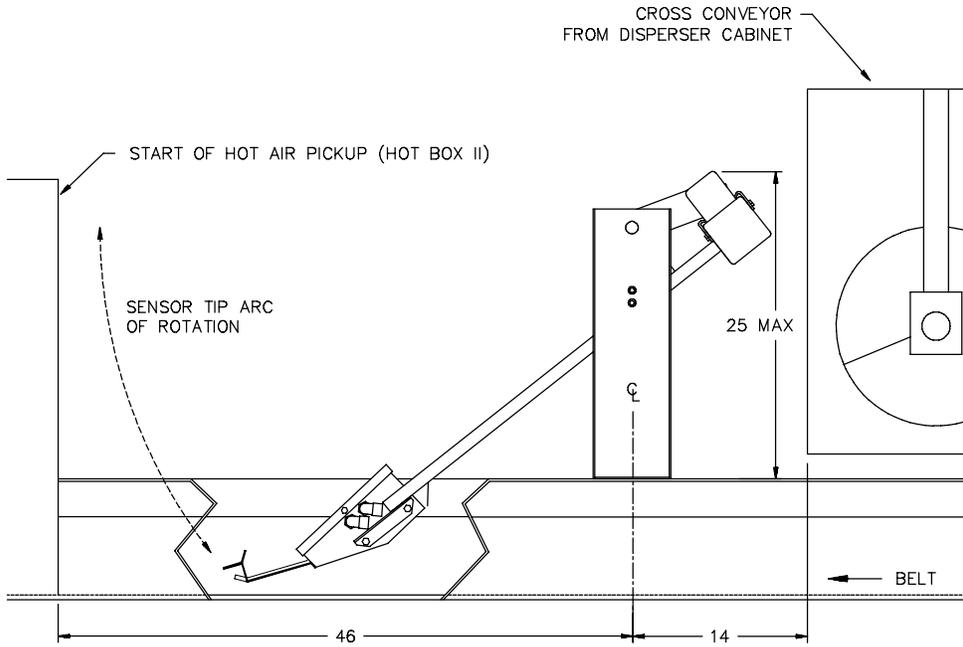


FIGURE 3: LOCATION FOR FLOATING SENSOR ASSEMBLY ON CONVEYOR TROUGH

14-3390.3

Square the Pivot Supports up on the conveyor trough top flanges. Use the two holes punched in the foot of each Pivot Support to locate holes for 3/8 dia bolts into the trough top flanges. Bolt the Pivot Supports to the trough.

Adjust the sensor's lowest travel position above the belt by rotating the Stop Assembly. A 1 inch distance between the sensor's lowest point and the belt is recommended. Fully tighten the Shaft Locks to set the position of the Stop Assembly. Refer to Figure 4 for view of this adjustment.

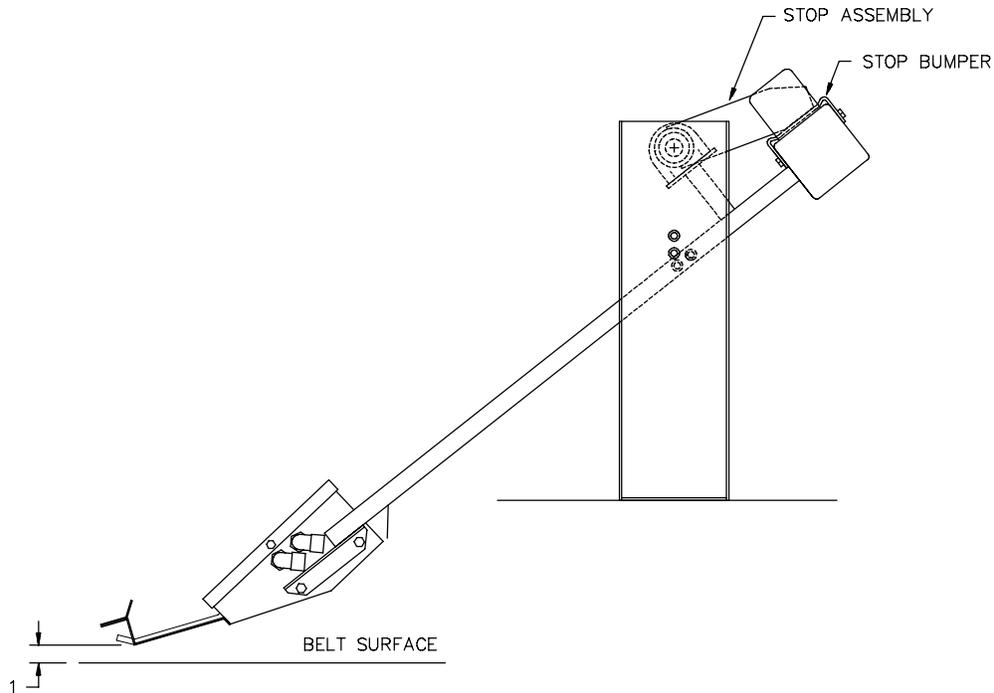


FIGURE 4: ADJUSTMENT FOR LOWEST TRAVEL POSITION

14-3390.4

The Floating Sensor Assembly was assembled at the factory for locating the Moisture Transmitter Assembly on the left side of the conveyor trough. The left side of the trough is identified by standing in the trough looking toward the air pickup point.

A 1/2" conduit stub-up from the main console needs to be located near the left Pivot support. The Cotton Moisture Content Controller is normally located at the main console.

The Moisture Transmitter Assembly enclosure bolts to the two flanges attached to the left Pivot Support. Mount the enclosure with the two strain relief cord connectors pointed down.

If the gin layout requires hooking the Moisture Transmitter Assembly to a conduit stub-up on the right side of the conveyor trough, the black insulated electrode wires from the sensor box are re-routed up the right side Pivot Arm Tube.

Before beginning the left to right change, carefully inspect the electrode wire sensor connections and routing. Remove the 5/8 inch hole covers on the right side of the sensor box. Install the 90 degree strain relief cord connectors on the right side, using the two 5/8 inch covers to plug the left side holes.

Be sure to run the electrode wires through the rubber grommets installed in side wall of the Pivot Arm Tube. Change the Moisture Transmitter flanges to the right side Pivot Support.

Thread the two electrode wires through the rubber grommets installed in the Pivot Support. Leave enough electrode wire between the Pivot Arm Tube and the Pivot Support to form a 4 inch diameter loop. Thread each electrode wire through a strain relief cord connector into the Transmitter enclosure. The electrode wire routing is shown in Figure 2.

For wire connections, refer to **External Electrical Connections for 80257 Belt Conveyor Moisture Control** Drawing No. 14-3391. Run a 1/2" conduit with four 16 ga. wires from the Moisture Transmitter Assembly to the main console where the Cotton Moisture Content Controller and Samuel Jackson Heater Controls are located.

Do not run any AC power wires in this conduit. Drill a hole for the 1/2" conduit connector into the bottom of the Transmitter enclosure. **DO NOT DRILL INTO TOP OF ENCLOSURE.**

Follow External Electrical Connections diagram for connecting the Moisture Content Controller to Samuel Jackson heaters.

If the above instructions are not clear or additional information is required, please call us before you go further. Our number is 1-800-862-9966.

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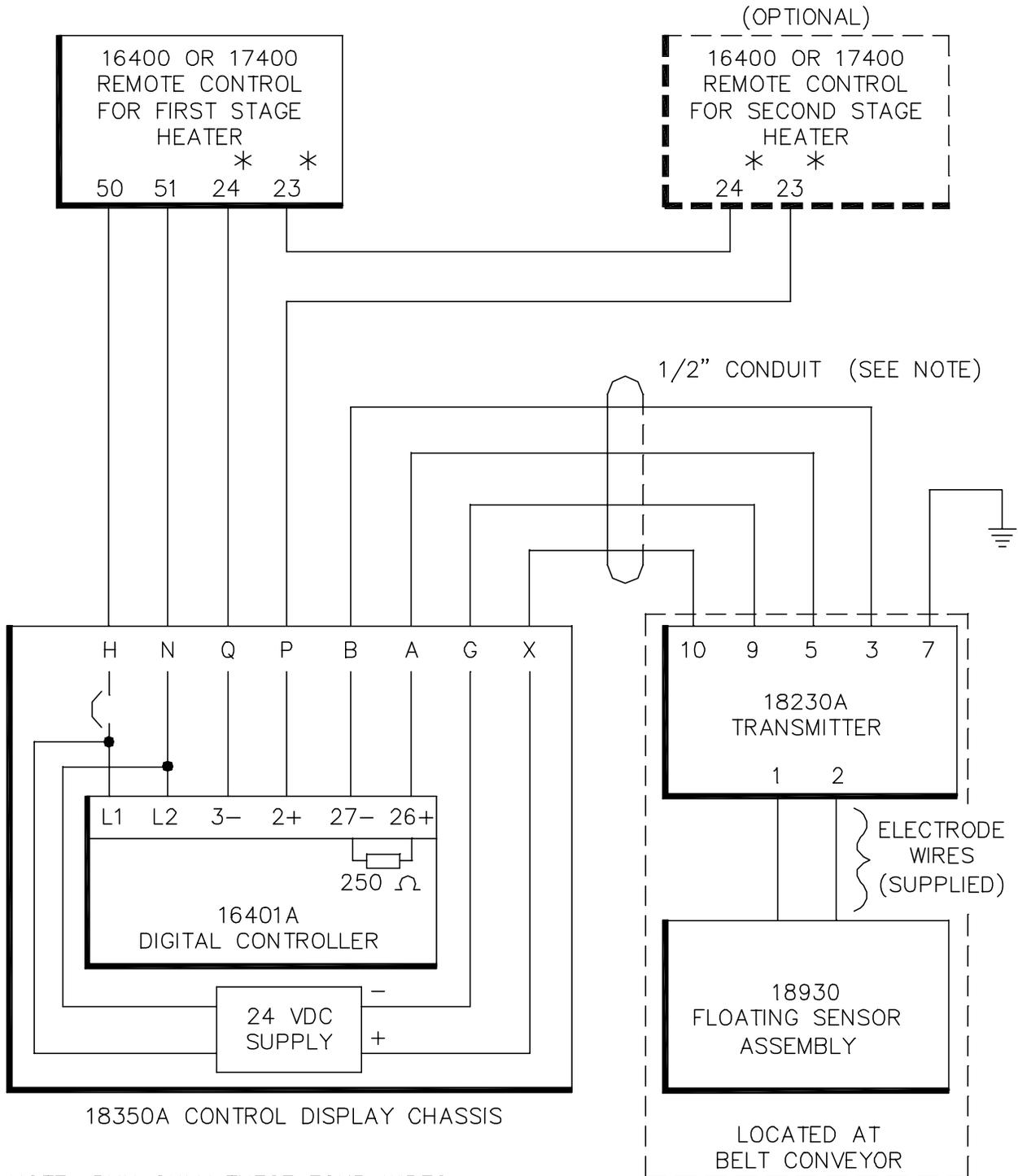
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EXTERNAL ELECTRICAL CONNECTIONS FOR 80257 BELT CONVEYOR MOISTURE CONTROL

14-3391A
2/96



NOTE: RUN ONLY THESE FOUR WIRES
IN THIS CONDUIT.

* FOR BLUE UDC-3000 CONTROLS USE TERMINAL 10 INSTEAD OF 23
AND TERMINAL 11 INSTEAD OF 24. BRIDGE EACH PAIR (23-24 OR 10-11)
WITH A 250 OHM RESISTOR