

TECHNICAL SERVICE BULLETIN

SUBJECT: Counter Will Not Exit HOLD Mode (unit fails to register distance) BR and SR Models

Many of the service calls received at Bucyrus Equipment Co. are related to counter issues. And, the majority of the counter problems encountered is failure to count distance (feet or meters). In most cases, if the unit fails to count distance, the reason is that the unit is in the hold mode. The unit is designed to stop accumulating roll distance, number of pieces and load count when in the hold mode.

Troubleshooting

The harvester is equipped with a remote run/hold system that is controlled by the selector valve lever that operates the rear conveyor. When the lever is off, the counter will be in the HOLD mode; when the lever is on, the counter is in RUN mode. If your counter is stuck in the hold mode, proceed as follows to determine the cause:

1. Power up the counter. It is not necessary to start the tractor.
2. Place the rear conveyor selector valve in the on position and note the counter display. See **Figure 1** (BR) or **Figure 2** (SR).

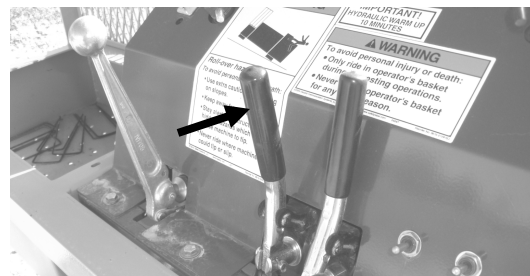


Figure 1—Selector valve for rear conveyor on BR models.

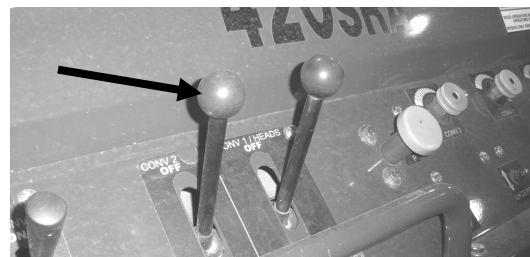


Figure 2—Selector valve for rear conveyor on SR models.

3. If the display shows hold with the rear conveyor valve on, push and release the run/hold button on the counter.

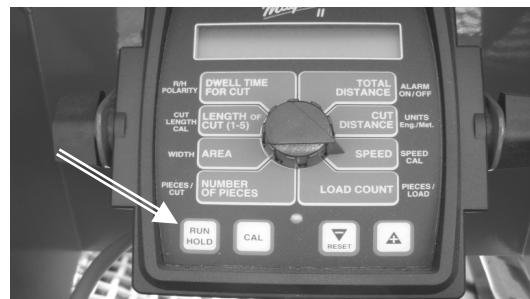


Figure 3—Run/Hold button.

NOTE: The run/hold button on the counter overrides the remote run/hold function. Therefore, if the run/hold button is pushed, the unit will be in the hold mode regardless of selector valve position.

4. If hold disappears after pushing the run/hold button, push the conveyor selector to the off position. Hold should reappear. Again pull the selector on and hold should go away. If so, the remote run/hold system is operating normally. If not, continue at Step 5.

NOTE: If hold displays when the conveyor lever is in the on position and disappears when the lever is off, the remote hold polarity is backward. Changing the polarity is detailed later in this bulletin.

5. The remote run/hold is controlled by a magnetic reed switch that is triggered by a small magnet attached to the selector valve spool on BR models or a lever on SR models. See **Figure 4** (BR models) or **Figure 5** (SR models).

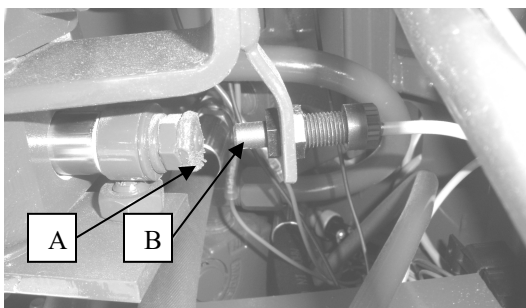


Figure 4—Magnet (A) and reed switch (B) on BR models.

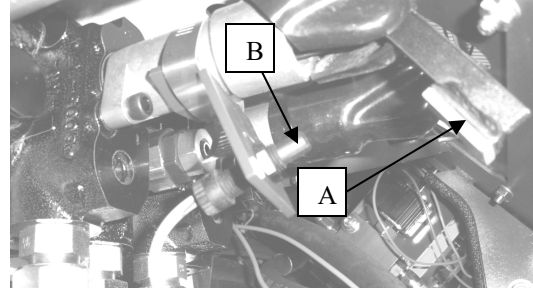


Figure 5—Magnet (A) and reed switch (B) on SR models.

6. Pulling the selector lever to the on position places the magnet closer to the reed switch. This causes the reed switch contacts to close and the counter to exit the hold mode. Pushing the lever to off moves the magnet away from the switch. This causes the reed switch contacts to open and the counter to enter the hold mode.

7. Make sure the magnet is present. If the magnet is missing, verify correct operation by holding a small magnet close to the tip of the reed switch. If the counter enters hold mode and exits the hold mode when the magnet is moved away from the reed switch, the counter and reed switch are functioning normally. If missing, install a new magnet. If the counter still does not operate as described, test the reed switch as described in this bulletin.

8. If the magnet is present, but the counter is fixed in hold mode, loosen the mounting nuts and move the reed switch toward the magnet in 1/8 in. (3.2 mm) increments.

Reed Switch Test

A suitable ohmmeter is required to test the reed switch. Note that the counter will be fixed in the hold mode if the run/hold reed switch is disconnected or if a poor connection is present where the switch connects to the counter.

1. Trace the cable from the run/hold reed switch to its connector near the counter.
2. Disconnect the black two-pin connector. Disconnect the reed switch from counter.

NOTE: The remote run/hold and ground speed reed switches have identical connectors. Be sure the correct switch is disconnected by tracing the cable from the switch to the connector.

3. Connect an ohmmeter between the two reed switch pins (**Figure 6**). The ohmmeter should indicate no continuity (infinity).

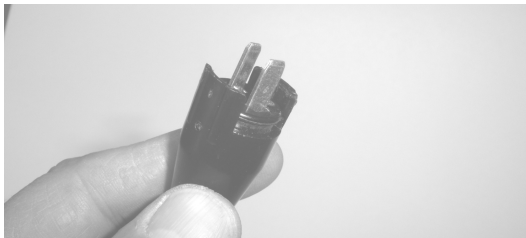


Figure 6—Two-pin reed switch connector.

4. Place a magnet near the tip of the reed switch (3/8-1/2 in. (9.5-12.7 mm) away from the tip). The ohmmeter should indicate approximately 150 ohms. The switch should close with the magnet near the tip and open when the magnet is removed.
5. Replace the run/hold reed switch if it fails to perform as specified.

Run/Hold Polarity

If the reed switch for the run/hold function fails, you can continue to harvest using the Magnum counter by changing the run/hold polarity.

NOTE: Changing the run/hold polarity allows you to switch back and forth between run and hold using the RUN/HOLD button on the counter.

To change run/hold polarity, continue as follows:

1. Place the counter in hold mode. If necessary, disconnect the run/hold reed switch from the counter—this will place the counter in hold mode.
2. Press and hold the CAL button until the display indicates CAL/HOLD and the red LED illuminates.
3. Turn the rotary switch to R/H POLARITY.
4. Press the minus (-) button to switch from CLOSE to OPEN.
5. Now to enter hold mode, simply press the run/hold button. To exit hold mode, press the run/hold button again.
6. After replacing the run/hold reed switch, be sure to switch the polarity back to CLOSE.
7. If you are unable to exit the hold mode using the button after changing the polarity, replace the counter.