CS 550/150RC

Frequently Asked Questions (FAQs)
550 FAQ’S

Electronic Controller

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Appendix 550 Cable connection charts

Hydraulics

1. Conveyor does not start or will not run.
2. Spinner does not start or will not run.
3. Dump body will not raise when loaded.
4. Slow hydraulic function
5. Hydraulic functions will not shut off
6. Hydraulic system is heating up
7. Hydraulic oil is milky or foaming
1. How to diagnose system and sensors?
With 550 it is very easy to check if all valve outputs and sensors work properly by simply putting controller into **UNLOAD** mode.

In **UNLOAD** mode all the outputs are set to **MANUAL** mode.
- Dial each knob to check each individual valve output
- Check for feedback signal from each individual sensor

2. Select Driver ID
Use Driver ID to allow end users to generate spreading activity reports for a specific driver.
Stop the truck and tap on the **DRIVER ID** field to rotate from driver 1 to 4.

3. Define a custom Driver ID for AVL operation
For AVL operation: If the 4th Driver ID is configured as “USER” operators can enter any user defined Driver ID on the operator screen by clicking on the Driver ID field.
4. Select operation material
   Make sure the solid & liquid selected matching the actual solid & liquid being used. Failing to do that would result in wrong spreading quantity.
   To change solid or liquid simply tap on the material name to popup LEFT/RIGHT arrows, select the correct material and then tap on the material name again to complete.
   
   Note: Access rights needs to be selected in PROGRAM mode

5. Select operation gate
   For MANUAL MODE gate operation operators need to make sure the operation gate selected matching the actual gate position. Failing to do that would result in wrong spreading quantity.
   Move gate to the typical gate position for the material used, and change the controller operation gate by tapping on the gate slider to popup UP/DN arrows, select the matching gate position and then tap on the gate slider again to complete.
   
   Note: Access rights needs to be selected in PROGRAM mode

6. How to enable simulated ground speed?
   Stop the truck and tap on the SPEED to get UP/DN arrows
   Press & hold UP arrow for 5 secs to enable SIM speed mode, then UP/DN to adjust SIM speed. To end the SIM speed mode ramp down SIM speed to 0 and tap on the speed field again.

7. What are the options in check marks on setup screen?
   btPS – Set spreader to PAUSE mode at power up
   SimRvs – Enable simulated anti-icing in ‘Spinner Reverse’ mode
   B sw – Enable external boom switches
   0Gate – For closed loop gate it allows to set MIN to 0
   mBlast – Option to set Blast to momentary action
   Dimr – Screen auto dimmer
   GPS/AVL – GPS tracking, require a serial cable (R987376776) and a GPS receiver Puck (R98730745), or AVL interface.
   W/L – Prewet and Anti-icing operation interlock with an asymmetrical valve
   L lvI – Use MAT change input as liquid level detection.
   Fr – French version
   Auger – Once checked the gate change is disabled
   LastP – Remember the last knob positions at power up.
   Dig – Disable remote Pause/Blast, and use them as digital inputs
   JoyScn – Operator screen defaults to joystick screen.
   VoiceOff – Turn off voice readout for spreader functions.
   VolAdj – Allow operators to adjust volume without programming key
   mode – Allow operators to change modes without using a PROGRAM key
   smr – summer mode, allow operators to change all functions to MANUAL modes without using a PROGRAM key
   OAOff – Disable Over Application Error Messages
   joytmr – Enable joystick blast timer

8. How to show and clear the last 20 error messages?
   Stop the truck, press&hold ‘gear’ symbol for 1 sec to show last 20 error msgs(no key required) and click on the ‘gear’ symbol again to close, or press&hold the ‘gear’ symbol for 5 secs to clear (key required)

9. How to clear trip total, retrieve data (truck needs to be stationary)?
   To clear trip total, press & hold ‘usb’ symbol for 1 sec (KEY removed)
To retrieve both parameter and log data, press & hold USB icon for 1 sec (PROGRAM KEY)
To retrieve log data only, press & hold ‘usb’ symbol for 1 sec (LOGDATA KEY)

10. Question on GPS/AVL Options

GPS tracking w a receiver
Interface for AVL devices
Once an option is selected the 550 needs to re-started to initialize the port properly. If the communication works properly users would be able to see ‘gps’ or ‘avl’ on the gear icon,

11. How to set up the Blast Timer?
By default the Blast Timer is 0 (disabled). Any non-zero value would turn on the Blast Timer and the value should be greater than the ‘Blast Too Long’ timeout otherwise the system would generate ‘Blast Too Long’ error message before Blast Timer ends.

12. Error 23/24/25/26 – CAN Bus Comm Error?
Error 23, display unit not able to communicate with a RC controller.
Error 24/25/26, RC controller not able to communicate with RCE unit or a joystick.
- Check all connections to RC, RCE, and joystick or joysticks
- Reboot the system to see if the error goes away
- Wrong configuration file (550/150) loaded for a standard 550 only system
- Double tap on ‘gear’ symbol to get CAN error codes in date&time fields

13. How to calibrate touch screen if the touch panel is misaligned?
Manage to switch over to Program Mode, tap on ‘stylus’ symbol to popup the Stylus properties

Stylus Properties

Double-Tap  Calibration
Double-tap this grid to set the double-tap sensitivity for both the speed and physical distance between taps.

Double-tap this icon to test your double-tap settings. If this icon doesn’t change, adjust your settings using the grid above.

If your Windows CE device is not responding properly to your taps, you may need to recalibrate your screen.
Recalibration involves tapping the center of a target. If you miss the center, keep the stylus on the screen, slide it over the target’s center, and then lift the stylus. To start, tap Recalibrate.

Recalibrate

Carefully press and briefly hold stylus on the center of the target. Repeat as the target moves around the screen. Press the Esc key to cancel.
When the calibration is complete click ‘OK’ to close the window. Then click on the ‘save’ symbol to save the touch calibration data into system registry.

14. How to correctly set up gate when calibrating a material?
Mistakes can be easily made during the material calibration if the gate position is not set properly.

MANUAL GATE MODE – Adjust the actual gate position of the spreader to the commonly used position for the material, and then set ‘Cal Gate’ on the screen to the same position.

READBACK GATE MODE – Adjust the actual gate position of the spreader to the commonly used position for the material. No need to set ‘Cal Gate’ on the screen since the controller would read the gate position from the position sensor.

AUTO GATE MODE – Set ‘Cal Gate’ on the screen to the commonly used position for the material. And the controller would immediately move the gate to the SET position first when the calibration starts.

15. How to set up Spinner in ONE LANE or HALF LANE mode?
If ONE LANE or HALF LANE is selected the spinner speed change in operation mode would be adjusted by ONE LANE or HALF LANE.

- On SPN setup screen select ONE LANE OR HALF LANE mode
- Set Min and Max nulls
- Tap on the ‘LANE CAL’ to popup the following screen

- Dial CNV knob to turn on the conveyor
- Tap UP/DN arrows to adjust spreading width to HALF LANE OR ONE LANE (mode selected)
- Tap on the ‘LANE CAL’ again to end the calibration

16. How to load a parameter file from a PROGRAM KEY?
- Plug in the PROGRAM KEY and switch to PROGRAM mode
- Tap on the 'usb' symbol to show list of files on the PROGRAM KEY as follow
- Use finger to swipe the screen up or down to scan the list and tap to highlight a parameter file
- Tap on the Select Button at the bottom right of the screen to close
- Exit to the operation mode, and reboot the system
- Once the system is powered up again, switch to program mode to confirm the changes

*Note: loading a parameter file DOES NOT change the existing REGION and TRUCK-ID fields.*

17. What are the additional options for LIQUID+ mode?
- Option to turn off either Spreader or 3 Boom Anti-icing function
- Option to disable Left and Right boom switches
18. Hydraulic pressure and temperature readouts
Once a hydraulic pressure & temperature transducer is connected to a 550 both readings will be displayed on the top right corner of the screen as shown below.

19. Error 22 – System Error
This is an error generated by RC controller. The error message is seldomly seen. It can result from parameter corruption, and or hardware failure. If possible save the parameters to a PROGRAM key, then default the controller to factory default. If the error is not cleared after a reboot please call 1-877-Compu11 for help.

20. How does the Summer Mode work?
This option is to give operators ability to switch all spreader functions (Spinner, Conveyor, Prewet) to Manual mode without a Program key so that these outputs can be utilized for summer operation. To enable the option the 'smr' option needs to be checked on set up screen (See question 7).
21. How to set spreader to PAUSE mode at power up?
Checking ‘btPS’ option on setup screen would default a spreader controller to the PAUSE mode at power up (see question 7 for all the check mark options on setup screen).

22. How to turn off Over Application messages?
Checking ‘OAoff’ is checked on the set up screen all the Over Application Error Messages would be disabled in the system( See question 7 for all the check mark options on setup screen).

23. How does the mode change work?
The ‘mode’ option is to allow operators to toggle between the standard SOLID+PREWET operation and the 3 Boom Anti-icing operation without using a Program key.

Press & hold on an empty space on WET PANEL for 15 secs to toggle modes.
24. Does the factory RESET clear the joystick settings?
   The system RESET on the setup screen only resets all spreader function parameters to factory default, not affecting all the joystick settings.

25. How to customize names of joystick modes?
   550 has a list of pre-set names for joystick modes. Besides it allows customers to define three of their own names.
26. Is it feasible to change positions of joystick function buttons?
To make sure the joystick configuration matches the pre-defined system layout, and Rexroth has always
the master copy of the joystick configuration parameters and system layout this change can be only done by
factory. Please send change request to your technical sales rep.

27. What is the difference between the Reset and Non-Reset dump limit messages?
Non-Reset: Once the box is raised the proximity sensor triggers an error message on the 550, “Warning:
Dump Limit!”. The message will stay on till the dump is lowered below the proximity sensor.
Reset: Once the box is raised the proximity sensor triggers an error message on the 550, “Warning: Dump
Limit!”. The message would go away once the message is acknowledged by touching on the message box
till the next time the dump hit the proximity sensor.

Appendix

550 Cable connection charts

550 Standard Main Harness: R987376368

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<th>Mode</th>
<th>NORMAL</th>
<th>AIR GATE</th>
<th>LIQUID PLUS</th>
<th>CROSS CNV CA</th>
<th>CROSS CNV US</th>
<th>SPINNER RVS</th>
<th>SPN&amp;CNC REV</th>
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<tbody>
<tr>
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### 550 Lite Standard Main Harness: R987376367

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<th>Mode</th>
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<th>Spinner Reverse</th>
<th>3Boom Anti-Ice</th>
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### 550 Symmetry Main Harness: R987410292

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Hydraulics

1. Conveyor does not start or will not run.
   a. Check override on coil. Either push in or screw in override dependant on valve type.
   b. If M4 valve turn in manual stroke limiter.
   c. Check pump for flow and pressure
   d. Is the conveyor jammed?
   e. If neither of these works remove spool from valve and check for scoring.

2. Spinner does not start or will not run.
   a. Check override on coil. Either push in or screw in override dependant on valve type.
   b. If MP18 valve turn in manual stroke limiter.
   c. Check pump for flow and pressure
   d. Is the conveyor jammed?
   e. If neither of these works remove spool from valve and check for scoring.

3. Dump body will not raise when loaded.
   a. Check pump flow and pressure.
   b. Check port relief if installed
   c. Push override on coil or stroke limiter

4. Slow hydraulic function
   a. Check pump flow and pressure
   b. Check return line filter for clogging
   c. Check Load sense line for correct pressure setting
   d. Check line sizes for appropriate flow

5. Hydraulic functions will not shut off
   a. Check drain line from MP18 valve.
   b. Check spools in sections for scoring
   c. Check for correct plumbing

6. Hydraulic system is heating up
   a. Check pressure setting
   b. Check return filter
   c. Check pressure filter

7. Hydraulic oil is milky or foaming
   a. Air in hydraulic oil
   b. Check connections
   c. Check pump suction line for cavitation