550 FAQ'S

Electronic Controller

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3. Define a custom driver ID for AVL operation
4. Select operation material
5. Select operation gate position
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7. What are the options in check marks on setup screen?
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9. How to clear trip total, retrieve data (truck needs to be stationary)?
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11. How to set up the Blast Timer?
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15. How to set up Spinner in ONE LANE or HALF LANE mode?
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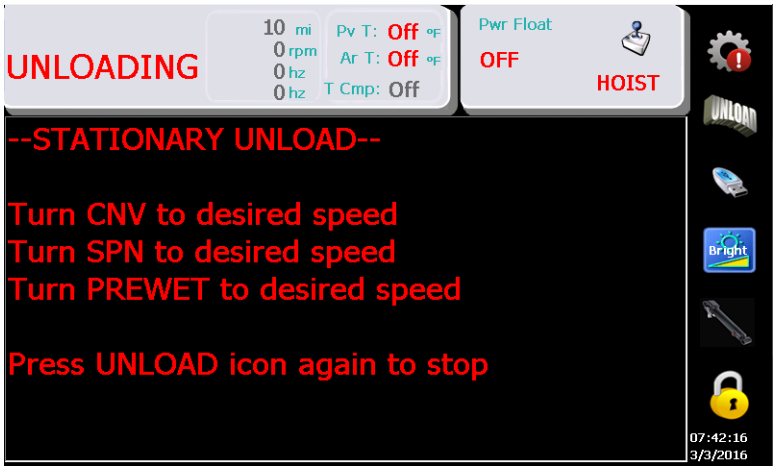
6. Hydraulic system is heating up
7. Hydraulic oil is milky or foaming

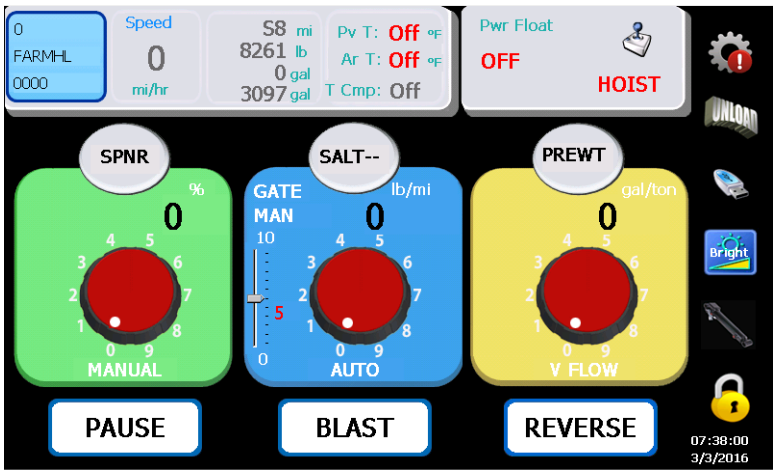
1. How to diagnose system and sensors?

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



Once the UNLOAD is off the screen switches back to the standard operator screen

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

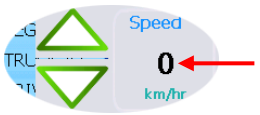
For MANUAL MODE gate operation operators need to make sure the operation gate selected matching the actual gate position. Failing to do that would result in wrong spreading quantity.

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



Speed field

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 (R987380745), or AVL interface.
W/L – Prewet and Anti-icing operation interlock with an asymmetrical valve
L lvl – 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 

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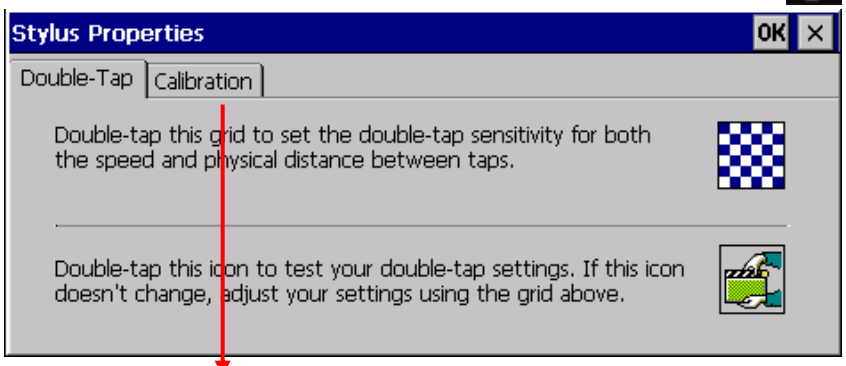
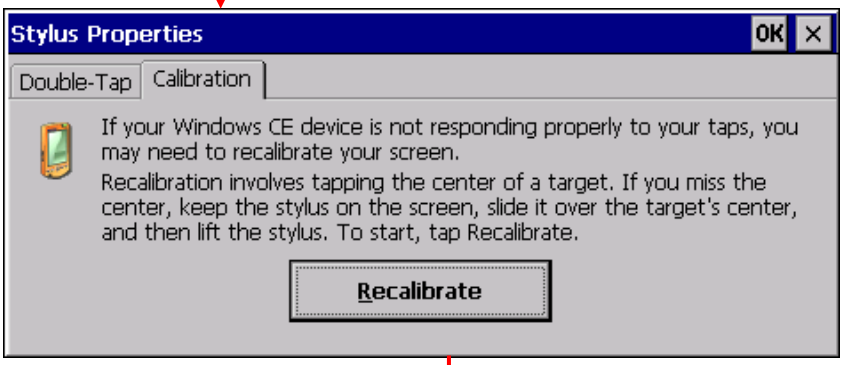
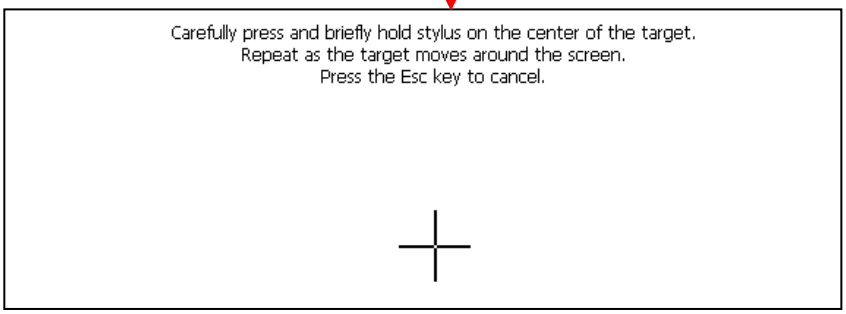
13. How to calibrate touch screen if the touch panel is misaligned?

Manage to switch over to Program Mode, tap on **'stylus'** symbol  to popup the Stylus properties







When the calibration is complete click ‘OK’ to close the window. Then click on **‘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.

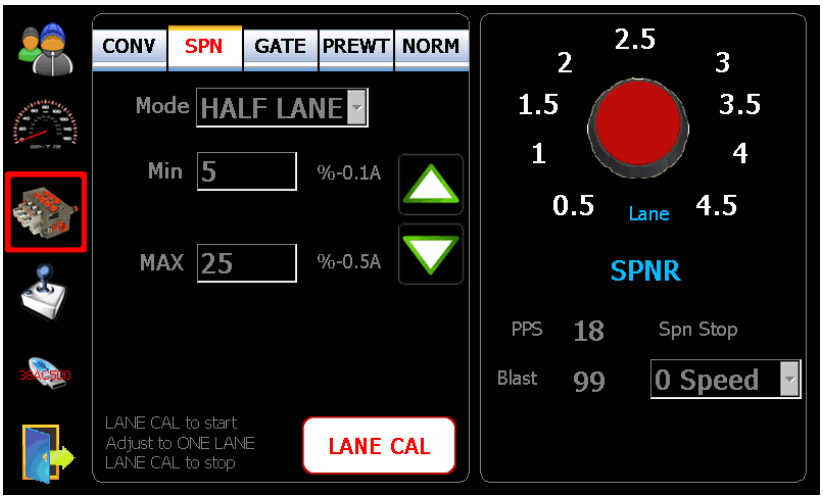
MANUAL GATE MODE – Adjust the actual gate position of the spreader to the commonly used position for the material, and then set ‘Cal Gate’ on the screen to the same position.

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.

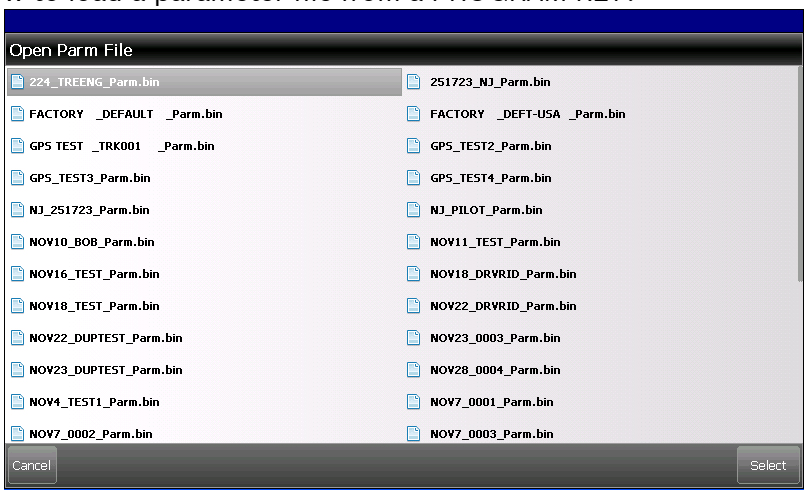
15. How to set up Spinner in ONE LANE or HALF LANE mode?
If ONE LANE or HALF LANE is selected the spinner speed change in operation mode would be adjusted by ONE LANE or HALF LANE.

- 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?

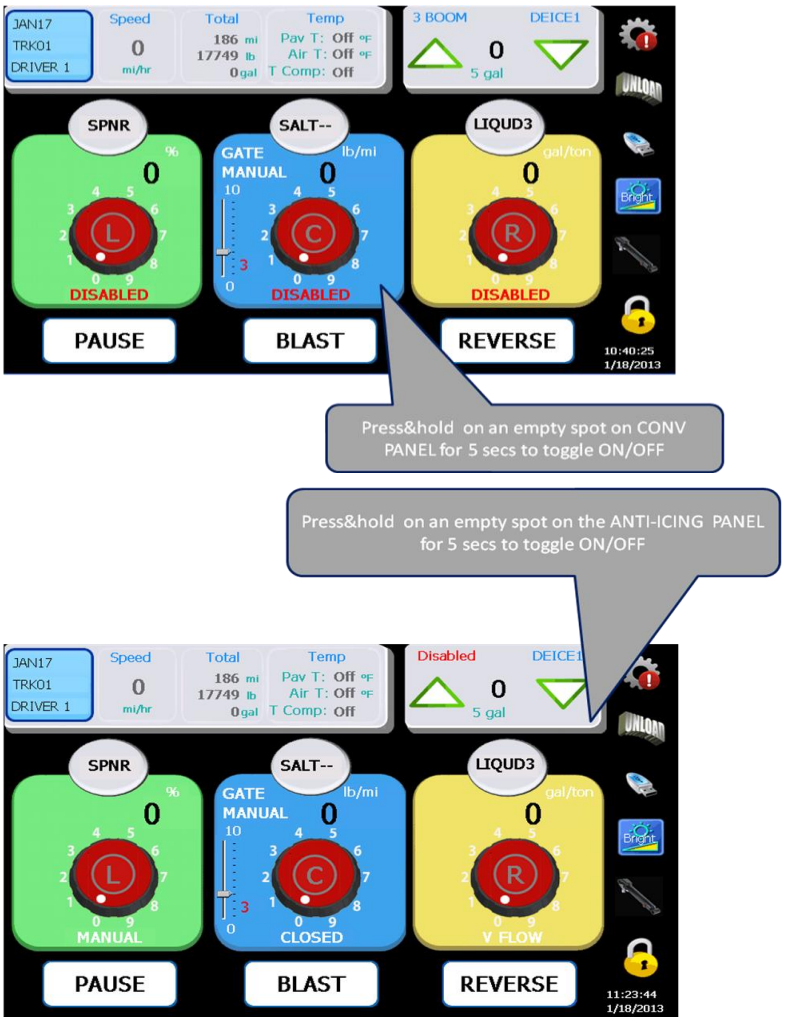


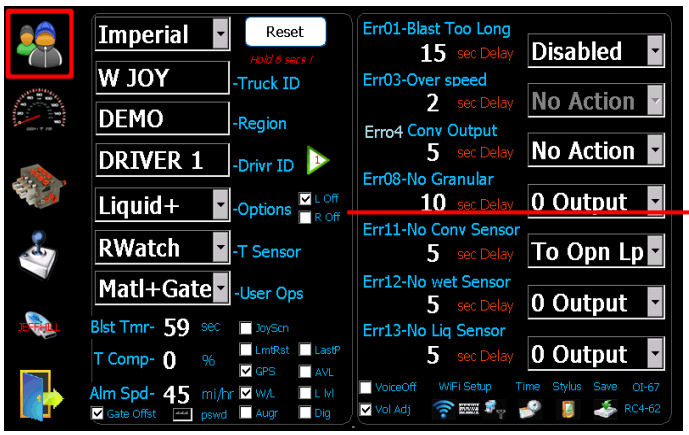
- Plug in the PROGRAM KEY and switch to PROGRAM mode
- Tap on the **'usb'**  symbol to show list of files on the PROGRAM KEY as follow

- 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

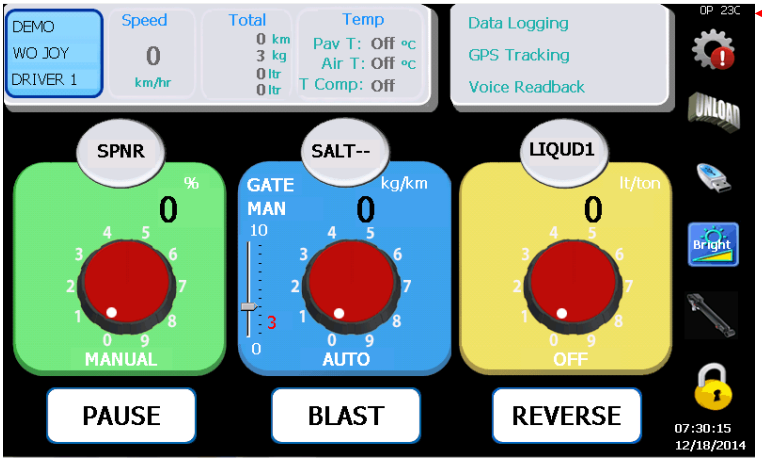




Option to disable Left and Right boom switches

18. Hydraulic pressure and temperature readouts

Once a hydraulicpressure&temperature tranducer is connected to a 550 both readings will be displayed on the top right corner of the screen as shown below.



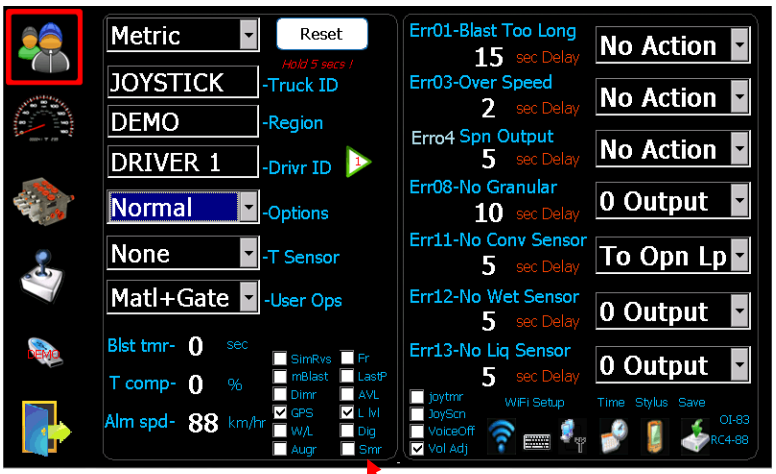
Pressure&Temp readings

19. Error 22 – System Error

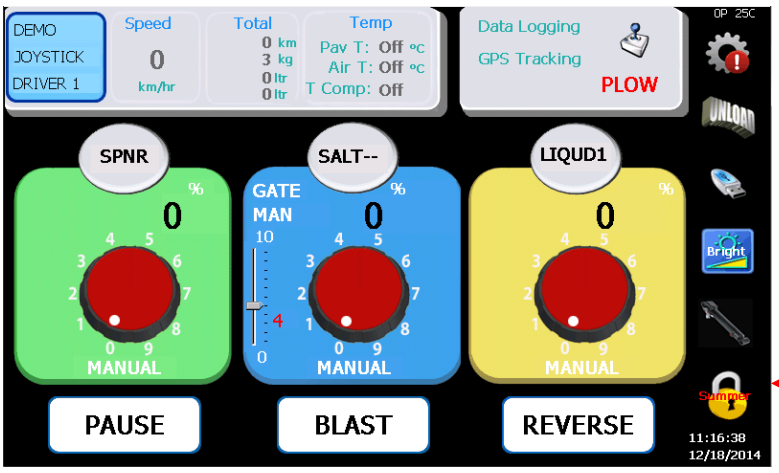
This is an error generated by RC controller. The error message is seldomly seen. It can result from parameter cruption, and or hardware failure. If possible save the parameters to a PROGRAM key, then default the controller to factory default. If the error is not cleared after a reboot please call 1-877-Compu11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



Check '**smr** ' option

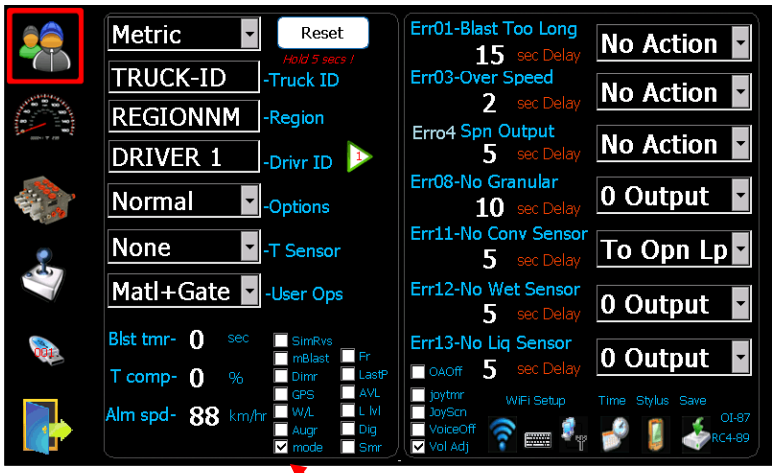


Press & hold for 15 seconds to toggle between Standard mode and Summer Mode

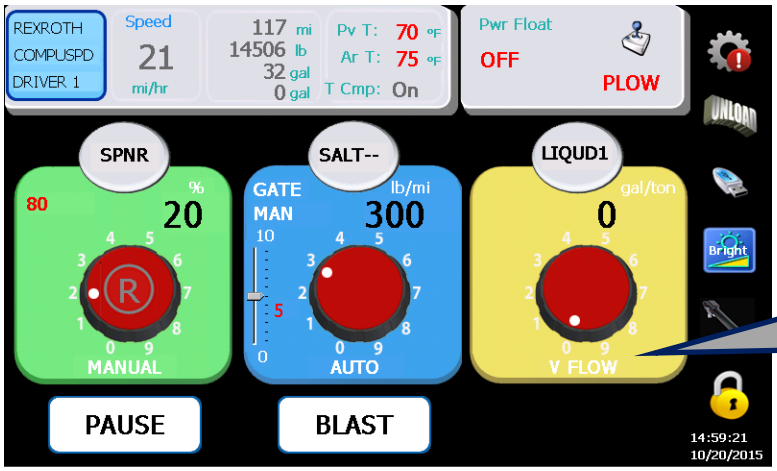
21. How to set spreader to PAUSE mode at power up?
    Checking ‘btPS‘‘ option on setup screen would default a spreader controller to the PAUSE mode at power up (see question 7 for all the check mark options on setup screen).

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.



Check ‘mode ‘ option



Press&hold on an empty space on WET PANEL for 15 secs to toggle modes

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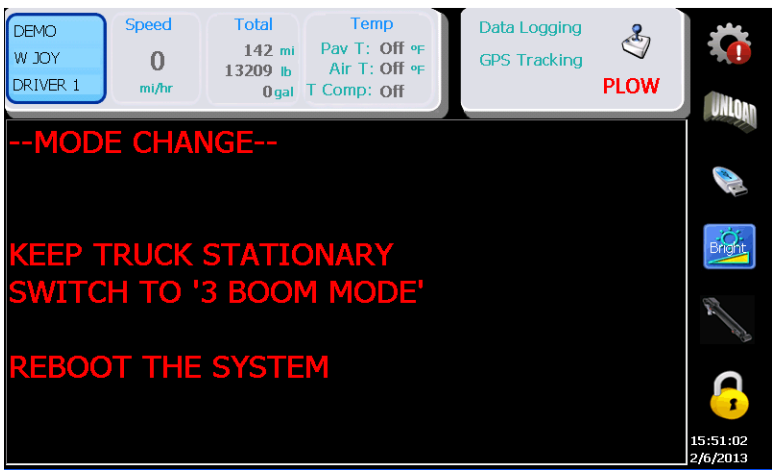
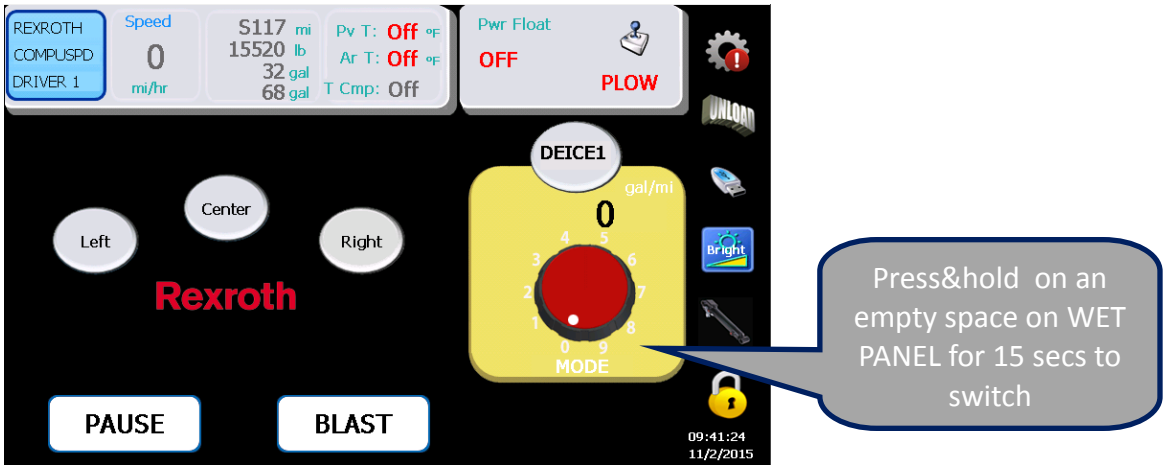
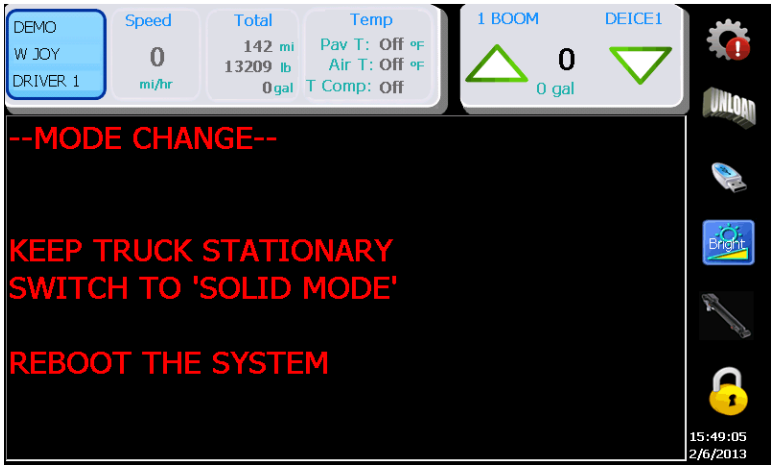
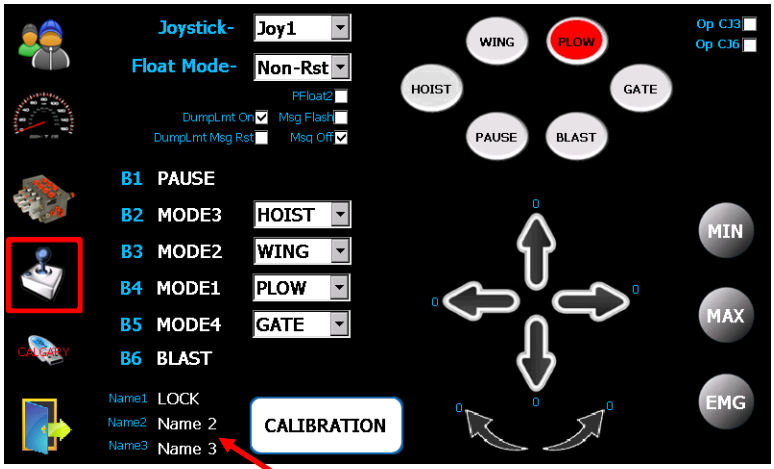






24. Does the factory RESET clear the joystick settings?
    The system RESET on the setup screen only resets all spreader function parameters to factory default, not affecting all the joystick settings.

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 goes 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

	STANDARD RC44 CABLE:R987376368						
Mode	**NORMAL**	**AIR GATE**	**LIQUID PLUS**	**CROSS CNV CA**	**CROSS CNV US**	**SPINNER RVS**	**SPN&CNV REV**
	S3-GSS	S3-GSS	S3-GSS	S3-GSS	S3-GSS	S3-GSS	S3-GSS
	S6-CSS	S6-CSS	S6-CSS	S6-CSS	S6-CSS	S6-CSS	S6-CSS
	S9-LSS	S9-LSS	S9-LSS	S9-LSS	S9-LSS	S9-LSS	S9-LSS
	S8-Anti-ice SS	S8-Anti-ice SS	S8-Anti-ice SS	S8-Anti-ice SS	S8-Anti-ice SS	S8-Anti-ice SS	S8-Anti-ice SS
	S10-Gate SS	S10-Gate SS	S10-Gate SS	S10-Gate SS	S10-Gate SS	S10-Gate SS	S10-Gate SS
	S5-SPINNER	S5-SPINNER	S5-SPINNER	S5-SPINNER	S5-SPINNER	S5-PREWET	PREWET
	S4-CONV	S4-CONV	S4-CONV	S4-CONV	S4-CONV	S4-CONV	CONV FWD
	G1-GATE RAISE		BOOM L	G1-GATE RAISE	CRS CONV1	G1-GATE RAISE	CONV RVS
	G2-GATE LOWER		BOOM R	G2-GATE LOWER	CRS CONV2	G2-GATE LOWER	ANTI-ICE
	S11-LIQUID	S11-LIQUID	S11-LIQUID	S11-LIQUID	S11-LIQUID	SPINNER FWD	SPINNER FWD
	S12-ANTI ICE		S12-ANTI ICE	CRS CONV		SPINNER RVS	SPINNER RVS
	GS 12V	AIR GATE	BOOM C	CRS DIG1	GS 12V	GS 12V	GS 12V
	REVERSE	REVERSE	REVERSE	CRS DIG2	REVERSE	REVERSE	
Temp	Aux-pin5(grey)	Aux-pin5(grey)	Aux-pin5(grey)	Aux-pin5(grey)	Aux-pin5(grey)	Aux-pin5(grey)	Aux-pin5(grey)
Pressure	Aux-pin4(yellow)	Aux-pin4(yellow)	Aux-pin4(yellow)	Aux-pin4(yellow)	Aux-pin4(yellow)	Aux-pin4(yellow)	Aux-pin4(yellow)
Rem Blast	Aux-pin6(pink)	Aux-pin6(pink)	Aux-pin6(pink)	Aux-pin6(pink)	Aux-pin6(pink)	Aux-pin6(pink)	Aux-pin6(pink)
Rem Pause	Aux-pin8(red)	Aux-pin8(red)	Aux-pin8(red)	Aux-pin8(red)	Aux-pin8(red)	Aux-pin8(red)	Aux-pin8(red)
Mat_Det	Aux-pin3(green)	Aux-pin3(green)	Aux-pin3(green)	Aux-pin3(green)	Aux-pin3(green)	Aux-pin3(green)	Aux-pin3(green)
Mat_Chg	Aux-pin1(white)	Aux-pin1(white)	Aux-pin1(white)	Aux-pin1(white)	Aux-pin1(white)	Aux-pin1(white)	Aux-pin1(white)

550 Lite Standard Main Harness: R987376367

550LT CABLE:R987376367

Mode	NORMAL	SPINNER REVERSE	3BOOM ANTI-ICE	STANDALONE JOY
	S3-GSS	S3-GSS	S3-GSS	
	S6-CSS	S6-CSS	S6-CSS	
	S9-LSS	S9-LSS	S9-LSS	PGM key
	S8-Anti-ice SS	S8-Anti-ice SS	S8-Anti-ice SS	Min button
	S10-Gate SS	S10-Gate SS	S10-Gate SS	
	S5-SPINNER	S5-PRWET	S5-BOOM L	PWM17
	S4-CONV	S4-CONV	S4-BOOM R	PWM18
	S11-LIQUID	S11-SPN FWD	S11-BOOM C	switch LED
	S7 REV/ANTI-ICE	S7-SPN RVS	S7-ANTI ICE	buzzer
	GS12/AIRGATE			
Temp	PRES Aux-pin5(grey)	PRES Aux-pin5(grey)	PRES Aux-pin5(grey)	
Pressure	TEMP Aux-pin4(yellow)	TEMP Aux-pin4(yellow)	TEMP Aux-pin4(yellow)	
Rem Blast	REM_BLST Aux-pin6(pink)	REM_BLST Aux-pin6(pink)	REM_BLST Aux-pin6(pink)	Max button
Rem Pause	REM-PAUSEAux-pin8(red)	REM-PAUSEAux-pin8(red)	REM-PAUSEAux-pin8(red)	
Mat_Det	MAT_DET Aux-pin3(green)	MAT_DET Aux-pin3(green)	MAT_DET Aux-pin3(green)	
Mat_Chg	MAT_CHG Aux-pin1(white)	MAT_CHG Aux-pin1(white)	MAT_CHG Aux-pin1(white)	

550 Symmetry Main Harness: R987410292

550SYMMETRY CABLE:R987410292

Mode	Chute (Direct Cast)	Chute(Symmetry)
	S3-GSS	S3-GSS
	S6-CSS	S6-CSS
	S9-LSS	S9-LSS
	S8-Anti-ice SS	S8-Anti-ice SS
	S15-Chute SS	S15-Chute SS
	S5-SPINNER	S5-SPINNER
	S4-CONV	S4-CONV
	S11-LIQUID	S11-LIQUID
	REVERSE	REVERSE
	GS12	GS12
	DR1 CHUTE L	DR1 CHUTE L
	DR2 CUTE R	DR2 CUTE R
Temp	PRES Aux-pin5(grey)	PRES Aux-pin5(grey)
Pressure	TEMP Aux-pin4(yellow)	TEMP Aux-pin4(yellow)
Rem Blast	REM_BLST Aux-pin6(pink)	REM_BLST Aux-pin6(pink)
Rem Pause	REM-PAUSEAux-pin8(red)	REM-PAUSEAux-pin8(red)
Mat_Det	MAT_DET Aux-pin3(green)	MAT_DET Aux-pin3(green)
Mat_Chg	MAT_CHG Aux-pin1(white)	MAT_CHG Aux-pin1(white)

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