

CS 420RC

Solid De-icer Controller Installation Manual



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1 Installation Recommendations

1.1 Step 1

Unpack all the supplied parts and check the packing list for completeness.

Spreader package includes:

- 1 x CS-420RC Spreader Console
- 1 x RC-2/2 Microcontroller

Cable kit includes:

- 1 x CS-420/430 RC Main Harness
- 1 x Electronic Speedometer Cable
- 1 x Conveyor Speed Extender Cable
- 2 x Valve Output Extender Cable
- 3 x Red 2 PIN ITT Locking Collar
- 2 x Yellow 3 PIN ITT Locking Collar

1.2 Step 2

Untie and layout all the cables supplied, to ensure proper lengths.

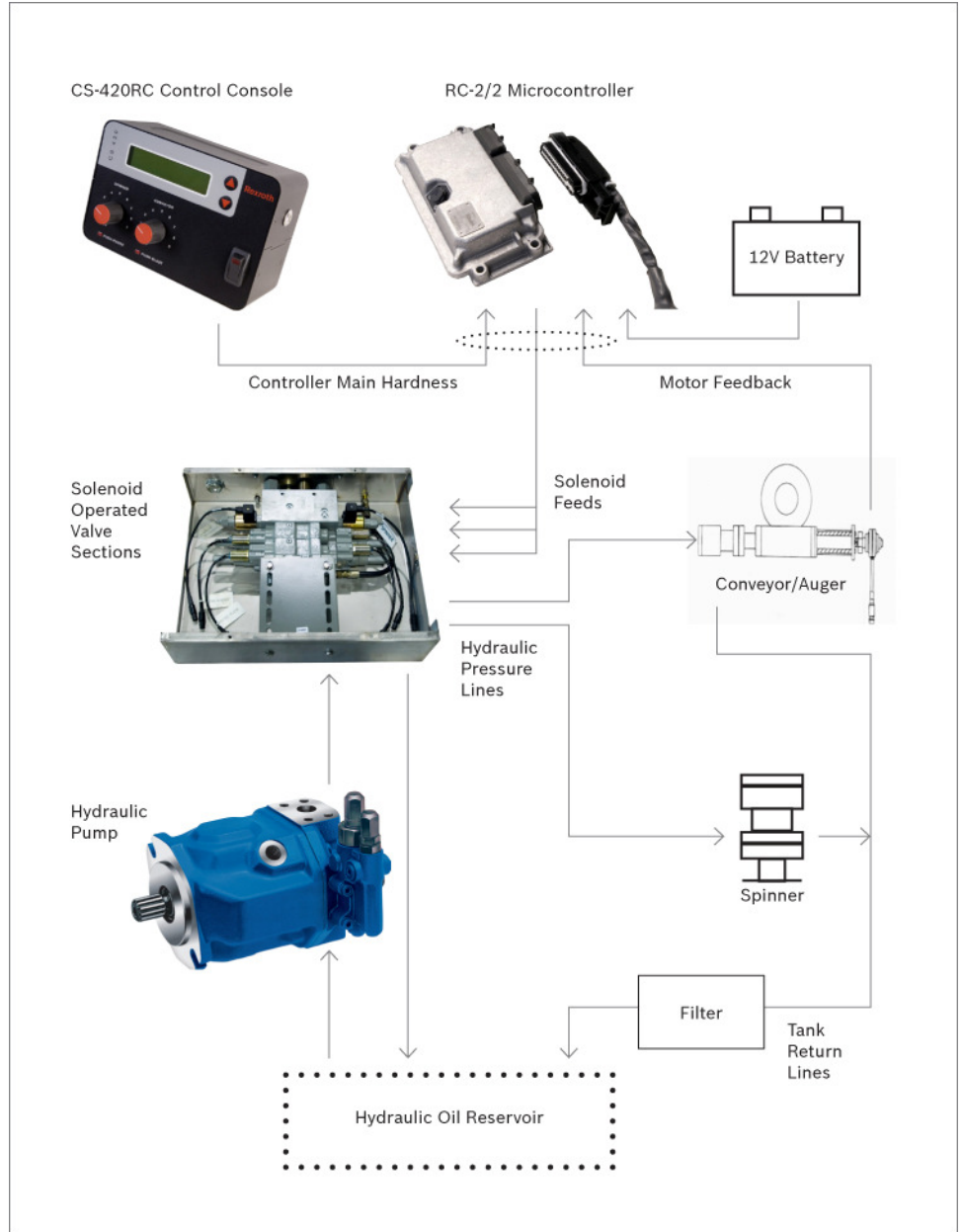
Note: Electromagnetic Devices such as relays, magnetic switches and solenoids, can generate large negative voltage spikes. These large spikes are conducted into the vehicle's electrical system and may adversely affect all electronic devices including engine computers. It is strongly recommended that these electromagnetic devices be electrically suppressed. See warnings and instructions in Body Builder manuals.

1. Connect the Controller 12V power supply and the ground wire using a dedicated circuit only. (Connect to the disconnect switch, if available. Otherwise, connect directly to the battery).
2. Connect 12V power and ground for all peripheral equipment such as GPS, Material Detection etc., to the same dedicated circuit only.
3. Ensure wiring for transmission devices such as radios, etc. are not attached to the controller or bundled with the controller wiring.
4. Make sure all mounting posts are properly grounded; a direct ground wire to the negative battery post is recommended. Floor mats and undercoating will interfere with proper grounding.
5. Disconnect the battery terminals before welding on a vehicle with electronic equipment.
6. Disconnect the negative battery terminal when wiring electronic devices.
7. Mount the consoles so that they do not interfere with vehicle controls or obstruct visibility.
8. Route cables so that they will not be abused or damaged.

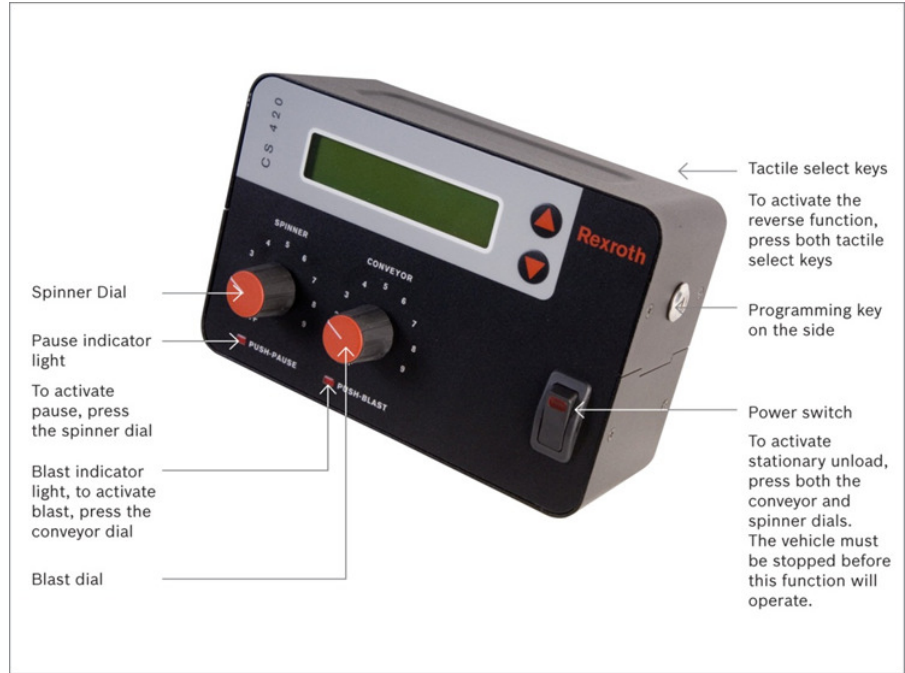
9. When routing cables through metal opening, always use grommets to prevent cable damage.
10. When running wires around a dump box pivot point, ensure no connectors can be separated when the hoist is activated.
11. Tie wrap cables clear of all moving parts like drive-axles or conveyor chains.
12. Consult the vehicle manufacturer for Ground Speed connections, improper connections will void all vehicle warranties.
13. Observe the cable labeling (under the clear cover) for the proper termination of inputs and outputs.
14. Use dielectric grease on all external cable connections and pins to ensure proper corrosion protection.
15. Thoroughly clean all power and ground terminals before connecting power harness.
16. Stand clear of any hydraulic functions when first powering up the system.
17. DO NOT drill holes in any of the enclosures.
18. DO NOT re-wire any of the consoles or cable harnesses.

Failure to follow the recommendations will void your warranty.

2 Typical CS-420RC System Diagram



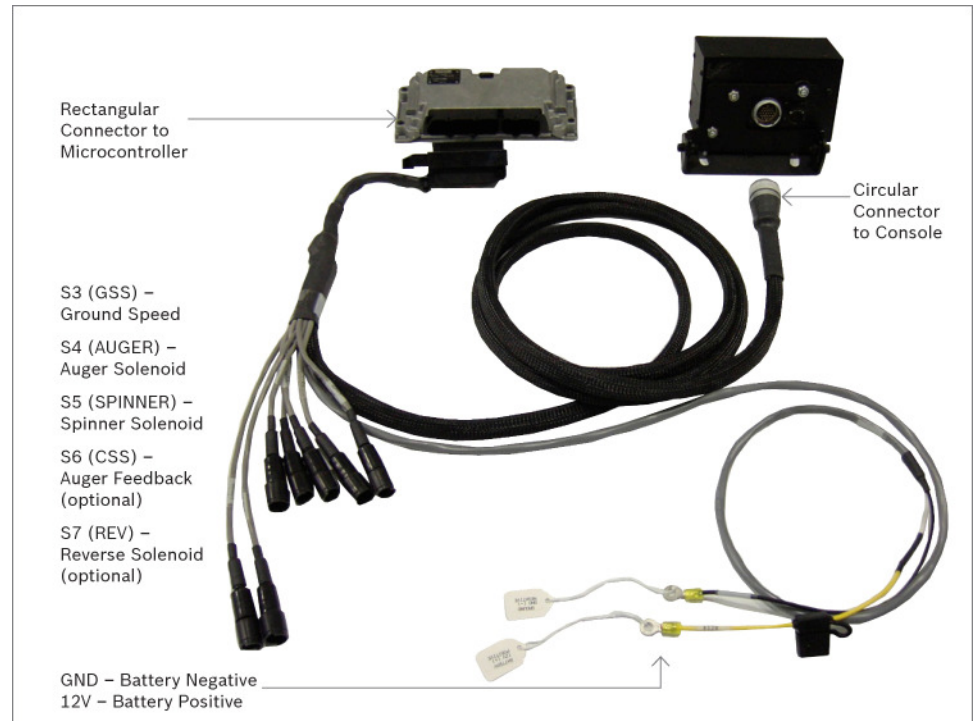
3 CS-420RC Console – Front View



4 CS-420RC Console – Rear View



5 CS-420RC Wiring Layout



5.1 Connection Details

S3 (GSS)

Use 3-pin cable with ring terminals (supplied in the cable kit). This cable provides two ring terminals for connection to the vehicles' speed pick-up. Consult the vehicle manufacturer for proper connection.

S4 (Auger)

Use 2-pin extender cable (supplied in the cable kit) to connect to the solenoid on the auger/conveyor hydraulic valve section.

S5 (Spinner)

Use 2-pin extender cable (supplied in the cable kit) to connect to the solenoid on the spinner hydraulic valve section.

S6 (CSS) (Optional)

Use 3-pin extender cable (supplied in the cable kit) to connect to the conveyor motor feedback sensor (if equipped).

S7 (REV) (Optional)

Use 2-pin extender (not included) to connect to the reverse solenoid on the

auger/conveyor hydraulic valve section.

GND

Connect to the battery negative terminal.

12V

Connect to the battery positive terminal.

5.2 Connector Details

1. To secure the rectangular connector to the RC microcontroller, first ensure the locking tab is extended, then partially insert into the receptacle. There are 4 coding posts that must be aligned.



2. Then push in the locking tab and the connector will automatically secure itself.



6 Mounting Details

6.1 Display Unit

1. Using the supplied bracket, secure the console to a pedestal as not to obstruct vehicle controls and operator visibility.
2. Position the console in clear view and within reach of the operator.
3. Route cables to the microcontroller in a way to prevent any damage. See installation recommendations on page 3.

6.2 Microcontroller

1. The electronic control unit must be secured at all 4 points and mounted in the cab.
2. Allow adequate space for plugging and unplugging the mating connector.
3. Mount the RC microcontroller vertically or horizontally but never at an angle.

Notes: