

LeeBoy

 **ST Engineering**

Changing the Harnesses for HD Screed - 8608



11/23/2024



Use contact cleaner on any electrical connectors that must be cleaned, per the discretion of the technician.

Before connecting any electrical terminals, be sure to use the appropriate amount of dielectric grease on each terminal.

Electrical Assembly Routing Best Practices

1. Zip ties should be used for support only in places where interference occurs during function of unit.
2. Zip ties should **NOT** be overtightened (no deflection of the harness and allowing movement through the securing mechanism)
3. Do not zip tie within 4" of a connector, no tension should be applied to a connector from the zip tie.
4. Do not fold over wires at point of connection.
5. Do not tie electrical wiring to hydraulic hoses.
6. Wiring harnesses should not be routed across sharp edges
7. Wiring harnesses shall not pool water into connectors
8. Where possible, wiring should be routed parallel to each other
9. When wires must be crossed due to space constraints, use stand-offs to prevent chaffing
10. Wires should run parallel through clamping mechanisms
11. All electrical connections should have a light coating of dielectric grease

**Follow the stated “Best Practices”
for electrical routings.**

Changing the Harnesses for HD Screed - 8608			
Part Group	Part Number	Part Description	Quantity
DM 430 HD Pro Electrical	1030200	HARNESS, ELEMENT HEAT	2
DM 430 HD Pro Electrical	1025751	HARNESS, SCREED, MAIN	1
DM 430 HD Pro Electrical	1030263-C-180S-M10	CLAMP, P RATCHET, 180 TAB SHORT, .76-1.42, M10	6
DM 430 HD Pro Electrical	1030263-D-180S-M10	CLAMP, P RATCHET, 180 TAB SHORT, 1.42-2.00, M10	8
DM 430 HD Pro Electrical	100-6-16-16-5F	3/8"-16 X 1" HEX BOLTS	3
DM 430 HD Pro Electrical	204-6-16-5	3/8"-16 STOVER LOCK NUTS	3

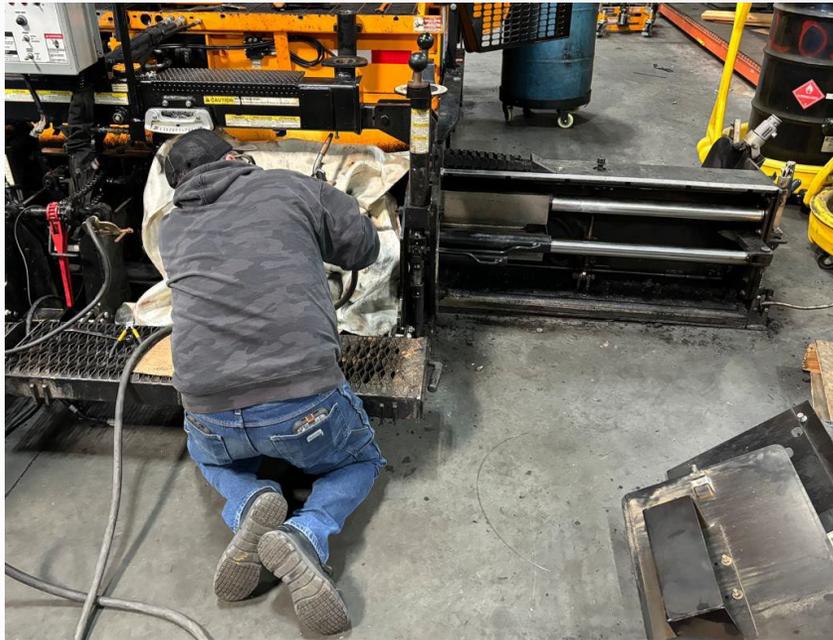
Locate the kit containing the stated parts.



Open the screed extensions and remove the screed covers.

Completely remove the following harnesses from the screed portion of the paver assembly:

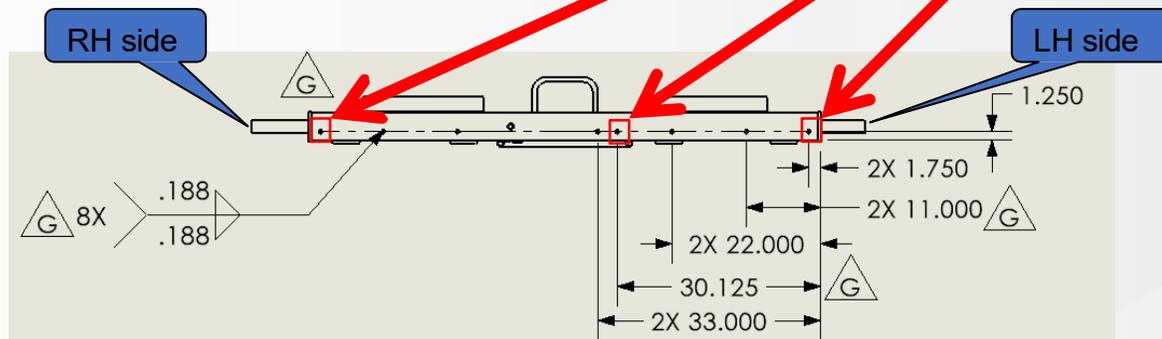
- Main Screed Harness
- Sonic Sensor Wires
- Heat Element Harnesses



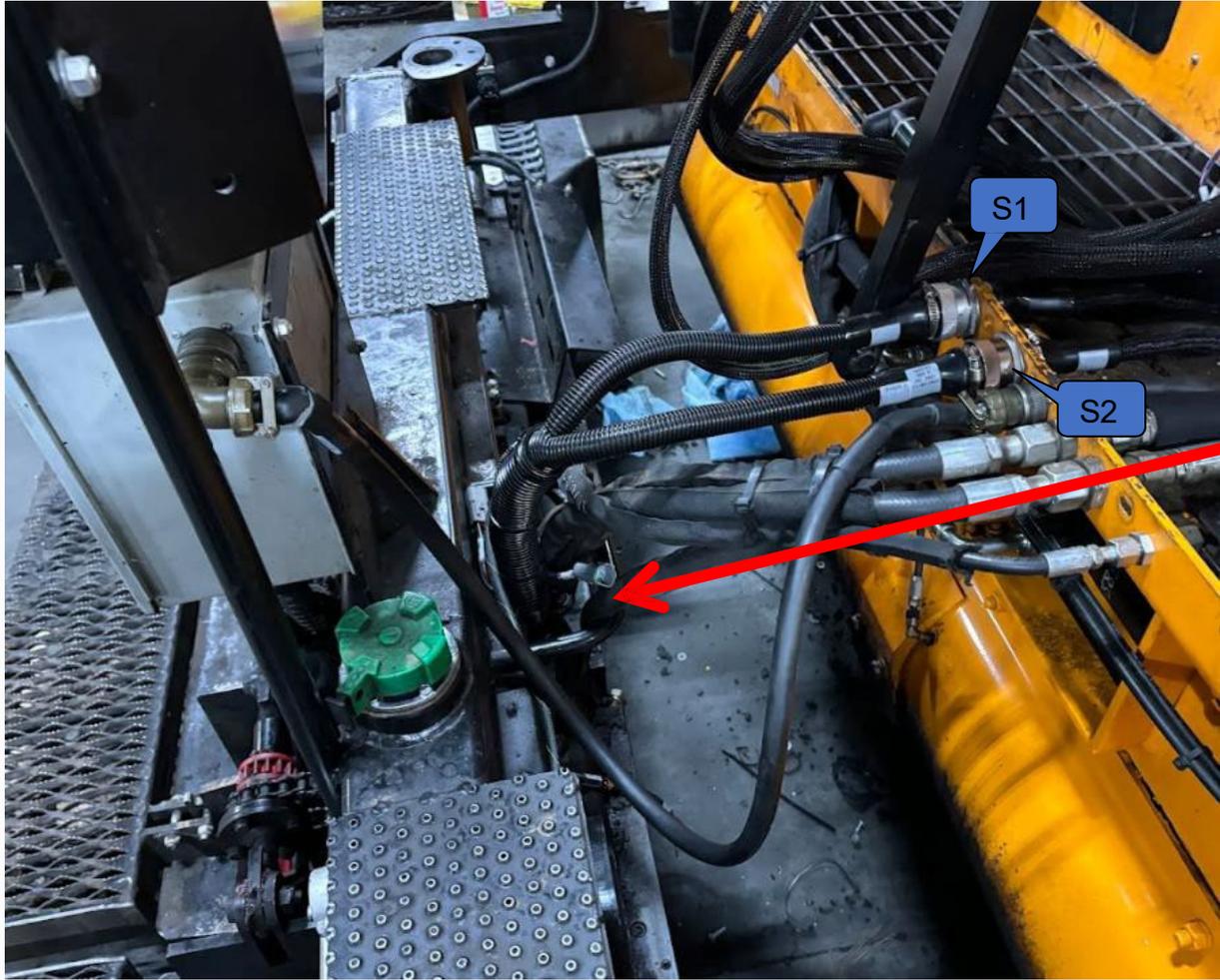
Locate the supplied 3/8"-16 X 1" hex bolts.

Use the given measurements to weld the bolts to the bottom of the citrus tank.

- Before welding on the citrus tank, remove any liquid inside of tank and be sure to proceed with caution, due to flammable residue.



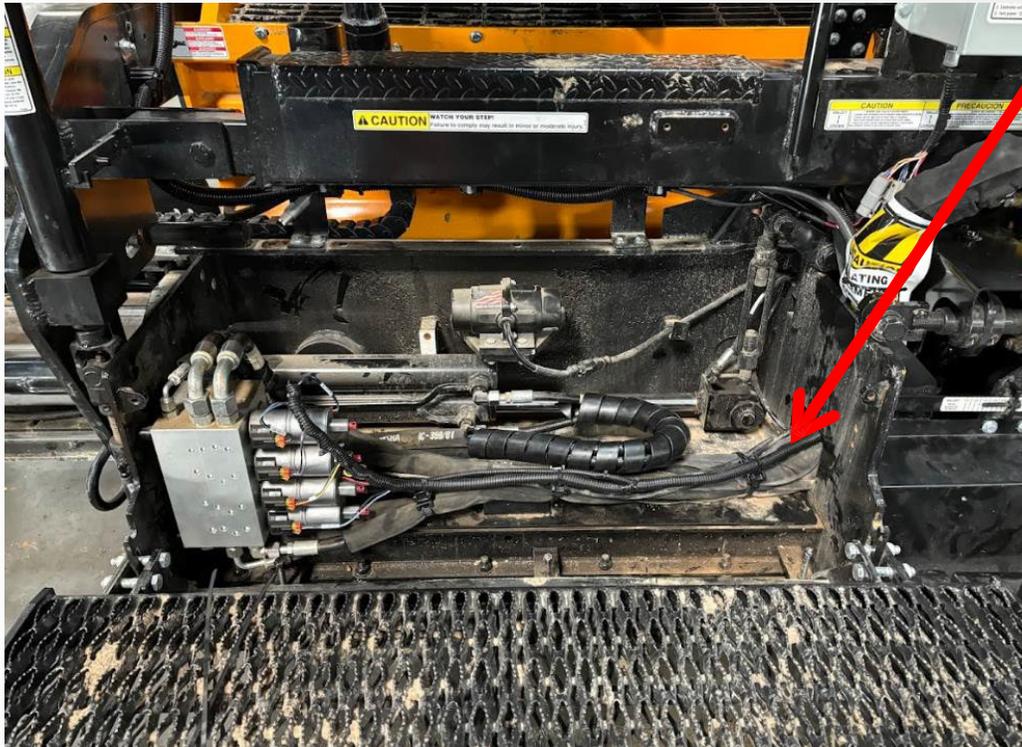
Use mid-gloss, black, spray paint on the newly weld studs.



Locate the S1 and S2 terminals, within the main screed harness.

Pull the two breakouts through the opening in the back of the citrus tank.

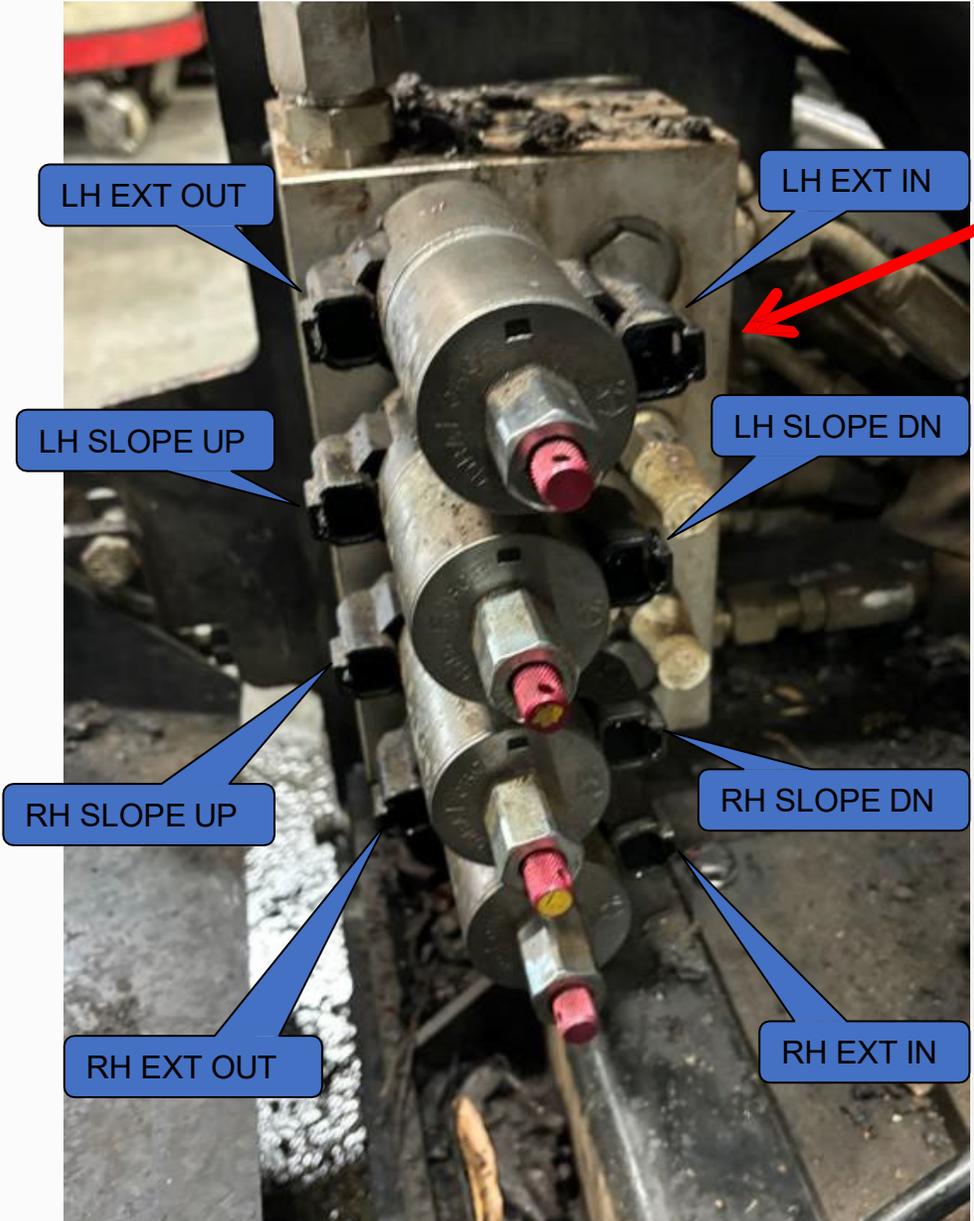
Fasten the breakouts to their appropriate terminals.



Route the following terminals, through the cutout in the inner screed frames:

- LH EXT IN
- LH EXT OUT
- LH SLOPE UP
- LH SLOPE DN
- RH SLOPE UP
- RH SLOPE DN
- RH EXT IN
- RH EXT OUT
- ROB LH SCREED STROBE
- LH VIB

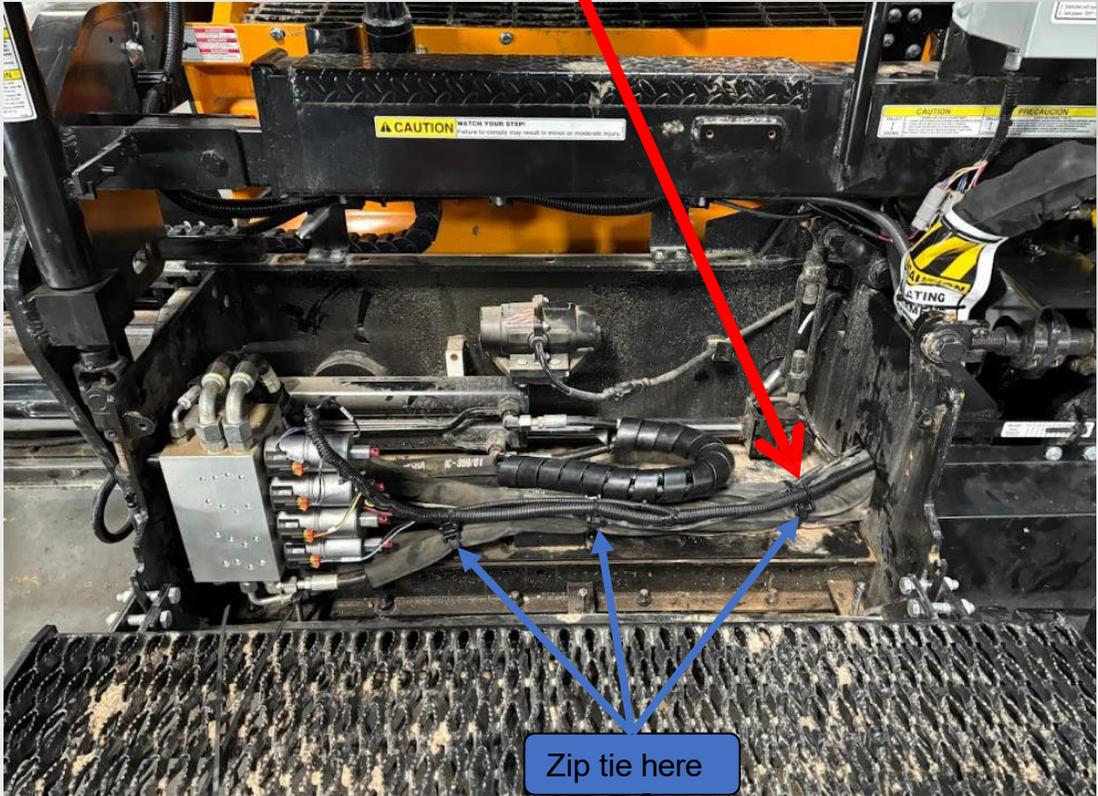
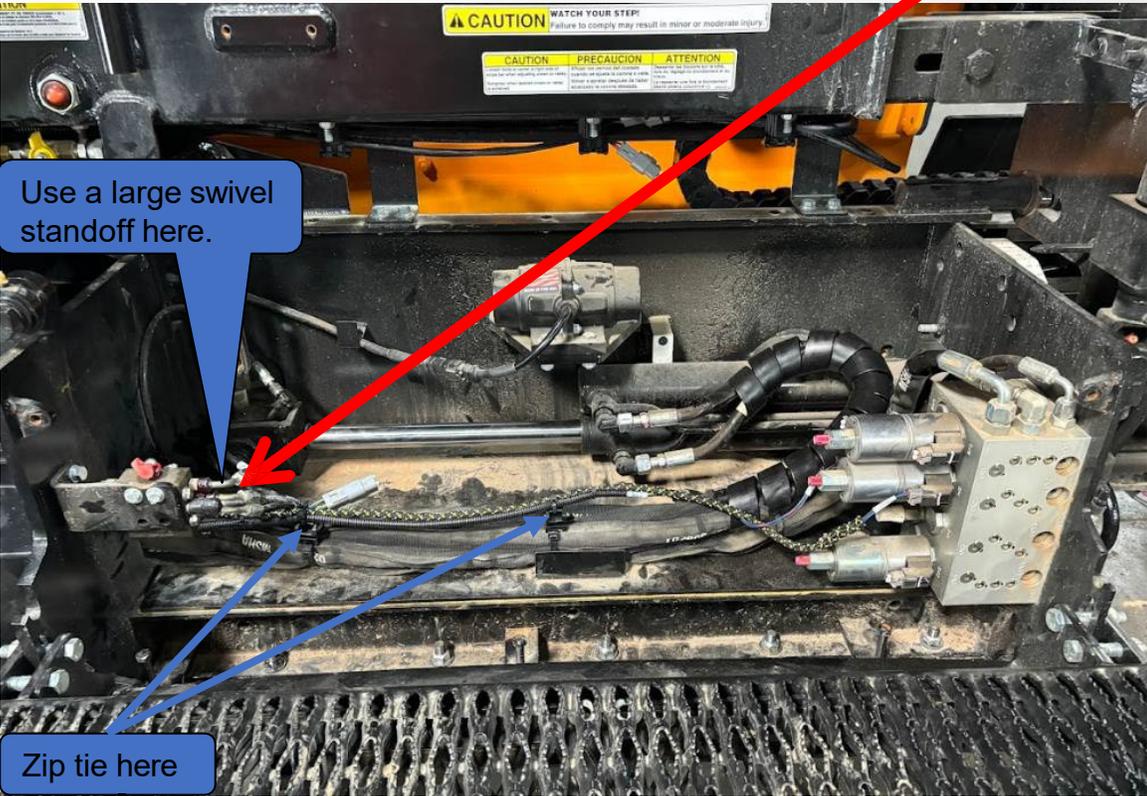
Follow the diagram given, to make the proper connections for the screed manifold.



Finished Product



Use a large swivel standoff, where the wires, go across the hydraulic hoses.





If the following options are not used, cap off the end of the connector, to ensure that no loose debris can enter the terminal:

- ROB LH SCREED STROBE
- ROB RH SCREED STROBE



Locate the 1030263-D-180S-M10, ratcheting p-clamps, that came with the kit.

Orient the clamps, so that the open end is pointed toward the tractor assembly, as shown.

Use the following hardware to securely fasten the clamps to the welded studs:

- (8) 3/8" Flat Washers (PN# 300-6)
- (8) 3/8"-16 Stover Lock Nuts (PN# 204-6-16-5)



To successfully reopen the clamps, insert a zip tie or pin tool, in between the grooved strips and pull on the top jaw.



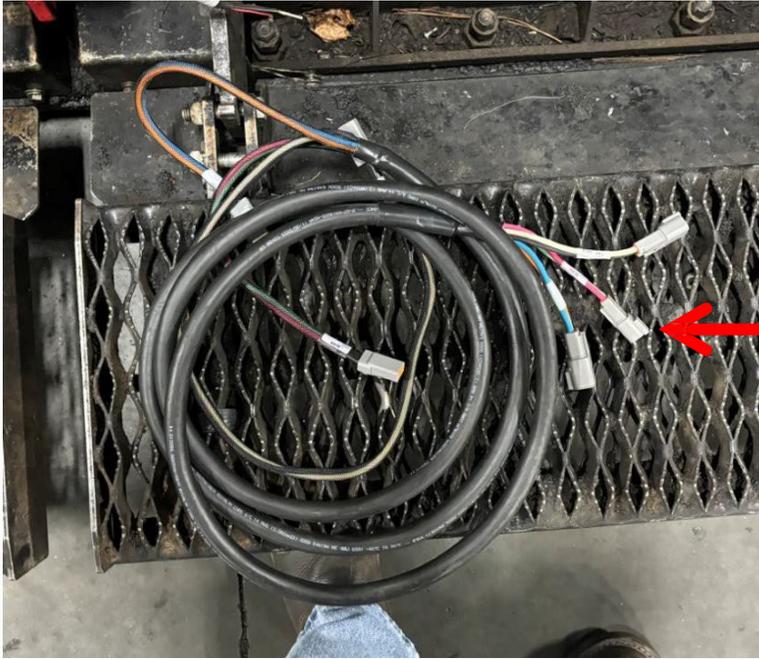
Locate the sonic sensor breakouts, included with the main screed harness.

Insert the end of the sonic breakout, that does not contain the connector, through the open end of the screed extension.

Pull the loose end through the opening in the top of the screed extension.

Route the loose end of the sonic wire through the e-chain, and through the ratcheting p-clamps along the bottom of the citrus tank.

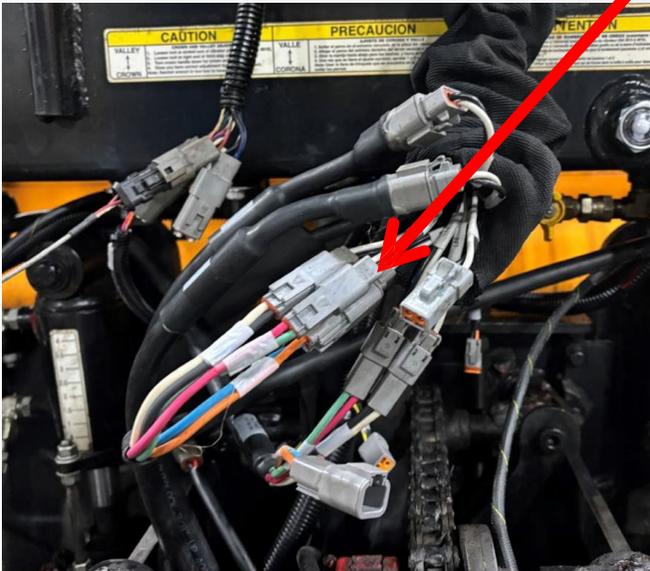




Locate the heat element harnesses.

Make the needed connections between the electric heat box and the element harness for each side of the screed assembly.

Next, route the harnesses down their corresponding sides, and through the e-chains on top of the extension assembly.





Insert the three terminals that are coming from the element harness, through the hole in the top of the extension.



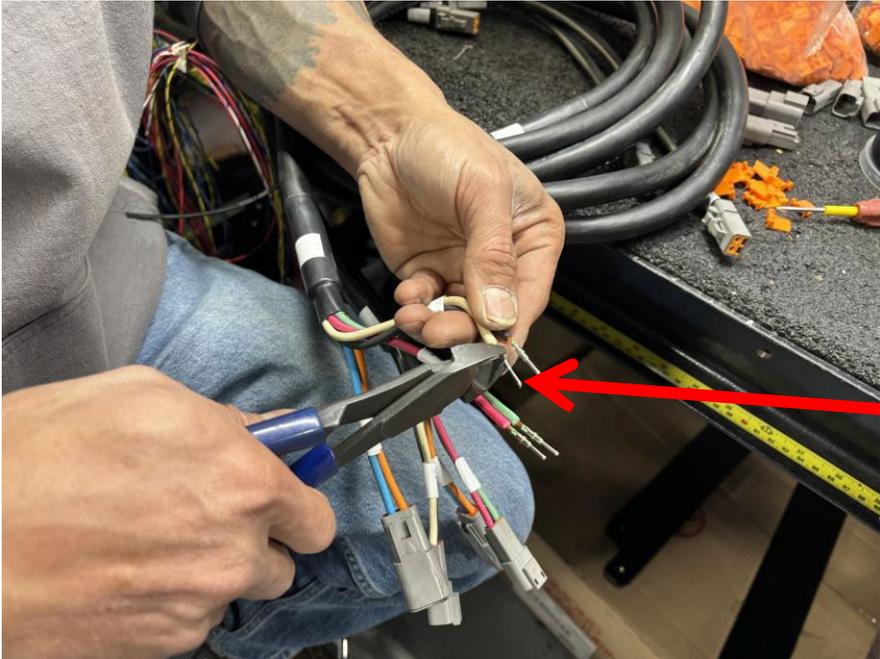
Insert the "ENG" breakout, on top of the wire cover, that is welded inside the extension.



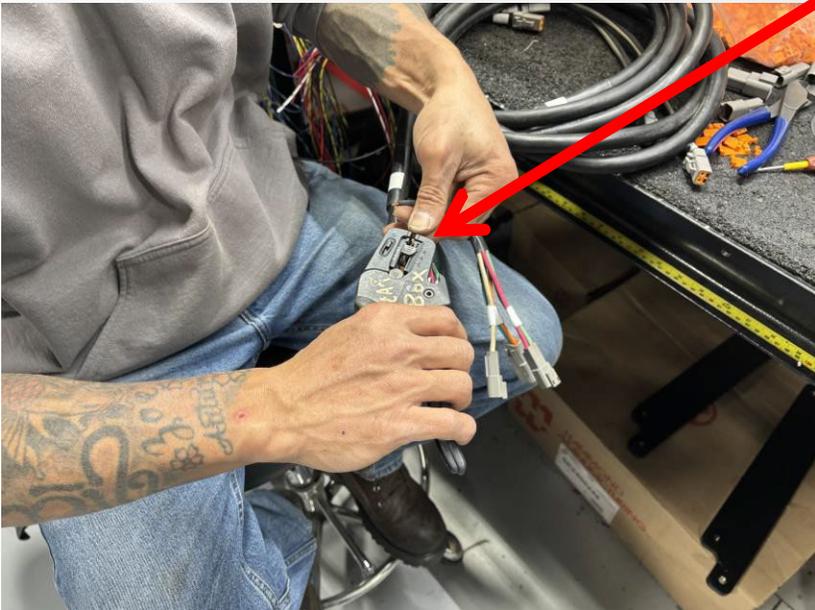
If the connectors on the end of the heat harness, do not match the heat element, complete the following process.

Pull the wedge and connector off the end of the breakout.





Cut the 14-16AWG pins off the four exposed wires.



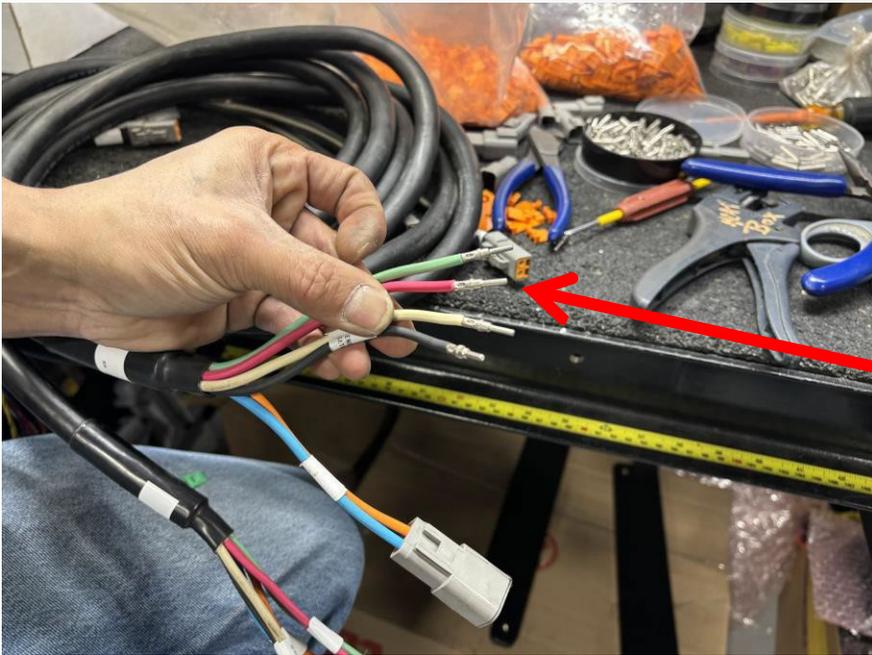
Remove enough wire casing, to be able to properly reattach 10-12AWG pin terminals.



Locate the 10-12AWG pin terminals that were supplied in the kit.

Properly crimp the 10-12AWG pin terminals, to the ends of the bare wires.





Repeat the same pin installation process on all four wires.

Next, insert the pins in the following terminals, for each connector:

Connector #1:

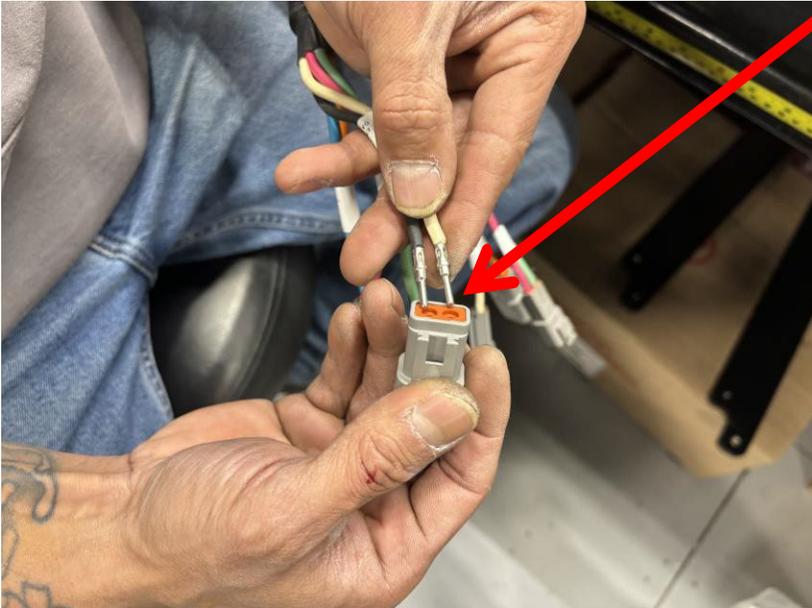
Terminal #1) White

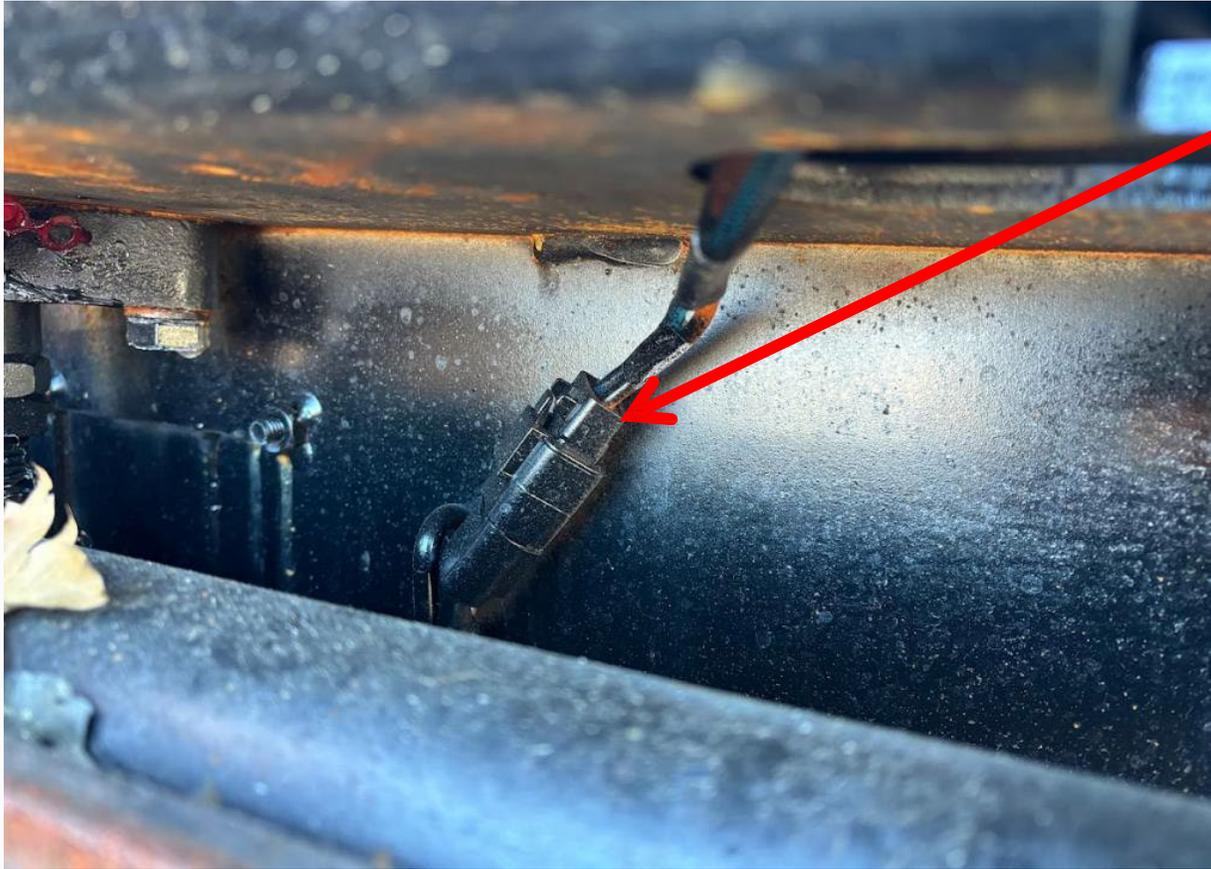
Terminal #2) Black

Connector #2:

Terminal #1) Red

Terminal #2) Green





Make the needed electrical connections inside the extension assembly.

- If the berm option is not being used, then cap off the electrical terminal.

When finished, be sure to ensure that the electrical breakouts will not interfere with the screed assembly slide.



Ensure that you have routed the following terminals, along the bottom of the citrus tank:

- LH SCREED
- LH SONIC WIRE
- LH ELEMENT HEAT HARNESS
- RH SCREED
- RH SONIC WIRE
- RH ELEMENT HEAT HARNESS

Any unused terminals underneath the citrus tank, use a 4" cinch strap to hold them to the rest of the harnesses.



Locate the 1030263-C-180S-M10, ratcheting p-clamps, that came with the kit.

Orient this clamp, so that the open jaw is pointed upward, as shown.

- Use existing hardware to mount.

Orient this clamp, so that the open jaw is pointed toward the center of the machine, as shown.

- Use a 3/8"-16 X 2" Hex Bolts, two flat washers and a stover locknut.

Orient this clamp, so that the open jaw is pointed downward, as shown.

- Use a 3/8"-16 X 2" Hex Bolts, two flat washers and a stover locknut.

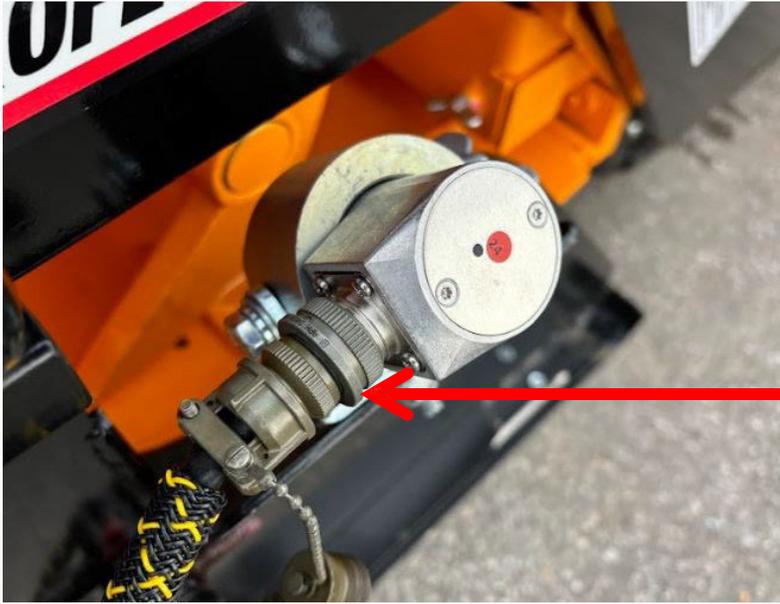


Route the LH screed harness through the previously attached, ratcheting p-clamps.



Use a 4" cinch strap, to hold the element harness, sonic harness and the LH screed breakout, in shown position.

Repeat the same process, for the RH extension and screed control box.



Fasten the end of the sonic harness to the sensor.

Attach a female Deutsch connector, to the open end of the sonic wires.

Connect the open ends of the sonic wires to their appropriate terminals, in the center of the citrus tank.





Refasten the screed frame covers, back to the assembly.

Lift the screed up and test every function.