

iQube2[®] Junction Box Upgrade Installation

The iQube2 junction box is designed for use with the Rice Lake Weighing Systems *CLS-M*, *CLS-420*, and *CLS-920i* series forklift scales. The coiled cable connection is the same, but the load cell connectors have been updated to improve serviceability.

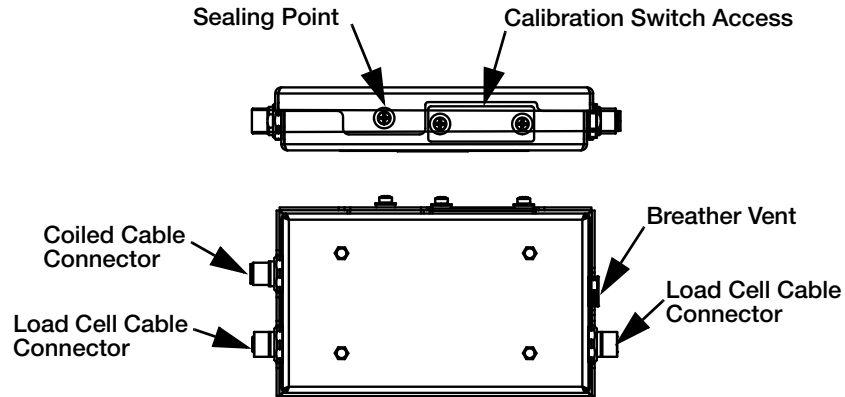


Figure 3. iQube2 Junction Box

3.7 CLS-M Junction Box Replacement

Use the following steps to replace the junction box in the CLS-M.

1. Turn scale power off on the Communication/Power box.
1. Remove the bolt that holds the cover plate in place, which conceals the junction box.
2. Remove the cover plate and set aside.
3. Unplug power cable.
4. Lift the forklift to a comfortable working height.
5. Remove the two screws securing the junction to the scale, using a number 4 metric Allen wrench, to remove existing junction from scale carriage.
6. Remove the coiled interface cable from the junction.
7. Disconnect the load cell cables.



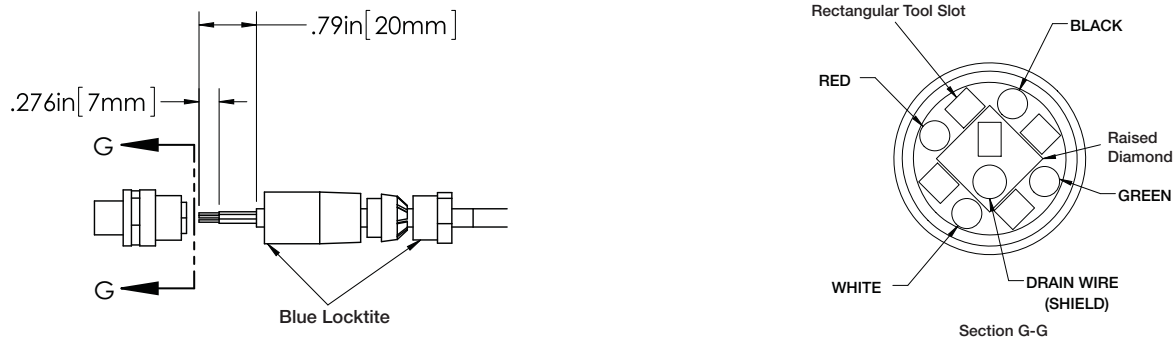
Note Steps 9-14 are only required when upgrading the original junction to an iQube2. If replacing an iQube2 with another iQube2 skip to step 15.

8. Remove automotive quick connects from load cell cables.
9. Strip wires for connection to the new load cell connectors. See Figure 4.
10. Follow the instructions on the packaging for Turk connector, PN BS-8157-0/P69, for inserting wires.
11. Wire the load cell 5-pin male connector to the following color codes Table 1 and Figure 4. Note the orientation of the raised diamond in Figure 4. Use the supplied tool in the rectangular tool slot to lock wires down.

Load Cell 5 Pin Male Connector Wiring

Pin #	Wire Color	Function
1	Green	+SIG
2	White	-SIG
3	Red	+EXC
4	Black	-EXC
5	Yellow	Ground

Table 1. Load Cell Wiring



Load Cell Stripping Wiring

Load Cell Wiring

Figure 4. Load Cell Wiring

12. Add blue Loctite[®] 425 to the two contact points as indicated in Figure 4.
13. Attach the load cell cables to the bottom two connectors on the junction box.
 - Apply Loctite.
 - Hand tighten until the connection is snug, plus another 1/4 turn. Only two threads should be visible.

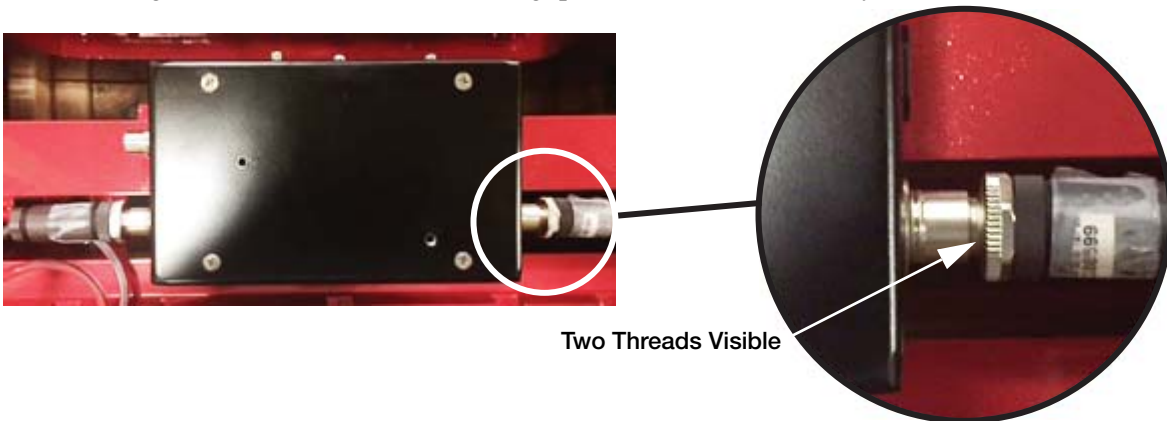


Figure 5. Connect Load Cell Cable to junction

14. Attach the home run cable to the top side connector.
15. Install the iQube2 junction into the forklift scale, using Loctite on the mounting screws.
16. Open the calibration access switch cover on the junction, set switch to the **On** position.
17. Plug in the power cable, and turn on the communication power box.
18. Calibrate the unit using Revolution software.
19. Connect the load cell cables to each side.
20. Connect the coiled interface cable to the top of the junction.
21. Align the iQube2 junction with the bolt holes in the scale and use an Allen wrench to tighten.
22. Place the cover plate in place and secure with a bolt and washer, and seal the unit.

Loctite[®] is a registered trademark of Henkel Technologies.

CLS-420 Junction Box Replacement

Use the following steps to replace the junction box in the *CLS-420*.

1. Unplug power cable from *CLS-420*.
23. Remove existing junction box from scale carriage.
24. Remove automotive quick connects from load cell cables.
25. Strip wires for connection to the new load cell connectors.
26. Follow the instructions on the packaging on Turk connector, PN BS-8157-0/P69, for inserting wires.
27. Wire the load cell 5-pin male connector to the following color codes Table 1 and Figure 4.
28. Add blue Loctite 425 to the two contact points as indicated in Figure 4.
29. Attach the load cell cables to the bottom two connectors on the junction box.
30. Attach the coiled cable adapter to the junction box to the top side connector as shown in Figure 30.
31. Attach the home run cable to cable adapter and secure within the forklift carriage.
32. Reinstall the junction box into the forklift scale, using Loctite on the mounting screws.
33. Plug in the power cable, and turn on the *CLS-420*.
34. Calibrate the unit using the *CLS-420* indicator.



Figure 6. Coiled Cable Adapter

6.8 iQube 2.3 Cross References

Please provide the serial number of the scale so that the Rice Lake Weighing Systems sales department can issue the correct junction box for the model it is being purchased for.

See Table 9, to ensure the correct unit was sent if there are any issues with installation.

The kit part number includes the appropriate load cell and cable adapters required to upgrade your unit.

28" Forklift Carriage			
Top Level Fork Lift	Indicator	iQube 2.3 Kit	iQube 2.3 Junction Box
111033	420 Wired	167345	167344
111034	420 Wireless		167416, 167344
111035	920i Wired	Upgrade not available	121014
111036	920i Wireless		121014
34" Forklift Carriage			
Top Level Fork Lift	Indicator	iQube 2.3 Kit	iQube 2.3 Junction Box
96339	420 Wired	167345	167344
96340	420 Wireless		167344
96341	920i Wired	Upgrade not availabl	121014
96342	920i Wireless		121014
130822	420 Wired	167356	167261
130823	420 Wireless		167261
130824	920i Wired	Upgrade not available	130826
130825	920i Wireless		130826
SPX or SO WO	420 ABF	167345	167344
120911	420 ABF	167356	167261
161964	420 ABF	167341	167261
125277	CLS-M	167340	164071

Table 9. Kit Part Numbers

28" Forklift Carriage			
Top Level Fork Lift	Indicator	iQube 2.3 Kit	iQube 2.3 Junction Box
153539	CLS-M	167340	164071
151803	CLS-420	167356	167261
132414	CLS-M2	167340	164071
156294	CLS-M3	167340	164071
164649	CLS-420	167341	167261
162279	CLS-420	167341	167261
38" Forklift Carriage			
Top Level Fork Lift	Indicator	iQube 2.3 Kit	iQube 2.3 junction
111038	420 Wired		167407
111039	420 Wireless		167407
111040	920i Wired	Upgrade not available	121366
111041	920i Wireless	Upgrade not available	121366
151506	420 Wireless		167407
151490	920i Wireless	Upgrade not available	121366

Table 9. Kit Part Numbers



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