



T5 IRIS AM II Upgrade Kit



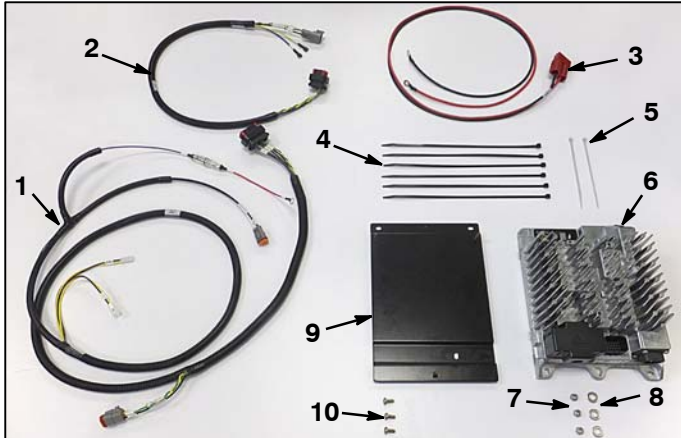
This kit includes the necessary parts to add battery charger communication functionality to machines equipped with IRIS telemetry technology. See the **IMPORTANT INSTALLATION NOTICE** before installing kit.

INSTALLATION INSTRUCTIONS:

Installation Time: 2 Hours

Special Tools Required: T10 & T30 torque screwdrivers and cutting tool to cut roto-mold material

KIT CONTENTS:



Ref	Part No.	Description	Qty.
1	1074445	Harness, Ele, Telem [T5]	1
2	1075427	Harness, Ele, Telem [T5, Charger Comm.]	1
3	1075426	Cable Assy, 10Ga (T5 AMII, Telem)	1
4	130773	Tie, Cable, Nyl, 11.0L, .14W, 3.0 Max. D	6
5	130040	Tie, Cable, Nyl, 06.0L .12W	2
6	1219460	Charger, 24VDC, 650W, 100-240VAC [Onbrd]	1
7	13513	Nut, Hex, Lock, .25-28, NL	3
8	01684	Washer, Flat, 0.27B 0.69D .05, SS	3
9	1214224	Bracket, Mount, Charger, Delta-Q	1
10	06931	Screw, Pan, Phl, M5x0.08x6, 4.8	3

NOTE: Charger power cord not included, use cord from previous charger.

IMPORTANT INSTALLATION NOTICE:

Telemetry harness (Ref. 1) is not required for IRIS models manufactured after February 2017. The telemetry harness (Ref. 1) is factory installed. Carefully follow the kit installation instructions with this in mind.

When installing the complete IRIS kit with the addition of the AMII upgrade kit, two telemetry harnesses (Ref. 1) will be provided. One from each kit. Only one harness is required for both kits.

KIT PREPARATION:

1. Drain the solution and recovery tanks.
2. Park the machine on level surface, turn off machine, remove the key, and set the parking brake if equipped.
3. Remove right-side panel and carefully remove the two front batteries from machine (FIG. 1). For IRIS models manufactured after February 2017, battery removal is not required. Disconnect battery cables from the machine before installing kit.



WARNING: Always disconnect battery cables from machine before working on electrical components.

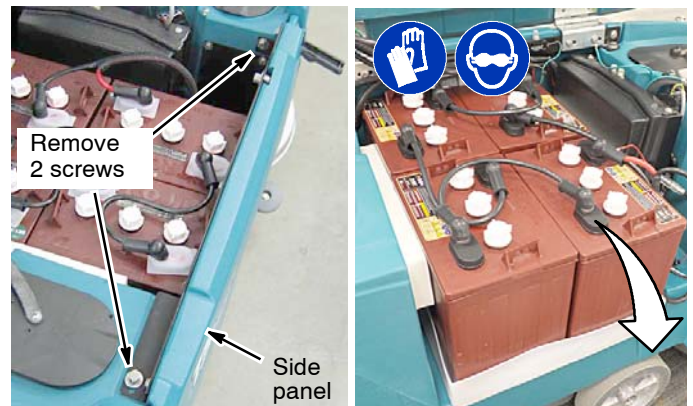


FIG. 1

REMOVE EXISTING TELEMETRY HARNESS:

1. Remove the existing telemetry harness, shown below, from machine as described in following steps (FIG. 2).

NOTE: For IRIS models manufactured after February 2017, the removal of existing telemetry harness is not required. The existing telemetry harness is AM II kit compatible. To confirm, the harness includes an open AM II charger connector as shown below. The connector is located behind the squeegee lift bracket (See Figure 18).



FIG. 2

2. Remove cover from the electrical panel (FIG. 3).

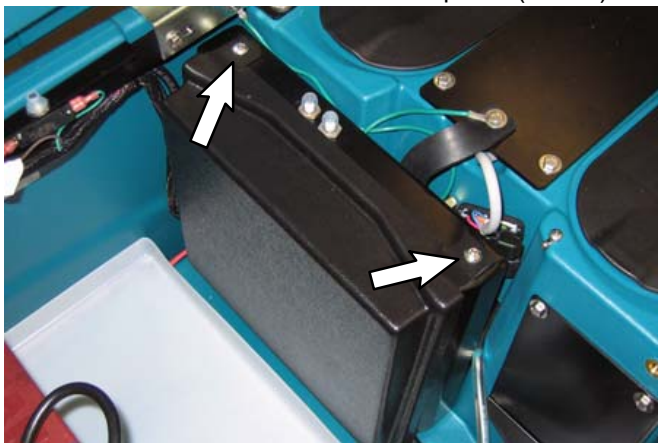


FIG. 3

3. Disconnect the two brown and yellow wire connectors from the existing telemetry harness (FIG. 4).

NOTE: For machines without ec-H2O system, only one connector is used from telemetry harness.

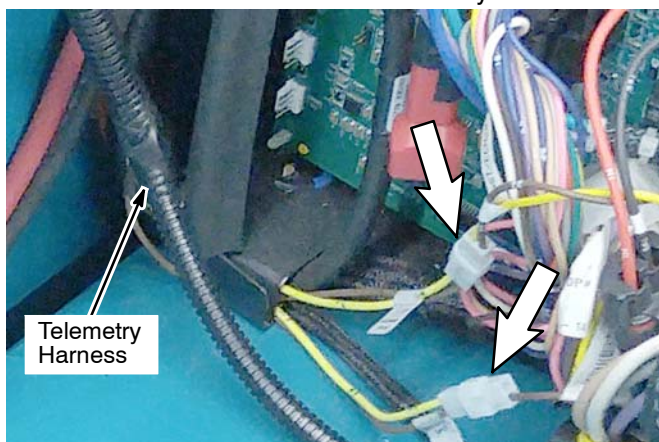


FIG. 4

4. EUROPE MODELS ONLY: Disconnect the red telemetry harness fuse wire from the main contactor (FIG. 5).

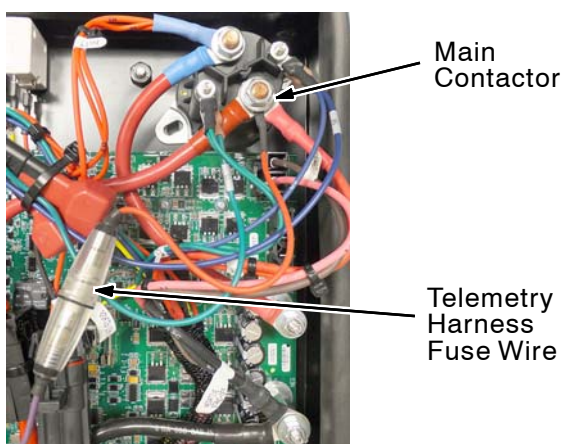


FIG. 5

5. Cut cable-tie securing the telemetry harness and disconnect the harness connector from shunt assembly (FIG. 6). Do not remove shunt assembly.

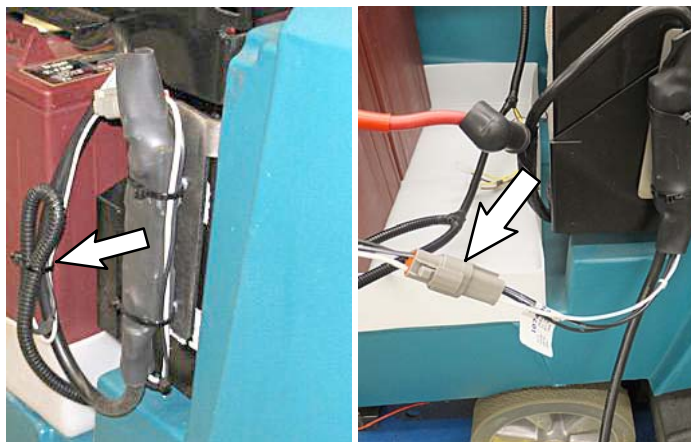


FIG. 6

6. Cut cable-ties securing telemetry harness to main machine harness (FIG. 7).

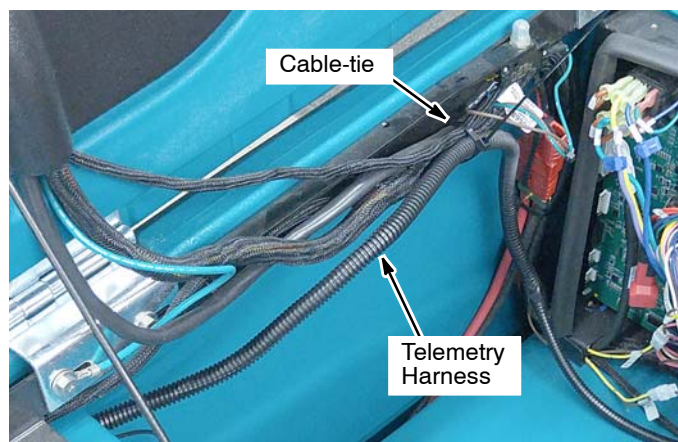


FIG. 7

7. Remove the left-side panel from machine to access telemetry harness. Three screws are used to mount side-panel (FIG. 8).

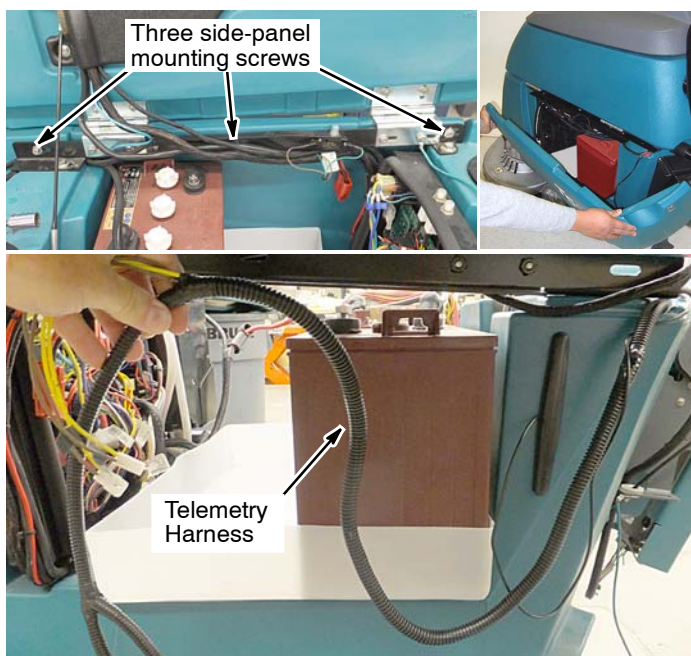


FIG. 8

8. Loosen the screw securing the rear portion of the left side rail to the solution tank. With assistance, slightly lift the recovery tank assembly and remove the telemetry harness from underneath rail (FIG. 9).

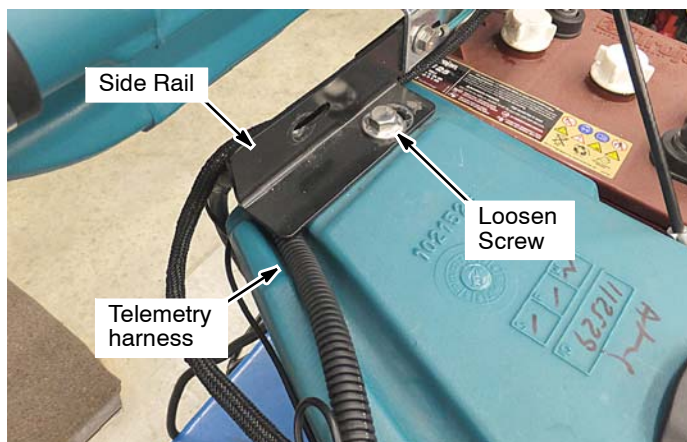


FIG. 9

9. Remove the two screws that fasten the squeegee lift bracket to machine (FIG. 10). Cut cable-ties securing telemetry harness to bracket.



FIG. 10

10. Disconnect the telemetry harness from the IRIS module and discard old harness (FIG. 11).

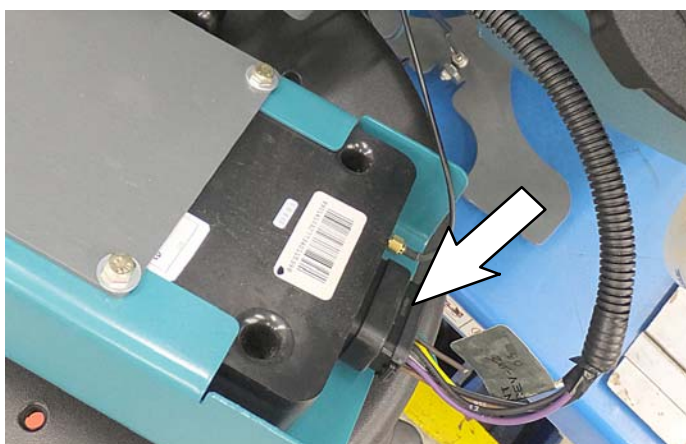


FIG. 11

REMOVE EXISTING ON-BOARD CHARGER:

1. Disconnect the red and black on-board charger cables from machine (FIG. 12). Do not replace the left-side panel at this time.

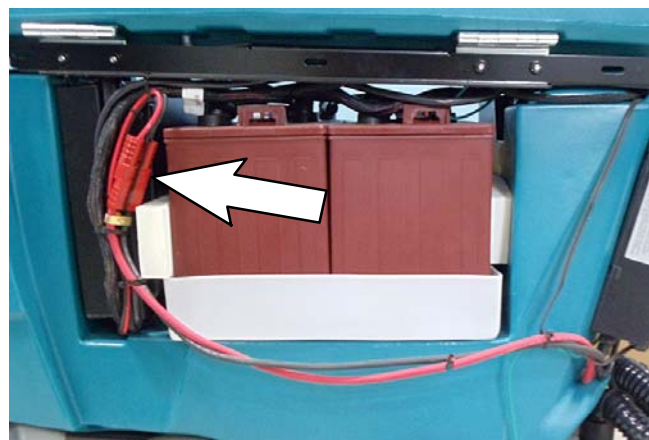


FIG. 12

2. Disconnect the two black charger interlock wires from the blue and yellow wires as shown (FIG. 13).

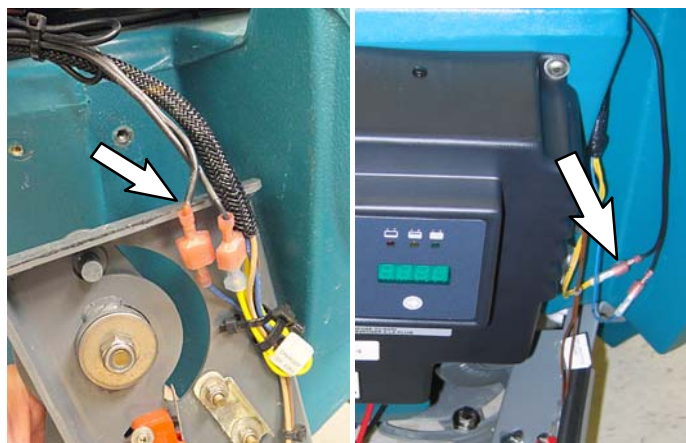


FIG. 13

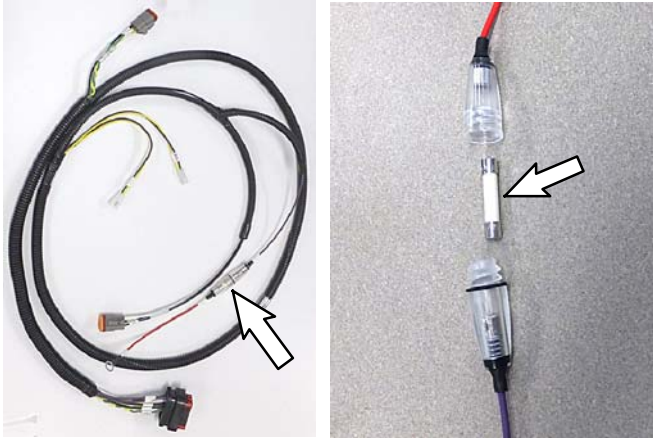
3. Remove the on-board charger from machine. Three screws mount charger to machine (FIG. 14). Save the AC power cord from old charger. Power cord not supplied with new charger.



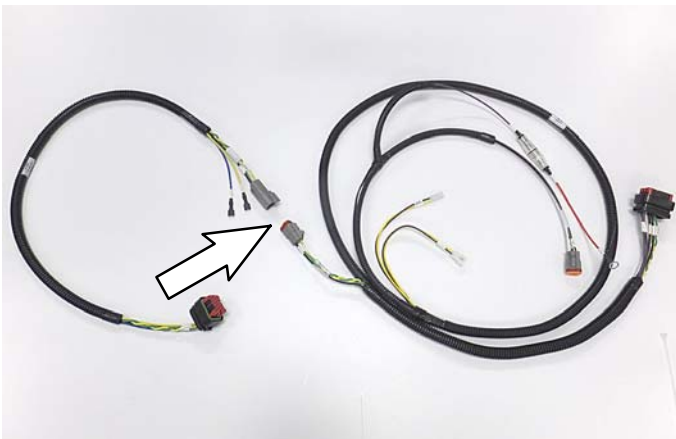
FIG. 14

INSTALL AM II UPGRADE KIT:

1. **IMPORTANT:** To prevent possible damage to telemetry system during kit, remove the in-line fuse from the telemetry harness. Do not misplace fuse (FIG. 15).

**FIG. 15**

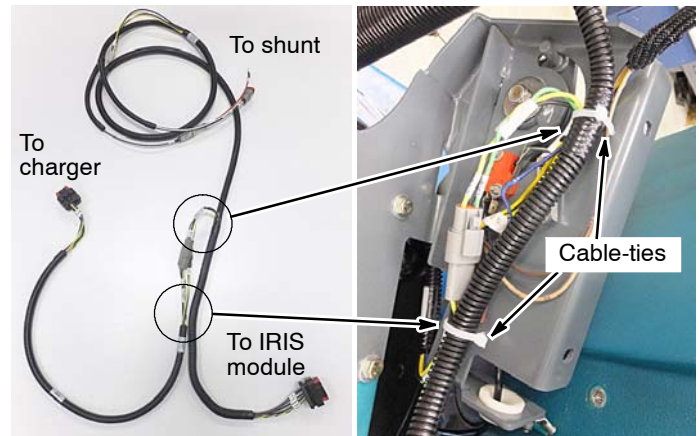
2. Connect the two new telemetry harness's together as shown (FIG. 16).

**FIG. 16**

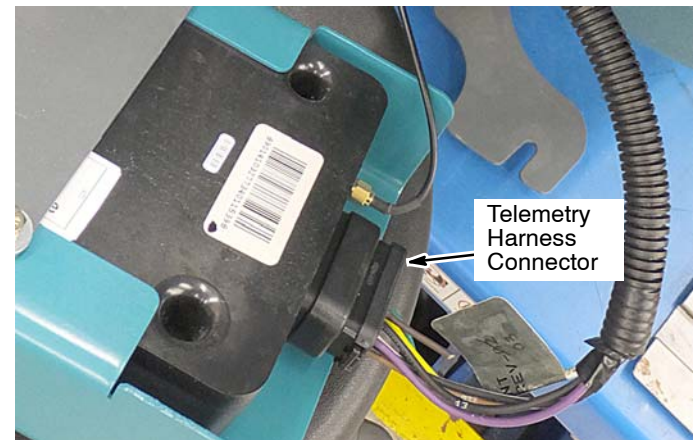
3. Connect the blue/26 and yellow/4 wires from the telemetry harness into the two open charger interlock wire connectors located at the squeegee lift bracket (FIG. 17). Blue to blue, yellow to yellow.

**FIG. 17**

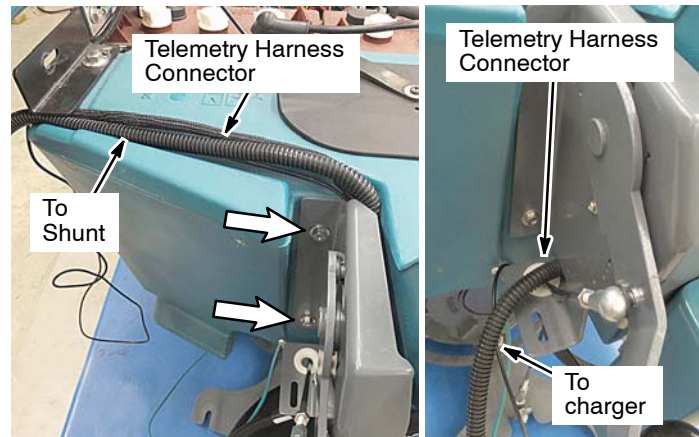
4. Arrange the telemetry harness assembly as shown and attach the harness to the squeegee lift bracket with two cable-ties (FIG. 18). Use the cable-tie holes located in bracket to secure harness.

**FIG. 18**

5. Plug the telemetry harness connector into the IRIS module (FIG. 19).

**FIG. 19**

6. Reattach the squeegee lift bracket to machine and route the telemetry harness, antenna wire and existing machine harness in the cable channel as shown. Route the telemetry harness charger connector out bottom of bracket as shown (FIG. 20).

**FIG. 20**

7. Remove the black cover from new charger and connect charger cables to charger as shown (FIG. 21). Replace cover.

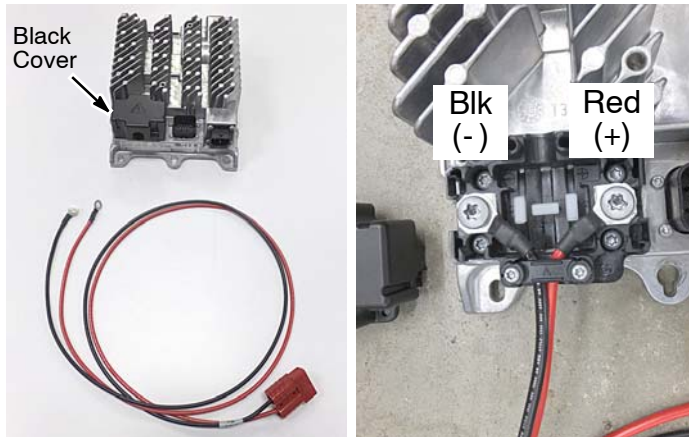


FIG. 21

8. Attach the new battery charger mounting bracket to the machine as shown (FIG. 22). Use three M5 screws supplied with kit.

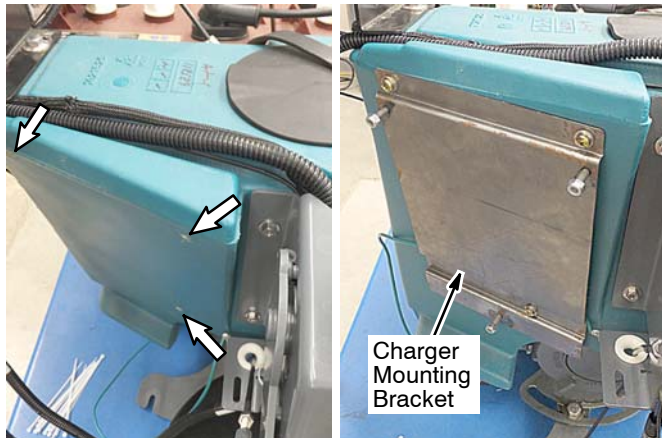


FIG. 22

9. Attach the new battery charger to the mounting bracket. Use three lock nuts supplied with kit. Plug the telemetry harness connector into charger. Secure the telemetry harness with cable-ties as shown (FIG. 23). Plug existing AC power cord from old charger into new charger (FIG. 23).

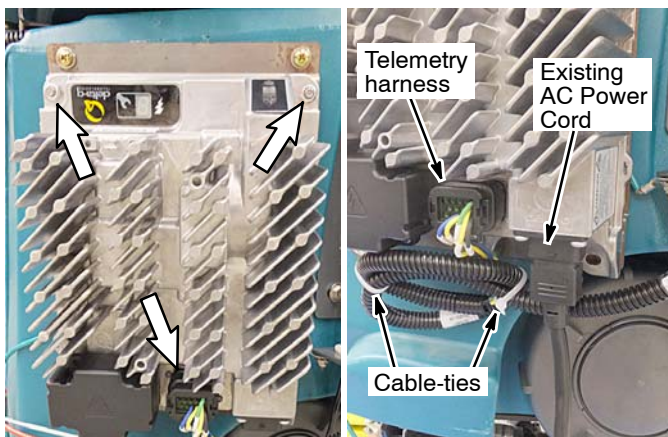


FIG. 23

10. Plug the battery charger cable connector into the machine connector and fasten together with cable-tie. Arrange connectors as shown and secure with cable-ties (FIG. 24).

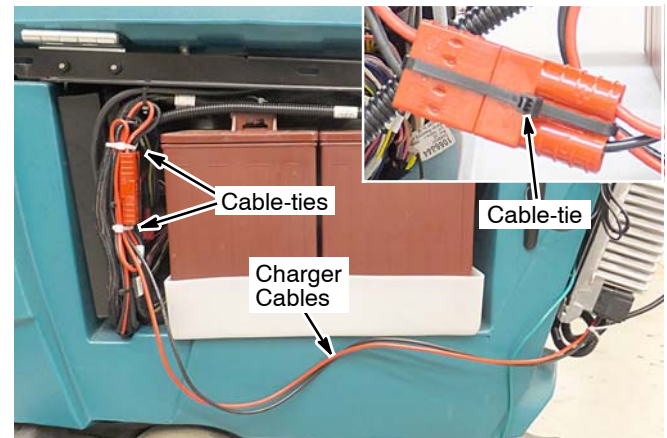


FIG. 24

11. Enlarge the existing slot in the left-side panel as shown. This will allow clearance for the battery charger power cord and harness (FIG. 25).

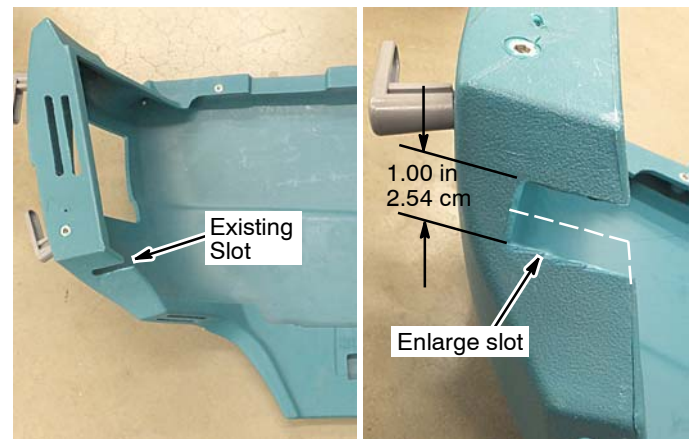


FIG. 25

12. Reattach the left-side panel to machine. Align the enlarged slot around the charger cord as shown. Wrap power cord around cord hooks (FIG. 26).



FIG. 26

13. Route the telemetry harness to the circuit board area. Secure telemetry harness to the main machine harness with cable-tie as shown (FIG. 27).

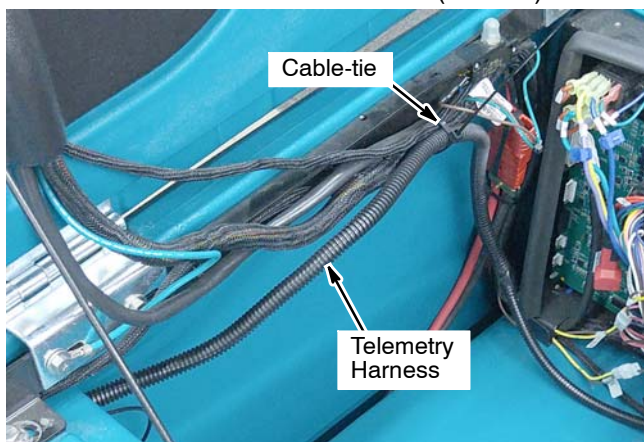


FIG. 27

14. Connect the two brown and yellow wires from telemetry harness to the open wire connectors (wires 14A/YEL 22A/BRN) within the circuit board area (FIG. 28). Position the brown and yellow wires under the cover clip as shown.

NOTE: For machines without ec-H2O system, only one connector is used from telemetry harness.

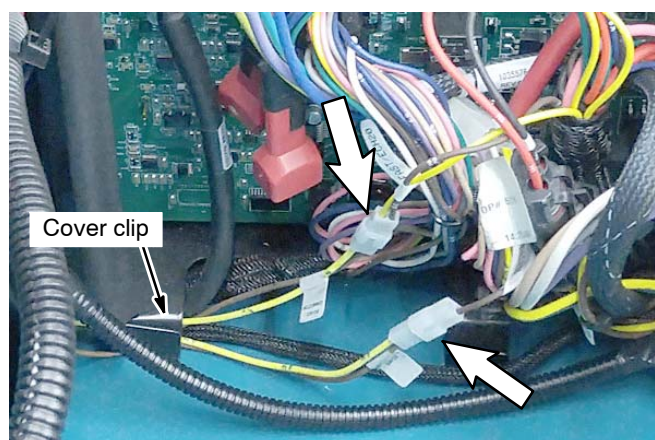


FIG. 28

15. EUROPE MODELS ONLY: Connect the red telemetry harness fuse wire to the main contactor (FIG. 29).

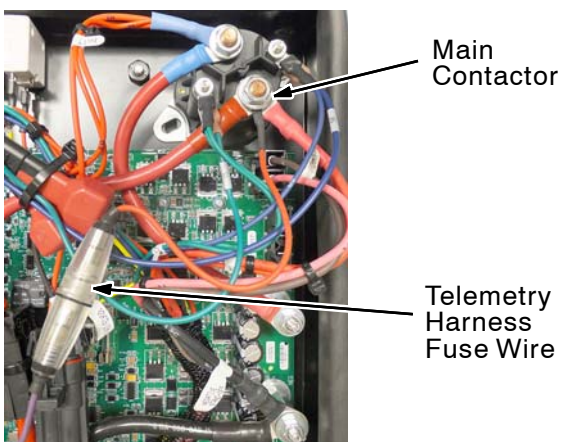


FIG. 29

16. Continue routing the new telemetry harness below the circuit board area (FIG. 30).

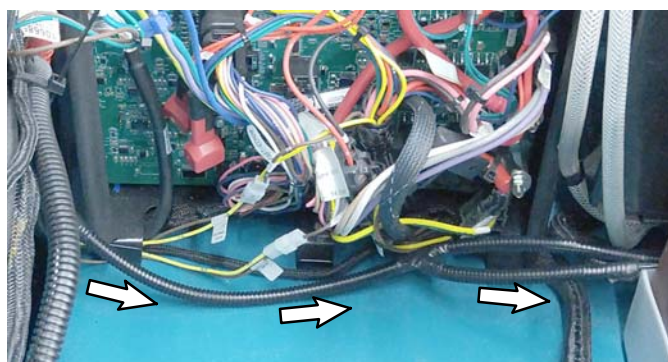


FIG. 30

17. Replace electrical panel cover (FIG. 31).

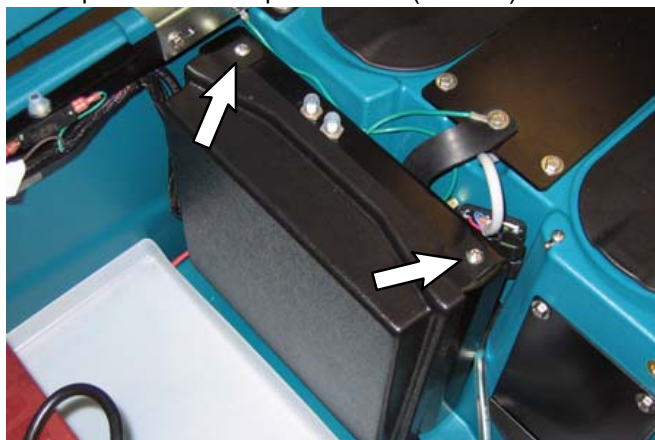


FIG. 31

18. Connect the telemetry harness connector into the shunt harness connector (FIG. 32). Secure the telemetry harness to the shunt assembly with cable-ties as shown.

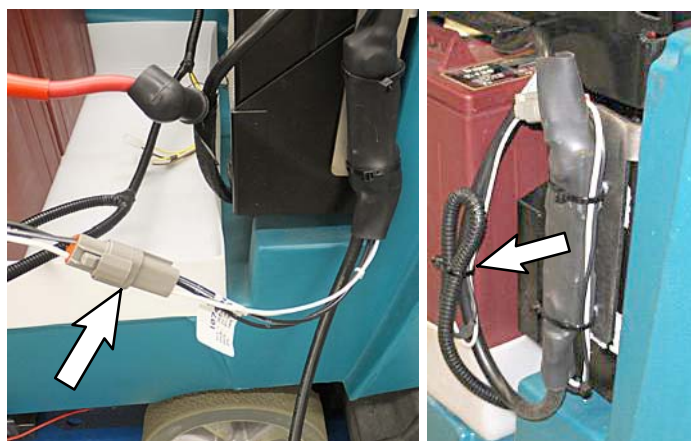


FIG. 32

19. Carefully reinstall batteries and reconnect battery cables.

USA/INTL MODELS ONLY: Connect the red fuse wire from the telemetry harness to the positive battery terminal (FIG. 33). Position the ring terminal on top of the battery cable.



FIG. 33

20. Reinstall the right-side panel (FIG. 34).

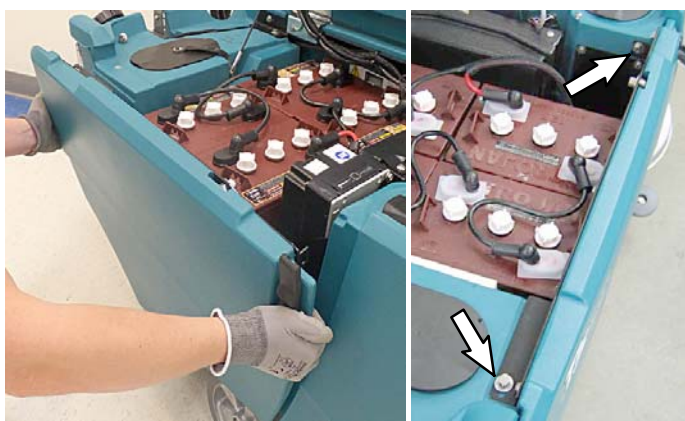


FIG. 34

TEST KIT FOR PROPER OPERATION:

1. Operate machine to confirm proper operation.
2. Plug charger power cord into an AC outlet.
3. Wait up to 30 seconds for charger to start.
4. Turn key on and pull the start bail to confirm the charger interlock disables the propel. The machine's safety shut-off switch **MUST** be compressed (recovery tank down) during test to confirm (FIG. 35).

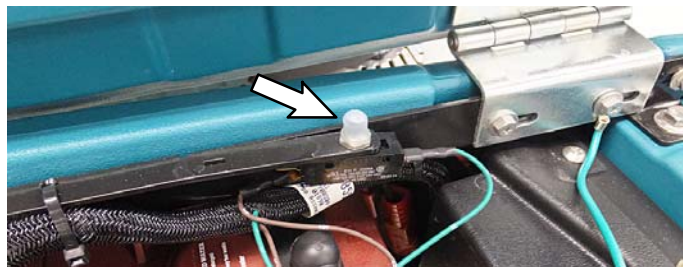


FIG. 35

If the charger interlock does not disable the propel during the charge cycle, check the charger interlock wire connections (FIG. 17). Contact service if necessary. Do not operate machine in this condition.

5. After testing is confirmed, contact Tennant Technical service department as instructed below.

AM II UPGRADE KIT

CHARGER PROFILE SETTING:

IMPORTANT: To properly report battery charging data via IRIS, contact Tennant technical service department to set the charging profile to your specific battery type. Please have battery type information available when contacting service.

IRIS TELEMETRY KIT ACTIVATION:

If the complete IRIS telemetry system was installed with the addition of the AM II upgrade kit, call the Tennant technical service department to activate the IRIS module and to set the charging profile. The IRIS telemetry system must be activated to complete the install. Please have machine serial number and IRIS module SIM number available when calling for activation.

NOTE: When batteries reach end of life and must be replaced, Tennant highly recommends that the same battery type be used to continue to maximize the machine performance. In the event a battery with a different amp hour (AH), type (flooded, AGM, Gel), or manufacturer is selected for replacement please contact Tennant technical support department for assistance in determining the feasibility of the replacement batteries and selecting the correct charging profile.