



# INSTRUCTION BULLETIN

No. 9045275  
Machine: S16  
Published: 10-2023  
Rev. 00

**NOTE: DO NOT DISCARD the Parts List from the Instruction Bulletin. Place the Parts List in the appropriate place in the machine manual for future reference. Retaining the Parts List will make it easier to reorder individual parts and will save the cost of ordering an entire kit.**

*NOTE: Numbers in parenthesis ( ) are reference numbers for parts listed in Bill of Materials.*

Installation instructions for **kit number 9045254**

Kit installation must be performed by TennantTrue<sup>®</sup> service or an authorized service provider.

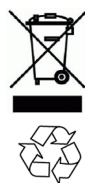
## SYNOPSIS:

This kit contains the parts needed to install the IRIS telemetry kit S16 sweepers.  
Please follow step-by-step instructions.

## SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 2.5 hours)

**The machine must be reconfigured and IRIS (telemetry system) must be activated to complete installation. System will not function until the machine is reconfigured and IRIS is activated.**



## PROTECT THE ENVIRONMENT

Please dispose of packaging materials, used machine components such as batteries and fluids in an environmentally safe way according to local waste disposal regulations.

Always remember to recycle.

## PREPARATION:

*NOTE: Only authorized Tennant Service Personnel can install this telemetry kit onto the S16 sweeper.*

1. Confirm the hour meter is properly wired and functional. The hour meter must be wired properly and fully functional before the IRIS system can be installed.

**FOR SAFETY: Before leaving or servicing machine, stop on level surface, turn off machine, and remove key.**

2. Lift the operator seat open and secure the seat into the open position.

3. Evaluate the condition of batteries, cables, and terminal connections. Batteries/cables/terminal connections must all be in safe working condition.

4. Disconnect the battery cable from the machine.

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

5. Remove both the right side shroud and left side cover from the machine. Set the shroud and cover aside.

6. Remove the controls box cover from the control housing. Set the cover and hardware aside. (Fig. 1)

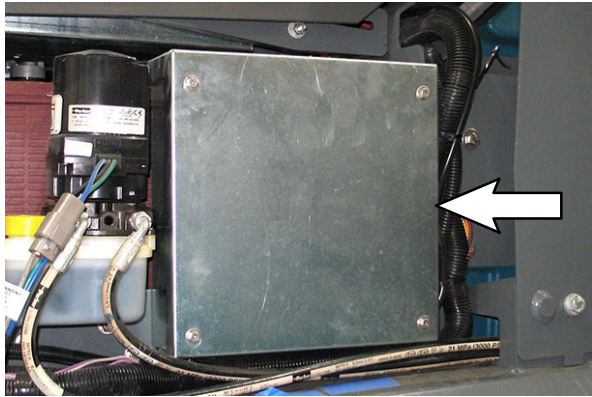


FIG. 1

7. Remove the front access panel from the machine. Set the panel and hardware aside. (Fig. 2)



FIG. 2

## INSTALLATION:

*NOTE: To avoid damaging electronic components, a static ground strap must be worn when handling such components. Attach other end of static ground strap to the machine chassis.*

1. Remove the hardware securing the membrane panel assembly to the front shroud. Discard the removed hardware. (Fig. 3)



FIG. 3

2. Carefully lift the membrane panel from the front shroud. Do not break any wire or cable connections when lifting the panel from the front shroud.
3. Disconnect all wire/cable connections from the membrane panel and completely remove the membrane panel from the machine. Discard the removed membrane panel.

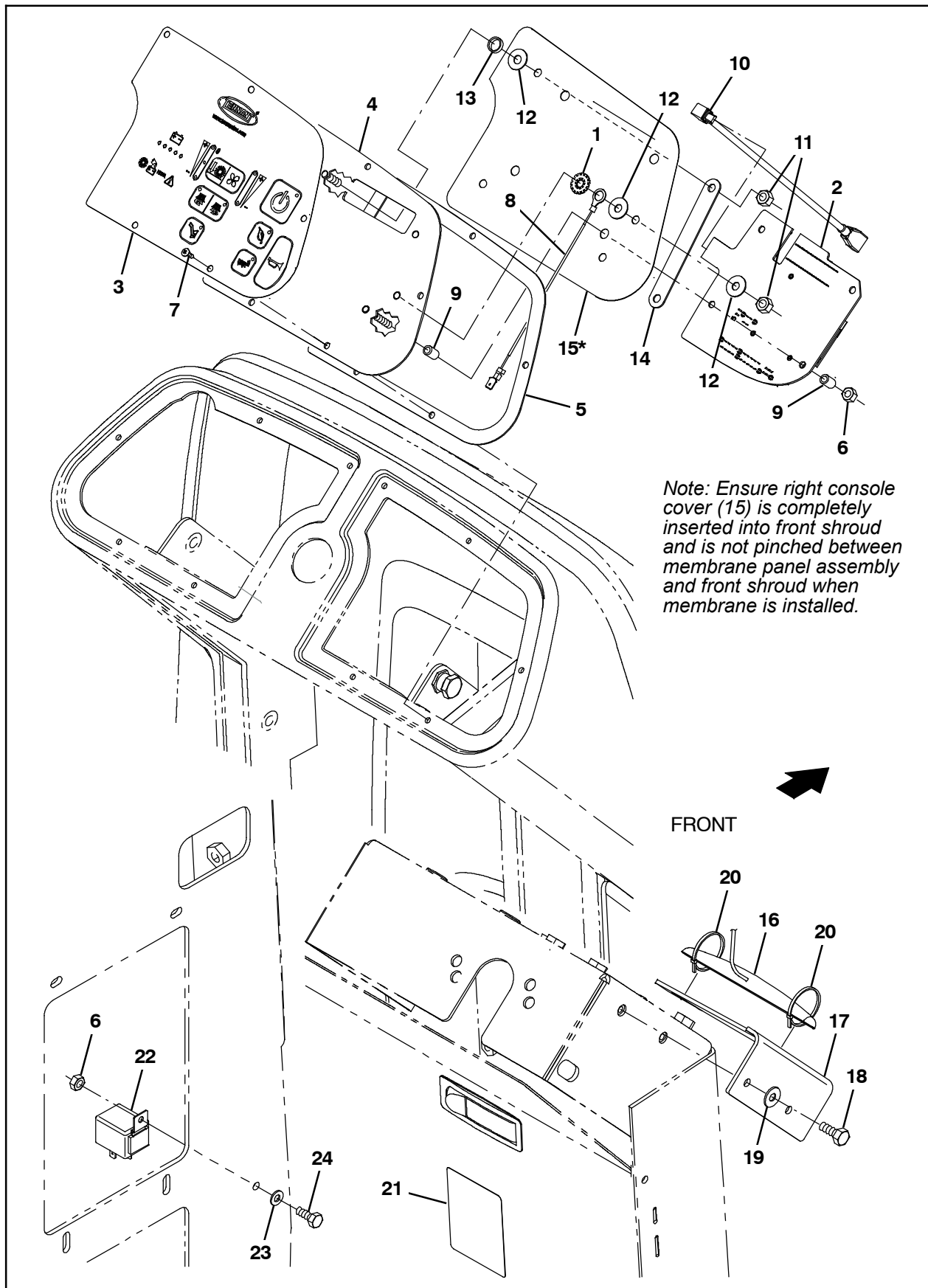
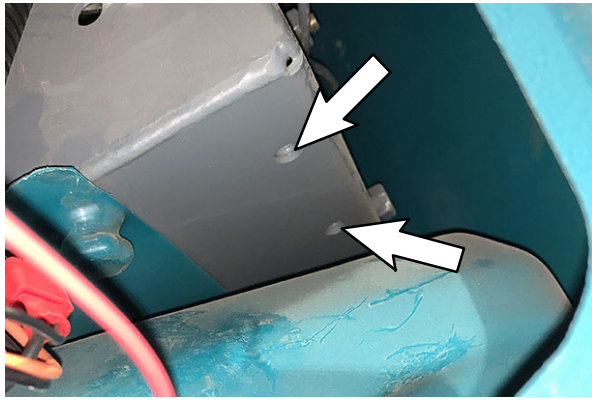


FIG. 4

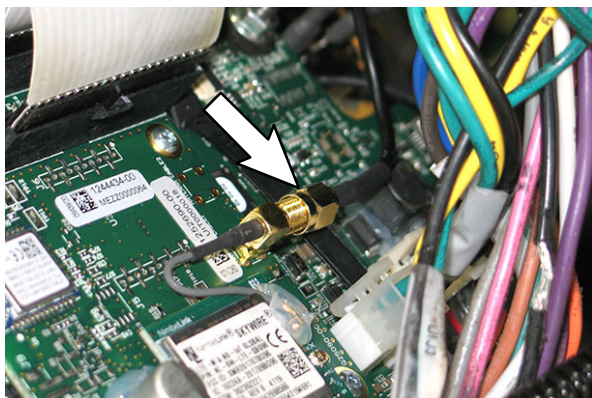
4. Peel the backing from the adhesive strip on the back of the antenna (16) and install the antenna onto the antenna bracket (17). (Fig. 4)
5. Use two cable ties (20) to further secure the antenna (16) onto the antenna bracket (17). (Fig. 4)
6. Use two M6 hex screws (18) and two flat washers (19) to install the antenna (16)/ antenna bracket (17) onto the steering channel. (Fig. 4/Fig. 5)

*NOTE: Access this area of steering channel from recess in front shroud where membrane panel assembly was previously installed.*



**FIG. 5**

7. Place the right dash gasket (5) onto the steering shroud where the membrane panel assembly will be installed. (Fig. 4)
8. Connect all wire/cable connection previously connected to the removed membrane panel to the new membrane panel assembly.
9. Connect the antenna (16) cable to the new membrane panel assembly. (Fig. 6)

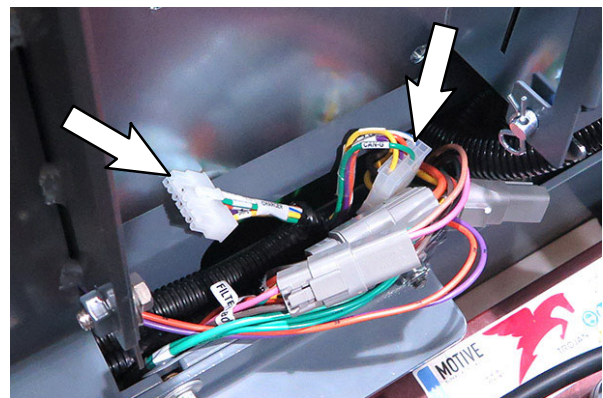


**FIG. 6**

10. Arrange the right console cover (15) onto the steering shroud so the cover is not pinched between the membrane panel assembly and the steering shroud when the membrane panel assembly is installed. (Fig. 4)
11. Use five pan screws (7) to install the membrane panel assembly onto the steering shroud. (Fig. 4)
12. Install the diodes (26) onto the telemetry adapter harness (25). (Fig. 8)
13. **Machines with on-board battery charger only:** Situate the telemetry adapter harness (25) near the on-board battery charger.

**Machines without on-board battery charger only:** Situate the telemetry adapter harness (25) near where the on-board battery charger would be located if machine were equipped with an on-board battery charger.

14. **Machines with on-board battery charger only:** Disconnect the main wire harness from the on-board battery charger. (Fig. 7)



**FIG. 7**



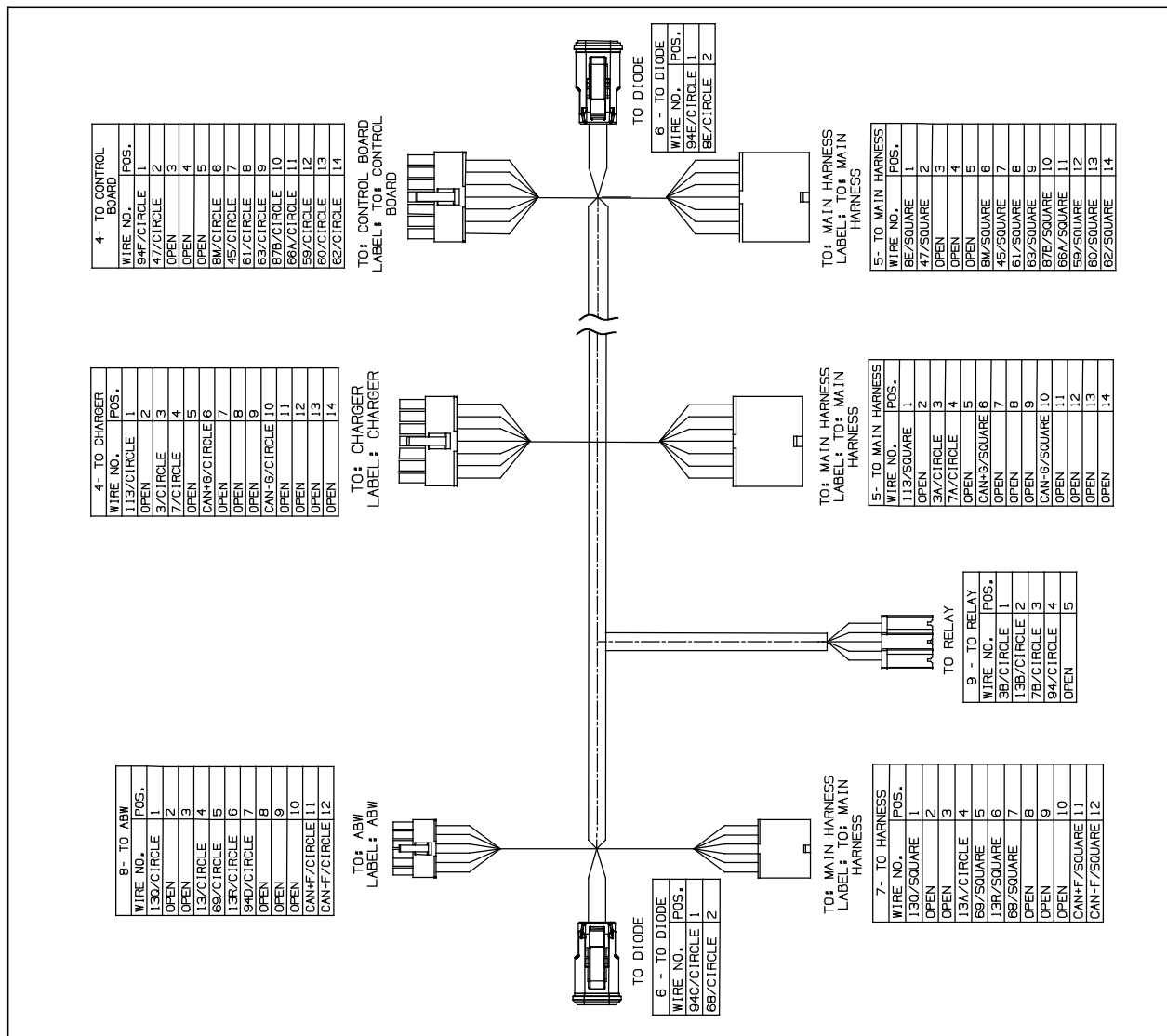


FIG. 8

15. **Machines with on-board battery charger only:** Connect the telemetry adapter harness (25) to the on-board battery charger. (Fig. 8)

16. **Machines with on-board battery charger only:** Connect the main wire harness connector previously connected the on-board battery charger to the telemetry adapter harness (25). (Fig. 8)

**Machines without on-board battery charger only:** Connect the main wire harness connector for the on-board battery charger to the telemetry adapter harness (25). (Fig. 8)

17. Route the telemetry adapter harness (25) through the channel in the frame of the machine and to the area where the ABW module is located. (Fig. 9)

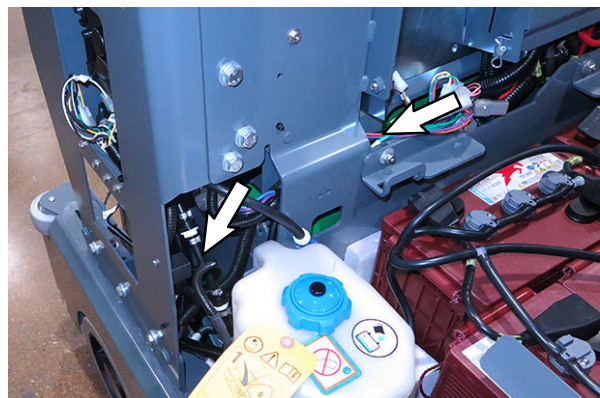
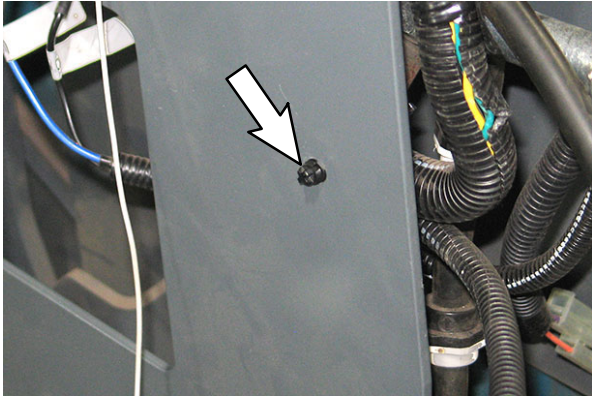


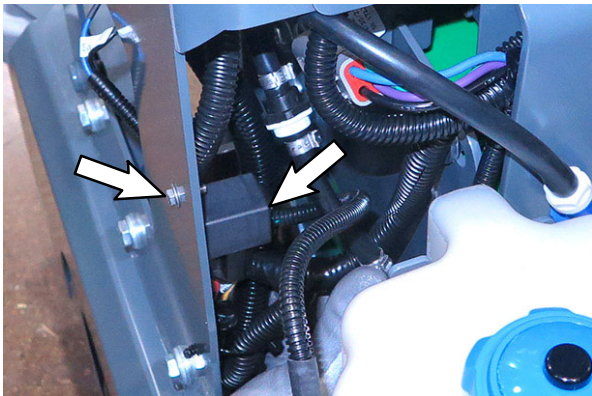
FIG. 9

18. Cut the fir tree clip wire tie from the left channel and main wire harness. (Fig. 10)



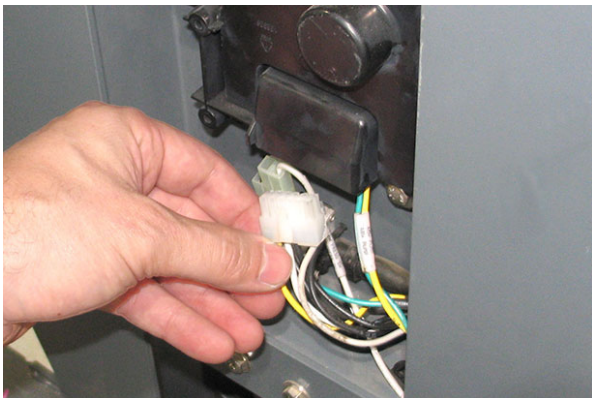
**FIG. 10**

19. Use a M5 hex screw (24), a flat washer (23), and a M5 hex nut (6) to install the 36VDC relay (22) onto the left channel where the fir tree clip wire tie was previous located. (Fig. 11/Fig. 4)



**FIG. 11**

20. Connect the telemetry adapter harness (25) to the 36VDC relay (22). (Fig. 11/Fig. 8)
21. Disconnect the main wire harness from the ABW module. (Fig. 12)



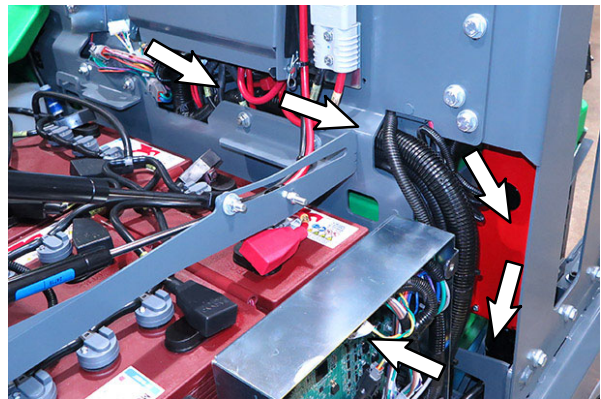
**FIG. 12**

22. Connect the telemetry adapter harness (25) to the ABW module. (Fig. 13/Fig. 8)



**FIG. 13**

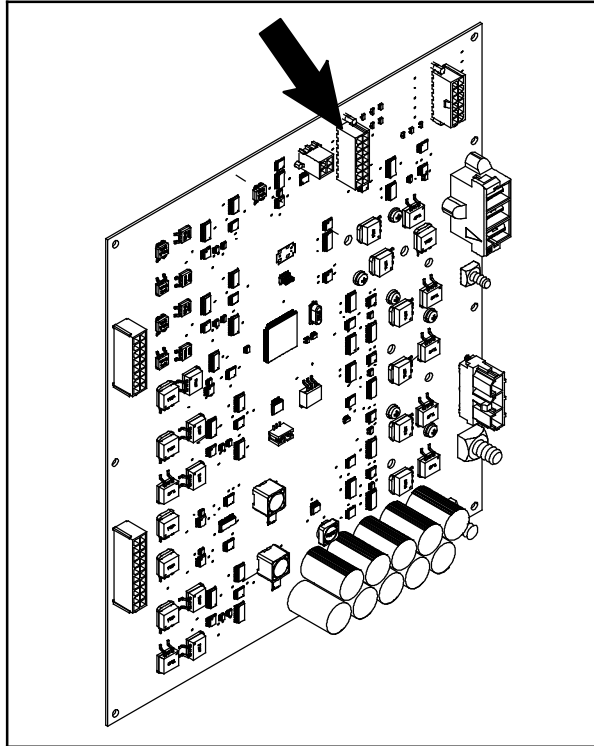
23. Connect main wire harness connector previously connected to the ABW module to the telemetry adapter harness (25). (Fig. 13/Fig. 8)
24. Use a cable tie to secure the main wire harness to the 36VDC relay (22).
25. Route the telemetry adapter harness (25) through along the main wire harness and down into the interior of the control board box. (Fig. 14)



**FIG. 14**

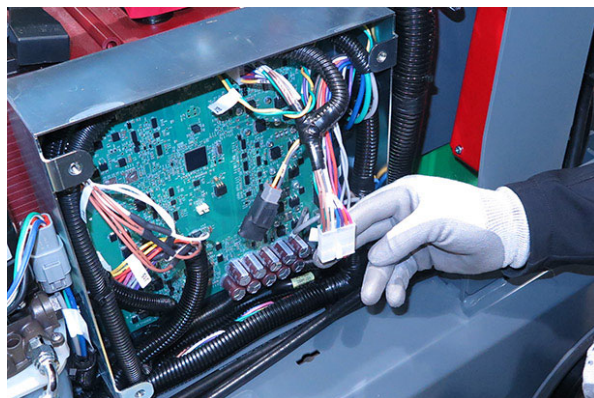


26. Disconnect the main wire harness from the the main control board terminal J16. (Fig. 15)



**FIG. 15**

27. Connect the telemetry adapter harness (25) to the main control board terminal J16. (Fig. 16/ Fig. 8)



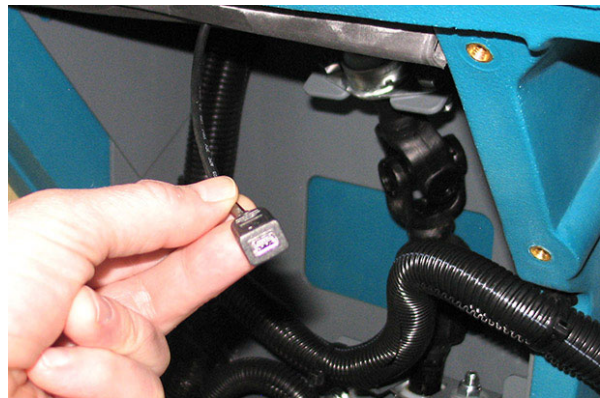
**FIG. 16**

28. Connect main wire harness connector previously connected to main control board terminal J16 to the telemetry adapter harness (25). (Fig. 16/Fig. 8)

29. Reconnect the battery cable to the machine.

30. Plug machine USB cable into service device and reconfigure the machine/activate IRIS (telemetry system). Refer to PROVISIONING THE MACHINE (MACHINES WITH TELEMTRY COMMUNICATIONS ONLY) and UPLOADING THE HOUR COMMUNICATION (MACHINES WITH TELEMTRY COMMUNICATIONS ONLY) in the SERVICE section of the S16 Service Manual for instructions/additional information. (Fig. 17)

*NOTE: The IRIS telemetry system must be activated to complete this installation. The telemetry system will not function until it is activated. Refer to the S16 Service Manual for reconfiguration/activation instructions.*



**FIG. 17**

31. Turn key switch OFF.

32. Disconnect the service device/USB cable from the machine USB connection.

33. Reinstall the front access panel onto the machine.

34. Install the telemetry label (21) onto the front access panel. (Fig. 4)

35. Reinstall the controls box cover onto the control housing.

36. Reinstall both the right side shroud and left side cover onto the machine.

37. Turn key switch ON and test machine. Ensure all machine systems are fully operational.

**Bill Of Materials For Circuit Board Kit, w/Telem, DI [S16] - 9045254**

<b>Ref.</b>	<b>Tennant Part No.</b>	<b>Description</b>	<b>Qty.</b>
1	41140	Washer, Lock, Int- Ext, 0.25	1
2	1252690	Circuitboard Assy [UI, Linux, Telem]	1
3	1249459	Panel, Overlay [Jetmore Membrane]	1
4	1239539	Plate, Console, RH Spacer	1
5	1244647	Gasket, Dash, RH	1
6	09739	Nut, Hex, Lock, M5 X 0.80, NI, SS	5
7	222267	Screw, Pan, Phl, 06 X 0.50, Fmg/Ab, Blk	5
8	1074344	Harness, Ele [Ring With .250m Tail]	1
9	1252810	Spacer, Plstc, 0.20b 0.32d 0.47l, Nyl	8
10	1228665	Cable [USB, Mini- B, Male 90d, Female]	1
11	08708	Nut, Hex, Lock, M6 X 1.00, NI	4
12	01684	Washer, Flat, 0.27b 0.69d .05, SS	6
13	1071856	Spacer, 0.39b, 0.50d, 0.12l	3
14	1254034	Bracket, Retainer, Console, RH	1
15	1253226	Cover, Console, RH	1
16	1247569	Antenna, Telem [4G, 36"]	1
17	1256480	Bracket, Antenna	1
18	11329	Screw, Hex, M6 X 1.00 X 16, NI, SS	2
19	01684	Washer, Flat, 0.27b 0.69d .05, SS	2
20	763115	Tie, Cable, 6.0l, 1.25d Max	2
21	1259755	Label, Mach, Telem [BG95/BG96]	1
22	1229172	Relay, 36vdc, 025a, Spdt	1
23	01683	Washer, Flat, 10, SS	1
24	24199	Screw, Hex, M5 X 0.80 X 16, SS	1
25	1077178	Harness, Ele, Adaptor, Telem,[S16]	1
26	1056982	Diode, Ele, Plug	2

*\* NOTE: Only authorized Tennant Service Personnel can install this telemetry kit onto the S16 sweeper.*

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