



INSTRUCTION BULLETIN

No. 9014038
Machine: T12
Published: 9-2016
Rev. 04

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 9013985 / 9013986**

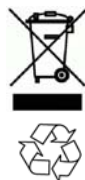
SYNOPSIS:

This kit contains the parts needed to install the telemetry system on T12 scrubbers.
Please follow step-by-step instructions.

SPECIAL TOOLS / CONSIDERATIONS: NONE

(Estimated time to complete: 2 hours)

The IRIS (telemetry module) must be activated to complete this installation. The module will not function until it is activated. Call for assistance (North America - Technical Support / Australia - CCC) to activate the module after all telemetry components have been installed. Have machine serial number and IRIS module SIM number (located on back of IRIS control box assembly) ready when calling for activation.



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:

1. **Machines equipped with ec- H2O only:**
Confirm the ec- H2O system is fully functional.
The ec- H2O must be fully functional before the IRIS system can be installed.
2. Confirm the hour meter is properly wired and functional. The hour meter must be fully functional and wired properly before the IRIS system can be installed.
3. Park the machine on a clean level surface, turn off the machine, remove the key, and set the parking brake if equipped.

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

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

5. Disconnect the battery cable from the machine.

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

6. Lift the operator seat open and lock the seat into the fully open position.
7. Remove the left side panel from the machine. Set the left side panel and all hardware aside.

INSTALLATION:

1. Remove the fuse (18) from the telemetry harness (17). (Fig. 1)



FIG. 1

2. Route telemetry harness (17) and antenna cable (5) from under front left side of the machine where the control box (1) will be mounted, up through the floor, around side of machine, and up into the battery area (follow the main wire harness).
3. Connect the telemetry harness (17) 13/BLK-WHT wire to the shunt (6). (Fig. 2)
4. Connect the telemetry harness (17) 79/WHT wire to the shunt (6). (Fig. 2)
5. Use two M4 pan screws (7) and two flat washers (8) to install the shunt (6) onto the seat support bracket. (Fig. 2)

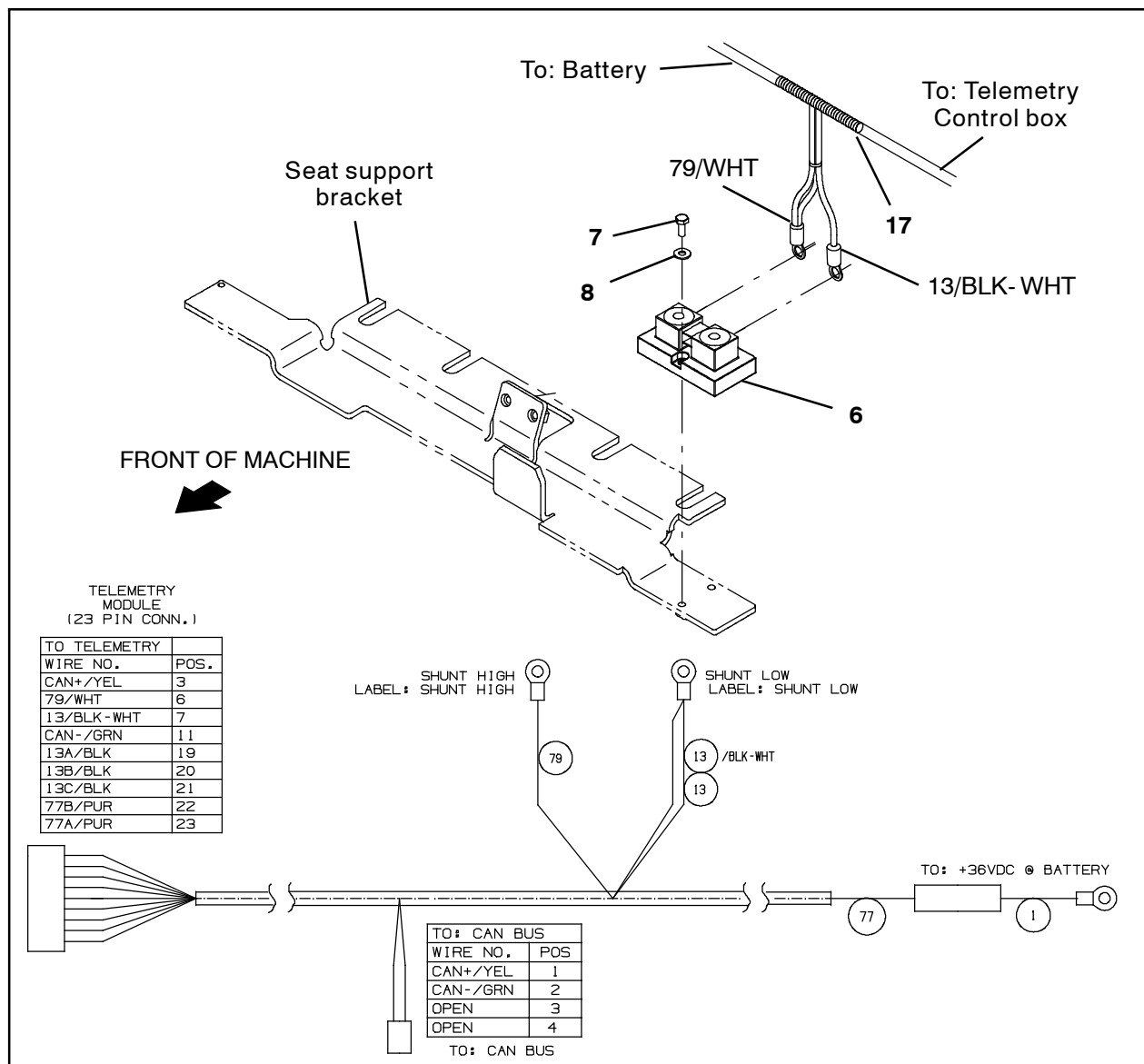


FIG. 2

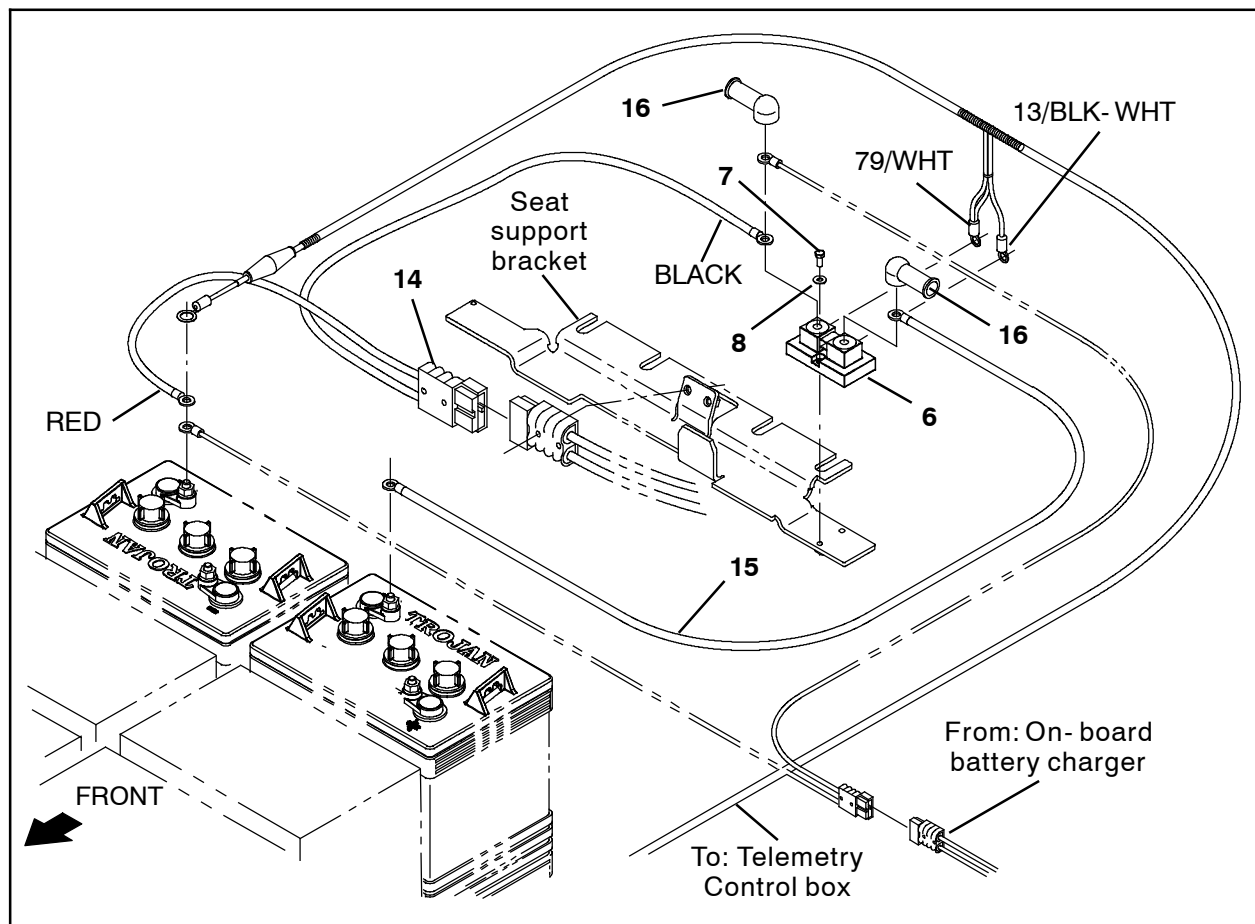


FIG. 3

- 6. Machines with optional on-board battery charger only:** Disconnect the on-board battery cable from the battery. (Fig. 4)

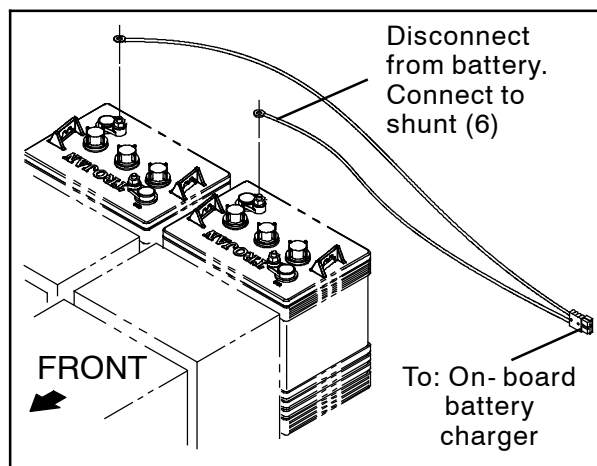


FIG. 4

7. Connect the black cable (15) to the battery.
(Fig. 3)

8. **Machines with optional on-board battery charger only:** Connect the on-board battery charger cable removed from the battery to the shunt (6). (Fig. 3)

9. Slide a battery terminal boot (16) onto the end of the black cable (15) that will be connected to the shunt (6). (Fig. 3)

10. Route the black cable (15) from the battery to the shunt (6) and connect the black cable to the shunt. (Fig. 3)

11. Slide a battery terminal boot (16) onto the end of the battery cable (14) BLACK cable that will be connected to the shunt (6). (Fig. 3)

12. Connect the battery cable (14) BLACK cable to the shunt (6). (Fig. 3)

13. Connect the telemetry harness (17) and battery cable (14) RED cable to the battery. (Fig. 3 / Fig. 2)

14. Remove the backing from the adhesive strip on the telemetry antenna (5) and install the telemetry antenna onto the recovery tank. (Fig. 5)

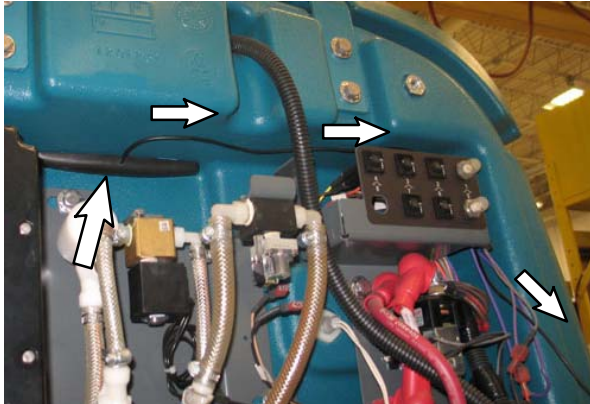


FIG. 5

The telemetry antenna (5) can also be installed above the circuit breaker bracket if there is not adequate space near the ec-H2O module. (Fig. 6)



FIG. 6

15. Remove the additional SIM label from the back of the control box (1) and set label aside in a safe place. The number on the SIM label will be needed for activating the machine. (Fig. 7)

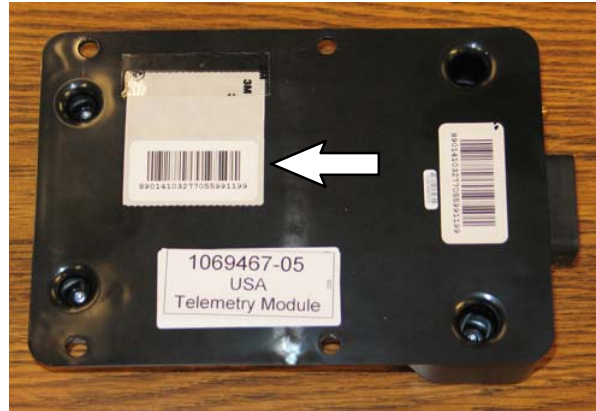


FIG. 7

16. Connect the telemetry harness (17) and antenna (5) cable to the telemetry control box (1). (Fig. 8)
17. Use four M5 hex screws (2), eight flat washers (3), and four M5 hex nuts (4) to install the telemetry control box (1) onto the mounting bracket (10). (Fig. 8)
18. Use two M6 hex nuts (13), two flat washers (12), and two cable clamps (11) to install the telemetry control box (1) / mounting bracket (10) onto the stabilizer weldment. (Fig. 8)

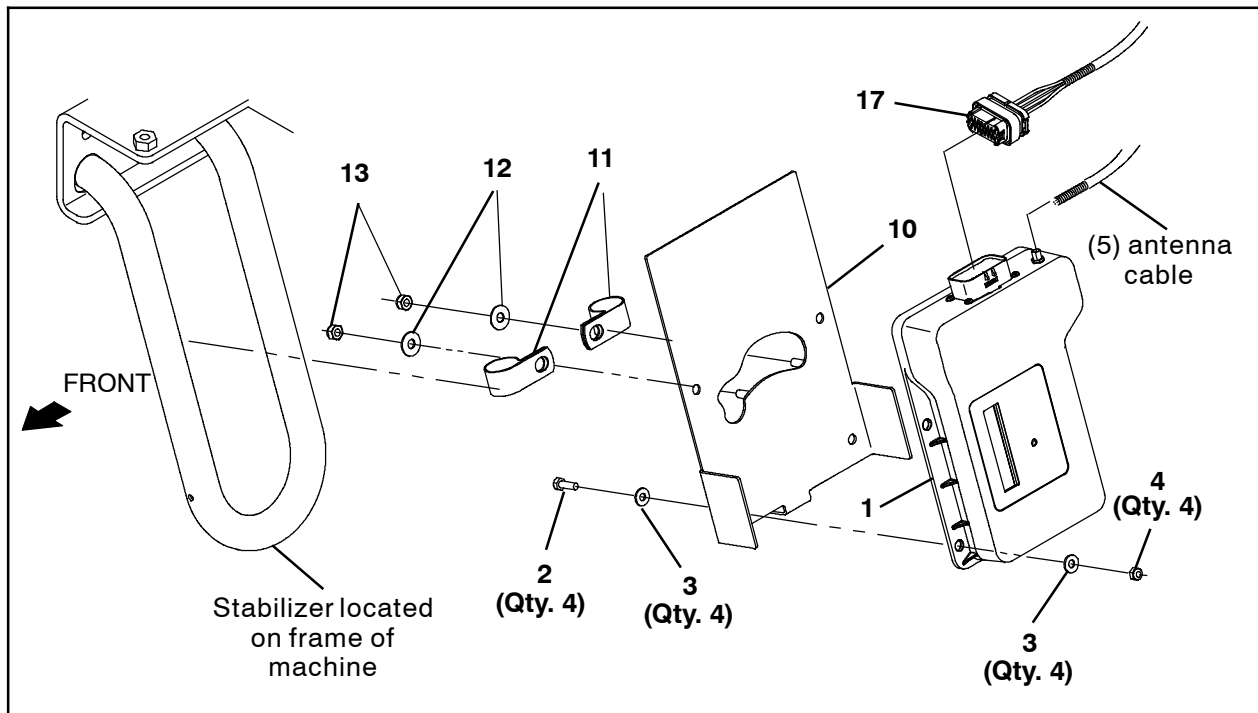


FIG. 8

19. Connect the telemetry harness (17) to the main wire harness. (Fig. 9 / Fig. 11 / Fig. 13 / Fig. 3)

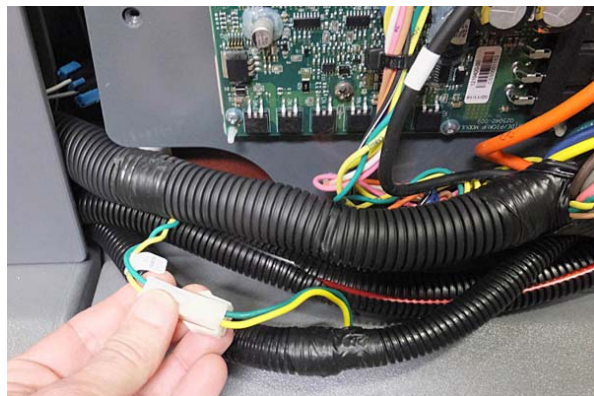


FIG. 9

20. Clean the steering channel where the telemetry label (9) is supposed to be located and install the telemetry label and SIM label removed from the control box (1) onto the steering channel. (Fig. 10)

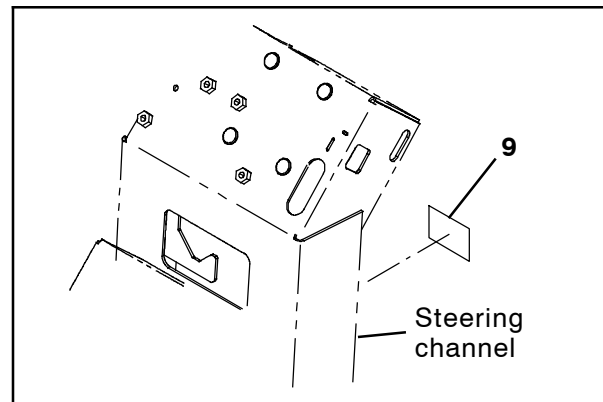


FIG. 10

21. Reinstall the left side panel onto the machine.
22. Reconnect the battery cable to the machine.
23. Reinstall the fuse (18) into the telemetry harness (17).
24. Start and test the machine.

25. North America Customer Locations:

Activate the IRIS (telemetry module): Call Technical Support (between hours of 7:00 am and 5:00 pm CST) for assistance to activate the module. The IRIS telemetry system must be activated to complete this install. Have machine serial number and control box (1) SIM number ready when calling for activation.

26. **Australia Customer Locations:** Activate the IRIS (telemetry module): Call CCC (between hours of 8:00 am and 5:00 pm AEST) and ask to be routed to the IRIS expert for assistance to activate the module. The IRIS telemetry system must be activated to complete this install. Have machine serial number and control box (1) SIM number ready when calling for activation.

NOTE: The IRIS (telemetry module) must be activated to complete this installation. The module will not function until it is activated. Call for assistance activating the module after all telemetry components have been installed.

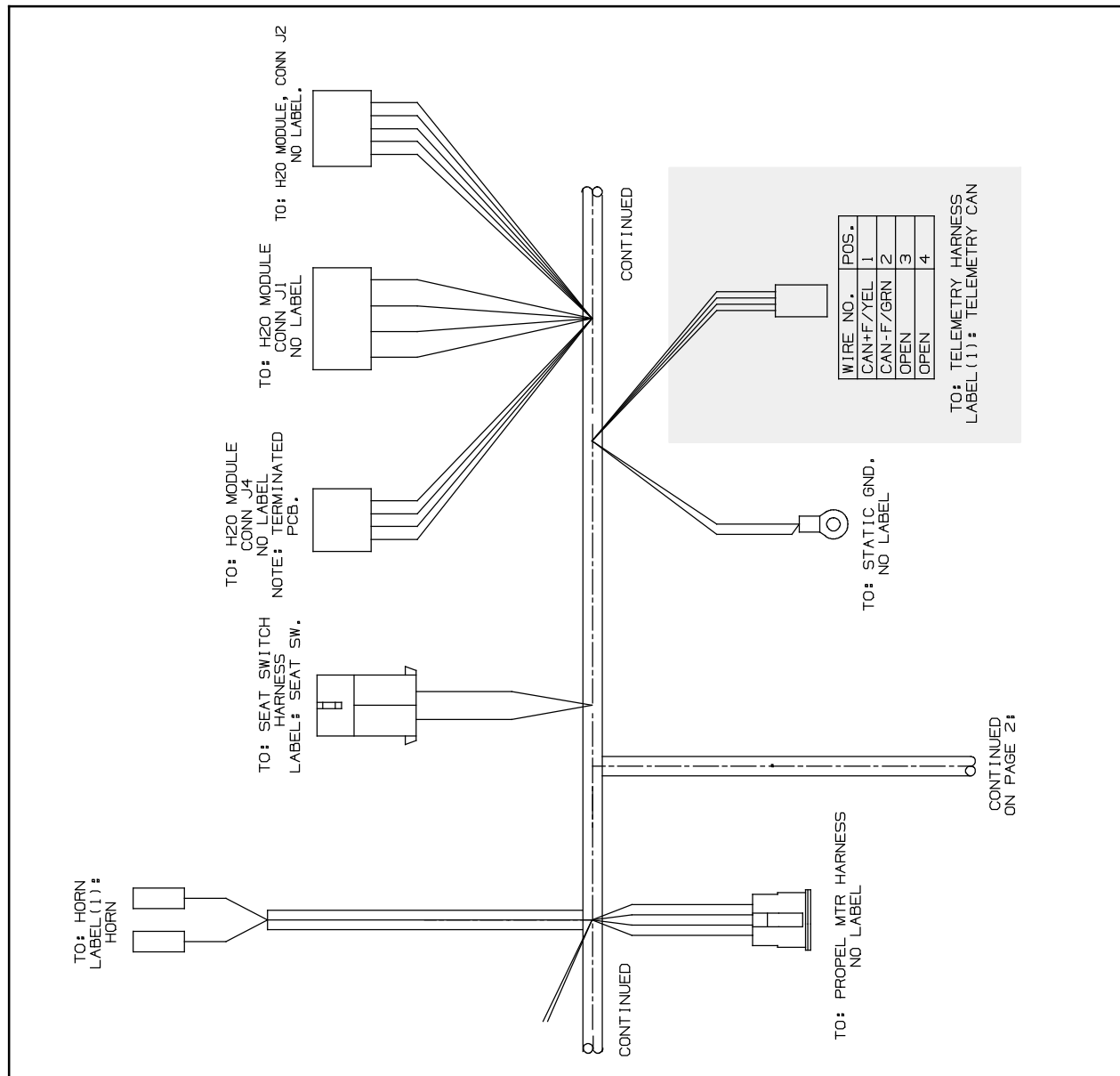


FIG. 11

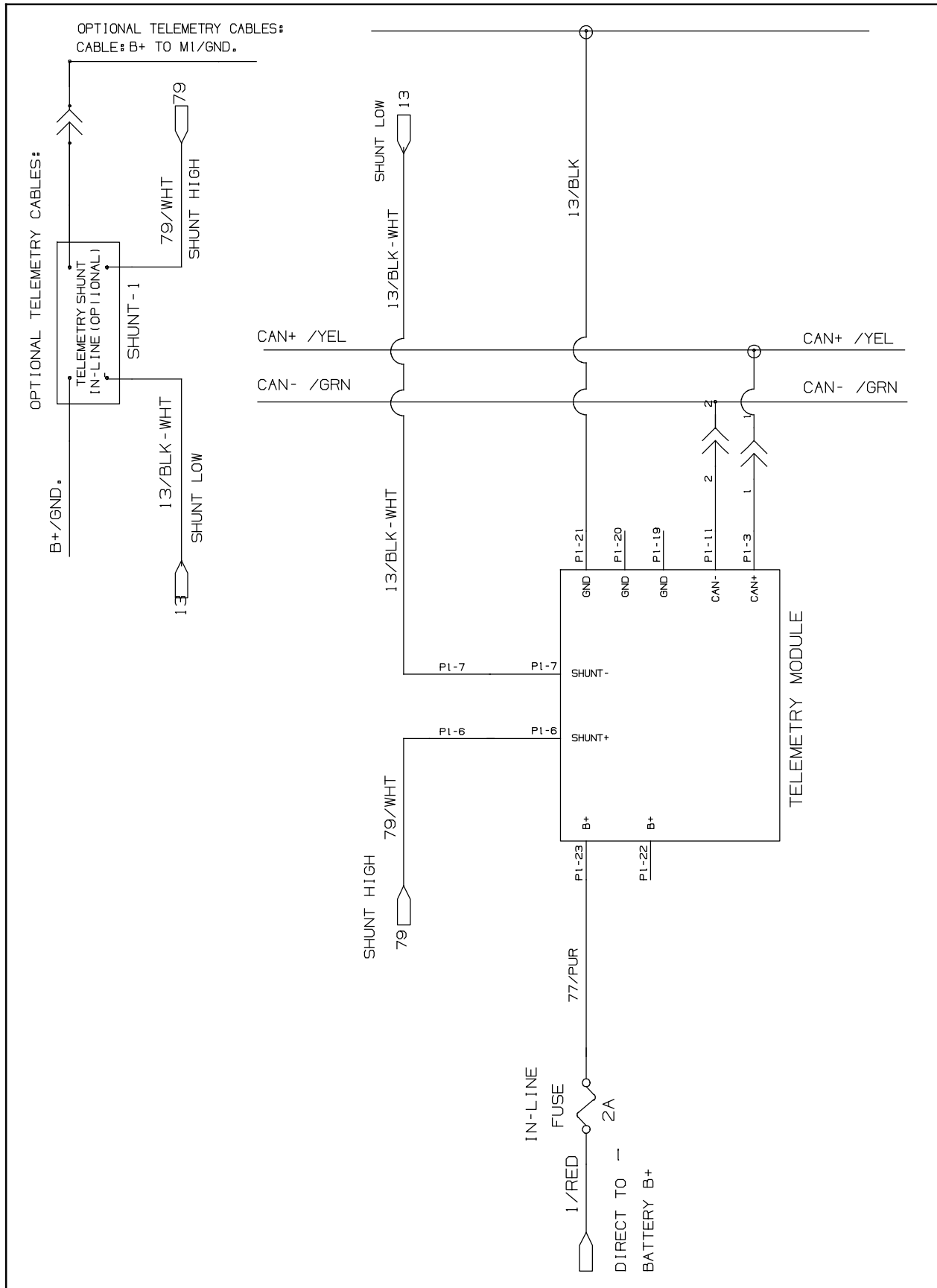


FIG. 12

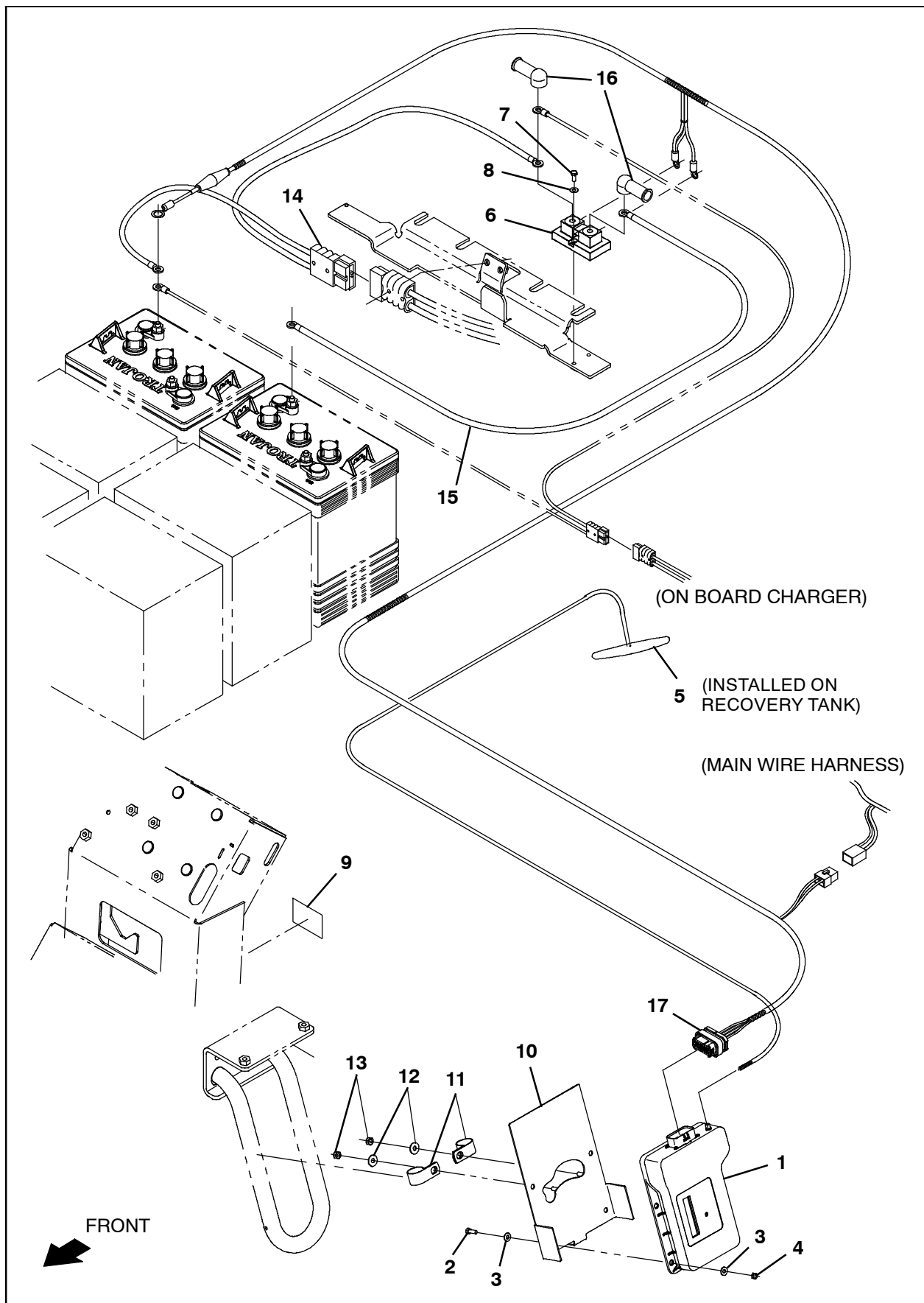


FIG. 13

Bill Of Materials For Telem Kit, CI [T12, USA] - 9013985 / Telemetry Kit, CI [T12, Intl] - 9013986

Ref.	Tennant Part No.	Description	Qty.
1	1069467	Control Box Assy, Telem [USA]	1
1	1070541	Control Box Assy, Telem [3G, Intl.]	1
2	24199	Screw, Hex, M5 X 0.80 X 16, SS	4
3	01683	Washer, Flat, 10, SS	8
4	06549	Nut, Hex, Lock, M5 X 0.80, NI	4
5	1070324	Antenna, Telem, 110 In [GPRS]	1
6	1070384	Shunt, 050mv 250a	1
7	12323	Screw, Pan, Phl, M4 X 0.70 X 20, SS	2
8	19064	Washer, Flat, 0.16b 0.38d .05, PI, 06	2
9	1069580	Label, Opertnl, Telem [FCC/IC]	1
10	1203695	Bracket Wldt, Mtg, Box	1
11	69234	Clamp, Cable, Stl, 1.00d X 0.75w, 1hole	2
12	01684	Washer, Flat, 0.27b 0.69d .05, SS	2
13	08712	Nut, Hex, Lock, M6 X 1.00, NI, SS	2
14	1070978	Cable Assy, 4ga [T12 - Telemetry] - US Installs Only	1
15	1070498	Cable, 4ga, Blk [6200e, Telemetry] - US Installs Only	1
16	611221	Boot, Terminal, Battery, 25.4mm, Blk	2
▽ 17	1070042	Harness, Ele, [Telemetry T12]	1
▲ 18	9009990	Fuse. 002A. 250vdc, Cartridge	1
19	06947	Screw, Hex, M6 X 1.00 X 40, 8.8	2
20	08708	Nut, Hex, Lock, M6 X 1.00, NL	2
21	32483	Washer, Flat, 0.25, SAE	2

TENNANT COMPANY
P. O. Box 1452
Minneapolis, MN 55440-1452