



INSTRUCTION BULLETIN

No. 9014045
Machine: T16
Published: 12-2015
Rev. 01

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 9014021**

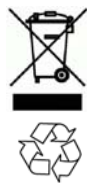
SYNOPSIS:

This kit contains the parts needed to install the telemetry system on T16 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 local IRIS expert for assistance activating 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:

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

1. Evaluate the condition of batteries, cables, and terminal connections. Batteries / cables / terminal connections must all be in safe working condition.
2. Disconnect the battery cable from the machine.

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

3. Disconnect the main wire harness from the operator seat switch and remove the operator seat and operator seat prop rod from the machine. Set the operator seat and operator seat prop rod aside.

4. Remove the seat shroud from the machine. Set the seat shroud and hardware aside. (Fig. 1)

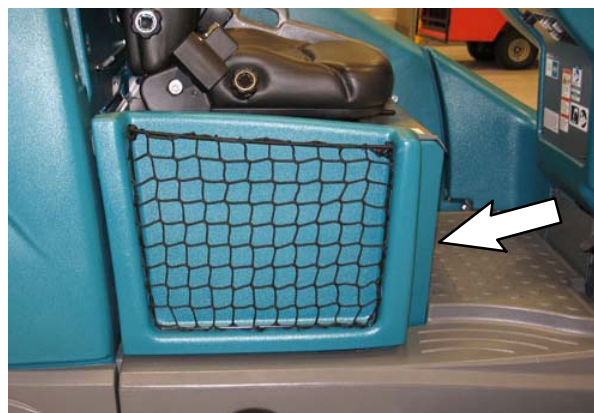


FIG. 1

INSTALLATION:

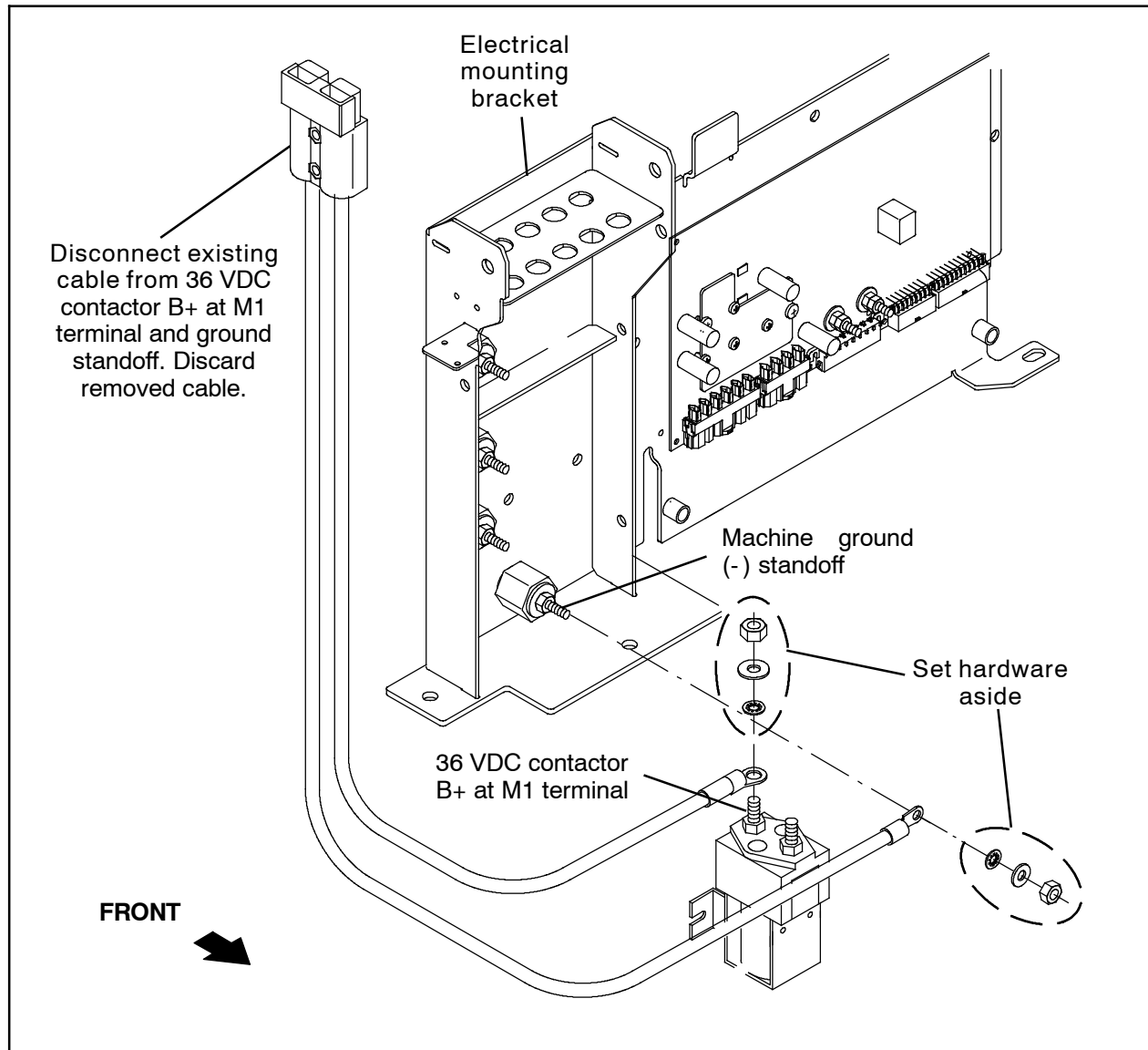


FIG. 2

1. Remove the cable connected to the 36 VDC contactor B+ at M1 and the ground standoff from the machine. Set hardware removed from 36 VDC contactor B+ at M1 and the machine ground (-) standoff aside. Discard the removed cable. (Fig. 2)

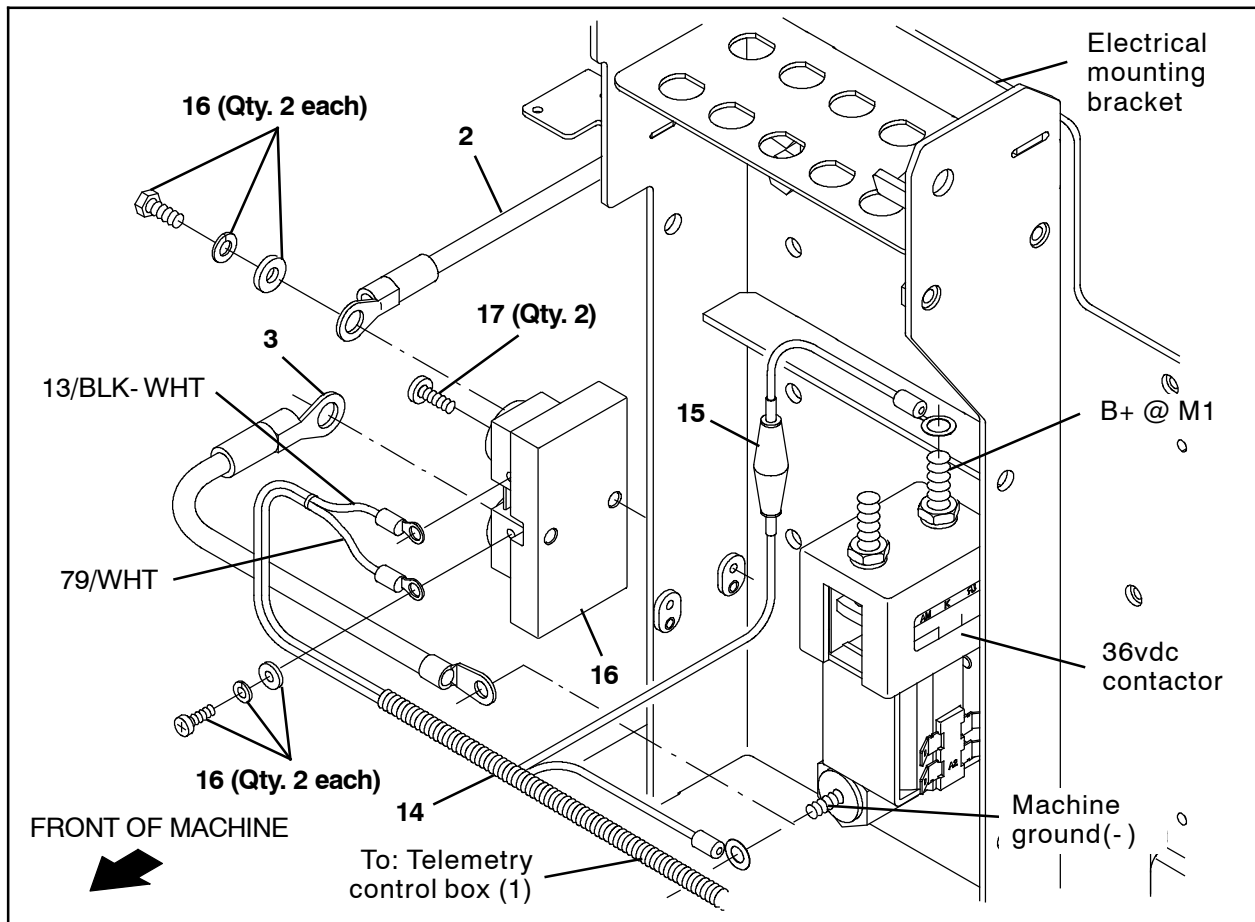


FIG. 3

2. Use two M4 pan screws (17) to install the shunt (16) onto the electrical mounting bracket. (Fig. 3)
3. Connect the black cable (3) to the shunt (16). (Fig. 3)
4. Connect the black cable (3) to the 36vdc contactor / machine ground (-). (Fig. 3)
5. Remove the fuse (15) from the telemetry harness (14). (Fig. 4)
6. Connect the battery cable assembly (2) black cable to the shunt (16) (Fig. 3)
7. Connect the telemetry harness (14) 13/BLK-WHT wire to the side of the shunt (16) with the black cable (2). (Fig. 3 / Fig. 5)
8. Connect the telemetry harness (14) 79/WHT wire to the side of the shunt (16) with the black cable (3). (Fig. 3 / Fig. 5)
9. Connect the telemetry harness (14) to the B+ at M1 terminal on the 36 VDC contactor. (Fig. 3 / Fig. 5)



FIG. 4

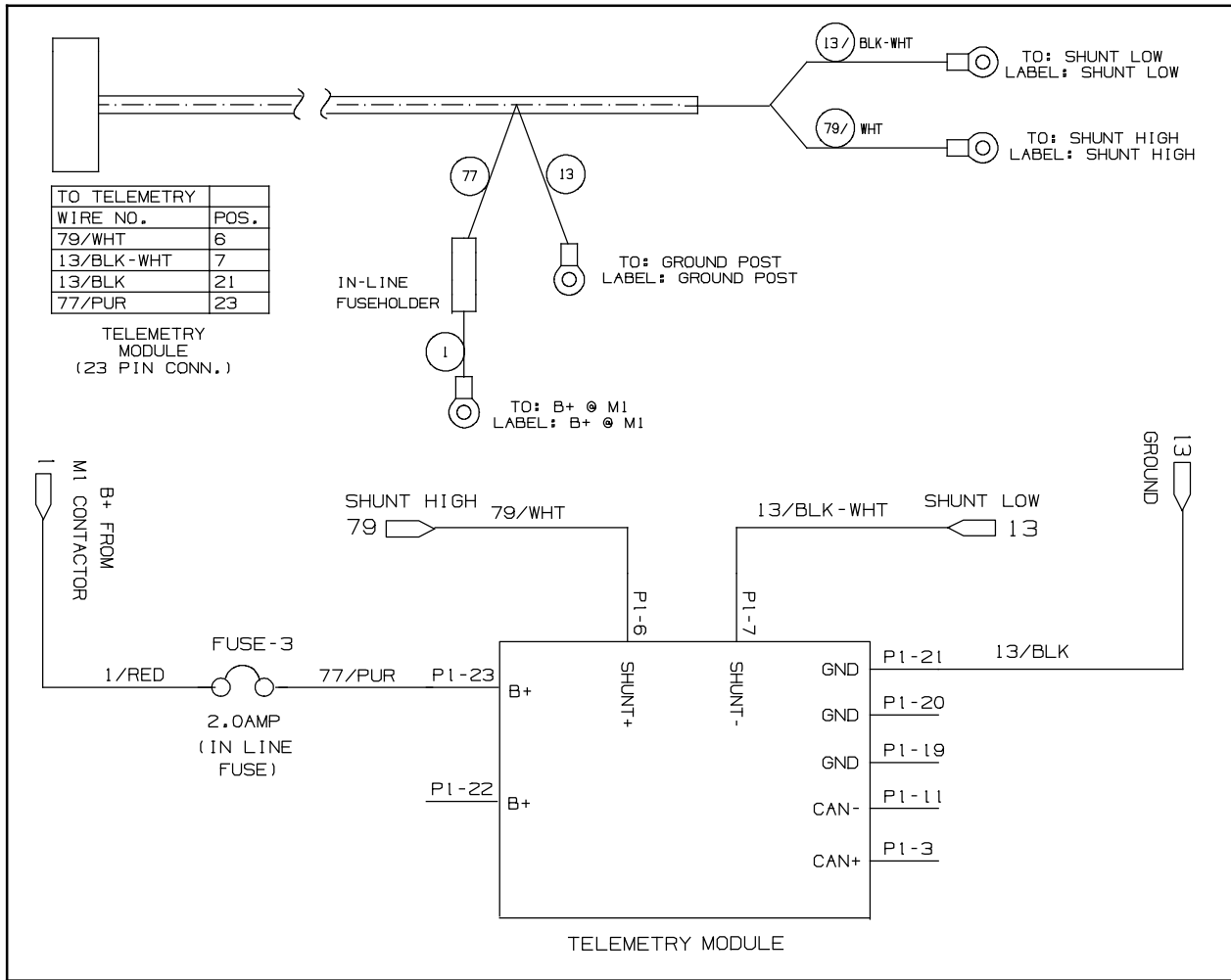


FIG. 5

10. Route the telemetry cable (3) along the front of the seat shroud. (Fig. 6)

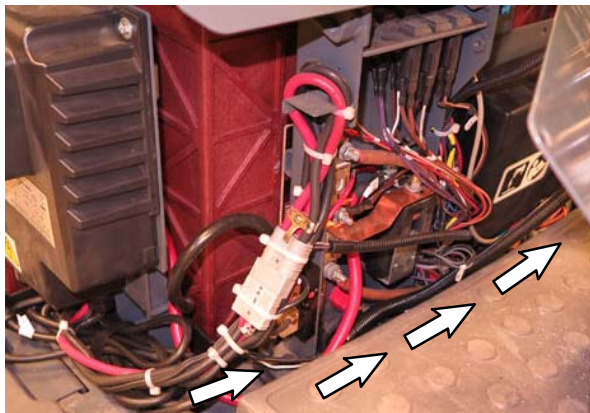


FIG. 6

11. 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

12. Use three M6 hex screws (12), three flat washers (22), and the control box guard (4) to install the control box (1) into the controller bracket (7) and guard cover (9). (Fig. 8)

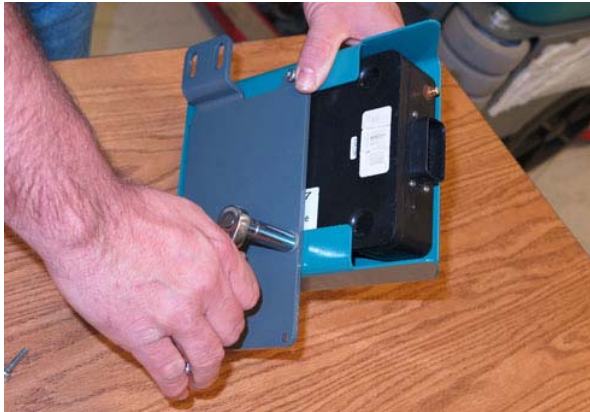


FIG. 8

13. Install the cable tie mount (24) onto the telemetry assembly assembled in the previous step. (Fig. 9)

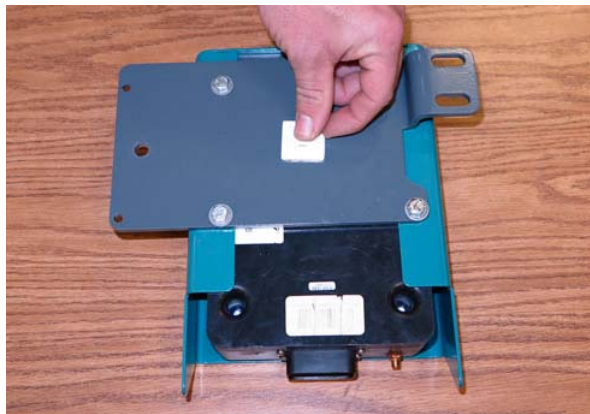


FIG. 9

14. Route the telemetry antenna (10) cable through the hole in the telemetry assembly. (Fig. 10)



FIG. 10

15. Use two M5 hex screws (13), two flat washers (5), two M5 hex nuts (6), and two cable clamps (11) to install the telemetry antenna (10) onto the telemetry assembly. (Fig. 11)



FIG. 11

16. Connect the telemetry antenna (10) cable to the control box (1). (Fig. 12)

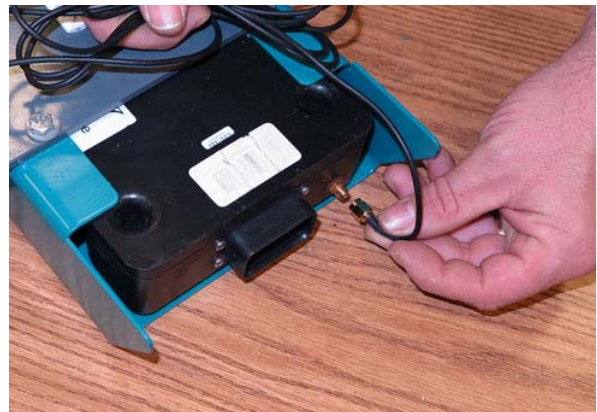


FIG. 12

17. Neatly bundle the telemetry antenna (10) cable and use a cable tie (23) to secure the telemetry antenna cable to the telemetry assembly. (Fig. 13)

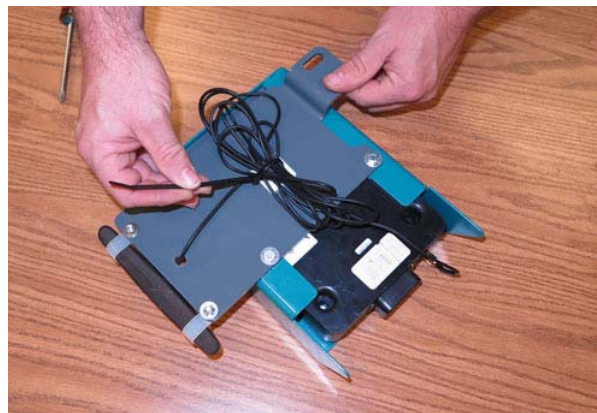


FIG. 13

18. Use hardware securing the recovery tank cover to the machine to install the telemetry assembly onto the machine. (Fig. 14)



FIG. 14

19. Route the telemetry harness (14) around the left side of the batteries, up through the p-clamp behind the operator seat prop rod bracket, and to the control box (1).
20. Connect the telemetry harness (14) to the control box (1). (Fig. 15)

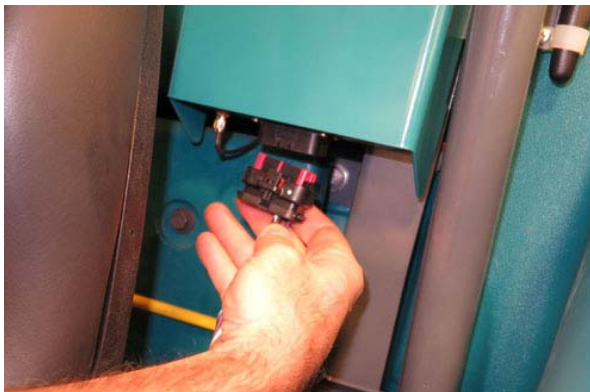


FIG. 15

21. Clean the electrical panel where the telemetry label (20) is supposed to be located and install the telemetry label and SIM label removed from the control box (1) onto the electrical panel. (Fig. 16)



FIG. 16

22. Reinstall the seat shroud onto the machine.
23. Reinstall the operator seat and operator seat prop rod onto the machine and reconnect the main wire harness to the seat switch.
24. Reconnect the battery cable to the machine.
25. Reinstall the fuse (15) into the telemetry harness (14).
26. Start and test the machine.
27. Activate the IRIS (telemetry module): Call local IRIS expert for assistance to activate the module. The IRIS telemetry system must be activated to complete this install.

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

Bill Of Materials For Telemetry Kit, W/O R/O, CI [T16, EU] - 9014021

Ref.	Tennant Part No.	Description	Qty.	
1	1070541	Control Box Assy, Telem[3G, Intl.]	1	
2	1070357	Cable Assy, 2ga [T16 - Telemetry]	1	
3	1070358	Cable, 2ga, Blk, Telem [T16]	1	
4	1216841	Guard Wldt, Control Box	1	
5	01683	Washer, Flat, 10, SS	2	
6	06549	Nut, Hex, Lock, M5 X 0.80, NI	2	
7	1217240	Bracket, Mtg, Controller [T16]	1	
8	1037346	Screw, Hex, M8 X 1.25 X 25, 9.8, SEMS	2	
9	1217789	Cover, Guard	1	
10	315724	Antenna, Telem, 18.0 In [GPRS]	1	
11	140916	Clamp, Cable, Nyl, 0.62d, Nat	2	
12	06943	Screw, Hex, M6 X 1.00 X 20, 8.8	3	
13	24199	Screw, Hex, M5 X 0.80 X 16, SS	2	
▽	14	1070108	Harness, Ele, Telem [T16]	1
▲	15	9009990	Fuse, 002a, 250vdc, Cartridge	1
16	1070384	Shunt, 050mv 250a	1	
17	06927	Screw, Pan, Phl, M4 X 0.70 X 16, 4.8	2	
18	32980	Washer, Lock, Int, 10	2	
19	32988	Washer, Lock, Int, 0.38	2	
20	1069580	Label, Mach, Telem, [FCC, USA, 2G/3G]	1	
21	49266	Tie, Cable, Nyl, 07.3l .19w 1.8 Max D	3	
22	32483	Washer, Flat, 0.25, SAE	3	
23	130773	Tie, Cable, Nyl, 11.0l .14w 3.0 Max D	6	
24	55248	Mount, Cable Tie	1	

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