DRESSER Wayne

iX™ Pay Secure Payment

INSTALLATION

iX Pay (U.S.) Retrofit Kits for 2/Vista Narrow & Wide Body Dispensers

ONLY SPM CERTIFIED TECHNICIANS SHOULD INSTALL THIS KIT

DANGER

READ THIS MANUAL BEFORE YOU BEGIN

Dispensers have both electricity and a hazardous, flammable and potentially explosive liquid. Failure to follow the below precautions and the Warning and Caution instructions in this manual may result in serious injury. Follow all rules, codes and laws that apply to your area and installation.

SAFETY PRECAUTIONS - INSTALLATION AND MAINTENANCE

Always make sure ALL power to the dispenser is turned OFF before you open the dispenser cabinet for maintenance. Physically lock, restrict access to, or tag the circuit breakers you turn off when servicing the dispenser. Be sure to trip (close) the emergency valve(s) under the dispenser BEFORE beginning maintenance.

Make sure that you know how to turn OFF power to the dispenser and submersible pumps in an emergency. Have all leaks or defects repaired immediately.

EQUIPMENT PRECAUTIONS

Be sure to bleed all air from product lines of remote dispensers and prime suction pumps before dispensing product, otherwise, damage to the equipment may occur. Always use the approved method for lifting the dispenser. Never lift by the nozzle boot, sheet metal, valance, etc., otherwise equipment damage or personal injury may occur.

HOW TO CONTACT WAYNE

Problems with the installation of this kit should be referred to Wayne Technical Support (1-800-926-3737).

INDICATORS AND NOTATIONS

DANGER	Danger indicates a hazard or unsafe practice which, if not avoided, will result in severe injury or possibly death.
WARNING	Warning indicates a hazard or unsafe practice which, if not avoided, may result in severe injury or possibly death.
CAUTION	Caution indicates a hazard or unsafe practice which, if not avoided, may result in minor injury.
NOTE:	Important information to consider, otherwise, improper installation and/or damage to components may occur.

SAFETY PRECAUTIONS

NFPA 30A states that:

"When maintenance to Class 1 dispensing devices becomes necessary and such maintenance may allow the accidental release or ignition of liquid, the following precautions shall be taken before such maintenance is begun:

- Only persons knowledgeable in performing the required maintenance shall perform the work.
- All elctrical power to the dispensing device and pump serving the dispenser shall be shut off at the main electrical disconnect panel.
- The emergency shut-off valve at the dispenser, if installed, shall be closed.
- All vehicle traffic and unauthorized persons shall be prevented from coming within 20 ft. (6 m) of the dispensing device.[1]"

⚠ **WARNING**

Electric shock hazard! More than one disconnect switch may be required to de-energize the dispenser for maintenance and servicing. Use a voltmeter to make sure ALL circuits in the dispenser are de-energized. Failure to do so may result in serious injury.

Lockout/Tagout requirements of the U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) may also apply. Refer to Title 29, Part 1910 of the COde of Federal regulations (29CFR1910), *Control of Hazardous Energy Source (Lockout/Tagout)*.

NOTE: To prevent damage to components located in the hydraulic cabnet, dispenser doors should be in place during rainy and/or icy weather conditions. Also, check the nozzle boot flipper for freedom of movement. If ice has formed on the flipper it should be cleared to prevent unnecessary damage.

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Local, State, and Federal Codes

All tanks (both underground and above ground), piping and fittings, foot valves, leak detectors, corrosion protection device, wiring, venting systems, etc., must be installed in accorfance with the manufacturer's instructions and in compliance with local and regional building codes and requirements pertaining to service stations (or other locations where the dispenser may be installed).

These requirements may include references to the National Electrical Code (NFPA 70), Automotive and Marine Service Station Code (NFPA 30A); Flammable and Combustible Liquids Code (NFPA 30); Code of Federal Regulations, Title 40, Section 280 (40 CFR 280); United States Environmental Protection Agency (U.S. EPA) Technical Regulations of 9-23-88 and U.S. EPA Financial Responsibility Regulations of 10-26-1988.

Where local requirements do not specify applicable codes, Wayne recommends using the codes listed above. These codes are comprehensive and detailed, often requiring interpretation to cover unusual situations, and, therefore, the associated handbooks (where applicable) should also be consulted. (The handbooks are also available from the same sources.)

Due to the variety of locations encountered, further information on installation cannot be dealt with in this document except as the codes relate directly to the installation of the dispenser. Therefore, it is strongly recommended that a quialified engineer or contractor familiar with local regulations and practices be consulted before starting installation.

For Canada, TSSA and Fuel Safety Regulations including PMH and PM1 Certification:

To prevent cuts and abrasions, Personal Protection Equipment (PPE) must be used when working around sharp metal edges.

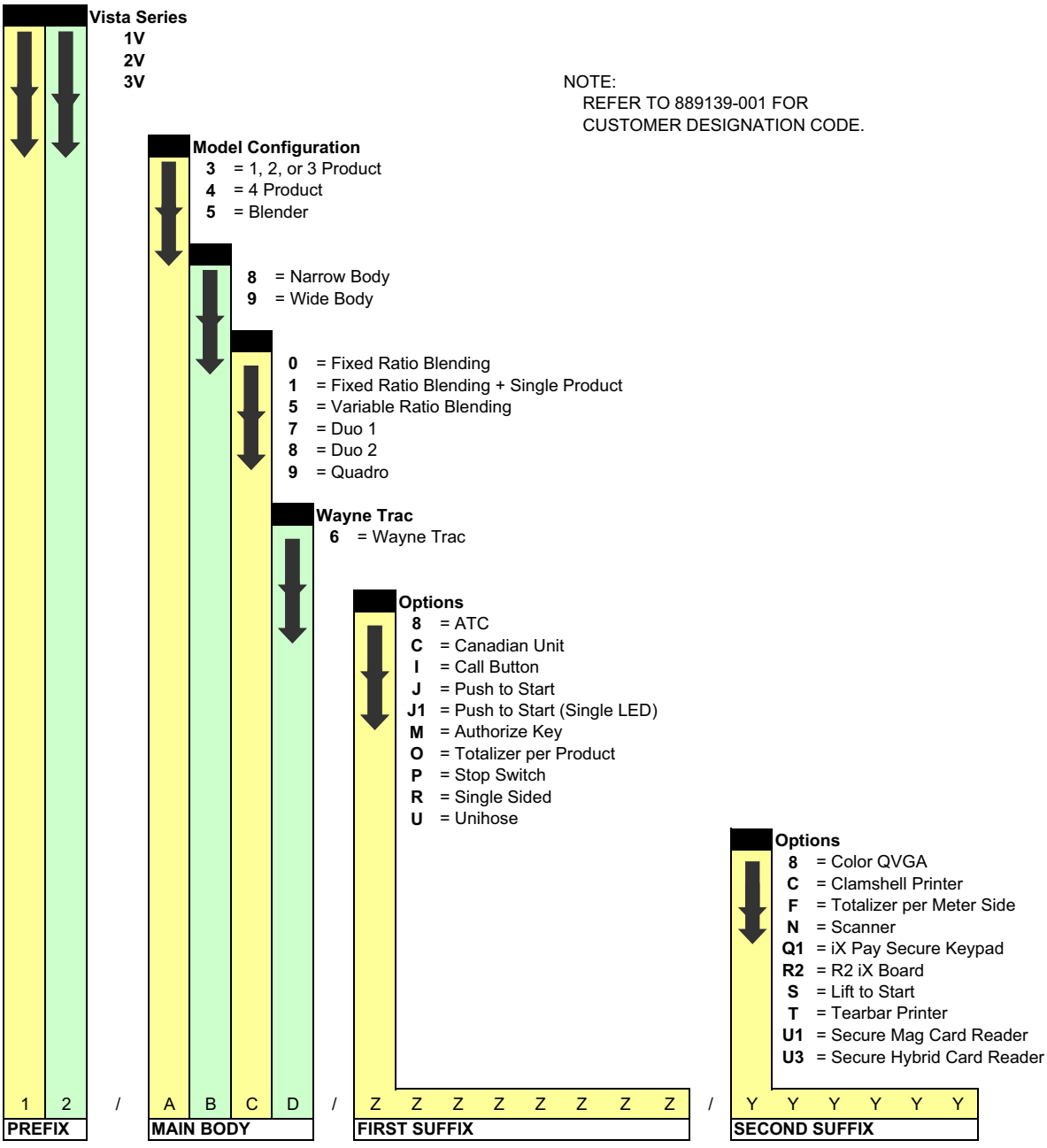
Secure Payment Kits
for 2/Vista Dispensers (U.S.)

Installation

August 2010 Part No. 940022 Rev B

Vista iX PAY Retrofit Kit

MODEL DESIGNATOR CHART



1 INTRODUCTION

This manual provides instructions for installing the iX™ Pay Secure Payment Retrofit Kits for 2Vista narrow body and wide body hinged bezel dispensers. 2V kit part numbers (model numbers) are based on the Kit Model Designation Chart on the previous page and take the format 2V/x8xx for narrow body dispensers and 2V/x9xx for wide body dispensers.

Address questions concerning installation of this kit to Wayne Technical Support at 1-800-926-3737.

1.1 Parts Required

The parts and quantities that are included in each kit are shown on the following pages. Item numbers in Figures 1A through 1D are referenced to the list of parts in Table 1.

1.2 Tools Required

Socket/ratchet

Allen wrenches

Screwdrivers, Nut drivers

Hole punch tool (none sparking) for Narrow body kit

1.3 Safety Precautions

Before beginning the installation of this kit, block off the work area with safety cones.

NOTE: These retrofit kits may require installation of several wiring and hardware assemblies. Any installation or modification must comply with the requirements of the National Electrical Code (NFPA 70), and NFPA 30 and any other applicable codes.

NFPA 30A states that:

“When maintenance to Class 1 dispensing devices becomes necessary and such maintenance may allow the accidental release or ignition of liquid, the following precautions shall be taken before such maintenance is begun:

- Only persons knowledgeable in performing the required maintenance shall perform the work.
- All electrical power to the dispensing device and pump serving the dispenser shall be shut off at the main electrical disconnect panel.
- The emergency shut-off valve at the dispenser, if installed, shall be closed.
- All vehicle traffic and unauthorized persons shall be prevented from coming within 20 ft.(6 m) of the dispensing device. ”[1]

⚠ **WARNING**

Electric shock hazard! More than one disconnect switch may be required to de-energize the dispenser for maintenance and servicing. Use a voltmeter to make sure ALL circuits in the dispenser are de-energized. Failure to do so may result in serious injury.

Lockout/Tagout requirements of the U. S. Dept. of Labor, Occupational Safety and Health Administration (OSHA) may also apply. Refer to Title 29, Part 1910 of the Code of Federal Regulations (29CFR1910), *Control of Hazardous Energy Source (Lockout/Tagout)*.

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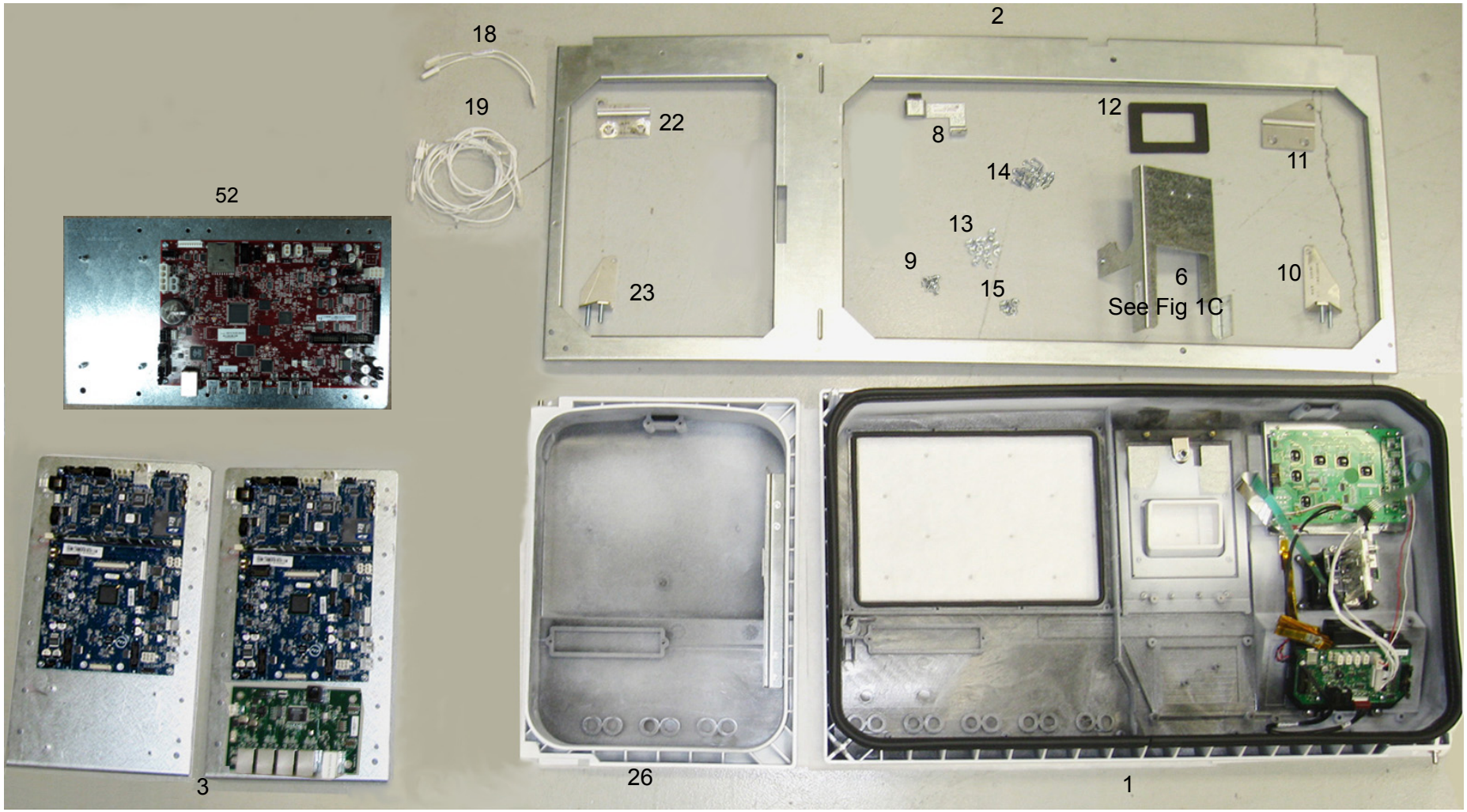


FIGURE 1A 2V WIDE Body Parts. ***ADDITIONAL PARTS IN KIT ARE SHOWN IN FIGURE 1D.***

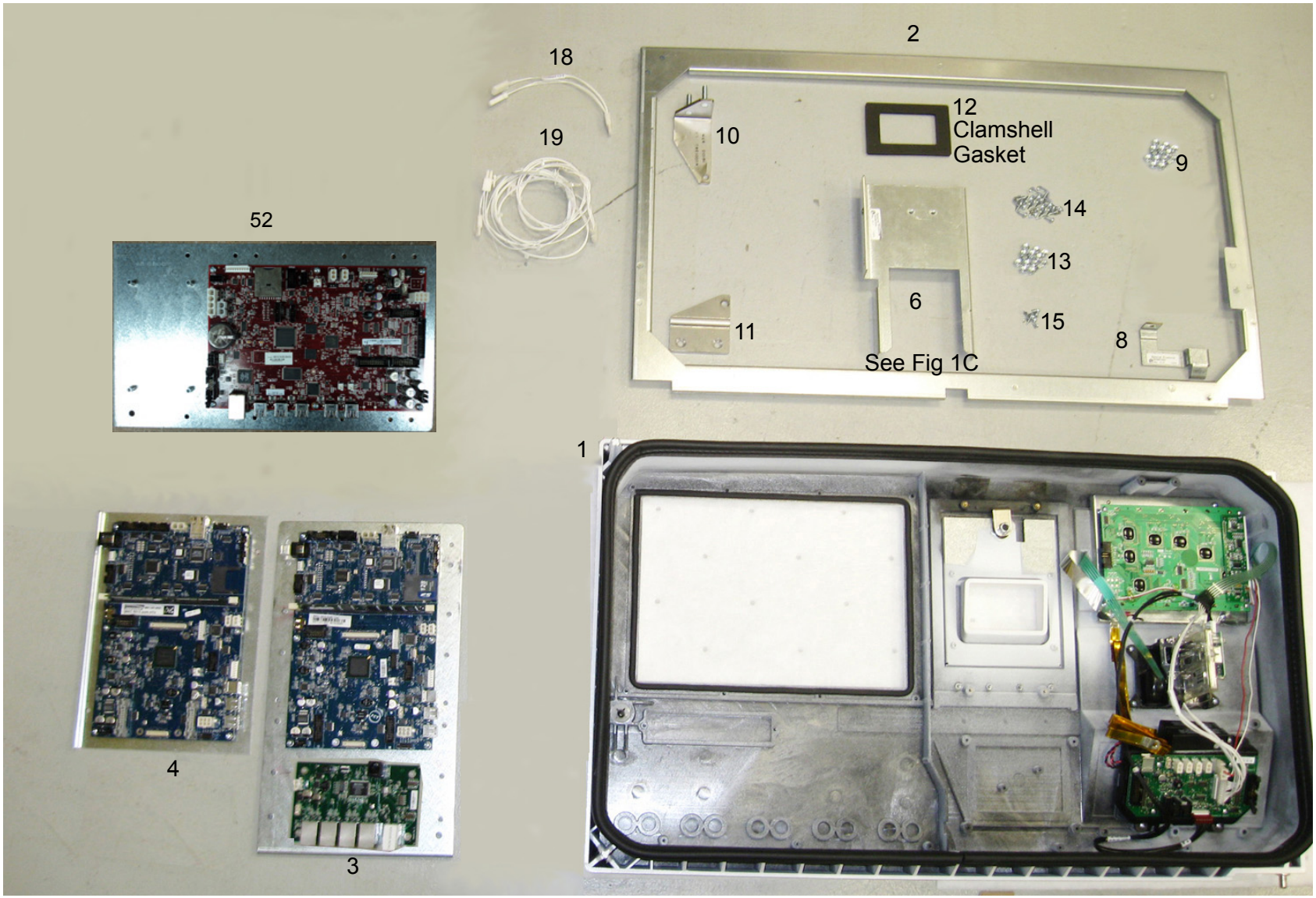
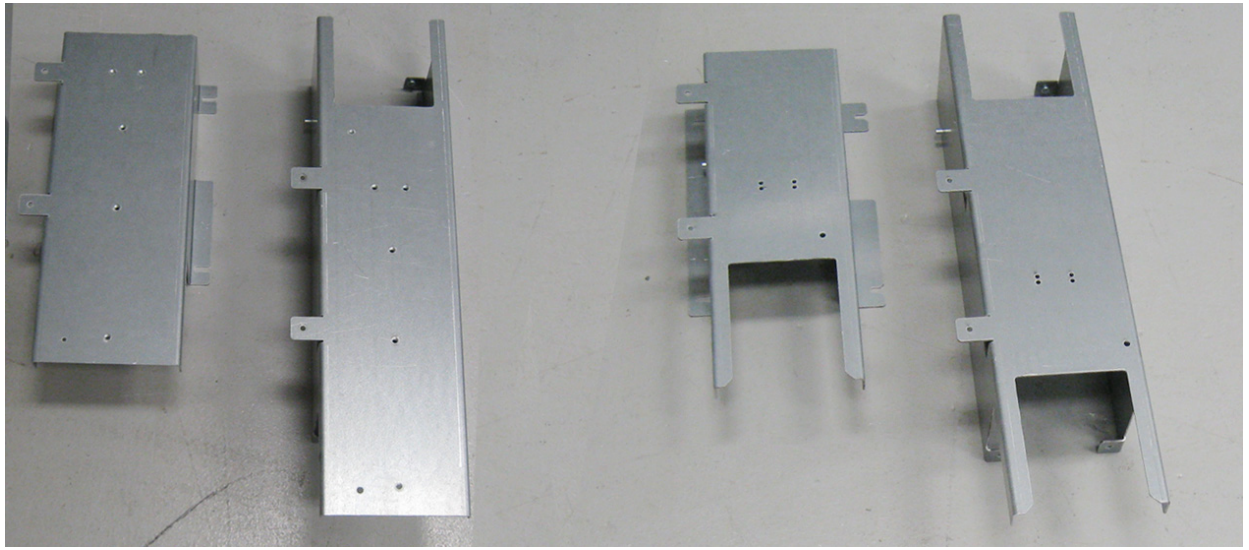


FIGURE 1B 2V NARROW BODY PARTS. ***ADDITIONAL PARTS IN KIT ARE SHOWN IN FIGURE 1D.***



Narrow Body WU001573 Wide Body WU001571 TEAR BAR*

Narrow Body WU001899 Wide Body WU001767 CLAMSHELL*

FIGURE 1C PRINTER BRACKETS (ITEM 6)

***NOTE: THE PRINTER BRACKET FOR DISPENSER SIDE 1 WILL BE PRE-ASSEMBLED WITH THE POWER SUPPLY AND THE DC DISTRIBUTION BOARD AS SHOWN BELOW.**

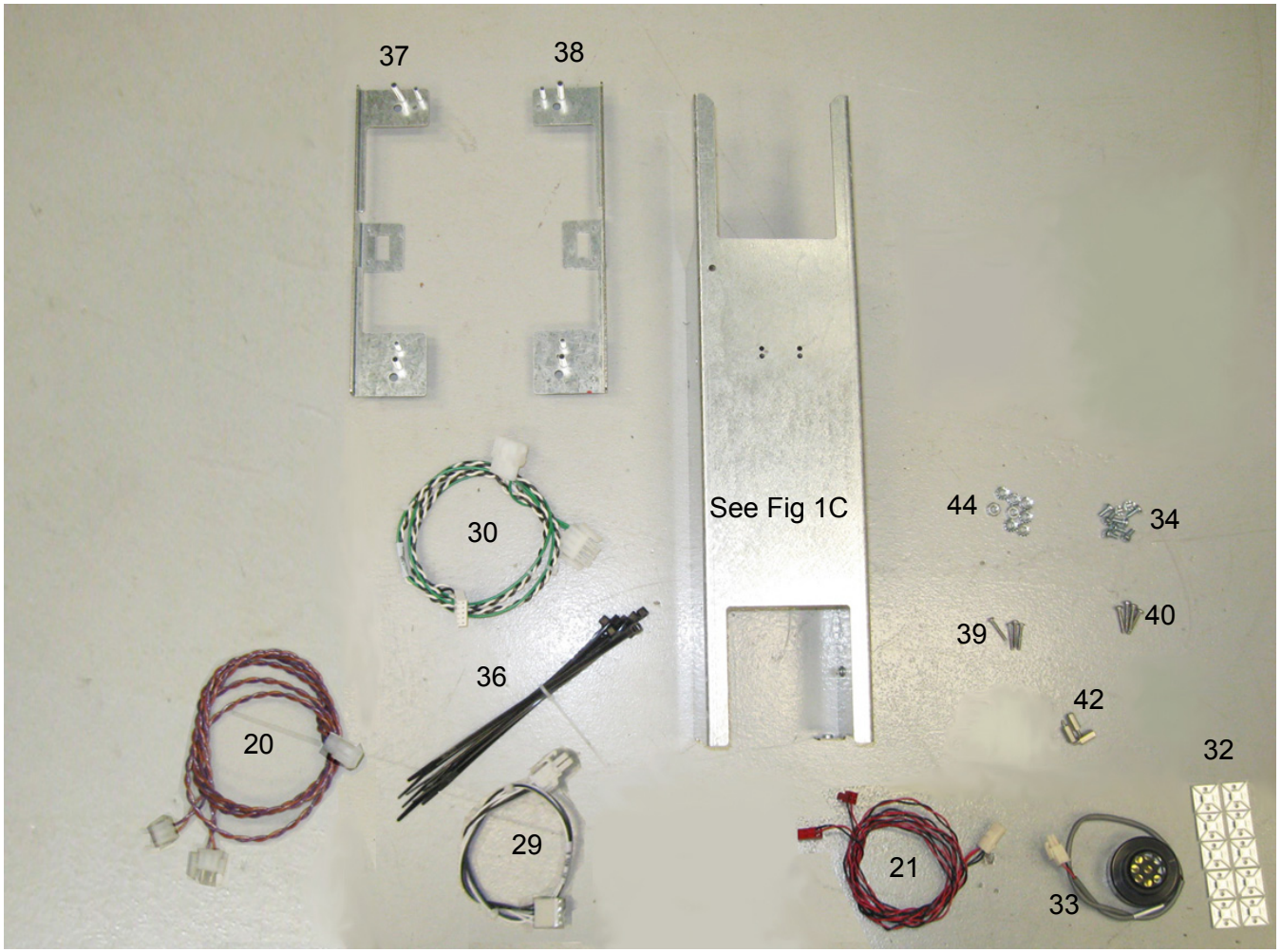


FIGURE 1D ADDITIONAL PARTS IN 2V NARROW AND WIDE BODY KITS

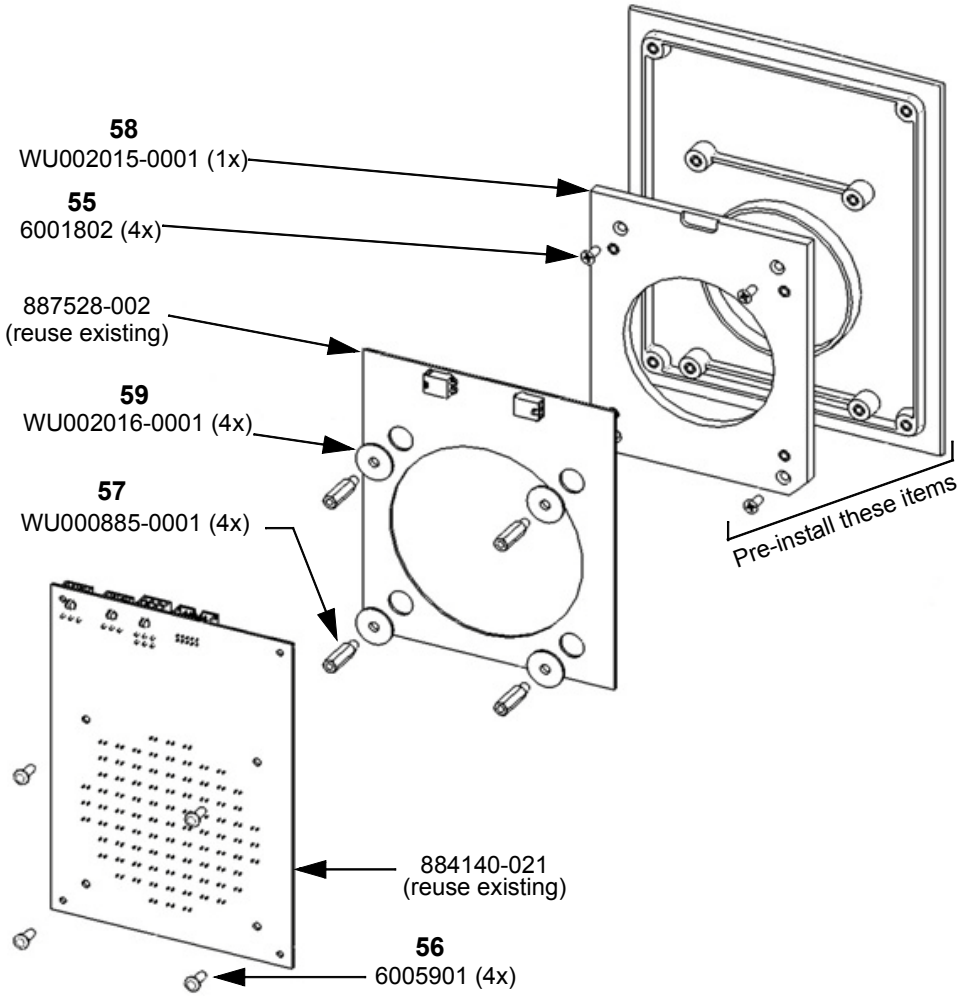


FIGURE 1E OPTIONAL SPEEDPASS (TRAC) COMPONENTS AND ASSEMBLY

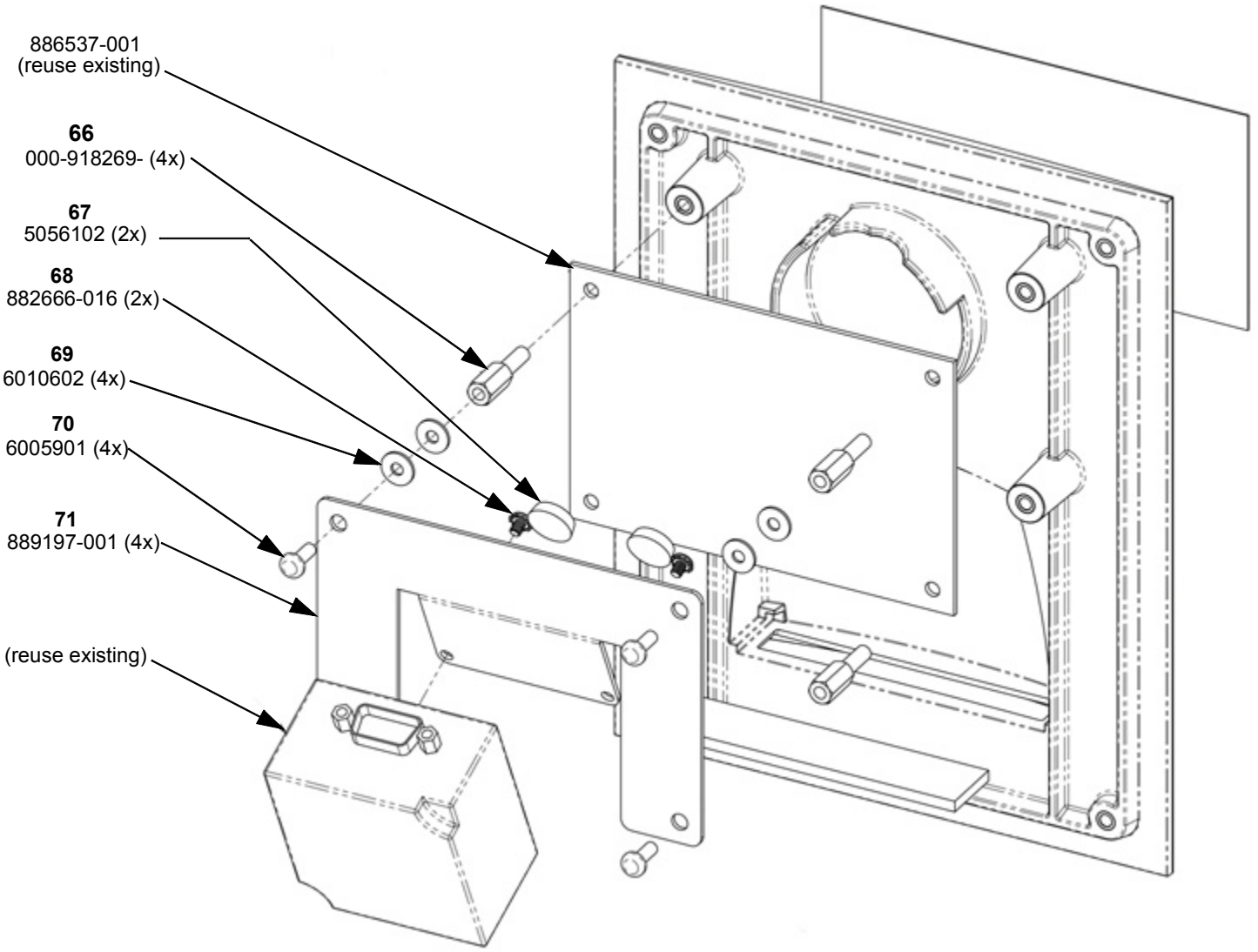


FIGURE 1F OPTIONAL SCAN COMPONENTS AND ASSEMBLY (OPTION 1)

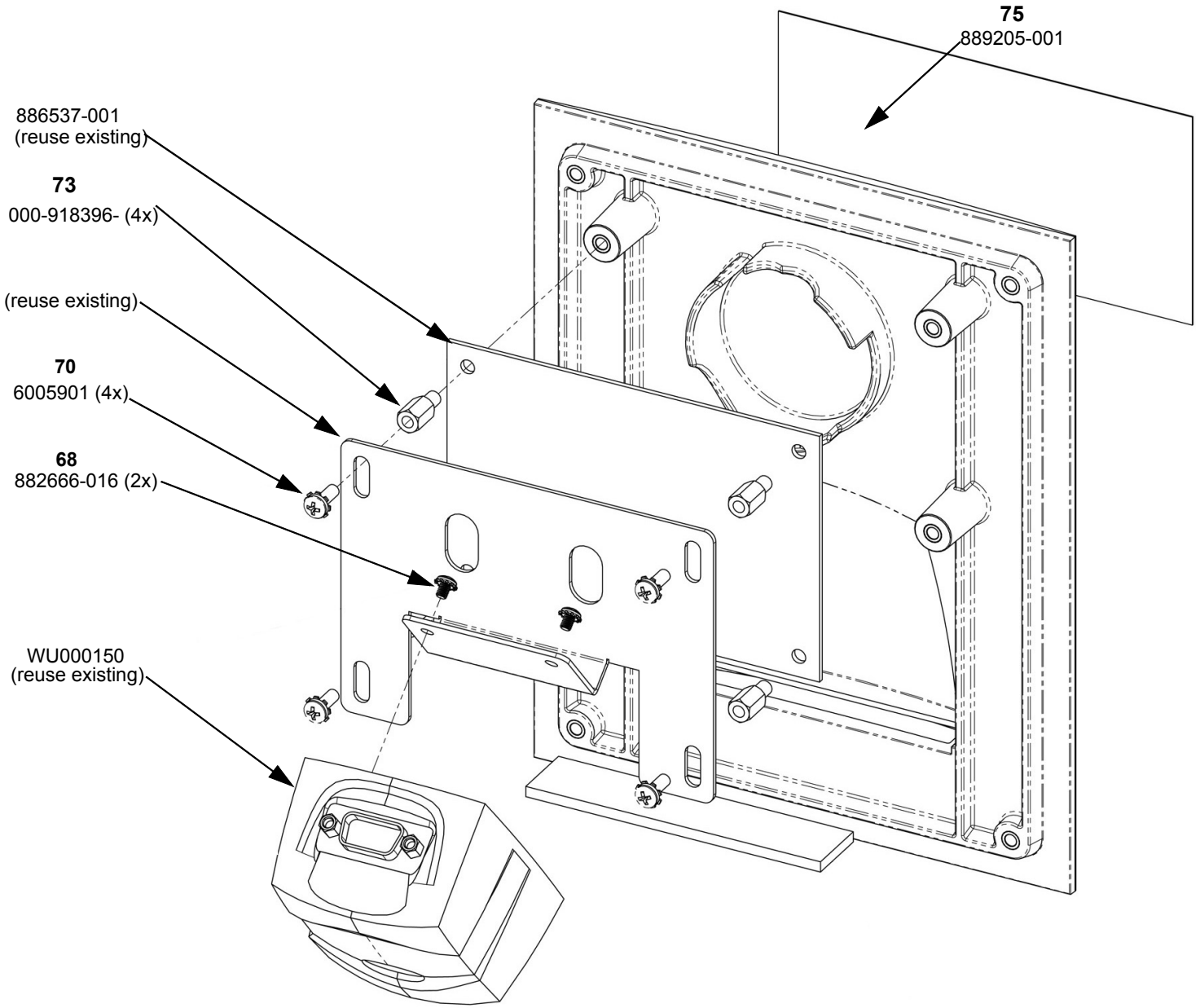


FIGURE 1G OPTIONAL SCAN COMPONENTS AND ASSEMBLY (OPTION 2)

Prior to installation, inspect the kit and ensure that it contains all the required parts as listed in Table 1.

Table 1 Parts Included in the Kit(s)

Part Number	Item No.	Description	Kit Qty Dual Sided Narrow - for Models 2V/x8xx	Kit Qty Dual Sided Wide - for Models 2V/x9xx	Kit Qty Single Sided Narrow - for Models 2V/x8xx	Kit Qty Single Sided Wide - for Models 2V/x9xx
WU000544	**1**	Main Bezel	2	2	1	1
WU003495-0001	**2**	Small bezel adapter plate	2		1	
WU002342-0001	**2**	Large bezel adapter plate		2		1
WU002340-0001	**3**	Large iX bracket	1	2	1	1
WU002341-0001	**4**	Small iX bracket	1			
WU001899	**6** see Fig 1C	Printer Bracket Clam Shell - Narrow Models C in 2nd Suffix	1			
WU002338-0001		Printer Bracket/ Power Supply Assembly Clam Shell - Narrow Models C in 2nd Suffix	1		1	
WU001767	**6** see Fig 1C	Printer Bracket for Clam Shell - Wide Models C in 2nd Suffix		1		
WU002339-0001		Printer Bracket/ Power Supply Assembly Clam Shell - Wide Models C in 2nd Suffix		1		1
WU001573	**6** see Fig 1C	Printer Bracket for Tear Bar - Narrow Models T in 2nd Suffix	1			
WU002335-0001		Printer Bracket/ Power Supply Assembly Tear Bar - Narrow Models T in 2nd Suffix	1		1	
WU001571	**6** see Fig 1C	Printer Bracket for Tear Bar - Wide Models T in 2nd Suffix	0	1		
WU002337-0001		Printer Bracket/ Power Supply Assembly Tear Bar - Wide Models T in 2nd Suffix		1		1
WU001503	**8**	Bezel ramp	2	2	1	1
6019404	**9**	#10 Nut	8	8	4	4
WU001360	**10**	Upper hinge - Left	2	2	1	1
WU001362	**11**	Lower hinge - Left	2	2	1	1
889784-001	**12**	Printer seal gasket Clamshell only	2	2	1	1
889784-002	**12**	Printer seal gasket Tearbar only	2	2	1	1
6019403	**13**	#8 Nuts	20	20	10	10

Table 1 Parts Included in the Kit(s)

6005901	**14**	#6 Screw 3/8	32	32	16	16
000-918935-	**15**	8-32, 1/4 for printer copper spring	7	7	4	4
WU001565-0001	**18**	Y Jumper cable	1	1	1	1
892369-002	**19**	Y cable DC to ea iX	1	1	1	1
WU002091-0001	**20**	Y cable Data Link (RS485) cable	1	1	1	1
WU002090-0001	**21**	Y Annunicator cable	1	1	1	1
WU001366	**22**	Lower hinge -Right		2		1
WU001364	**23**	Upper hinge -Right		2		1
WU000972	**26**	Right bezel		2		1
887338-002	**29**	Cable power supply to DC Dist	1	1	1	1
WU001942-0001	**30**	Cable power Y	1	1	1	1
887047-001	**31** not shown	Cable PTS to DEM	2	2	1	1
5057301	**32**	Cable Tie Holder	10	10	5	
886495-001	**33**	Annunicator	1	1	1	1
6005909	**34**	#8 Screw 3/8	30	30	15	15
000-916486-	**36**	Cable Ties	10	10	5	5
WU001551	**37**	Display Adapter Bracket, Left	2	2	1	1
WU001553	**38**	Display Adapter Bracket, Right	2	2	1	1
882872-015	**39**	#4 Screw 1/2	12	12	6	6
6005903	**40**	#6 Screw 3/4	8	8	4	4
5001901	**42**	Metal Standoff	8	8	4	4
6001902	**43** not shown	#8 Screw, Flat 3/4	4	4	4	2
000-918210-	**44** not shown	1/4-20 Nut	8	12	4	6
888352-001	**45** not shown	Plastic Rivet (Totalizer)	16	16	8	8
000-916760-	**46** not shown	#8 x 1/2 Screw	16	16	8	8

Table 1 Parts Included in the Kit(s)

000-507667-	**47** not shown	1/4-20 Screw	8	8	4	4
882941-xxx	**50** not shown	Softkey Blank Covers	4	4	2	2
WU940022	not shown	Installation Manual	1	1	1	1
WU0002340-0002	**52**	Large iX Bracket (W/ R2 (Red) Board)	1	1	1	1
886034-001	**53** Fig. 18	T-Bracket (Optional *TRAC*)		2		1
6032301	**54** not shown	8-32 X 3/8 Screws (Optional *TRAC*)		4		2
6001802	**55** See Fig1E	6-32 X 3/8 Screw (Optional *TRAC*)		8		4
6005901	**56** See Fig1E	6-32 X 3/8 Screw (Optional *TRAC*)		8		4
WU000885-0001	**57** See Fig1E	6-32 X .250 X .750 Hex Standoff (Optional *TRAC*)		8		4
WU002015-0001	**58** See Fig1E	Housing Bezel Mount (Optional *TRAC*)		2		1
WU002016-0001	**59** See Fig1E	#6 Nylon Washer (Optional *TRAC*)		8		4
000-507868-	**60** not shown	8-32 Nut (Optional *TRAC & SCAN*)		4		2
000-913632-	**61** not shown	#10 Washer (Optional *TRAC & SCAN*)		4		2
000-916486-	**62** not shown	Cable Tie (Optional *TRAC & SCAN*)		4		2
000-918066-	**63** not shown	Clamp (Optional *TRAC & SCAN*)		4		2
000-918137-	**64** not shown	8-32 X 1/2 Screw (Optional *TRAC & SCAN*)		2		1

Table 1 Parts Included in the Kit(s)

WU001629-0001	**65** not shown	Flex Tube (Optional *TRAC & SCAN*)		4		2
000-918269-	**66** See Fig 1F	6-32 X .500 X .250 Standoff (Optional *SCAN*)		8		4
5056102	**67** See Fig 1F	Bumper (Optional *SCAN*)		4		2
882666-016	**68** See Fig 1F	M3 X 4 Screw (Optional *SCAN*)		4		2
6010602	**69** See Fig 1F	# 6 Washer (Optional *SCAN*)		8		4
6005901	**70** See Fig 1F	6-32 X 3/8 Screw (Optional *SCAN*)		4		2
889197-001	**71** See Fig1F	Scanner Mounting Bracket (Optional *SCAN*)		2		1
000-918396-	**73**	6-32 X 3/8 Hex Standoff (Optional *SCAN*)		8		4
886486-006	**74** not shown	Cable, 10-Pin (Optional *SCAN*)		2		1
889205-001	**75**	Decal, Laser Warning (Optional *SCAN*)		2		1

2 INSTALLATION Note: Adhere to the safety precautions listed in Section 1.3

WARNING: DO NOT USE POWER TOOLS WHEN WORKING IN THE HAZARDOUS ZONE.

2.1 Installation Instructions For 2/V Wide Body

1. Turn off power to the dispenser.

2. Unlock and remove the hydraulic cabinet doors.

3. A. Unlock and lower the bezels on both sides of the dispenser.
   B. Disconnect the Push-to-Start, graphics display and annunicator cables from the bezels, Figure 2.
   C. Set bezels aside for now for reusing the display glass and bracket.

4. Loosen two flathead screws securing sales display (DEM) to the head frame. The two screws are located above the DEM, Figure 3. Lower the DEM. Repeat on side 2.

5. Disconnect control power and light power inside the electronic head. Figure 4.

6. On the Duplex computer, Figure 5A, disconnect J4 and the AC power connector J3, loosen the two side screws on the DEM, and raise the Duplex computer to gain access to the cash/credit board Figure 5B, then disconnect power connector J3.

7. Starting on side 1:

   A. Remove existing bezel hinges on the dispenser. (Use 7mm Allen on top and 7/16 hex on bottom nut.) Figure 3. Discard hinges and hardware.

   B. On the head chassis at the bottom right of sales display, remove left screw and nut securing the EMI filter, Figure 6. Discard nut and screw. The EMI filter will be re-secured later when the bezel adapter plate is installed.

   C. If totalizers are present, disconnect the totalizer cables and remove and save the totalizers. Discard bracket, screws and cable which goes to the Cash/Credit board.

   D. Remove and discard drip tray from head chassis if present.

8. Remove CAT board harness and board, Figure 8, as follows:
   A. Disconnect all cables/harness from Dual CAT board (887448-001) (or Legacy CAT boards 883970-001).

   B. Remove four Phillips screws and remove board(s). Discard the #8 screws, new ones are provided. Discard/save board as per site scope of work/customer requirements.

   C. Separate printer power cable from the harness. Figure 9.

D. At the opposite end of the harness, disconnect the cables from the cash/credit boards J5, the Duplex computer J13 and J14, and the DL/RS485 connector at the vapor barrier potted fitting.

E. Discard the harness.

9. A. Disconnect data and power cables from the back of the printer, Figure 10. Discard data cable.

B. Release the printer latch and remove and save printer.

10. On the existing printer bracket, perform the following:

A. *If Trac Option* - Without disconnecting any cables, remove and save Trac board and screws from printer bracket and set aside for later use.

B. Remove and save the (4) screws (2x) on front and back of the printer bracket then remove bracket.

C. Remove the two screws securing the copper spring (883757-001) to the bracket. Remove and save the spring. Discard the two screws.

D. If Tear Bar printer, remove and discard (3) screws on the slide rail, then remove and save slide rail, Figure 11.

If Clamshell printer, remove and save the latch (887650-001) from the printer bracket.

E. Discard the printer bracket.

F. *If Trac Option* - Install 1 new T-bracket (886034-001) on side A only, using 2 screws (6032301) (Figure 18).

G. *If Trac Option* - Install Trac board on T-bracket using existing hardware (Figure 19).

11. Install the copper spring, saved above, onto (1) new (item 6) Printer Bracket using (2) #8x1/4 screws (000-918935-). Note: For side 1 the new bracket includes the Power Supply and the DC Dist boards as shown in Figure 1C.

12. If Tear Bar printer, install the slide rail onto the new printer bracket using (3) #8x1/4 screws (000-918935-).

If Clamshell printer, install printer latch, saved above, onto the new printer bracket using (2) #4 screws (882872-015).

13. Install the new Printer Bracket reusing the (4) screws saved from the old bracket. Note: Remove ground screw from chassis to mount bracket then re-secure ground underneath bracket screw.

14. Reinstall printer.

A. Reconnect the existing power cable to back of printer.

B. For Clamshell printer, remove the existing printer gasket from the printer and clean off all gasket residue and install new Printer Gasket (889784-001).

C. For Tearbar printer, remove the existing printer gasket from the printer and clean off all gasket residue and install new Printer Gasket (889784-002)

15. Raise and lower the DEM as necessary during the installation of the bezel adapter plate in the following step.

16. Install Bezel Adapter Plate (WU002342-0001) to the head frame using (7) # 8 nuts (6019403) on back of the adapter plate, Figure 12. Use 11/32 Hex nut driver to secure nuts.

17. Install #8 Screw flathead (6001902) through the adapter plate and EMI filter and re-secure with # 8 nut (6019403). If the EMI filter's ground was disconnected here, re-secure it under the nut.

18. Install (1) Bezel Ramp (WU001503) to Adapter plate using (1) #8x3/8 screw (6005909).

19. Install (1) Left Upper Hinge (WU001360) to Adapter plate using (2) 10-32 Nuts (6019404), Figure 13.

20. Install (1) Left Lower Hinge (WU001362) to head chassis using (2) existing 1/4 hardware saved from the old hinges in step 3 or use (2) new screws (000-507667-) and nuts (000-918210-), Figure 14. NOTE: Leave hinge loose so bezel will install easier.

21. Install (1) Right Upper Hinge (WU001364) to Adapter plate using (2) 10-32 Nuts (6019404).

22. Install Right Lower Hinge (WU001366) to head chassis using (2) existing 1/4 hardware saved from the old hinges in step 3 or use (2) new screws (000-507667-) and nuts (000-918210-). NOTE: Leave hinge loose so right bezel will install easier.

23. IF BLUE BOARDS - Install (2) iX Brackets (WU002340-0001) inside the electronic head using (4 per bracket) #8 screws (6005909). The second bracket mounts the same on the opposite side column. Figure 16 shows the bracket completely installed.

    IF R2 (RED) BOARD - Install (1) large iX Bracket (WU002340-0002) inside the electronic head using (4) #8 screws (6005909). Figure 17 shows the bracket completely installed.

24. Lay the new Main Bezel (WU000544) face down on a flat surface. Use protective pads, etc., to ensure that the front of the bezel does not get scratched.

25. Install Main Bezel onto the dispenser by inserting top bezel hinge pin into the Left Upper Hinge and sliding the bottom bezel pin into the Left Lower Hinge, then tighten the nuts on the lower hinge.

    Note: Secure the bezel steel stop cable to head frame to prevent bezel from swinging open to far. This will stop the left side of bezel from scratching against the side column.

26. Install Right Bezel (WU000972) onto dispenser, upper hinge first then lower hinge, and tighten the nuts on the lower hinge.

    From the Main Bezel harness, connect the cables as explained in the following steps:

27. Connect Printer Data Cable (888794-003 for Clamshell or WU001926 for Tearbar) to the printer. This cable now comes from the SPM board. NOTE: The Tearbar cable has on in-line circuit board to convert TTL to RS-232-compatible logic levels. Also, answer *YES* to the Tearbard screen prompt at Startup to allow for communications between the Tearbar 38400 fixed baud and the 115 baud iX.

28. IF BLUE BOARD - Connect the QVGA cable (888798-004) to the iX board J20 (Port 1).

    IF R2 (RED) BOARD - Connect the QVGA cable (888798-004) to the iX board J24 for Side A and J23 for Side B.

29. IF BLUE BOARD - Connect the USB cable (892139-003) to the “USB 1” connector on the iX Board.

    IF R2 (RED) BOARD - Connect the USB cable (892139-003) to iX Board J27 for Side A and J28 for Side B.

30. From the bezel PTS harness, connect the 15-pin PTS to the existing 15-pin on the DEM frame (cable 887047-001) which connects to the the cash/credit board. (Connect the red cable of the bezel PTS harness to J4 on the Cash Credit Board and connect the white cable to J5). If this cable (887047-001) is not present, install one from the kit that is included as a spare. Route wires under the printer bracket.

31. Connect the following cables:

    A. (1) new Y Jumper cable (WU001565-0001) to any of the 2-pin connectors on the DC Dist board.

    B. 2-pin DC power cable (890680-003) coming from the bezel harness to one leg of the above Y Jumper cable.

32. If installing side 2 parts, connect DC power cable (890680-003) coming from the bezel to the other leg of the YJumper cable (WU001565-0001) previously installed at DC Dist board in step 32A above.

33. Secure the SPM ground strap under the lower left nut on the back of the bezel adapter plate.

34. IF BLUE BOARD - Connect the Y-jumper cable (892369-002) to any of the spare 2-pin connectors on the DC Dist board and to both iX boards (6-pin Power).

    IF R2 (RED) BOARD - Connect the Y-jumper cable (892369-002) to any of the spare 2-pin connectors on the DC Dist board and to the iX board (6-pin Power).

35. IF BLUE BOARD - Connect the Data Link /RS485 Y cable (WU002091-0001) to the RS485 connector from the vapor barrier potted fitting and to both iX boards (J19 Port #3).
    Route one leg of the Y cable underneath the printer bracket to reach the opposite side.

    IF R2 (RED) BOARD - Connect the Data Link /RS485 Y cable (WU002091-0001) to the RS485 connector from the vapor barrier potted fitting and to iX board (J17 Port #3).

36. Unscrew the cover on the new Annunciator (886495-001) insert into the hole in printer bracket and resecure cover.

37. IF BLUE BOARD - Connect Annunciator Y cable (WU002090-0001) to the Annunciator and to both iX boards (J18 Annunciator). Route one leg of the Y cable underneath the printer bracket for opposite side iX.

    IF R2 (RED) BOARD - Connect Annunciator Y cable (WU002090-0001) to the Annunciator and to iX board (J5 Annunciator).

38. Connect the Power Y jumper cable (WU001942-0001) to J3 on the Cash/Credit board. Reconnect the AC connector previously installed in J3 to the Y cable and connect the opposite end of the Y cable to the 3-pin connector on the new power supply.

39. Connect DC Power Cable (887338-002) to the 4-pin connector on the Power Supply and to the DC Dist board J1(4-pin) connector.

40. Optional Totalizers:

    A. If there were existing totalizers, remove the totalizers from the bracket saved in step 7C
    and install the totalizers onto the bezel totalizer bracket, Figure 15. Use new Plastic Rivets
    (888352-001) as needed. Discard old bracket and screws.

    B. Connect the totalizer cable (883579-007) supplied with the bezel to the totalizers and to the cash credit board J7.

41. Optional *TRAC*:

    ON OLD BEZEL:

    A. Disconnect cable from Antenna (884142-003) and discard Antenna.

    B. Remove light board (884140-021) and save for later use.

    C. Remove and discard light retainer (886895-001).

    D. Disconnect cable from Antenna (887528-002).

    E. Remove and save Antenna PCB assembly (887528-002) and remove and discard screws (6005910).

    ON NEW BEZEL (Refer to Figure 1E):

    F. Re-mount existing antenna (887528-002) to right bezel door (WU000975-0003) using 4 standoffs (WU000885-0001) and 4 washers (WU002016-0001) (Figure 20).

    G. Reconnect existing trac cables to light board (Figure 21):
    - 886012-008 - J1

- 884237-003 - J3
- 884148-003 - J5

H. Reconnect cable from Light board to Antenna J1 (Figure 20).

I. Remove and discard jumper on **JP1** from Antenna (Figure 20).

J. Mount existing Light board to standoffs on Antenna using 4 screws (6005901) (Figure 22).

K. Place flex tube WU001629-001) over cables and tie wrap flex tube using 2 Tie wraps (000-916486-).

L. Clamp cable harness to dispenser using 1 clamp (000-918066-), 1 screw (000-918137-), 1 washer (000-913632-), and 1 nut (000-507868-) (Figures 23 & 24).

42. Optional *SCAN (Options 1 & 2)*:

ON OLD BEZEL:

A. (On Options 1 & 2) Disconnect Scanner cable from inside dispenser (Figure 25).

B. (On Options 1 & 2) Remove 4 screws holding existing Totalizer Bracket (Figure 26).

C. (On Options 1 & 2) Remove 3 screws holding the Scanner Assembly Bezel (Figure 26).

D. (On Options 1 *& 2*) Remove Scanner bracket from Scanner Assembly Bezel (Figure 27).

E. (On Options 1 & 2) Disconnect Scanner cable from scanner and save 2 screws (Figure 27).

F. (On Option 1 *only*) Remove and save Scanner (Figure 27).

G. (On Options 1 & 2) Remove and save Light board (Figure 27).

ON NEW BEZEL: (Refer to Figure 1F)

H. (On Options 1 & 2) Transfer Light board to Right Door Bezel (WU000975-0002) using 4 Standoffs (000-918269-for Option 1 or 000-918396- for Option 2) (Figure 28).

I. (On Options 1 & 2)Remove and discard Scanner Cable (886575-002) and replace with new Scanner Cable (886484-006).

J. (On Option 1 *only*) Install 2 Bumbers (5056102) onto new Scanner Bracket (889197-001) (Figure 29) .

K. (On Option 1 only) Install existing Scanner onto new Scanner Bracket (889197-001) using 2 Screws (882666-016) (Figure 30).

L. (On Option 1 *only*) Mount Scanner Bracket assembly onto Standoffs (000-918269-). Place 2 Screws (6005901) through top of assembly with 4 flat washers (2 each behind panel of assembly) (Figure 31).

(On Option 2 *only*) Mount Scanner Bracket assembly onto Standoffs (000-918369-) using 4 Screws (6005901).

M. (On Option 1 *only*) Install other 2 screws on bottom of assembly and install onto standoffs (Figure 31).

N. (On Options 1 & 2) Reconnect Scanner cable to top of scanner using 2 previously-saved screws (Figure 32). (Refer to Figure 33 for *SCAN* installed)

O. Place flex tube WU001629-001) over cables and tie wrap flex tube using 2 Tie wraps (000-916486-).

P. Clamp cable harness to dispenser using 1 clamp (000-918066-), 1 screw (000-918137-), 1 washer (000-913632-), and 1 nut (000-507868-) (Figures 32 & 33).

Q. Route new Scanner cable (886484-006) through the dispenser and install it to the SPM on connector J15 (Figure 34).

43. Reconnect control power and light power inside the electronic head.

44. Secure the Duplex computer assembly to the DEM, connect sides 1 and 2 annunicators to J13 and J14 on the Duplex computer and reconnect J10 and AC power J3.

45. Raise DEM and secure in the up position.

46. Perform the following to install the Display Adapter Brackets (WU001551) left and (WU001553) right:

A. Loosen the (4) screws holding the sales display dial face, then remove and save dial face.

B. Disconnect display cable then remove the (4) screws holding the display board, remove board and set aside.

C. Remove and save the (4) screws holding the backlight panel, then set panel aside.

D. Remove and save the (2) backlights and remove and save the white backlight dish.

For some models detach the light holder clipped onto the brackets, then skip steps E and F below.

E. Remove and save the (2) screws holding each of the light holder, discard nuts, save screws.

F. Remove and discard the (2) brackets and one each screw holding the light holder.

G. Install (4) Metal Standoffs (5001901) onto the existing display bracket.

H. Install (1) Display Adapter Bracket, Left (WU001551) on top of the left standoffs reusing the (4) screws save previously.

I. Repeat above step for (1) Display Adapter Bracket, Right (WU001553).

J. Reinstall the (2) light boxes reusing (4) screws saved above.

K. Reinstall the white backlight dish and reinstall the (2) backlights saved above. Note: If bulbs are old or burned-out, replace as necessary.

L. Reinstall the light panel saved above using (4) #4 Screws 882872-015.

M. Reinstall the sales display board saved above using (4) #6 Screws 6005903 and reconnect the cable to the upper left side of board.

N. Reinstall the dial face saved above onto the sales display board.

47. Bundle and tie wrap all cables where possible, using Holder (5057301) and Cable Ties (001-916486-).

48. Ensure all ground wires inside the head are secured to the chassis.

49. Ensure all cables are inside the head and bezel.

50. Close and lock bezel.

51. If POS does not use the softkeys on the QVGA display (if old TRSM keypad did not have softkeys), cover the keys with 882941-xxx Soft Key Blank Covers.

52. Repeat instruction steps 7, 9-22, 24-29, 32-33, 40, and 44-49 for side 2 of the dispenser.

53. Turn power on to the dispenser.

54. Verify SPM and dispenser operation. Refer to Startup and Service manual 940014 for starting up the SPM.

3 INSTALLATION Note: Adhere to the safety precautions listed in Section 1.3

WARNING: DO NOT USE POWER TOOLS WHEN WORKING IN THE HAZARDOUS ZONE.

3.1 Installation Instructions For 2/V Narrow Body

1. Turn off power to the dispenser.

2. Unlock and remove the hydraulic cabinet doors.

3. A. Unlock and lower the bezels on both sides of the dispenser.
   B. Disconnect the Push-to-Start, graphics display and annunicator cables from the bezels, Figure 2.
   C. Set bezels aside for now for reusing the display glass and bracket.

4. Loosen two flathead screws securing sales display (DEM) to the head frame. The two screws are located above the DEM, Figure 3. Lower the DEM. Repeat on side 2.

5. Disconnect control and light power inside the electronic head.

6. On the Duplex computer, Figure 5A, disconnect J10 and the AC power connector J3, loosen the two side screws on the DEM, and raise the Duplex computer to gain access to the cash/credit board Figure 5B, then disconnect power connector J3.

7. Starting on side 1:

   A. Remove existing bezel hinges on the dispenser. (Use 7mm Allen on top and 7/16 hex on bottom nut.) Figure 3. Discard hinges and hardware.

   B. On the head chassis at the bottom right of sales display, remove left screw and nut securing the EMI filter, Figure 6. Discard nut and screw. The EMI filter will be re-secured later when the bezel adapter plate is installed.

   C. If totalizers are present, disconnect the totalizer cables and remove and save the totalizers. Discard bracket, screws and cable which goes to the Cash/Credit board.

   D. Remove and discard drip tray from head chassis if present.

8. Remove CAT board harness and board, Figure 8, as follows:
   A. Disconnect all cables/harness from Dual CAT board (887448-001) (or Legacy CAT boards 883970-001).

B. Remove four Phillips screws and remove board(s). Discard the #8 screws, new ones are provided. Discard/save board as per site scope of work/customer requirements.

C. Separate printer power cable from the harness. Figure 9.

D. At the opposite end of the harness, disconnect the cables from the cash/credit boards J5, the Duplex computer J13 and J14, and the DL/RS485 connector at the vapor barrier potted fitting.

E. Discard the harness.

9. A. Disconnect data and power cables from the back of the printer, Figure 10. Discard data cable.

B. Release the printer latch (on Clamshell bracket or Tear Bar slide rail) and remove and save printer.

10. On the existing printer bracket, perform the following:

A. Remove and save the (4) screws (2x) on front and back of the printer bracket then remove bracket.

B. Remove the two screws securing the copper spring (883757-001) to the bracket. Remove and save the spring. Discard the two screws.

C. If Tear Bar printer, remove and discard (3) screws on the slide rail, then remove and save slide rail, Figure 11.

If Clamshell printer, remove and save the latch (887650-001) from the printer bracket.

D. Discard the printer bracket.

11. Install the copper spring, saved above, onto (1) new (item 6) Printer Bracket using (2) #8x1/4 screws (000-918935-). Note: For side 1 the new bracket includes the Power Supply and the DC Dist boards.

12. If Tear Bar printer, install the slide rail onto the new printer bracket using (3) #8x1/4 screws (000-918935-).

If Clamshell printer, install printer latch, saved above, onto the new printer bracket using (2) #4 screws (882872-015).

13. Install the new Printer Bracket reusing the (4) screws saved from the old bracket. Note: As necessary, remove ground screw from chassis to mount bracket then re-secure ground underneath bracket screw.

14. Raise and resecure the DEM.

15. A. Place Bezel Adapter Plate (WU003495-0001) onto the head frame without securing it and mark down the center of the two holes in upper left corner of the Adapter plate.

B. Remove Adapter plate and use a none sparking hole punch tool to punch two holes at these locations.

16. Raise and lower the DEM as necessary during the installation of the bezel adapter plate in the following step.

17. Install Bezel Adapter plate to the head frame using (5) # 8 nuts (6019403) on back of the adapter plate. Use 11/32 Hex nut driver to secure nuts.

18. Install (1) Bezel Ramp (WU001503) to Adapter plate using (1) #8x3/8 screw (6005909).

19. Install (1) Left Upper Hinge (WU001360) to Adapter plate using (2) 10-32 Nuts (6019404), Figure 13.

20. Install (1) Left Lower Hinge (WU001362) to head chassis using (2) existing 1/4 hardware saved from the old hinges in step 3 or use (2) new screws (000-507667-) and nuts (000-918210-), Figure 14. NOTE: Leave hinge loose so bezel will install easier.

21. IF BLUE BOARDS - A.Install the (side 1) Large iX Bracket (WU002340-0001) inside the electronic head on left inner column using (4) #8x3/8 screws (6005909). Figure 16 shows the bracket completely installed.

    B. Install the (side 2) Small iX Bracket (WU002341-0001) inside the electronic head on left inner column using (4) #8x3/8 screws (6005909).

    IF RED BOARD - Install one iX Bracket (WU002340-0002) inside the electronic head on left inner column using (4) #8 screws (6005909). Figure 17 shows the bracket completely installed.

22. Reinstall printer.

    A. Reconnect the existing power cable to back of printer.

    B. For Clamshell printer only, remove the existing printer gasket from the printer and clean off all gasket residue and install new Printer Gasket (888687-001).

    C. For Tearbar printer, remove the existing printer gasket from the printer and clean off all gasket residue and install new Printer Gasket (889784-002)

23. Lay the new Main Bezel (WU000544) face down on a flat surface. Use protective pads, etc., to ensure that the front of the bezel does not get scratched.

24. Install Main Bezel onto the dispenser by inserting top bezel hinge pin into the Left Upper Hinge and sliding the bottom bezel pin into the Left Lower Hinge, then tighten the nuts on the lower hinge.

Note: Secure the bezel steel stop cable to head frame to prevent bezel from swinging open to far. This will stop the left side of bezel from scratching against the side column.

From the Main Bezel harness, connect the cables as explained in the following steps:

25. Connect Printer Data Cable (888794-003 for Clamshell or WU001926 for Tearbar) to the printer. This cable now comes from the SPM board. NOTE: The Tearbar cable has on in-line circuit board to convert TTL to RS-232-compatible logic levels. Also, answer *YES* to the Tearbard screen prompt at Startup to allow for communications between the Tearbar 38400 fixed baud and the 115 baud iX.

26. IF BLUE BOARD - Connect the QVGA Cable (888798-003) to the iX board J20 (Port 1).

    IF R2 (RED) BOARD - Connect the QVGA Cable (888798-003) to the iX board J24 for Side A and J23 for Side B.

27. IF BLUE BOARD - Connect the USB Cable (892139-002) to the “USB 1” connector on the iX Board.

    IF R2 (RED) BOARD - Connect the USB Cable (892139-002) to the iX Board J27 for Side A and J28 for Side B.

28. From the bezel PTS harness, connect the 15-pin PTS to the existing 15-pin on the DEM frame (cable 887047-001) which connects to the the cash/credit board. (Connect the red cable of the bezel PTS harness to J4 on the Cash Credit Board and connect the white cable to J5). If this cable (887047-001) is not present, install one from the kit that is included as a spare. Route wires under the printer bracket.

29. Connect the following cables:

    A. Connect (1) new Y Jumper cable (WU001565-0001) to either of the 2-pin connectors on the DC Dist board.

    B. Connect the 2-pin DC power cable (890680-003) coming from the bezel harness to one leg of the above Y Jumper cable.

30. If installing side 2 parts, connect DC power cable (890680-003) coming from the bezel to the other leg of the Y Jumper cable (WU001565-0001) previously installed at DC Dist board in step 30A above.

31. Secure the SPM ground strap under the lower left nut on the back of the bezel adapter plate.

32. IF BLUE BOARD - Connect new Y-jumper cable (892369-002) to either of the spare 2-pin connectors on the DC Dist board and to both iX boards (6-pin Power).

    IF R2 (RED) BOARD - Connect new Y-jumper cable (892369-002) to either of the spare 2-pin connectors on the DC Dist board and to iX board J11 (6-pin Power In).

33. IF BLUE BOARD - Connect the DL/RS485 Y cable (WU002091-0001) to the RS485 connector from the vapor barrier potted fitting and to both iX boards (J19 Port #3). Route one leg of the Y cable underneath the printer bracket to reach the opposite side.

IF R2 (RED) BOARD - Connect the DL/RS485 Y cable (WU002091-0001) to the RS485 connector from the vapor barrier potted fitting and iX board J17.

34. Unscrew the cover on the new Annunciator (886495-001) insert into the hole in printer bracket and re-secure cover.

35. Connect Annunciator Y cable (WU002090-0001) to the Annunciator and to both iX boards (J18 Annunciator). Route one leg of the Y cable underneath the printer bracket for opposite side iX.

36. Connect the Power Y jumper cable (WU001942-0001) to J3 on the Cash/Credit board. Reconnect the AC connector previously installed in J3 to the Y cable and connect the opposite end of the Y cable to the 3-pin connector on the new power supply.

37. Connect DC Power Cable (887338-002) to the 4-pin connector on the Power Supply and to the DC Dist board J1(4-pin) connector.

38. Optional Totalizers:

    A. If totalizers were existing, remove the totalizers from the bracket saved in step 7C and install the totalizers onto the bezel totalizer bracket. Use new Plastic Rivets (888352-001) as needed. Discard old bracket and screws.

    B. Connect the totalizer cable (883579-007) supplied with the bezel harness to the totalizers and to the cash credit board J7.

39. Clamp cable harness to dispenser using 1 clamp (918066), 1 screw (918137), 1 washer (913632), and 1 nut (507868) (Figure 22).

40. Reconnect control power and light power inside the electronic head.

41. Secure the Duplex computer assembly to the DEM, connect sides 1 and 2 annunicators to J13 and J14 on the Duplex computer and reconnect J10 and AC power J3.

42. Raise DEM and secure in the up position.

43. Perform the following to install the Display Adapter Brackets (WU001551) left and (WU001553) right.

    A. Loosen the (4) screws holding the sales display dial face, then remove and save dial face.

    B. Disconnect display cable then remove the (4) screws holding the display board, remove board and set aside.

    C. Remove and save the (4) screws holding the backlight panel, then set panel aside.

D. Remove and save the (2) backlights and remove and save the white backlight dish.

For some models detach the light holder clipped onto the brackets, then skip steps E and F below.

E. Remove and save the (2) screws holding each of the light holder, discard nuts, save screws.

F. Remove and discard the (2) brackets and one each screw holding the light holder.

G. Install (4) Metal Standoffs (5001901) onto the existing display bracket.

H. Install (1) Display Adapter Bracket, Left (WU001551) on top of the left standoffs reusing the (4) screws save previously.

I. Repeat above step for (1) Display Adapter Bracket, Right (WU001553).

J. Reinstall the (2) light boxes reusing (4) screws saved above.

K. Reinstall the white backlight dish and reinstall the (2) backlights saved above.
Note: If bulbs are old or burned-out, replace as necessary.

L. Reinstall the light panel saved above using (4) #4 Screws 882872-015.

M. Reinstall the sales display board saved above using (4) #6 Screws 6005903 and reconnect the cable to upper left side of board.

N. Reinstall the dial face saved above onto the sales display board.

44. Bundle and tie wrap all cables where possible, using Holder (5057301) and Cable Ties (001-916486-).

45. Ensure all ground wires inside the head are secured to the chassis.

46. Ensure all cables are inside the head and bezel.

47. Close and lock bezel.

48. If POS does not use the softkeys on the QVGA display (if old TRSM keypad did not have softkeys), cover the keys with 882941-xxx Soft Key Blank Covers.

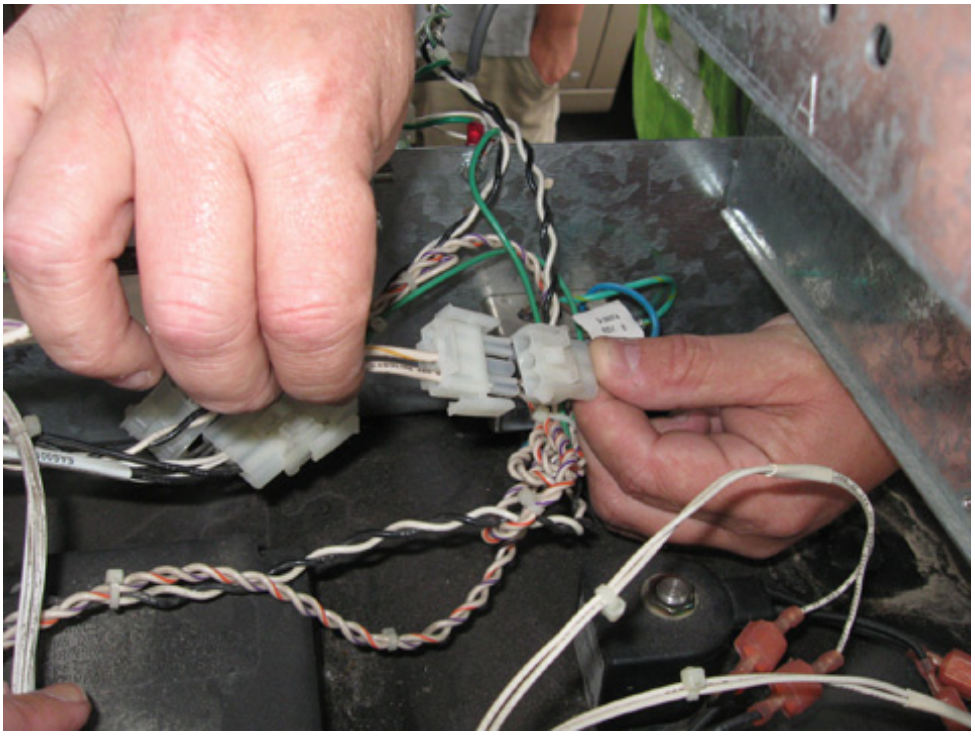
49. Repeat instruction steps 7, 9-20, 22-27, 30-31, 38, and 41-46 for side 2 of the dispenser.

50. Turn power on to the dispenser.

51. Verify SPM and dispenser operation. Refer to Startup and Service manual 940014 for starting up the SPM.

FIGURE 2

FIGURE 3



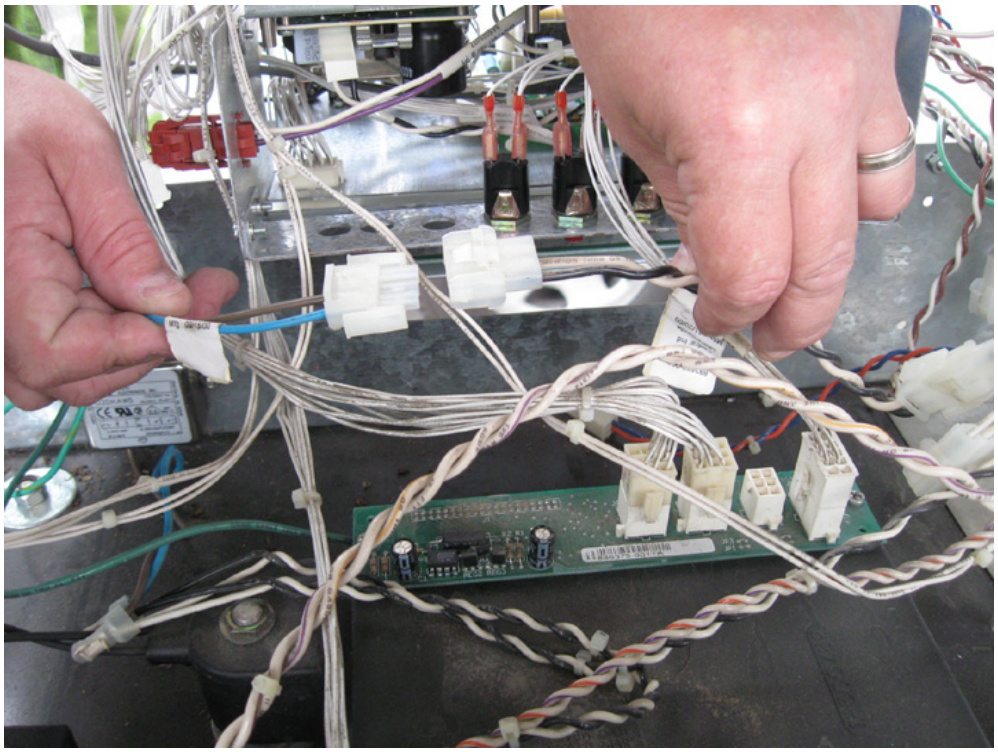
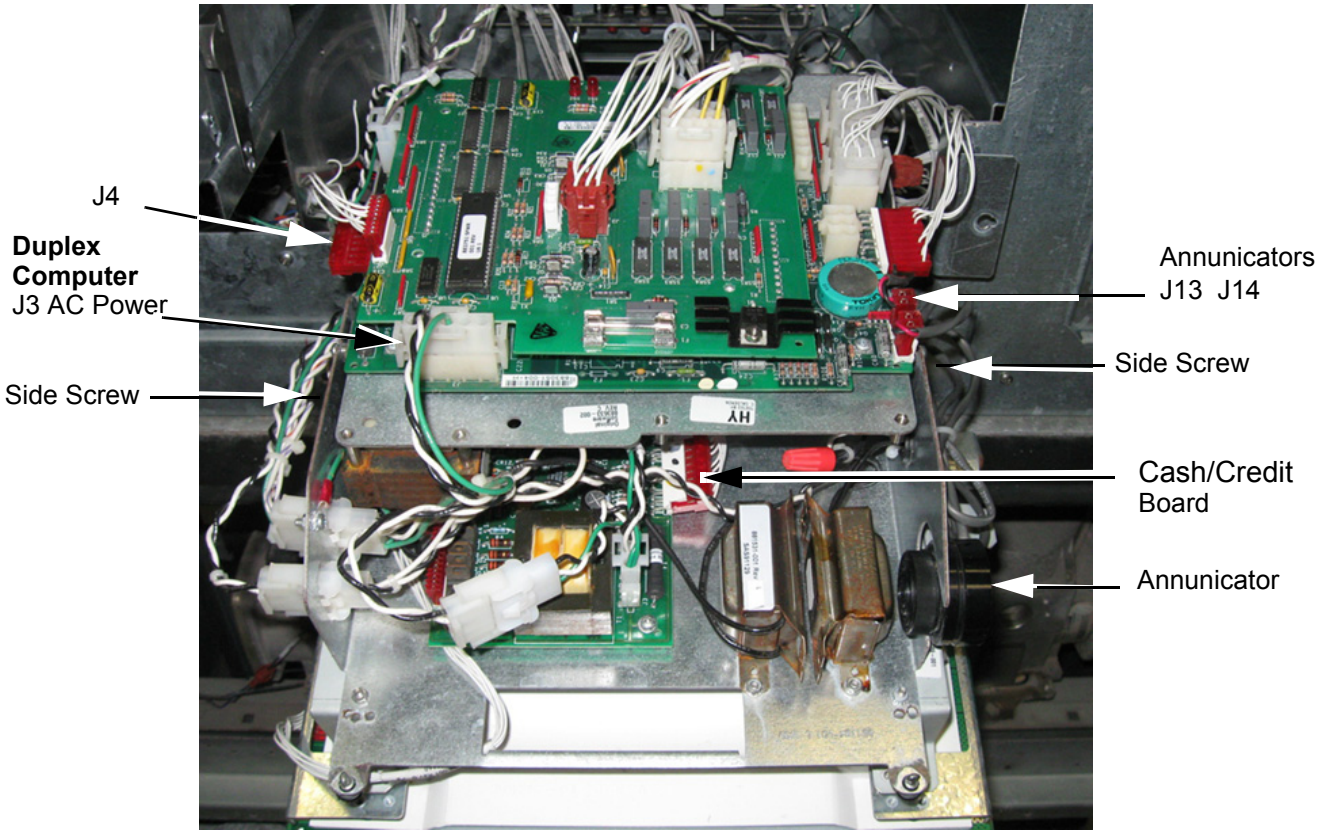
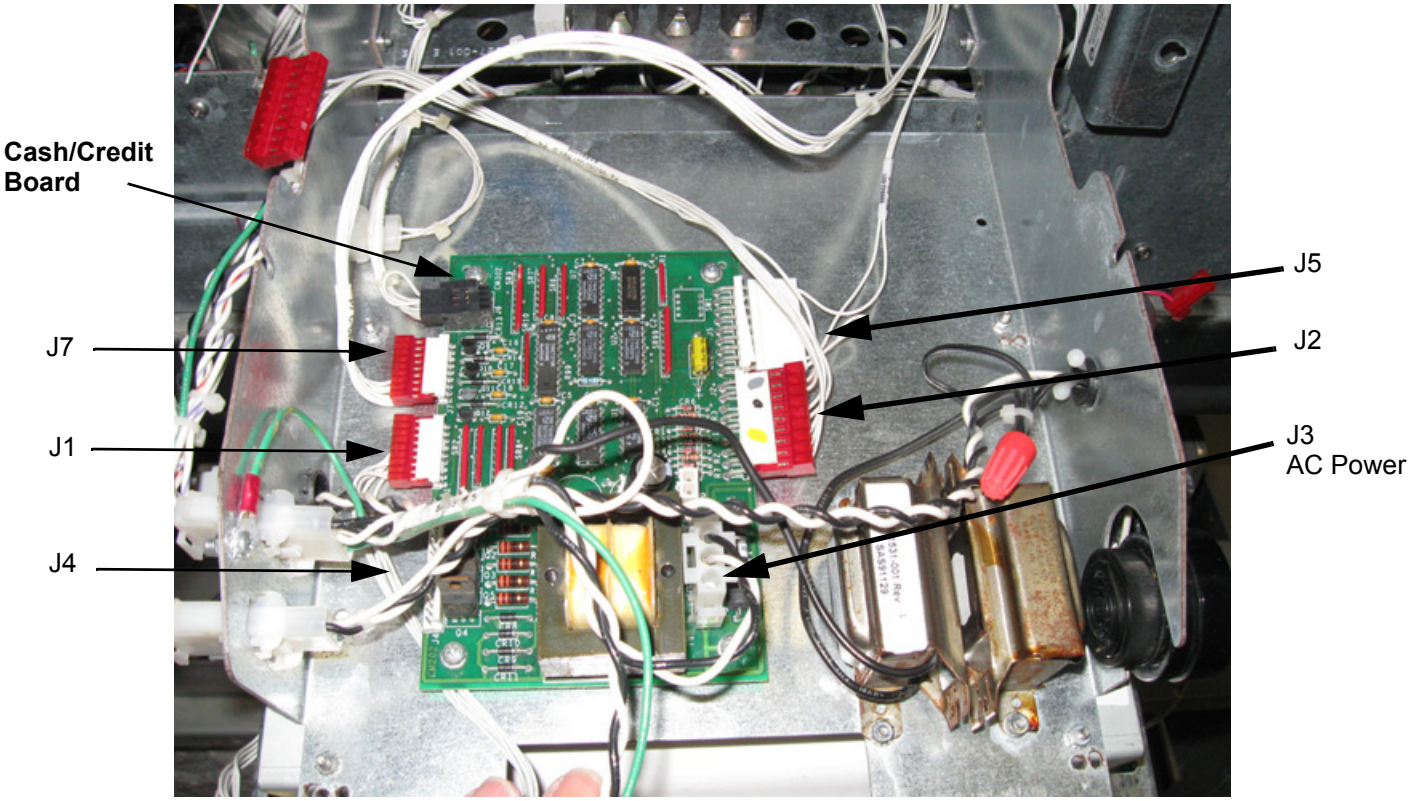


FIGURE 4


J4
Duplex Computer
J3 AC Power
Side Screw
Annunicators
J13 J14
Side Screw
Cash/Credit Board
Annunicator

A


Cash/Credit Board
J7
J1
J4
J5
J2
J3
AC Power

B

FIGURE 5

Filter viewed from opposite side. From this view, the screw to be removed is out of view on the right side of filter. The ground wire may be attached to either screw.

FIGURE 6

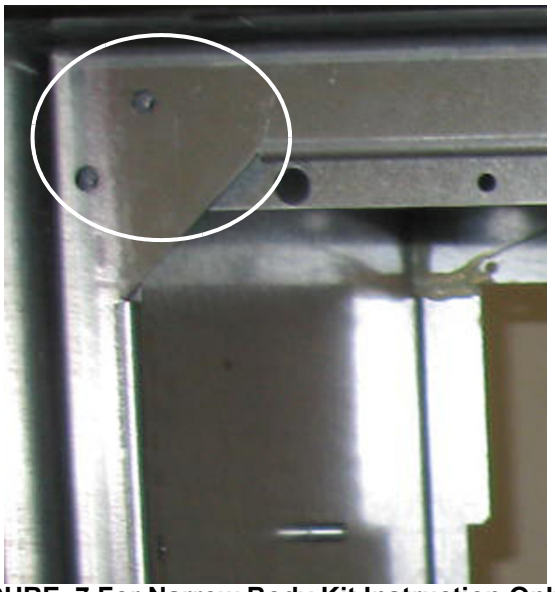


FIGURE 7 For Narrow Body Kit Instruction Only

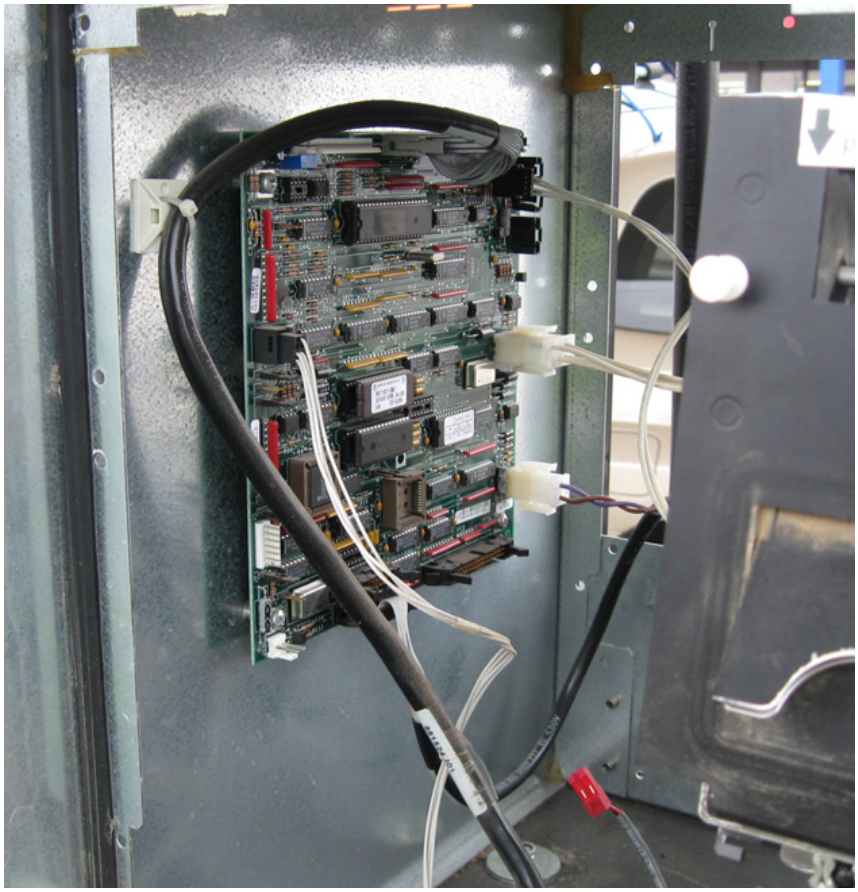
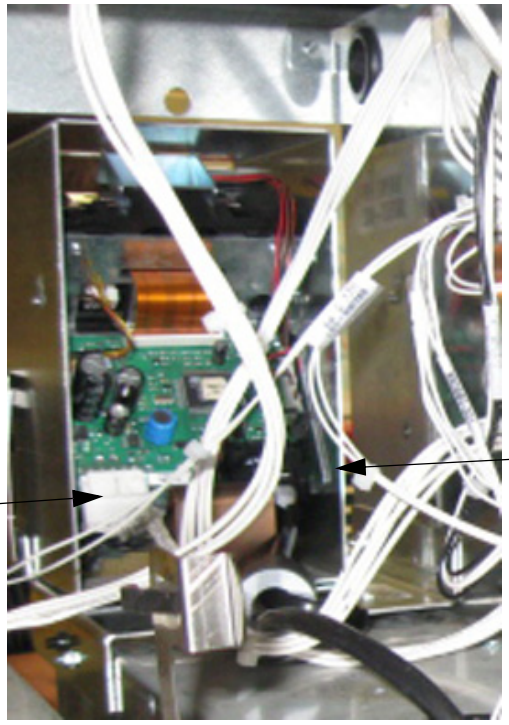
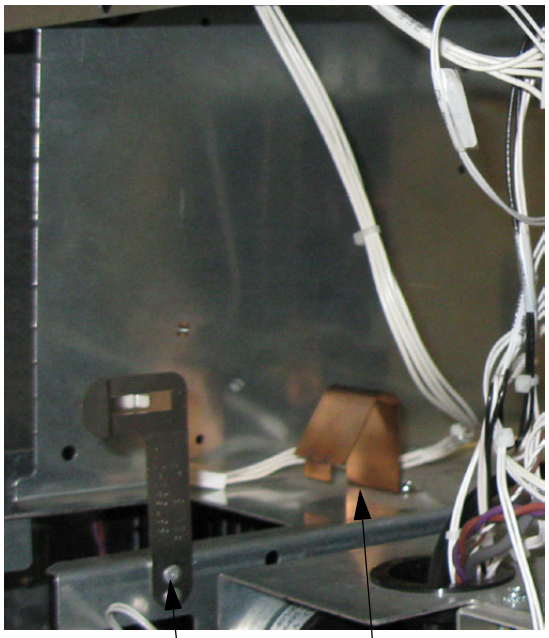


FIGURE 8

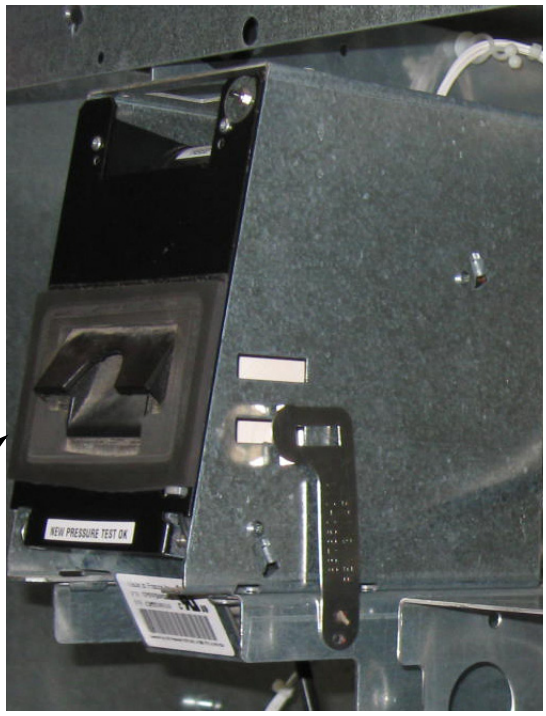
FIGURE 9



A



B



C

FIGURE 10 CLAMSHELL PRINTER SHOWN

FIGURE 11 TEAR BAR PRINTER BRACKET SHOWN


$
Sale
Gallons
Diesel
Regular Unleaded
Unleaded Plus
Premium Unleaded
(7) Nuts to
Secure Bezel Adpt Plate
Bezel Ramp
EMI Filter Screw

FIGURE 12

UPPER
HINGE

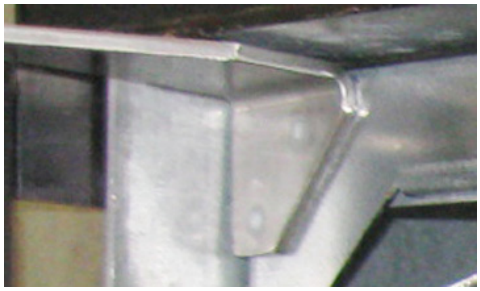


FIGURE 13

LOWER
HINGE

FIGURE 14

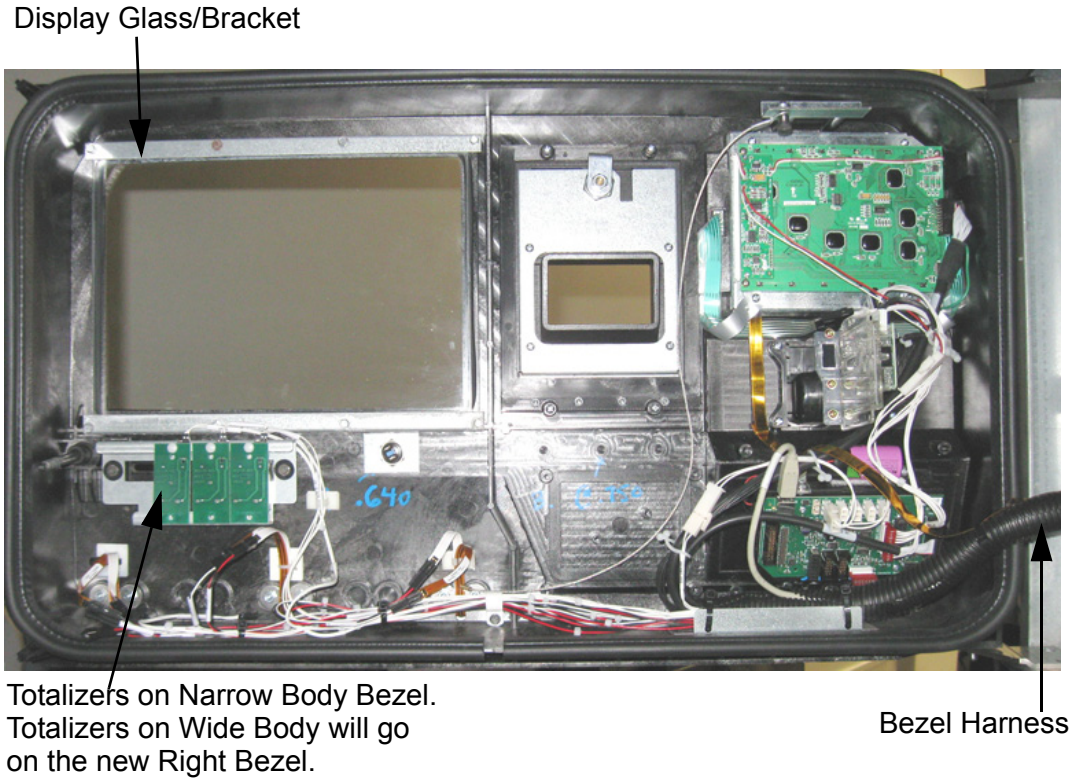
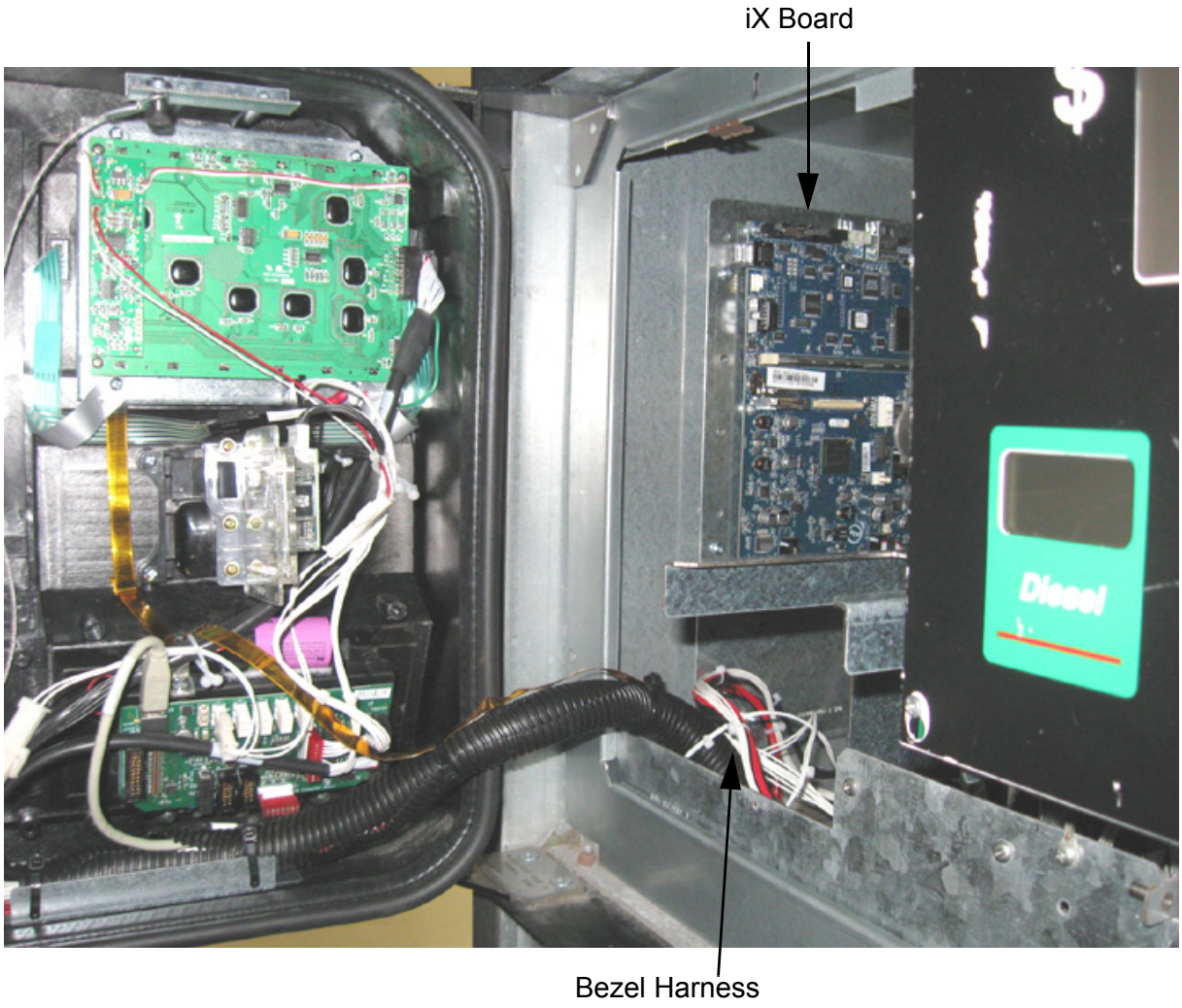

Display Glass/Bracket
Totalizers on Narrow Body Bezel.
Totalizers on Wide Body will go
on the new Right Bezel.
Bezel Harness

FIGURE 15


iX Board
Diesel
Bezel Harness

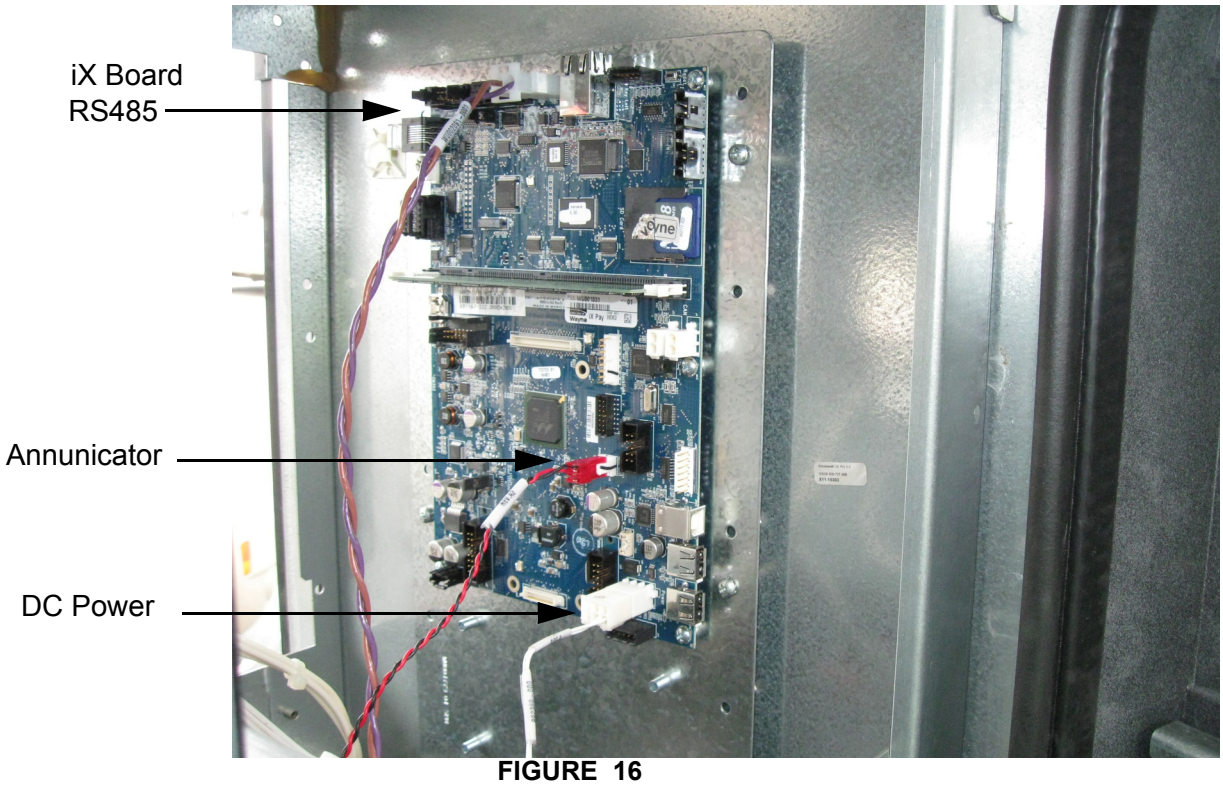

iX Board
RS485
Annunicator
DC Power

FIGURE 16

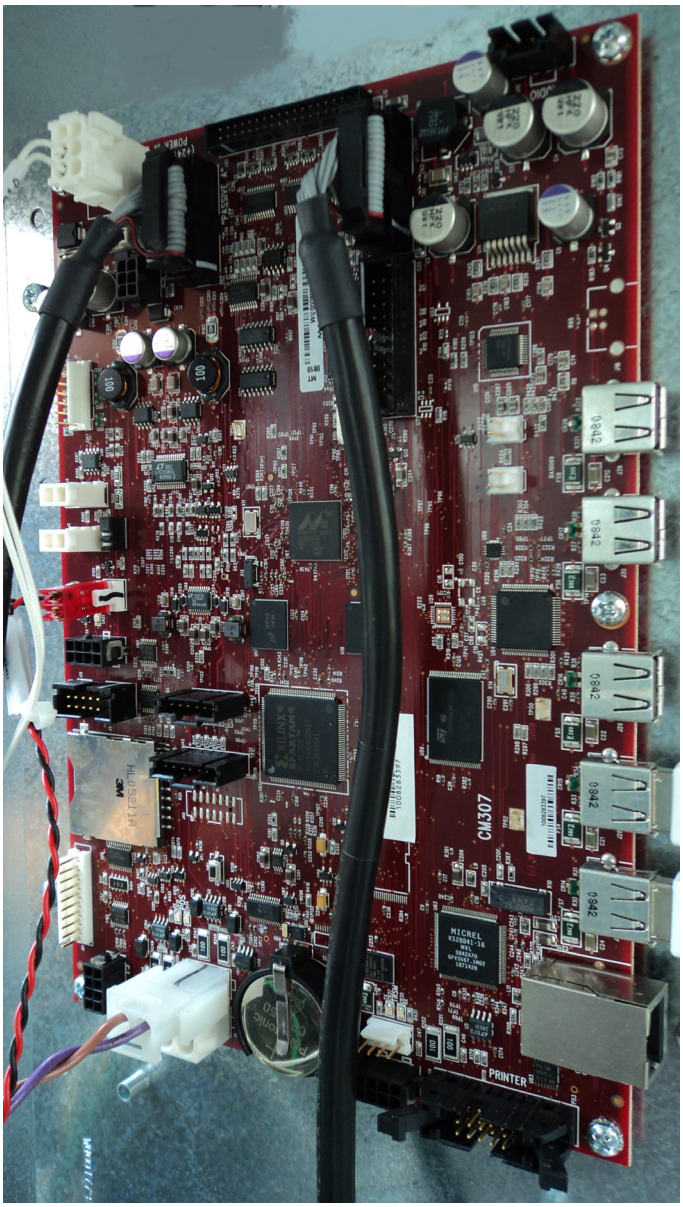


FIGURE 17

FIGURE 18

FIGURE 19

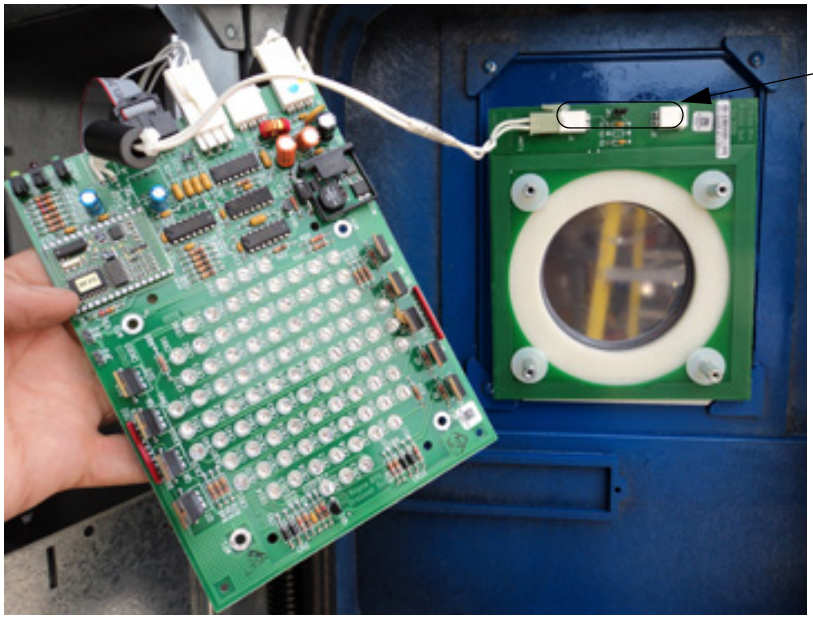


FIGURE 20

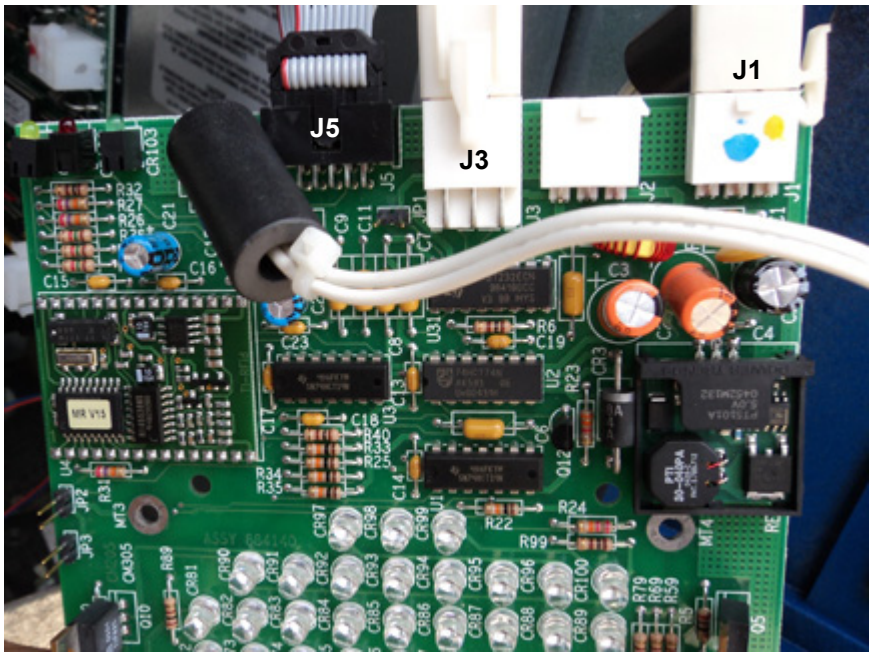


FIGURE 21

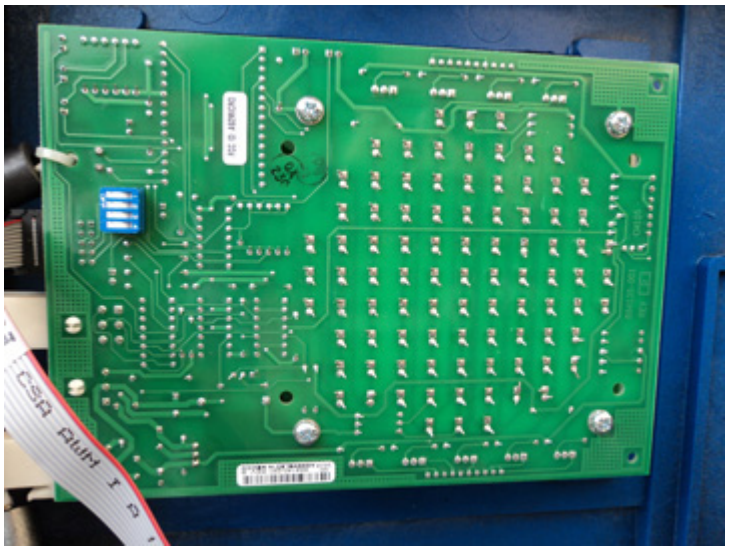


FIGURE 22

FIGURE 23

FIGURE 24 *TRAC* Installed

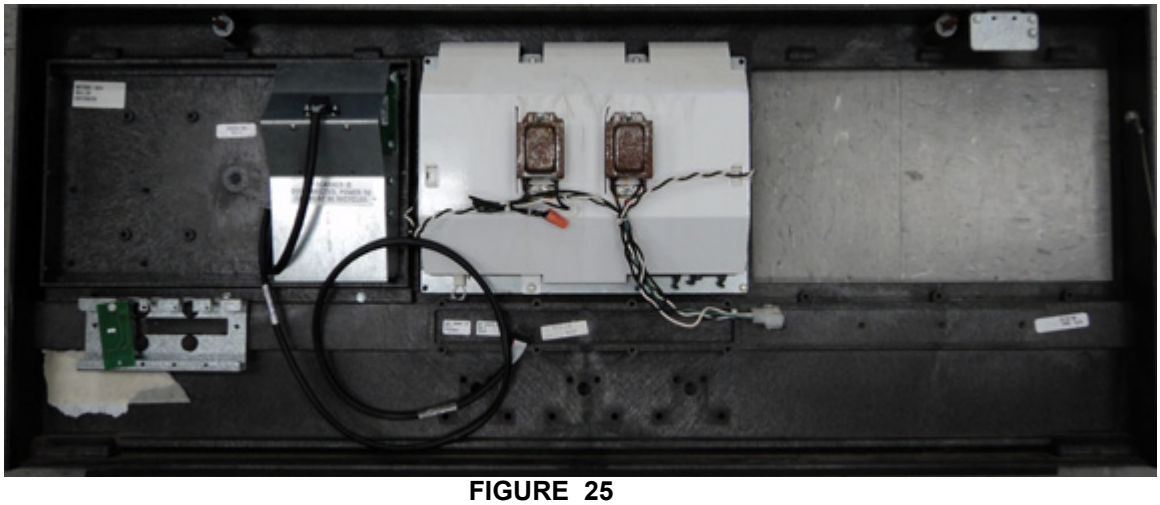


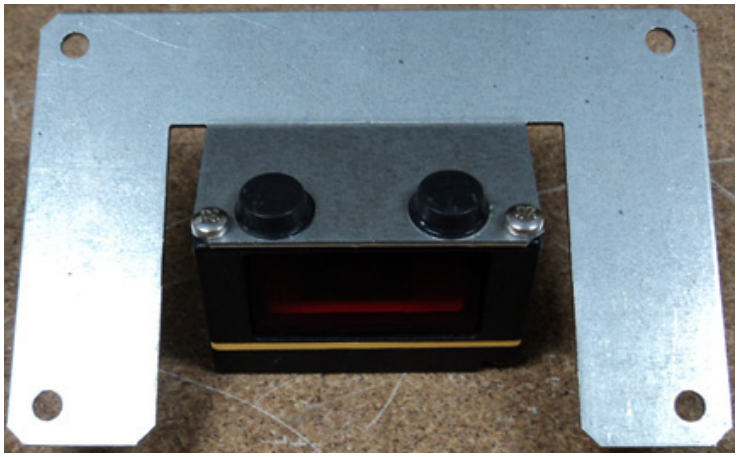
FIGURE 25

FIGURE 26

FIGURE 27

FIGURE 28

FIGURE 29



SCAN option 1

SCAN option 2

FIGURE 30

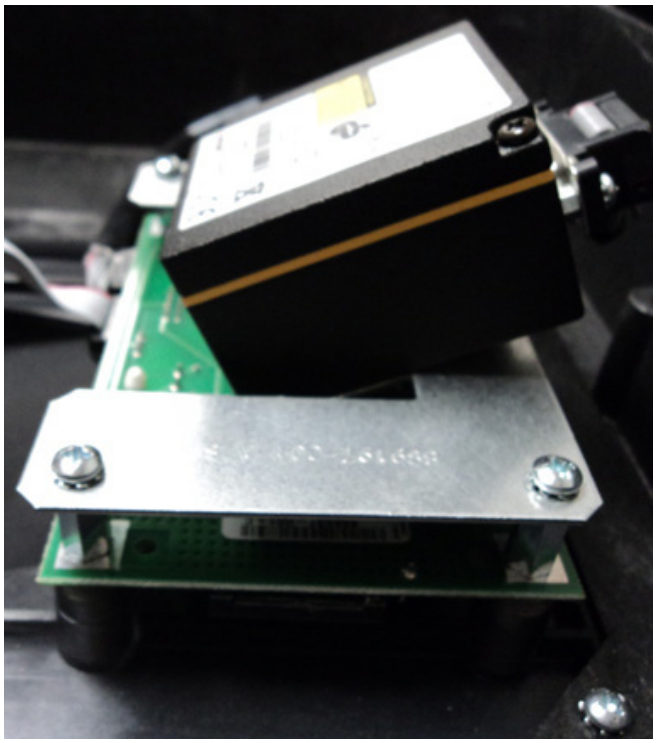
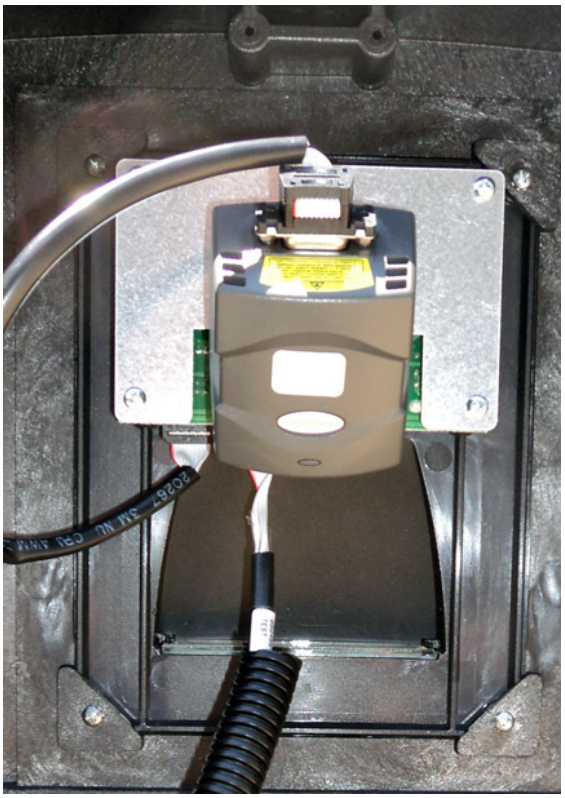


FIGURE 31

SCAN Option 1



SCAN Option 2

FIGURE 32

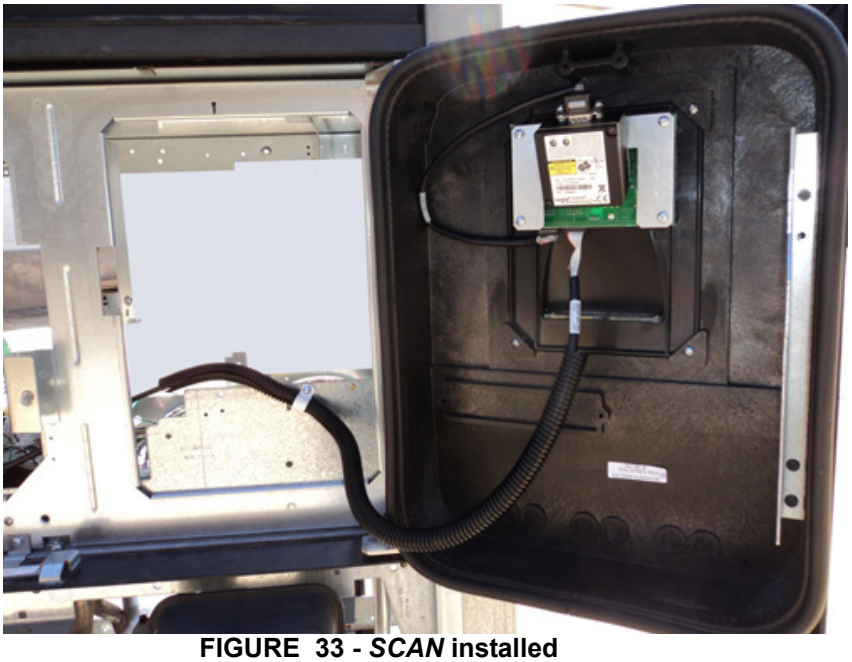


FIGURE 33 - *SCAN* installed

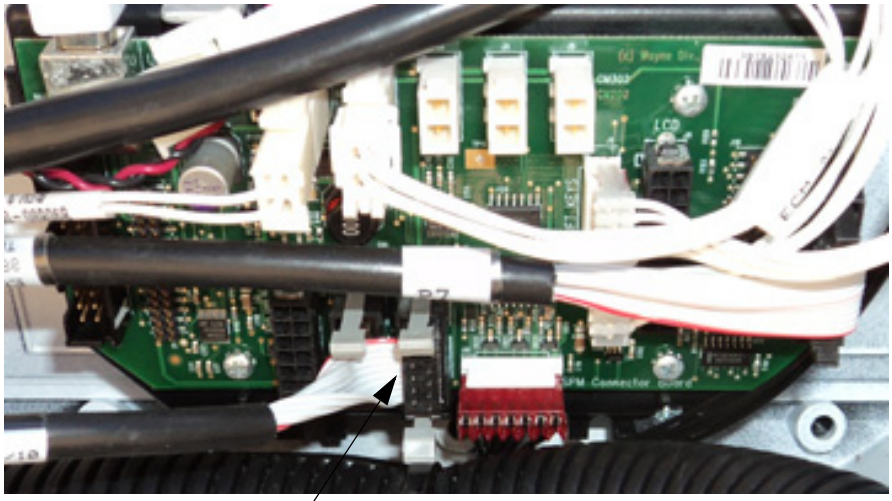
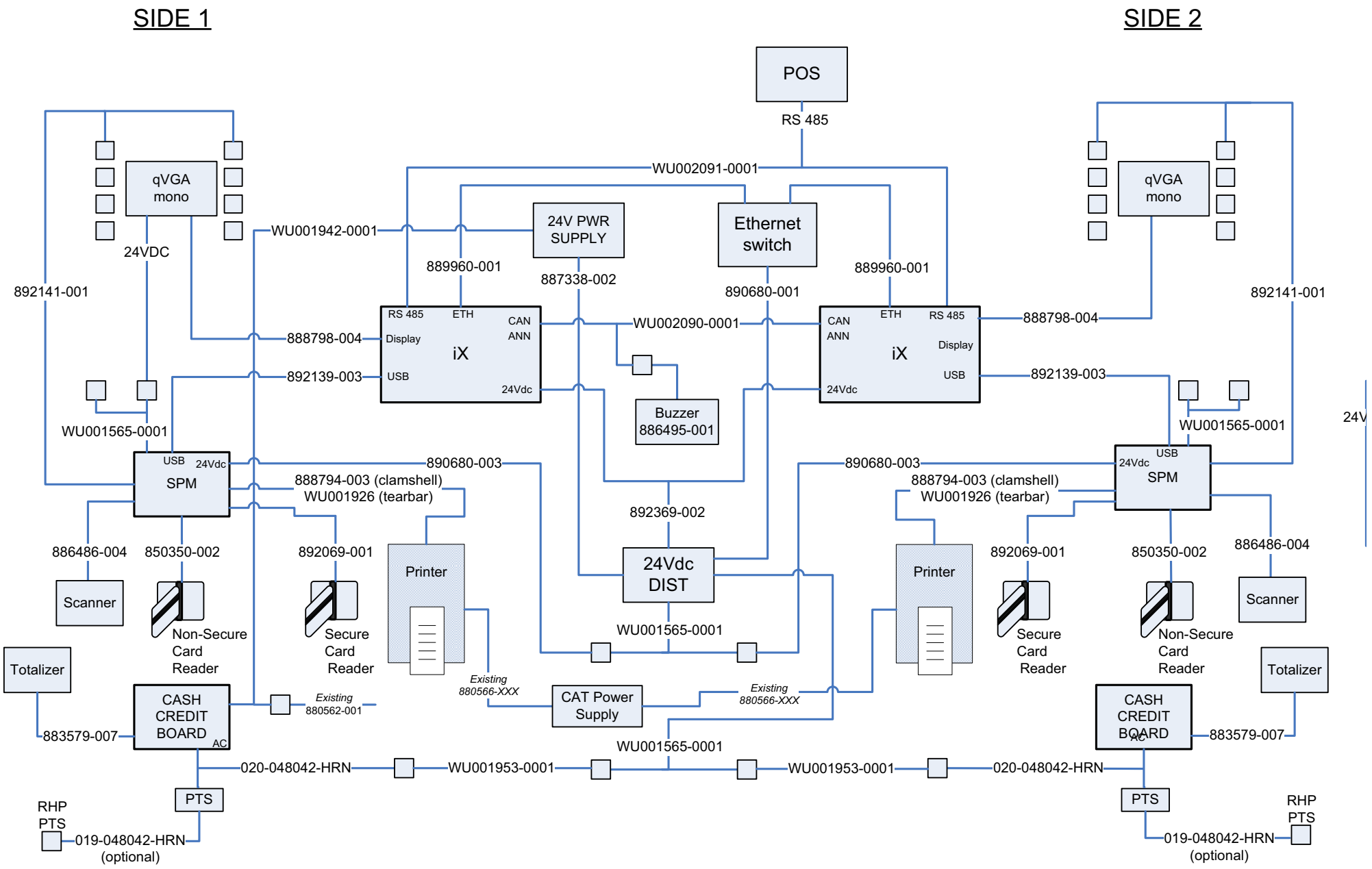
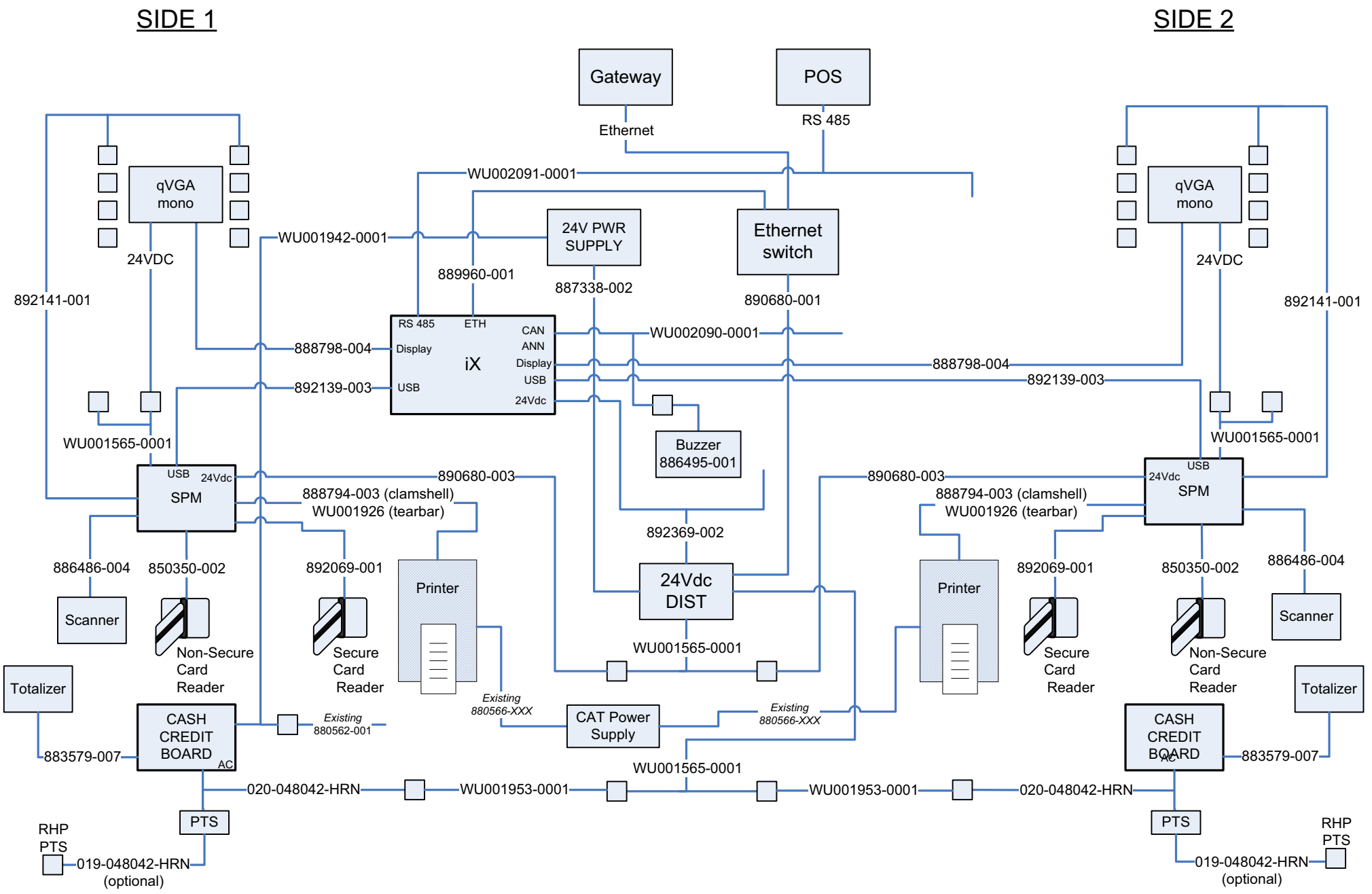


FIGURE 34 Scanner Cable to SPM J15

2 Vista SPM Retrofit Wiring Diagram



2 Vista SPM Retrofit Wiring Diagram for R2



INSTALLATION MANUAL

SPM Retrofit Kits
for 2/V Dispensers

Written by S. G. Martin

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Page design uses Arial Fonts

Dresser Wayne, Dresser, Inc., is located at 3814 Jarrett Way, Austin TX 78728.
Wayne's general telephone number is (512)-388-8311.

NOTE: “This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.”

DRESSER Wayne

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