DRESSER Wayne

iX™ Pay Secure Payment

INSTALLATION

SPM Retrofit Kits
P/N WU001591-0001 &
P/N WU001592-0001 For
3/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]"

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:

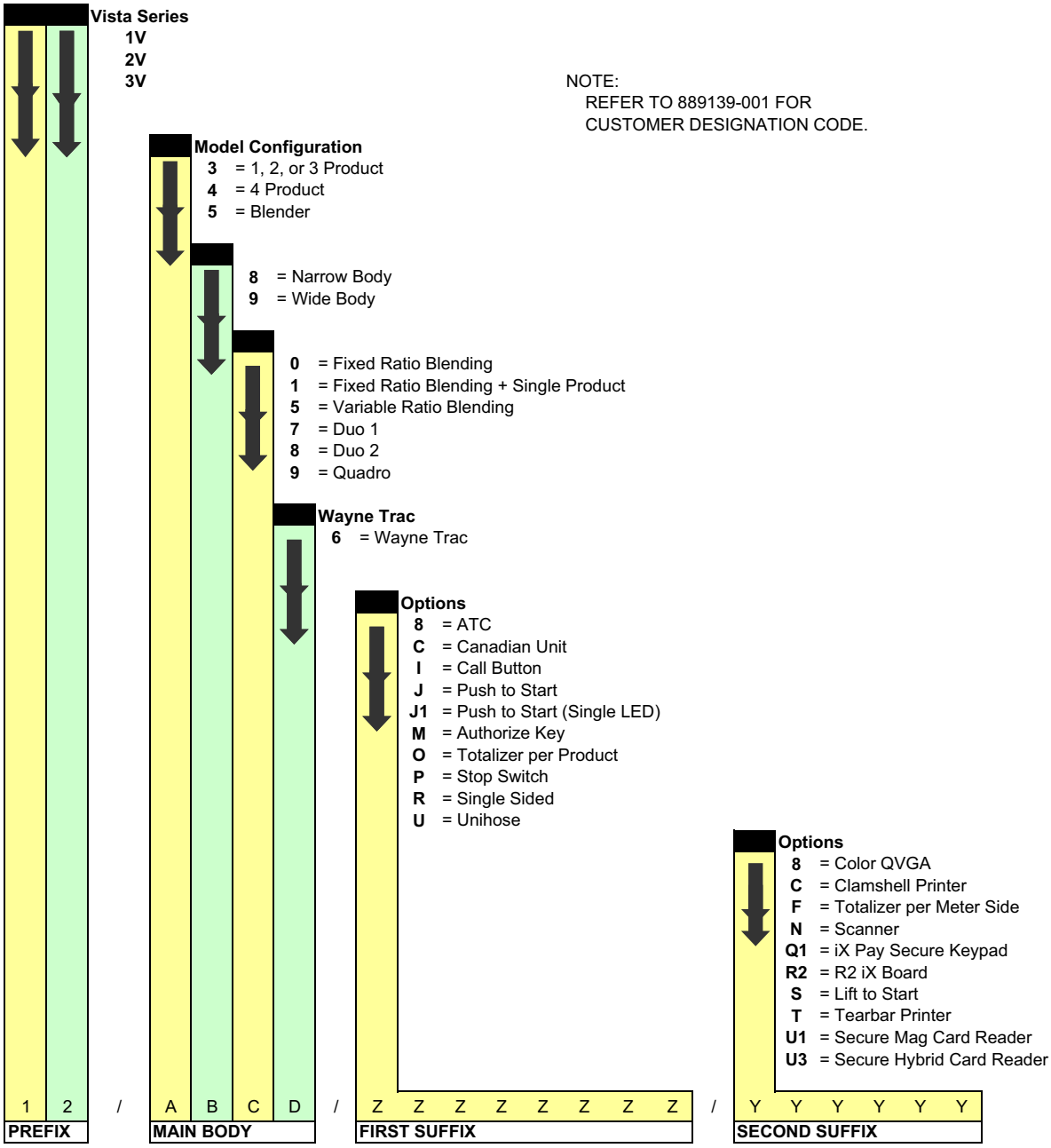
To prevent cuts and abrasions, Personal Protection Equipment (PPE) must be used when working around sharp metal edges.

Secure Payment Module (SPM) for 3/Vista Dispensers

Installation

Vista iX PAY Retrofit Kit

MODEL DESIGNATOR CHART



1 INTRODUCTION

This manual provides instructions for installing the iX™ Pay Secure Payment Retrofit Kits for 3Vista narrow body and wide body hinged bezel dispensers. 3V kit part numbers (model numbers) are based on the Kit Model Designation Chart on the previous page and take the format 3V/x8xx for narrow body dispensers and 3V/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.

1.2 Tools Required

1/4” Hex socket/ratchet

Phillips head screwdrivers

Hole Punch

Rivet tool

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 3V NARROW BODY PARTS

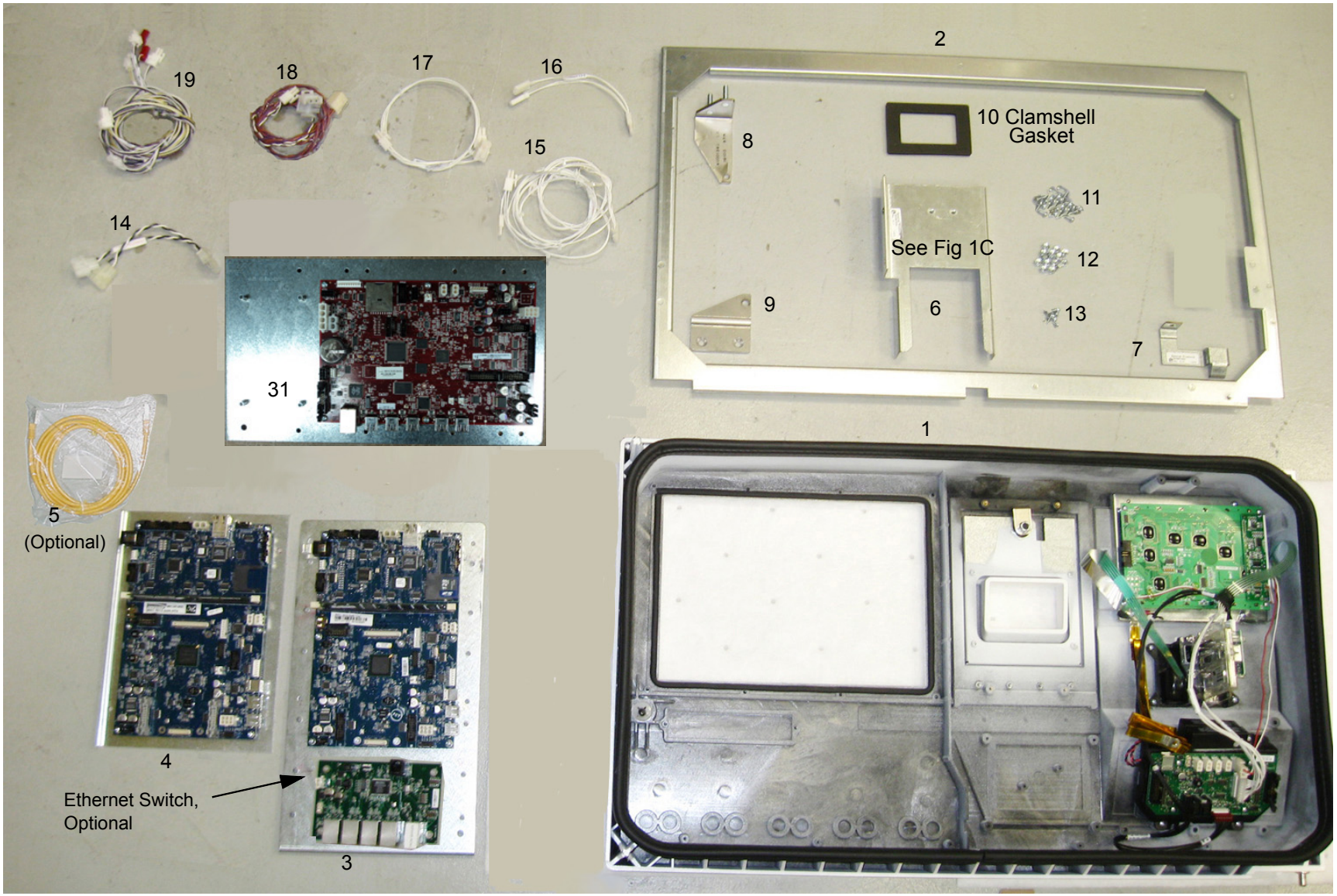


FIGURE 1B 3V WIDE BODY PARTS

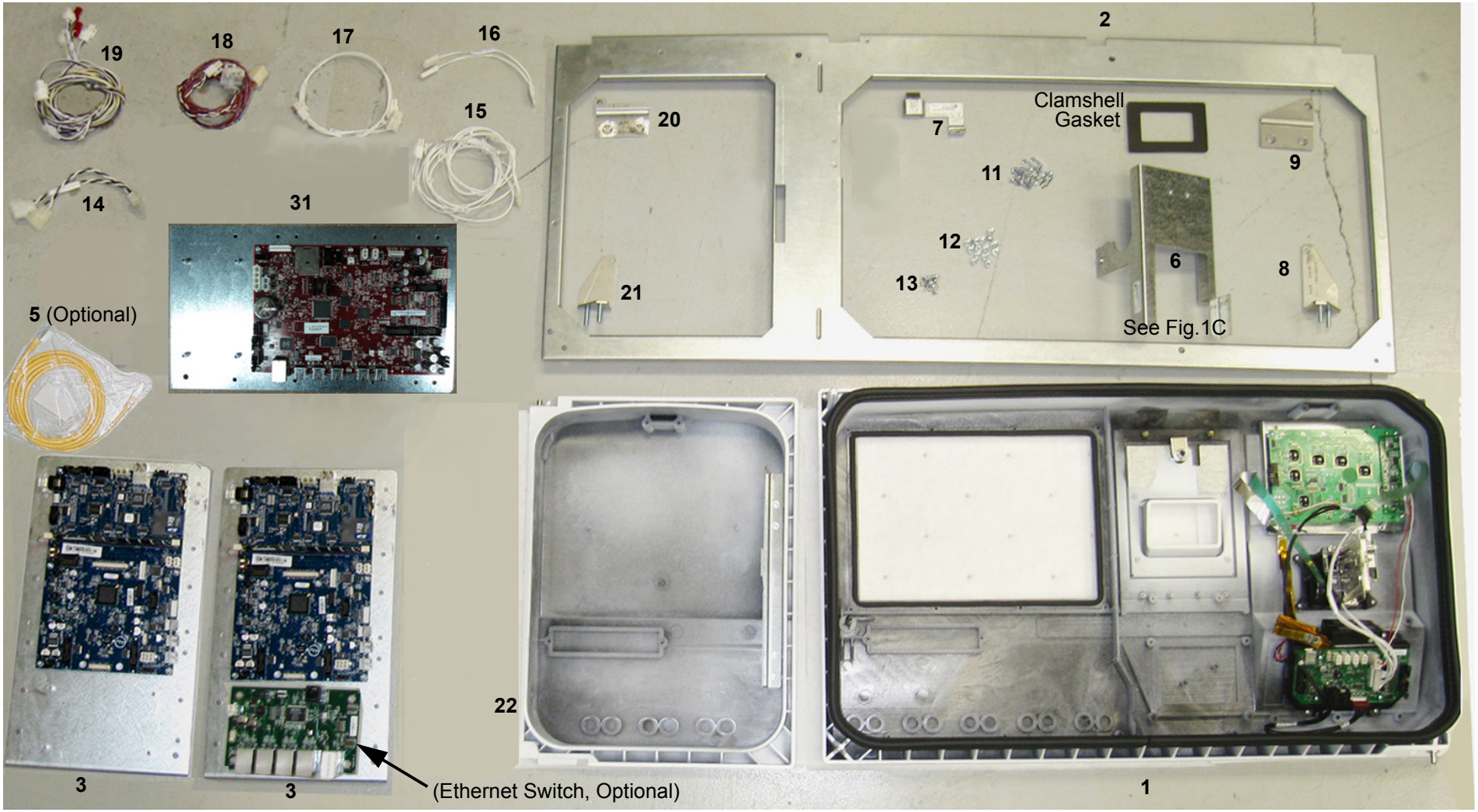


FIGURE 1C - TRAC COMPONENTS & ASSEMBLY

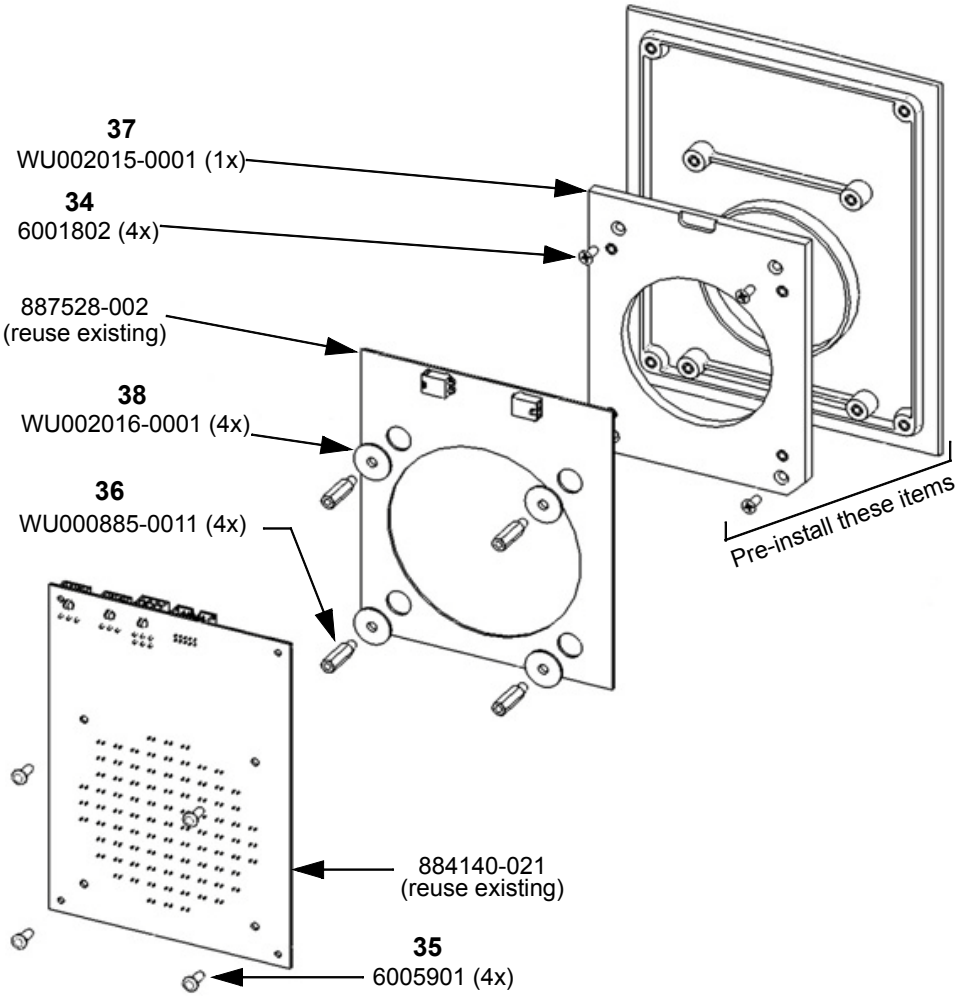


FIGURE 1D - SCAN COMPONENTS AND ASSEMBLY (OPTION 1)

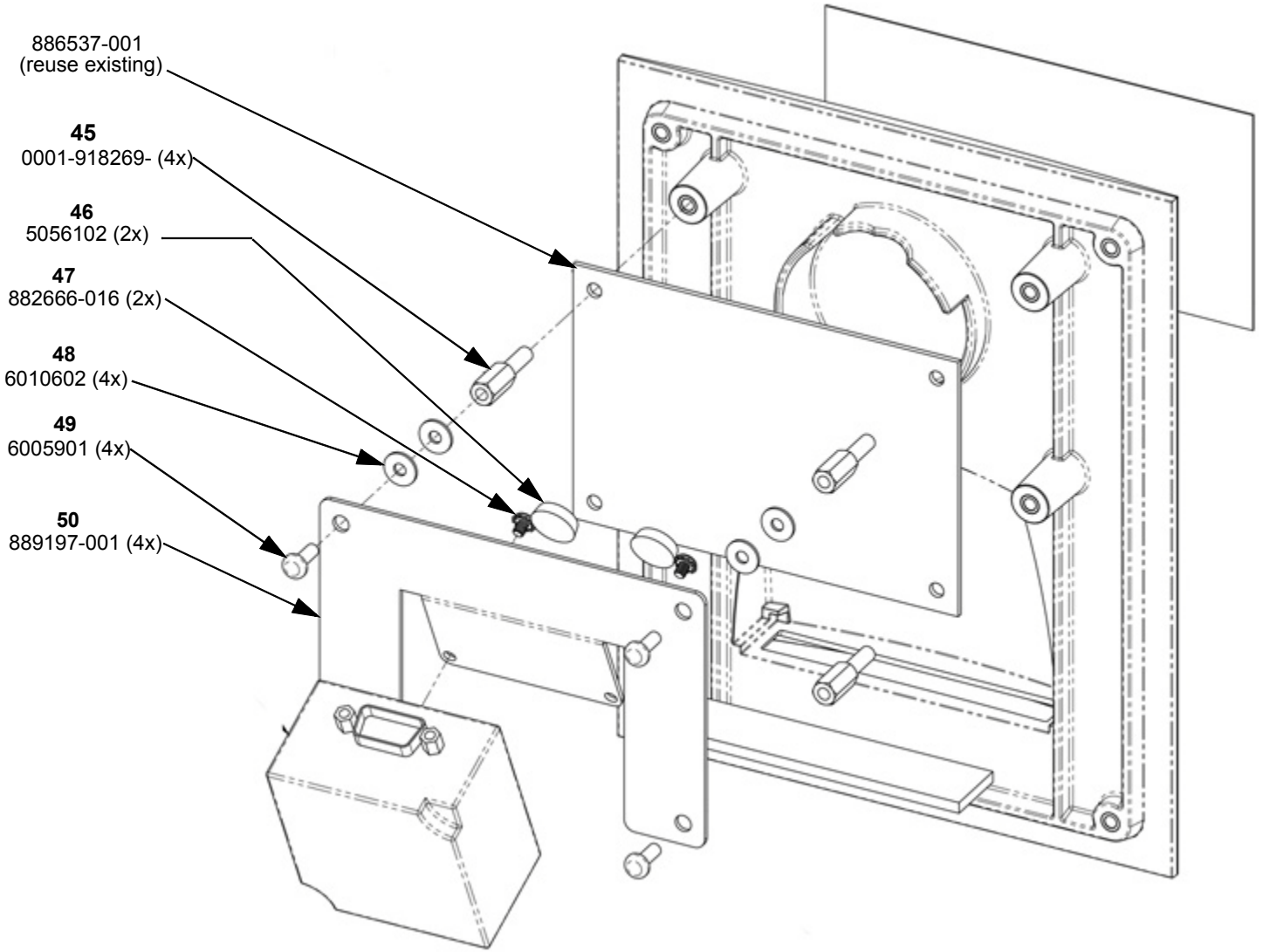
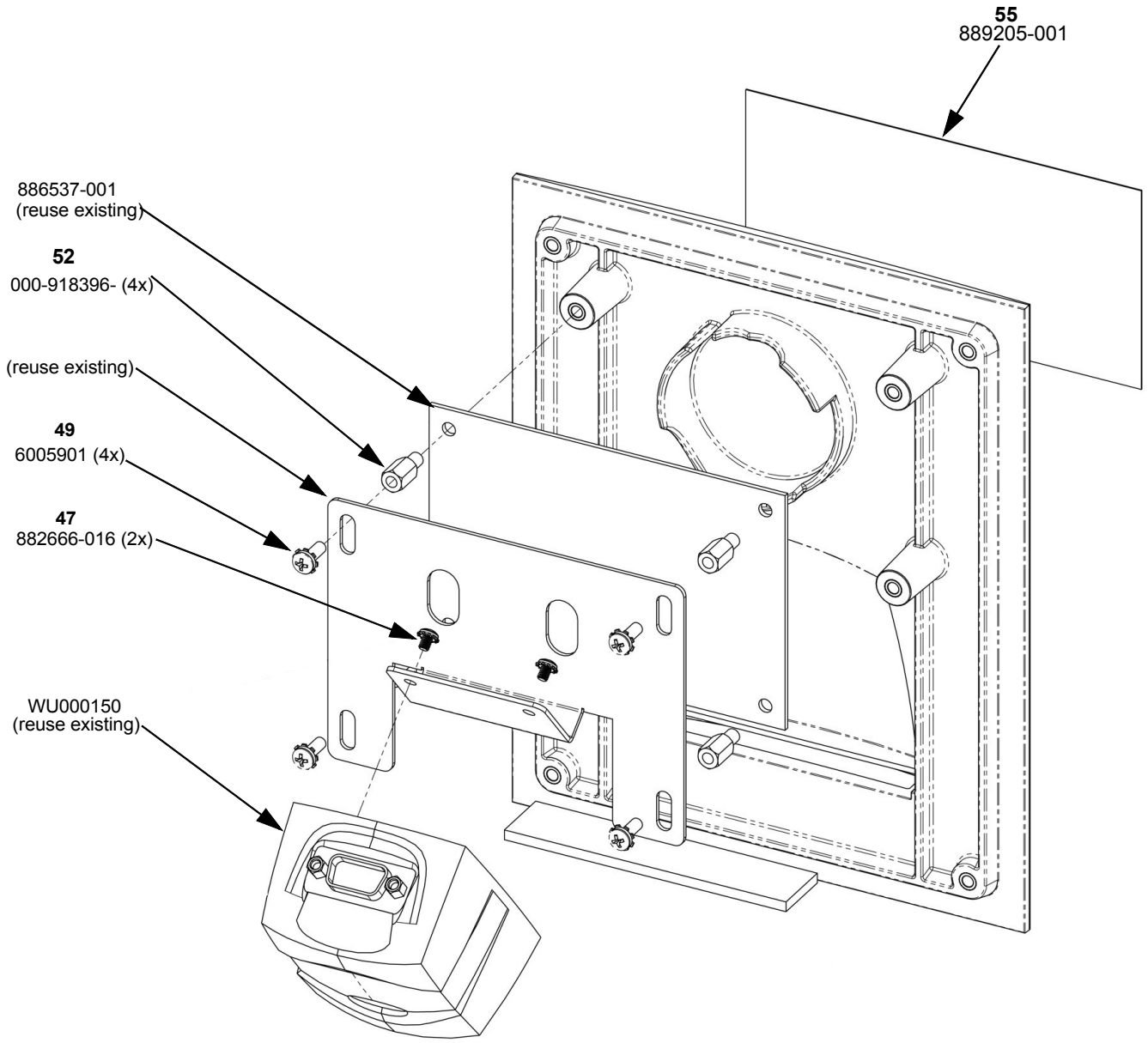


FIGURE 1E - SCAN COMPONENTS AND ASSEMBLY (OPTION 2)



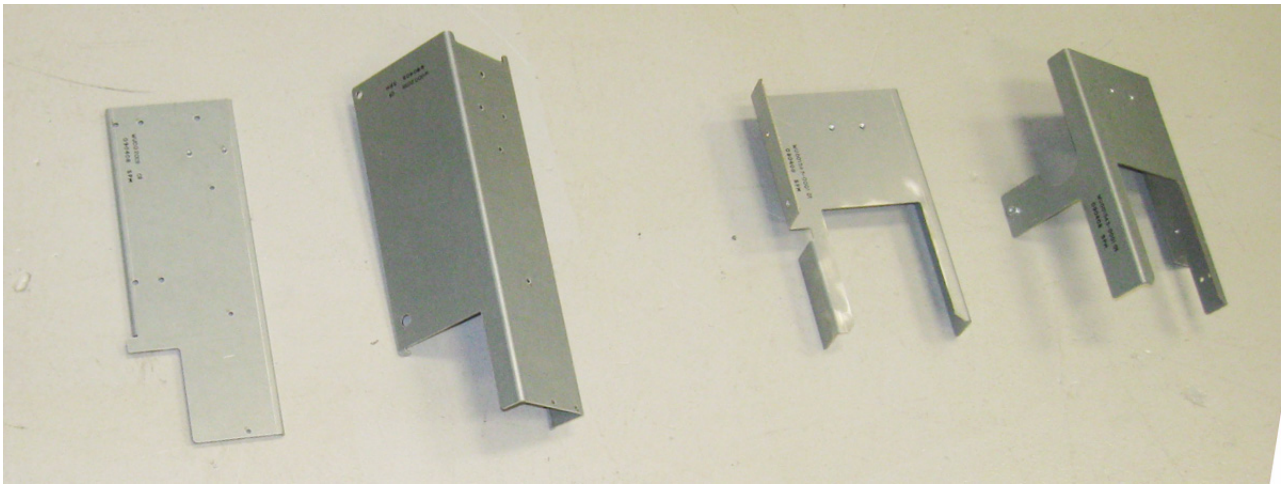
Prior to installation, inspect the kit and ensure that it contains all the required parts as shown by the item numbers in Figure 1 and listed in Table 1.

Table 1 Parts Included in the Kit

Part Number	Description	QTY Narrow Kit	QTY Wide Kit	Item No.
WU000544	Main Bezel	2	2	1
WU002343-0001	Small Bezel Adapter Plate	2		2
WU002342-0001	Large Bezel Adapter Plate	0	2	2
WU002340-0001	Large iX bracket (blue board)	1	2	3
WU002341-0001	Small iX bracket (blue board)	1		4
891410-001	Ethernet switch (Optional part of item 3)			
889960-001	Ethernet cable (Optional)	2	2	5 optional
WU001545	Printer Bracket for Clam Shell - Narrow	2		6 see Fig 1C
WU001543	Printer Bracket for Clam Shell - Wide	0	2	6 see Fig 1C
WU002028	Printer Bracket for Tear Bar - Narrow	2		6 see Fig 1C
WU002058	Printer Bracket for Tear Bar - Wide	0	2	6 see Fig 1C
WU001503	Bezel ramp	2	2	7
WU001360	Upper hinge - Left	2	2	8
WU001362	Lower hinge - Left	2	2	9
889784-001	Printer seal gasket, Clam Shell only	2	2	10
889784-002	Printer seal gasket, Tear Bar only	2	2	10
6019403	#8 Nuts	14	16	11
6005901	#6 Screws, 3/8	11	14	12
000-918935-	Screw, 8-32, 1/4 for printer copper spring	7	7	13
WU001564-0001	Y jumper cable	1	1	14
890680-001	Power cable, Ethernet (optional)	1	1	15
WU001565-0001	Y Jumper cable	1	1	16
892369-001	Y Jumper cable	1	1	17
WU001085	Data Link cable	1	1	18
890766-001	Annunicator cable	1	1	19
WU001366	Lower hinge -Right		1	20
WU001364	Upper hinge -Right		1	21
WU000972	Right bezel		2	22
000-918210-	1/4” Nut, for lower hinges	4	8	23
000-507667-	1/4-20 Screws, Flathead, for lower hinges	4	8	24
6005909	#8 Screw, 3/8 for iX and printer bracket	16	12	25
6019404	#10-32 Nut, for top hinges	4	8	26
882872-015	#4 Screw, 1/2 for printer bracket and latch	6	6	27
001-916486	Cable Ties	10	10	28
888352-001	Plastic Rivets, for totalizers	16	16	29
000-916760-	#8 Screw, 1/2 spares for sales display glass	16	16	30
000-940023-	Install Manual, 3V Narrow and Wide	1	1	not shown

Table 1 Parts Included in the Kit

WU002340-0002	Large iX Bracket (Red Board)	1	1	31
886034-001	T-Bracket (Optional *TRAC*)		1	32 Fig. 18
6032301	Screws (Optional *TRAC*)		2	33 not shown
6001802	6-32 X 3/8 Screw (Optional *TRAC*)		8	34 See Fig1C
6005901	6-32 X 3/8 Screw (Optional *TRAC*)		8	35 See Fig1C
WU000885-0011	6-32 X .250 X .750 Hex Standoff (Optional *TRAC*)		8	36 See Fig1C
WU002015-0001	Housing Bezel Mount (Optional *TRAC*)		2	37 See Fig1C
WU002016-0001	#6 Nylon Washer (Optional *TRAC*)		8	38 See Fig1C
000-507868-	8-32 Nut (Optional *TRAC & SCAN*)		4	39 not shown
000-913632-	#10 Washer (Optional *TRAC & SCAN*)		4	40 not shown
000-916486-	Cable Tie (Optional *TRAC & SCAN*)		4	41 not shown
000-918066	Clamp (Optional *TRAC & SCAN*)		4	42 not shown
000-918137-	8-32 X 1/2 Screw (Optional *TRAC & SCAN*)		2	43 not shown
WU001629-0001	Flex Tube (Optional *TRAC & SCAN*)		4	44 not shown
000-918269-	6-32 X .500 X .250 Standoff (Optional *SCAN*)		8	45 See Fig 1D
5056102	Bumper (Optional *SCAN*)		4	46 See Fig 1D
882666-016	M3 X 4 Screw (Optional *SCAN*)		4	47 See Fig 1D
6010602	# 6 Washer (Optional *SCAN*)		8	48 See Fig 1D
6005901	6-32 X 3/8 Screw (Optional *SCAN*)		4	49 See Fig 1D
889197-001	Scanner Mounting Bracket (Optional *SCAN*)		2	50 See Fig1D
916202	Sealant (Optional *SCAN*)			51 not shown
000-918396-	6-32 X 3/8 Hex Standoff (Optional *SCAN*)		8	52
886486-006	Cable, 10-Pin (Optional *SCAN*)		2	53 not shown
889205-001	Decal, Laser Warning (Optional *SCAN*)		2	54



Narrow Body
WU002028

Wide Body
WU002058

Narrow Body
WU001545

Wide Body
WU001543

TEAR BAR

CLAMSHELL

FIGURE 1F PRINTER BRACKETS (ITEM 6)

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.

1. **Turn off dispenser power at the circuit breaker** inside the building before starting this procedure.

2.1 Installation Instructions For 3/V Narrow Body

1. On both sides of the dispenser, open the bezels, disconnect the power and data cables from the bezels Figure 2, and remove bezels. Set bezels aside for reusing the displays.

2. Disconnect AC power (pump control and lights) in the electronics head.

3. A. Remove existing bezel hinges on the dispenser, see Figure 3. Discard hinges and save hardware. New hardware provided if needed.

   B. Disconnect grounds from the head frame and save hardware.

   C. If drip tray is present, remove from head chassis and discard.

   D. If totalizers are present, disconnect and discard the cable from the totalizers and J6 on the iGEM board. Remove the totalizer bracket and set aside for reusing the totalizers.

4. Disconnect and discard all cables/harnesses from Dual CAT board (887448-001), remove one Phillips screw and remove board from standoffs. Discard screw. Discard/ save board as per site scope of work/customer requirements. See Figure 4.

5. A. Place Bezel Adapter Plate (WU002343-0001) onto the head frame without securing it and
   mark down the center of the two holes in upper left corner of the Adapter plate. Figure 5.

   B. Remove Adapter plate and use a non sparking 1\4“ hole punch tool to punch two holes at these locations.

6. Install Adapter plate using (5) #8 Nuts (6019403), see Figure 6.

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

8. Install (1) Left Upper Hinge (WU001360) to Adapter plate using (2) 10-32 Nuts (6019404). See Figure 7.

9. 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-). NOTE: Leave hinge loose so bezel will install easier. See Figure 8.

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

    B. Remove printer.

    C. For Clamshell only, remove and save the latch from the printer bracket. Figure 9C.

    D. Remove and save the copper spring from the printer bracket. Discard two screws.

    E. For Tear Bar, remove and save the slide rail from printer bracket. Save the (3) screws.

11. For Clamshell only, install (1) Printer Bracket using (2) #8 screws (6005909) and (1) #4 screw (882872-015). Figure 10. See Table 1 parts list (item 6) and Figure 1C layout.

12. For Tear Bar only, install (1) Printer Bracket reusing the (3) screws saved above from the slide rail. See Table 1 parts list (item 6) and Figure 1C layout.

13. For Clamshell only, install printer latch (887650-001), saved above, onto the new Printer Bracket using (2) #4 screws (882872-015).

14. Install copper spring (883757-001), saved above, onto the new Printer Bracket using (2) #8 screws (000-918935-).

15. For Tear Bar only, install slide rail, saved above, onto the new Printer Bracket using (3) screws (000-918935-).

16. *IF BLUE BOARD* - Install (1) Small iX Bracket (WU000451-0001) onto the plastic standoffs and secure with (1) #8 screw (6005909). Figure 12A shows the bracket completely installed.

    Install (1) Large iX Bracket (WU002340-0001) inside the electronic head using (4) #8 screws (6005901). Figure 11 shows the bracket completely installed.

    IF R2 (RED) BOARD - Install (1) Large iX Bracket (WU002340-0002) inside the electronic head using (4) #8 screws (6005901). Figure 12B shows the bracket completely installed.

17. Remove the existing printer gasket from the printer and clean off all gasket residue.

18. For Clamshell printer, install (1) Printer Gasket (889784-001).

    For Tear Bar printer, install (1) Printer Gasket (889784-002).

19. A. Reinstall printer.

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

20. Lay the new Main Bezel (WU000544) face down on a flat surface, Figure 13. Use protective pads, etc., to ensure that the front of the bezel does not get scratched.

21. A. On the old bezel, remove the Sales Display by removing the (8) screws Figure 2A. On the new bezel, remove glass retainer brackets then install the display onto the new bezel reusing the hardware. New #8 screws (916760) provided as needed. See Figure 14.

    B. Connect the PTS (grade select) switch cable to the Sales Display J3 and connect the display data cable to J1.

    C. Connect Backlight cable to the backlight connector from the Sales Display and attach ground wire.

22. Install Main Bezel onto dispenser, upper hinge first then lower hinge, and tighten the nuts on the lower hinge, see Figure 11.

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

23. Connect Printer Data Cable (888794-003 for clamshell or WU001926 for Tear Bar) to the printer (route cable through the grommet in the chassis, then connect to 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.

24. *IF BLUE BOARD* - Connect QVGA Cable (888798-004) to the iX board J20 (Port 1).

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

25. *IF BLUE BOARD* - Connect USB Cable (892139-003) to the “USB 1” connector on the iX board J20.

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

26. A. Connect DC power cable (890680-003) coming from the bezel to the Y-jumper Cable (WU001565-0001).

    B. Connect the Y-jumper cable to either of the spare 2-pin connectors on the 24VDC Power Dist. Board.

    Note: The other end of the connector on the Y-jumper cable is for the opposite side SPM when installed.

27. Secure the SPM ground strap and (the green wire ground from the ISB if side1) to the head frame reusing the hardware save previously.

28. Disconnect/discard the Bit Bus cable from the iGEM board and connect the Display Cable (886486-xxx) coming from the (bezel harness/sales display J1) to iGEM Board (J15 Bit Bus A for side 1, or J16 Bit Bus B for side 2).

29. A. From the bezel harness, connect the Backlight cable (WU001117-0001) to the Y-jumper cable (WU001564-0001), then connect the Y-jumper to existing backlight "black and white" cables coming out of the dispenser's firewall.

30. If installing the second side parts, connect DC power cable (890680-003) coming from the bezel to the Y-jumper Cable (WU001565-0001) previously installed at DC Dist board for the opposite side.

31. *IF BLUE BOARD* - Connect Y-jumper cable (892369-002) to either of the spare 2-pin connectors on the 24Vdc Power Dist. Board and to both iX boards (6-pin Power).

    IF R2 (RED) BOARD - Connect Y-jumper cable (892369-002) to either of the spare 2-pin connectors on the 24Vdc Power Distrubution Board and to the iX Board (6-Pin Power).

32. *IF BLUE BOARD* - Connect DL/RS-485 cable (WU001085) to the iGEM board J25 and to both iX boards (J19 Port #3), then connect to the 9-pin connector at the vapor barrier potted fitting.

    IF R2 (RED) BOARD - Connect DL/RS-485 cable (WU001085) to iGEM board J25 and to iX board J17 (Port #3). then connect to the 9-pin connector at the vapor barrier potted fitting.

33. *IF BLUE BOARD* - Connect Annunciator cable (890766-001) to both iX boards and to the iGEM board as follows:
    The two connector end of cable (2-pin) & (4-pin) connects to iGEM board as follows:
    P6 to J22 Buzzer A and P7 to J13 CAN.
    The three connector end of cable connects to side 1 iX board as follows:
    ANNUN P4 to J18 Annunciator, P3 to J4 CAN, and P5 to J31 CAN.
    Connect the other end with the two 2-pin connectors to the iX board for the opposite side.

    IF R2 (RED) BOARD - Connect Annunciator cable (890766-001) to the iX board and to the iGEM board as follows:
    The two connector end of cable (2-pin) & (4-pin) connects to iGEM board as follows:
    P6 to J22 Buzzer A and P7 to J13 CAN.
    The three connector end of cable connects to iX board as follows:
    ANNUN P4 to J5 Annunciator, P3 to J3 CAN, and P5 to J2 CAN.
    Connect the other end with the two 2-pin connectors to the iX board for the opposite side.

34. Optional Totalizers:

    A. If totalizers were existing, remove the totalizers from the bracket saved in Step 3 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 (887695-024) supplied with the bezel to the totalizers and to J6 on the iGEM board.

35. Optional Ethernet equipment:

A. Connect the underground Ethernet cable to the Ethernet Switch J5.

B. Connect (1) Ethernet Cable (889960-001) to the Ethernet Switch J1 and to the iX board Ethernet connector.

C. Connect (1) Ethernet Cable (889960-001) to the Ethernet Switch J2 and to the opposite side iX board Ethernet connector.

D. Connect (1) Power Cable (890680-001) to the Power Dist. Board and to the Ethernet Board.

36. Repeat instruction Steps 5-15 and 18-31 for the opposite side of the dispenser.

37. Bundle all cables where possible and secure using Cable Ties (000-918486).

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

39. Reconnect AC power (pump control and lights) in the electronics head.

40. Close and lock bezel.

41. Turn power on to the dispenser.

42. Verify SPM and dispenser operation.

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.

1. **Turn off power to dispenser at circuit breaker** inside the building before starting this procedure.

3.1 Installation Instructions For 3/V Wide Body

Note: The same figure photos of the narrow body are used in the following instructions because of the similarities in the installation.

1. On both sides of the dispenser, open the bezels, disconnect the power and data cables from the bezels Figure 2, and remove bezels. Set bezels aside for reusing the displays.

2. Disconnect AC power (pump control and lights) in the electronics head.

3. A. Remove existing bezel hinges on the dispenser, see Figure 3. Discard hinges and save hardware. New hardware provided if needed.

   B. Disconnect grounds from the head frame and save hardware.

   C. If drip tray is present, remove from head chassis and discard.

   D. If totalizers are present, disconnect and discard the cable from the totalizers and J6 on the iGEM board. Remove the totalizer bracket and set aside for reusing the totalizers.

4. Disconnect and discard all cables/harnesses from Dual CAT board (887448-001), remove one Phillips screw and remove board from standoffs. Discard screw. Discard/save board as per site scope of work/customer requirements. See Figure 4.

5. Install Adapter Plate (WU002342-0001) using (6) # 8 Nuts (6019403), see Figure 6.

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

7. Install (1) Left Upper Hinge (WU001360) to Adapter plate using (2) 10-32 Nuts (6019404). See Figures 7.

8. 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-). NOTE: Leave hinge loose so bezel will install easier. See Figure 8.

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

10. 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.

11. A. Disconnect data and power cables from the back of the printer, Figures 9A and B. Discard data cable.

    B. Remove printer.

    C. For Clamshell only, remove and save the latch from the printer bracket. Figure 9C.

    D. Remove and save the copper spring from the printer bracket. Discard two screws.

    E. For Tear Bar, remove and save the slide rail from printer bracket. Save the (3) screws.

12. For Clamshell only, install (1) Printer Bracket using (1) #8 screw (6005909) and (1) #4 screw (882872-015). Figure 10. See Table 1 parts list (item 6) and Figure 1C layout.

13. For Tear Bar only, install (1) Printer Bracket reusing (2) of the screws saved from the slide rail and(1) #8 screw (6005909). See Table 1 parts list (item 6) and Figure 1C layout

14. For Clamshell only, install printer latch (887650-001), saved above, onto the new Printer Bracket using (2) #4 screws (882872-015).

15. Install copper spring (883757-001), saved above, onto the new Printer Bracket using (2) #8 screws (000-918935-).

16. For Tear Bar only, install slide rail, saved above, onto the new Printer Bracket using (3) screws (000-918935-).

17. *IF BLUE BOARDS* - Install (2) Large iX Brackets (WU002340-0001) inside the electronic head using (4 per bracket) #8 screws (6005901). Figure 11 shows the bracket completely installed. The second bracket will mount the same on the opposite side coumn.

    IF R2 (RED) BOARDS - Install (1) Large iX Bracket (WU002340-0002 inside the electronic head using (4 per bracket) #8 screws. Figure 12B shows the bracket completely installed.

18. Remove the existing printer gasket from the printer and clean off all gasket residue.

19. For Clamshell printer, install (1) Printer Gasket (889784-001).

    For Tearbar printer, install (1) Printer Gasket (889784-002).

20. A. Reinstall printer.

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

21. Lay the new Main Bezel (WU000544) face down on a flat surface, Figure 13. Use protective pads, etc., to ensure that the front of the bezel does not get scratched.

22. A. On the old bezel, remove the Sales Display by removing the (8) screws Figure 2A. On the new bezel, remove glass retainer brackets then install the display onto the new bezel reusing the hardware. New #8 screws (916760) provided as needed. See Figure 14.

    B. Connect the PTS (grade select) switch cable to the Sales Display J3 and connect the display data cable to J1.

    C. Connect Backlight cable to the backlight connector from the Sales Display and attach ground wire.

23. Install Main Bezel onto dispenser, upper hinge first then lower hinge, and tighten the nuts on the lower hinge. See Figure 11.

24. 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:

25. Connect Printer Data Cable (888794-003 for clamshell or WU001926 for Tear-bar) to the printer (route cable through the grommet in the chassis, then connect to 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 QVGA Cable (888798-004) to the iX board J20 (Port 1).

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

27. *BLUE BOARD* - Connect USB Cable (892139-003) to the “USB 1” connector on the iX Board.

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

28. A. Connect DC power cable (890680-003) coming from the bezel to the Y-jumper

Cable (WU001565-0001).

B. Connect the Y-jumper cable to either of the spare 2-pin connectors on the 24VDC Power
Dist. Board.
Note: The other end of the connector on the Y-jumper cable is for the opposite side SPM
when installed.

29. Secure the SPM ground strap and (the green wire ground from the ISB if side1) to the head frame reusing the hardware save previously.

30. Disconnect/discard the Bit Bus cable from the iGEM board and connect the Display Cable (886486-xxx) coming from the (bezel harness/sales display J1) to iGEM Board (J15 Bit Bus A for side 1, or J16 Bit Bus B for side 2).

31. A. From the bezel harness, connect the Backlight cable (WU001117-0001) to the Y-jumper cable (WU001564-0001), then connect the Y-jumper to existing backlight "black and white" cables coming out of the dispenser's firewall.

32. If installing the second side parts, connect DC power cable (890680-003) coming from the bezel to the Y-jumper Cable (WU001565-0001) previously installed at DC Dist board for the opposite side.

33. *IF BLUE BOARD* - Connect Y-jumper cable (892369-002) to either of the spare 2-pin connectors on the 24Vdc Power Dist. Board and to both iX boards (6-pin Power).

    IF RED BOARD - Connect Y-jumper cable (892369-002) too wither of the spare 2-pin connectors on the 24Vdc Power Distribution Board and to the iX Board (6-pin power).

34. *IF BLUE BOARD* - Connect DL/RS-485 cable (WU001085) to the iGEM board J25 and to both iX boards (J19 Port #3), then connect to the 9-pin connector at the vapor barrier potted fitting.

    IF RED BOARD -Connect DL/RS-485 cable (WU001085) to iGEM board J25 and to iX board J17 (Port #3) then connect to the 9-pin connector at the vapor barrier potted fitting.

35. *IF BLUE BOARD* - Connect Annunciator cable (890766-001) to both iX boards and to the iGEM board as follows:
    The two connector end of cable (2-pin) & (4-pin) connects to iGEM board as follows:
    P6 to J22 Buzzer A and P7 to J13 CAN.
    The three connector end of cable connects to side 1 iX board as follows:
    ANNUN P4 to J18 Annunciator, P3 to J4 CAN, and P5 to J31 CAN.
    Connect the other end with the two 2-pin connectors to the iX board for the opposite side.

    IF RED BOARD - Connect Annunciator cable (890766-001) to both iX boards and to the iGEM board as follows:

The two connector end of cable (2-pin) & (4-pin) connects to iGEM board as follows:
P6 to J22 Buzzer A and P7 to J13 CAN.
The three connector end of cable connects to side 1 iX board as follows:
ANNUN P4 to J5 Annunciator, P3 to J3 CAN, and P5 to J2 CAN.
Connect the other end with the two 2-pin connectors to the iX board for the opposite side.

36. Optional Totalizers:

    A. If totalizers were existing, remove the totalizers from the bracket saved in Step 3 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 887695-024 supplied with the bezel to the totalizers and to
    J6 on the iGEM board.

37. Optional Ethernet equipment:

    A. Connect the underground Ethernet cable to the Ethernet Switch J5.

    B. Connect (1) Ethernet Cable (889960-001) to the Ethernet Switch J1 and to the iX board Ethernet connector.

    C. Connect (1) Ethernet Cable (889960-001) to the Ethernet Switch J2 and to the opposite side iX board Ethernet connector.

    D. Connect (1) Power Cable (890680-001) to the Power Dist. Board and to the Ethernet Board.

38. 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 1C):

F. Re-mount existing antenna (887528-002) to right bezel door (WU000975-0003) using 4 standoffs (WU000885-0011) and 4 washers (WU002016-0001) (Figure 17).

G. Reconnect existing trac cables to light board (Figure 18):
- 886012-008 - J1
- 884237-003 - J3
- 884148-003 - J5

H. Reconnect cable from Light board to Antenna J1 (Figure 17).

I. Remove and discard jumper on **JP1** from Antenna (Figure 17).

J. Mount existing Light board to standoffs on Antenna using 4 screws (6005901) (Figure 19).

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-) (Figure 20). (Refer to Figure 21 for *TRAC* installed.)

39. Optional *SCAN*:

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 23).

C. (On Options 1 & 2) Remove 3 screws holding the Scanner Assembly Bezel (Figure 23).

D. (On Options 1 *& 2*) Remove Scanner bracket from Scanner Assembly Bezel (Figure 24).

E. (On Options 1 & 2) Disconnect Scanner cable from scanner and save 2 screws (Figure 24).

F. (On Option 1 *only*) Remove and save Scanner (Figure 24).

G. (On Options 1 & 2) Remove and save Light board (Figure 24).

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 25).

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 26) .

K. (On Option 1 only) Install existing Scanner onto new Scanner Bracket (889197-001) using 2 Screws (882666-016) (Figure 27).

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 28).

(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 28).

N. (On Options 1 & 2) Reconnect Scanner cable to top of scanner using 2 previously-saved screws (Figure 29). (Refer to Figure 33 for *SCAN* installed.)

O. Route new Scanner cable (886484-006) through the dispenser and install it to the SPM on connector J15 (Figure 31).

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

Q. Clamp cable harness to dispenser using 1 clamp (000-918066-), 1 screw (000-918137-), 1 washer (000-913632-), and 1 nut (000-507868-) (Figure 20). (Refer to Figure 21 for *TRAC* installed.)

40. Repeat instruction Steps 5-16 and 18-32 for the opposite side of the dispenser.

41. Bundle and tie wrap all cables where possible.

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

43. Reconnect AC power (pump control and lights) in the electronics head.
44. Close and lock bezel.
45. Turn power on to the dispenser.
46. Verify SPM and dispenser operation.

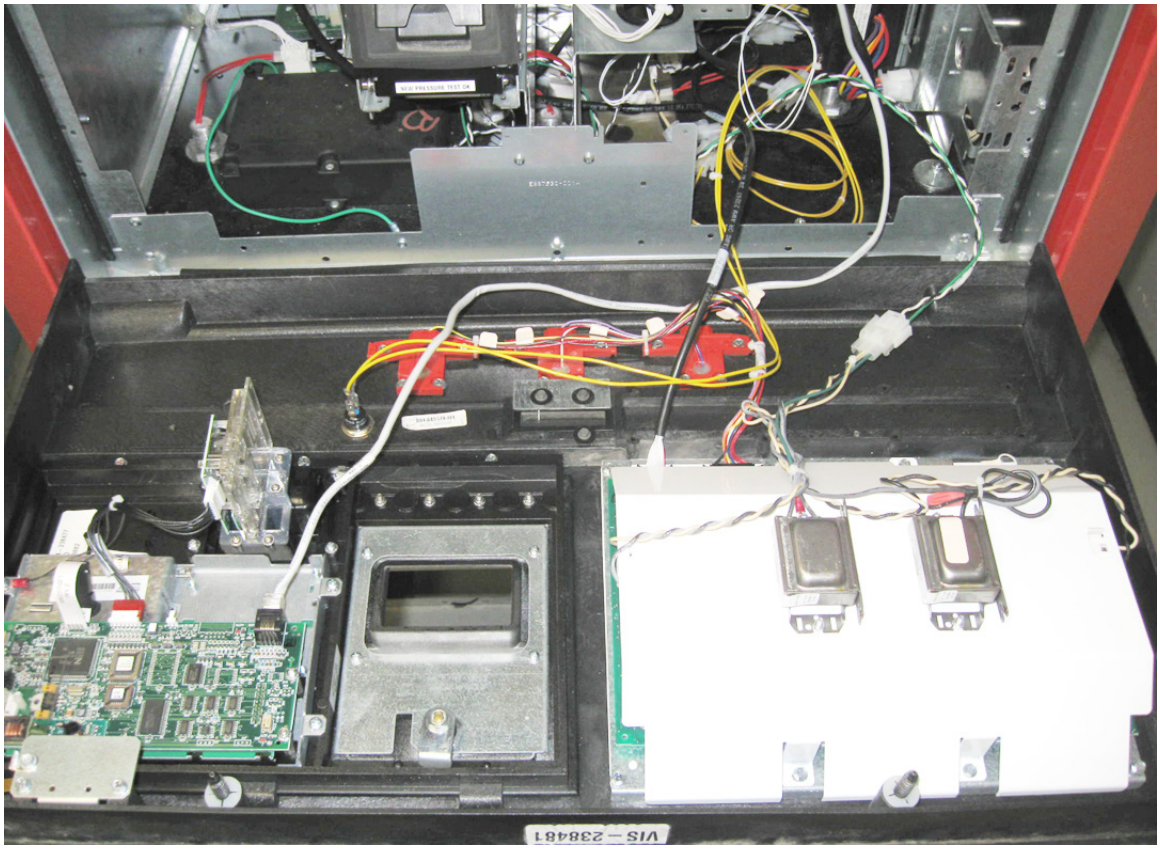


FIGURE 2

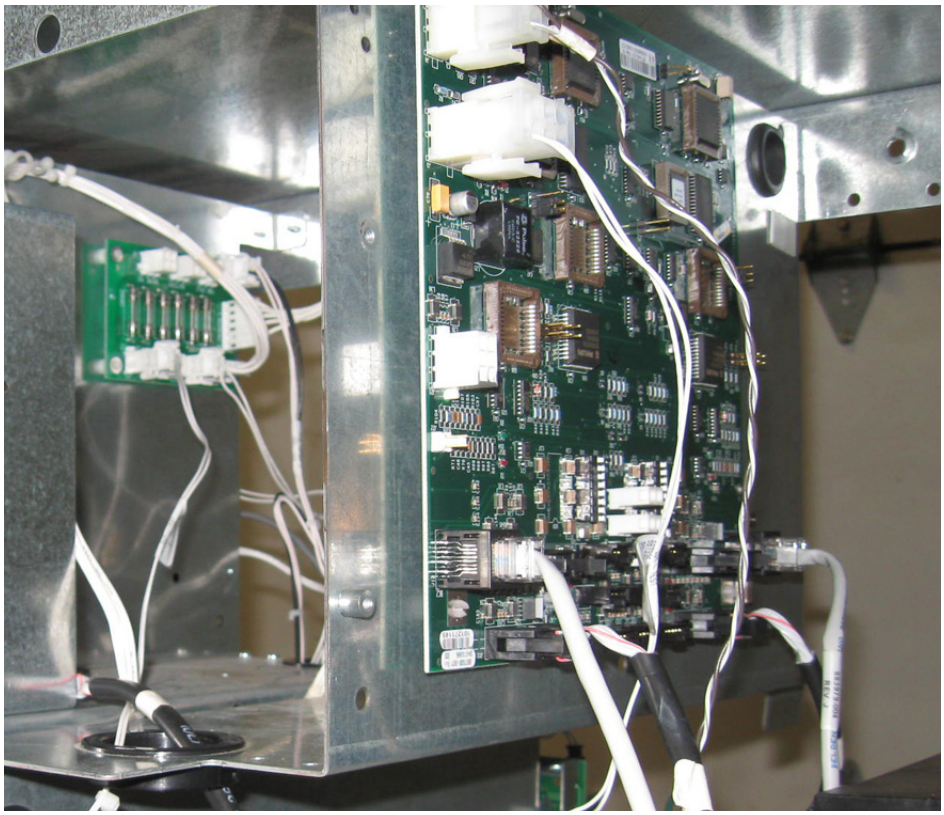


FIGURE 3

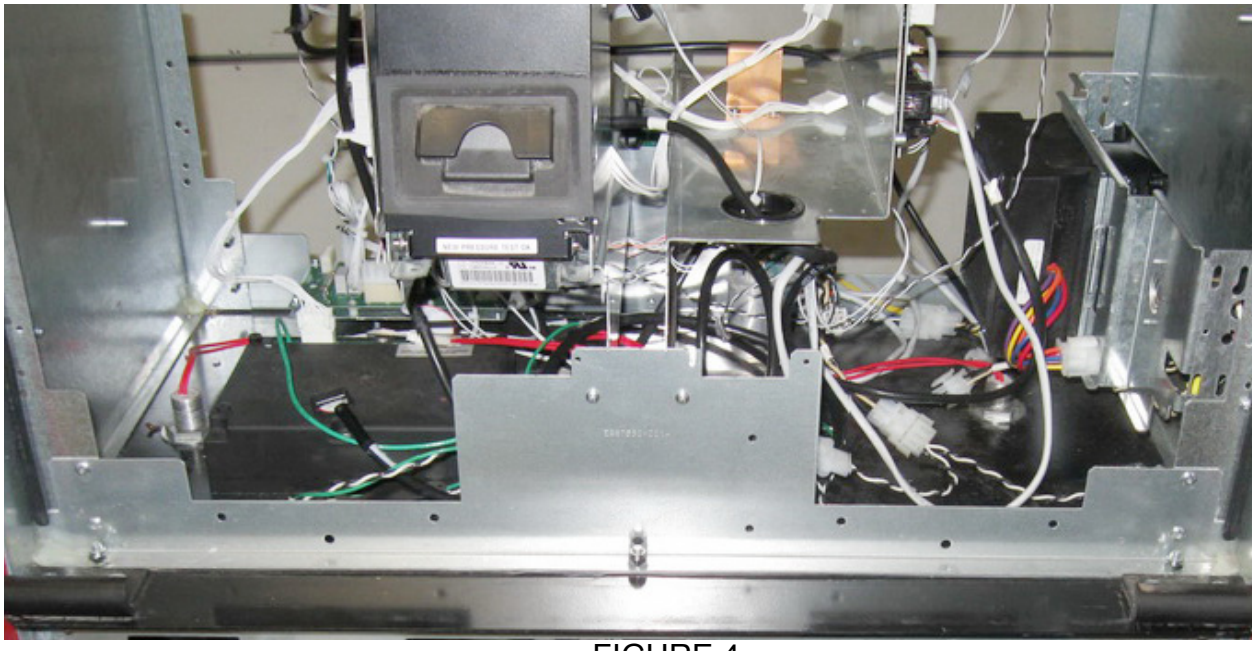


FIGURE 4

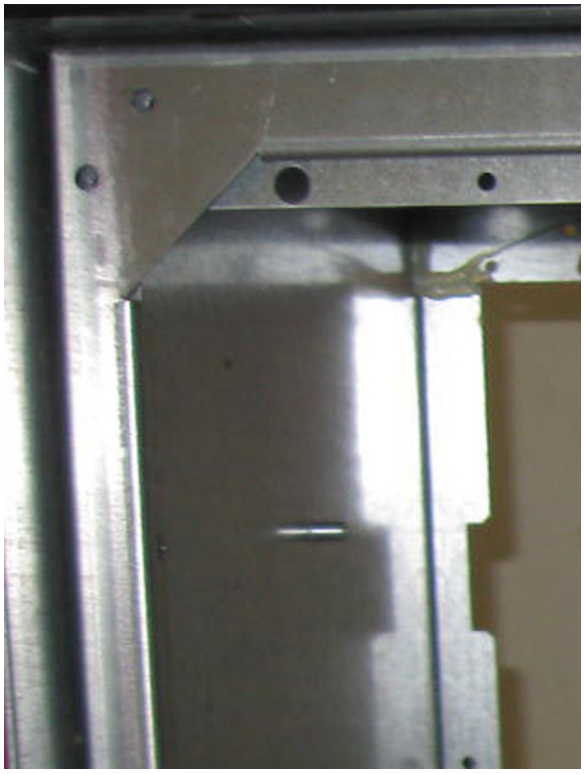
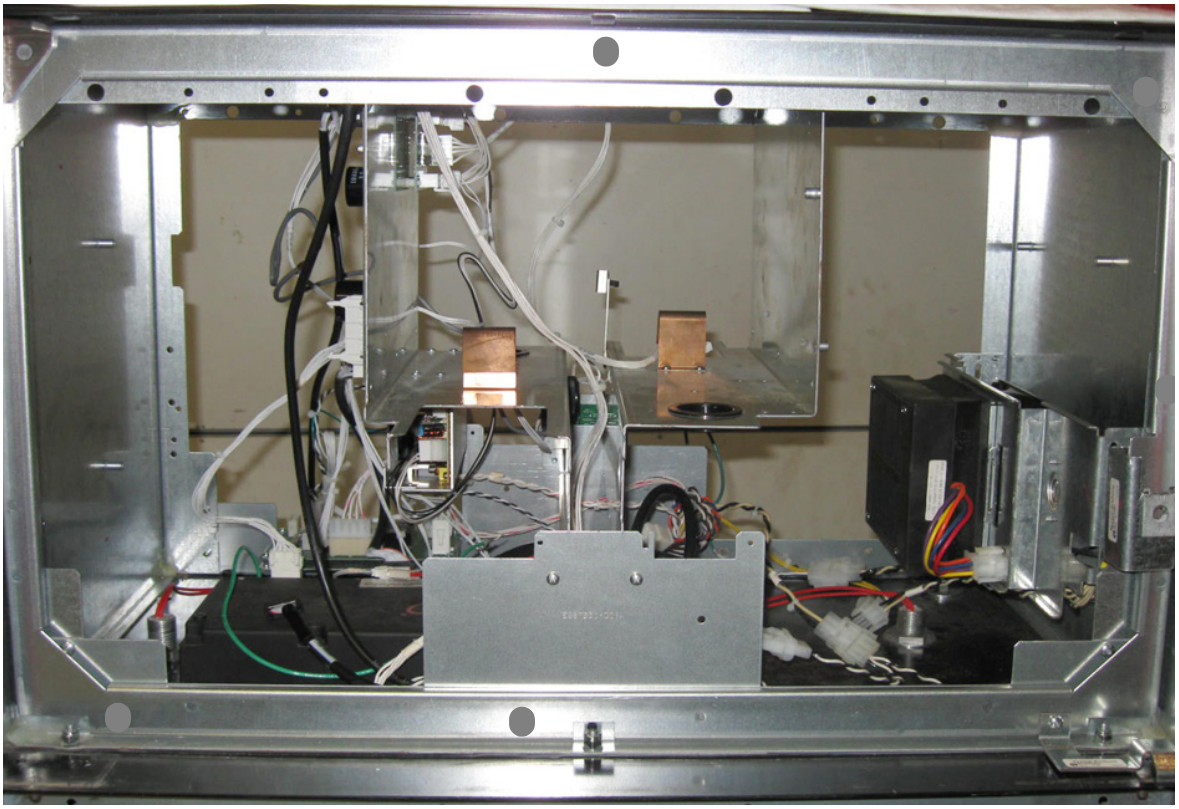


FIGURE 5



● Notes the locations for (5) #8 Nuts to Secure Adapter Plate on Narrow Model.
Wide Model (7) #8 Nuts in similar locations.

FIGURE 6

FIGURE 12B

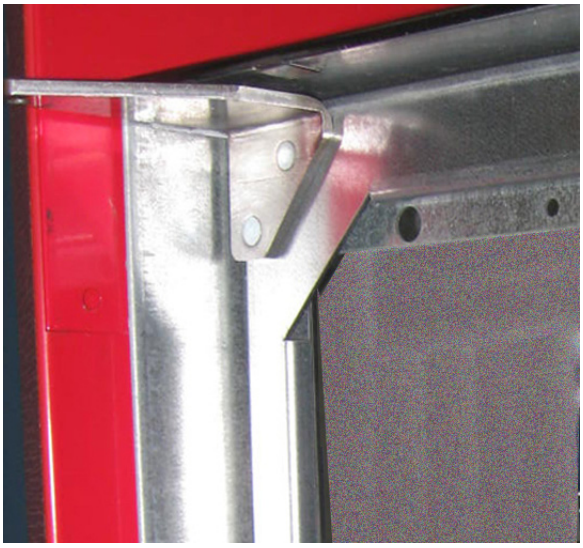


FIGURE 7

FIGURE 8

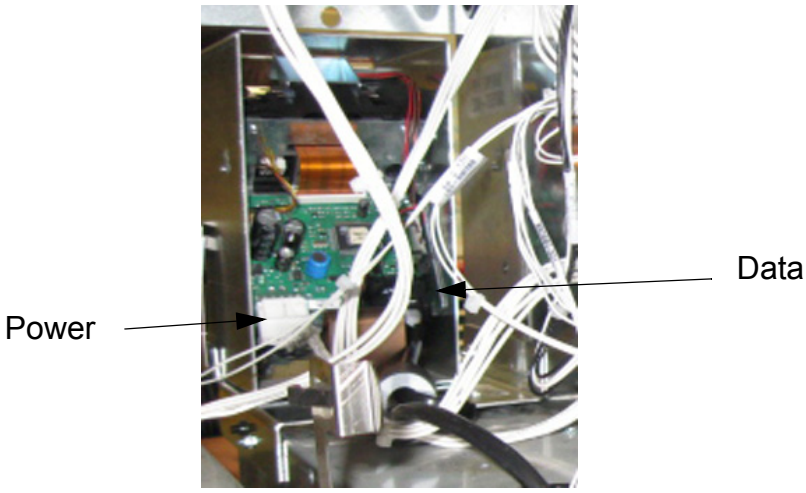


FIGURE 9A

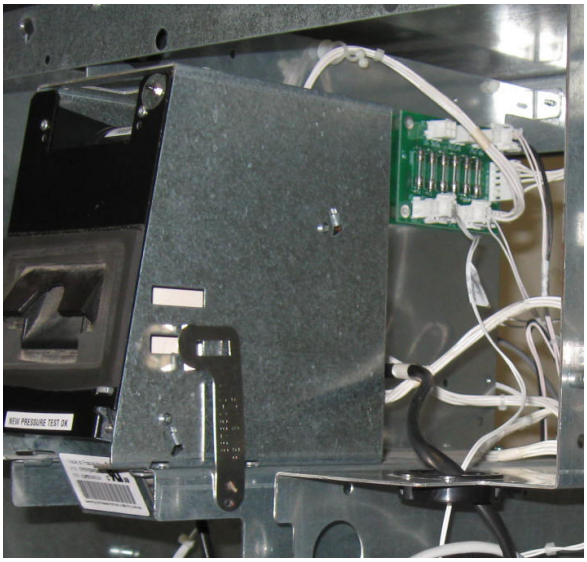


FIGURE 9B

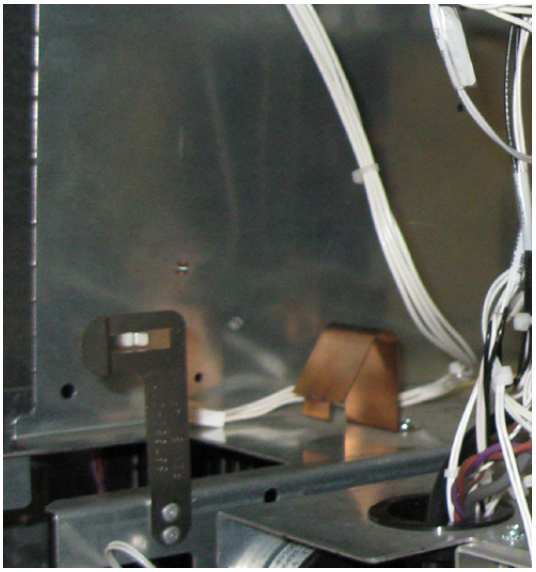


FIGURE 9C

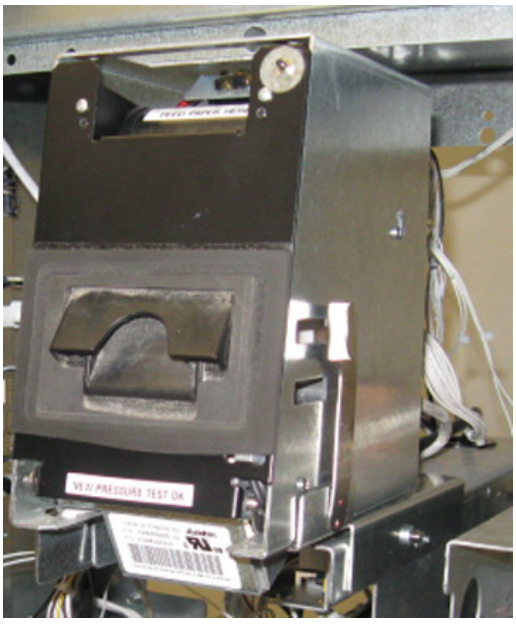


FIGURE 10

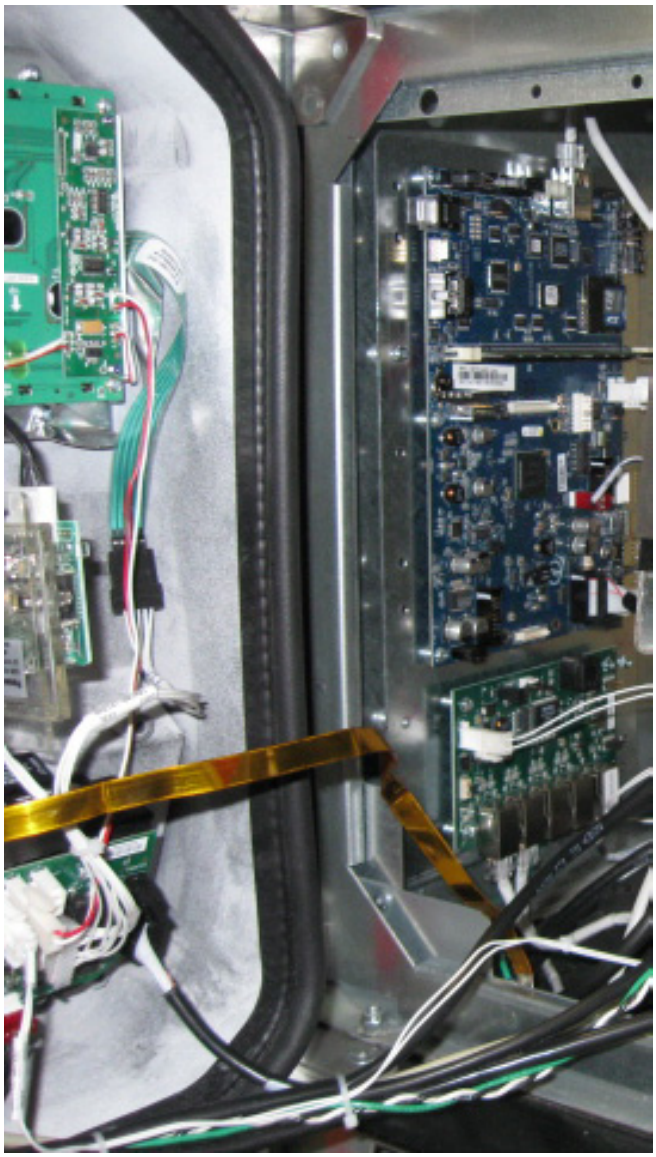
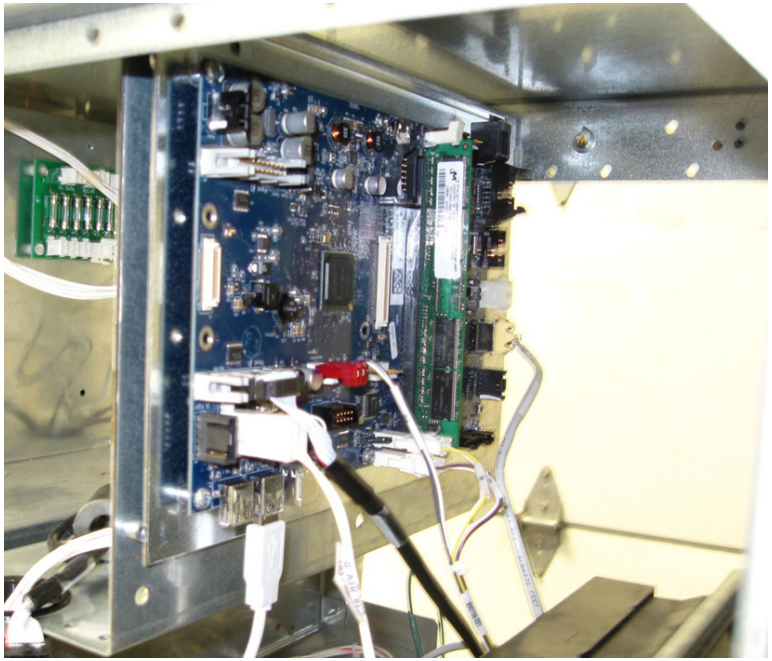


FIGURE 11



iX (Blue) Installed

iX R2 (Red) Installed

FIGURE 12

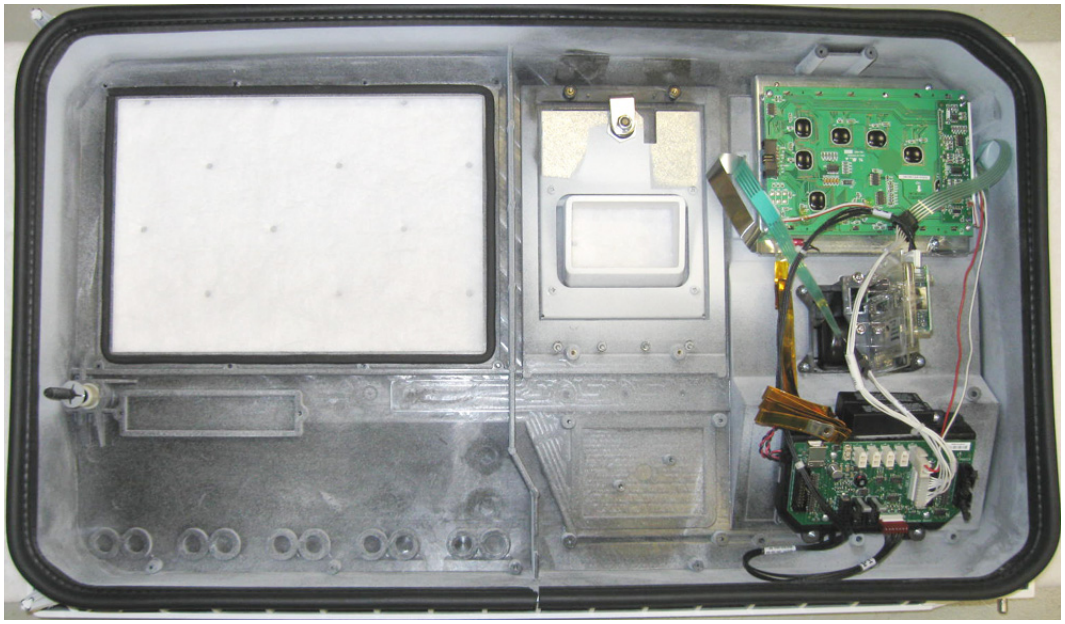


FIGURE 13

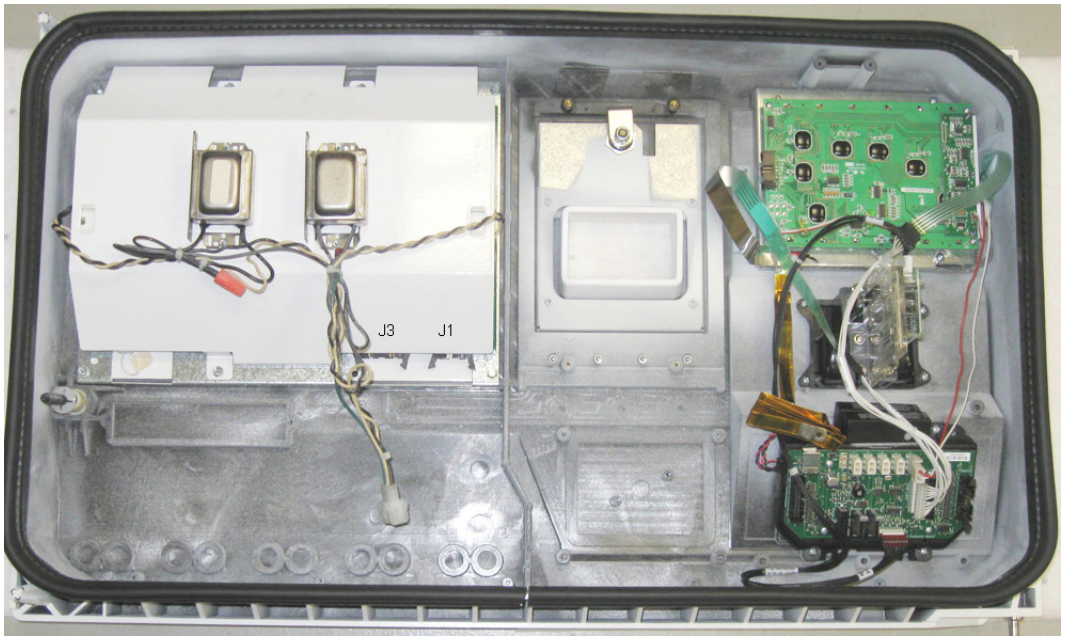


FIGURE 14

FIGURE 15

FIGURE 16

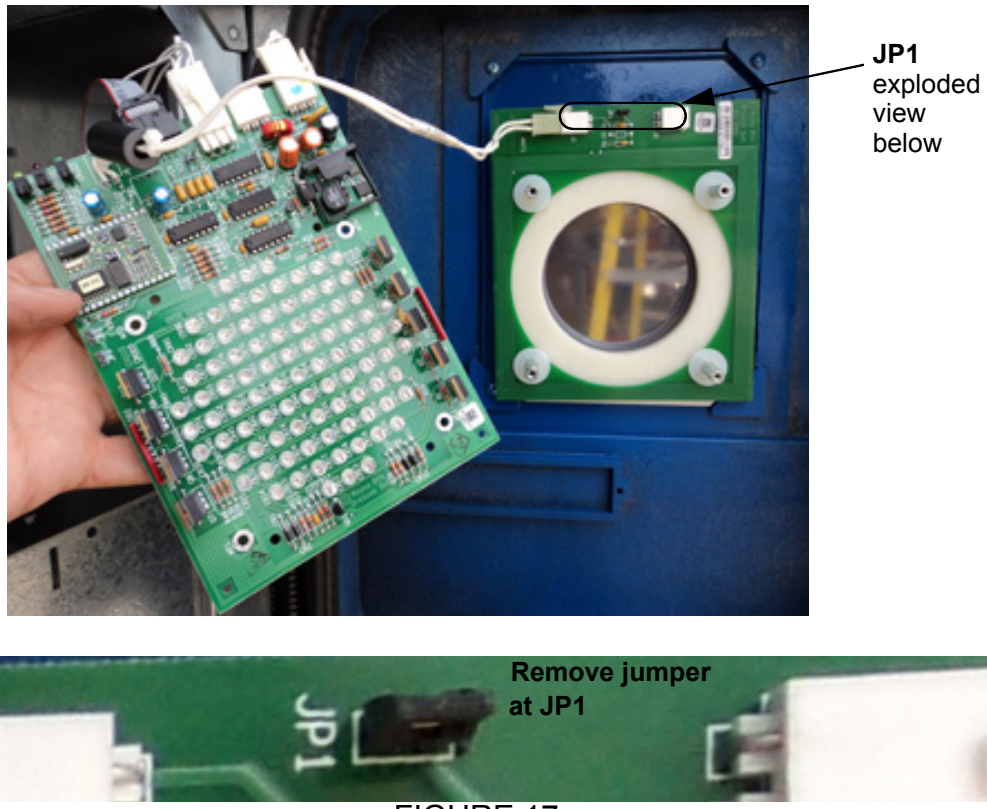


FIGURE 17

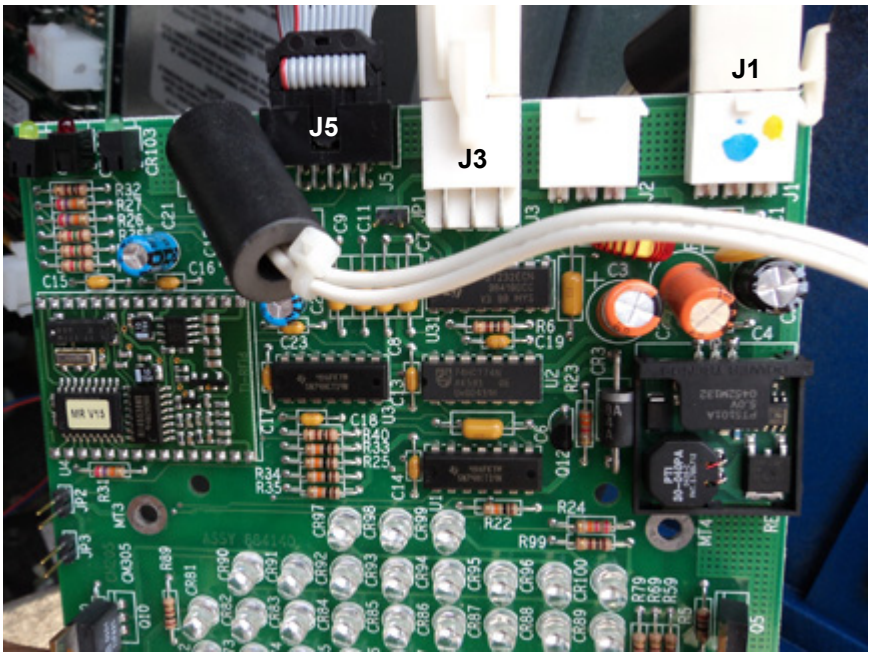


FIGURE 18

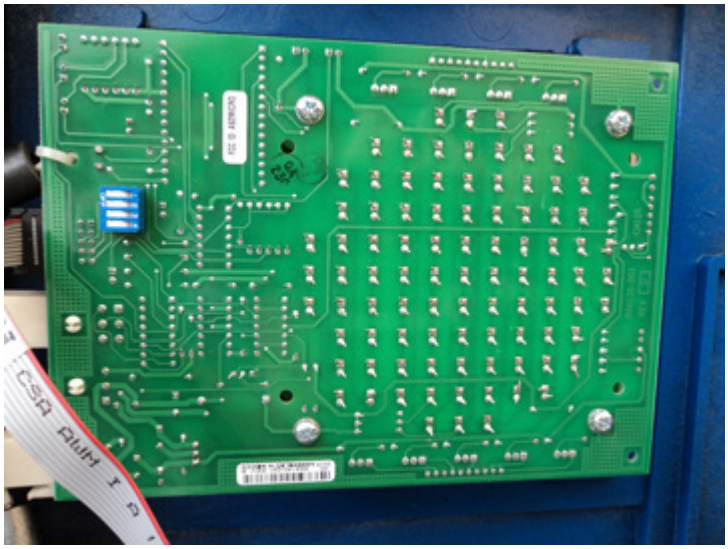


FIGURE 19

FIGURE 20

FIGURE 21 *TRAC Installed*

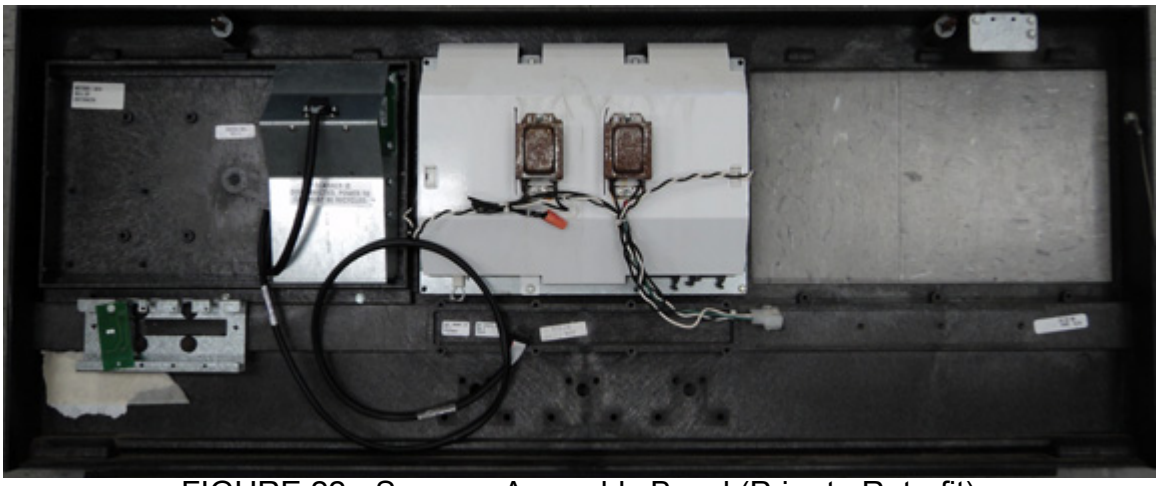


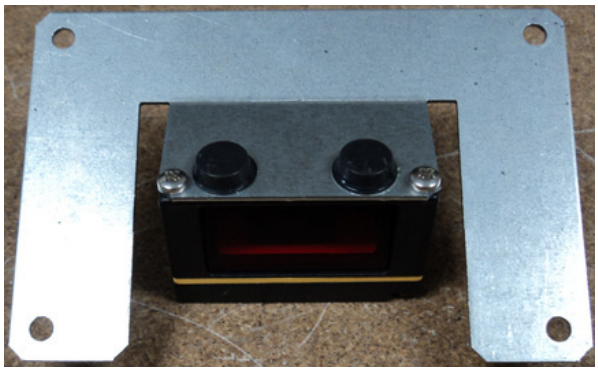
FIGURE 22 - Scanner Assembly Bezel (Prior to Retrofit)

FIGURE 23 - Old Bezel and Totalizer Bracket

FIGURE 24

FIGURE 25

FIGURE 26



SCAN option 1

SCAN option 2

FIGURE 27

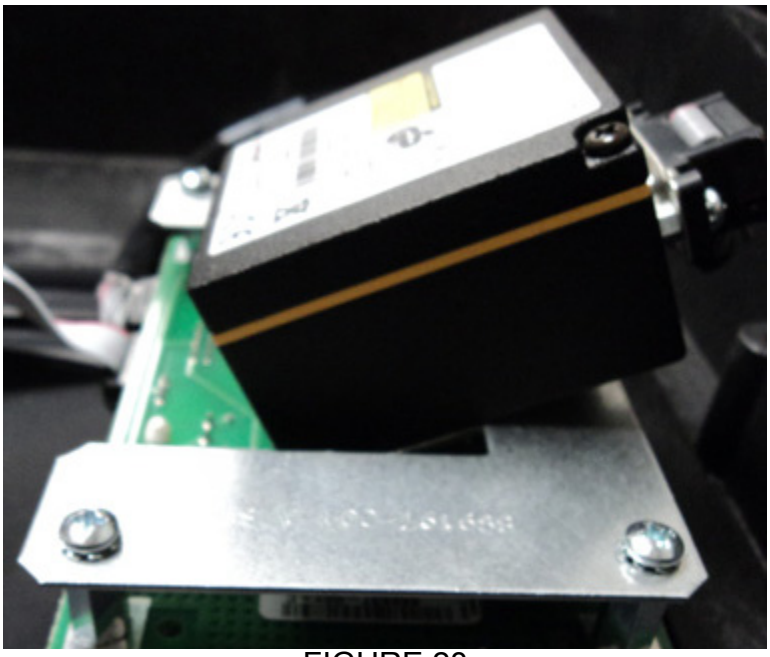
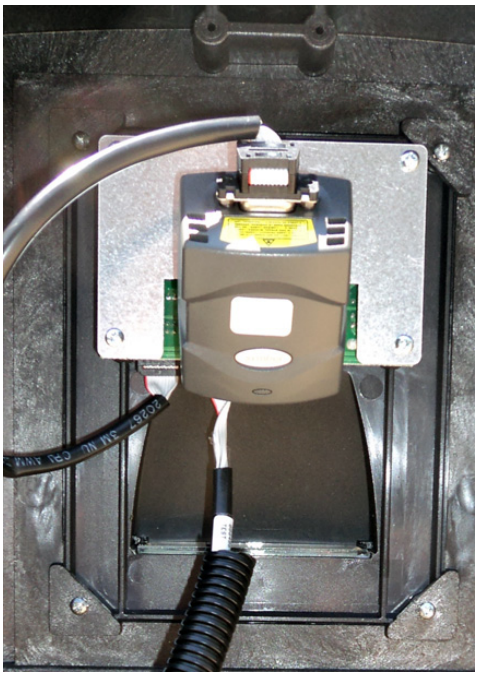


FIGURE 28

SCAN Option 1



SCAN Option 2

FIGURE 29

FIGURE 30 - *SCAN* option installed

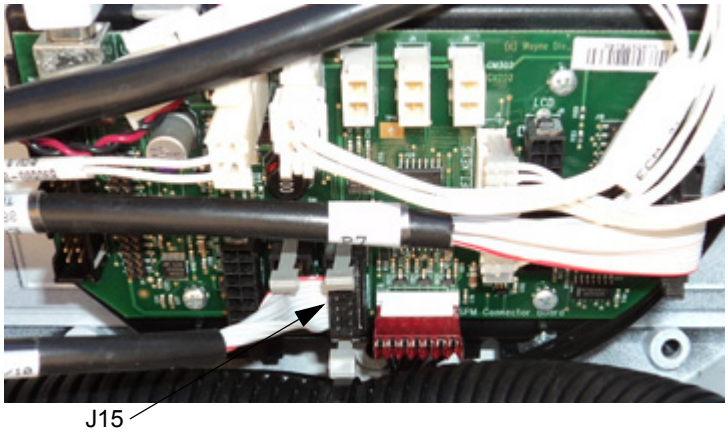
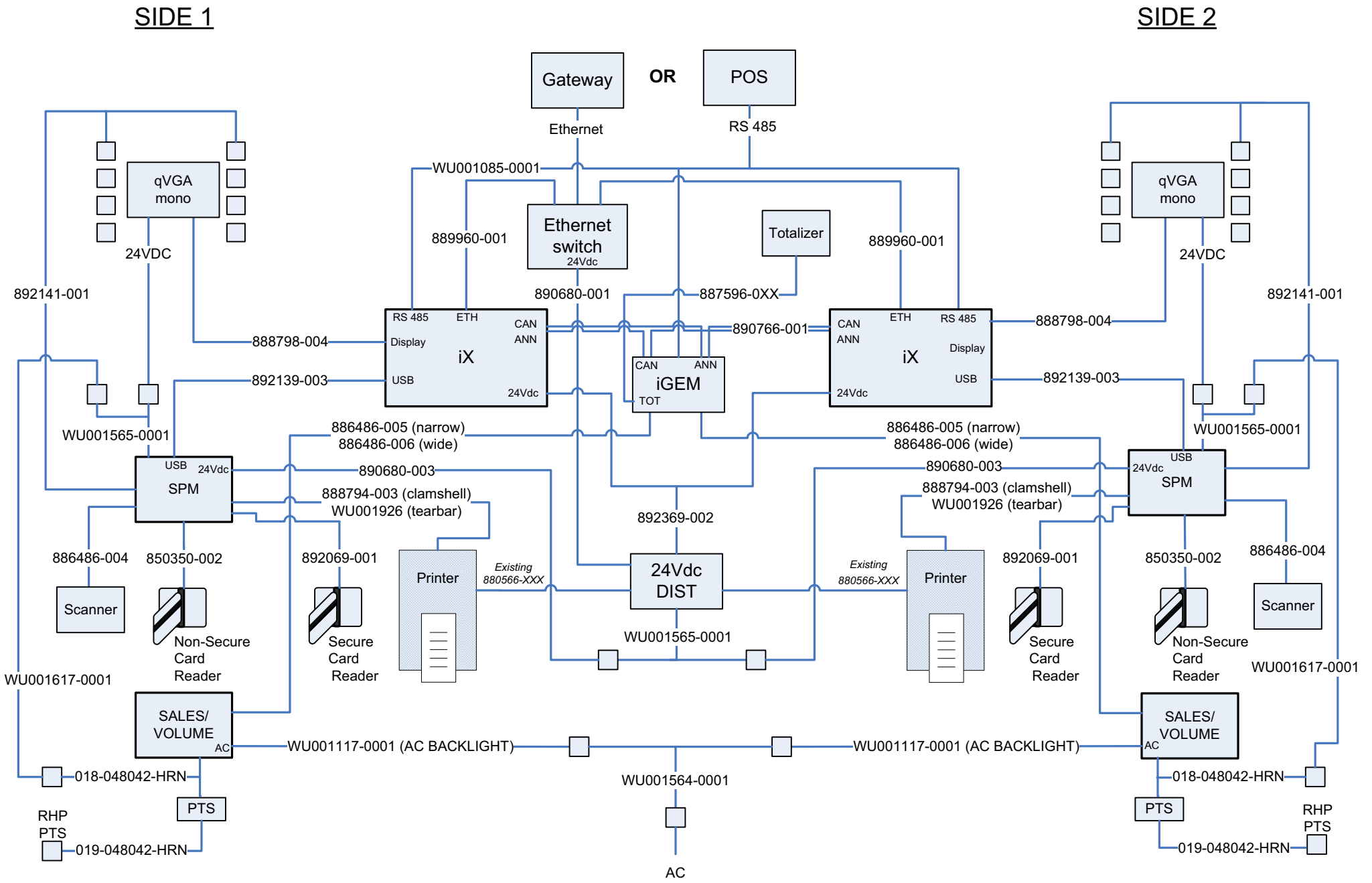
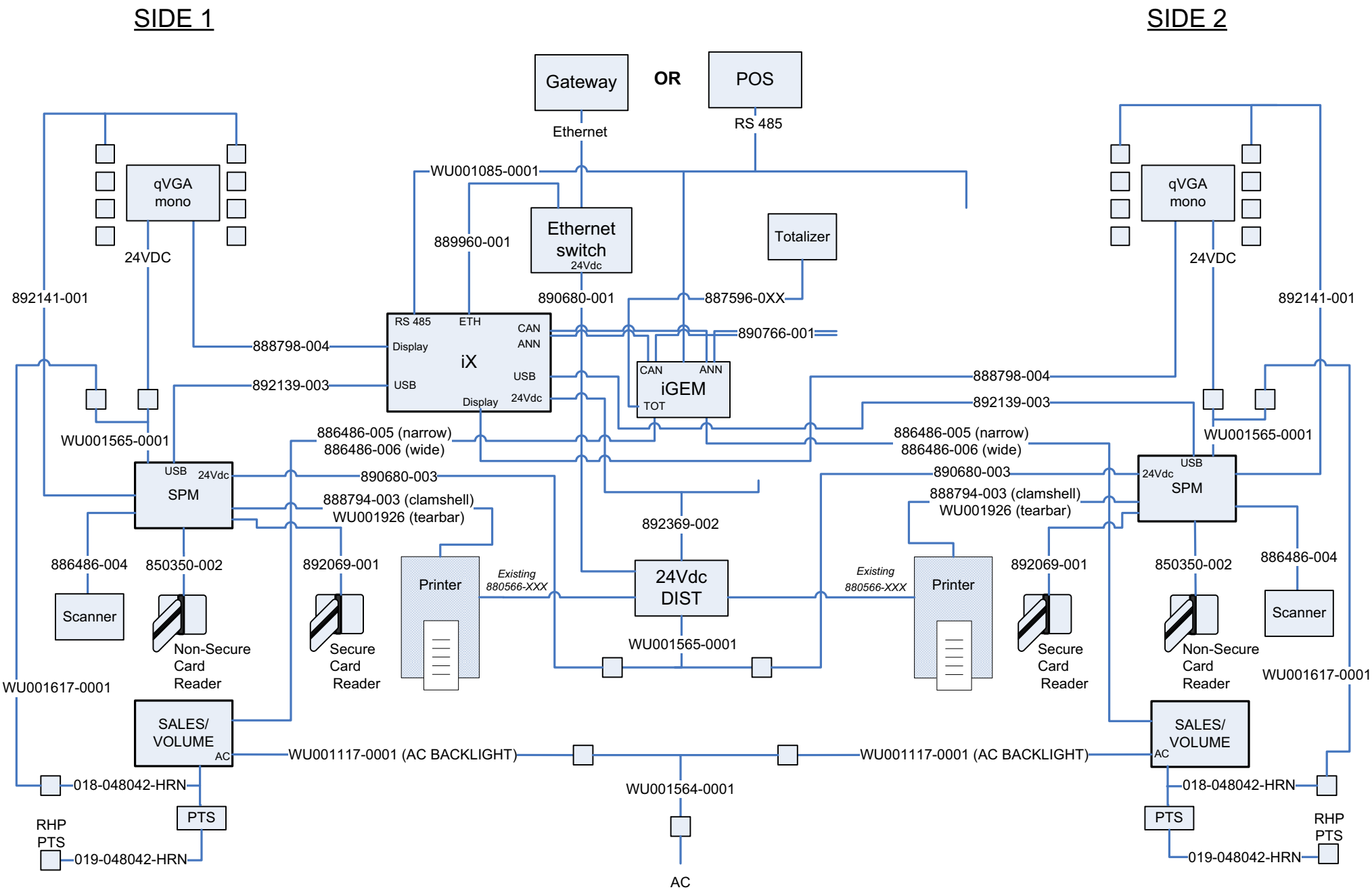


FIGURE 31 -Scanner Cable to SPM J15

3 Vista SPM Retrofit Wiring Diagram



3 Vista SPM Retrofit Wiring Diagram for R2



INSTALLATION MANUAL

SPM Retrofit Kits for 3V Dispensers

Written by S. G. Martin

This manual was produced using Adobe® FrameMaker® and Photoshop®

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

Dresser Wayne, Dresser, Inc. 3814 Jarrett Way, Austin, TX 78728 (512) 388-8311

Part No. 940023 Rev B

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