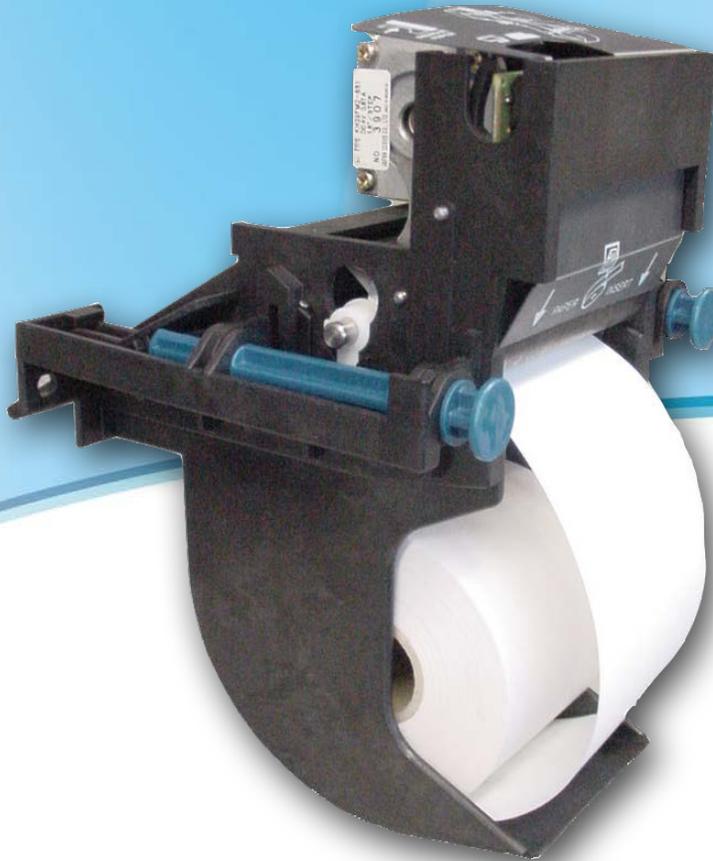


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M1703 C/OPT Receipt Printer Upgrade Procedure Guide

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OPW Fuel Management Systems

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Precautions

Before installing your C/OPT receipt printer upgrade please observe the following precautions.



WARNING: Prior to installation, power must be turned OFF to reduce the possibility of electrical shock.



1. Unlock and open the C/OPT console door.



2. The red power supply toggle switch is located on the left rear of the console. Flip the switch down to the OFF position to power down the unit.



ATTENTION:

OBSERVE PRECAUTIONS FOR HANDLING ELECTROSTATIC DISCHARGE SENSITIVE DEVICES

Following the guidelines below can minimize the potential for damage from Electrostatic Discharge (ESD).

- Observe proper grounding techniques prior to handling any Electrostatic Discharge Sensitive (ESDS) device
- If possible, use an ESD Field Service Kit with wrist strap, dissipative mat and grounding cord
- Avoid standing on carpeted surfaces while working with ESDS devices
- Never leave ESDS components/assemblies unattended
- Keep any new component in its anti-static packaging as long as possible prior to installation
- Handle ESDS components by the edges and avoid touching any of the circuitry.

Important Considerations



IMPORTANT: Observe proper orientation of connections with their corresponding sockets

Make sure connector latches are properly engaged

Carefully read and understand these instructions before you start the installation

Section 1 Introduction



IMPORTANT: The C/OPT main circuit board must be upgraded with any C/OPT purchased prior to May 1, 2011.* This must be done prior to installing the C/OPT receipt printer upgrade.
*If your C/OPT was purchased after May 1, 2011, your terminal is already properly configured to support the C/OPT printer sub-assembly (OPW Part Number 20-6203).

Before Proceeding with the Receipt Printer Installation

You must first determine the model of your C/OPT main circuit board:

If the C/OPT has the PV330/296 board with one of the following software options installed, you will need the upgrade kit that corresponds with your main board software version for a complete upgrade to the C/OPT Receipt Printer-12VDC.

20-4417-1 C/OPT w/330/296 - Standard:

QTY	P/N	Description
1	20-4339	C/OPT Receipt Printer Option
1	20-4286-1	C/OPT Main Board Upgrade
1	20-4233	Door Bracket with Magnetic Coil
1	M1703	C/OPT Receipt Printer Upgrade Installation Guide

20-4417-2 C/OPT w/330/296 - Imperial:

QTY	P/N	Description
1	20-4339	C/OPT Receipt Printer Option
1	20-4286-2	C/OPT Main Board Upgrade
1	20-4233	Door Bracket with Magnetic Coil
1	M1703	C/OPT Receipt Printer Upgrade Installation Guide

20-4417-2 C/OPT w/330/296 - Comdata:

QTY	P/N	Description
1	20-4339	C/OPT Receipt Printer Option
1	20-4286-2	C/OPT Main Board Upgrade
1	20-4233	Door Bracket with Magnetic Coil
1	M1703	C/OPT Receipt Printer Upgrade Installation Guide

Please refer to manual **M00-20-4286 C/OPT Main Board Upgrade** and follow the installation instructions.

Proceed with uninstalling your current C/OPT receipt printer (see the instructions below in the section **Uninstall a Current C/OPT Receipt Printer Option**).

If the C/OPT has the PV343 board purchased prior to May 1st, 2011, read and follow the instructions in the section below titled: **If C/OPT is Equipped with a PV343 Board**.

C/OPT Receipt Printer Option, P/N 20-4339:

QTY	P/N	Description
1	75-0124-12V	C/OPT Printer 12 VDC
1	20-1679	Modified Data Cable
1	20-1677	Modified Power Cable
1	280-007	Cable Tie
1	50-3203	Adapter Block
2	50-0391	Screw 10-32 x 1/2" PHIL PH ZP
4	50-0229	Screw 8-32 x 5/8 PHIL PANHD
1	54-1106	Thermal Paper 4" Diameter Roll
1	50-2127	Cable Clamp

C/OPT Printer Sub-Assembly PN/ 20-6203

If C/OPT is Equipped with a PV343 Board:

If you have a C/OPT with a PV343 board and an installed Seiko printer, you will need to replace the board with the supplied PV343 board.

20-4416-2 C/OPT w/343- prior to May 1, 2011:

QTY	P/N	Description
1	20-4339	C/OPT Receipt Printer Option
1	20-0343	C/OPT PV343 Main Board
1	20-4233	Door Bracket with Magnetic Coil
1	M1703	C/OPT Receipt Printer Upgrade Installation Guide

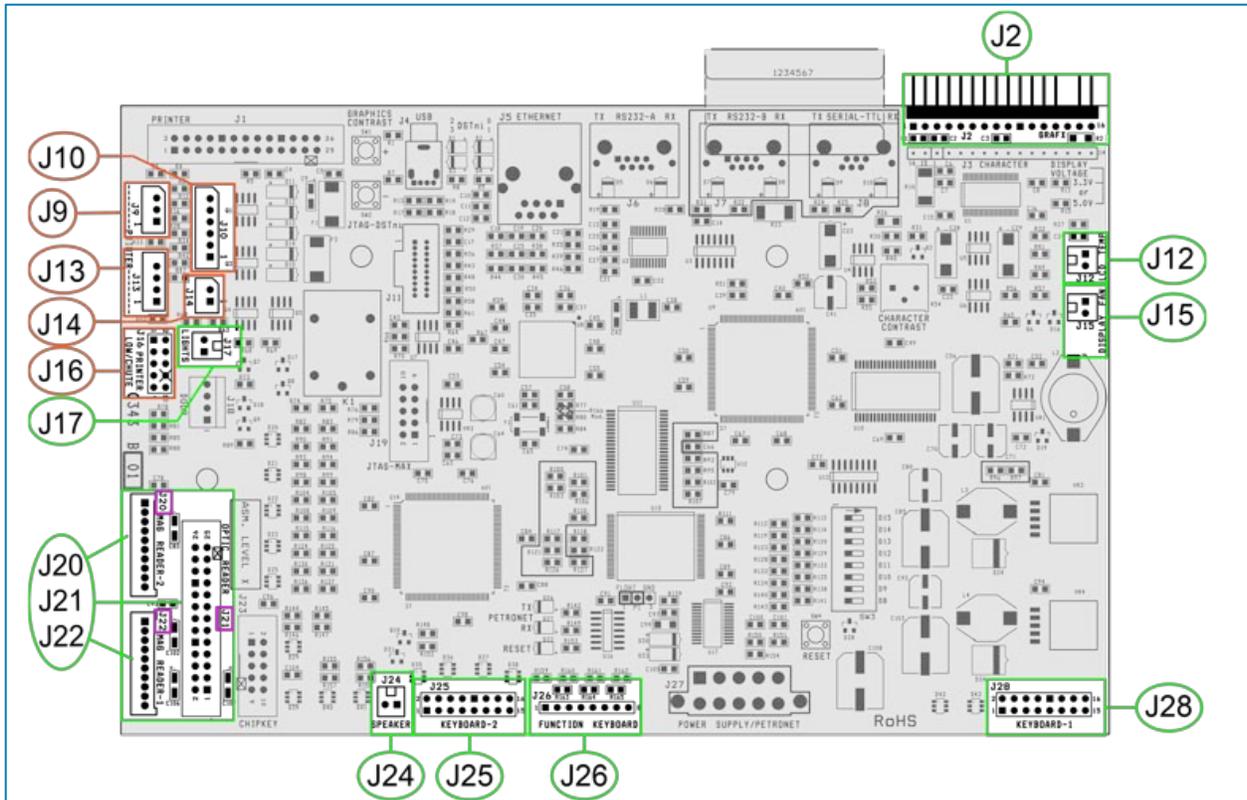
1. Unlock and open the door of the C/OPT console.
2. The red power supply toggle switch is located on the left rear of the console. Flip the switch down to the OFF position to power down the unit.
3. Look over the electronics on the back of the door. They will be similar to the example below.



NOTE: Your hardware could vary, depending on the original options that were installed.

- a. Disconnect all cables from the main circuit board.
- b. Remove the four (4) mounting screws holding the PV343 board to the door. Set them aside for the next step.

4. Install the replacement upgraded PV343 main board. Use the four (4) mounting screws that were removed in step 3b.



5. Reconnect the cables from the door-mounted equipment (locations marked in green on the illustration above):



NOTE: Do not reconnect the printer cables: J10, J9, J13, J14 or J16, since you will be removing the printer after you have finished installing the new PV343 board (locations marked in orange on the illustration above).



NOTE: Make sure the cable wires exit both the PV343 main board and display connections in a downward direction as in the photo above. This will avoid damage and maintain correct display operation.

- Display cable to J2.
 - Display temperature sensor to J12.
 - Display fan to J15.
 - Numeric keypad to J28 "keyboard-1."
 - Alpha keypad to J25 "keyboard-2."
 - Function keypad to J26 "function keyboard." Do NOT twist the cable!
 - Beeper to J24 "speaker."
 - Door solenoid to J18 "door."
 - Light fiber bundles to J17 "lights."
 - Card readers to J20, J21, or J22 as appropriate for the installed hardware.
 - If the door is equipped with a magnetic card reader, an updated cable will be required.
 - The replacement 20-1627 proximity card reader cable terminates differently at terminals 4 and 6 of connector-2 of the Wiegand to strobed converter, as compared to the old (incompatible) 20-1620 cable
6. Depending on the original options installed, proceed with installing the power-supply adapter board (if required).
- Install the power-supply adapter board on the bottom two standoffs Use the two lower mounting holes of the adapter and two 8-32 x 5/16" Philips PANHD screws.
 - Install the jumper power cable.
 - Attach the power wiring harness to the power adapter board at the three (3) connector locations.



NOTE: Double-check all connectors for correct location and orientation before continuing with uninstalling your current C/OPT Receipt Printer Option.

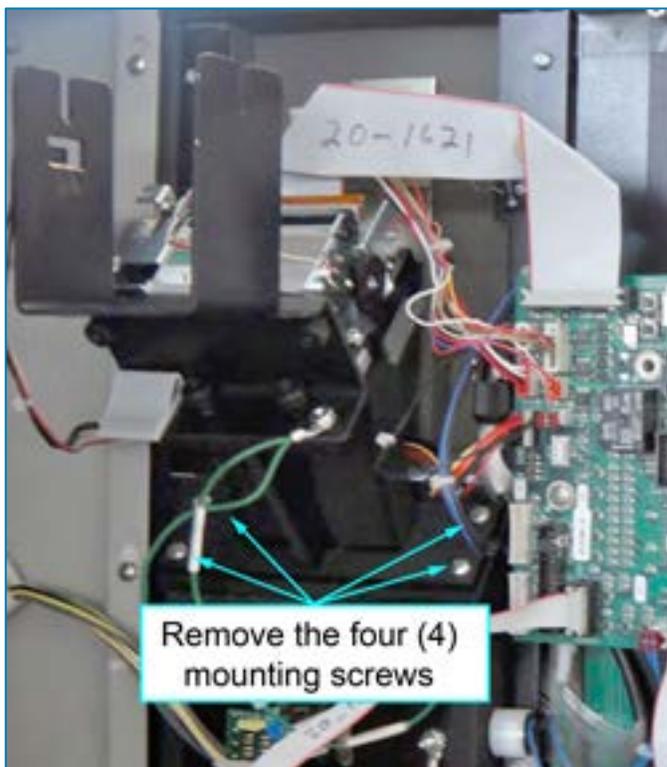


IMPORTANT: Do not throw away your old PV343 board. It can be returned to OPW-FMS for core credit.

Section 2 Uninstall a Current C/OPT Receipt Printer Option

Before installing your new C/OPT Receipt Printer Option, you must first uninstall your current receipt printer.

1. Make sure the C/OPT unit power is OFF.
2. Remove any paper that might be in the printer by turning the switch arm, located on the printer, clockwise and removing the paper roll from the bracket.
3. Be sure all of the printer cables have been disconnected.
4. Unscrew the printer's four (4) mounting screws. See the illustration below.
5. Remove the printer from the enclosure.



Section 3 Install a New C/OPT Receipt Printer Option

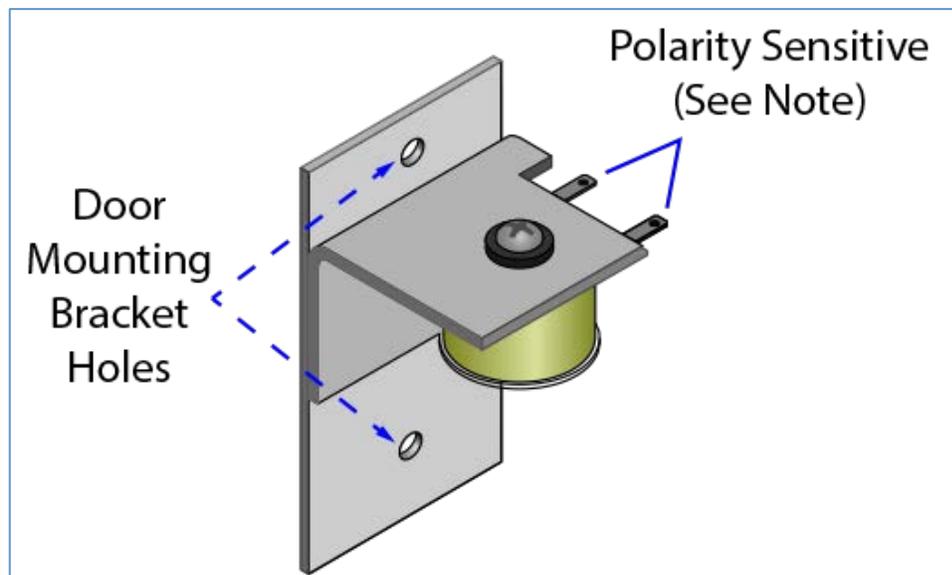
Installing the Door Electro-Magnet Bracket (P/N 51-0231)

Now that the PV343 board has been replaced and the old C/OPT receipt printer has been removed, the door electro-magnet bracket must be replaced in order to accommodate the new printer.

1. Remove the magnet assembly from current door bracket, and disconnect J18 "door" connection.
2. Unscrew the two screws attaching the current door bracket to the door.
3. Using these same two screws, mount the newly modified supplied bracket.
4. Reconnect cable to J18 "door" connection on the PV343 board.
5. Proceed with installing the new C/OPT Receipt Printer Option on the following pages.

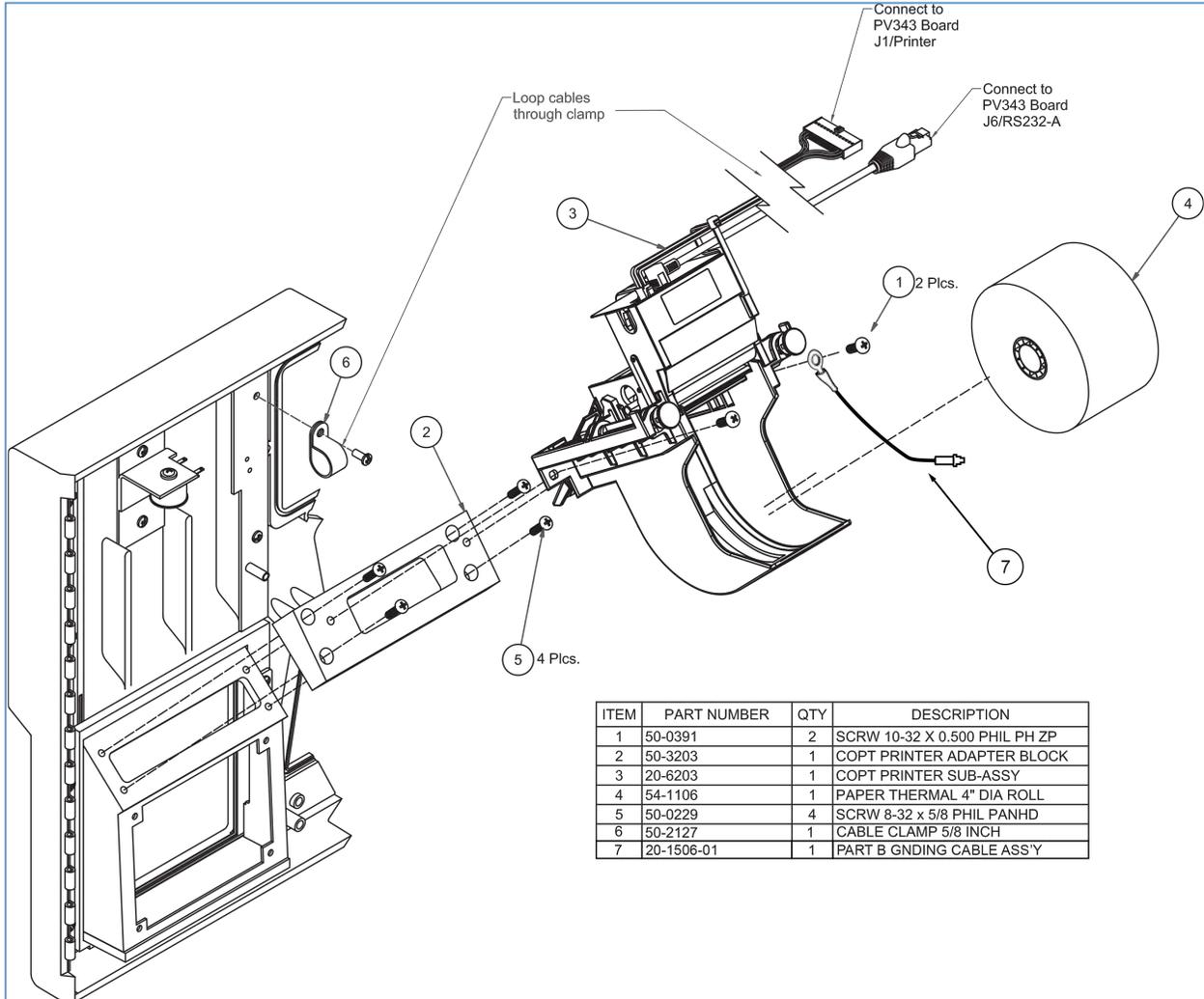


IMPORTANT: The connectors are polarity sensitive! Check the door to make sure the magnet is functioning properly. Reverse the connectors if the magnet is not working.



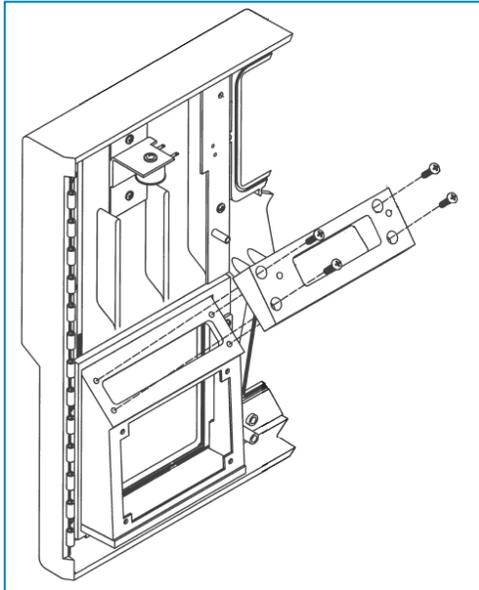
New C/OPT Receipt Printer Option Installation

During receipt-printer installation, please refer to the C/OPT Receipt Printer Assembly image below for mounting orientation.



C/OPT Receipt Printer Installation

After the main C/OPT circuit board has been upgraded, the old receipt printer removed and the new door electro-magnet bracket has been installed, use the procedure below to install the new C/OPT receipt printer option.

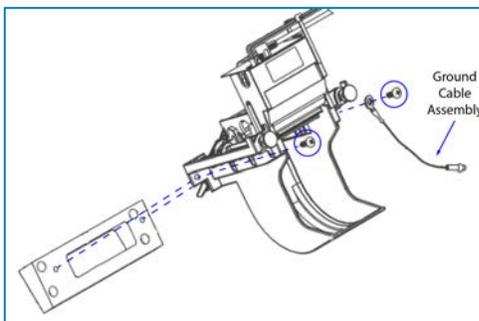


Mount Adapter Block

1. Position the C/OPT Printer Adapter Block (P/N 50-3203) on the printer mounting block as shown in the illustration above.
2. Use the four (4) supplied screws (P/N 50-0229 - 8-32 x 5/8" Phillips Pan Head) to secure the adapter block in place.



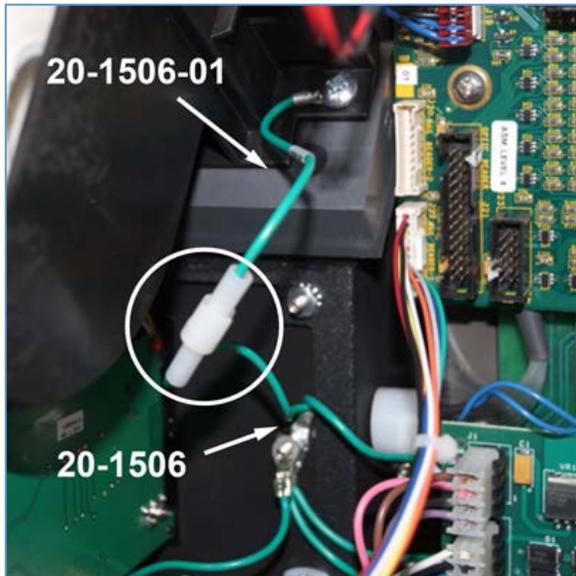
IMPORTANT: Make sure the block is oriented correctly as in the illustration.



Mount Printer and Grounding Cable

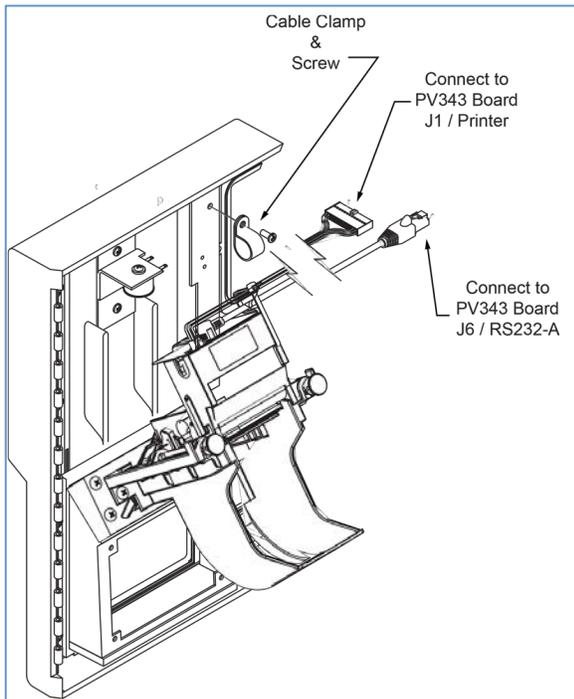
3. Position the printer to align with the inner screw holes of the adapter block.
4. Use the two (2) supplied screws (P/N 50-0391 - 10-32 x 1/2" Phillips PH ZP) to secure the printer to the adapter block. Install the left screw first to hold the printer in place.

5. Place the right screw through the ring terminal end of the supplied Ground Cable (P/N 20-1506-01) and fasten the screw, cable and printer to the remaining adapter block screw hole.

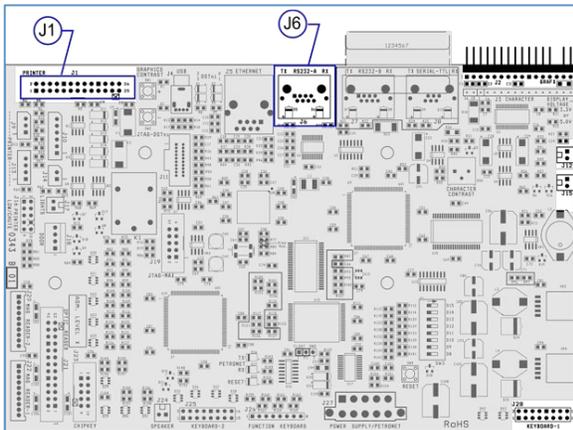


Ground Cable Connection

6. To complete the connection, connect the open end of this ground cable to the open end of the factory-installed dual-tail ground cable (P/N 20-1506 – Part A Grounding Cable Assembly) as shown in the photo above.



Data and Power Cables

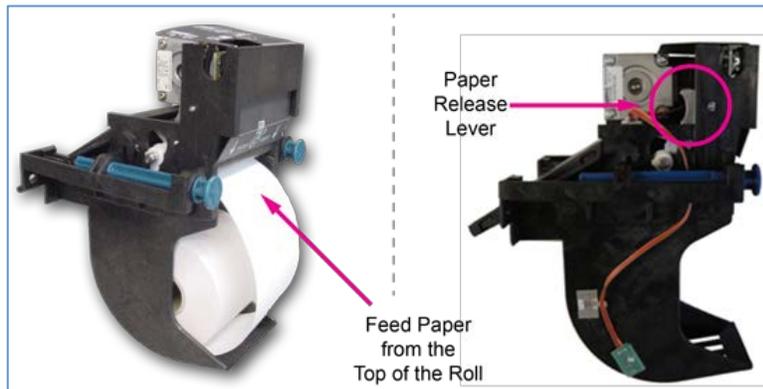


Printer Data and Power Locations on PV343

7. Connect the data cable to the PV343 board J1 Printer Socket.
8. Connect the Power Cable to the PV343 board J6 RS232-A socket.
9. Route these cables through the supplied Cable Clamp and secure using the screw as illustrated above.

Receipt Printer Paper Loading

The optional receipt printer accepts metric-sized thermal paper 58 mm or 60 mm width and 102 mm in diameter.



Loading Paper

1. Turn ON the C/OPT unit by locating the power supply in the left rear corner of the upper enclosure, via the red toggle switch.
2. Remove any packaging material from the roll of paper.
3. Place the roll of paper in the paper tray.



NOTE: Paper must feed from the TOP of the roll.

4. Feed the paper into the printer by inserting the paper through the paper guide slots. The sensor in the paper guide will detect the paper and activate the printer to automatically load the receipt paper.



IMPORTANT: If the printer activates, but does not automatically load the paper, press the paper release lever while feeding the receipt paper until the paper advances.

5. Cut off the extra paper appearing in the eject chute by pulling it out.

Your receipt printer is ready for use.



NOTE: For printer operation and configuration information please refer to the *M1700 FSC3000 Installation Guide*.

Warranty

OPW Fuel Management Systems warrants that all OPW Tank Gauge and Petro Vend Fuel Control systems supplied by OPW Fuel Management Systems to the Original Purchaser will be free from defects in material and/or workmanship under normal use and service for a period of 12 months from the date of installation or 15 months from the date of shipment from OPW. Additionally, OPW Fuel Management Systems warrants that all upgrades and replacement parts (new and remanufactured) supplied by OPW Fuel Management Systems will be free from defects in material and workmanship under normal use and serviced for a period of 90 days from the date of installation or for the remainder of the system's original warranty, whichever is greater, as set forth in the first sentence of this statement. The foregoing warranties will not extend to goods subjected to misuse, neglect, accident or improper installation or maintenance, or which have been altered or repaired by anyone other than OPW Fuel Management Systems or its authorized representative(s). The buyer's acceptance of delivery of the goods constitutes acceptance of the foregoing warranties and remedies, and all conditions and limitations thereof.

If a claim is made within the warranted time period that any equipment and/or remanufactured part is defective in material or workmanship under normal use and service, such equipment and/or remanufactured part shall be returned to OPW Fuel Management Systems, freight prepaid. If such equipment or remanufactured part is found by OPW Fuel Management Systems in its sole judgment to be defective in material or workmanship under normal use and service, OPW Fuel Management Systems shall, at its sole option, repair or replace such equipment and/or remanufactured part (excluding, in all instances, fuses, ink cartridges, batteries, other consumable items, etc.) OPW Fuel Management Systems shall not be held responsible for data loss or retrieval on returned products.

The warranties, as set forth above, are made expressly in lieu of all other warranties, either expressed or implied (including, without limitation, warranties of merchantability and fitness for any particular purpose and of all other obligations or liabilities on OPW Fuel Management Systems' part.) Further, OPW Fuel Management Systems neither assumes nor authorizes any other person to assume for it any other liability in connection with the sale of the systems or any new/replacement part that has been subject to any damage from any act of nature or any force majeure. Any terms proposed by the Original Purchaser either orally or in writing are expressly rejected. The terms and conditions expressed in this document may only be changed upon the express written consent of OPW Fuel Management Systems.

The term "Original Purchaser" as used in these warranties shall be deemed to mean the authorized OPW Fuel Management Systems' distributor to which the system or any new/replacement part was originally sold. These warranties may be assigned by the original purchaser to any of its customers who purchase any OPW Fuel Management Systems' systems or new/replacement parts. This document shall be governed by and construed in accordance with the law of the State of Illinois. OPW Fuel Management Systems and Original Purchaser agree that any legal action or proceeding under or with respect to this document may ONLY be brought in the courts of the State of Illinois, or the United States District Court having jurisdiction in the City of Hodgkins, IL. Original Purchaser expressly consents to personal jurisdiction in any of the above-mentioned forums and agrees to waive all defenses based on improper venue or inconvenient form should an action be brought therein.

The sole liability of OPW Fuel Management Systems, for any breach of warranty, shall be as set forth above. OPW Fuel Management Systems does not warrant against damage caused by accident, abuse, faulty or improper installation or operation. In no event shall manufacturer's liability on any claim for damages arising out of the manufacture, sale, delivery or use of the goods exceed the original purchase price of the goods. In no event shall OPW Fuel Management Systems be liable for any direct, indirect, incidental or consequential damage or loss of product.

TERMS

Ex-works our factory, Hodgkins, Illinois, USA
Installation not included.

All trade names are registered. Patents pending.
Subject to engineering improvement and/or other changes.



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