

Launch Package for Sandpiper 2B Electronics With the Encore 500 Dispenser





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Overview

Encore 500 Sandpiper 2B Electronics

This launch package is meant to help familiarize you with the new Sandpiper 2B Electronics. This manual is not a replacement for the Service or Installation manuals. A list of manuals is listed in this document under **Manual References**. Make sure that you always use the most updated manuals or references. All of the appropriate manuals can be found on the Gilbarco website GOLD in the Encore library. The new Sandpiper 2B Electronics consists of a USB printer, Power Supply, Door Node, PPU's and CRIND Control Node 3. The new electronics will be available starting October of 2004. Each one of the above-mentioned parts will be discussed more thoroughly in this launch package.

The new electronics is part of an ongoing process to make vast new improvements over the current electronics now being manufactured and used in today's Encore 500 dispenser. Some of the improvements directly associated with installing the new electronics are reliability, feature ability, durability and space.

All of the new electronics have been tested and are compatible with Gilbarco and third party POS systems.



Manual References

Service

- MDE-3804 Encore & Eclipse Series Start-Up and Service Manual

Parts

- PT-1936 Encore Illustrated Parts Manual
- PT-1937 Recommended Spare Parts For Encore & Eclipse
- PT-1938 Eclipse Illustrated Parts Manual

Installation

- MDE-3985 Encore Installation Manual
- MDE-3986 TM Installation Manual
- MDE-4228 Encore/Eclipse Commissioning Checklist
- MDE-4281 Encore and Eclipse Calibration QRC

Site Prep

- MDE-3802 Encore & Eclipse Series Site Prep Manual

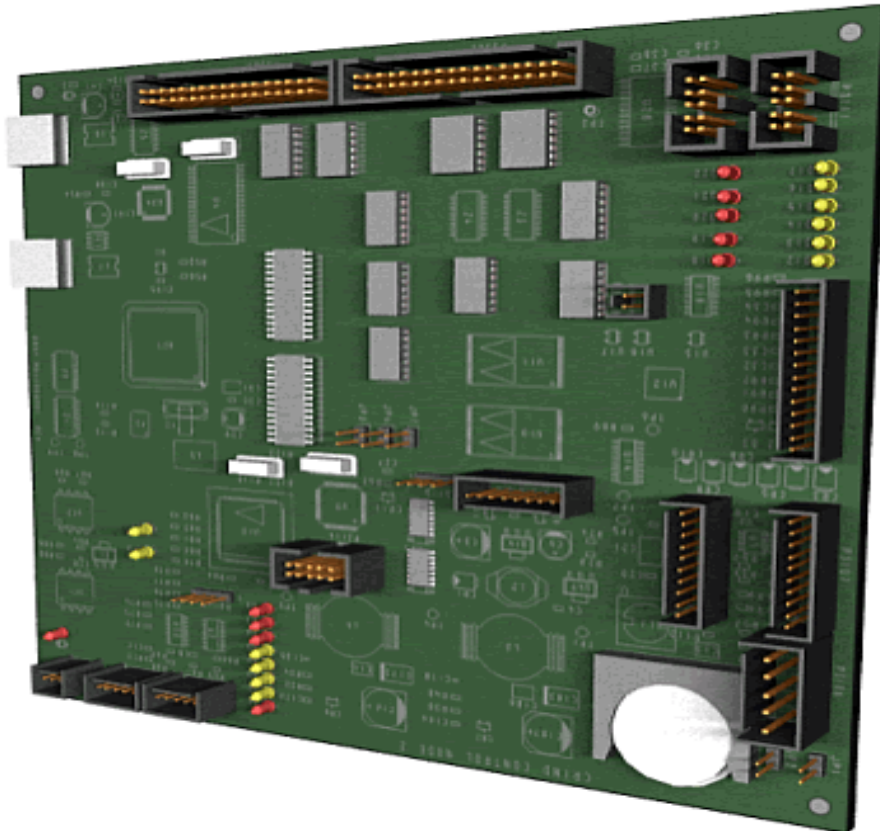
Quick Reference Guides

- MDE-3860 Encore & Eclipse Prog. Quick Reference

Sandpiper 2B Parts

CRIND Control Node 3

Part # M04108A001



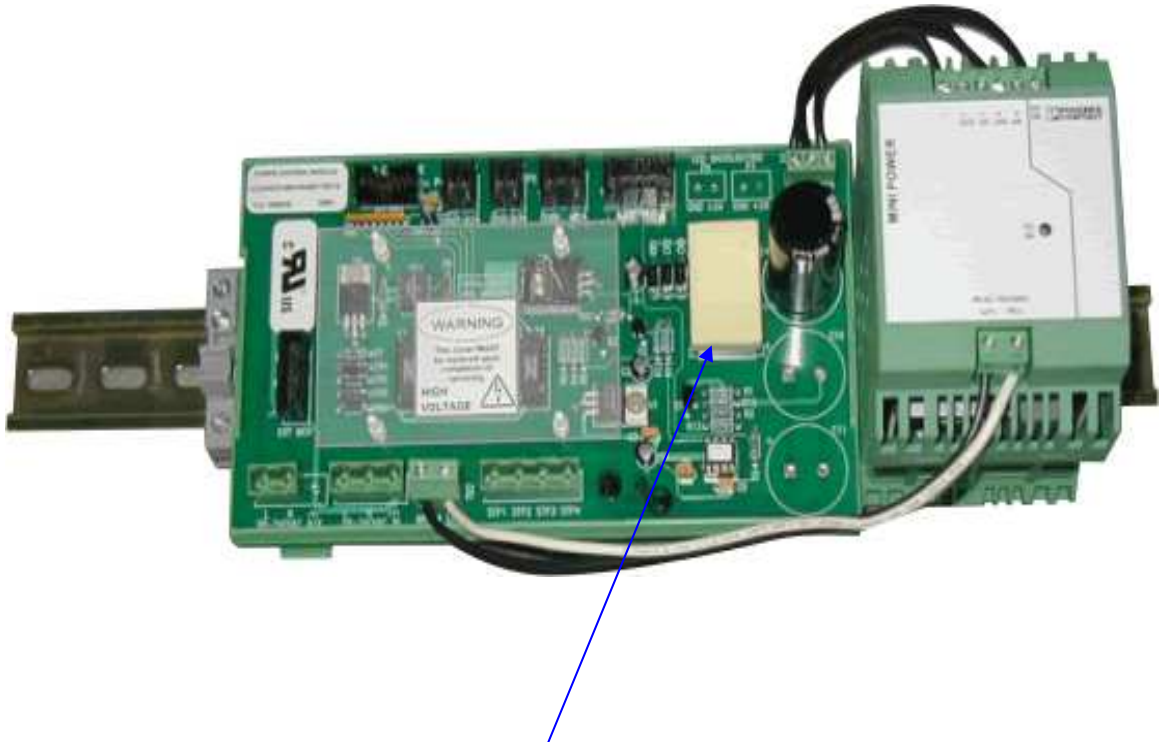
Description/Enhancement

The new CRIND Control Node 3 (CCN) like the old CRIND Control Node is the primary CRIND related option processor on eCRIND equipped Encore 500 and Eclipse units because of its powerful microprocessor or CPU. It receives information directly or indirectly from and/or controls the card reader, monochrome display, printer, barcode scanner, cash acceptor, beeper, and CRIND related keypads. It also interfaces with TRIND and supports USB communications.

The new CCN 3 has 2 USB host ports versus a host and a slave port. This is required for driving 2 USB printers. Another new feature will be that the board is mounted 180° different. This is to allow for easier access for the cable connections. The M04108A001 CCN is backward compatible with the M01753A001 CCN in units that do not have the Sandpiper 2B electronics.

Power Supply

Part # M04104A001



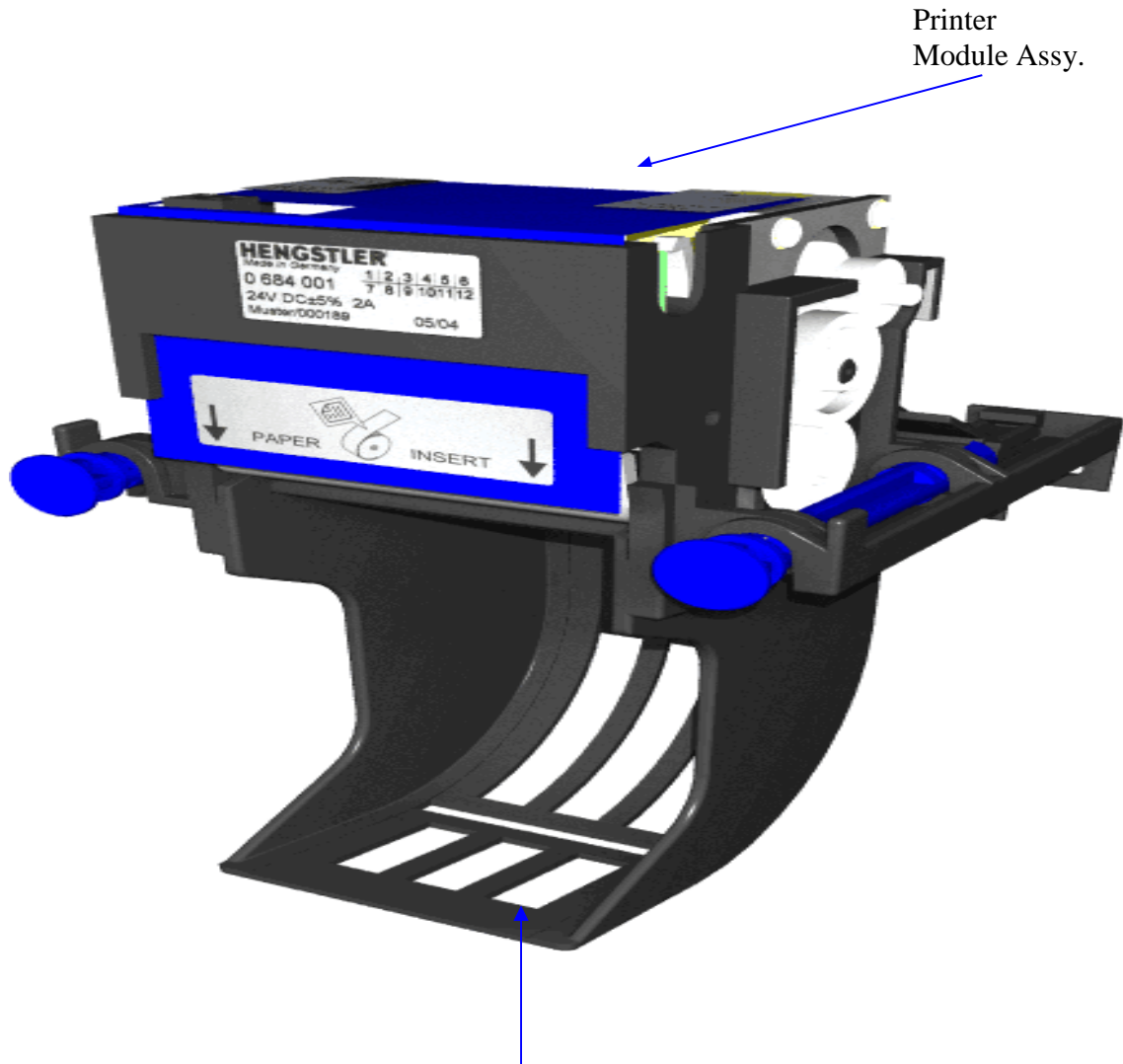
Replaceable Fuse Module

Description/Enhancement-

- +24VDC, 100W Mini Din Rail Module.
- Jointly designed for powerfail and STP control.
- Touch safe. Has cover over STP circuit. The operator cannot touch the AC.
- Replaceable fuse module with 3 non-replaceable fuses for system/LED, printer, and Proportional Valve power.
- Socketed STP relays for easy replacement. Every module will be shipped with 4 STP's, which will allow for a spare.
- Green LED on +24VDC mini module indicating power ok.
- Automatic power shutdown feature in module for short protection.

USB Thermal Printer

Part # M04119A001



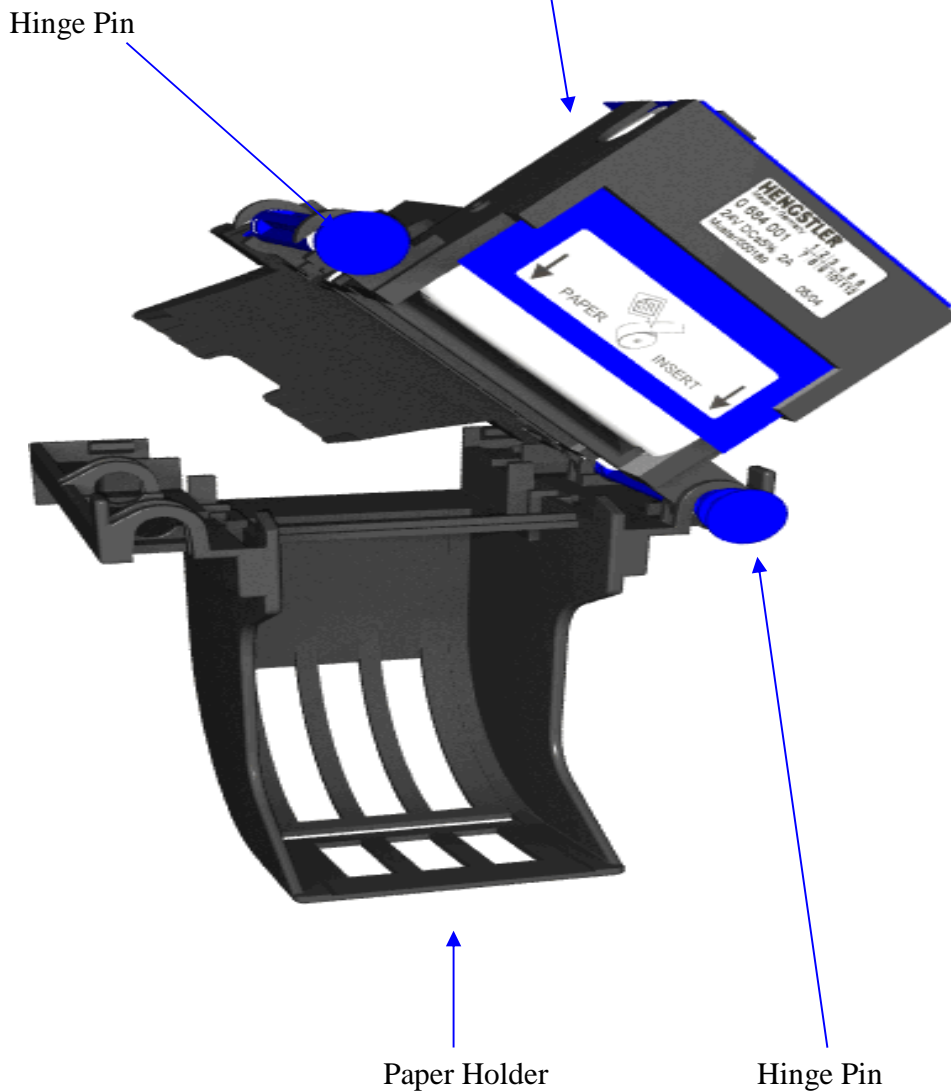
Paper roll holder

Enhancements-

- The new printer gets 24VDC from the Power Supply.
- Uses a USB connection to the CRIND Node.
- Can take a 4-inch paper roll.
- Much faster and more reliable.
- Easier to feed the printer paper.
- Easy to clear printer jams should one occur.

USB Thermal Printer Con't

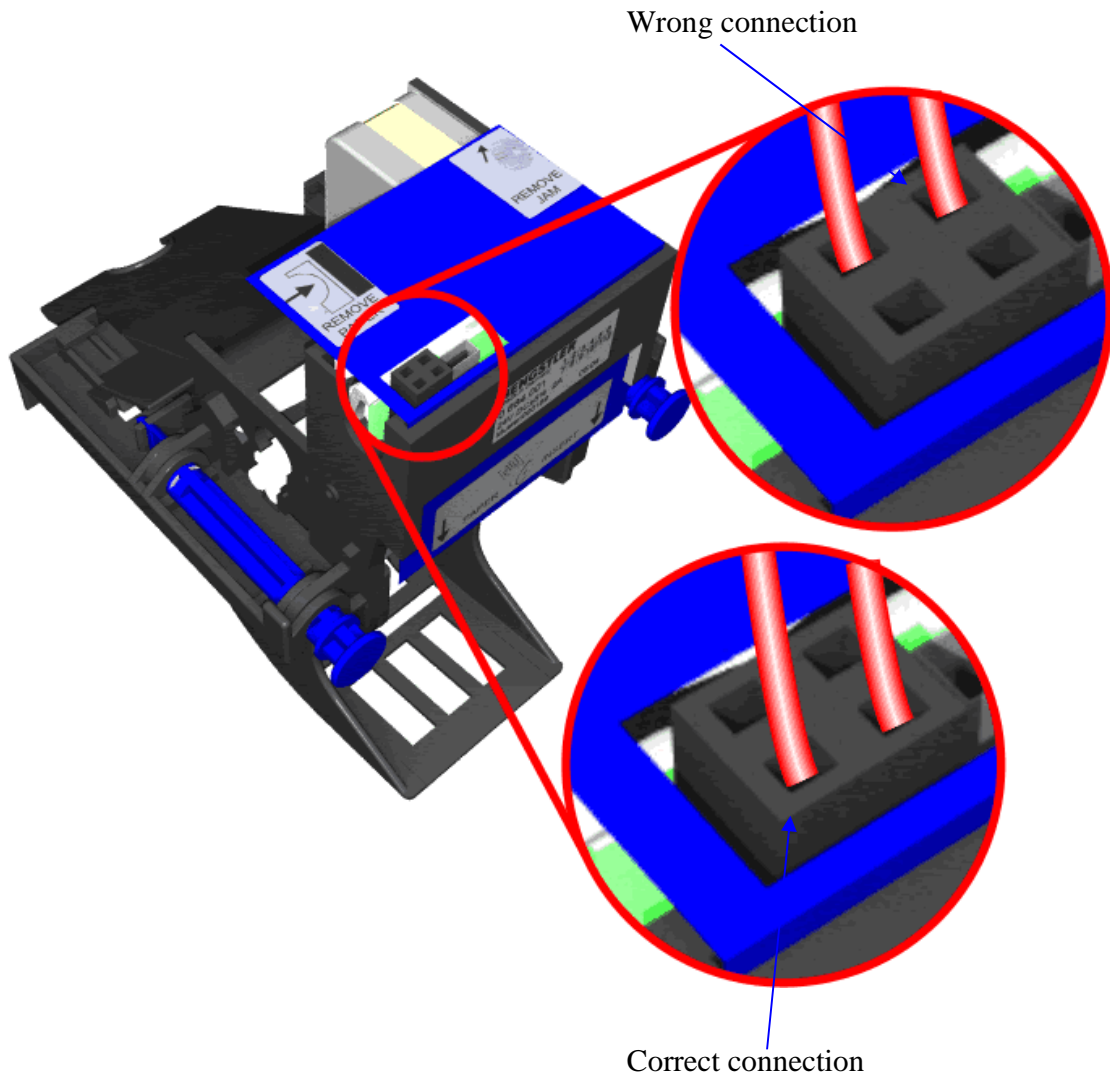
USB Printer Module Assembly
Part # M04219A001



- By pulling back on the printer hinge pin (See above) you can rotate the printer module assembly. The module assembly can be rotated either to the right or left depending on which pin is pulled. This will allow access to easily clear any potential jams should they occur.
- If both printer connectors are removed and both hinge pins are removed the printer module assembly can be removed for replacement.

USB Thermal Printer Con't

Top View of Printer



The above picture shows how the 24VDC power connector should be connected (lower right) to the USB printer assembly and how it shouldn't be connected (upper right). The power cable should always be connected to the USB printer with the red wires closest to the front of the printer. If not, it could result in shorting the 24VDC to GND, which could blow a fuse. Please be careful when plugging in this connector.

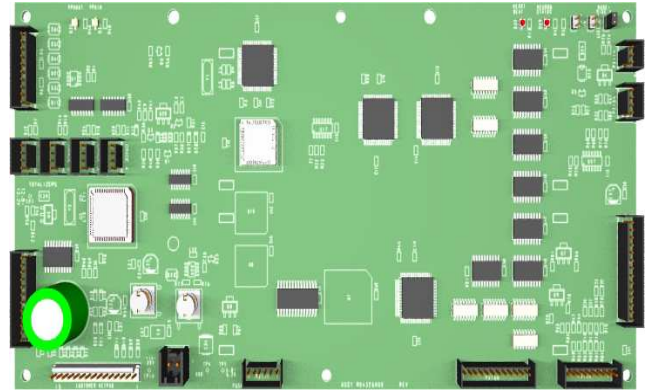
Door Node 3 With LED Backlighting

Part # M04326A001

Backlight LED Board (See Picture on page 9)



Front view of Door Node



Rear View of Door Node

Enhancements-

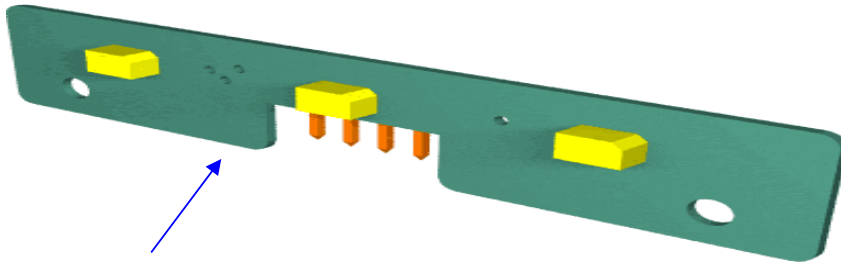
- The new Door Node 3 now has the LON terminator built into it, therefore only needing one LON connector. There is a two pin connector between the Door Node and the Monochrome Display, which provides the 24VDC needed for the Backlight power.
 - The pump stop (P2111) and start button connectors (P2113) have been combined into one connector, labeled P2111.
 - The beeper is now built into the board, but the connector for the external printer beeper still exists. The board senses the presence of the external speaker, and will not use the internal beeper if the external one is connected.
 - There are four connectors, P2121, P2122, P2123, P2124 that have been added, which will be used to drive the totalizers when the Door Node software is written to support them.
 - The ribbon cable to the PPU's changes from 11 pins to 12 pins. This was done to prevent mixing and matching of PPU and Door Node types.
 - The backlight is provided by LED boards, which are field replaceable. To replace, remove the backlight shield (See above picture) and then remove the LED assembly. There are three sets of 4 LED's in series, all four center LED's are in series, the top & bottom LED's on the left side of the money & volume are in series, and the top & bottom LED's on the right side of the money & volume are in series. They were put in series to minimize the power consumption, and they were distributed this way to minimize the visual impact of one string not working.

LED Backlight Board

Part # M04466B001 (Main Display)

Part # M04466B003 (PPU Display)

*Example shown is for Main Display (1 inch)



Backlight LED Board

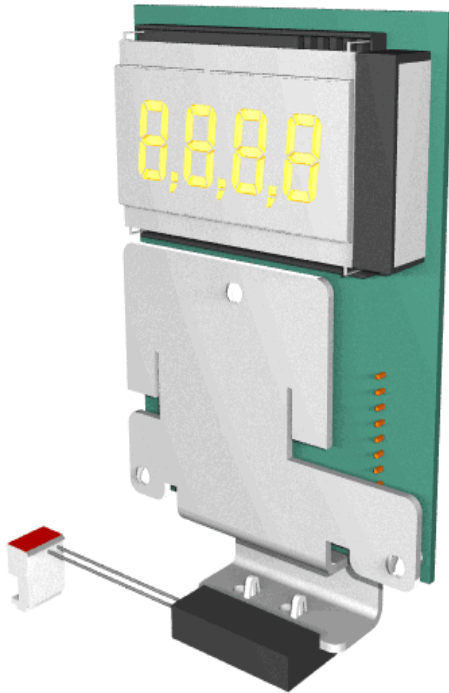
Description-

- The LED backlight board is used on the new PPU board and Door Node.
 - The backlight is provided by the LED boards, which are field replaceable. To replace, remove the backlight shield and then remove the LED assembly. There are three sets of 4 LED's in series, all four center LED's are in series, the top & bottom LED's on the left side of the money & volume are in series, and the top & bottom LED's on the right side of the money & volume are in series. They were put in series to minimize the power consumption, and they were distributed this way to minimize the visual impact of one string not working.
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- **Always make sure to replace the black plastic cover over the LED board when replaced, otherwise the customer can be "blinded" by the direct viewing of the high brightness LED.**

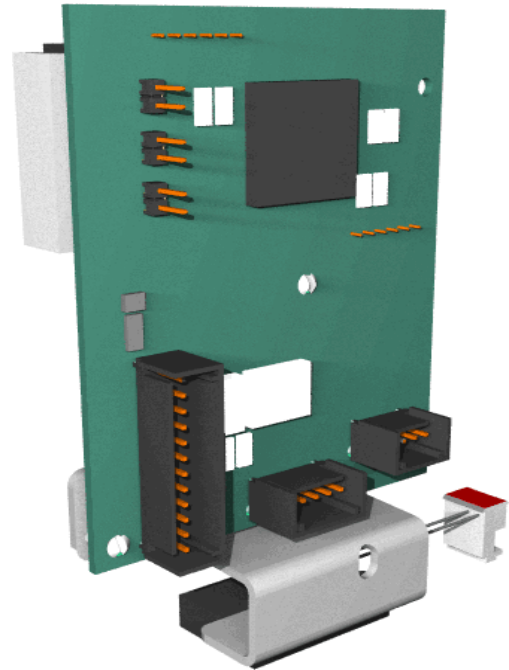
PPU Board With LED Backlighting

Part # M04588A001 Single Level PPU (Shown)

Part # M04588A002 Dual Level PPU



Front View



Rear View

Enhancements

- The ribbon cable changes from 11 pins to 12 to prevent mixing and matching of PPU and Door Nodes.
- The jump jacks are moved from behind the ribbon cable for easy access.
- The backlight is provided by LED boards, which are field replaceable. Remove the backlight shield and pull out the LED assembly.
- The two LED's have independent circuits.



Recommended Spares

Description	Part Number	Where Used	Critical	ASC		Distributor	
				100	500	100	500
CRIND Control Node 3	M04108A001	All	High	2	4	6	10
Power Supply	M04104A001	After 9/04	High	1	3	2	5
Power Supply Fuse Module	M04163B001	After 9/04	Low	1	4	2	6
Varistor Cable (Surge Protection)	M04388A001	After 9/04	Low	1	4	2	6
USB Thermal Printer	M04119A001	All	Medium	2	6	4	10
Door Node 3	M04326A001	After 9/04	High	2	4	6	10
LED Backlight Board (Main Display)	M04466B001	After 9/04	Medium	2	4	6	10
LED Backlight Board (PPU Display)	M04466B003	After 9/04	Medium	2	4	6	10
PPU Board (Single Level)	M04588A001	After 9/04	Medium	2	4	6	10
PPU Board (Dual Level)	M04588A002	After 9/04	Medium	2	4	6	10

Paper part #'s

- M04809B002- Blank Roll
- M04809B004- Low Paper Marks
- M05194B001- Cleaner Card

*Wallace Moore Phone Number 1-800-416-8151



Compatibility Chart Sandpiper 2B Electronics vs. Sandpiper 2

Description	Backward Compatible	Previous Production Part #	New Part #
*CRIND Control Node 3	Yes	M01753A001	M04108A001
Power Supply	No	M02274A001	M04104A001
**USB Thermal Printer	Yes	M00317A001	M04119A001
Door Node 3	No	M01785A001	M04326A001
LED Backlight Board	No	N/A	M04466B001 (2)
PPU Board	No	M02652A00X	M04588A00X

* Requires either a CRIND Control Node 3 or if a CRIND Control Node 2 is installed, a CRIND Interface Board (provides extra USB port) needs to be installed.

** Encore & Kiosk only (After 9/04) (Also requires the M04489K004/5 kit to be backward compatible)