

**P/N 5004-EAS911 Rev. C
Addendum 7 Rev. A
May 12, 2006**

IMPORTANT

EAS 911 USER'S GUIDE ADDENDUM

(For Software V.842 and Model 911 with cable RF Modulator Option)

This addendum to the User's Guide contains important information describing new sources of printer supplies for the EAS 911. The items listed below append or replace the corresponding text in the EAS 911 User's Guide:

Section VIII Maintenance and Repair (section replacement).

SECTION VIII MAINTENANCE AND REPAIR

8.1 INTRODUCTION

The EAS 911 has no moving parts or components that require routine replacement. It requires only minor audio adjustment, which will be described later in this section. In addition, the printer paper and ribbon may need to be replaced.

8.2 TOOL AND TEST EQUIPMENT REQUIREMENTS

The following tools and equipment are required for EAS 911 maintenance:

- Hand Tools
- Digital Voltmeter
- Oscilloscope
- Audio generator
- XLR out to 3-pin audio input cable

8.3 ROUTINE MAINTENANCE

The EAS 911 should require no routine maintenance other than printer paper and ribbon replacement. As equipment and systems external to the EAS 911 change, audio level adjustments may be necessary. In addition, the real time clock uses a lithium battery that will require replacement after a number of years. Refer to Section 8.3.3 for battery replacement procedure.

8.3.1 *Calibration*

The EAS 911 Encoder and Decoder does not require routine calibration.

8.3.2 *Audio Levels*

The EAS 911 Encoder Output Audio Level and the Decoder Input Audio Level can be adjusted periodically as described below.

8.3.2.1 *Encoder Audio Output Level Adjustment*

This procedure sets the proper signal level at the audio output of the Encoder portion of the EAS 911 (J101). Proceed as follows:

1. To access the Operation Menu, enter the Primary Password, then press ENTER. The LCD will display **OPERATION MENU** briefly, then **1. REVIEW RECEIVED MESSAGES**.
2. Use the up/down arrow keys ($\Delta\nabla$) to scroll to **6. Set Output Level: On-Air Relay Open**. Press the ENTER key to activate the displayed menu selection. The LCD will display the output audio level.
3. Adjust the audio output level by using the up/down arrow keys while reading the level indication on the LCD display. As $\Delta\nabla$ keys are pressed, the audio output level will be incremented or decremented in 0.1 volt steps. Press ENTER to accept an indicated output. The output should be set to comply with the modulation percentage stated above. A level of 2.2 V p-p corresponds to 0 dBm.
4. The two tones of the Attention Signal can be accessed individually by using the Δ TIME $\Delta\nabla$ arrows. The 960 Hz tone, both, or the 853 Hz tone can be selected.
5. Press EXIT twice to return to the Ready mode.

8.3.2.2 Decoder Audio Input Level Adjustment

1. Connect the monitoring source to J102, Channel 1.
2. Press the SPKR key to activate the speaker on Channel 1. The LCD displays the channel number followed by the audio signal level in bar chart form.

Note:

The Decoder input can accommodate signals at levels of 0.7 Vp-p to 2 Vp-p. It is desirable to keep the Decoder input at 1.5 Vp-p to utilize its full dynamic range.

3. Observe the incoming level of the source.

4. If necessary, adjust the monitoring source output level for proper indication. Do not allow audio level to exceed 2 Vp-p on peaks.
5. Each time the SPKR key is pressed it advances to the next channel in sequence. The speaker mutes after the last channel is exited. The SPKR key illuminates when the speaker is active.
6. Repeat Steps 1 through 4 for J102, Channel 2.
7. Repeat Steps 1 through 4 for each of the remaining Audio channels if installed

8.3.3 Lithium Battery Replacement

The real time clock, U15, uses a lithium battery. It will require replacement after a number of years. Replace only with a standard CR2032 lithium coin cell. In early versions of the EAS 911, the battery is contained within U15. Contact TFT for replacement information of U15



Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the battery manufacturer. Dispose of used batteries according to the battery manufacturer's instructions.

8.4 PRINTER

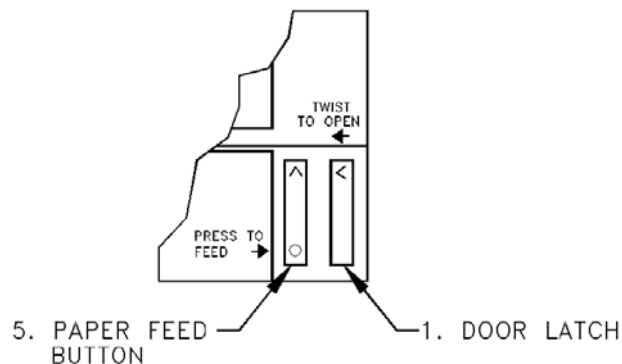
8.4.1 Operator Information

Door Latch Button

To open the front door of the printer, twist the door latch button (1) counterclockwise using the thumb and forefinger. This will release the latch, and the door can be pulled outwards to expose the paper roll.

Paper Feed Button

To activate the paper feed, press the lower part of the paper feed button (2). This will continue for



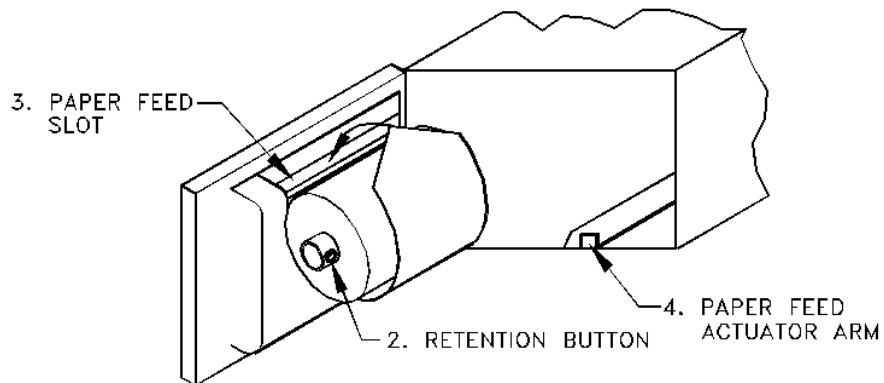
as long as the button is held down.

Figure 8.4-1. Printer Controls

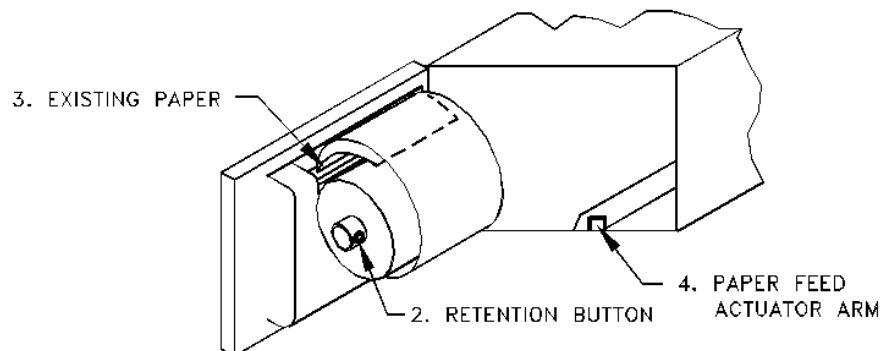
8.4.2 Paper Roll Replacement

Proceed as follows to replace the printer paper:

1. Twist the door latch counterclockwise to release and open the door.
2. Depress the retention button to allow the paper roll to slide across the bar.
3. If paper does not remain in the feed slot from the old roll, cut or fold the end of the new roll into a V-shape as shown. Insert the point into the paper feed slot (**See Method A**). If paper does remain from the old roll, simply insert the blunt edge of the new roll on top of the old paper in the feed slot (**See Method B**).
4. Push the paper feed actuator arm to advance the paper. Hold it until the feed mechanism pulls the paper through to the front of the printer. Turn the paper roll so that any loose turns are wound snugly against the roll and close the door.
5. More paper may now be fed through by pressing the paper feed button.



Method A



Method B

Figure 8.4-2. Paper Roll Replacement

8.4.3 Ribbon Cartridge Replacement

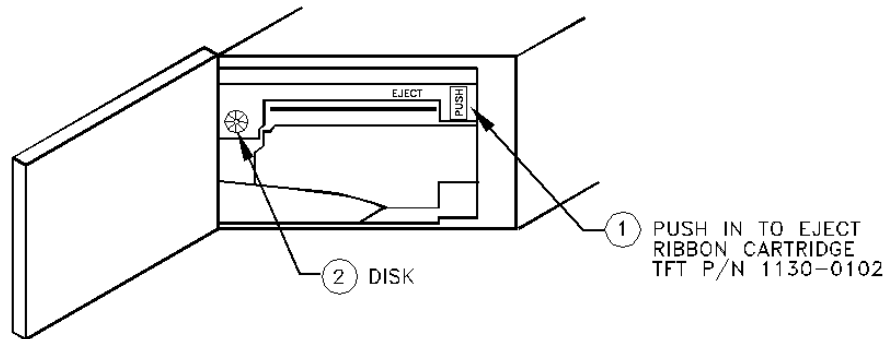
Tear off any paper emerging from the printer. To open the printer door, refer to paragraph 8.4. 1.

Carefully press the door and bracket in vertically opposite directions until the latch is released. Do not pull the door and bracket apart without first releasing the catch. See figure 8.2 item (3). Swing the chassis back leaving the door fully open. This will expose the printer mechanism and ink ribbon cartridge. Refer to figure 8.4-3.

- (1) Press in on the end of the ink ribbon cartridge marked "PUSH", and carefully remove the used cartridge. Push replacement cartridge in place, ensuring that the paper lies between the ribbon and the steel printer plate, and the ribbon cartridge spindle is correctly seated over the printer ribbon drive shaft. Ensure that the ribbon is taut and parallel to the paper. If necessary, tighten the ribbon by turning the faceted disk (2) clockwise using your fingernail or small blade screwdriver. Make sure the paper protrudes through the front of the printer mechanism. Ensure that the paper will pass clearly through the guide channel and past the tear bar before snapping the bracket shut against the back of the door.

Turn the paper roll by hand so any loose turns are wound snugly against the roll. Close the door and check that the paper flows freely, using the paper feed button.

Figure 8.4-3. Ribbon Cartridge Replacement



8.4.4 Periodic Printer Maintenance

Periodic cleaning to the roller as needed is recommended. To clean the printer roller, open the printer per instructions in the EAS 911 User's Guide, page 8-2 . Remove the printer cartridge ribbon to expose the roller. Gently wipe down the roller using a soft, non-abrasive pencil eraser, such as a Pentel Clic Eraser™. Use of isopropyl alcohol is not recommended because it may inadvertently remove lubricants in bearings.

1. If the printer condenses print to about 1/16" high characters, check the following:
2. Make sure there is no debris behind the paper roll.
3. The absolute maximum diameter of the paper roll is 1.70 inches and is reasonably tight.
4. Use a paper with thickness of .0025 inches to .0030 inches. Coarser paper would be helpful.
5. Clean the roller with soft, non-abrasive eraser as described above.

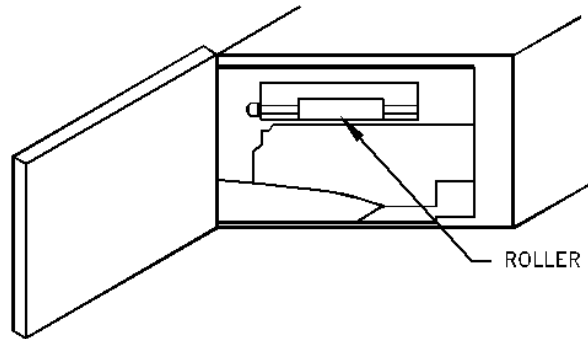


Figure 8.4-4 Printer with cartridge ribbon removed

8.4.5 *Printer Supply Ordering Information*

Paper Roll Size:

- Paper width is 2.25 inches
- The inside diameter of the spool hole is .50 inch minimum
- Paper roll outside diameter is 1.70 inches

Note: Remove paper from a roll with diameter greater than 2.00 inches until the diameter is less than 2.00 inches. Paper roll supplies are listed in Table 8.4.4-1, while ribbon cartridge supplies are listed in Table 8.4.4-2.

Table 8.4.4-1 Paper Roll Suppliers

Item	Paper Roll Distributors	Catalog/Stock No.	Manufacturer and Part No.
1	OfficeMax Tel: 1-800-283-7674 Web: http://www.officemax.com	20799254	OfficeMax P/N: OM98104
2	Omni Print Tel: 1-800-878-6880 Fax: 1-949-457-9016	TP58-80	Omni Print P/N: TP58-80
3	TFT, Inc. Tel: 1-408-943-9323 Fax: 1-408-943-9218	1130-0103	TFT P/N: 1130-0103

Table 8.4.4-2 Ribbon Cartridge Suppliers

Item	Ribbon Cartridge Distributors	Catalog/Stock No.	Manufacturer and Part No.
1	OfficeMax Tel: 1-800-283-7674 Web: http://www.officemax.com	20398455	NU-KOTE P/N: PM267
2	Office Depot Tel: 1-800-463-3768	506-501	NU-KOTE P/N: PM267
3	Omni Print Tel: 1-800-878-6880 Fax: 1-949-457-9016 Fax	ERC-09	EPSON P/N: ERC-09
4	TFT, Inc. Tel: 1-408-943-9323 Fax: 1-408-943-9218	1130-0102	TFT P/N: 1130-0102

8.5 DIAGNOSTICS AND REPAIR

Since most EAS 911 users have limited diagnostic and repair facilities, the most practical maintenance philosophy is repair by circuit card replacement. It is recommended that spare circuit cards be on hand, together with an alternative plan for operation while repairs are being made.

Some general (and very important) observations on repair:

1. The EAS 911 series of equipment uses static sensitive components. ESD (Electrostatic Discharge) precautions must therefore be observed during repairs. This is extremely important.
2. The EAS 911 breaks down into subassemblies located on individual circuit cards and, in general, card level replacement is best maintenance philosophy.
3. The Theory of Operation Section (Section VII) is helpful in understanding how the EAS 911 equipment functions and will help you with diagnostics, as it covers the jobs performed by each major component and subsystem.

9. Reprogram all Setup Menu and Operation Menu 5, 7, and 8 settings if needed.

8.7 TROUBLESHOOTING

Most of the EAS 911 functions can be troubleshot by performing the Encoder to Decoder self test as described below. This self-test will check both the operation of the Encoder and one Decoder Audio Input channel. This test may be repeated for any or all of the other Decoder Audio Input channels if desired.

Connect a XLR out to 3-pin AUDIO INPUT cable between Rear Panel J101 Audio Out and J102 CH1 Audio Input. Press front panel keys in the following order:

- | | |
|--------------------------------------|---|
| Press PASSWORD | The LCD will read PASSWORD? And the LOCATION(S) numeric keys will illuminate. |
| Press 9,1,1
(or Primary Password) | The LCD will read SELECT EVENT and the EVENT keys will flash. |
| Press WEEKLY TEST | The LCD will scroll RWT A REQUIRED WEEKLY TEST and the CONFIRM key will flash. |
| Press EVENT CONFIRM | The LCD will read EVENT DURATION before changing to read 00 HRS 15 MIN and the READY key will flash. |
| Press READY | The LCD will read SEND HEADER and the SEND HDR key will flash. |
| Press SEND HDR | The LCD will read SENDING HEADER and the Header Tones will be heard through the speaker. The printer will print the Station Transmit Log. After the Header Tones are sent the LCD will scroll the received Alert Message text and the SEND HDR, SEND EOM, and MSG WAITING keys will flash. The printer will print the Station Receive Log. |
| Press SEND EOM | The EOM Tones will be heard through the speaker and the printer will print EOM Received log. The LCD will continue scrolling the received message and the MSG WAITING key will continue flashing. |
| Press MSG WAITING | The LCD will read Date/Time and the unit will be returned to the Banner/Ready Mode. |

8.8 TFT CUSTOMER SERVICE DEPARTMENT

TFT emergency service is available 24 hours a day. Please call us if you need assistance with any TFT products.

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