

SIEMENS

Installation Instructions

Model RPM

Remote Printer Module (500-033270 / S24235-B116-A2)

INTRODUCTION

The SIEMENS Model RPM is an HNET module that interfaces to a Centronics parallel printer. It can be located anywhere with access to the HNET network and the PSC-12 24VDC power limited output.

The RPM is required whenever a logging printer is needed. It translates the HNET messages into a standard Centronics printer interface. When used in conjunction with the PAL-1, it provides a supervised logging printer meeting the requirements of NFPA 72 Proprietary or UL 1076 Security systems. For NFPA 72 Local, Auxiliary or Remote Station applications any UL EDP listed Centronics parallel printer may be used (See notes 2, 3, and 4 on Figure 3).

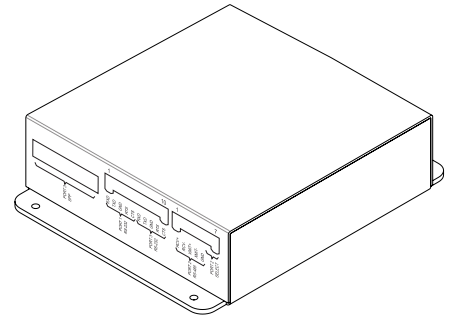


Figure 1
RPM Remote Printer Module

Features

RPM features are as follows:

- Supervision of the PAL-1 includes paper out, paper jam, printer off line, printer power off and printer disconnected.
- Can be connected to the HNET either Style 4 or Style 7.
- Includes diagnostic LEDs to indicate failure of the HNET or the CPU. It also has a power on indicator.
- Includes a reset switch in the event that the RPM requires a hardware reset.
- Can be mounted on any smooth surface within 6 feet (1.8m) of the PAL-1.

OPERATION

When a system event occurs, the PMI sends a print message to the RPM via HNET. The RPM is responsible for printing the message. The RPM contains a buffer to ensure that events that occur at a rate faster than the PAL-1 can print them are not lost.

The RPM continuously monitors the connection to the PAL-1 checking for any errors that would inhibit printing. Any errors that are detected are communicated to the PMI via HNET for annunciation. Restoration to the normal condition is also detected and communicated to the PMI. Print messages that arrive at the RPM during a printer fault are stored in the buffer.

Controls and Indicators

The HNET side panel of the RPM contains one reset switch, three LEDs, one termination switch and one HNET address switch as shown in Figure 2.

A reset switch is located on the top of the panel. Pushing the reset switch re-initializes the RPM operation.

POWER	(Green)	Normally ON. When illuminated, indicates that power for the RPM is applied to the module.
CPU FAIL	(Yellow)	Normally OFF. When illuminated, indicates that the module microprocessor has failed.
HNET FAIL	(Yellow)	Normally OFF. When illuminated, indicates that the HNET communication with the RPM has terminated.

A three-position switch located directly beneath the LEDs on the HNET side of the RPM is used to set the HNET network address of the RPM.

PRE-INSTALLATION

Before connecting either the printer, power or the HNET, the network address must be set for the RPM using the three-position switch. (Refer to Figure 2 for the location of the switch.) The address for the RPM must be the same as the address selected for it in the Zeus Programming Tool. To increment each digit of the address, press the “+” button above the desired digit; to decrement each digit, press the “-” button below the desired digit. The range of allowable addresses is from 001 to 251 (leading zeros must be used).



If the RPM is located at the end of the HNET network, the termination switch must be set to ON. Otherwise it must be set to OFF.

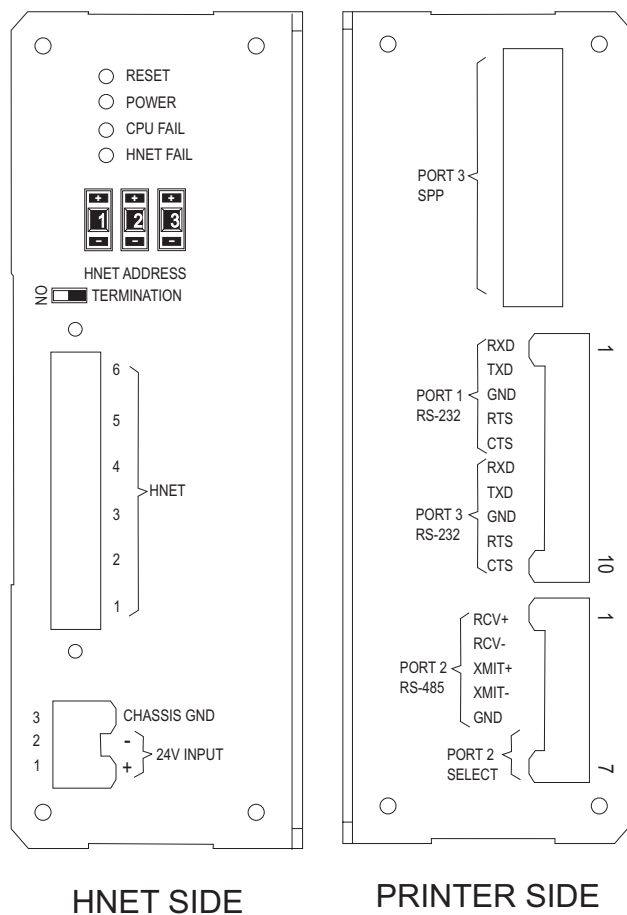


Figure 2
RPM Side Panel Detail

Two terminal block covers are provided with the RPM. Each comes as two separate parts, a lower bracket which has a 3/4 inch conduit opening and a cover. Attach the lower bracket to each end of the RPM using four of the #10 nuts provided in the RPM hardware kit. Reserve the covers and the remaining hardware until the RPM is mounted and wired.

Mount the RPM to either the wall or desk where the PAL-1 is located. Use the four mounting holes in the lower bracket.

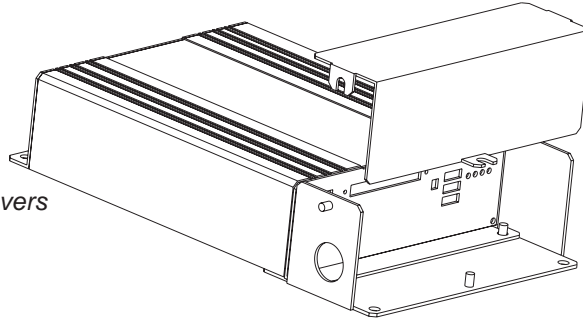


Figure 3
Installing The RPM Terminal Block Covers

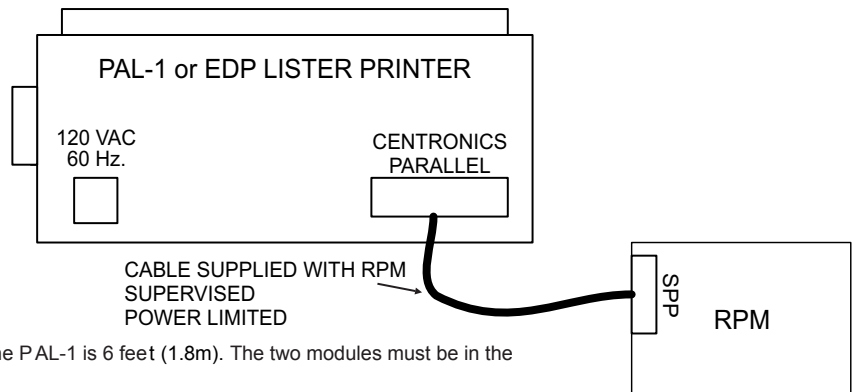
WIRING



Disconnect BATTERY and AC prior to working on equipment.

The PAL-1 is connected to the RPM with a standard PC printer cable. This cable is supplied with the RPM. Connect the PAL-1 to the RPM using this cable. The two ends of the cable are different, ensuring proper connection. See Figure 4.

The RPM requires 24VDC to operate. This power is available on the PSC-12. See Figure 5 for wiring details.



NOTES:

1. The maximum distance from the RPM to the PAL-1 is 6 feet (1.8m). The two modules must be in the same room.
2. For NFPA 72 Local, Auxiliary and Remote Station configurations, connect the output of the RPM to any UL EDP listed printer.
3. The printer must support the EPSON FX command set.
4. For NFPA 72 Proprietary of UL 1076 configurations use printer SIEMENS Model PAL-1, a UL listed for fire Centronics parallel printer.
5. The printer is supervised for AC loss, off line, paper out, paper jam, and connection to the RPM.
6. After loading the paper in the PAL-1 printer, turn off the power and follow the steps below.
 - While pressing the LOAD PARK button, turn on the power to the PAL-1 printer. Keep pressing the LOAD PARK button for 5 seconds.
 - Release the LOAD PARK button.
 - The current setting will print.
 - When printing is completed, the ON LINE indicator will be lit. If the ON LINE indicator is not lit, press the ON LINE button.

Figure 4
Connecting The Printer To The RPM

NOTES:

1. 18 AWG (1.0mm²) min., 12 AWG (4.0mm²) max.
2. Power limited to NFPA72 per NEC 760.
3. No end of line device required.
4. 50 ohms max. total wire resistance.

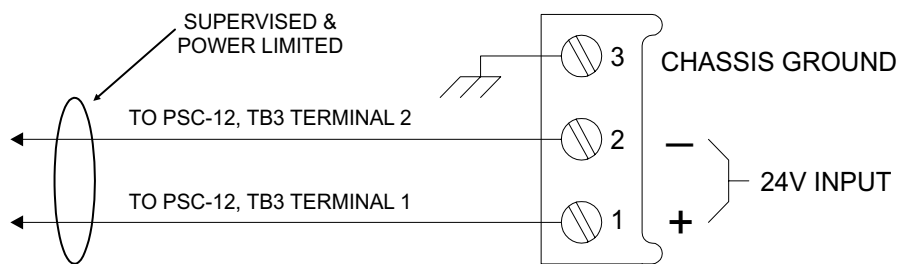


Figure 5
Connecting Power To The RPM

The RPM can be connected to the HNET either Style 4 or Style 7. Refer to the Zeus configuration for the proper Style. In either case, the RPM can be connected in the middle of an HNET or at the end. If the RPM is connected at the end, care must be taken to properly terminate the HNET. See Figures 6 and 7 for the wiring instructions when the RPM is in the middle and Figures 8 and 9 when the RPM is at the end of the network.

The PAL-1 requires a standby power source in the event of the loss of primary input power (AC mains). Refer to Figure 10 for the connection of a UPS to meet this requirement.

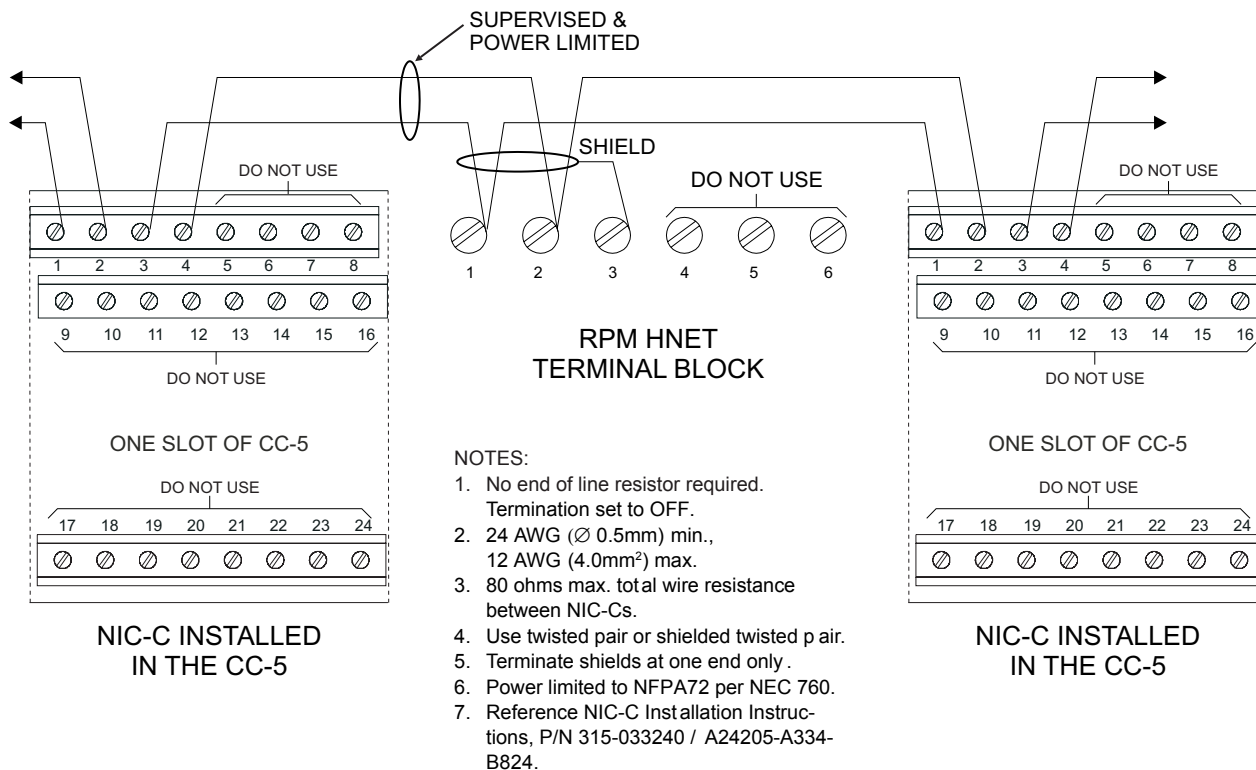


Figure 6
RPM In The Middle Of A Style 4 HNET

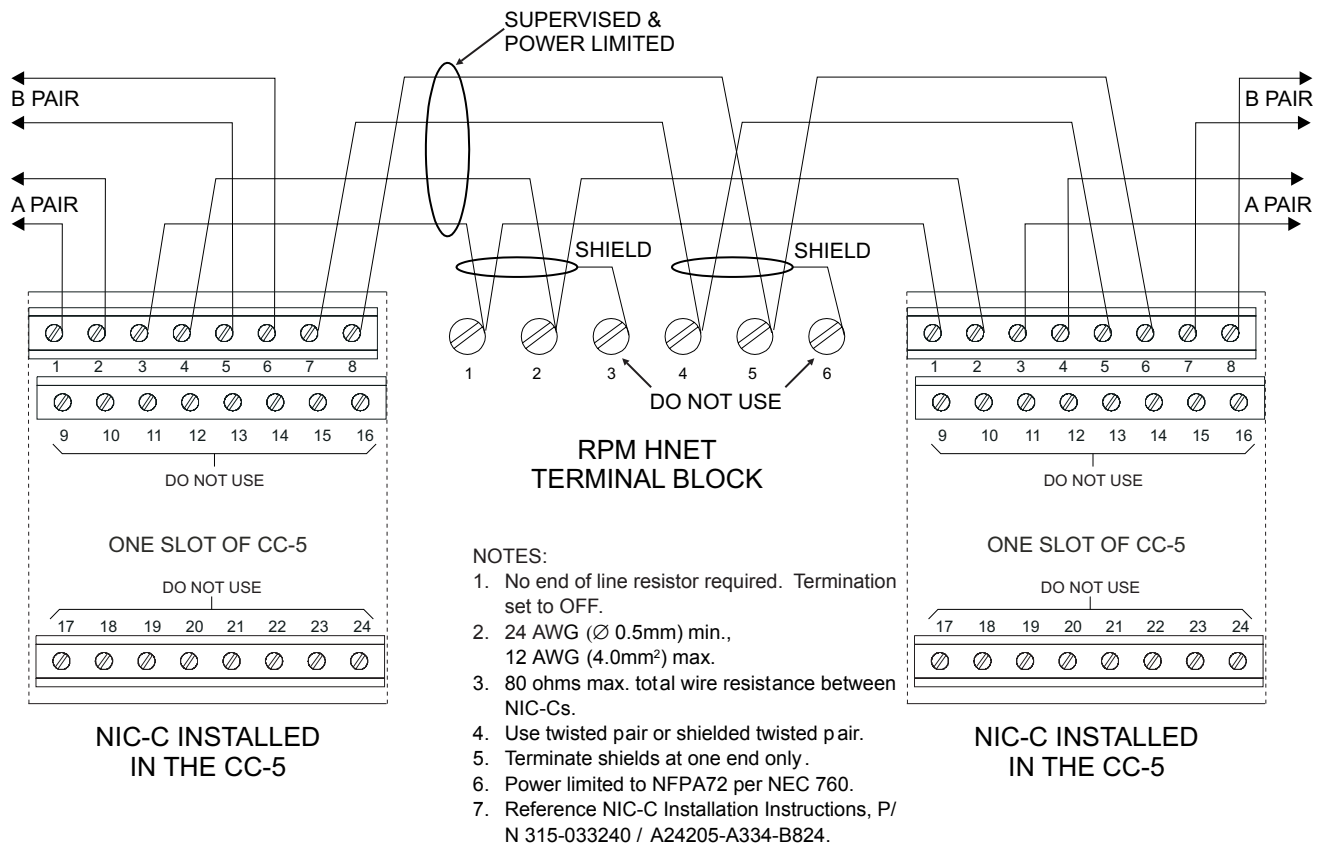


Figure 7
RPM In The Middle Of A Style 7 HNET

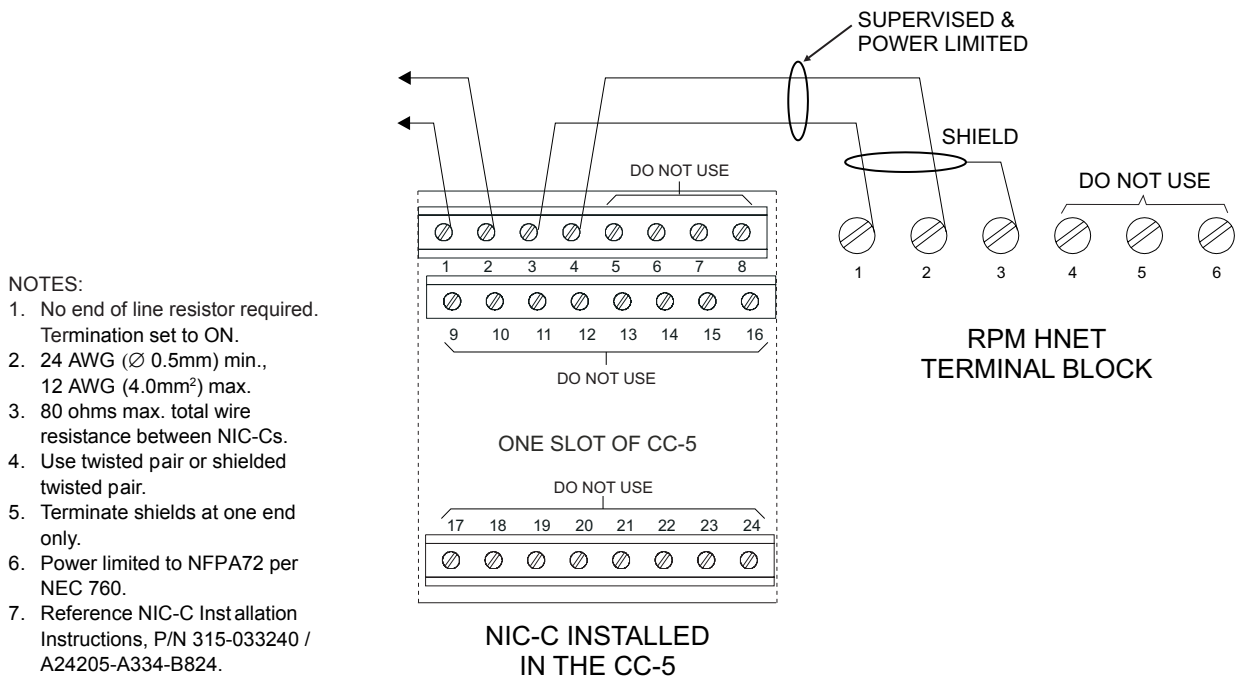


Figure 8
RPM AT The End Of A Style 4 HNET

NOTES:

1. No end of line resistor required. Termination set to ON.
2. 24 AWG (Ø 0.5mm) min., 12 AWG (4.0mm²) max.
3. 80 ohms max. total wire resistance between NIC-Cs.
4. Use twisted pair or shielded twisted pair.
5. Terminate shields at one end only.
6. Power limited to NFPA72 per NEC 760.
7. Reference NIC-C Installation Instructions, P/N 315-033240 / A24205-A334-B824.

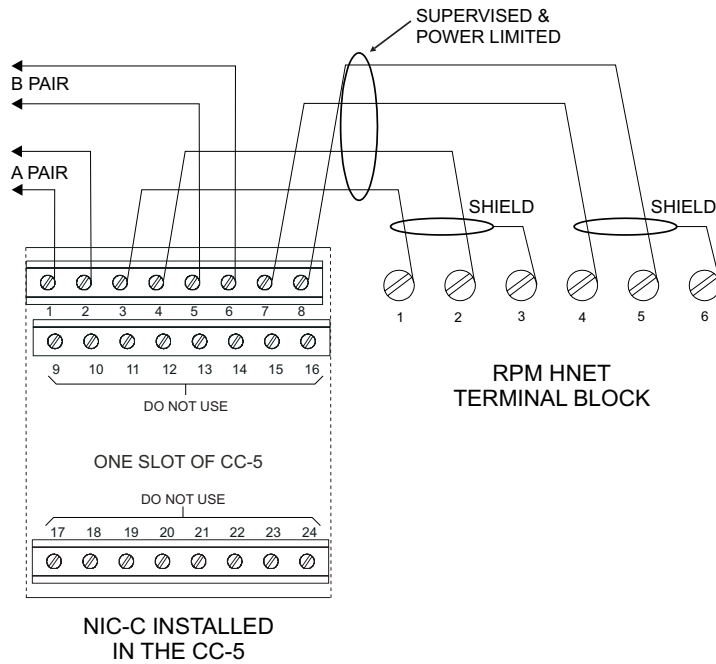


Figure 9
RPM AT The End Of A Style 7 HNET

NOTES:

1. All wires 14 AWG (2.5mm²) min., 600V insulation.
2. Wiring to the printer must be 14 AWG (2.5mm²) min., 600V insulation in con.duit.
3. Use the UPS ICS Lifeline Model 9300057.
4. Standby Power requirements: 120 VAC, 0.6A for 24 hours.

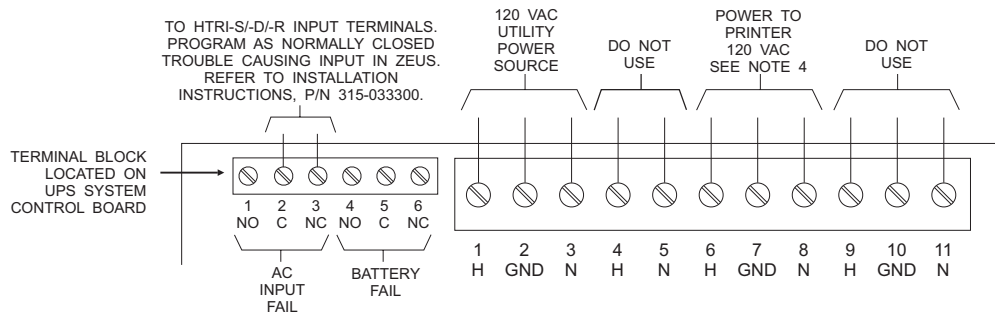


Figure 10
UPS Wiring Diagram

INSTALLATION

The RPM mounts with two flanges on the side of the terminal block covers. Select a smooth surface within 6 feet (1.8m) of the PAL-1 for the RPM.

Position the RPM and attach it to the mounting surface using the four #6 self tapping screws provided.

Install the terminal block covers using the 6 remaining #10 nuts. Refer to Figure 3.

ELECTRICAL RATINGS

24V Back Plane Current	0
Screw Terminal 24V Current	150mA Max.
6.2V Back Plane Current	0
24V Standby Current	150mA Max.

For CE applications in Cerberus E100 systems refer to Installation Instruction A24205-A334-B844 (English) or A24205-A334-A844 (German).