

Installation & Operations Manual

DP140e



System Engineering
International

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DESCRIPTION

- 1.1 The DP140e Power Supply has been designed to service a wide range of customer premises equipment requiring 48vdc. The unit provides 250 watts of rectifier power and distribution to 24 terminals. The DP140e is capable of being mounted on a wall, 19 inch rack , 23 inch rack and 25 inch rack.

The DP140e has two physical configurations, a 14 inch chassis with an internal 8 amp hour backup battery and a 7 inch chassis with no internal battery. Additional external battery packs may be added to provide up to 8 hours or more of hold over time.

Additional features include a Low Voltage Disconnect, LVD, to protect the backup batteries from deep discharge, manual and automatic internal battery test, front panel status indicators for battery charge and test status and remote alarm contacts for AC failure and battery test failure.



Model DP140e

Figure 1.1

TECHNICAL SPECIFICATIONS

Electrical Specifications

Input

Voltage	120 VAC +10%/-15%
Frequency	45 - 66 Hz
Power	320 watts max

Output

Voltage	42-55 Vdc
Current	4.5 amps dc max
LVD cut-off	42.0V

Mechanical Dimensions

DP140e

Width	19.00 in.
Depth	5.00 in.
Height	7.00 in.

DP140e-8

Width	19.00 in.
Depth	5.00 in.
Height	14.00 in.

Environmental

Temperature

Operating	0° C to +40° C
Storage	-10°C to +50° C

Humidity

0 to 95% non condensing

Thermal

190 BTU/hr max

LED Indicators	User Interface
Battery Charge Status: Constant Green – Fully Charged Flashing Green – Charging Constant Red – On Battery Fast Flash Red- Adjust Supply	Manual Battery Test Switch --Push to Test NOTE: The Manual Battery Test switch is disabled when the battery is charging. Also, to prevent unnecessary battery discharge, the Manual Battery Test is disabled for 5 minutes

Battery Test Status: Constant Green – Battery Good Fast Flash Red – Wait, Then Test Slow Flash Red – Replace Battery	following a Battery Test. In both cases, the <i>Wait, Then Test</i> indication is displayed.
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SAFETY INFORMATION

- Always insure that the person assigned to the job can perform the job safely.
- Always lift all equipment properly.
- Always disconnect commercial power and remove the battery fuse before working on the unit.
- Always replace the batteries with batteries of the same type and style.
- DO NOT work on this equipment during an electrical storm.
- DO NOT work in locations where there is condensing moisture or standing water.

INSTALLATION INSTRUCTIONS

GENERAL

The installation section of this manual will provide all of the information required for room requirements, proper inspection, and installation; as well as instructions on checking and bringing the DP140e on line for use.

Inspection

The equipment has been fully tested and inspected prior to shipment. Although the unit has been packed in accordance with good commercial practices, this does not preclude damage in transit.

The following actions should be taken on receipt of the equipment:

- Visually inspect the packaging container for damage. If damaged, request that the carrier inspect the shipment.
- Unpack and remove the unit from the packaging. Inspect the unit for visible damage.

If a claim for damages is to be made, it should be filed promptly with the transportation company. In addition, notify SEI within two days of delivery. SEI will advise the customer

of any further procedures that may be required, including an RMA number in the event that the unit has to be returned to the factory for repair.

Make sure the following items are included inside the package:

- One DP140e Power Supply Unit.
- One AC Power Cord.
- One warranty card.
- One Installation and Operations Manual.
- Mounting Instruction.

Location Requirements

Electrical Requirements

- The DP140e requires 120 VAC, 60hz commercial power for operation. If 230 VAC operation is required, please notify the factory. The DP140e should not be placed on a circuit with other equipment. A separate circuit should be run to the closet for powering the DP140e.
- Each unit requires a separate NEMA 5 - 15R receptacle.
- A standard 7 foot 6 inch power cord with a molded NEMA 5 - 15 plug is supplied with each unit.

Environmental Requirements

- A clean dry location should be picked for installing this unit.

Mounting Instructions

- When mounting, keep in mind the DP140e weighs 19 lbs., and the DP140e-8 weighs 32lbs.
- The DP140e is designed to mount to a wall, a 19 inch rack, a 23 inch rack and a 25 inch rack. For wall mounting, it is recommended to use a 3/4 inch plywood backboard.
- Whether the unit is to be wall or rack mounted, it should be mounted vertically.
- It is important that the power supply be given adequate ventilation above, below and on both sides of the unit.
- The DP140e comes standard for wall mount or 19 in rack mount. Optional mounts for 23 and 25 in racks are available.

START UP AND CHECKOUT

Power On Checkout.

- Once the unit is properly mounted, you may begin the checkout procedure. First, insure that all the equipment to be powered by the unit is installed.
- Install the battery fuse, located on the right side of the unit just below the distribution panel.
- Attach the supplied AC power cord to the left side of the DP140e.
- Plug the DP140e power cord into the AC commercial power outlet made available for this purpose. The Battery Charge Status Indicator will be either solid green or flashing green and the battery test indicator should be solid green.
- Connect the equipment to the distribution connector for power output on the right side of the unit.
- You should have power indicator on the equipment you connected to the power supply.
- Your DP140e supply should now be functioning properly in addition to the equipment you have connected.
- Battery Test: When the battery is fully charged (Battery Charge Status LED constant green), press the Manual Battery Test switch. Wait five seconds then verify that the Battery Test Status LED is green. *(The Manual Battery Test is only available when the Power Unit is has completed charging the battery pack).*

REPAIR AND MAINTENANCE

Repair and Maintenance

The DP140e power supply has been designed to operate unattended and with low maintenance overhead for extended periods of time. However, the rectifier output voltage should be check on an annual basis and adjusted if outside of the recommend range of 54.4 to 55.5V

Tools and Test Equipment

No special tools other than those normally contained in an electronic technicians toolkit are required to service the DP140e. To check the system voltage and reset as necessary, it is recommended that a quality digital voltmeter be used.

Adjustments

The rectifier used in the DP140e may require adjustment of the output voltage. Care should be used if this adjustment is made. Connect the digital voltmeter to the external battery connector and adjust the rectifier for a voltage of 54.6 Vdc on the external battery connector.

TROUBLESHOOTING

Troubleshooting

The attached guide is intended to provide help with any problems you may run into. Please note that this is not a complete list of problems.

Question - We have just completed installation of the system and we have **no front panel indicator**.

Answer - You will need to check the following:

- Check the power cord on the left side of the unit.
- Check the power cord at the commercial wall outlet.
- Check the circuit breaker in the power distribution panel.
- Using a voltmeter, check the AC voltage at the wall outlet. This voltage should be between 92 and 132 volts AC.

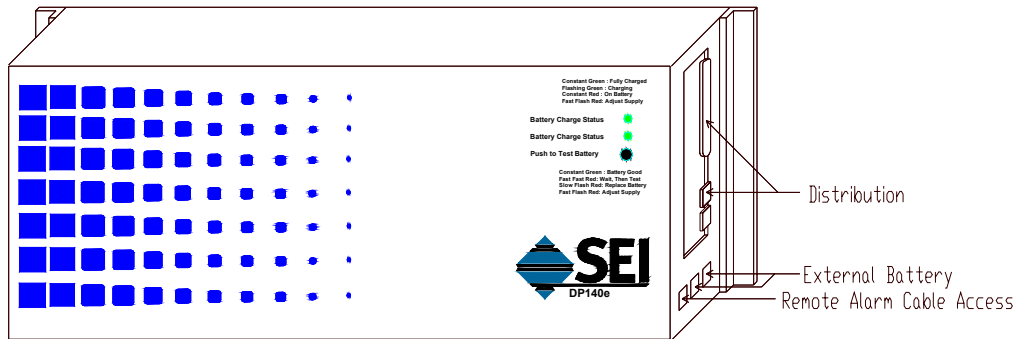
Question - We have just completed installation of the system and we have a power problem. **There are no indicators on the equipment connected to the power supply**.

Answer - There are several things which need to be checked.

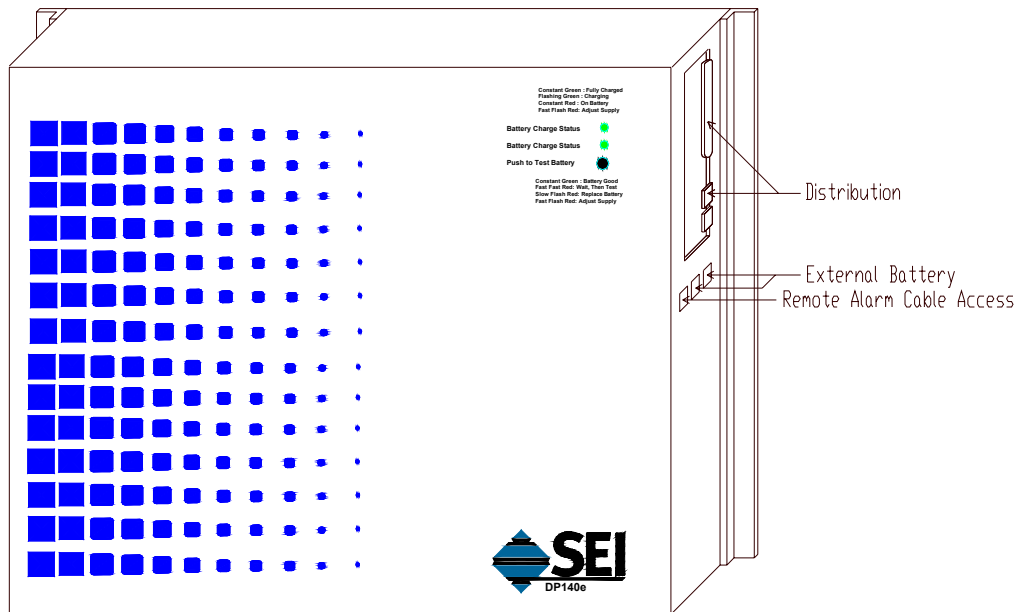
- First, are the front panel indicators on the power supply on? If not go to 7.1.2.
- At the distribution module, disconnect the cable. Using a voltmeter, check the output connector. If your voltage is 54 volts or more the power supply is okay.

- Plug the cable back into the power supply. Disconnect the cable from the load unit. Measure the voltage at the cable connector. Is it the right polarity and voltage?

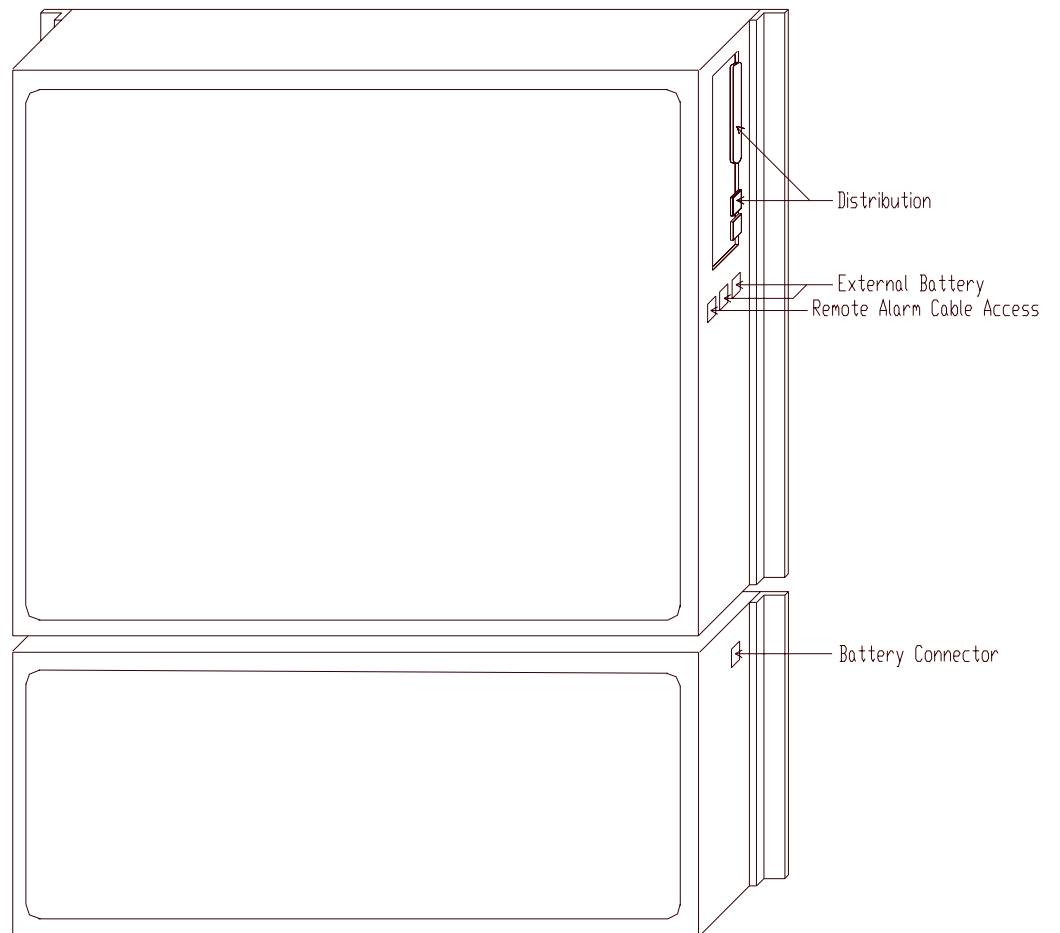
If you have a specific question not addressed in this manual, please call 1-800-765-4SEI and ask for technical support.



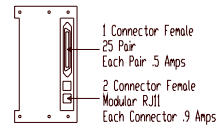
Model DP140e
Figure A.1



Model DP140e-8
Figure A.2

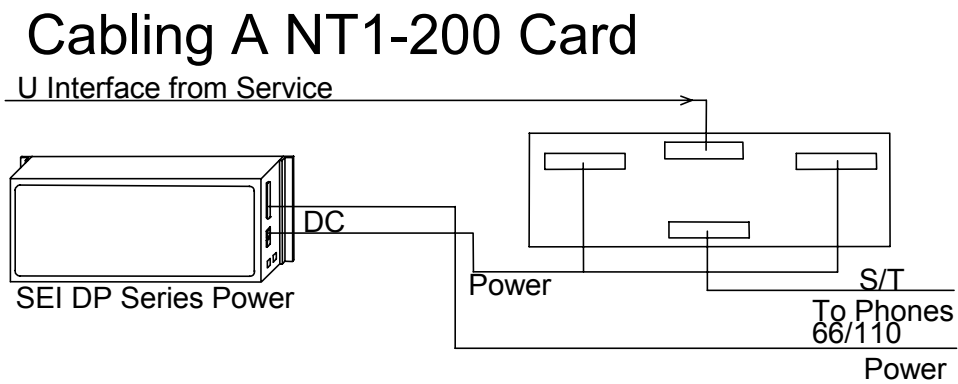
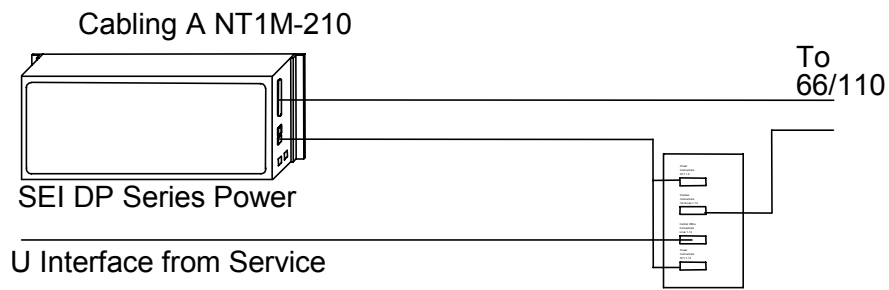
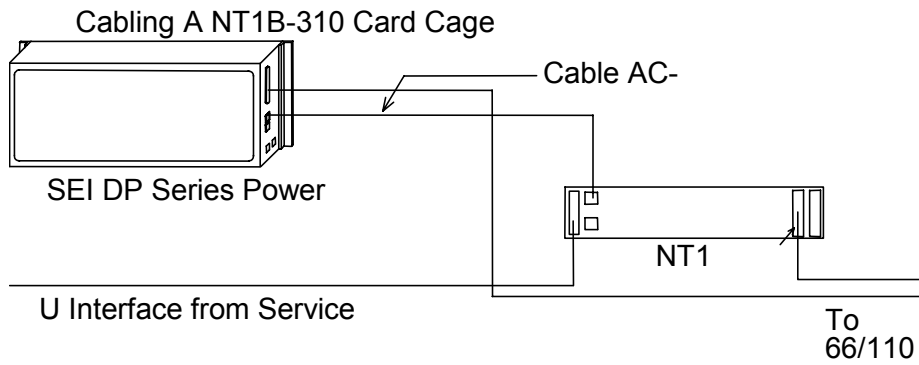


Optional External Battery
Model DP140e-16
Figure A.3

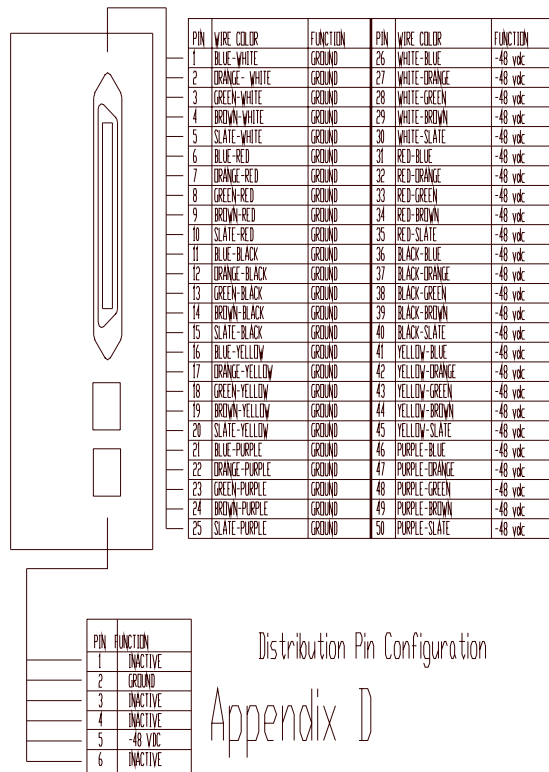
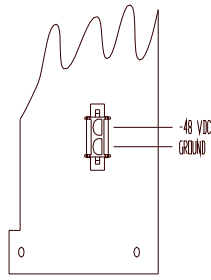


ISDN
Distribution
Figure C.1

TYPICAL WIRING USING DP SERIES



Appendix C



Distribution Pin Configuration

Appendix D

