

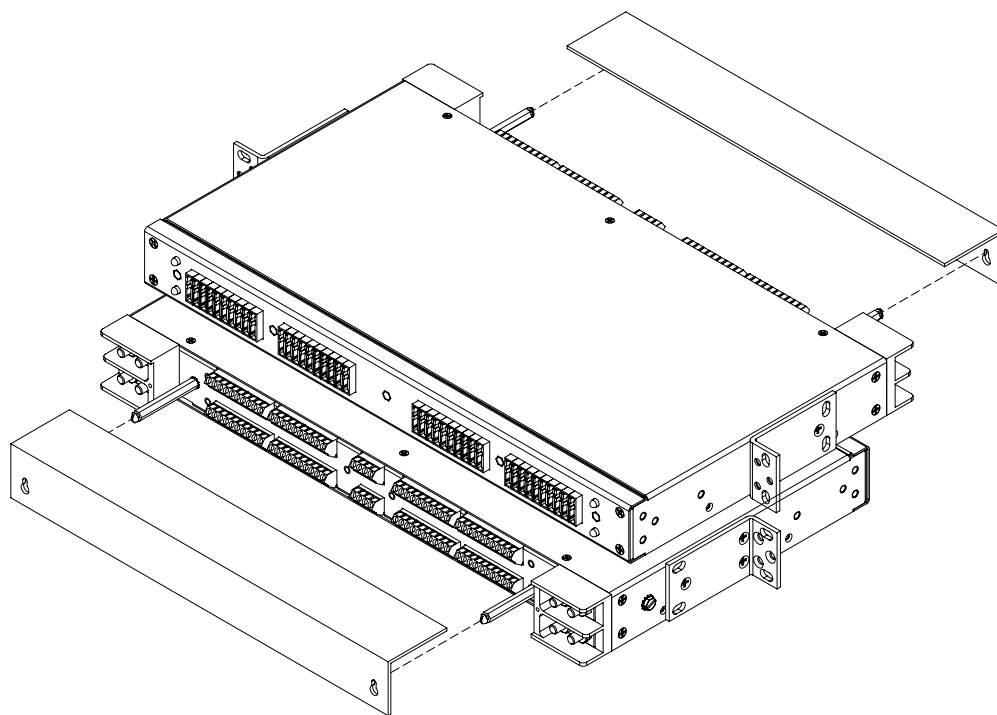
Westell

FUSE PANEL

Technical Practice

N250140-NCY-M3

NEBS Level 3 Certified



FEATURES

- Negative (-) VDC input voltage, -24 or -48Vdc
- Without diodes this panel can operate at 200 Amps of output current per panel (100 Amps per Bus).
- With diodes the panel will operate at 60 Amps of output current per panel (30 Amps per Bus).
- 2 Isolated battery returns.
- Green power LEDs provided for each bus.
- Common (C), normally closed (NC), normally open (NO) alarm extensions (2 sets of dry form "C" contacts).
- Both GND and - BATTERY activated external alarms (alarms that originated outside panel).
- Single 1.75" mounting height (single panel space).
- Brackets supplied are reversible for both 19" and 23" racks and 1.75" mounting spaces.
- NEBS Certification is not available in diode equipped panels.

1. GENERAL DESCRIPTION

1.1. The Westell N250140-NCY-M3 Fuse Panels provide up to 40 circuits for the distribution of DC power to equipment. Each of the 40 circuits is individually protected by a GMT style telecommunication fuse located on the panel's faceplate. Alarm circuits are provided to indicate and extend alarm conditions when faults occur.

1.2. Input wiring is connected to a high current, 2-hole lug input block located at the rear of the panel. Each group of fuses or bus has its own completely isolated inputs, allowing the distribution of two battery voltages through the same panel.

1.3. The power is distributed to the load side equipment through GMT style fuses. There are 20 fuses per fuse group and two groups per panel. Each fuse position is available for installer connection at the rear of the panel. A designation card is provided for keeping records of which position is connected to which equipment and what amperage of fuse is to be used.

1.4. Alarm circuits are provided to alert service personnel of fault conditions. A Fuse alarm is caused when any of the GMT distribution fuses opens. A red LED on the faceplate will illuminate to signal a fuse alarm. These fuse panels have two sets of common (C), normally closed (NC), normally open (NO) contacts for Fuse Alarms or battery or ground activated external Alarms.

1.5. The N250140-NCY-M3 Fuse Panels are made from 0.050" steel and painted off-white (see ordering options for other colors). Single rack height panels are shipped with universal brackets that will fit both 19" and 23" wide racks and use both 1" and 1.75" panel space. The panel has a clear L shaped lexan to protect the wiring connections on the back of the panel.

2. APPLICATION

2.1. The NTI-250140-N/M3 Fuse Panels are designed to be used in the distribution of DC power. They are rack mount panels that can provide fused DC power to up to 40 individual circuits (20/20 GMT), or 20 pieces of equipment, providing redundant battery feeds to each.

3. CIRCUIT DESCRIPTION

3.1. Power is connected to the fuse panel via plastic input blocks located at the rear of the panel, which are ¼" studs on 5/8" centers (Torque 5.5 ft-lbs). These inputs are high current stud blocks that supply current to the fuse panel.

3.2. Distribution of current from each bus is provided by GMT style fuses. Each bus has 20 fuse holders for distribution, fuses F1 to F20 for each Bus A and Bus B. Each fuse position is made available at the rear of the fuse panels. Maximum output current of each fused position is rated at 15 Amps, provided the maximum bus current is not exceeded.

3.3. Fuse alarm circuitry provides 2 sets of dry form "C" contacts. In the event of a fuse or external alarm, both sets of normally open contacts will close, providing a connection between "NO" and "C" terminals on each set.

Note: Both sets of relay contacts operate together in the event of a fuse alarm or an external alarm.

4. INSTALLATION

Please read completely before beginning.

4.1. Unpack and inspect the Noran Tel Fuse Panel for possible damage incurred during shipping. If damage is found, file a claim immediately with the carrier.

4.2. Once the panel is unpacked, verify that there are three mounting brackets. The bracket with the vertical slot is used on both 1" and 1-3/4" spacing. All three brackets are universal for 19" and 23" rack mount spacing and can be mounted so the panel can be installed for a flush mounting or 5" offset. Adjust the position and orientation of the correct mounting brackets on the fuse panel, such that it will fit the rack you wish to mount the panel in. Please see drawing 0113-16C on page 7 for mounting bracket configuration.

4.3. Mount the fuse panel on the equipment rack using the thread forming #12-24 rack mounting screws and lockwashers provided.

WARNING: For safety reasons all wiring should be done with the power source removed (when possible).

4.4. Remove the distribution fuse feeding the input cables that are to be connected to the new panel. Using input cables specified by the Job Engineer, hook up the input cables to the input terminal block on the fuse panel. This panel has two sets of inputs. Torque 1/4" steel nuts to 5.5 ft-lbs.

Please be sure to observe the proper polarity.

4.5. The battery outputs are available at the terminals blocks at the rear of the panel. Each fuse position is numbered and that fused circuit is available at the terminal block position with the same number.

4.6. All battery return (ground) connections are terminated on the isolated battery return on the rear of the panel. Note that these returns are isolated from the chassis.

4.7. For this fuse panel you have common (C), normally closed (NC), normally open (NO) alarm extensions (two sets of dry "C" contacts). You have ground activated external alarm and battery activated external alarm (alarms that originated outside the panel).

4.8. **CHASSIS GROUND;** For safety reasons, and as recommended by NEBS, the chassis should be electrically connected to the rack ground. From step 4.3. the panel should already be ground to the rack via the #12-24 thread forming rack screws and outside tooth lock washers. In addition to grounding via the mounting brackets, it is recommended you ground the chassis using a ground cable and the #10 bolt and locks on side of chassis (#10 screw torque; 2ft/lbs or 2.7Nm).

4.9. Power up the panel by installing the distribution fuse supplying the panel. The panel should power up and have no red LEDs illuminated. Green power LEDs should be lit.

4.10. Install panel output distribution fuses as required. Use the provided designation card to keep a record of which equipment is connected to which circuit and what the fuse rating is.

4.11. If you wish to verify the Fuse alarm circuit, you can insert a blown or open fuse into one of the empty fuse holders. A red Fuse Alarm LED should light on the faceplate and the alarm extension relay should activate and extend appropriate alarm. If you wish to verify the EXT Alarms you can connect GND or -BAT and the red EXT Alarm should light on the faceplate and the alarm extension relay should activate and extend appropriate alarm.

5. SPECIFICATIONS

5.1. Voltage	-24 or -48 VDC Typical -22 to -55 VDC Maximum	5.10. Relay Current	2 Amps Max.
5.2. Current/Fuse	15 Amps Maximum	5.11. Dimensions	1¾"H, 17"W, 10½"D (excluding brackets)
5.3. Current/Bus	100(30*)Amps Max./Bus	5.12. Rack Mounting	19" and 23" Racks for 1" and 1.75" Panel Spaces
5.4. Current/Panel	200 (60*)Amps	5.13. Weight	Appx 8 Lbs
5.5. Output Fuse	GMT Style Fuse Holders	5.14. Operating Temp.	-20° to +60°C (-5° to +140°F)
5.6. Output/Bus	40 Fuses (20 per bus)	5.15. Color	Off-White (or black)***
5.7. Output/Panel	2 Busses per Panel		
5.8. Input Block**	Two ¼" Stud on 5/8 center		
5.9. Output Block	#26 AWG to 14 AWG wire		

*If diode equipped

**Torque = 5.5 ft-lbs

6. TECHNICAL SERVICES

6.1 If technical or customer assistance is required, contact Westell by calling or using one of the following options:

Voice: (800) 377-8766
email: global_support@westell.com

For additional information about Westell, visit the Westell World Wide Web site at <http://www.Westell.com>.

6.2 This equipment is identified by a model number ie. NPTFD1009. Be sure to have the model number and serial number available when making inquiries about the equipment.

7. WARRANTY & REPAIRS

7.1 Westell warrants this product to be free of defects at the time of shipment. Westell also warrants this product to be fully functional for the time period specified by the terms and conditions governing the sale of the product. Any attempt to repair or modify the equipment by anyone other than an authorized Westell representative will void the warranty.

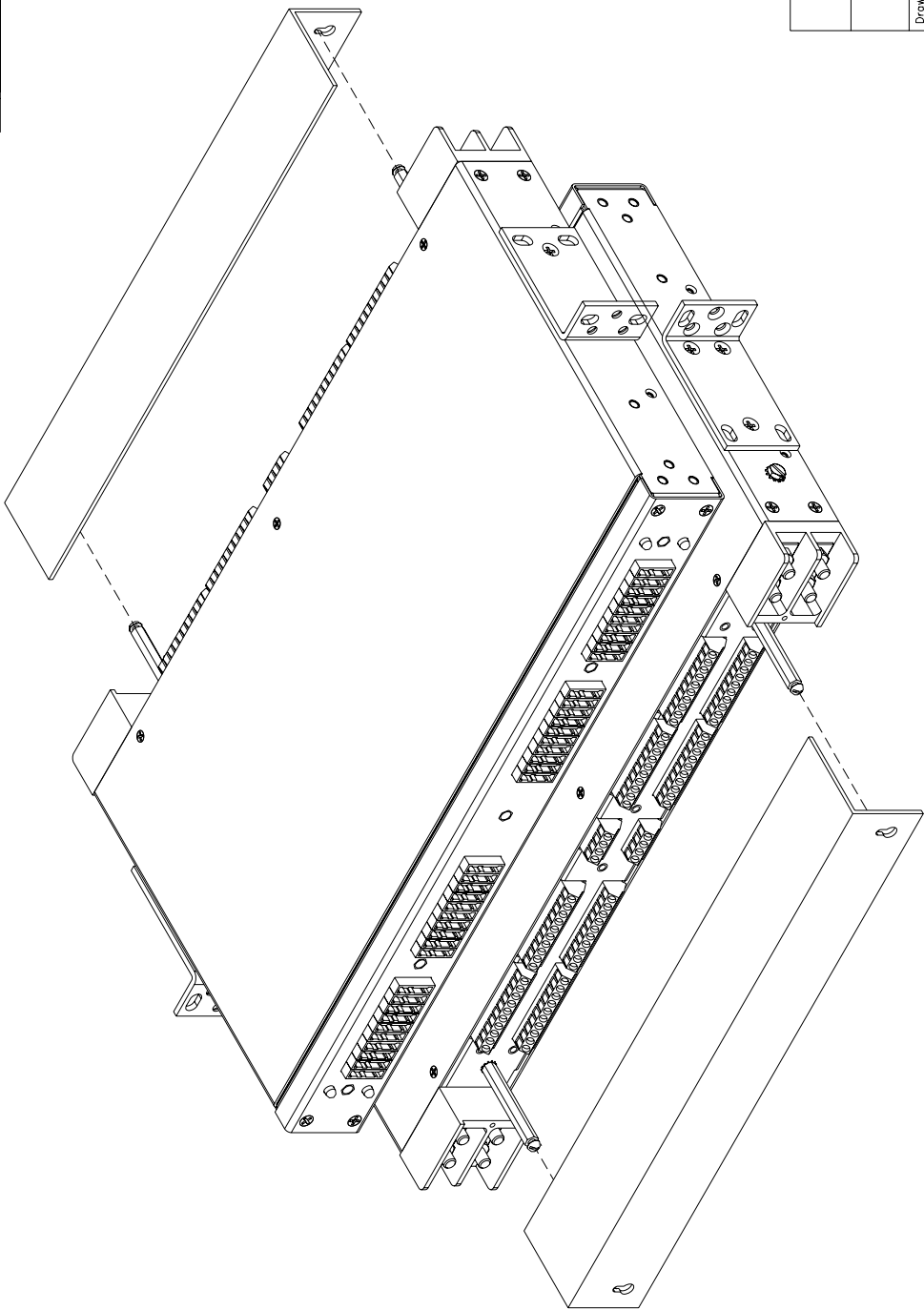
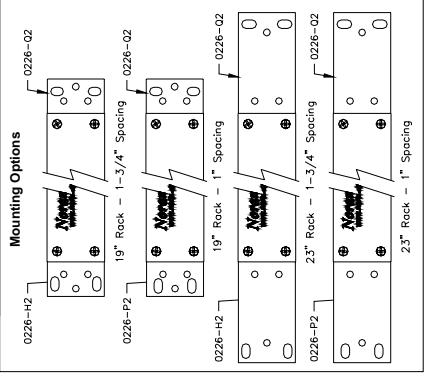
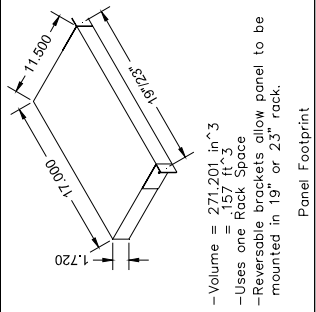
7.2 Westell will repair or replace any defective Westell equipment without cost during the warranty period if the unit is defective for any reason other than abuse, improper use, or improper installation. To return defective equipment, first request a Return Material Authorization (RMA) number from Westell by calling or emailing (Customer Service) at the

address below. Once an RMA number is obtained, return the defective unit (freight prepaid), along with a brief problem description, to the address we will provide to you when you contact us.

email: rgmdept@westell.com
Voice: (800) 377-8766

Replacements will be shipped in the fastest manner consistent with the urgency of the situation. Westell will continue to repair or replace faulty equipment beyond the warranty period for a nominal charge. Contact Westell for details.

REV	Qty	Description or Release Note	ECN	CKD	APD	DATE
A		Original	239			
B		removed one PEM and adjusted footprint	426			02 Sept 10
C		Updated to Q bracket	775			

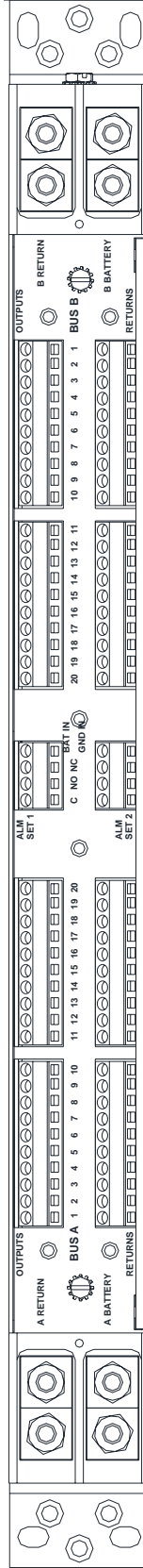


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 COPYRIGHT / DO NOT DUPLICATE
 NTL-N250140-NGY/M3
 Complete Panel
 Illustration Drawing

Drawing Number:	Rev:	Drawn with:	Computer File:
0113-16	C	AutoCAD by Autodesk	Noran Tel use only 0113-16C

Date: 02 September 10 Plotted Scale: NTS
 Drawn by: S. Dolinsky Sheet: 1 of 1

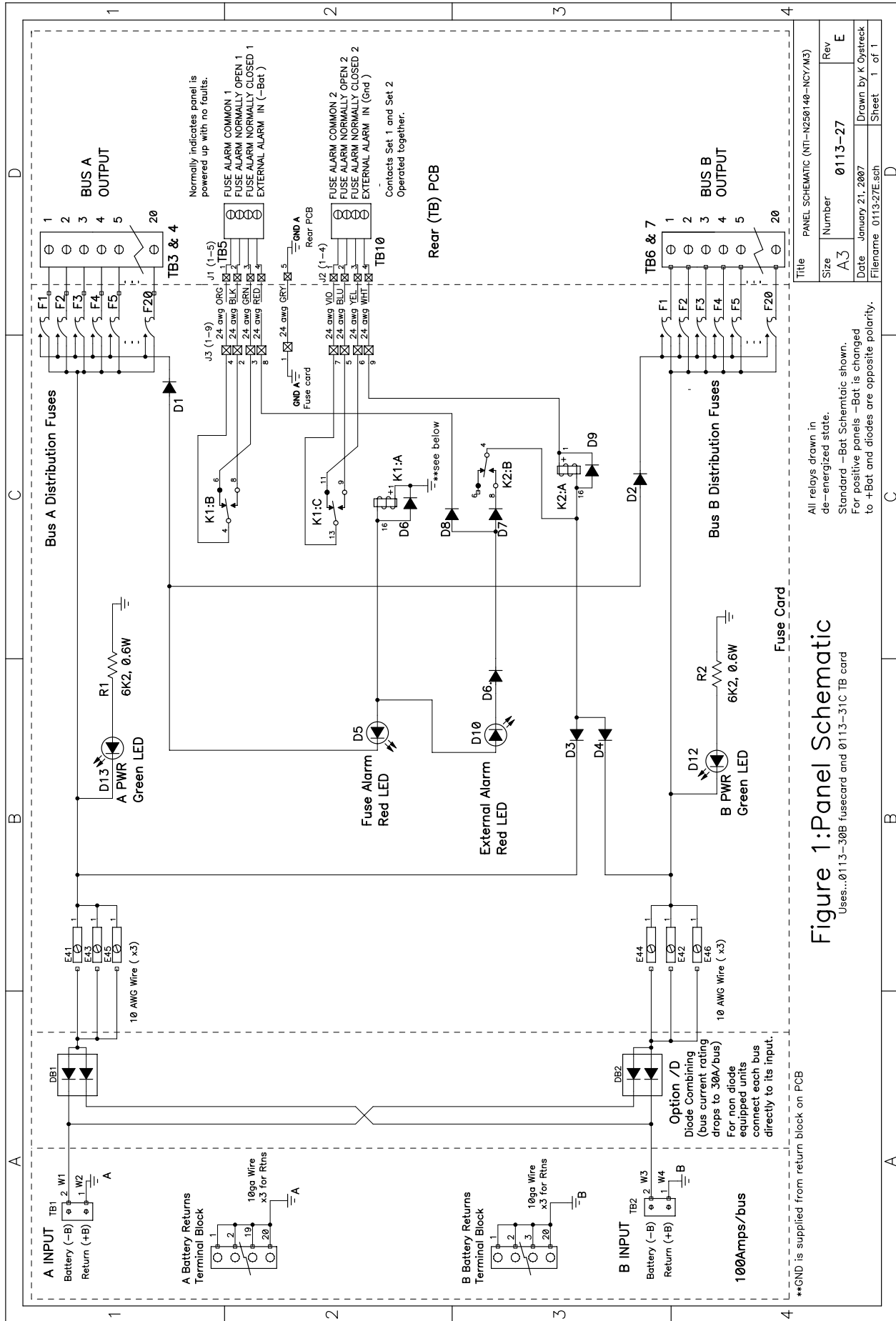
REV	Qty	Description or Release Note	ECN	CKD	APD	DATE
A		Original	239			
B		Changed to Q bracket	775			07 Sept. 10



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 NTI-N250140-NCY/M3
 Front and Rear Views
 Illustration Drawing

Drawing Number: 0113-17
 Rev: B
 Drawn with: AutoCAD
 by: Andreask
 Computer File: Noran Tel use only
 0113-17B

Date: 07 September 10
 Plotted Scale: NTS
 Drawn by: S. Dolinsky
 Sheet: 1 of 1



Title	PANEL SCHEMATIC (NTI-N250140-NCY/M3)		
Size	A3	Number	0113-27
Date	January 21, 2007	Rev	E
Filename	0113-27E.sch	Drawn by	K Oystreck
		Sheet	1 of 1

Figure 1: Panel Schematic
 Uses...0113-30B fusecard and 0113-31C TB card