Installation Instructions

PanelView 550 Terminals

(Catalog Numbers 2711-K5Axx, 2711-B5Axx)

Inside:

40061-325-01(D)

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English

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For More Information

For	Refer to	Refer to
More detailed information on the 550 and the other Standard PanelView terminals.	Standard PanelView Terminals User Manual	2711-UM014A-EN-P

If you would like a publication, you can:

- download a free electronic version from the PanelBuilder32 installation CD
- download a free electronic version from the internet: **www.ab.com/manuals/eoi** or **www.theautomationbookstore.com**

To purchase a publication:

- visit the www.theautomationbookstore.com and place your order
- contact your local distributor or Rockwell Automation Representative

Hazardous Locations

Series C (and higher) terminals are certified for Class I Division 2 hazardous locations. See nameplate label on terminal for certification details.

ATTENTION

In Class I, Division 2 hazardous locations, the PanelView 550 terminal must be wired per the National Electric Code and/or Canadian Electric Code as it applies to hazardous locations. Peripheral equipment must also be suitable for the location in which it is installed.

Series C terminals have an operating temperature code of T2 (maximum operating temperature of 300° C or 572° F). Do not install Series C terminals in environments where atmospheric gases have ignition temperatures **less than** 300° C (572° F).

European Union Directive Compliance CE

If a PanelView 550 Operator Terminal is installed within the European Union or EFTA regions and has a CE mark, the following regulations apply.

EMC and Low Voltage Directives

This apparatus is tested to meet Council Directive 89/336/EEC Electromagnetic Compatibility (EMC) and amending directives 91/263/EEC, 92/31/EEC, 93/68/EEC; 72/23/EEC Low Voltage Directive, and amending directive 93/68/EEC using the following standards, in whole or in part:

- EN 50081-2:1993 EMC - Generic Emission Standard, Part 2 - Industrial Environment
- EN 50082-2:1995 EMC - Generic Immunity Standard, Part 2 - Industrial Environment
- EN 61131-2:1995 EMC - Programmable Controllers - Equipment Requirements and Tests
- Low Voltage Directive - Safety Sections of EN 61131-2

The product described is intended for use in an industrial environment.

Intended Use of Product

According to these Standards, the factor which determines, for EMC purposes, whether an apparatus is deemed to be "Industrial" or "Residential, commercial and light industrial", is given in Clause 1 of EN50081-2 as follows:

> Apparatus covered by this standard is not intended for connection to a public mains network but is intended to be connected to a power network supplied from a high- or medium-voltage transformer dedicated for the supply of an installation feeding a manufacturing or similar plant.

The PanelView 550 terminals are intended for use solely in an industrial environment as defined above. When installed in Europe, any other application is in contravention of European Union Directives, and a breach of these laws.

Wiring and Safety Guidelines

Install the PanelView 550 terminal using publication 70E, Electrical Safety Requirements for Employee Workplaces. In addition to the NFPA general guidelines, follow these recommendations:

- Connect the PanelView terminal to its own branch circuit.

  The input power source should be protected by a fuse or circuit breaker rated at no more than 15 amps.

- Route incoming power to the PanelView 550 terminal by a separate path from the communications cable.
- Where power and communication lines must cross, they should cross at right angles. Communications lines can be installed in the same conduit as low level DC I/O lines (less than 10 Volts).
- Grounding minimizes noise from Electromagnetic Interference (EMI) and is a safety measure in electrical installations. To avoid EMI, shield and ground cables appropriately.
- A source for grounding recommendations is the National Electrical Code published by the National Fire Protection Association of Boston.

Enclosures

Mount the PanelView 550 terminal in a panel or enclosure to protect the internal circuitry. The terminal meets NEMA Type 12/13 and 4X (indoor use) ratings only when properly mounted in a panel or enclosure with the equivalent rating.

Allow enough space within the enclosure for adequate ventilation. Consider heat produced by other devices in the enclosure. The ambient temperature around the terminal must be between 0° and 55°C (32° and 131°F).

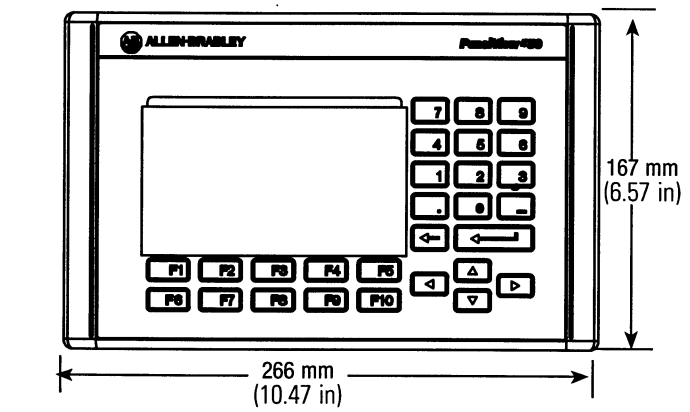
Make provisions for accessing the back panel of the terminal for wiring, maintenance, installing a memory card, and troubleshooting.

Required Tools

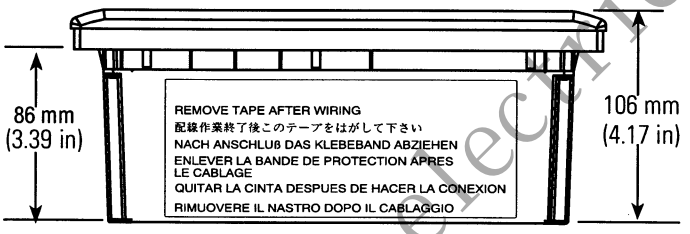
Other than the tools required to make the panel cutout, the tools required for installation are:

- 7mm (M4) deep well socket wrench or nut driver
- small slotted screwdriver
- torque wrench (in. / lbs)

Mounting Dimensions

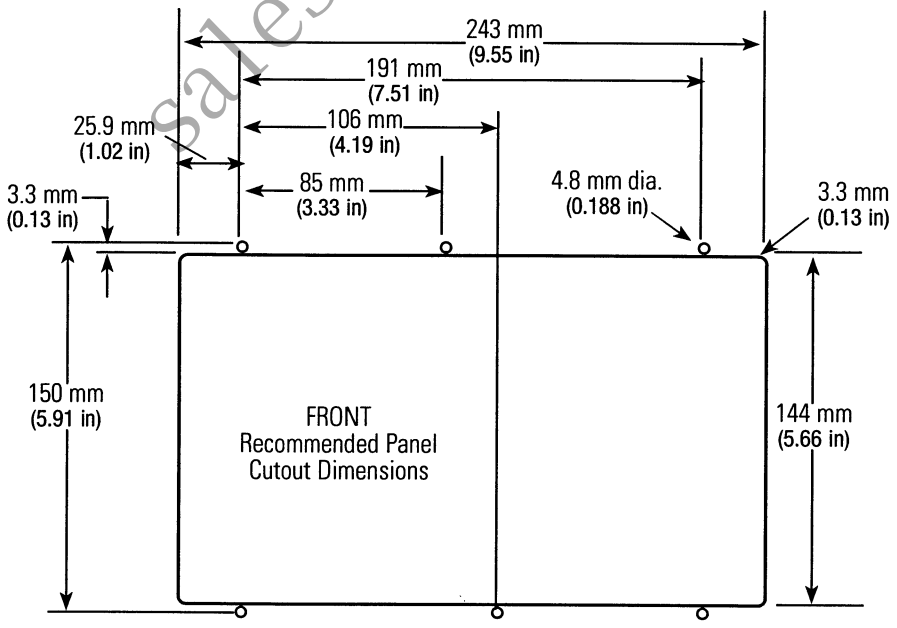


Top View



Cutout Dimensions

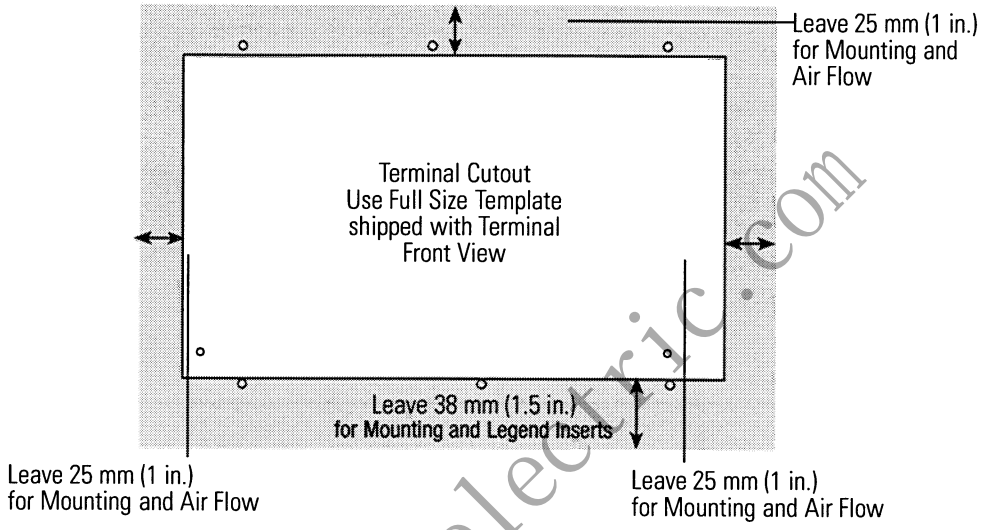
Use the full size template shipped with the terminal to mark the cutout dimensions. The figure below shows a reduced size cutout.



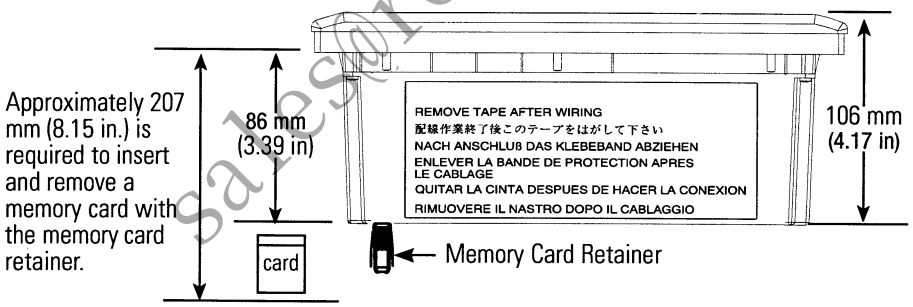
Clearances

Allow adequate clearances for mounting, air flow, maintenance, and for installing a memory card and legend inserts.

Side, Top and Bottom Clearances



Back Clearance



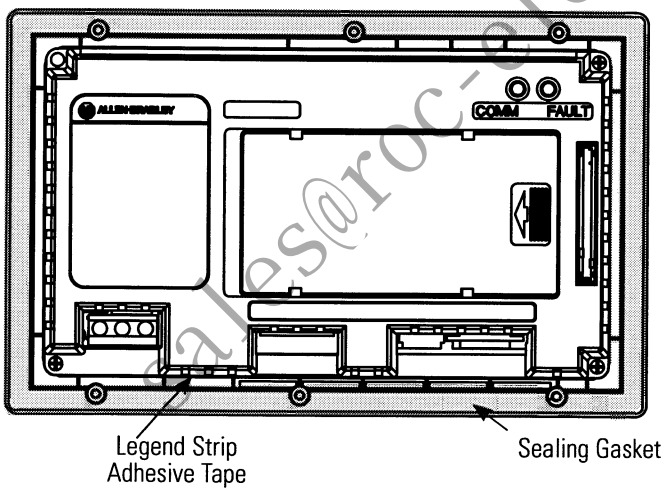
Installing Terminal in a Panel

To install the PV500 terminal in a panel:

ATTENTION

- Disconnect all electrical power from the panel before making the cutout.
- Make sure the area around the panel cutout is clear.
- Take precautions so that metal cuttings do not enter any components that may already be installed in panel.
- Failure to follow this warning may result in personal injury or damage to the panel components.

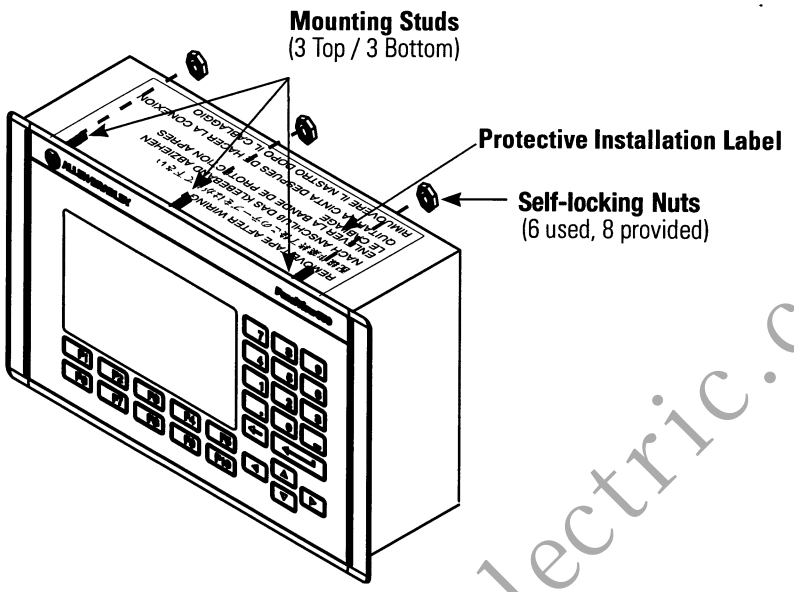
1. Cut an opening in the panel using the panel cutout provided with the terminal. Remove sharp edges or burrs.
2. Make sure the sealing gasket is properly positioned on the terminal (as shown below). This gasket forms a compression type seal. Do not use sealing compounds.



3. Verify that the ends of the legend strips are secured with the legend strip adhesive.
4. Place the terminal in the panel cutout.

5. Make sure the ends of the legend inserts are positioned behind the panel cutout.

6. Install the 6 self-locking nuts, hand tight.



7. Alternately tighten the self-locking nuts until the terminal is held firmly against the panel. Tighten the nuts to a torque of 10 inch-pounds. Do not overtighten nuts.

ATTENTION

Mounting nuts must be tightened to a torque of 10 inch-pounds to provide a proper seal and to prevent potential damage to the terminal. Allen-Bradley assumes no responsibility for water or chemical damage to the terminal or other equipment within the enclosure because of improper installation.

8. Remove the protective installation label covering the top vents of the terminal.

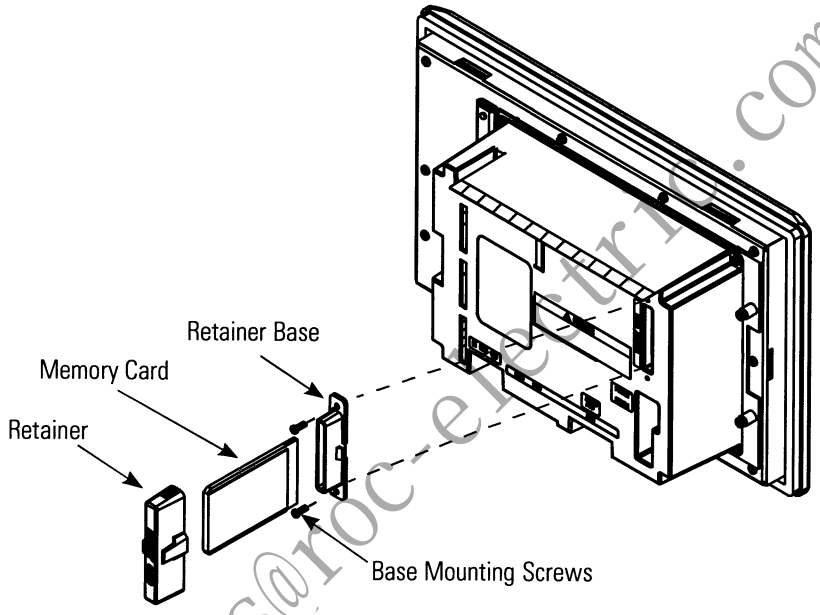
ATTENTION

Failure to remove the protective installation label covering the top vents could result in overheating and damage to the terminal.

Installing the Memory Card

The memory card retainer is required for UL508 installations where a memory card is inserted in the card slot. The retainer protects against Electrostatic Discharge (ESD) up to 15KV and prevents accidental removal of a memory card in high vibration environments.

To attach the memory card retainer:



1. Secure the base of the retainer over the existing memory card slot using the two screws provided. Tighten screws to a torque of 6 to 8 inch lbs (.7 to .9 N•m).
2. Insert the memory card and install the retainer until it is properly seated.
3. To remove the retainer, press the tabs on each side and pull.

Connecting AC Power

The table below shows the electrical ratings for the AC versions of the terminals.

Terminal Type	Supply Voltage	Power Consumption
PV550	85 to 264V ac, 47 to 63 Hz	45 VA maximum

ATTENTION

- The PanelView 550 terminal is designed for safe use when installed in a suitably rated NEMA Type 12, 13, 4X (indoor use only), IP54 or IP65 enclosure.
- Do not apply power to the terminal until all wiring connections have been made. Failure to do so may result in electrical shock.

ATTENTION

Explosion Hazard - Do not connect or disconnect equipment while circuit is live unless area is known to be non-hazardous.

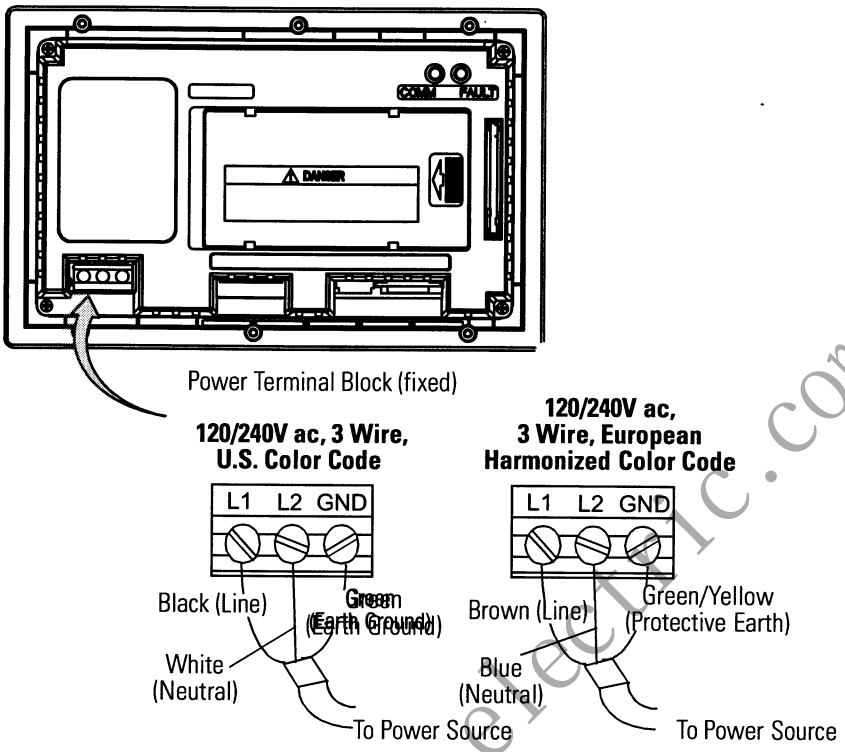
To connect AC power to the PanelView 550 terminals:

1. Secure the AC power wires to the L1 and L2N terminal block screws.
2. Secure the Earth Ground/Protective Earth wire to the GND screw on the terminal block.

ATTENTION

Improper wiring of the power terminals may result in voltage at the communication connector shells. Refer to the following figure when wiring.

3. Apply power to the terminal.



Connecting DC Power

The L1 and L3 versions (e.g., Catalog No. 2711-K5A1L1 or 2711-K5A1L3) of the PV550 terminals connect to a 24V dc power source.

The table below shows the electrical ratings for the DC versions of the terminals. Electronic circuitry and an internal fuse protect the terminals from reverse polarity and over-voltage conditions

Terminal Type	Supply Voltage	Power Consumption
PV550	18 to 30V dc, (24V dc nominal)	12 Watts maximum (0.5 Amps @ 24V dc)

ATTENTION

- Do not connect the PanelView terminal to an AC power source. Connecting to an AC power source may damage the terminal.
- The PanelView 550 terminal is designed for safe use when installed in a suitably rated NEMA Type 12, 13, 4X (indoor use only), IP54 or IP65 enclosure.

To connect DC power to the PV550 terminal:

1. Secure the DC power wires to the terminal block screws.
2. Secure the Earth Ground wire to the correct terminal block screw.

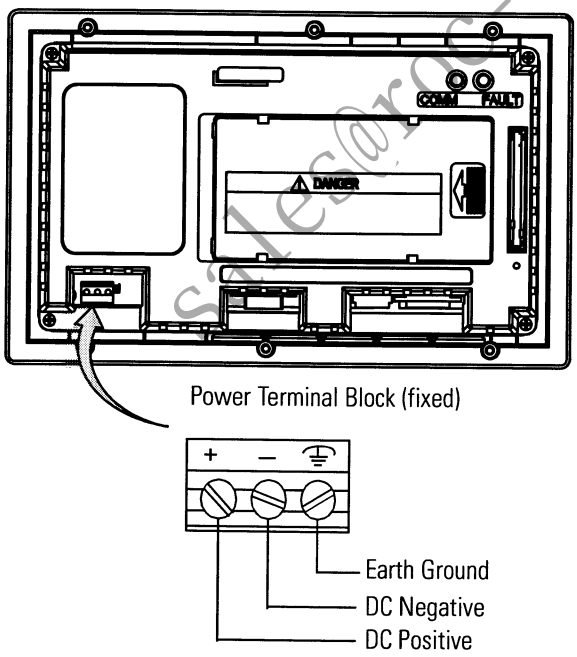
ATTENTION

Explosion Hazard - Do not connect or disconnect equipment while circuit is live unless area is known to be non-hazardous.

ATTENTION

Do not apply power to the terminal until all wiring connections have been made. Failure to do so may result in electrical shock.

3. Apply 24V dc power to the terminal.



PANELVIEW 550/600 TOUCH SCREEN TERMINAL

Cutout Template

All Dimensions in Inches (Millimeters)