



Replacing the PanelView 1400e Keypad Faceplate (Catalog Number 2711E-NK5) (For PanelView Terminals 2711E-K14C6, 2711E-K14C7, 2711E-K14C15)

Description

This document provides instructions for replacing the PanelView 1400e terminal's keypad faceplate.

The keypad faceplate should be replaced by a qualified technician who has experience in the service and repair of solid state equipment. In no event will Allen-Bradley Company be responsible or liable for indirect or consequential damages resulting from the replacement of this part.

Package Contents

This kit includes:

- keypad faceplate with controller
- 6 keypad faceplate mounting screws with washers
- 18 terminal mounting nuts and washers

Before You Begin

Tools Required:

- No. 2 Phillips screwdriver with a long shaft
- Torque wrench capable of 27 inch-pounds torque
- Torque wrench capable of 15 inch-pounds torque
- Removeable thread locker (Loctite 242, Part Number 24221)
- Torx T-15 driver
- Wood block to elevate terminal keypad faceplate

Save Your Terminal Configuration and Application File

Before opening the terminal, write down the terminal's settings (serial port, audio response, and screen saver configuration). If you have no disk copy of the application file (as it was created in PanelBuilder), upload the application file to a computer running PanelBuilder and save the file on disk.

Precautions



ATTENTION: To replace the keypad faceplate, you will need to put the unit face down gently onto a clean, soft protective surface. Be careful not to jar the unit. Permanent CRT damage can result.



ATTENTION: Ensure that the PanelView terminal's power cord is disconnected and that all cables have been disconnected from the rear of the terminal.



ATTENTION: The electronic components in PanelView terminals are extremely sensitive to static electricity and can be permanently damaged by electrostatic discharges. Follow the proper handling procedures for electrostatic-sensitive devices.

You should use an anti-static mat or wear a grounding wrist/foot strap whenever you work with any electronic components sensitive to electrostatic discharges.

If you are not using any anti-static mat or wrist/foot strap, follow these precautions:

- assume that your body is always carrying a static charge
- touch any grounded metal surface to discharge yourself. Do this frequently
- wear cotton clothes, not wool or synthetic fabrics
- do not move too much or scuff your feet when walking on carpets
- be extra careful in low-humidity environments

Step 1. Disconnecting and Dismounting the Terminal

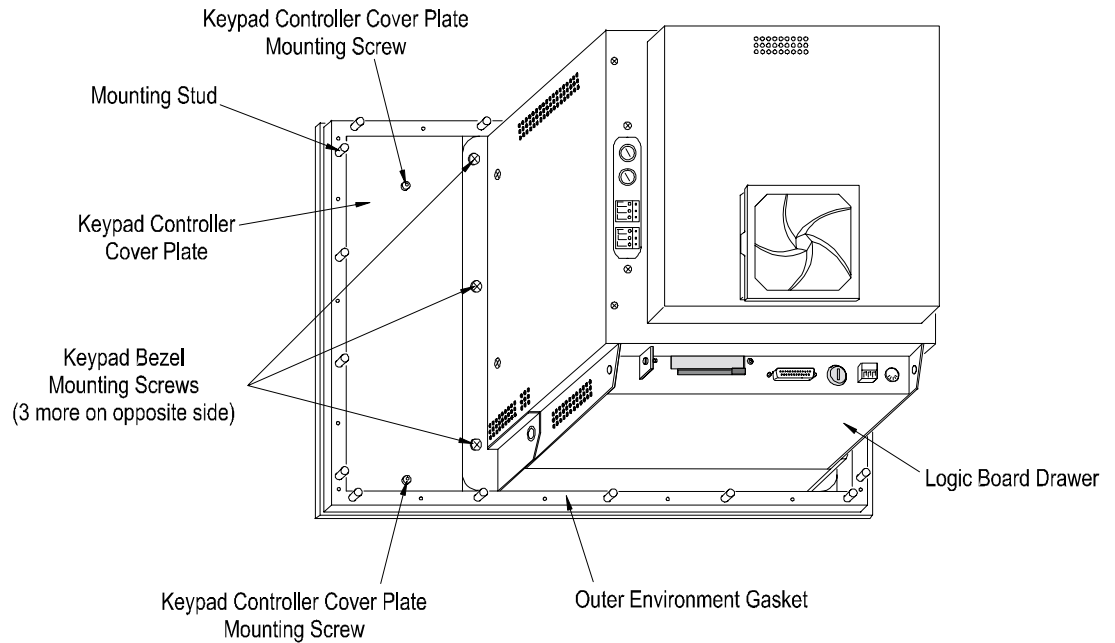
To disconnect and dismount the terminal:

1. Disconnect power from the terminal at the source.
2. Disconnect all cabling from the back of the terminal.
3. Dismount the terminal from its panel or rack.

Step 2. Removing the Keypad Faceplate

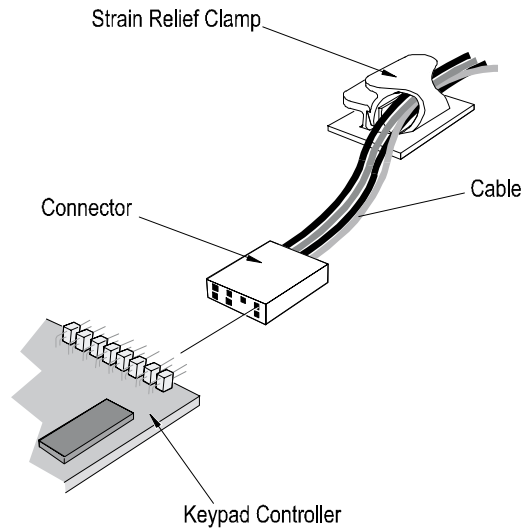
To remove the keypad faceplate:

1. Place the terminal face down on a protective surface.
2. Use a Torx T-15 driver to remove the two small black screws holding the cover plate on the left side of the keypad faceplate. Save the screws and the plate.



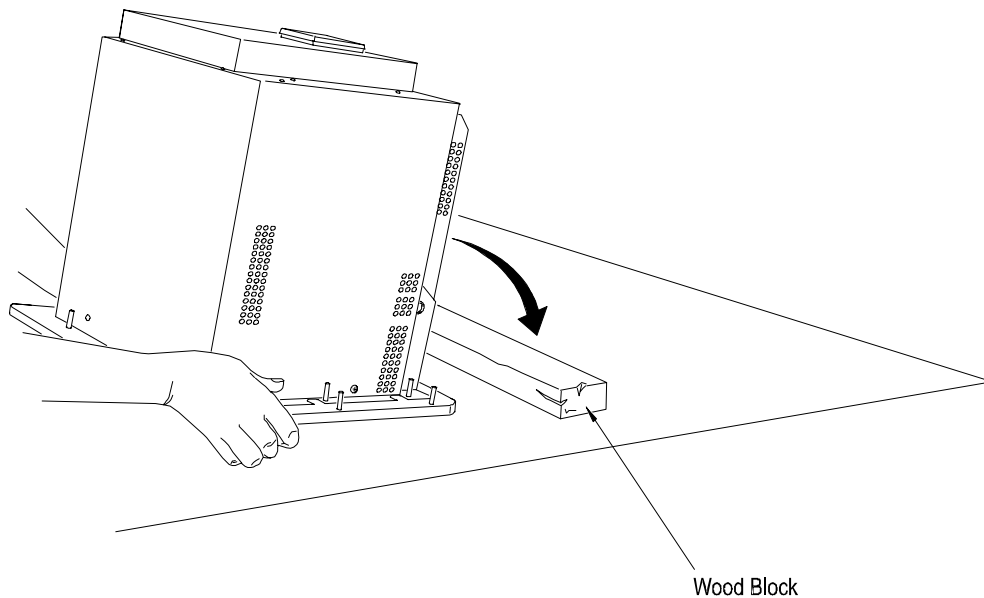
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3. The cable between the terminal and the keypad controller on the faceplate is clipped to the terminal by a strain-relief clamp. Release this by pressing down on the lower tab.



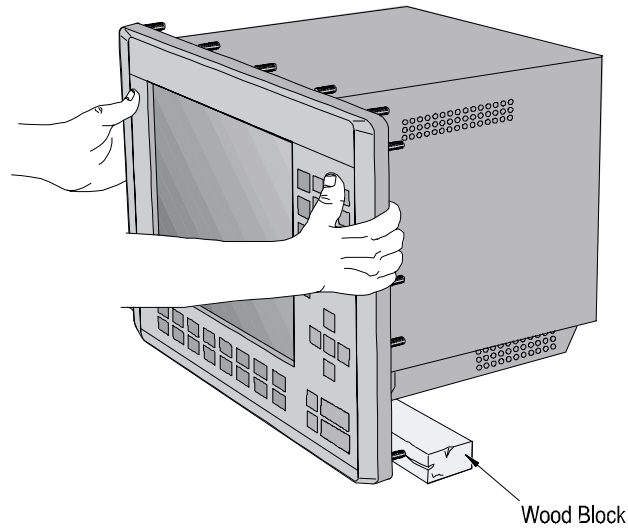
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4. Disconnect the cable from the controller board on the keypad faceplate. Note the position and orientation of the cable so that you can reconnect it properly.
5. The keypad faceplate is attached to the terminal by six Phillips screws, three on each side. Use the No. 2 Phillips screwdriver to remove them. The location of the screws is shown above.
6. When you have removed all the screws, tilt the unit up into operating position, holding the faceplate in place. Gently set the terminal on its bottom.



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7. Gently pull the keypad faceplate away from the unit at the top.



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Step 3. Preparing the New Keypad Faceplate

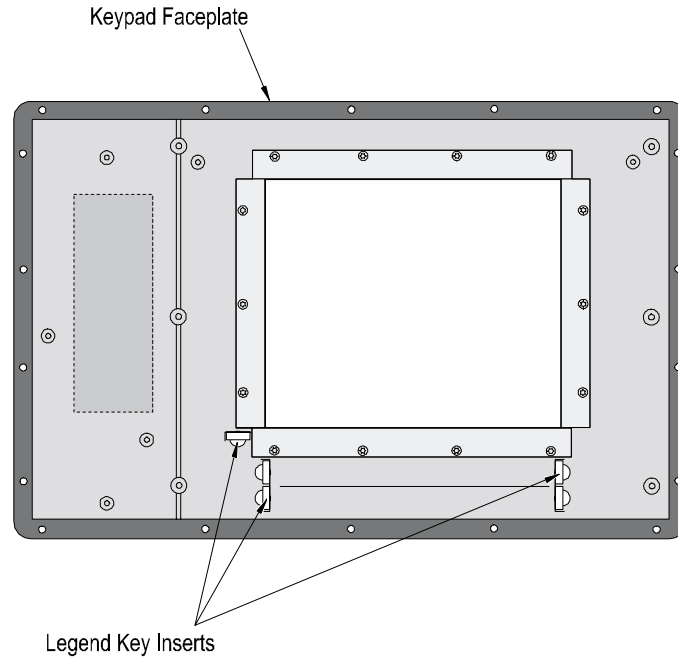
To prepare the new keypad faceplate:

Important: Prepare the new keypad faceplate in a dust-free environment.

1. Lay the keypad faceplate face down on a clean, soft, protective surface.
2. Use glass cleaner to remove all fingerprints, streaks, and lint from the back of the keypad faceplate and the front surface of the CRT screen.

Important: Don't spray glass cleaner into the open terminal to clean the CRT surface. Instead, spray the glass cleaner onto a clean cloth, and wipe the CRT surface.

3. If you had customized your legend key inserts, you may want to remove the customized legend key inserts from your old keypad faceplate and insert them into your replacement keypad faceplate.



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Pull gently on the blue tabs to remove the legend key inserts from the old keypad faceplate and the new legend key inserts from the replacement keypad faceplate. Carefully insert the customized legend inserts from your old faceplate into your replacement faceplate.

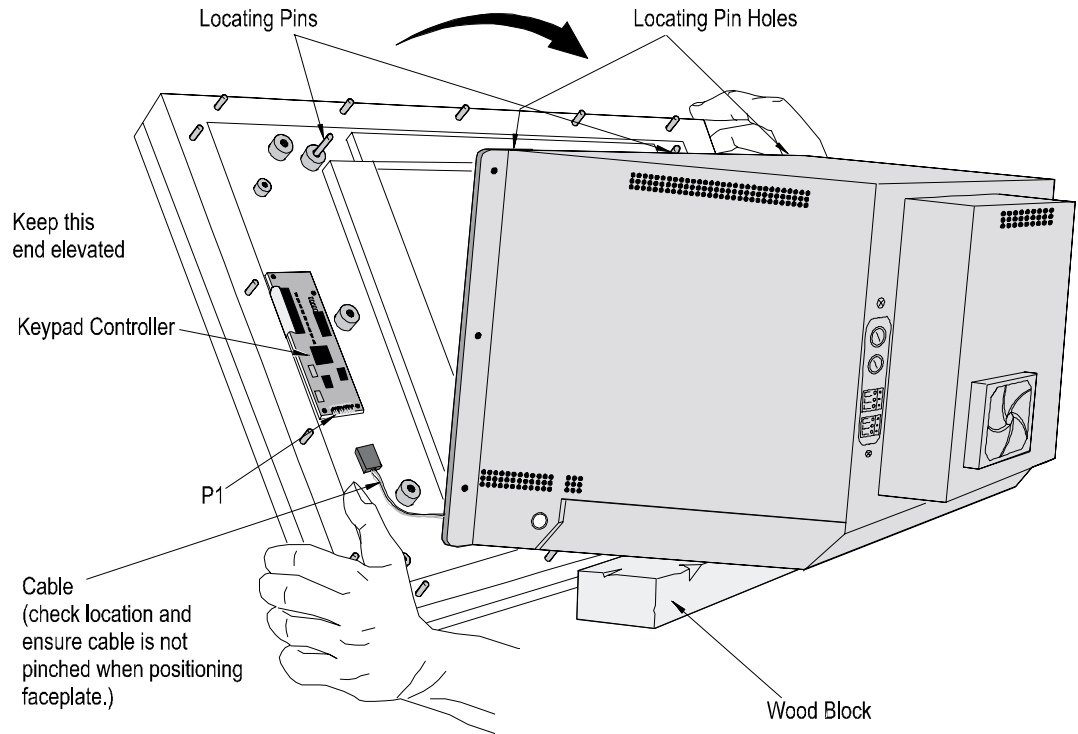
4. Verify that the keypad faceplate is clean. If there are any new streaks or spots, remove them with glass cleaner and lint-free wipes.

Step 4. Attaching the New Keypad Faceplate

To attach the new keypad faceplate:

1. Place the new keypad faceplate flat on the table in front of the terminal.
2. Apply Loctite on the bottom four or five threads of each of the six screws. Be sparing with the Loctite.
3. Lift the faceplate into position onto the terminal. Fit the locating pins on the faceplate into the openings on the terminal.

Important: Be careful when aligning the pins with the holes. If they aren't properly aligned, the pins can scratch the terminal.

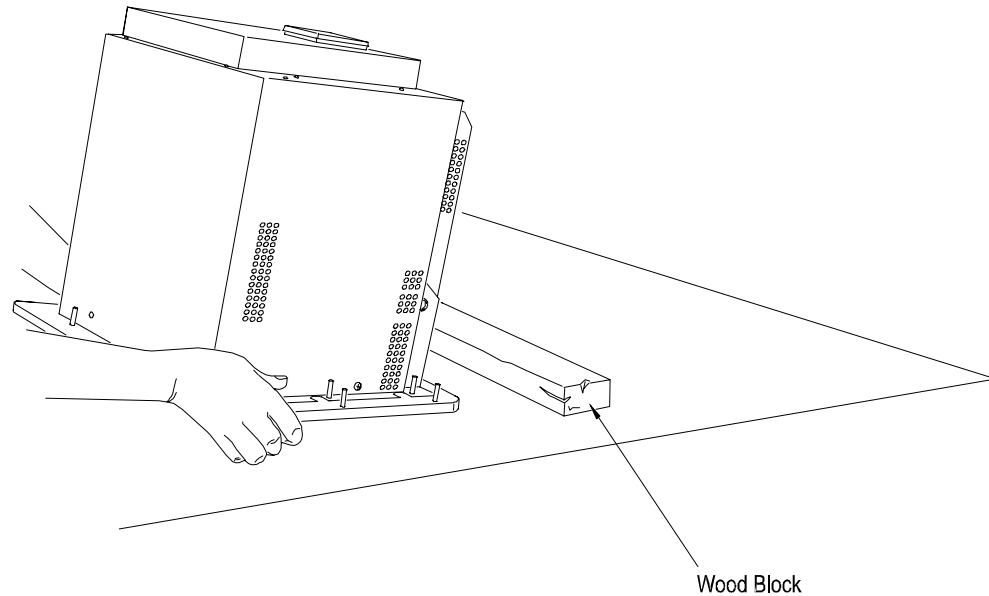


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4. Holding the faceplate in position with one hand, start the middle screw on one side of the faceplate. Tighten it “finger-tight”, that is, as tight as you can by hand.

Important: Start these screws very carefully, either by hand or with a screwdriver; it is very important not to strip the threads in the screw holes. If you should strip or cross-thread a hole, it may be necessary to return the unit for service.

5. Start the middle screw on the other side of the faceplate and “finger tighten”.
6. Place the terminal on its face.



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7. Start the remaining screws around the outside of the terminal.
8. Use the torque wrench to tighten them to a torque of 27 inch-pounds.
9. Connect the cable to P1 on the controller board of the new keypad faceplate. Be careful to replace the connector with the same orientation as when you disconnected it. The cable is keyed to match the connector.
10. Snap the cable into the strain relief clamp, and lock it by pressing the upper tab.
11. Use the T15 bit to reattach the keypad controller cover plate at the back of the keypad. Tighten these screws to a torque of 15 inch-pounds.

Step 5. Remounting and Reconnecting

To remount and reconnect the terminal:

1. Remount the terminal in its rack or panel. Secure the 18 nuts and washers, provided in the kit, to terminal mounting studs. Terminal mounting nut torque should not exceed 10 inch-pounds.
2. Ensure the outer environmental gasket is properly sealed, and is not squeezed or pinched.

Important: An outer environmental gasket of heavy foam rubber is already installed on your replacement keypad faceplate. The NEMA-rated environmental protection of your terminal depends on the seal created when this gasket is properly seated. Be careful not to damage this gasket.

3. Remove the protective cover from the front of the faceplate.
4. Reconnect the cabling to the back of the terminal.
5. Reapply power to the terminal.

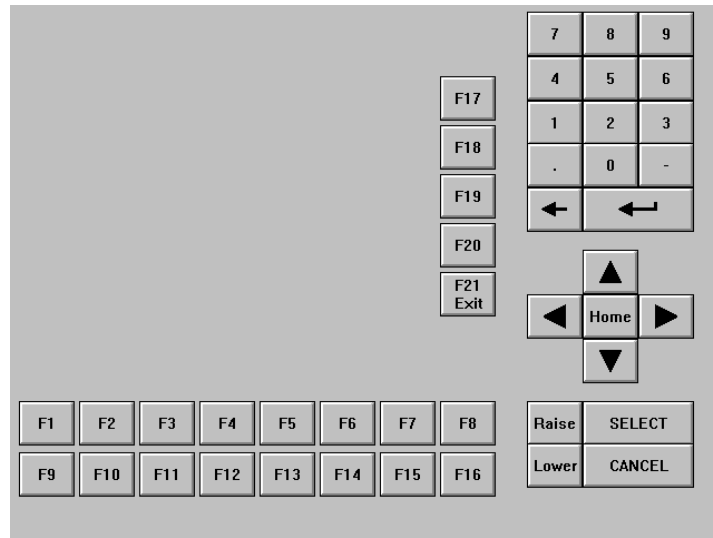
If the major fault message, “keypad not responding”, appears:

- check that the keypad cable is connected properly to the logic board connector J5
- check that the other end of the keypad cable is properly connected to the keypad controller board at connector P1

Step 6. Testing the Terminal

To test the terminal:

1. Set the terminal mode to Configure mode. The Mode Select Keyswitch is located at the back of the terminal.
2. In the Terminal Configuration screen main menu, select the Terminal Diagnostics button.
3. In the Terminal Diagnostics screen, select the System Tests tab and then select the Function Keys (F4) button.



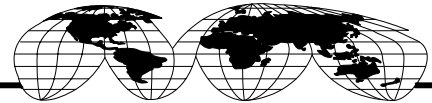
Test each key by pressing it. If the key is working, the corresponding key will appear to be pressed on the screen. F21 is the exit button. If you find any keys difficult to activate or inoperable, recheck the keypad cable connections for J5 on the logic board and P1 on the keypad controller board. If the problem persists, return the keypad faceplate kit for replacement.

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