

PEGAsys™ Firmware Kit

Version 71.0

Installation Instructions

PURPOSE

To upgrade the PEGAsys™ Control Unit Firmware to Version 71.0.

SUPPLIED PARTS

- Single-Loop Firmware Upgrade Kit, P/N 76-100024-001, containing:
 - (1) Single-Loop CCM EPROM, Version 71.0
 - (1) Version 71.0 Warning Label
- Multi-Loop Firmware Upgrade Kit, P/N 76-100024-002, containing:
 - (1) Multi-Loop CCM EPROM, Version 71.0
 - (1) Version 71.0 Warning Label


REQUIRED TOOLS

- Laptop computer running PCS (PEGAsys Configuration Software) Version 7.0 or 7.1
- Programming cable (P/N 74-100016-003)
- Grounding Wrist Strap
- No. 2 Phillips-Head Screwdriver
- IC Chip-Extraction Tool
- PEGAsys Manual (P/N 76-100016-001)
- PCS Manual (P/N 76-014)

Note: The Central Control Module (CCM) must be of the type that has receptacle SKT1 to accept a network interface card (refer to Figure 1).

PROCEDURE

1. Remove the Control Unit from its associated network if it is part of a networked system (refer to the PEGAsys Installation, Operation and Maintenance Manual, P/N 76-100016-001, for the procedure).
All Control Units in the network must have Version 71.0 Firmware. Repeat this procedure for each control unit in the network.
2. Download the PEGAsys system configuration as follows:
 - a. Connect laptop computer to the PEGAsys Control Unit using the programming cable.
 - b. Launch PCS Version 7.0 or 7.1.
 - c. Go to the FILE option on the tool bar and select NEW. This will open a selection box that says PANEL-1 and PANEL-2. Click on OK. This will bring up the SUMMARY screen for the configuration file.

- d. Select the download icon () to extract the current configuration from the PEGAsys Control Unit.
 - e. Save this configuration to a file.
3. Power down the PEGAsys Control Unit in accordance with the PEGAsys Installation, Operation and Maintenance Manual.

CAUTION

Several different sources of power can be connected to the PEGAsys Control Unit. Disconnect all sources of power prior to proceeding. Damage to the system will occur if this service is performed on an energized system.

CAUTION

Before performing the steps below, observe the following:

Anyone working on the PEGAsys must wear a grounding wrist or heel strap to avoid generating static electricity which can destroy integrated circuits.

Only use tools meant to extract IC chips. Use of tools other than an IC extractor, such as a screwdriver, may damage the chip socket or circuit board traces near the IC socket.

4. Remove and replace the CCM EPROM chip as follows (refer to Figure 1):
 - a. Observe the orientation of the EPROM chip prior to removal. Pin 1 is at the same end as the notch in the chip.
 - b. Remove the EPROM chip from the socket with the IC extraction tool.
 - c. Place the supplied EPROM in the socket while ensuring the following:
 - (1) The new chip being inserted is the correct EPROM for the module. The chip will read CCMP 71.0 SL (P/N 06-235860-001) for a single-loop panel or CCMP 71.0 ML (P/N 06-235859-001) for a multi-loop panel.
 - (2) The orientation of the chip is the same as the removed EPROM's.
 - (3) All pins are engaged and the chip is fully seated in the socket.
5. Install the Version 71.0 warning label on the inside of the door of the PEGAsys.

6. Power-up the PEGAsys Control Unit in accordance with the following steps:
 - a. Ensure that all connections within the PEGAsys are properly terminated where wires or cables have been removed.
 - b. Verify that all solenoids or initiators are disconnected from storage containers.
 - c. Set the circuit breaker for the PEGAsys power to ON. Verify that the display reads Main Processor Power On and that the CPU ERROR indicator is lit. Ensure that the audible device is buzzing continuously.
 - d. Press the display module reset switch. Verify that the CPU ERROR indicator goes out and that the audible device is silenced.
 - e. Verify that the LCD display reads the following:

**Initializing EEPROM
Please Wait**

- f. After 60 seconds, verify that the display reads as follows:

**RXTX NON-MONITORING TROUBLE
ON RXTX1**
- g. Verify that the POWER ON and TROUBLE indicators are lit.
- h. Connect the backup batteries to the Power Supply Module.

- i. Press the ACKLDGE button. After approximately one minute, the display will momentarily read:

**RXTX NON-MONITORING
TROUBLE OFF**

- j. Verify that the display reads the correct time and date. If the incorrect time or date is displayed, perform Step 6.k. Otherwise, skip Step 6.k.
- k. Set time and date as directed in the PEGAsys Installation, Operation and Maintenance Manual.

Note: If I/O modules are installed in the Control Unit, troubles will be enunciated immediately. Additional loop-device troubles will be displayed within 180 seconds.

Note: If no I/O modules are installed, the Control Unit will display "System Status Normal" and, within 180 seconds of power-up, loop-device troubles will begin to be displayed.

- l. Using the daily password, clear the memory by selecting the following items from the Control Unit's operations menu:

**3:SET; 4: PROGRAMMING; 8: RESET MEMORY
TO DEFAULT; 1: RESET MEMORY; 1: CONFIRM.**

Note: Call Kidde-Fenwal's Applications Engineering Department for the daily password.

Table 1. Compatibility of Firmware—Single-Loop Version PCS with CCM Firmware

PCS Version	CCM Version
3.09	48
3.10	48, 48.3
3.15	48, 48.3
3.25	48, 48.3
4.01 SL	49.1, 49.2
4.03 SL	49.4 SL
5.0 SL	50.0 SL
5.1 SL	50.0 SL
5.2 SL	50.0 SL
5.3 SL	50.0 SL
6.0, 6.1 SL	60.0 SL 61.0 SL 61.1 SL
7.0, 7.1 SL	70.0, 70.1 SL 71.0 SL

Table 2. Compatibility of Firmware—Multi-Loop Version PCS with CCM Firmware

PCS Version	CCM Version
B 4.01	ML II
4.03 ML	49.4 ML
5.0 ML	50.0 ML, 51.0 ML
5.1 ML	50.0 ML, 51.0 ML
5.2 ML	50.0 ML, 51.0 ML
5.3 ML	50.0 ML, 51.0 ML
6.0, 6.1 ML	60.0 ML 61.0 ML 61.1 ML
7.0, 7.1 ML	70.0, 70.1 ML 71.0 ML

Note: The PEGAsys hardware that runs Version 61.1 firmware, or prior firmware, does not support Version 70.0 or later firmware. The PEGAsys hardware that runs Version 70.0, or later firmware, does not support firmware prior to Version 70.0.

7. Upload the new system configuration:
 - a. With Version 7.0 or 7.1 of the PCS software, SL or ML, send the newly saved, updated configuration file to the Control Unit by selecting the upload icon and entering the Level 2 password.
 - b. After upload is complete, close the PCS file and program.
 - c. Disconnect the programming cable from the PEGAsys Control Unit.
8. Repeat this procedure for each control unit in a networked system. If necessary, refer to manual P/N 76-100016-001 for the network resynchronization procedure.
9. Functionally test the system in accordance with Section 7-1.6.2 of NFPA 72, 1999 Edition, or as directed by the authority having jurisdiction.
10. After testing is complete and operation is in accordance with the Control Unit's original operating sequence, return the PEGAsys to service by enabling any outputs that were disabled prior to testing. Refer to the PEGAsys Installation, Operation and Maintenance Manual.
11. Verify that the Control Unit is clear of troubles and displays "System Status Normal" before leaving.

⚠ WARNING

Be sure to disable any outputs on the system before performing tests to avoid unwanted shutdowns or agent release. Refer to the PEGAsys Installation, Operation and Maintenance Manual, P/N 76-100016-001.

**Network-Interface-Card
Connector SKT1**

**CCM
EPROM
Ver. 71.0**

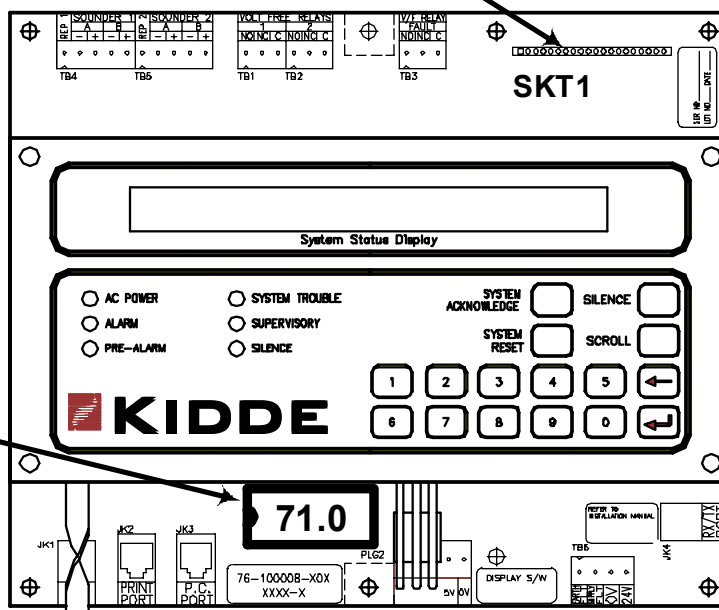


Figure 1. PEGAsys EPROM Location Diagram

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