PROM Replacement

System PROM Replacement

A Member of the Kaba Group

KEYSCAN ACCESS CONTROL SYSTEMS FROM KEYSCAN INC

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The enclosed System PROM chip upgrades Keyscan PC109x and CA150 control boards for compatibility/features with a Keyscan software application.

Revised Serial Number Format/Software Enrollment

System PROM serial numbers on CA and EC control boards with firmware 9.20 or higher have 3 alpha characters followed by 4 numeric characters – example AAC1234. Please note the following conventions for enrollment on Keyscan software:

- Aurora – enter all seven characters of the serial number - above example entered as AAC1234
- System VII – enter the last alpha and four numeric characters – above example entered as C1234
- Vantage - enter the last alpha and four numeric characters – above example entered as C1234

System PROM Location

Figure 1 shows the location of a System PROM chip on a CA150 control board. Figures 2 and 3 show the location of a System PROM chip on PC109x control boards.

Figure 1 – System PROM Location on CA150 Control Boards

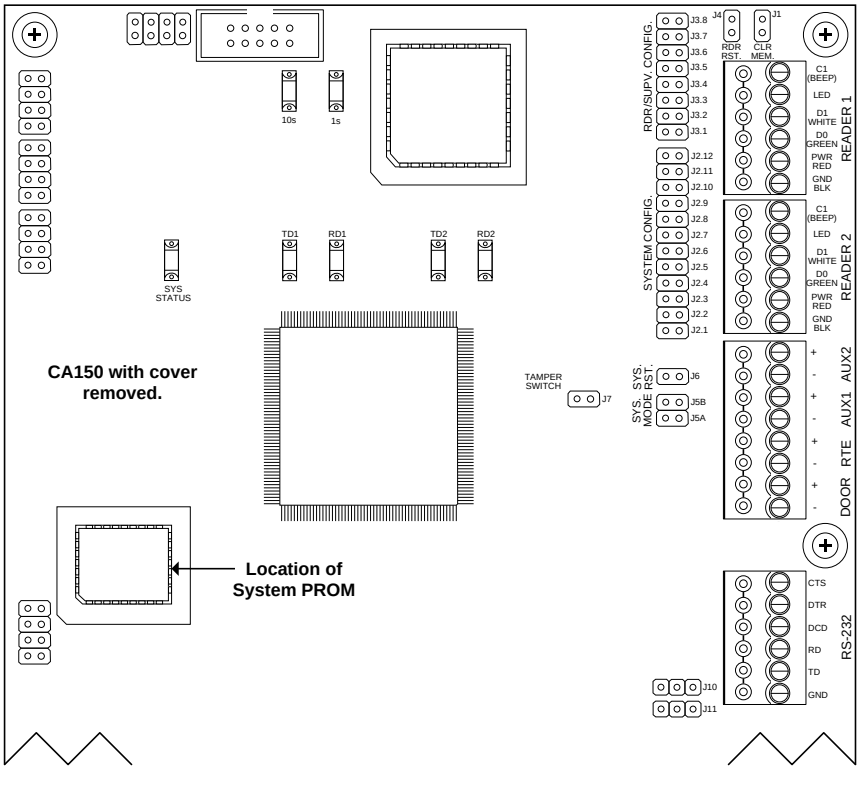


Figure 2 – System PROM Location on PC1091 – PC1095 Control Boards

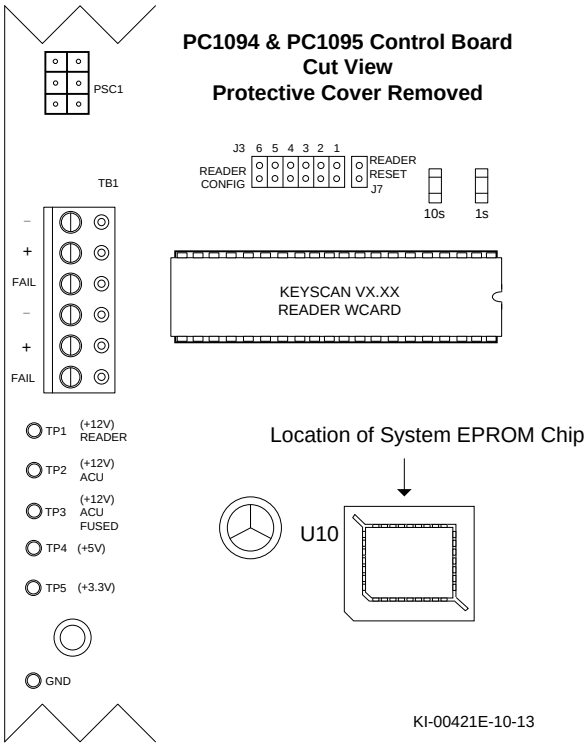
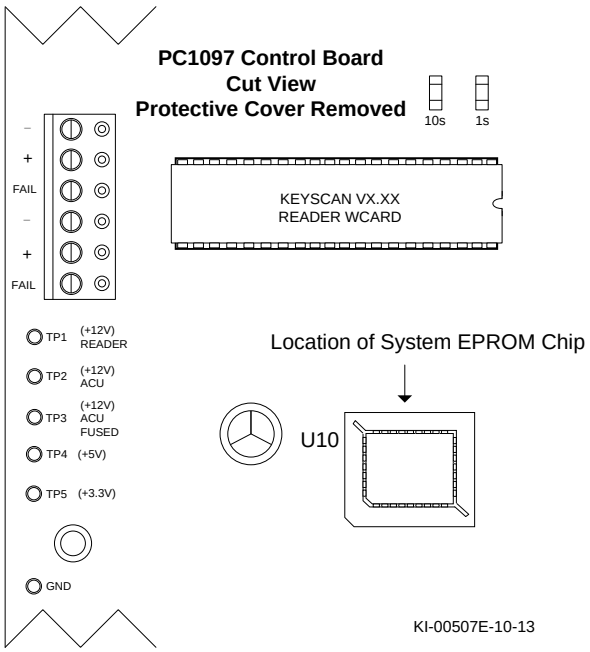


Figure 3 – System PROM Location on PC1097 or Higher Control Boards



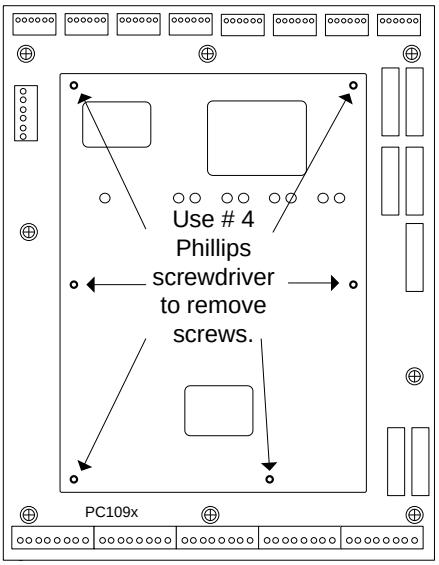
Tools

Before you start, you should have the following tools on hand:

- Extractor – a PLCC extractor is included with the replacement System Upgrade PROM
- # 4 Phillips screwdriver

Steps to Replace the System PROM Chip – PC109x

1. Open the access control unit enclosure door.
2. Touch the earth ground lug in the ACU metal enclosure to discharge body static.
3. Power down the CA or EC control board.
4. Using a # 4 Phillips screwdriver, unfasten the six screws holding the control board's black protective cover.



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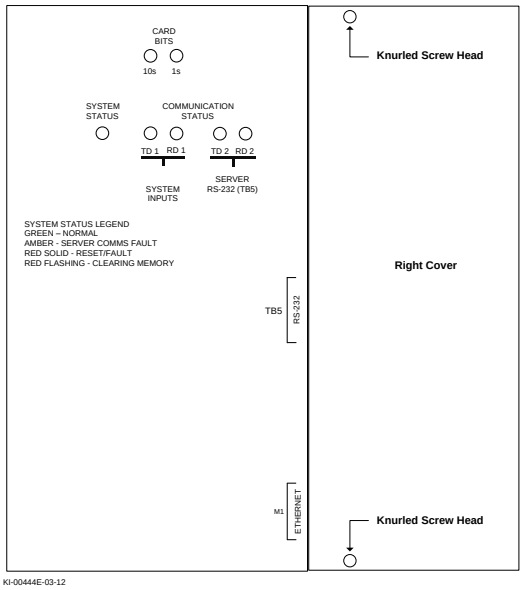
5. Locate the System PROM chip at U10 on the control board.
    - Note the System PROM's socket has two slots positioned at 11 o'clock and 5 o'clock
6. Carefully insert the two ends of the PLCC extractor into the slots, positioned at 11 o'clock and 5 o'clock, of the System PROM's socket.
7. Gently pinch the PLCC extractor until the prongs grip the chip.
8. Gently lift the System PROM chip out of the socket.
9. Ensure the pins align with the socket and insert the new System Upgrade PROM at the U10 position on the control board.
10. Re-attach the black protective cover to the control board.

11. If you are setting the control board for a different Keyscan software application, set the software selection jumpers or DIP switches:
    - PC1091 - PC1095 – Aurora: J17A = ON / J17B = ON
    - PC1094 – PC1095 – System VII: J17A = OFF / J17B = OFF
    - PC1091 – PC1095 – Vantage: J17A = ON / J17B = OFF
    - PC1097 or higher – Aurora: S2.11 = ON / S2.12 = ON
    - PC1097 or higher – System VII: S2.11 = OFF / S2.12 = OFF
    - PC1097 or higher – Vantage: S2.11 = ON / S2.12 = OFF
12. Apply power to the control board.
13. Perform a Clear Memory (Reset Factory Defaults) on the control board as outlined depending on the version:
    - PC1091 - PC1095 control boards - On the control board, place a jumper on J16 – pin H. Momentarily short jumper J1. This may take over two minutes while the control board loads the factory default settings. During the clear memory procedure, the System Status LED flashes red and the control board's piezo emits a cycle of two short beeps followed by a pause. Do not make any changes to the control board during the clear memory procedure. Then remove the jumper from J16 – pin H
    - PC1097 or higher control boards – on the control board, press S1, wait 5 seconds. Press S3 within 10 seconds. This process may take over two minutes while the control board loads the factory default settings. During the clear memory procedure, the system status LED flashes red and the control board's piezo emits a cycle of two short beeps followed by a pause. Do not make changes to the control board during the clear memory procedure
14. If you have additional access control units which also require System Upgrade PROMs, repeat the preceding steps for each applicable control board.
15. When you have finished changing PROMs and clearing memory on those control boards, return to a PC/server with a Keyscan Client module, log in and perform an upload.
    - Aurora: Status button > Status > Access Control Unit Status > Select Site > under the Upload column select Full Upload – repeat for each control unit that had a PROM upgrade
    - System VII or Vantage: Quick Buttons menu > Selective Update > select Site > under Unit Selection either select the control unit or All Units whichever is applicable > click on Select All button > click on Upload button – repeat for each control unit that had a PROM upgrade if you did not select All Units and have to upload multiple control units

Steps to Replace the System PROM Chip – CA150

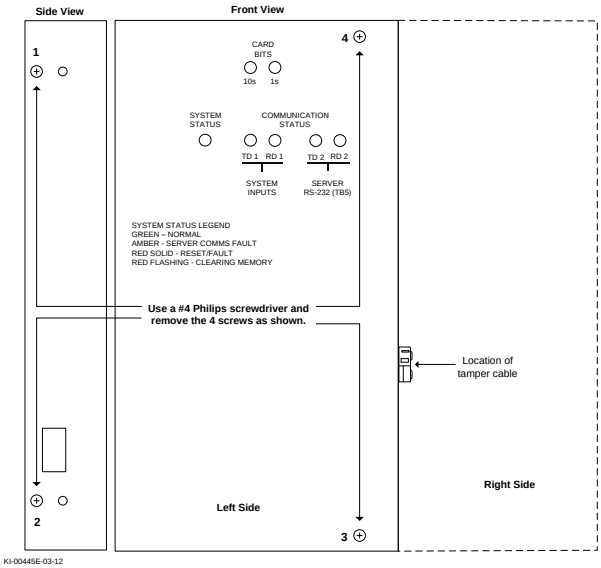
1. Unfasten the two (2) knurled screws and carefully remove the right-side cover.



2. Disconnect the CA150 control board from its power source, either the Ethernet cable if using PoE or the TB6 terminal if using a 12V power source.

Important: Before continuing to the next step, please be aware that the left side cover has a cable that is attached to a tamper terminal on the CA150 circuit board. When you unscrew the left-side cover, be sure to pull the left side cover away slowly and gently disconnect the cable from the J7 terminal on the circuit board as instructed.

3. Using a #4 Phillips screwdriver, unfasten the four (4) screws holding the left-side protective cover as shown in the illustration below. Partially pull the cover away until you see the tamper cable. Disconnect the cable from the CA150 circuit board at the J7 terminal. Leave the tamper cable connected to the cover and set the cover aside.



4. Locate the System PROM chip on the control board as shown in Figure 1 on Page 2.
    - Note the System PROM socket has two slots positioned at 11:00 o'clock and 5:00 o'clock.
5. Carefully insert the two ends of the PLCC extractor into the slots, at 11:00 o'clock and 5:00 o'clock, of the System PROM socket.
6. Gently pinch the PLCC extractor until the prongs grip the chip.
7. Gently lift the System PROM from the socket.
8. Before inserting, ensure the replacement PROM's pins align with the socket.
9. Insert the System Upgrade PROM into its socket on the control board.
10. Re-attach the left side cover by first re-connecting the tamper cable to the J7 terminal and then re-fasten the four screws using the #4 Phillips screw driver.
11. If you are changing the control board's compatibility for another Keyscan software application, ensure that you reset the system software jumpers/DIP switches:
    - PC1151 – PC1155: Aurora - J5A = ON / J5B = ON
    - PC1151 – PC1155: System VII - J5A = OFF / J5B = OFF
    - PC1151 – PC1155: Vantage - J5A = ON / J5B = OFF
    - PC1156 or higher: Aurora – S2.9 = ON / S2.10 = ON
    - PC1156 or higher: System VII - S2.9 = OFF / S2.10 = OFF
    - PC1156 or higher: Vantage - S2.9 = ON / S2.10 = OFF
12. Re-apply power to the control board.
    - For a PoE connection, you may have to wait several seconds
13. Momentarily short the system reset jumper SYS RST J6.
14. Do one of the following steps depending on the CA150 version:
    - PC1151 – PC1155 - Place a jumper on J2.9. Momentarily short jumper J1 to clear the control board's memory and reset the factory defaults. This may take up to two minutes. The board emits a beep and the System Status LED flashes red during this process. Then remove the jumper on J2.9
    - PC1156 or higher - Enable DIP switch S1.9, short J1 momentarily to clear the control board's memory and reset the factory defaults. This may take up to two minutes. The board emits a beep and the System Status LED flashes red during this process. Then disable DIP switch S1.9
15. Re-attach the right-side cover.
16. Return to a PC with a Client module, log on to the appropriate site, and perform a full upload.
    - Aurora: Status button > Status > Access Control Unit Status > Select Site > under the Upload column select Full Upload – repeat for each control unit that had a PROM upgrade
    - System VII or Vantage: Quick Buttons menu > Selective Update > select Site > under Unit Selection either select the control unit or All Units whichever is applicable > click on Select All button > click on Upload button – repeat for each control unit that had a PROM upgrade if you did not select All Units and have to upload multiple control units