RTS-TB-016 1-May -2013

# **KP-32 Sector Protection / No Firmware Upgrades Possible**

Issue Severity:		Product(s) Affected:
	<b>High:</b> URGENT – Immediate Action Required	<ul> <li>All KP-32 family variants produced between Week 3 of 2013 and Week 16 of 2013. Date code is formatted YYWW so this would be units coded between 1303 and 1316. This includes:</li> <li>KP-32</li> <li>KP-632</li> <li>KP-832</li> <li>KP-832</li> </ul>
	<b>Medium:</b> Bosch Security Systems, Inc. strongly recommends you take the action(s) described below.	
	Low: Advisory	- EKP-32
Notification Applies To:		Access Restrictions:
$\boxtimes$	Technical Support (TSS)	☐ Internal Distribution <u>ONLY</u>
$\boxtimes$	Repair (ASA)	
$\boxtimes$	Sales (NSO / RSO)	

## 1.0 Issue

In early 2013, Bosch moved manufacturing of the Main PCBA used in the construction of KP-32 product variants from a North American facility to an Asian Bosch facility. In the process, sectors of the Flash memory device used on the boards were accidentally protected at the factory. Protecting or securing sectors of a Flash memory prevents them from being over-written accidentally. It is usually done for critical information that must be protected under all circumstances (critical device information and licensing, boot recovery code, etc.). In this case, the improper protection of the Flash memory prevents the field upgrade of firmware for the KP-32 for customers. Customers who have been shipped KP-32 units with these protected devices will not be able to upgrade them for any firmware feature changes nor will they be able to upgrade these units to support the OMNEO OKI devices.

A limited number of units were produced with this protected sector issue. Boards did not begin shipping with the protected sectors until Week 3 of 2013 and this issue was identified and corrected after Week 16 of 2013. All units in manufacturing are being corrected to unprotect the Flash memory prior to shipping.

For Flash devices that are protected and already deployed at a customer site, an attempted download of new firmware to the Flash will yield the following message on the Front Panel for several seconds:

## "Download complete. Reprogramming flash /\*\*\* Do NOT cycle power! \*\*\*"

This is followed by the Front Panel Display on the keypanel turning to all asterisks.

The AZedit version screen changes to "n/a" after the above message comes up on the keypanel front display.

### 2.0 Resolution / Corrective Actions

Manufacturing is already correcting all work in progress that has not been shipped. The solution to this issue is to rework units at the CDC with Flash that is unprotected. Rework instructions are detailed in this Technical Bulletin.

Current estimates are that approximately 376 KP-32 family panels may have shipped to customers with this protected Flash. This will result in the inability of the customer to upgrade firmware on these panels. In conjunction with this, a customer will not be able to install the OMNEO OKI units and get them to successfully work.

Customers experiencing problems upgrading these units in the field will need to return the units to ASA where the Flash devices can be replaced with devices that are correctly programmed with all sectors unprotected (unsecured).

Please follow the attached procedure for repair / rework of the units at the CDC and those returned from customer locations.



### 3.0 Detailed Rework Instructions

### **Necessary tools and parts:**

- · Phillips head screwdriver
- YSPR device F.01U.110.903 (KP-32 Firmware Assembly PS-1312 U2)
- YSPR device F.01U.110.904 (KP-32 Firmware Assembly PS-1313 U3)
- PLCC Universal Extractor Tool (Digi-Key K293-ND or similar) shown below



#### **Reference Documentation:**

KP-32 Schematic: 90277897001\_STRKP-32 Final Assembly: F.01U.190.530

### **Rework Steps:**

- 1) Make sure all DC power is removed from KP-32 assembly. Unscrew locking connector to the external AC/ DC power supply.
- 2) Remove Screws from the bottom of the unit



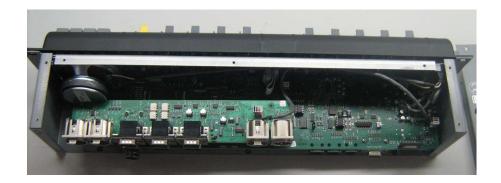
## 3) Remove Screws from the top of the unit



## 4) Remove Screws from the back of the unit



## 5) Remove top cover and bottom plate





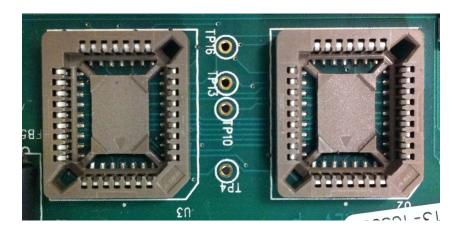
6) Remove GPIO Board if present



7) Locate U2 and U3 on the main PCBA (F.01U.249.831)



8) Carefully remove U2 and U3 ICs from their respective sockets with K293-ND or similar tool and put aside



- 9) Carefully Insert F.01U.110.903 into U2 socket
- 10) Carefully insert F.01U.110.904 into U4 socket
- 11) Re-assemble the production unit. Use F.01U.190.530 for reference.
- 12) Once the unit is assembled, conduct a basic functional test to ensure unit functionality.