

## Microphone Gating on CLD Keypanels

Issue Severity:	Product(s) Affected:
<input type="checkbox"/> <b>High:</b> URGENT – Immediate Action Required  <input checked="" type="checkbox"/> <b>Medium:</b> Bosch Security Systems, Inc. strongly recommends you take the action(s) described below.  <input type="checkbox"/> <b>Low:</b> Advisory	<ul style="list-style-type: none"> <li>• KP32 CLD</li> <li>• DKP16 CLD</li> <li>• KP12 CLD</li> <li>• Products made prior to April 2011 susceptible to this issue. Products built after April 2011 should not have issue.</li> </ul>
Notification Applies To:	Access Restrictions:
<input checked="" type="checkbox"/> Technical Support (TSS) <input checked="" type="checkbox"/> Repair (ASA) <input checked="" type="checkbox"/> Sales (NSO / RSO)	<input type="checkbox"/> Internal Distribution <b><u>ONLY</u></b> <input checked="" type="checkbox"/> <b><u>No</u></b> Restrictions (Internal & External Distribution)

### 1.0 Issue

This problem was reported on the DKP16 CLD and also verified on KP12CLD. A gating effect appears when the operator starts talking using the front panel microphone. Increasing the microphone gain through the KP menu option eliminates the gating effect.

### 2.0 Resolution / Corrective Actions

Analog Devices' SSM2167 is used on the CLD keypanels as a microphone pre-amplifier. An external resistor sets the noise gate at a specified level. This external resistor was 3.01 kOhms from the initial production of the CLD keypanel series --- which set the noise gate at -53 dBu according to the datasheet.

Engineering found out that recent lots of this pre-amp IC exhibited higher noise gate with the same 3.01 kOhm resistor. As a result, the normal background noise is muted out when the operator is not talking. Once the operator starts to talk, the SSM2167 is not fast enough to recover the audio amplification. The gating effect becomes noticeable to the listeners.

The problem was resolved by changing to a larger resistor (30.1 kOhms).

**NOTICE!**

This change was implemented on Bosch's internal change network as Engineering Change 46-2446 and issued in March of 2011.

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