



ELK Installation Notes

Table of Contents

1. INTRODUCTION	3
2. FEATURES.....	3
3. REQUIREMENTS	3
4. CONFIGURING THE PANEL TO WORK WITH THE CORTEXA.....	4
5. CONNECTION PROCEDURE.....	5
6. CONFIGURING THE CORTEXA TO WORK WITH THE ELK PANEL.....	5
7. THERMOSTAT CONTROL	5
8. LIGHTING.....	6
9. OUTPUTS.....	6



1. Introduction

This documentation supports the installation and setup of ELK security panels within the Cortexa system.

2. Features

This documentation supports the installation and setup of ELK security panels within the Cortexa system. Integration of the Elk system provides access to security through any of the Cortexa access points or by using a Java enabled web browser. The Cortexa can also be configured to run events based on arming changes, alarms changes, and zone changes. In the Cortexa event macro, you can enter conditions based on Arming Status, Alarm Status, and Zone States. It is also possible to control the Arming status of the security panel. The Cortexa will also log all changes to the Cortexa log files.

- Monitor and Control security from any Cortexa Access Point, locally or remotely
- Trigger an event based on Arming Changes, Alarm Changes, and Zone Changes
- Add case statements based on Arming Status, Alarm Status, and Zone Status
- Change Arming status to another level
- Detailed and easy to use reporting of all security activities

3. Requirements

A properly installed and working stand-alone ELK security panel.

A standard RS-232 cable from a Cortexa Controller RS-232 port to the security panel.

Note. The M1 Gold includes an RS-232 port, while the M1EZ8 requires the ELK-M1EZMSI Main Serial Port Interface.

4. Configuring the Panel to work with the Cortexa.

Having completed the installation of the ELK security panel as a stand-alone system, the ELKRP software is used to setup the panel to work with the Cortexa system. Follow the steps outlined below.

1. Start the ELKRP software and open the configuration file
2. Select Globals in the Folder Items section on the left
3. Select the G29-G42 (Special) tab
4. Select the desired baud rate in the Serial Port 0 baud rate
5. In the Serial Port 0 section, check all the options

G01-G05 (Miscellaneous)	G06-G10 (Zones)	G11-G12 (User Codes)	G13 (Common Area)
G14-G18 (Output 1)	G19-G25 (Voice)	G26-G28 (Output 2)	G29-G42 (Special)
Rings until auto-answer	<input type="text" value="0"/>	Ring/Hang-Up/Answer	<input type="checkbox"/>
Two-Way Listen-in Enable	<input type="checkbox"/>	Two-Way Callback Time in Secs (Answer on 1st Ring)	<input type="text" value="0"/>
CS Verify Call Time in Secs (Additional Alarms Are Held)	<input type="text" value="0"/>	Serial Port 0 baud rate	<input type="text" value="115200"/>
Serial Port 0			
<input checked="" type="checkbox"/> Transmit event log	<input checked="" type="checkbox"/>	Transmit zone changes	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Transmit output changes	<input checked="" type="checkbox"/>	Transmit task changes	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Transmit lighting changes	<input checked="" type="checkbox"/>	Transmit keypad keys	<input checked="" type="checkbox"/>
Menus 1-5 Require Code	<input type="checkbox"/>	Local programming code	<input type="text" value="172839"/>
UPB Lighting Network Addr*	<input type="text" value="0"/>		
KP Programming Lockout*	<input type="text" value="0 = Can change and view all options"/>		
*(Not available through keypad programming)			

5. Connection Procedure

1. Install the ELK security system according to ELK specifications, making sure the system is fully functional.
2. If you are using ELK-EZ8, ensure you have properly installed the ELK-M1EZ8MSI Main Serial Interface.
3. If located in another location, run category 5 wire from the Cortexa to the security system and add the proper DB9 connectors on each end
4. If located in the same location, use a RS-232 DB9 to DB9 extension cable
5. Connect the security system to one of the open RS-232 ports on the back of the Cortexa

Modem Cable - Straight Cable DB9 to DB9

DTE Device (Computer)			DB9	DTE to DCE Connections	DCE Device (Modem)	DB9			
Pin#	DB9	RS-232 Signal Names		Signal Direction		Pin#	DB9	RS-232 Signal Names	CD
#1	Carrier Detector (DCD)	CD		←		#1	Carrier Detector (DCD)	CD	
#2	Receive Data (Rx)	RD		←		#2	Receive Data (Rx)	RD	
#3	Transmit Data (Tx)	TD		→		#3	Transmit Data (Tx)	TD	
#4	Data Terminal Ready	DTR		→		#4	Data Terminal Ready	DTR	
#5	Signal Ground/Common (SG)	GND		→		#5	Signal Ground/Common (SG)	GND	
#6	Data Set Ready	DSR		←		#6	Data Set Ready	DSR	
#7	Request to Send	RTS		→		#7	Request to Send	RTS	
#8	Clear to Send	CTS		←		#8	Clear to Send	CTS	
#9	Ring Indicator	RI		←		#9	Ring Indicator	RI	
Soldered to DB9 Metal - Shield			FGND			Soldered to DB9 Metal - Shield			FGND

6. Configuring the Cortexa to work with the Elk Panel

Having configured the Elk panel, login to the Cortexa Tools page using your browser and follow the instructions below.

1. Go to the sub-systems page under Setup Options
2. In the Security section, select the com port to which the panel is connected
3. Select the baud rate the Elk panel is set to communicate
4. Select the type of Elk panel
5. Enter Save at the bottom of the page

Security	Com 1 ▾	115200 ▾	ELK ▾	HAI Password: <input type="text"/>
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7. Thermostat Control

You may monitor and/or control thermostat hooked up to the ELK panel. Follow ELK's instructions on hooking up thermostats to their panel. You will need to add each thermostat to the Cortexa Device Manager manual to monitor and/or control them.

8. Lighting

You may monitor and/or control lighting that is hooked up to the ELK panel. Follow ELK's instructions on hooking up lighting to their panel. You will need to add each lighting to the Cortexa Device Manager manual to monitor and/or control them. ELK uses the X10 addressing structure for all of their lighting controls. You will need to use their charts to figure out what X10 address is associated to the lights that are hooked up to your ELK.

9. Outputs

You may monitor and/or control ELK's outputs. You will need to add each output to the Cortexa Device Manager manual to monitor and/or control them.

10. Connecting to the ELK using the ELK-M1XEP network adapter.

You can connect the Cortexa to the ELK using the network adapter instead of using the regular COM ports. Follow ELK's instructions on hooking up and setting up the ELK-M1XEP. You should assign a static IP to the ELK adapter. Make sure you enable the none secure port on the ELK adapter because the Cortexa only supports the none secure ports.

Security	Network ▾	115200 ▾	ELK ▾	HAI Password: <input type="text"/>	192.168.10.8	2101
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In the Cortexa select network for the Com Port and put the IP address that you assign to the ELK adapter in the Network Address field and the port number that you assign the none secure port to be on in the Network Port Field which the default value is 2101.