Partner: Cooper Security
Model: M2000
Device Type: Security System

GENERAL INFORMATION:

SIMPLWINDOWS NAME:	Cooper Security M2000 v1.1
CATEGORY:	Security System
VERSION:	v1.1
SUMMARY:	Crestron is connected to a Cooper Security M2000 Security Panel through a RS232 connection. The software module allows connecting to the panel and emulates the keypad.
GENERAL NOTES:	**UPDATE v1.1: Extra parameter field (password) to establish communication. The password needs to be an 8 character long decimal value, ex: "12340000".** The module emulates the keypad. The alarm panel needs to be a Menvier. The module does not work with a Virgin panel. When a connection is made, a heartbeat is generated. Depending on the needs of the system, it is possible to choose the interval between 2 heartbeats. Possibilities: 0,25s 0,5s 1s 2,5s 5s. Default 5s. When the keypad is emulated, it is possible to adjust the refresh rate of the display. Possibilities: 0,25s 0,5s 1s 2,5s 5s. Default 1s. **IMPORTANT**: Depending on the values above, the processor is intensively triggered. It is important that the ReaLIdle of the processor does not go beneath 80%. **IMPORTANT**: To check the RealIdle, open Toolbox and connect to the processor. Then select Tools-Text Console. When the console opens type: top. When the RealIdle is beneath 80%, the processor could generate errors and the program may not function correct.
CRESTRON HARDWARE REQUIRED:	Pro2 processor for controlling. Touch panel to simulate the virtual keypad.
SETUP OF CRESTRON HARDWARE:	RS232 Baud: 38400 Parity: N Data Bits: 8 Stop Bits: 1
VENDOR FIRMWARE:	M2000 Display: 2.00 Feb 15 2007 M2000 Panel: v1.08
VENDOR SETUP:	M2000 Security system connected with RS232 to Pro2 processor.

Partner: Cooper Security
Model: M2000
Device Type: Security System

CERTIFIED
CRESTRON®
Integrated Partner

CABLE DIAGRAM:	Standard Crossed RS232 serial cable.

CONTROL:

Key_xxxx	D	Pulse to simulate the corresponding key press.
Start_Connection	D	High to start the connection with the security panel.
EnableHB	D	When ConnectedToPanel and EnableHB is made high, a heartbeat is generated with the security panel.
Stop_connection	D	Pulse to end the connection.
Start_Keypad	D	Pulse to start the virtual Keypad.
Stop_Keypad	D	Pulse to stop the virtual Keypad.
From_Alarm	S	Needs to be connected with the RX output from the COM Port.

FEEDBACK:

Key_xxxx_FB	D	High to indicate that the corresponding virtual key is pressed.
Connected_To_Panel	D	High to indicate that the connection with the panel is made.
Connection_Error	D	High to indicate that there is a connection error.
HeartBeat_Error	D	High to indicate that there is a HeartBeat error.
Keypad_FB	D	High to indicate that the virtual Keypad is active.
Connection_Status	S	Serial value containing the Connection Status.
ScreenLine1	S	Serial value containing the value for virtual screenline 1.
ScreenLine2	S	Serial value containing the value for virtual screenline 2.
Panel Version	S	Serial value containing the software version of the panel.
To_alarm	S	Needs to be connected with the TX input from the COM Port.

Partner: Cooper Security
Model: M2000
Device Type: Security System

PARAMETERS:

HeartBeat_Delay	A	Decimal value containing the time interval between 2 heartbeats.
RefreshRate_Keypad	A	Decimal value containing the time interval to refresh the virtual keypad.
Password	S	Serial value containing the password for the keypad connection. (8 character numeric format)

TESTING:

OPS USED FOR TESTING:	PRO2 4.001.1011 (Feb 10 2009)
SIMPL WINDOWS USED FOR TESTING:	v2.11.18
CRESTRON DB USED FOR TESTING:	v20.05.022.00
DEVICE DB USED FOR TESTING:	v21.00.007.00
SAMPLE PROGRAM:	Cooper Security M2000 v1.1 PRO2 DEMO
REVISION HISTORY:	v1.1