USER INSTRUCTIONS /
Security System HAND HELD PROGRAM MODULE.

This document will describe the features of the Hand Held Program Module (SECMP-XX). This device is used in the security system to provide the operator with a remote keyboard and display to allow remote programming of either single stop (SEC01-XX) or multistop (SEC08-XX) relay interface boards. The Hand Held unit also supports the transfer of User codes from a Relay board to itself and from itself to a Relay board. The Hand Held unit can address any 1 of 16 different relay boards on any one link at a time.

This unit will typically be used with systems that have no keypad or VF display. This unit will connect to PRGX (where X is a number 0 - 8) on the Power Supply Machine Room Mount board (SECPS-XX). From this connection the unit receives DC power and the RS485 signals.

Functions performed with Hand Held Programming unit:

1. Select current Relay unit to communicate with (Any 1 of 16).
!! 2. Remote Keypad and Display for a Relay Unit. **!!**
!! 3. Operate in local mode to modify it's local stored data. **!!**
4. Copy local stored data to a Relay Unit.
5. Copy a Relay unit's data to it's local storage.

!! NOTE: See **PROGRAMMING INSTRUCTIONS / Security System with KEYPAD** for instructions on how to program the security system using a keypad.

NOTE: The Hand Held Program Module has four (4) additional push buttons or keys: "**A**"; "**B**"; "**C**" and "**D**". These are the keys to be used when these instructions ask you to "press the '**A**' key", "'**B**' key", etc. Basically, these keys perform the following functions:

The 'A' key - Establishes communication with the remote relay board requested.
The 'B' key - Toggles between local and remote modes.
The 'C' key - Transfers data FROM the remote relay board TO the Hand Held unit.
The 'D' key - Transfers data FROM the Hand Held unit TO the remote relay board.

When the Hand Held unit is first turned on it will try to communicate with Relay unit number 1 over the RS485 link. (The Relay unit's number is set via a dip switch on the Relay board.) The display will show "UNIT NOT FOUND" until it communicates with unit 1 at which time it will display the current prompt of Relay unit 1 which is typically "ENTER CODE". The Hand Held unit can now be used as a remote keypad and display connected to Relay unit 1 to perform any standard function. See **PROGRAMMING INSTRUCTIONS / Security System with KEYPAD** for instructions on how to program the security system using a keypad.

To communicate with a different Relay unit the user would enter on the Hand Held unit the number of the Relay unit desired then press the '**A**' key. The display will then show "CURRENT UNIT XX" where XX is the number of the Relay unit the Hand Held unit is trying to talk to. After a 1/2 second delay the Hand Held unit will try to communicate with the selected unit. If the communications are successful the display will show the current Relay prompt (usually "ENTER CODE"). The display may also show "WAITING FOR LINK" while it is trying to establish communication with the Relay Unit. If after 3 seconds communication is not established the display will show "UNIT NOT FOUND". If no number is typed in before pressing the '**A**' key the display will show the number of the unit previously selected and then try to reestablish communication.

If the operator would like to modify some user codes or other setup data in the Hand Held unit and then download that data to a Relay unit the operator can use the following process. First the operator would switch the Hand Held unit to local mode and make the modifications to it's local data. Next the Hand Held unit is switched back to remote mode and the modified data is transferred from the Hand Held unit to the Relay unit. If other Relay units are to have the same setup then the Hand Held local data can be transferred to these units as well by selecting each in turn. The detailed instructions for each of these procedures are explained in the following paragraphs.

To toggle from remote to local or local to remote mode the operator would just press the '**B**' key. When the unit is operating in local mode, all prompts will have a '@' as the last character. Local mode has all of the same functions as a normal Relay unit except all changes are applied to the Hand Held local data and **not** to the data in a Relay unit. Once in local mode make the desired modifications. See **PROGRAMMING INSTRUCTIONS / Security System with KEYPAD** for additional information.

To transfer data from the Hand Held unit to the currently selected Relay unit the operator should press the '**A**' key. The unit will display "CURRENT UNIT XX" where XX is the number of the Relay unit the Hand Held unit is trying to talk to. Once the operator has verified that this is where the transfer should occur, the operator should press the '**D**' key. The unit will display "WRITE MASTERCODE". The operator will then type in the **MasterCode** of the Relay unit and press '**#**'. The display will then show "ENTER AGAIN @" asking the operator to type in the master code again for verification. If the same number is not entered the unit will display "NOT SAME NUMBER" at which time the operator should press '#' and enter the MasterCode again. Once the MasterCode has been entered twice correctly it will be sent to the Relay unit. If this is not the master code of the Relay unit the display will show " ACCESS DENIED" then after a few seconds "PROCESS FAILED". If the correct MasterCode has been entered the display will show "MOVING DATA " for about 30 to 40 seconds then display PROCESS COMPLETE. To clear the "PROCESS COMPLETE" or PROCESS FAILED message press the '*' key. Note while the Hand Held unit is displaying "MOVING DATA" the Relay unit's LED will be green with all floor secure and will ignore any cards swiped through the magreader unit or entries attempted from the Relay unit's keypad. After the transfer has completed successfully, the operator can choose a different Relay unit and then repeat the above process to transfer the data to a different Relay unit.

In most standard cases data will only be transferred from the Hand Held unit to the Relay unit but data can also be transferred from the Relay unit to the Hand Held unit. To protect against accidental replacement of codes in the Hand Held unit it is configured not to allow relay unit to hand held unit transfers of data. To allow these transfers the operator must first modify the Read allowed option in the Hand Held unit. This option is modified using the following process. First place the unit into local mode by pressing the '**B**' key. The display will now show "ENTER CODE @". Next type in the **master code** then '**#**' and the display will show "CHOOSE FUNCTION @". Then press "**6#**" to get the "CHOOSE ITEM @" display. Now type "**33#**" to get "ENTER AGAIN@" then type "**33#**" to get "ENTER VALUE @". Now enter "**1#**" and the display will show "ENTER AGAIN @". Finally type "**1#**" and the unit will show "Value Stored @" and the unit is now configured for uploads.

To transfer data from the Relay unit to the Hand Held unit the operator presses the '**C**' key. If the local storage has not been configured for uploads the unit will display "Read Not Allowed". See the preceding paragraph for instructions on how to modify the Read allowed option in the Hand Held unit. If the local storage has been configured for uploads the unit will display "Read Mastercode". The operator will then type in the **MasterCode** of the Relay unit and press '#'. The display will then show "ENTER AGAIN @" asking the operator to type in the master code again for verification. If the same number is not entered the unit will display "NOT SAME NUMBER" at which time the operator should press '#' and enter the **MasterCode** and '#' again. Once the MasterCode has been entered twice correctly it will be sent to the Relay unit. If this is not the master code of the Relay unit the display will show " ACCESS DENIED" then after a few seconds "PROCESS FAILED". The reason the Relay unit MasterCode must be entered is that no data in a relay unit can be modified or read unless its MasterCode is used. This provides security against anyone without access from changing the system. If the correct MasterCode has been entered the display will show "MOVING DATA " for about 30 to 40 seconds then display PROCESS COMPLETE. To clear the "PROCESS COMPLETE" or PROCESS FAILED message press the '*' key. Note that while the Hand Held unit is displaying "MOVING DATA" the Relay unit's LED will be green with all floors secure and will ignore any cards swiped through the magreader unit or attempted entries from the Relay unit's keypad. Note: This process will have overwritten all of the data in the Hand held so the Read Allowed option may have been set back to no (0).

Display Current Relay unit number or Enter new Relay unit number:

User action	Display	Result
Initial Condition	Enter Code (or) Unit Not Found	Power up
Type in a number from 1 to 16 then press '**A**'	Current Unit XX (XX is number just type in)	Change current Relay unit to communicate with to XX.
OR Type in no number or number not 1 to 16 then press #	Current Unit XX (XX is previously selected unit)	Displays current Relay unit to communicate with.
After about ½ second if hand held unit is communicating with Relay unit then will display current Relay unit prompt.	Enter Code (Typical)	Hand Held unit is now acting as a Remote I/O device for the Relay unit.
After about 2 second if handheld unit is cannot communicate with Relay unit then will display . Note handheld unit may not display this prompt but may go directly to prompt below.	Waiting For Link	Hand Held unit is try to communicate with Relay unit but has not heard a reply yet.
After about 3 -4 seconds if handheld can not communicate with Relay unit then will display.	Unit Not Found	Hand Held unit could not communicate with Relay unit. This is cause by choosing a nonexistent unit or trouble in the communication wiring or circuits.

Toggle between Local and Remote mode:

User action	Display	Result
Initial Condition	Enter Code (or) Unit Not Found	Power up. Hand Held unit is in remote mode so it is trying to be a remote I/O device for a Relay unit.
Press '**B**'	Enter Code @ (When in local mode all prompts will end in '@')	Hand Held unit is in local mode and all actions will be relative to the local stored data. (IE adding and deleting users and etc).
Press '**B**'	Waiting For Link	Hand Held unit has switched from local to remote mode and is trying to communicate with the current Relay unit .
After about ½ second if handheld unit is communicating with Relay unit then will display current Relay unit prompt.	Enter Code (Typical)	Hand Held unit is now acting as a Remote I/O device for the Relay unit.
After about 3 -4 seconds if handheld can not communicate with Relay unit then will display.	Unit Not Found	Hand Held unit could not communicate with Relay unit. This is cause by choosing a unit that is not there or trouble in the communication wiring or circuits.

Transfer User codes from Relay unit to Hand Held unit:

User action	Display	Result
Initial Condition	Enter Code (Prompt must display this before going onto next step.)	Power up. Hand Held unit is in remote mode so it is trying to be a remote I/O device for a Relay unit.
Press '**C**'	Read Not Allow	Hand Held unit's Local storage is configure to not allow uploads of data. Change Local storage to allow uploads.
Press '**C**'	Read Mastercode	Hand Held unit ready for master code of Relay unit that data is to be read from to be entered.
Type in master code of Relay unit that you want to read data from then press #.	Enter Again @	Hand Held unit has accepted first entry of code. Ready for number to be typed again to validate that it was typed in correctly.
Type in master code of Relay unit that you want to read data from then press #.	Moving Data	Hand Held unit is reading User code data from Relay unit. This process will take about 30 seconds or less.
If second number typed in is not the same as first number.	Not same number	Number is not same try again Ready to try to enter master code. Type # to display "Read MasterCode" prompt.
OR Type in invalid master code then press #.	Access Denied	Invalid code so Access denied. Note after about 4 seconds the prompt will change to "Process Failed.
If something goes wrong with process then will display.	Process Failed	Read process failed press * to change the display back to Relay user prompt .
Process completes correctly then will display.	Process Complete	Read process completed correctly press * to change the display back to Relay user prompt.

Transfer User codes from Hand Held unit to Relay Unit:

User action	Display	Result
Initial Condition	Enter Code (Prompt must display this before going onto next step.)	Power up. Hand Held unit is in remote mode so it is trying to be a remote I/O device for a Relay unit.
Press '**D**'	Write Mastercode	Hand Held unit ready for master code of Relay unit that data is to be written to be entered.
Type in master code of Relay unit that you want to write data to then press #.	Enter Again @	Hand Held unit has accepted first entry of code. Ready for number to be typed again to validate that it was typed in correctly.
Type in master code of Relay unit that you want to write data to then press #.	Moving Data	Hand Held unit is writing User code data to Relay unit. This process will take about 40 seconds or less.
If second number typed in is not the same as first number.	Not same number	Number is not same try again Ready to try to enter master code. Type # to display "Write MasterCode" prompt.
OR Type in invalid master code then press #.	Access Denied	Invalid code so Access denied. Note after about 4 seconds the prompt will change to "Process Failed.
If something goes wrong with process then will display.	Process Failed	Read process failed press * to change the display back to Relay user prompt .

Process completes correctly then will display.	Process Complete	Write process completed correctly press * to change the display back to Relay user prompt.

Configure Local storage to allow or disallow uploading of data from Relay unit to Hand Held unit:

User action	Display	Result
Initial Condition	Enter Code	Power up
press '**B**' to switch to local mode	Enter Code @	Hand Held unit is now in local mode so commands will change local storage only.
Type in Master access code then press #	Choose Function @	Master code accepted now waiting for function number to be entered
Type in **6#** .	Choose Item @	Function number is accepted ready for parameter number.
Type in item number for Upload control **33#**.	Enter Again @	Item number is accepted Ready for number to be typed again to validate that it was typed in correctly.
Type in item number for Upload control again **33# .**	Enter Value @	Item number is accepted. Ready for new value for the parameter.
If second number type in is not the same as first number.	Not same number	Number is not same try again Ready to try to enter item number.
Type in 1 to allow uploads or 0 to NOT allow uploads then press #	Enter Again @	Upload choice is accepted please type again.
Type in same number as entered above then press #	Value Stored @	Upload choice is accepted and stored. Process is now complete. After process time out display will return to Enter Code @.