Instructions for RS485 Keypad

The RS485 Keypad is designed to work with the Access Plus system. See reverse side for wiring information.

Program Master Code
1. Press the master Code button.
2. Enter a four-digit Master Code then press *. **[_ _ _ _ * (beep)]**

Program Device Address

The only valid device addresses that can be used with the Access Plus system are 003 through 008. Each device (keypad, card reader, RF receiver) must have a unique address and the addresses must start with 003 and continue in sequence. The type of device does not matter, only the address matters.

1. Press * 2 and enter the master code. **[* 2 _ _ _ _ (beep)]**
2. Enter a three-digit address (003 – 008) then press *. **[_ _ _ * (beep)]**
3. Press 0# TOGETHER to end. **[0 # (beeeeeep)]**

Each device (card reader, keypad, receiver) must have a unique address and continue in sequence. Do Not Skip an address.

The order in which the device is connected to the Access Plus controller does not matter. What is important is that the address must be in sequence starting with 003.
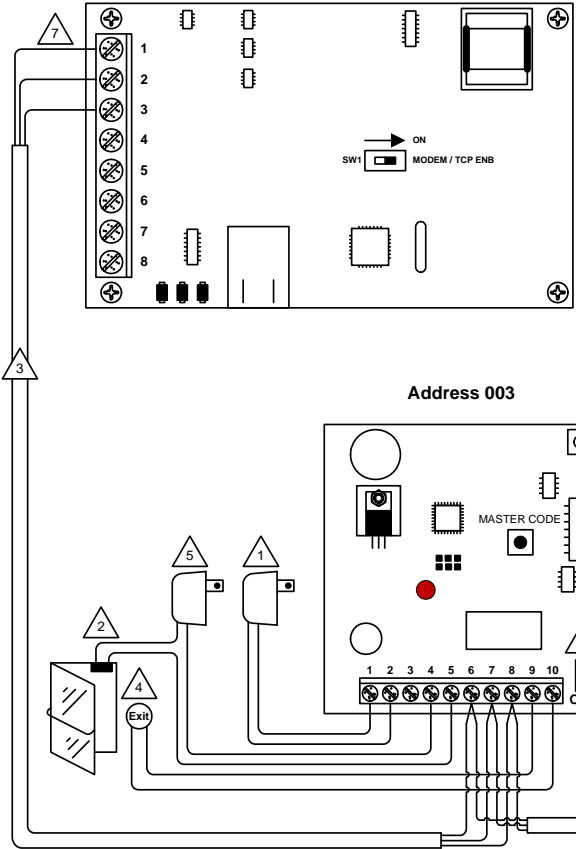
Program Relay Strike Time
1. Press * 1 and enter the master code. **[* 1 _ _ _ _ (beep)]**
2. Enter the two-digit relay strike time (00-99) then press *. **[_ _ * (beep)]**
3. Press 0# TOGETHER to end. **[0 # (beeeeeep)]**

   Relay strike time is entered in seconds. 00 = 1/4 second.

The LED on the circuit board is for troubleshooting
1. If the LED is continuously ON, the connection to the controller is lost. Check the wiring on terminals 6, 7 and 8.
2. The LED will turn ON when the relay activates for its programmed strike time. The LED will not illuminate if the relay has been given a HOLD command.
3. If the LED Flashes in inconsistent patterns, this could indicate a problem with the RS485 data (noise, collisions, overruns, etc.).

RS-485 Terminal Connections

Access Plus Board	RS-485 Board
Term 1 RS-485 Data A (+)	Term 8 RS-485 Data A (+)
Term 2 RS-485 Data B (-)	Term 7 RS-485 Data B (-)
Term 3 RS-485 Common	Term 6 RS-485 Common

Terminal 1 from the Access Plus board connects to RS-485 board(s) terminal 8.
Terminal 2 from the Access Plus board connects to RS-485 board(s) terminal 7.
Terminal 3 from the Access Plus board connects to RS-485 board(s) terminal 6.

Wires connecting terminals 1 & 2 to terminals 8 & 7 MUST be twisted.

Address 003 **Address 004** **Address 005**

MASTER CODE

Terminals

1 12-24 Volt AC/DC (−)
2 12-24 Volt AC/DC (+)

3 Relay Normally Open (N.O.)
4 Relay Normally Closed (N.C.)
5 Relay Common

6 RS485 Gnd
7 RS485 Data (B)
8 RS485 Data (A)

9 Request to Exit Com
10 Request to Exit Input

△1 12 – 24 Volt, AC or DC power. Do not power from the Access Plus controller. Must be supplied with its own power source as shown.

△2 Magnetic locks are wired to the Normally Closed relay contacts. Electric strikes are wired to the Normally Open relay contacts.

△3 The wires connected from the Access Plus board (terminals 1 & 2) to the RS-485 boards (terminals 8 & 7) MUST be twisted. We recommend that you use Cat5e cable. Use one pair to these terminals and then one wire from one of the other pairs to connect terminal 6. If wiring will be outdoors or underground, use Cat5e Gel Filled (flooded) UV Resistant Direct Burial Cable. Match terminals on RS 485 board (i.e., term 6 to term 6; term 7 to term 7; term 8 to term 8).

△4 A switch closure across terminals 9 & 10 will activate the relay for its programmed strike time.

△5 Lock power. Do not power magnetic locks or electric strikes from the RS-485 circuit board power source. Locks must be powered from their own source.

△6 SW 2 is in the OFF position for middle units, and in the ON position for end units. If terminals 6, 7 & 8 have two wires connected to them, the SW 2 must be OFF. If terminals 6, 7 & 8 have only a single wire connected, the SW 2 must be ON.

△7 Maximum distance from end to end is 4000 feet in a Daisy Chain format as shown in the diagram at right.

Note RS485 'Daisy Chain' wiring. Controller does not need to be on the end.

Address 004 End Units SW 2 ON **ON**	Access Plus Controller	Address 003 Middle Units SW 2 OFF **OFF**	Address 005 End Units SW 2 ON **ON**

— Correct – 4000 Ft. Max. —

Access Plus Controller	Address 003 Middle Units SW 2 OFF **OFF**	Address 004 Middle Units SW 2 OFF **OFF**	Address 005 End Units SW 2 ON **ON**

— Correct – 4000 Ft. Max. —

Access Plus Controller	Address 003 Middle Units SW 2 OFF **OFF**	Address 004 Middle Units SW 2 OFF **OFF**	Address 005 End Units SW 2 ON **ON**

Incorrect