BURGLAR AND FIRE SECURITY CONTROL

SPECIFICATION SHEET

moose

APPLICATION

The MPI-735 is a complete residential and commercial burglar and fire security control. It is available in box or flush mount and may be installed as a hardwire or wireless system.

SPECIFICATIONS

- Instant And Delay Burglar Protective Loops Have End-Of-Line Resistor Supervision.
- 24-Hour Panic or Fire With End-Of-Line Resistor Supervision And Trouble Output.
- Separate Burglar And Panic/Fire Outputs Are Switched Through 6 Amp Contact Relays.
- Nominal 14 Volt DC Operation.
- Features (+) 8 Volt to (+) 15 Volt DC Power Supply Operation.
- Operating Temperature Range: 0°C to 70°C.
- Operating Current: 25 Milliamps At 14 Volts DC.
- Maximum Loop Resistance: 1,000 Ohms.
- 1 to 6 Digit Arm/Disarm Code (Digits May Repeat).
- On-Board Pre-Alarm (Piezo Resonator).
- Color-Code LED's:
    - (1) Instant-Red
    - (2) Status-Green
    - (3) Armed-Amber
    - (4) Violation-Red
- Metal Oxide Varistor (MOV) And Spark Gap Lightning Protection.
- Auto-Shunt Violated Burglar Loops After Alarm Cutoff
- Printed Circuit Board Size: 7½ x 3½ x 1¾ Inches.
- Lamp Output Maximum 100 Milliamps.
- End-Of-Line (EOL) Resistors 4700 Ohm ¼ Watt.
- Adjustable Exit Time 1 to 255 Seconds.
- Adjustable Entrance Time 1 To 255 Seconds.
- Burglar And Panic Cutoff Time 1 To 255 Minutes.
- Delay Before Burglar Alarm Time 1 To 255 Seconds.
- Mates To MPI-235 To Provide Power Supply, High Power Electronic Siren Driver, Radio Receiver Interface, Cable TV Interface and Telephone Dialer Interface.
- Metal Enclosure Size: 11 x 15 x 3½ Inches
- Flush Mount Plate Size: 9½ x 5½ Inches

FEATURES

- Instant Burglar Loop
- Delay Burglar Loop
- 24-Hour Panic or Fire
- 6-Amp Contact Relays
- 8-Digit Keypad
- 229.376 Code Combinations
- Programmable Arm/Disarm Code From Keypad
- Adjustable Entrance Time From Keypad
- Adjustable Exit Time From Keypad
- Adjustable Cutoff Time From Keypad
- Auxiliary Arm/Disarm Code
- Color Coded LED's
- Built-In Pre-Alarm
- Momentary Keyswitch Arm/Disarm Input
- Loop Auto-Shunting After Alarm
- Accepts Keypad or Keyswitch Remotes
- 5-Stage Lightning Protection
- High-Voltage Transient Protection
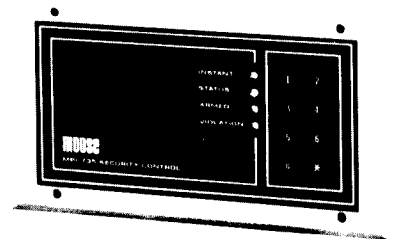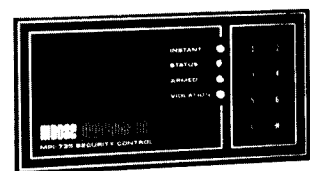
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REMOTE CONNECTIONS

Connector J1 on the MPI-735 is a 14 pin quick clip connector that provides remote connections for a wide variety of auxiliary equipment.

J1-Pin 14 — Remote Digital Keyboard (D Input)
J1-Pin 13 — Remote Digital Keyboard (C Input)
J1-Pin 12 — Remote Digital Keyboard (B Input)
J1-Pin 11 — Remote Digital Keyboard (A Input)
J1-Pin 10 — Switched Negative Pre-Alarm Output
J1-Pin 9 — Switched Negative Fire Trouble Output
J1-Pin 8 — Switched Negative Instant Mode Output
J1-Pin 7 — Switched Negative Circuit Status Output
J1-Pin 6 — Switched Negative Armed Output
J1-Pin 5 — Switched Negative Violation Output
J1-Pin 4 — Switched Negative Lamp Output
J1-Pin 3 — (+) Remote Key Input
J1-Pin 2 — (+) 12 Volts DC Power Supply
J1-Pin 1 — Negative Power Supply

Connector J2 provides an interconnect between the MPI-735 and the MPI-235 piggy-back auxiliary board or other applicable boards.

J2-Pin 11 — "+" Power On LED Input
J2-Pin 10 — Negative Power Supply
J2-Pin 9 — Positive +12 Volts DC Power Supply
J2-Pin 8 — +12 VDC Reset Signal From Keyboard Buttons 1 And 4
J2-Pin 7 — Pre-Alarm Output (Switched Negative)
J2-Pin 6 — Trouble Output (Switched Negative)
J2-Pin 5 — Panic/Fire Input (Negative Triggered)
J2-Pin 4 — Instant Circuit Input (Negative Triggered)
J2-Pin 3 — Delay Circuit Input (Negative Triggered)
J2-Pin 2 — +12 Volts DC Burglar Output
J2-Pin 1 — +12 Volts DC Panic/Fire Output

POWER-UP

The MPI-735 control automatically sets certain program options on power-up. Codes, times and other options may be changed by the installer or customer once they have familiarized themselves with the equipment.

- Arm/Disarm Code — 1245
- Program Code — 112456
- Exit Time — 40 Seconds
- Entrance Time — 20 Seconds
- Cutoff Time — 5 Minutes
- Loop Response Time (Instant and Delay Loops) 40 Milliseconds
- Auxiliary Code Usage Count — 2
- Delay Before Burglar Alarm Time — 0 Seconds

ARMING

Arming and disarming the MPI-735 is easy. If the burglar instant and delay protective loops are in a non-violated state, the Status (Green) LED on the front of the control will light. If a door or window is open, the Status LED will not light. The control cannot be armed until the Status LED is illuminated.

Select instant or delay mode of operation by depressing the Star (★) button. The Instant (Red) LED on the control will light if it is in the instant mode. This means there is no time delay upon entry on the delay loop.

PROGRAMMING MODE

A 6-digit code is used to enter the programming mode of the MPI-735. The power-up code is 112456. This code may be changed following initial power-up to one of 229,376 code combinations.

With the control disarmed, key in the program code. The piezo resonator and pre-alarm will beep 4 times indicating the control is in the program mode. The next step is to key in the program option desired and the program option numbers described under Programming Options. Once program option numbers have been entered, the control will automatically revert back to the regular mode of operation.

It is a good idea to write down exactly what keyboard entries will be entered before entering the program mode. There is a 7 second timer that is activated after entering the first digit of the option numbers. If programming is not completed within the 7 second timer interval, a 2 second continuous error tone will sound and the control will revert back to the regular mode of operation. The program code must be re-entered after each program option is completed in order to program another option.

DISARMING

To disarm the MPI-735 simply enter the arm/disarm code within 7 seconds. The amber Armed LED will go out and the piezo resonator will beep 2 times when the control disarms.

The arm/disarm code may be between 1 to 6 digits in length and the numbers may repeat. Example: 111266
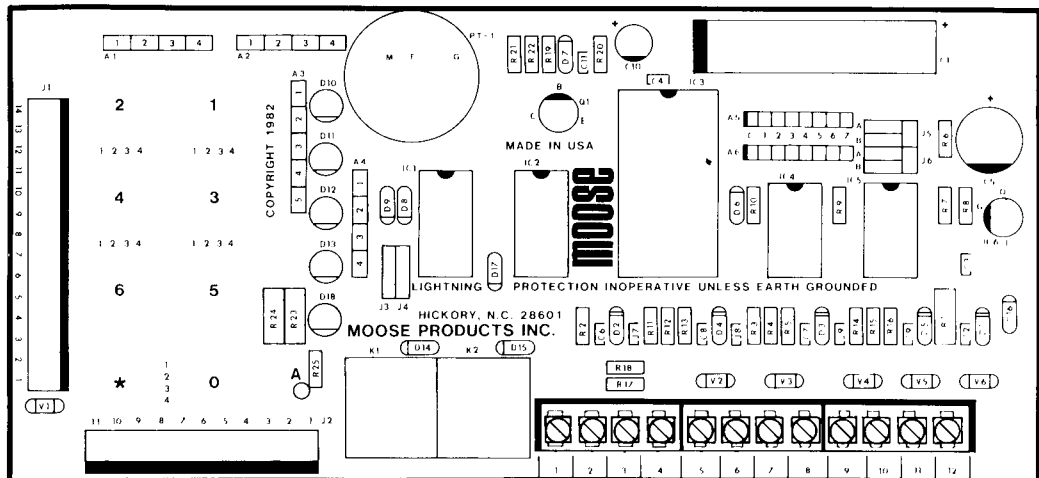
ERRORS

If an error is made while entering the arm/disarm code, the wrong entry can be corrected by waiting 7 seconds until the keyboard timer runs out or by depressing the Star (★) button. A 2 second error tone will sound when time expires on the timer.

If the control is disarmed, the Star (★) button must be depressed twice to return to the desired instant or delayed mode.

BOARD LAYOUT AND HOOKUP

Connector J1

Remote Keyboard (D Input)
Remote Keyboard (C Input)
Remote Keyboard (B Input)
Remote Keyboard (A Input)
( ) Pre-Alarm Output
(-) Fire Trouble Output
( ) Instant Mode Output
( ) Circuit Status Output
( ) Armed Output
( ) Violation Output
( ) Lamp Output
(+) Remote Key Input
(+) 12 Volts DC Power Supply
( ) Power Supply (Common)

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LIGHTNING PROTECTION INOPERATIVE UNLESS EARTH GROUNDED

MOOSE PRODUCTS INC. HICKORY, N.C. 28601

Board Size: 7½ x 3½ Inches

Earth Ground

Warning: Under no circumstances should the negative side of the power supply be connected to earth ground. Possible circuit damage may result from reverse earth ground transients.

Notice: Specifications are subject to change without notice.
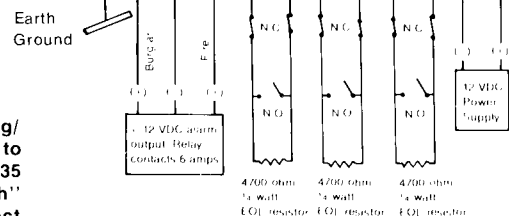
Test Weekly

Note: Central monitoring station should be notified before beginning test of the control.

(1) Arm the control.

(2) Depress keyboard digits 2 and 0 simultaneously after exit time has expired. Burglar alarm should sound. Disarm the control.

(3) Depress keyboard digits 6 and Star (*) simultaneously. Panic/Fire alarm should sound. Disarm the control.

Lightning Protection
In order for lightning/transient suppressors to be effective, the MPI-735 must be "earth" grounded to a direct earth ground or metal water pipe ground. Make sure metal water pipe extends beyond dwelling to earth ground. Do not use a gas pipe or building's electrical ground.

TERMINAL HOOKUPS

Terminal 1 — Earth Ground — In order for lightning/transient suppressors to be effective, the MPI-735 must be "earth" grounded to a direct earth ground.

Terminal 2 — (+) 12 Volt Burglar Alarm Output — (+) 12 Volts DC is supplied from Terminal 2 upon activation of the burglar alarm channel. Output is switched through a 6 amp contact relay.

Terminal 3 — Negative Power Supply — Terminal 3 provides the negative power supply for the burglar and panic/fire outputs. It is an unswitched negative.

Terminal 4 — (+) 12 Volt, 24-Hour Panic/Fire Output — (+) 12 Volts DC is supplied from Terminal 4 upon activation of the panic/fire channel. Output is switched through a 6 amp contact relay.

Terminals 5 and 6 — Delay Burglar Circuit — Terminals 5 and 6 provide a class "B" end-of-line resistor supervised delay burglar circuit. This allows normally closed switches to be placed in series along the loop and normally open switches to be placed in parallel along the loop. Use a 4700 ohm ¼ watt EOL Resistor.

Terminals 7 and 8 — Instant Burglar Circuit — Terminals 7 and 8 provide a class "B" end-of-line resistor supervised instant burglar circuit. Normally closed switches may be placed in series and normally open switches may be placed in parallel along the loop. Use a 4700 ohm ¼ watt EOL Resistor.

Terminals 9 and 10 — Panic/Fire Circuit — Terminals 9 and 10 provide a class "B" end-of-line resistor supervised panic/fire circuit. With program switch J6 in the "B" position, Terminals 9 and 10 are a 24-hour panic circuit. With J6 in the "A" position, the circuit is a 24-hour supervised fire circuit. Use a 4700 ohm ¼ watt EOL Resistor.

Terminal 11 — Negative Power Supply — The negative side of the (+) 12 Volt DC power supply should be connected to Terminal 11. If the MPI-235 auxiliary board is used, no connection is made to Terminal 11.

Terminal 12 — Positive Power Supply Input — The positive side of the (+) 12 Volt DC power supply should be connected to Terminal 12. If the MPI-235 auxiliary board is used, no connection is made to Terminal 12.

PROGRAMMING OPTIONS

There are 14 programming options offered on the MPI-735. These versatile options let the installer program all phases of an installation to meet the particular needs of the customer. Ideal for installations where a wide range of times and security requirements are needed. A brief explanation of those options follows.

Option 1 — Exit Time — The exit time on the MPI-735 has an operating range between 1 and 255 seconds from the keypad.

Option 2 — Entrance Time — The entrance time on the MPI-735 may be programmed between 1 and 255 seconds from the keypad.

Option 3 — Alarm Cutoff Time — Burglar and panic cutoff times are set in minutes. Operating range for burglar and panic cutoff times is 1 to 255 minutes.

Option 4 — Delay Before Burglar Alarm Time — Delay before burglar time is set in seconds. Operating range is 1 to 255 seconds. This option sets a delay time before the burglar alarm output activates. Used to cut down on the customer caused false alarms sent to a central station.

Option 5 — Main Keyboard Arm/Disarm Code — The arm/disarm code may be between 1 to 6 digits in length and the numbers may repeat. Example: 111266.

Option 6 — Program Code — This option allows the changing of the program access code. The program access code may be between 1 to 6 digits in length and the numbers may repeat. The program code can be set to the same number as the arm/disarm code should the installer not want the end user to have access to the program mode.

Option 7 — Auxiliary Arm/Disarm Code — Digit 7 can be accessed by depressing any 2 digit number combinations that add up to 7. This option is used to set the auxiliary arm/disarm code. The auxiliary arm/disarm code allows the owner to give out an arm/disarm code to someone like the maid, gardner or repair man. When the code has been used the number of times

set in program Option 95, the code is erased and will not arm or disarm the control.
Note: All programming options after Option 7 must be accessed through an external keypad.

Option 8 — Loop Test — Option 8 provides a loop test for the burglar loop. The pre-alarm will beep continuously if any burglar loop is violated.

Option 91 — Instant Loop Response Time — Option 91 sets the instant loop response time. Range: 20 to 300 milliseconds.

Option 92 — Delay Loop Response Time — Option 92 sets the delay loop response time. Range: 20 to 300 milliseconds.

Option 93 — Instant Loop Shunt — Option 93 sets or resets the "shunt instant loop if the delay loop is violated first" option. When entering the premise, if the delay door is not opened first, the instant loop will activate the burglar alarm as normal. If the delay door is opened first, the instant loop is shunted and will not cause an instant burglar alarm.

Option 94 — Circuit Status Monitor — This option beeps the pre-alarm each time the circuit status LED goes out. It may be used as an annunciator or entry warning.

Option 95 — Auxiliary Arm/Disarm Usage Count — This enables the user to program a set number of usages in which the auxiliary arm/disarm code may be used before it is erased. Range: 1 to 9 usages.

Option 97 — Set/Reset Option — This option allows a remote momentary keyswitch station to switch the control to the instant mode of operation. Hold the keyswitch closed for 5 seconds upon arming to switch to the instant mode.

PURCHASING OPTIONS

The MPI-735 may be purchased a number of ways to provide flexibility of installation and cost. Purchasing options are as follows:

Flush Mount

MPI-735F — Flush mount control only.
MPI-735FC234 — Flush mount control with MPI-234 piggyback board.
MPI-735FC235T — Flush mount control with MPI-235 piggyback board for interface with TOCOM Home Terminal.
MPI-735FC235C — Flush mount control with MPI-235 piggyback board for interface with CableBus Home Terminal.
MPI-735FC235S — Flush mount control with MPI-235 piggyback board for interface with Scientific Atlanta Home Terminal.

Board Only

MPI-735BO — MPI-735 board only.
MPI-234BO — MPI-234 board only.
MPI-235BOT — MPI-235 board only for TOCOM interface.
MPI-235BOC — MPI-235 board only for CableBus interface.
MPI-235BOS — MPI-235 board only for Scientific Atlanta interface.
MPI-735R — Flush plate with piezo resonator, LED's, keypad and 14 pin connector.

Box Mount

MPI-735B — Box mounted control only.
MPI-735BC234 — Box mounted control with MPI-234 piggyback board.
MPI-735BC235T — Box mounted control with MPI-235 piggy-back board for interface with TOCOM Home Terminal.
MPI-735BC235C — Box mounted control with MPI-235 piggy-back board for interface with CableBus Home Terminal.
MPI-735BC235S — Box mounted control with MPI-235 piggy-back board for interface with Scientific Atlanta Home Terminal.

MPI-536 — Specially designed drop box for use with MPI-735 flush mount. Drops into wall and will hold telephone dialer, batteries, radio receiver and other auxiliary equipment.

Note: The MPI-235 auxiliary board provides a power supply, high power electronic siren driver, radio receiver interface, CATV interface and telephone dialer interface. The MPI-234 auxiliary board contains a power supply and siren driver only.