

# COMPLETE BURGLAR SECURITY CONTROL

# MPI-26

## SPECIFICATIONS & INSTRUCTIONS

# MOOSE

## APPLICATION

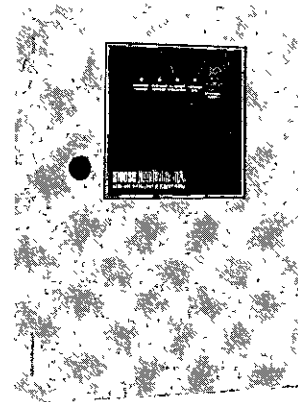
The MPI-26 Is An Economical Burglar Control Panel Suitable For Basic Installations In Either The Home Or Business.

## SPECIFICATIONS

- 12 VOLT DC Operation.
- Power Supply Regulated At 13.8 VDC For Sealed Lead Acid Batteries.
- 6 Amp Dry Contact Output On Alarm.
- 3 Amp Voltage Output On Alarm.
- Adjustable Entrance Time 20 Or 40 Seconds.
- Factory Set Exit Time At 45 Seconds.
- Adjustable Cut-Off Time 5, 10, Or 15 Minutes.
- Normally Open And Normally Closed Instant Loops.
- Normally Closed Delay Loop.
- Arming By Momentary Or Latching Key Switch.
- 600 MA Continuous Output From Built-In Power Supply.
- Transformer: 18 Volt, 20VA.
- Operating Temperature Range: -22 To 122 Degrees F. (-30 To +50 Degrees C).
- Metal Cabinet Size: 11 X 15 X 3 1/2.

## FEATURES

- 24 Hour Panic Circuit.
- Remote Arming Capability.
- Dry Contact And Voltage Out On Alarm.
- Alarm Test Switch With Separate Output.
- Panel Mounted LED's: Armed, AC, Status, And Violation.
- Remote Pre-Alarm And LED Capability.
- Multiple Keypad Or Keyswitch Capability.
- 5 Stage Lightning Protection.
  - (1) Metal Oxide Varistors
  - (2) Spark Gap
  - (3) Resistor/Capacitor Filtering
  - (4) 2nd Stage of MOV Protection.
  - (5) CMOS Logic Filtering

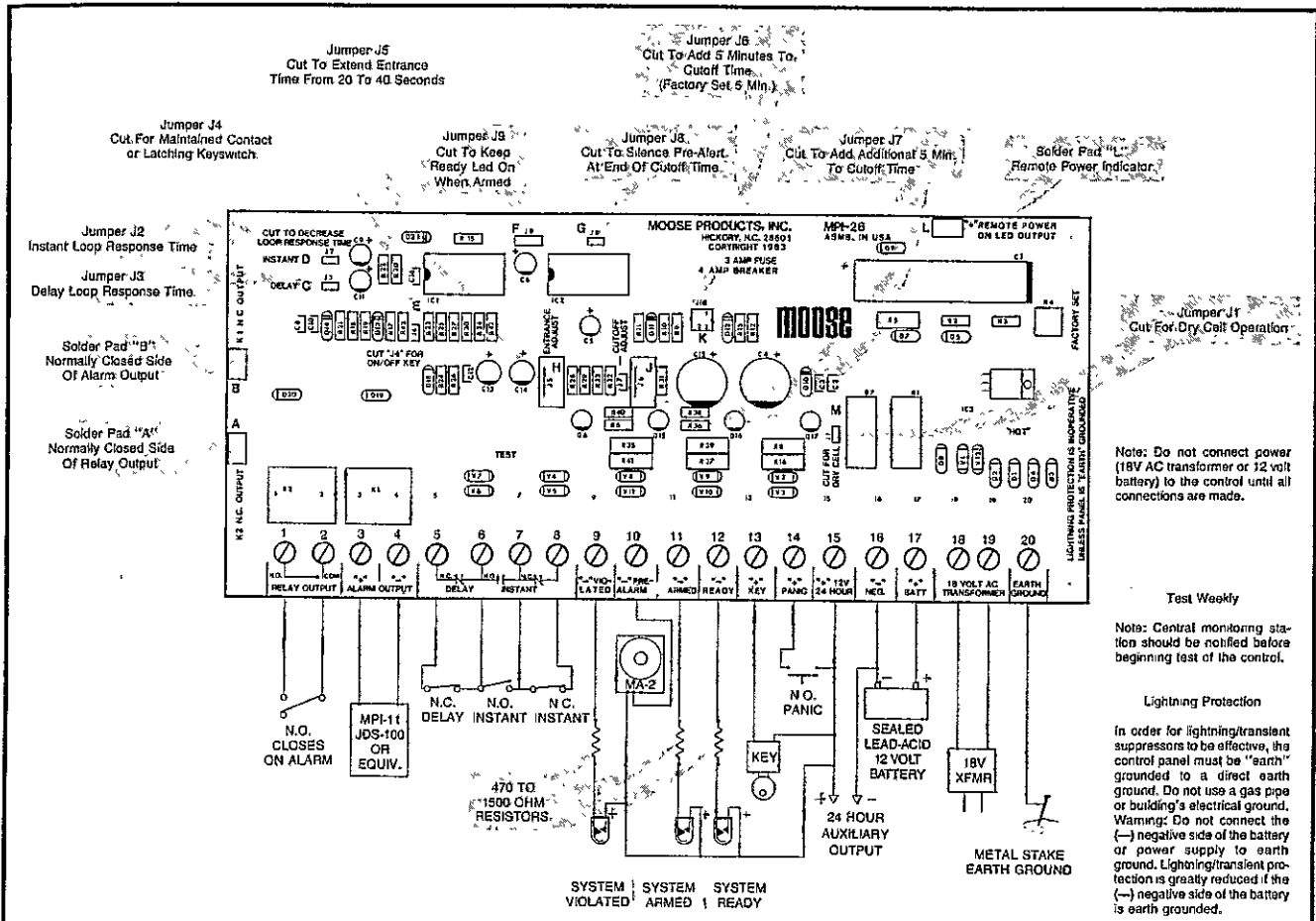


© 1984 MOOSE PRODUCTS INC.

1510 Tate Boulevard, S.E. • P.O. Box 2904  
Hickory, N.C. 28603 U.S.A. • Phone (704) 322-2333  
Toll Free (800) 438-8175 • Telex 802-111



**moose** products inc.



## Installation Instructions

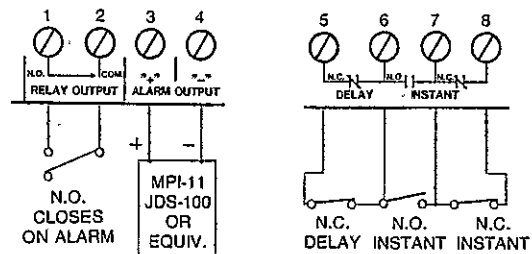
- Step 1. Remove all packing and components from control box.
- Step 2. Remove knockouts for wiring where needed.
- Step 3. Mount the control box in a dry location. NOTE: Make sure the outlet for the transformer is not switched and will remain live twenty four (24) hours per day.
- Step 4. After mounting the control box securely to the wall, bring all of the alarm wiring into the box.
- Step 5. Install a direct metal stake earth ground. Attach a ground wire (#14 copper) from the earth ground stake to Terminal 20 (Earth Ground), or to the control box itself, making sure surfaces are free of dirt and paint.

**DO NOT MAKE 90° TURNS  
WITH THE GROUND WIRE.**

- Step 6. Terminals 1 and 2.  
**Relay Output**  
Terminals 1 and 2 provide a set of normally open contacts that close when the MPI-26 is in alarm condition. (This relay is not activated during system test) A normally closed relay output is available at Terminal 2 and solder pad A.
- Step 7. Terminals 3 and 4.  
**Voltage Output**  
12 Volts DC is supplied at terminals 3 and 4 when the MPI-26 is in alarm condition or during system test. Terminal 3 is switched (+) 12 VDC. Terminal 4 is an unswitched negative (-).

### Installation Hint

Do not exceed 1000 ohms resistance on the normally closed loops or 100 ohms resistance on the normally open loop. If these limits are exceeded, the control will not function properly.



- Step 8. Terminals 5 and 6.  
**Delay Normally Closed Loop**  
The delay normally closed loop requires normally closed devices wired in series to Terminal 5 and 6. If unused, connect a wire jumper between terminals 5 and 6.
- Step 9. Terminals 6 and 7.  
**Instant Normally Open Loop**  
The instant normally open loop requires normally open devices wired in parallel to terminals 6 and 7.
- Step 10. Terminals 7 and 8.  
**Instant Normally Closed Loop**  
The instant normally closed loop requires normally closed devices wired in wires to terminals 7 and 8. If unused, connect a wire jumper between terminals 7 and 8.

**Step 11. Terminals 9 and 15.**

**System Violated LED**

Terminal 9 is a negative output for a remote violation LED. Connect the negative violation LED lead to terminal 9. Connect the positive violation LED lead in series with a 470-1000 ohm resistor to terminal 15. The violation LED will illuminate when the alarm output activates, and remains illuminated until disarmed.

**Step 12. Terminal 10 and 15.**

**Pre-alarm output**

Terminal 10 is a negative output for a pre-alarm. A pre-alarm device such as the MA-2 may be connected between terminal 10 (-) and terminal 15 (+ 12VDC). The pre-alarm output will be active during the entrance time, cutoff/reset time, and will remain active until the control is disarmed, as an audible violation indication.

**Step 13. Terminal 11 and 15.**

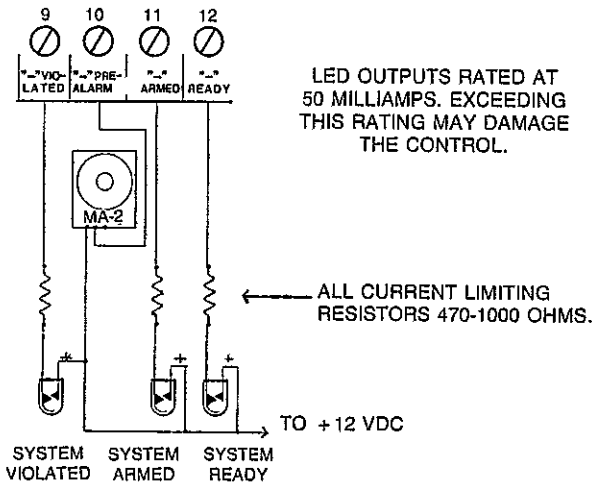
**System Armed LED**

Terminal 11 is a negative output for a remote armed LED. Connect the negative armed LED lead to terminal 11. Connect the positive armed LED lead in series with a 470 to 1000 ohm resistor to terminal 15 (+ 12VDC). The armed LED will be illuminated when the control is armed.

**Step 14. Terminal 12 and 15.**

**System Ready LED**

Terminal 12 is a negative output for a remote circuit status LED. Connect the negative status LED lead to terminal 12. Connect the positive status LED lead in series with a 470 to 1000 ohm resistor to terminal 15 (+ 12VDC). The status LED will illuminate when the instant and delay circuits are in a non-violated state.



**Operational Hint**  
The control cannot be armed until all protective circuits are in a non-violated state. The arm/disarm circuitry has a 1/2 second time delay before changing states. This requires that the key switch contacts be closed for 1/2 second before the control will arm or disarm.

**Step 15. Terminal 13 and 15.**

**Key Switch**

Connect a momentary key switch to terminals 13 and 15. The keyswitch may be remotod or mounted in the hole provided on the front panel of the control.

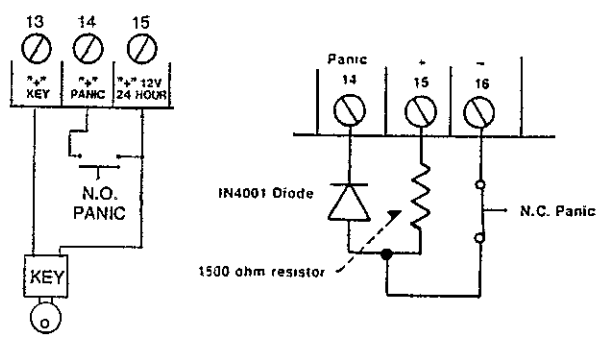
Note: If a maintained contact or latching keyswitch is to be used, jumper J4 must be cut.

**Step 16. Terminal 14 and 15.**

**Panic Circuit**

The panic circuit requires momentary, normally open panic devices wired in parallel between terminals 14 and 15.

If a normally closed device is to be used with the panic circuit the following hookup diagram must be used.



**Step 17. Terminals 15 and 16.**

**24 Hour Power Supply**

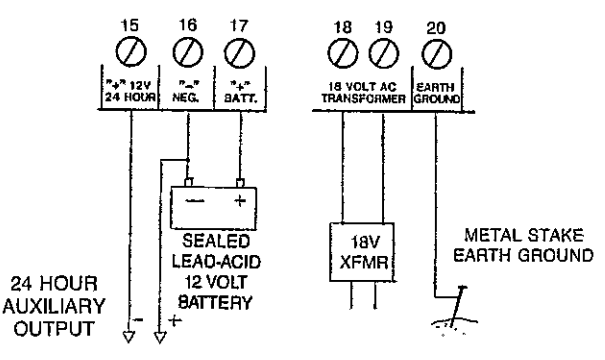
Auxiliary equipment may be powered from terminals 15 and 16. Terminal 15 is a regulated 14 volts positive output and terminal 16 is the common negative output. The maximum continuous power supply output of the MPI-26 is 600 Milliamps. If more current is needed for short durations, the excess will come from the standby battery.

**Step 18. Terminals 16 and 17.**

**Standby Battery Connection**

Connect a 12 volt sealed lead acid battery to terminals 16 and 17. Terminal 16 is negative and terminal 17 is positive connection. The charging voltage of the MPI-26 is adjusted for 13.8 volts for use with sealed lead acid type batteries.

**Service Hint**  
It is not recommended, but if a dry cell is to be used as a standby battery, jumper J1 at point "M" must be cut to disable the battery charging circuit. If jumper J1 is not cut the dry cell may rupture or explode.



**Step 19. Terminals 18 and 19.**

**Transformer**

Terminals 18 and 19 are input terminals for a class II, UL, 18VAC, minimum 20VA transformer.

**Step 20. Terminal 20.**

**Earth Ground**

See Step 5 for description of proper earth ground.

#### Installation Hint

For the lightning protective circuits to be effective, the MPI-26 must be earth grounded as close to the control box as possible. It is recommended that this ground connection be made with a separate ground rod and a minimum #14 gauge copper wire. Do not use electrical conduit, gas pipes, or telephone company grounds because these earth grounds have a large amount of electrical noise on them.

## System Operation

**Power On LED**-The Power On LED will be illuminated when AC power from the transformer is applied to terminals 18 and 19.

**System Ready LED**-The System Ready LED will be illuminated when all loops are in a non-violated condition. Fail safe arming requires that this LED be illuminated before the system will arm.

**System Armed LED**-The System Armed LED will be illuminated when the system is armed.

**System Violated**-The System Violated LED will be illuminated when the alarm is tripped and will stay illuminated until reset with the keyswitch.

**System Test Switch**-Depressing the slide switch on the front of the control panel disconnects AC power, and terminal 3 is turned on (Alarm output to siren driver). This system test is used to check the condition of the standby battery under load, and to verify that sirens, or other audibles are working properly. The Dry Contact output is NOT activated during system test.

## Time Settings And Adjustments

**Exit Time:** Factory set at 45 seconds. No adjustment.

**Entrance Time:** Factory set at 20 seconds  
Cut J5 for 40 seconds.

**Cut-off/Reset Time:** Factory set at 5 minutes.  
Cut J6 for 10 minutes.  
Cut J6 and J7 for 15 minutes.

**Note:** All timing values are plus or minus 25 percent.

#### Installation Hint

The MPI-711, or the MPI-712 self-contained digital control stations may be substituted for a keyswitch.

## Jumper Options

**Solder Pad "A"** Normally Closed Side of Relay Output. Terminal 2 is common and terminal 1 is the normally open side of the Relay Output.

**Solder Pad "B"** Normally Closed Side of Alarm Output Relay. Solder pad "B" will have + 12VDC during normal standby operation. When the control is in alarm condition the + 12VDC will be switched to terminal 3. (Terminal 4 is the common for the alarm output relay).

**Solder Pad "L"** (+) Remote Power On Indicator.

**Jumper J1** Cut For Dry Cell Operation. If a dry cell is used as a standby battery, jumper J1 must be cut to prevent damage to the dry cell.

**Jumper J2** Instant Loop Response Time. To change the factory set loop response time of 200 milliseconds, cut jumper J2 for a response time of 20 milliseconds.

**Jumper J3** Delay Loop Response Time. To change the factory set loop response time of 200 milliseconds, cut jumper J3 for a response time of 20 milliseconds.

**Jumper J4** Cut For Maintained Contact Or Latching Keyswitch. Control is factory set for momentary keyswitch operation. Cut jumper J4 for maintained or latching keyswitch operation.

**Jumper J5** Cut To Extend Time From 20 Seconds to 40 Seconds.

**Jumper J6** Cut for 10 Minute Alarm Cutoff Time. (5 Minutes Factory Set).

**Jumper J7** Cut To Add An Additional 5 Minutes To Cutoff Time.

**Jumper J8** Pre-Alarm Cutoff Control. The pre-alarm will normally sound during the entrance delay, while the alarm is sounding, and until reset with the keyswitch. With jumper J8 cut, the pre-alarm will shut off when the audible cuts off and resets.

**Jumper J9** System Ready LED/On Or Off When Armed. Factory set so system ready LED goes out when panel is armed. With J9 cut, the system ready LED will stay illuminated when the control panel is armed.

### "LIMITED WARRANTY"

#### Parts and Products

This warranty is extended to all purchasers of and includes products sold under the trademarks Moose or Moose Power and actually manufactured or sold by Moose Products, Inc., Hickory, N.C. 28601.

#### Warranty Time Period

All products covered by this warranty are date stamped with a six (6) digit number, the first digit being the tester number, the last two the year and the remaining the day of the year involved. For the eighteen months immediately subsequent to the date stamped thereon, Moose Products will replace or repair at its option, any part that proves to be defective in materials or workmanship. The cost of parts, labor and return transportation, if necessary, are included. All other costs are the responsibility of the purchaser.

#### Conditions and Exclusions

- There is no other express warranty. All implied warranties and fitness for use are limited to the duration of the express warranty. Some states do not allow limitations on how long an implied warranty last, so the above limitation may not apply to you.
- Moose Products, Inc. is not liable for indirect, incidental, or consequential damages in connection with the use of the products including but not limited to (a) any cost or expense of providing substitute equipment or service during periods of malfunction or non use and/or (b) any destruction to and/or loss of property or bodily injury.
- Repairs by anyone other than Moose Products, Inc. and/or misuse by anyone voids all warranty.

#### Other Rights

This warranty gives you specific legal rights and you may also have other rights, which may vary from state to state.

#### Procedure

Should you discover that any products of Moose Products covered by this warranty is defective within the warranty time period, you should contact any Moose Products, Inc. dealer who will instruct you on the proper procedure. If for any reason you are dissatisfied with the suggested procedures, you may contact us in writing at:

Moose Products, Inc., P.O. Box 2904, Customer Service Department, Hickory, N.C. 28603