CHAMBERLAIN
LiftMaster
PROFESSIONAL

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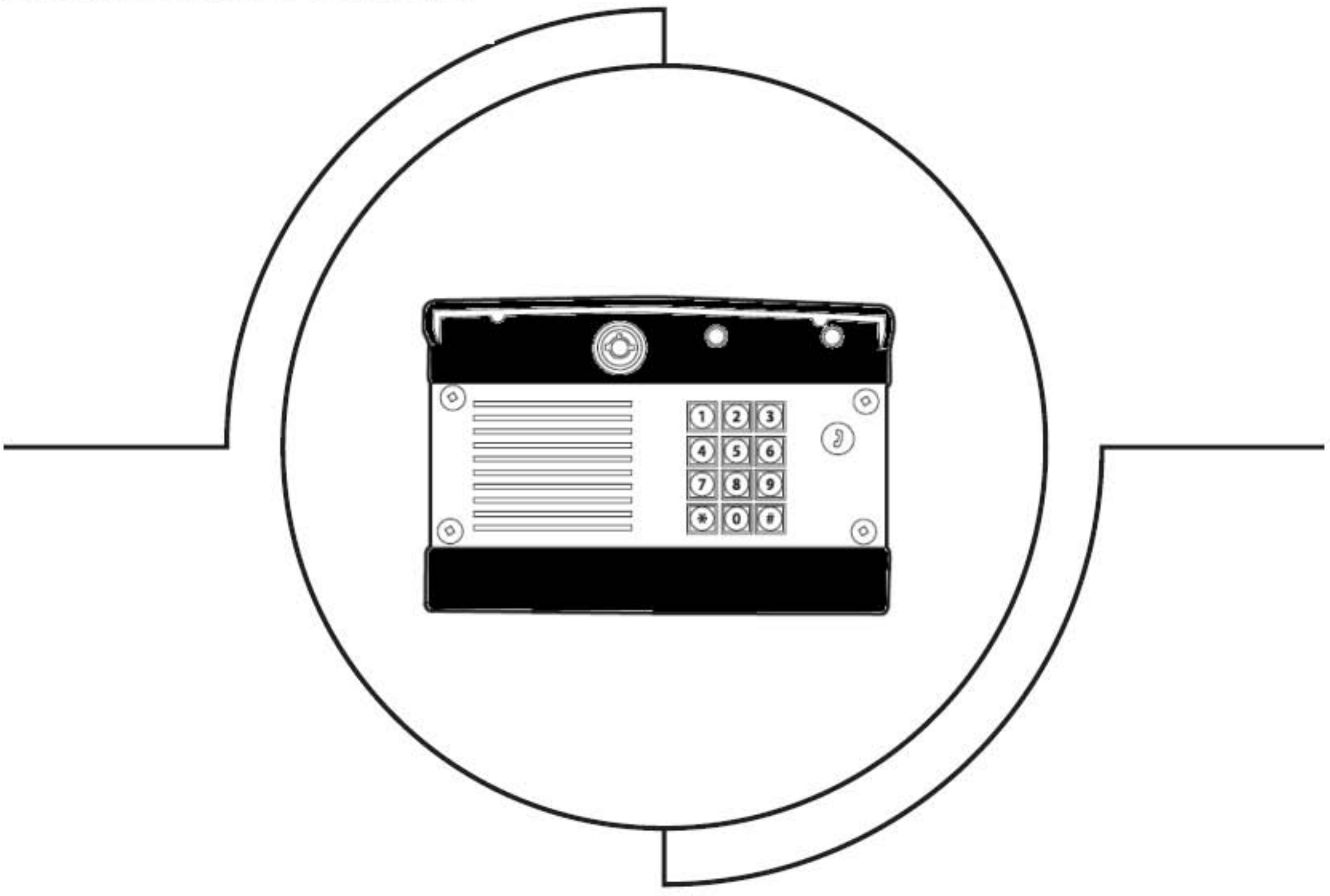
TAC1

Telephone Access Controller



Installation Manual

CABLE REQUIREMENTS

Outdoor installations require shielded cable. Non-shielded cable can be used for indoor installations ONLY.

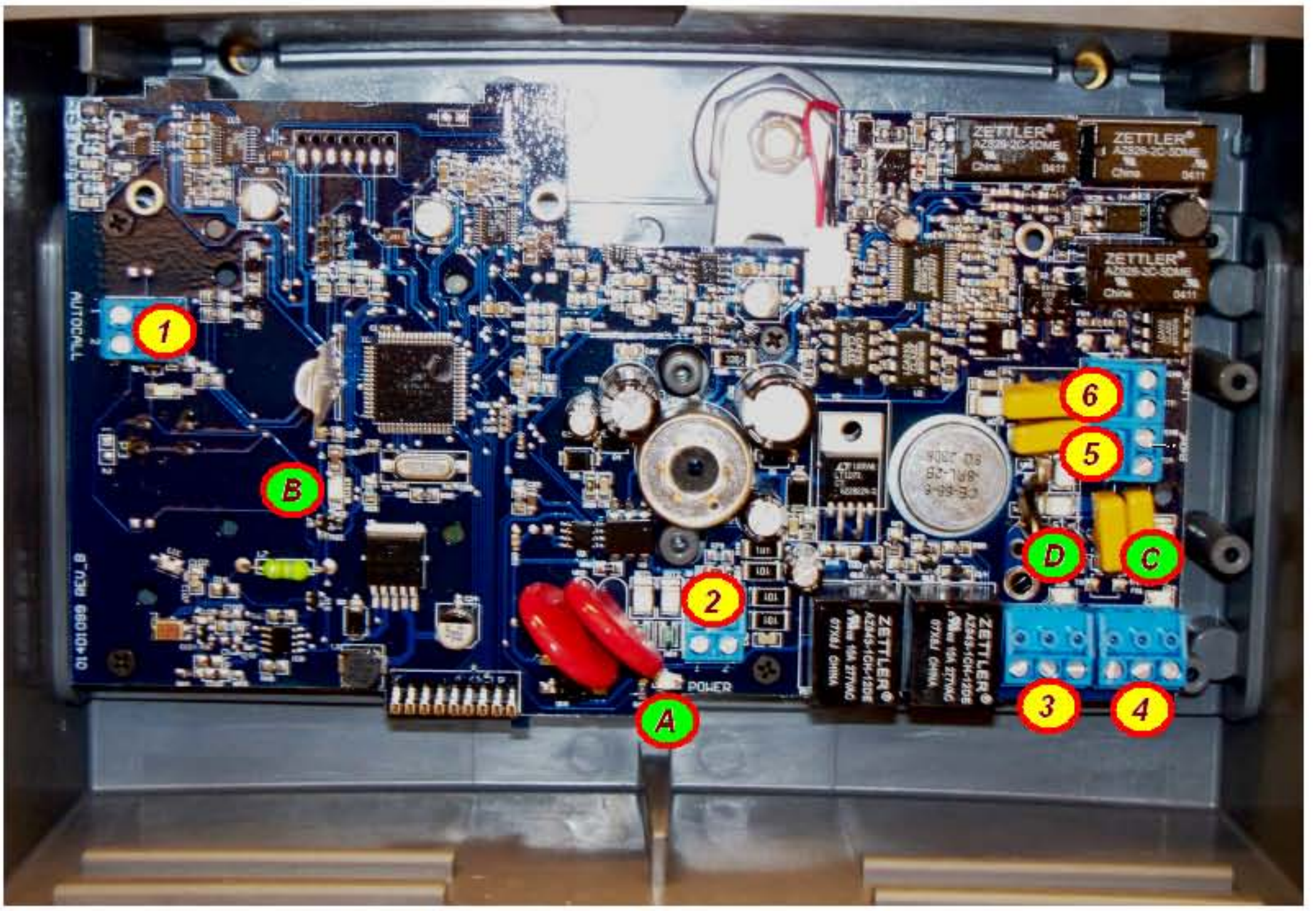
Processor Board	Wire Type	Recommendations
From the power transformer at 120 VAC outlet	2-conductor cable	Shielded Only - *See **Power Wire Table Below***
From the door strike, magnetic strike or gate operator	2-conductor cable	See device specifications for wire size
From the strike power supply (if needed)	2-conductor cable	See device specifications for wire size
From the Earth ground to processor board	12 AWG copper wire, PVC insulated or 12 AWG copper wire, uninsulated	Belden #9912 Belden #8011
From the telephone line	18 to 24 AWG twisted pair telephone wire	Shielded - Belden #9502
From the residence telephone line	18 to 24 AWG twisted pair telephone wire	Shielded - Belden #9502
From the Processor Board	2-18 to 24 AWG twisted pair telephone wire	Shielded - Belden #9502
Between Processor Boards on multiple entrance installation	18 to 24 AWG twisted pair telephone wire	Shielded - Belden #9502

POWER WIRE TABLE

Distance	DC Power Wire Size
30' and under	18 AWG
30' - 75'	18 AWG
75' - 150'	18 AWG
150' - 250'	16 AWG
250' - 500'	12 AWG

NOTE: *Chamberlain is not responsible for conflicts between the information listed in the above table and the requirements of your local building codes. The information is for suggested use only. Check your local codes before installation.*

DESCRIPTION OF CIRCUIT BOARD



Terminal Headers

1. "Autocall" Input:	Connector for accessory device to trigger home dialing.
2. Power Connector:	12 Volt DC Power Input Header
3. Relay 2 Output:	Form "C" Secondary Control Relay
4. Relay 1 Output:	Form "C" Primary Control Relay
5. "Phone" Ouput:	Telephone return connection to home or office phones.
6. "Line" Input:	Telephone input connection from "Telco" service provider.

Note: *Case Ground (Green Wire from board) must be connected to positive earth ground. Refer to section; "Grounding the Unit".*

LED Indicators

A. Power Status

B. Voice Data Send Status

C. Relay 1 (Primary) Output Status

D. Relay 2 (Secondary) Output Status

BASIC WIRING

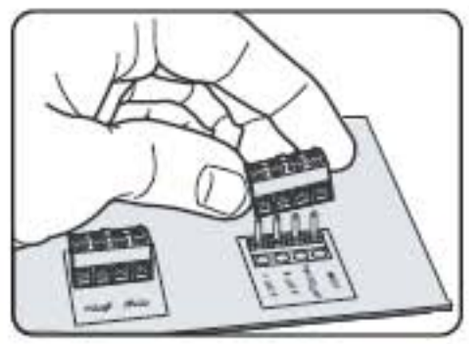
WIRING THE UNIT TO THE TELCO LINE

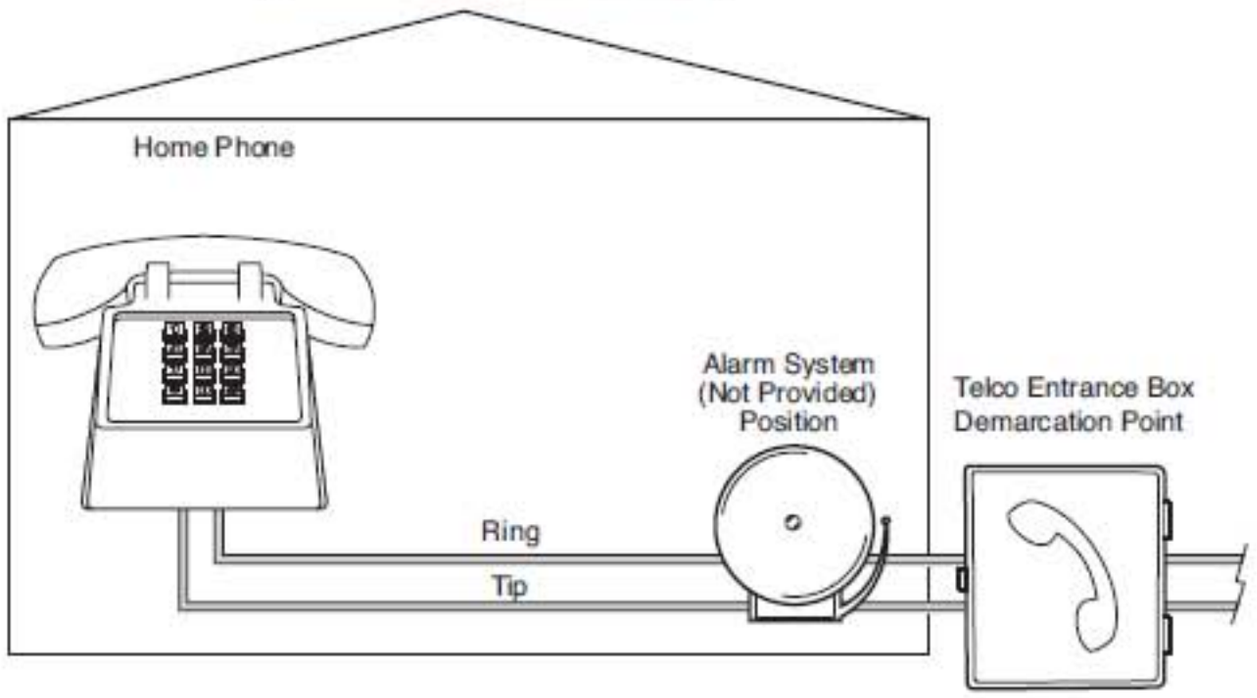
NOTES:

- *The voltmeter measurement between the Tip and Ring should be between 48 and 53 Vdc.*
- *Never run data wires and high voltage wires in the same conduit. The high voltage wires may interfere with the data wires and cause the system to malfunction.*
- *Reversed polarity will not damage the unit, however, some telephones will not function properly.*

Notes about wire connectors (terminal blocks):

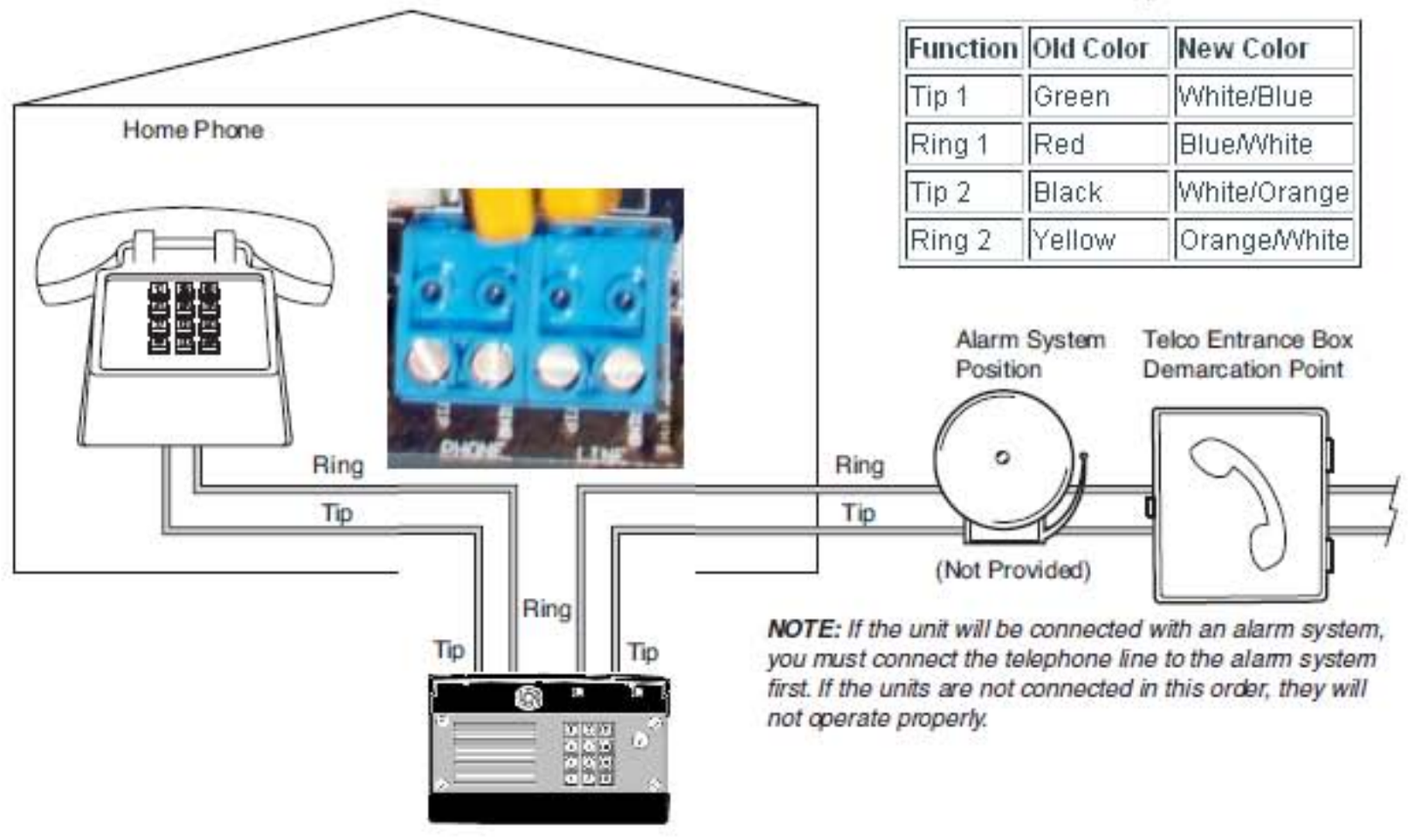
- *Wire connectors can be removed to simplify wiring.*
- *Do NOT overload wire connectors. Use ONLY one wire per hole.*





Many phone companies have updated their color standards due to the use of Cat 5 cable for most phone line installs, and to keep residential and business installs in line with each other. In this new standard, there is no green, red, black or yellow wires, they have been replaced by white/blue, blue/white, white/orange, and orange/white. To know how to identify the wire color is a simple matter. The wire is going to be primarily one color, with small stripes of a secondary color on it. If the wire is primarily orange with white stripes then that color is orange/white. The following simple table will help you understand what colors match. The NID labels will most likely have the old coloring scheme on them, and most telephone wiring components you can purchase will still reflect the original colors.

Function	Old Color	New Color
Tip 1	Green	White/Blue
Ring 1	Red	Blue/White
Tip 2	Black	White/Orange
Ring 2	Yellow	Orange/White



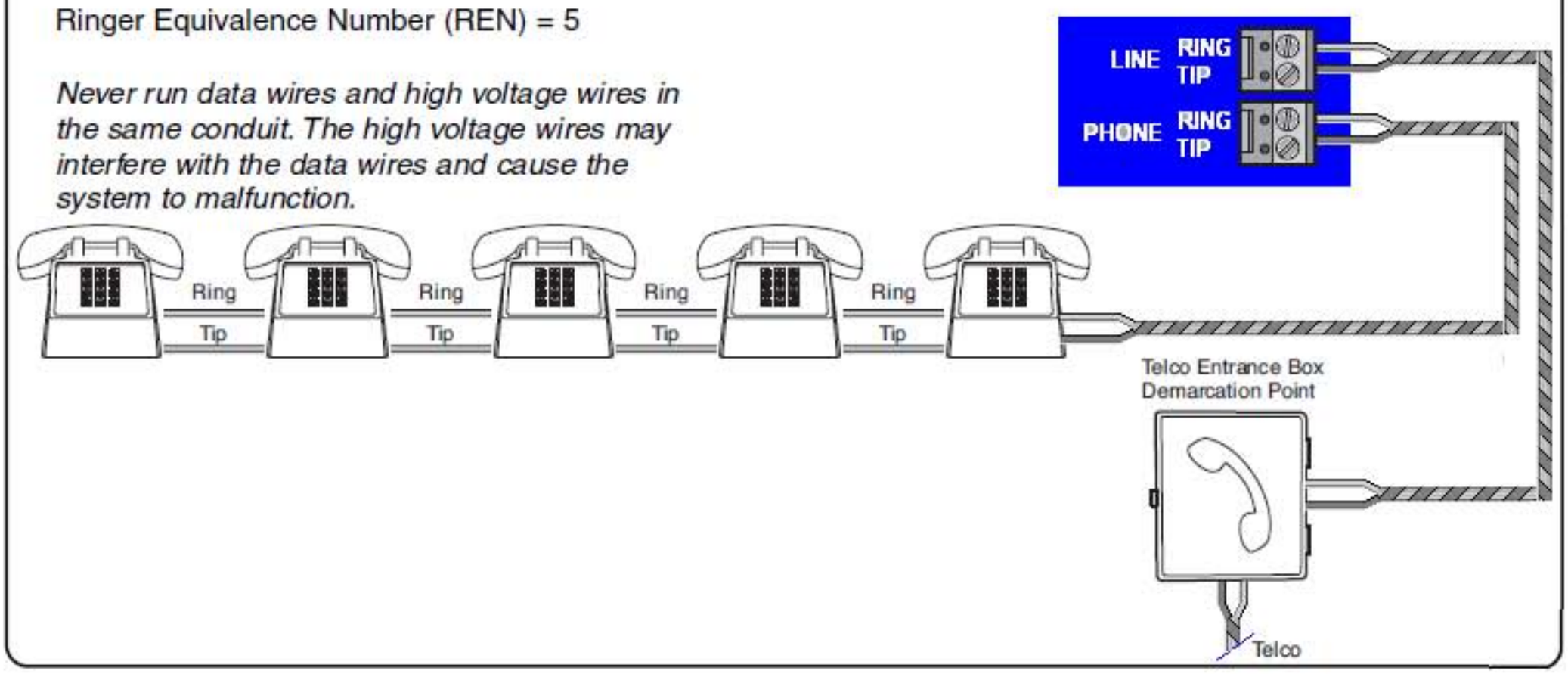
NOTE: *If the unit will be connected with an alarm system, you must connect the telephone line to the alarm system first. If the units are not connected in this order, they will not operate properly.*

BASIC WIRING (CONTINUED)

WIRING THE UNIT WITH A TELCO LINE

Ringer Equivalence Number (REN) = 5

Never run data wires and high voltage wires in the same conduit. The high voltage wires may interfere with the data wires and cause the system to malfunction.

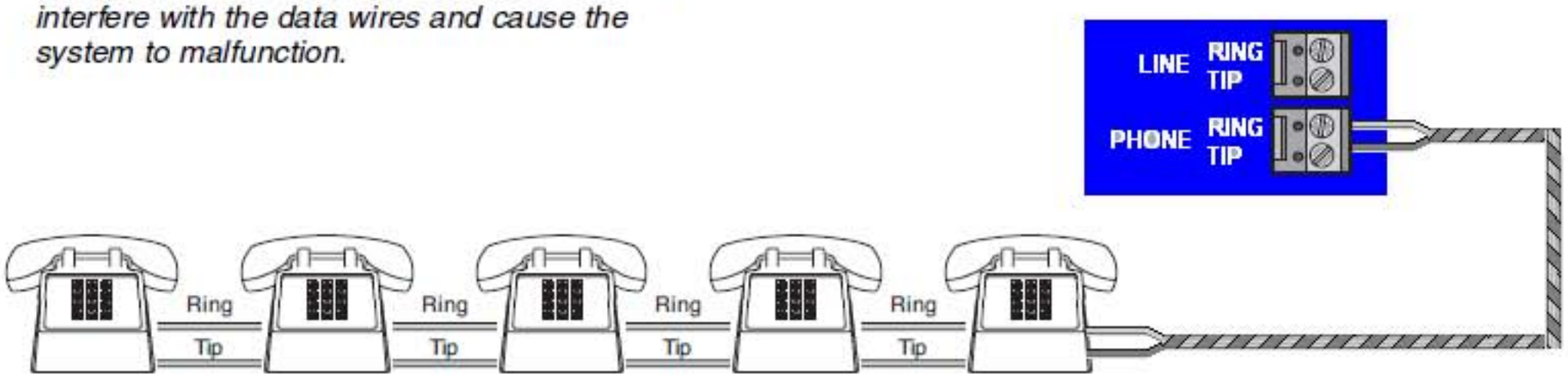


WIRING THE UNIT WITHOUT A TELCO LINE

The unit can be a stand alone system that allows communication between the unit and the resident's phones.

Ringer Equivalence Number (REN) = 5

Never run data wires and high voltage wires in the same conduit. The high voltage wires may interfere with the data wires and cause the system to malfunction.

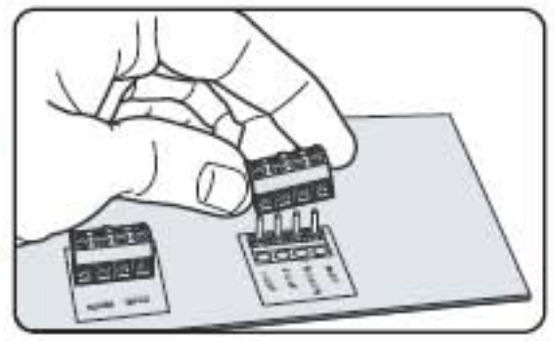


BASIC WIRING (CONTINUED)

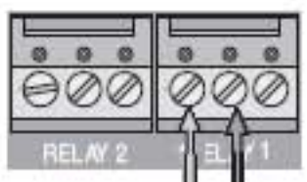
WIRING A GATE OPERATOR (NORMALLY OPEN)

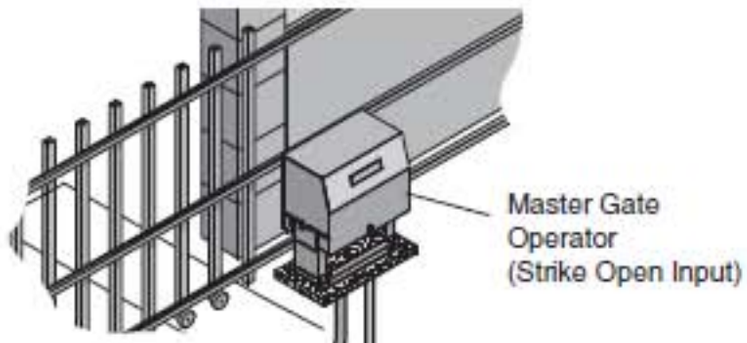
Notes about wire connectors (terminal blocks):

- *Wire connectors can be removed to simplify wiring.*
- *Do NOT overload wire connectors. Use ONLY one wire per hole.*



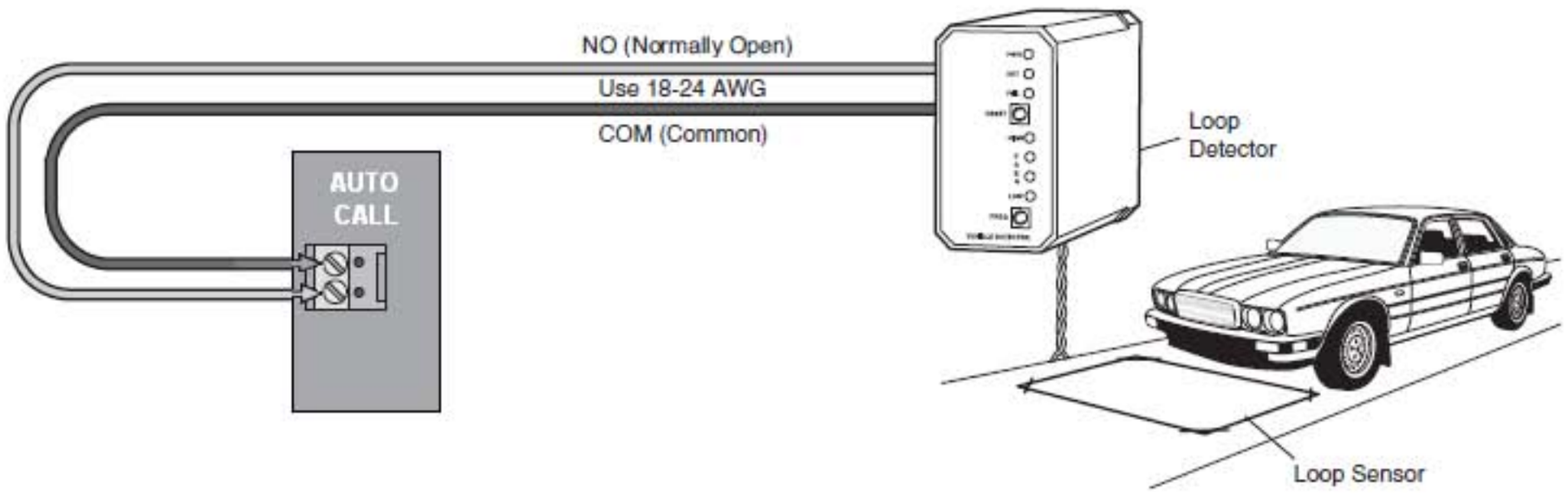
NOTE: *The gate operator can be connected to either of the 2 relays.*





WIRING AN AUTO-CALL SENSOR

The Auto-Call feature will enable the unit to contact the residence when a driveway sensor (or any device that provides a contact closure) is activated.

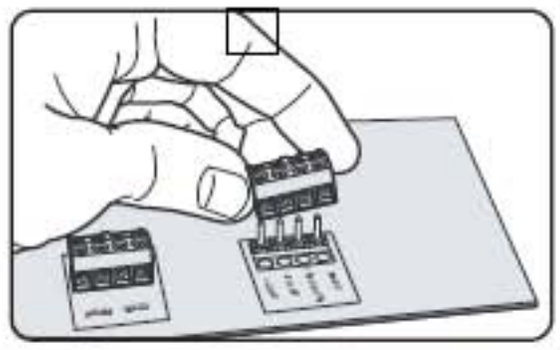


BASIC WIRING (CONTINUED)

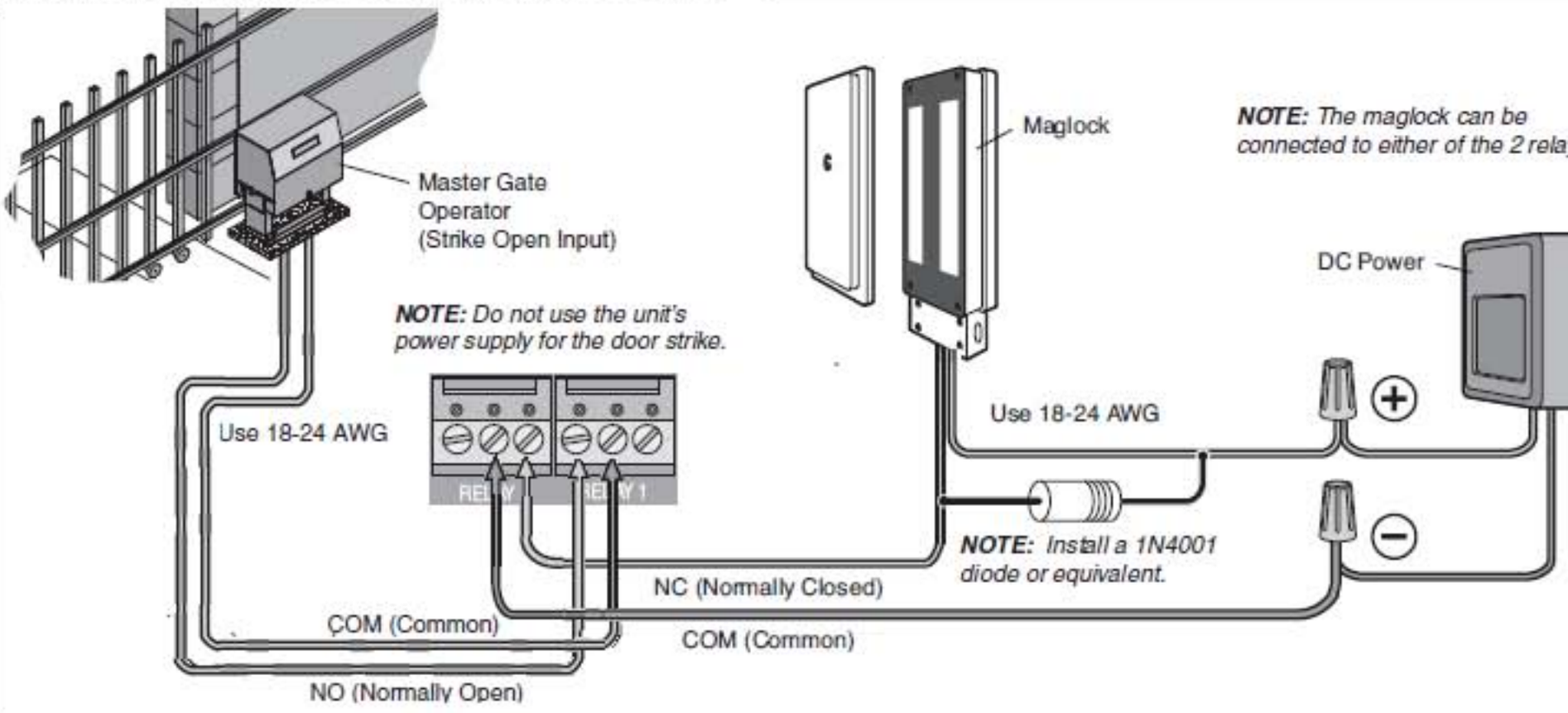
WIRING A GATE STRIKE LOCK (NORMALLY OPEN)

Notes about wire connectors (terminal blocks):

- *Wire connectors can be removed to simplify wiring.*
- *Do NOT overload wire connectors. Use ONLY one wire per hole.*



WIRING A GATE MAGLOCK (NORMALLY CLOSED)

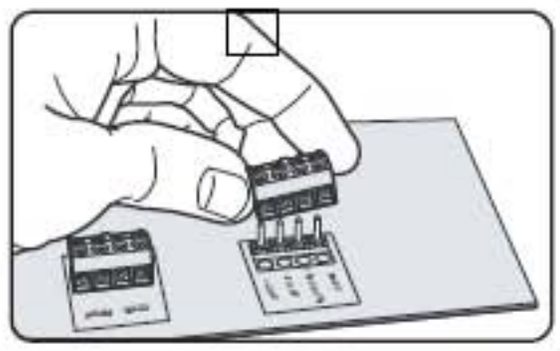


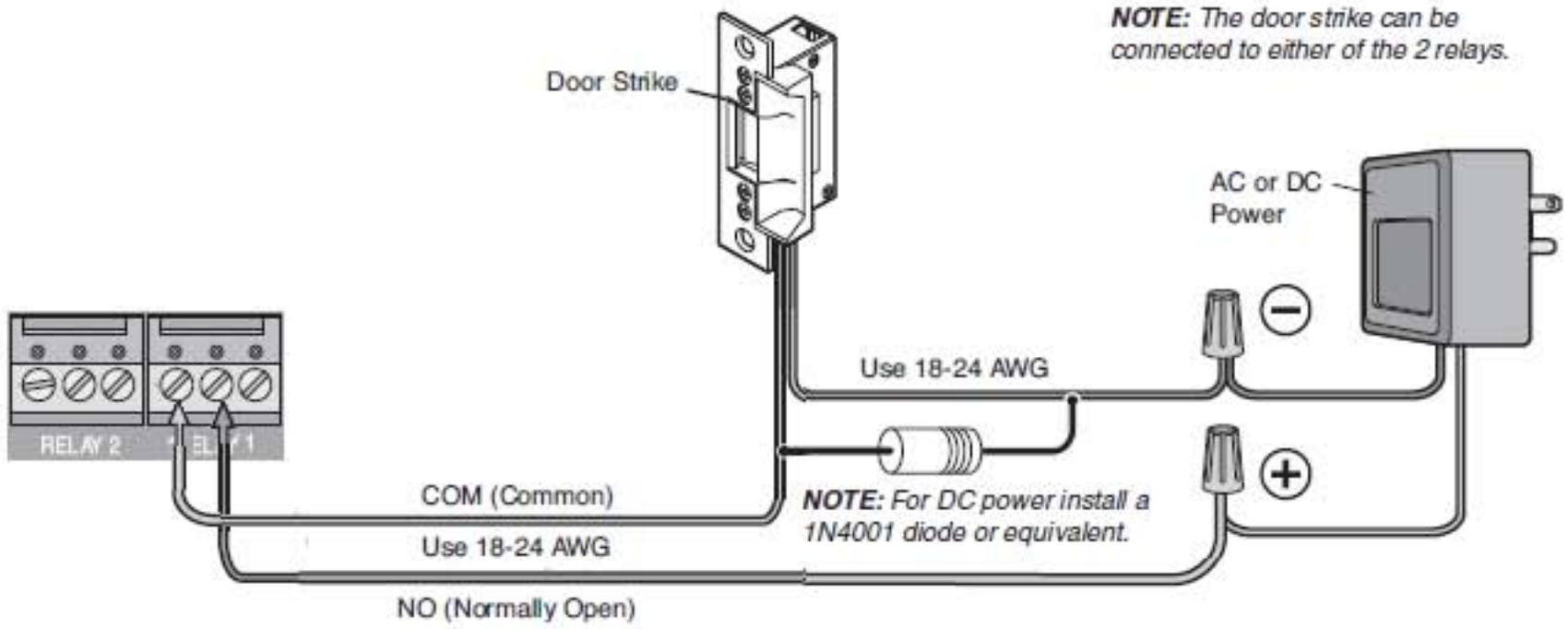
BASIC WIRING (CONTINUED)

WIRING A DOOR STRIKE LOCK (NORMALLY OPEN)

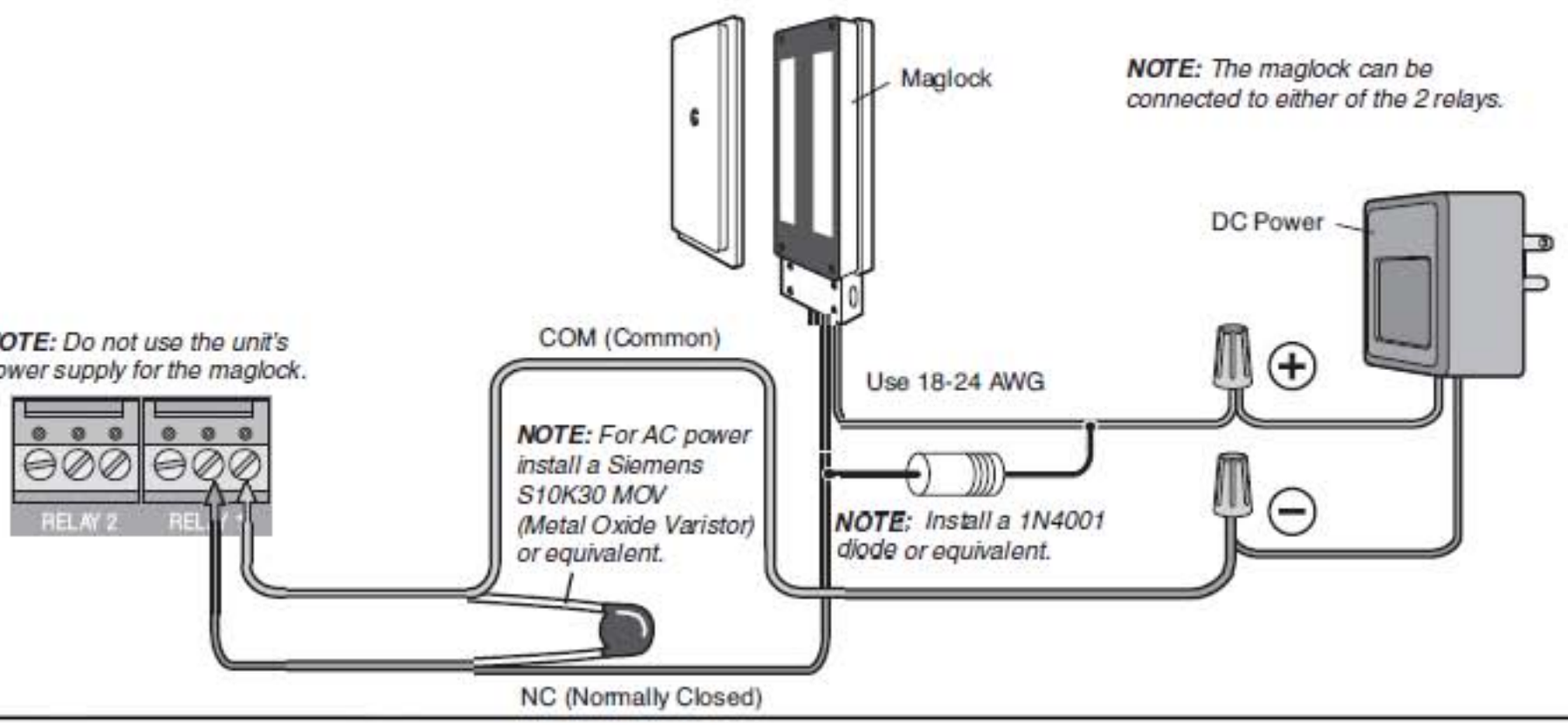
Notes about wire connectors (terminal blocks):

- *Wire connectors can be removed to simplify wiring.*
- *Do NOT overload wire connectors. Use ONLY one wire per hole.*





WIRING A MAGLOCK (NORMALLY CLOSED)

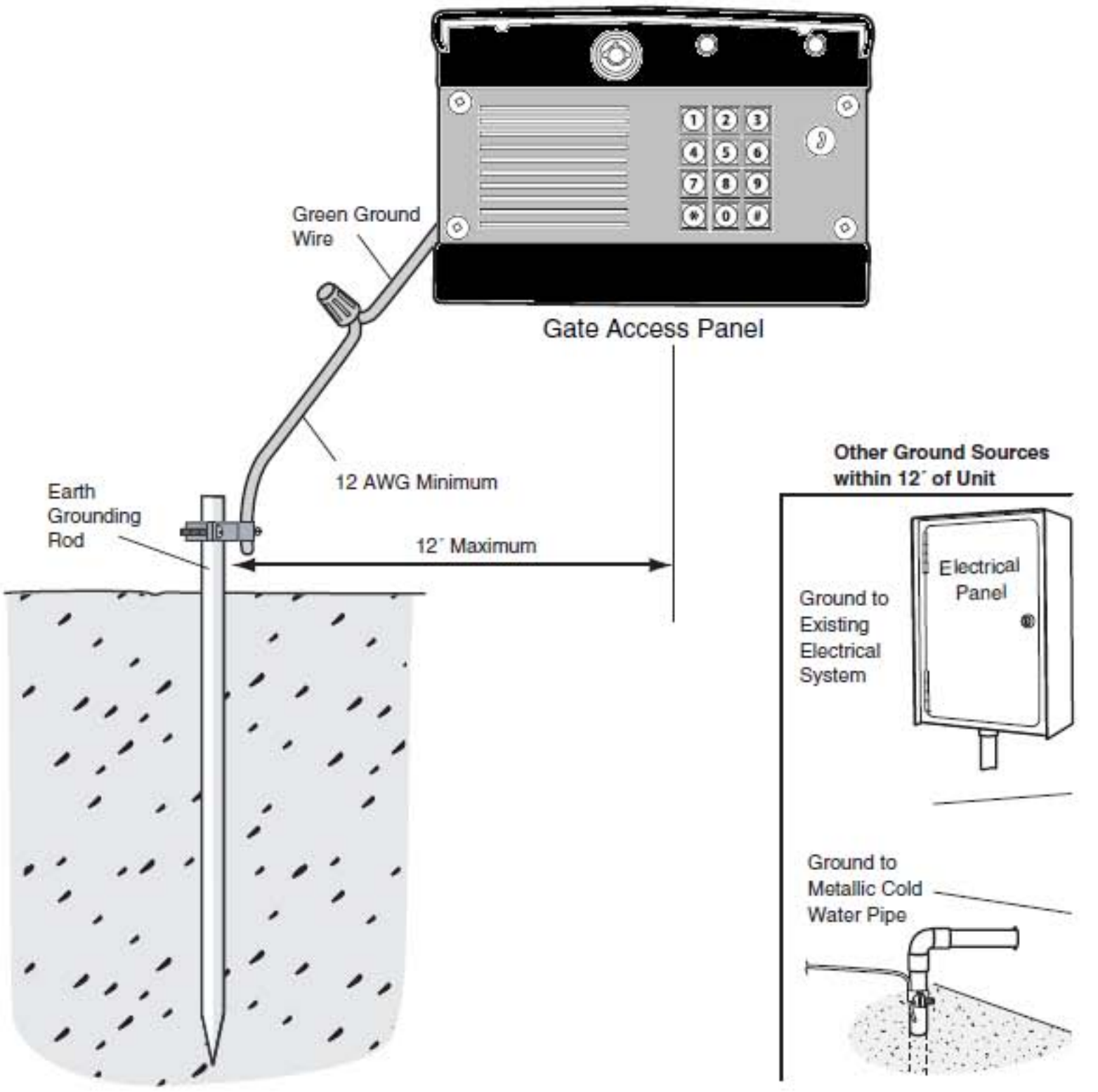


GROUND THE CABINET

Ensure that the system is grounded properly. The unit contains a number of static sensitive components that can be damaged by static discharge.
The ground lug is located on the lower left hand corner of the circuit board.

NOTES:

- *An earth ground rod is strongly recommended and should be no further than 12' from the unit and use a minimum of 12 gauge wire in most cases. The type and length of the earth ground rods vary by region. Contact the building inspector's office in the municipality where you plan to install the unit for correct grounding materials and installation procedures.*
- *Before digging, contact local underground utility locating companies.*
- *Avoid damaging gas, power or other underground utility lines.*
- *Do not ground the unit to a pedestal post (gooseneck) if one is used.*

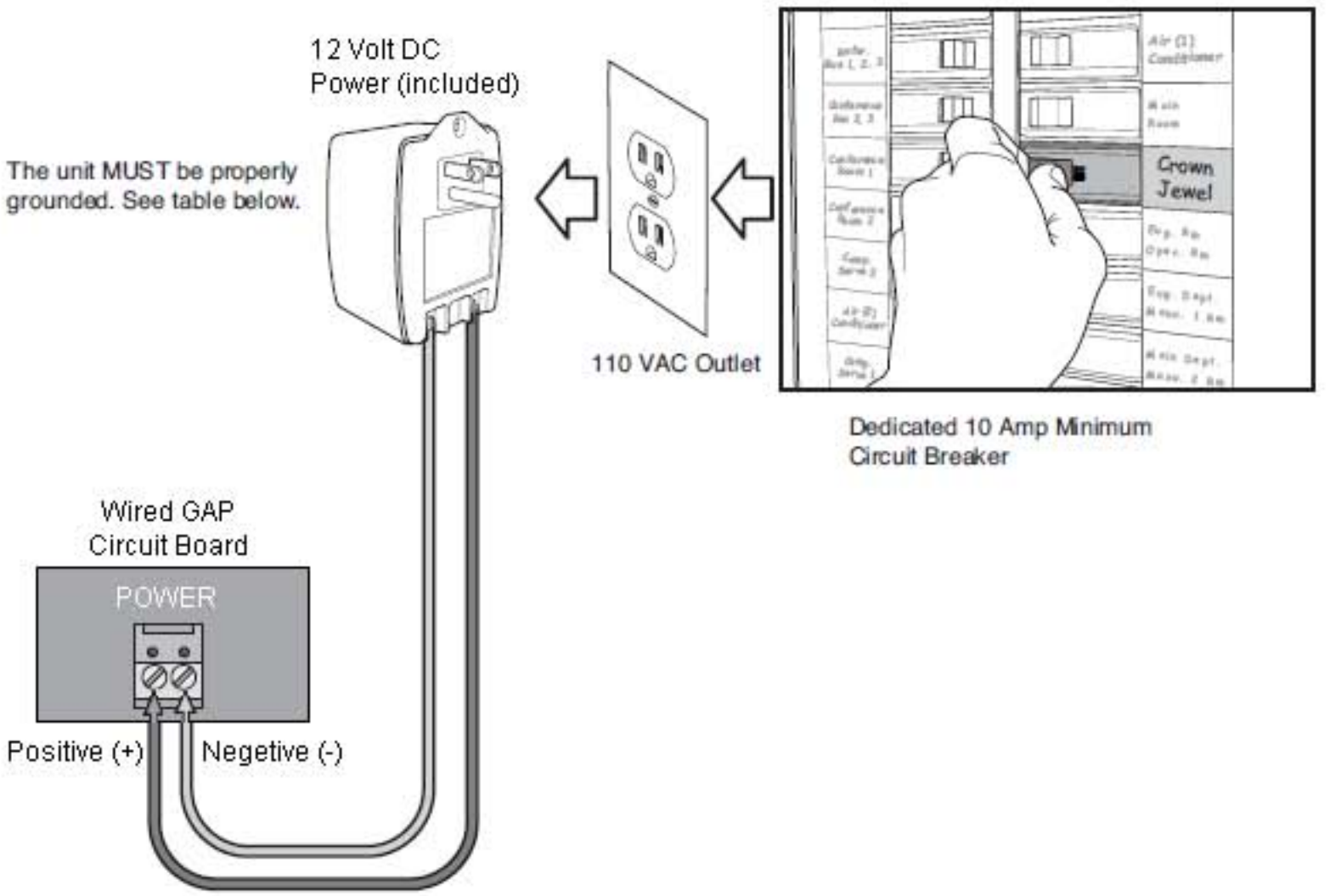


WIRING POWER TO THE UNIT

The 110 Vac outlet must be dedicated to the unit only. This outlet should be wired back to its own 10 Amp minimum circuit breaker. This will prevent two problems:

1. Other equipment cannot introduce spikes, noise, surges, or dips into the power circuit.
2. The system's operation will not be affected if any other equipment develops a short circuit across the power line.

Connect the transformer into a 110 Vac outlet after all connections have been made, any other type of outlet will cause damage to the system.



POWER WIRE TABLE

Distance	DC Power Wire Size
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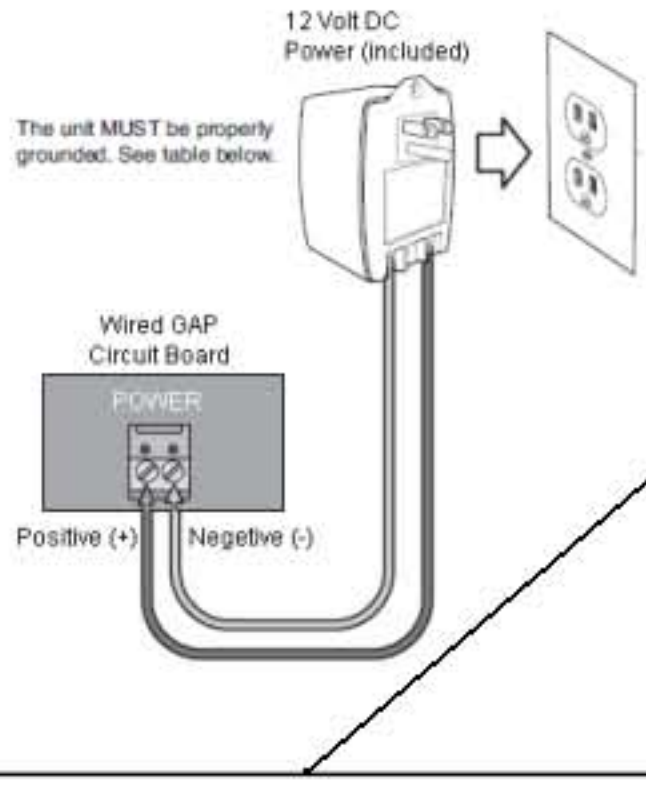
POWERING UP AND TESTING THE UNIT

PLUG TRANSFORMER INTO OUTLET

Plug the transformer into the 110 Vac outlet.



Check the Power LED is illuminated.

NOTE: *Once power is applied, the Wired Gate Access Panel will begin to click to indicate that it is powered, and is waiting to be programmed for the unit Master Code. Master Code is used to unlock the programming functions of the WGAPLM. Master Code should not be distributed as a User Code.*

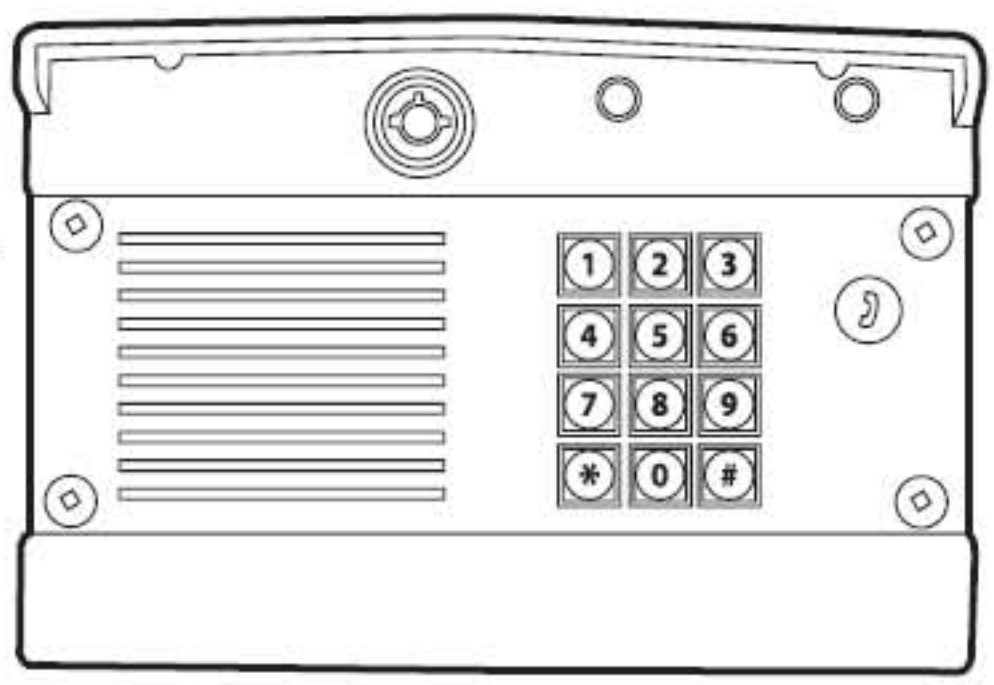
SET UNIT MASTER CODE

On keypad press: [#] [#] [#]

Enter 4 digit Master PIN Number. Example: 1234.

[?] [?] [?] [?]

"BEEP" "BEEP"



NOTE:

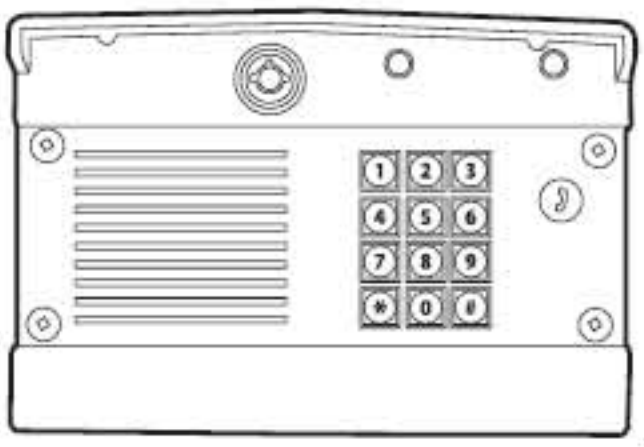
"Star" (*) Button acts as a CANCEL command that will end ANY call, programming, or access code key sequence.

TEST GATE/DOOR RELAYS

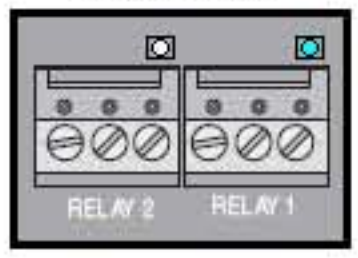
RELAY #1

Enter 4 digit Master Code + 1 (Key)

The "1" Key indicates the Relay to be triggered



WGAPLM Circuit Board

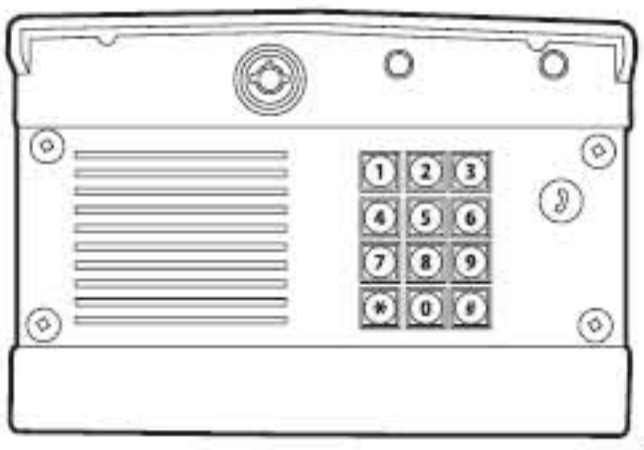


Relay 1 Status indicator LED will illuminate (Blue) to show activity when triggered.

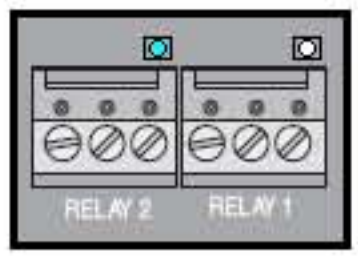
RELAY #2

Enter 4 digit Master Code + 2 (Key)

The "2" Key indicates the Relay to be triggered



WGAPLM Circuit Board



Relay 2 Status indicator LED will illuminate (Blue) to show activity when triggered.

VERIFY THE TELEPHONE CONNECTIONS

If you have a telephone test set (buttset) with a monitor mode, you can test the connection to the resident's telephone using the following procedure.

1. Place test set in monitoring mode.
2. Connect the test set clips to the pins marked "LINE" (1) on the board and make sure a dial tone is emitted from the test set.
3. Connect the test set clips to the pins marked "PHONE" (2) on the board and make sure a dial tone is emitted from the test set.

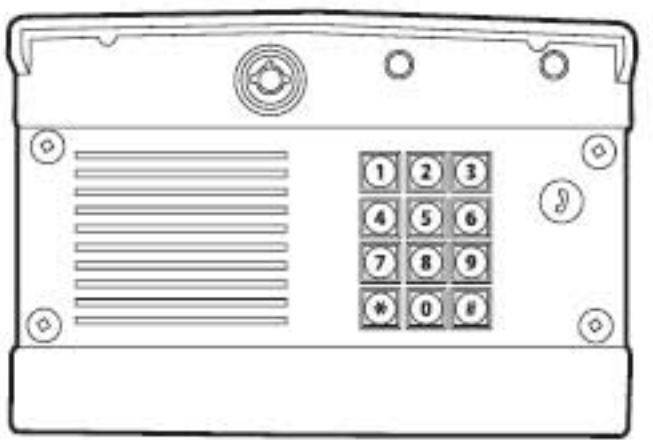
Telephone Test Set

If you do not have access to a telephone test set, test the connection using the following procedure.

1. Place a telephone call from the resident's telephone to verify it is operating properly, then hang up the phone.
2. Press the "Call" button on the unit's keypad. The telephone in the residence should ring.

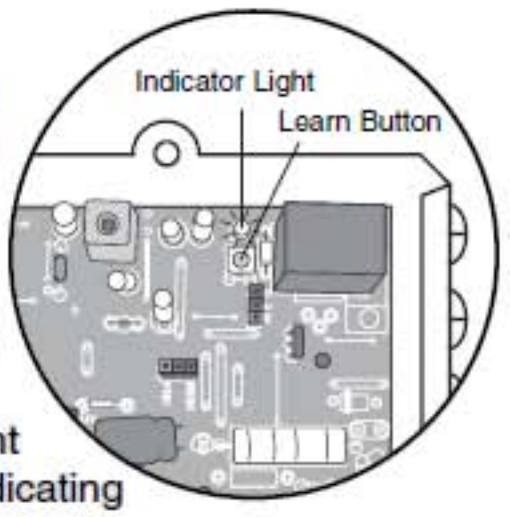
NOTE: *After the "Call" button is pressed, the "Status" LED* on the board *(Green) will blink during transmission*

3. Have someone answer the phone and press "*9" (Star + 9) (1) to activate Relay #1, the relay should activate. Then have them press "*2" (Star + 2) to activate relay #2, the relay should activate.



Pre-Installed Liftmaster Receiver

Program



Step 1: Pry open the front panel of the receiver case with a coin or a screwdriver.

Step 2: Press and release the Learn button on the receiver. The Indicator Light will light for 30 seconds indicating that receiver is in Learn Mode.

Step 3: Within 30 seconds enter Master PIN Number on GAPLM.

Step 4: Press "1". The Indicator Light on the receiver will blink 3 times indicating programming is successful.
NOTE: *An error tone will be heard for 3 consecutive activations only. After the third activation the GAPLM assumes that the GCU has been replaced with the receiver.*

Repeat Steps 2-4 for each Liftmaster door or gate operator that will be controlled

Erase All Control Codes

Press and hold the Learn button on the receiver until the Indicator Light turns off indicating that the receiver memory is clear (about 6 seconds).

NOTE: If Relays 1 or 2 (or both) are used, Wireless channels 3 & 4 can still control 2 LiftMaster operators directly

Operation & Features

Open Gate

To open a gate enter any valid PIN Number on GAPLM.

For multiple gate's, enter the PIN Number followed by the gate Identity (1-4).

Adding PIN Numbers

The GAPLM can support up to 50 PIN Numbers.

Enter Master PIN Number on GAPLM:

"BEEP"

Enter new PIN Number:

"BEEP"

If the new PIN Number applies only to a certain gate, enter the PIN Number followed by the gate Identity (1-4). The result will be a five digit PIN Number (example: 12341).

Temporary PIN Numbers

A temporary PIN Number can be used only once within a 24 hour period.

Enter Master PIN Number on GAPLM:

"BEEP"

Enter temporary PIN Number:

"BEEP"

If the temporary PIN Number applies only to a certain gate, enter the PIN Number followed by the gate Identity (1-4). The result will be a five digit PIN number (example: 12341).

Erasing PIN Numbers

Enter Master PIN Number on GAPLM:

"BEEP"

Enter PIN Number you want to remove:

"BEEP" "BEEP"

A triple beep indicates a PIN Number has been entered that does not exist. The Master PIN Number cannot be deleted.

Change Master PIN Number

Enter Master PIN Number on GAPLM:

"BEEP"

Enter new Master PIN Number:

"BEEP"

Speaker Volume

Enter Master PIN Number on GAPLM:

Enter one of the following volume levels:

"BEEP"

Default setting is 2.

Microphone Sensitivity

Enter Master PIN Number on GAPLM:

? ? ? ?

0 7

Enter one of the following sensitivity levels:

1 OR 2 OR 3

"BEEP"

Default setting is 2.

Vacation Mode

The GAPLM can be put into a Sleep Mode to conserve power and will only respond when the Master PIN Number is entered into GAPLM.

Enter Master PIN Number on GAPLM:

? ? ? ?

5 2

To exit Vacation Mode:

Enter Master PIN Number on GAPLM:

? ? ? ?

5 3

Party Mode Relay 1

To keep gate open during a party or activity so the gate will not have to open with each guest, the GAPLM can be programmed to remain open until it is cycled close.

Enter Master PIN Number on GAPLM:

? ? ? ?

5 4

To close gate and exit Party Mode, cycle the gate by entering a PIN Number

Party Mode Relay 2

To keep gate open during a party or activity so the gate will not have to open with each guest, the GAPLM can be programmed to remain open until it is cycled close.

Enter Master PIN Number on GAPLM:

? ? ? ?

5 6

To close gate and exit Party Mode, cycle the gate by entering a PIN Number

Enable Intercom Mode

Enter Master PIN Number on GAPLM:

? ? ? ?

0 3

Allows Unit(s) to be operated without Telephone service connected to Line input

Disable Intercom Mode

Enter Master PIN Number on GAPLM:

? ? ? ?

0 4

Relay 2 Programming

Master Pin 021	Enable Both Relay Activate Mode
Master Pin 023	Disable Both Relay Activate Mode
Master Pin 024	Adjust Relay 1 Activate Time (0-8000sec 0=500ms)
Master Pin 025	Adjust Relay 2 Activate Time (0-8000sec 0=500ms)

Phone Commands

*9	Activates Relay1
**01	Enable Call Forward
**02	Disable Call Forward
**03	Enable Intercom Mode
**04	Party Mode Relay1 Enable
**05	Party Mode Relay1 Disable
**06	Verify Call Forward
**07	Disable Intercom Mode
**10	Adjust Number of Rings
**11	Enable DoNotDisturb
**12	Disable DoNotDisturb
**13	Enable Alternate DTMF codes
#*16	Disable Alternate DTMF codes

*# XXXXXXX# enters the call forward number

Home Phone