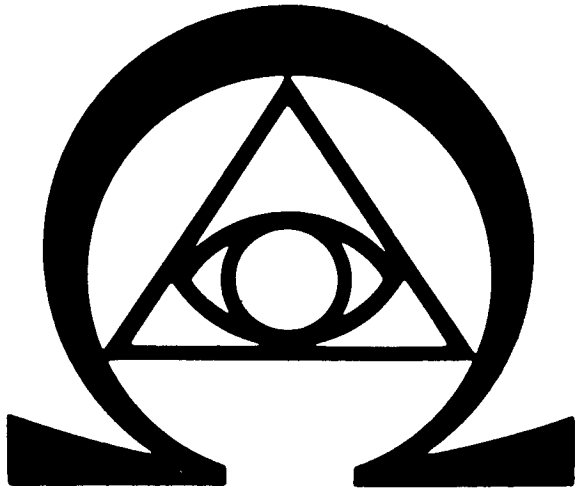


OMEGALARM

by RADIONICS, INC.

OMEGALARM OPERATION
and
INSTALLATION INSTRUCTIONS
With TROUBLE SHOOTING GUIDE
For
OMEGALARM 4000/8000

74-01674-3M-7/82

POWER

Batteries must be fully charged before system is programmed.
To assure that batteries are fully charged, install Communicator first.
Apply power to Communicator by connecting 12 VAC CLASS 2 transformer to terminals 1 and 2.
Jumper terminals 26 and 31 to disable system.
Install battery observing Polarity (red = +, black = −),
When ready to test system remove jumper. **System will not function if jumper not removed.**
When the OMEGALARM Communicator is first powered (with either battery or transformer) it is armed and ready to transmit messages to the central receiving station.

Battery

The OMEGALARM is designed to operate with a sealed lead acid 6 volt battery. Radionics can provide an appropriate 2½ amp hour battery. (Catalog number 121) A single battery can power an external bell and also act as standby Communicator power.

Do not use nicad batteries or batteries other than recommended.
Recharging circuit voltage is set too high for other batteries and may destroy them.

Auxiliary Power Output

Built into the OMEGALARM is the capacity to supply 5½ to 7 VDC at 100 mA maximum steady drain to power smoke detectors, low-drain motion detectors and any other alarm device that does not exceed power capability.

Follow the wiring diagram on Communicator cover plate using terminals 3 and 4.

Shorts in the auxiliary power circuitry will blow the alarm fuse.

When trouble shooting a Communicator with blown alarm fuse, auxiliary power wiring must be disconnected to isolate and test auxiliary circuits.

Fuses

Two fuses are mounted on the Communicator.

The Bell Fuse (top fuse) is a 4 amp 3AG fast blow. It protects the Communicator and battery from shorts in the bell or bell circuitry. If bell fuse blows, a low battery report is transmitted, if programmed. A blown fuse will cause system arming lights to "occult" (flash on for a short time, remain off for a longer time). The low voltage sense line is on load side of fuse. A battery restoral report will not be sent until fuse is replaced. Charge remaining in the battery, however, is still available as a standby power source for the Communicator.

If bell is shorted, bell circuitry is disabled but Communicator will still be operable.

If battery is discharged or not connected, bell circuitry will also be disabled but Communicator will still be operable.

The Alarm Fuse (bottom fuse) is a 1 amp 3AG. **CAUTION: Do Not Overfuse.** Protects Communicator against damage caused by reversing battery leads. Also protects against excessive current draw from auxiliary power output terminal.

When alarm fuse is blown, battery is disconnected from charging circuitry and will eventually run down, generating a low battery report, if programmed.

System Ground

The negative terminal of the battery is connected to the **system** and **case ground**.

Terminals 4 and 26, and loop terminals 11, 14, 17 and 20 are electrically connected to each other and to case ground.

In areas of high static electricity, electrical discharges and lightning, the system ground should be grounded externally to a cold water pipe.

Note: Recommended ground is a cold water pipe rather than an electrical conduit ground.

BELLS and SOUNDING DEVICES

A 6 VDC bell may be connected directly across terminals 4 and 5. A fully charged battery operating at room temperature with a 750 mA bell can ring for as much as two hours, depending on other loads.

Note: Bell **will not** ring immediately after power is applied to communicator. The OMEGALARM must be disarmed for at least one minute. The alarm can then be set and bell will operate normally if battery is connected and charged sufficiently.

Once the bell has been activated, it will stop only on expiration of the programmed bell time or when the arming station (keypad or keyswitch) is activated.

A ringing bell will not affect or interfere with alarm reporting from other zones.

Each **new** alarm that activates the bell **restarts** the programmed bell time.

If alarms occur simultaneously which require both pulsating and steady bells, the pulsating bell will take precedence.

Vibrating horns produce feedback to the Communicator and require a 1000MFd 10V capacitor wired at the horn.

Note: Be sure that positive pole of capacitor returns to terminal 5 of the Communicator.

PHONE CONNECTIONS

OMEGALARM is registered for direct connection to the telephone system using an RJ31X jack, installed by your local phone company. Connections are made to this jack with a #160 cord. Connect the wires as indicated in the diagram on the front of the communicator.
The communicator will cut off the local phones during alarm transmissions and listen-in. The registration number is: AJ996H-62363-AL-R. Ringer equivalence is O.OB.

LOOPS

Make sure to install the 1000 ohm terminating resistor at the end of each loop as indicated in wiring diagram in Programming Manual.

Before start up, loops may be tested with the Programmer in place and in TEST mode.

Condition of each loop will automatically appear in the display window above its corresponding number. Normal loops will be indicated by a "-" in the display window. An "S" will indicate a short. An "O" will indicate an open loop. On the OMEGALARM 4000 the last four unused loops will be each shown as "O" in the display window. The loops may also be tested with a voltmeter when Communicator is powered or with an ohmmeter when loops are disconnected from Communicator.

A reading of more than 1300 ohms indicates an open loop.

A reading of 1000 to 1300 ohms is normal.

A reading of less than 600 ohms indicates a shorted loop.

When a voltmeter is used, the loops may be tested while they are connected to the powered Communicator. A reading of 2½ to 3½ volts indicates a normal loop. A higher voltage reading indicates an open loop. A lower voltage reading indicates a short.

Make certain that unused zones do not contain program codes.

A Model 4000 4 Zone Communicator must not contain codes in loops 5 through 8.

Note: After an alarm has been sent, if loop restores and faults, another alarm will be sent.

All loops are independent. If a loop is faulted it will not prevent other loops from sending alarms.

PROGRAMMER

Install and remove the Programmer only after power has been connected to Communicator. The Communicator may be programmed at any stage of installation — **but make sure** transformer power is applied and battery is fully charged. If battery is not charged it may be necessary to disconnect during Programming.

To Remove Programmer
The Programmer **must be** in program mode before it is removed from Communicator. To change from TEST mode back to PROGRAM mode, press SELECT button.

Before removing Programmer, press ENTER key first and hold while pressing TEST key. Then release.

Move lock lever to Free Position and remove Programmer by sliding straight up and then lifting out.

If Programmer is not properly removed, a warning buzzer will sound. If warning buzzer sounds, reinstall Programmer and verify program line by line. Note: See also **Buzzing** under START UP section.

Remove Programmer again after pressing ENTER and TEST keys as described.

NOTE:

When removing Programmer make certain to:
1. Free lock lever.
2. Slide Programmer straight up until Connector is clear.
3. CAUTION: Do not lift up bottom of Programmer while top Connector is engaged.

After Programmer is removed, OMEGALARM is armed. A battery restoral or trouble report is transmitted if programmed.

START UP

After installation is complete, telephone company connections made and loops checked, Communicator is ready to be placed in operation.

To Place Communicator In Operation

OMEGALARM may be started up either by removing jumper from terminal 31 or by reapplying power after both AC and battery power have been removed. OMEGALARM will now be master armed and ready to function. It will send either a battery restoral or trouble report, depending on condition of battery — unless such reports have been suppressed by programming. Any loops in trouble or alarm condition will be transmitted to central receiving station on start up. System should now be disarmed by **momentarily** connecting terminals 26 and 23 with a cliphead.

An opening report will be sent, if programmed, when the unit is disarmed.

If the system is not disarmed and burglary protection loops are alternately faulted and restored by people moving within the premise, alarm reports will continue to be sent to receiver.

ARMING STATIONS

The OMEGALARM can operate with multiple arming stations. Leads from the Radionics **#150 Digital Keypad** are color coded and must be wired to appropriate terminals. See wiring diagram. Lower righthand button (decimal) of keypad acts as perimeter arming station. Keypad combination must be entered to disarm the system.

Pushing both decimal buttons simultaneously acts as a panic button if yellow wire has been attached to panic zone. See keypad wiring diagram.

SELECTIVE ARMING

The OMEGALARM can operate with multiple arming stations and has two levels of arming: **Master** and **Perimeter.**

Master Arming

Master arming stations are wired between terminals 23 and 26. Master arming stations arm **both** perimeter and master zones. Master arming stations may be programmed for entrance and exit delays.

Perimeter Arming

Perimeter arming is instant. It has no exit delay, but may be programmed for entry delay. Perimeter arming permits a subscriber to automatically disarm interior traps while a premise is occupied and still maintain perimeter protection at doors and windows. Perimeter arming affects only zones so programmed. Perimeter arming stations are connected between terminals 25 and 26.

Note: Only loops programmed with a middle digit of 5, 6, 7, or 8 are armed when the system is perimeter armed.

Forced Arming

The OMEGALARM will not arm if any of the controlled loops are faulted. This feature prevents the transmission of false alarms on closing.

On the OMEGALARM 8000, however, if a zone is faulted and the trouble cannot be readily resolved, the system may be made operative through forced arming. To force arm, jumper terminal 22 and 26 and proceed with normal arming procedure. When system is armed or exit delay initiated, remove jumper.

Forced arming should only be used if closing reports or exception closing reports have been programmed. The exception closing report feature informs the central receiving station when subscriber is closing with a faulted zone (forced arming) which requires no response. Refer to programming manual for fuller explanation of forced arming feature.

TROUBLE SHOOTING

Buzzing

When started up, system will be master armed.

If system **buzzes** when started, it may be due to any or all of the conditions described below. Run appropriate checks in sequence to determine cause.

1. System starts an entry delay because entry door is open and Communicator has been programmed for entry delay buzzer. In this case buzzer will stop when system is disarmed.

2. A loop has been programmed to buzz on fault (i.e., a fire loop) and a loop is in fault condition on start up. Check loop wiring.

3. Program memory data is incorrect, usually caused by improper removal of Programmer. In this case LED indicator lights will not shine at full brilliance. Reinstall Programmer, reprogram Communicator and remove Programmer properly.

ARMING AND DISARMING PROBLEMS

Keypad Does Not Function

Keypad may not function for the following reasons:

1. System fails to disarm on entering keypad combination. May be caused by programming error, usually combination entry **time not entered** in CE programming line. **Solution:** Reinstall programmer and check CE line. Make sure at least five seconds have been programmed.

2. Communicator fails to "see" keypad number when pressed. **Solution:** Reinstall Programmer, go to TEST mode, press keypad numbers and watch for corresponding numbers to appear in display window over K at far left. If correct numbers do not appear, the problem may be in any or all of the following areas:

Communicator. An easy four-part test will determine if Communicator is functioning properly. Remove wires from terminals 27, 28, 29 and 30. Connect one end of a short wire to terminal 26. Touch terminal 30 with other end. A "1" should appear in window display above K. The same procedure repeated on terminal 29 will display a "2" in window. With terminal 28 a "4" will appear in the window. With terminal 27 an "8" will appear. If all four numbers appear as described, Communicator is in working condition.

Since Communicator is in working order, check wiring and keypad for problem. If wiring is in good order, a new keypad may be required.

System Fails To Arm

System will not arm if any controlled loop is faulted. Buzzer will sound when any **numbered** button is depressed on keypad. **Solution:** Fix faulted loop.

Arming Light Indications

Normally, keypad indicator light will flash during exit delay time. Keypad light will burn steadily when system is armed.

Keypad indicator light will continue to flash until closing report is made.

Keypad indicator will continue to flash if battery is not fully charged or if bell fuse is blown. In this condition light will flash briefly once every second.

Bell Does Not Ring

Make sure battery is charged and connected to communicator.

Make sure bell fuse (4 amp) is not blown.

If unit is armed and battery is low or bell fuse blown, arming light will "occult." (Flash on for a short time, remain off for a longer time.)

Bell will not ring immediately after OMEGALARM is powered.

Bell will not ring immediately after jumper is removed from terminals 26 and 31. **Solution:** Disarm unit. Wait one minute. Rearm and test bell.

Apparent Malfunctions

Check entire program.

Start with SELEC and review line by line.

Make sure all entries are correct.

Make sure nothing is entered where no entry required.

Check each loop individually through loop 8.

If using a 4 zone unit, make sure nothing has been programmed in loops 5 through 8.

If trouble persists, reprogram OMEGALARM.

INTERPRETING BATTERY REPORTS (Zone 9)

Note: Battery reports will occur unless specifically suppressed by program.

TROUBLE REPORTS indicate the communicator is drawing power from the battery and the voltage is down to 6 volts or below. Several hours of operating power should remain. The cause of trouble could be a loss of AC power to the unit or extended operation of the bell. A trouble report will also be initiated if the bell fuse (4 amp) is blown. A restoral report will be sent when these conditions are corrected. Standby power levels in a disconnected battery can not be supervised by the communicator, so a broken battery wire or fuse (1 amp) will not be reported.

RESTORAL REPORTS with **no** prior trouble report. This occurs when AC power is first applied to the unit, a normal event during system installation. If subsequent restoral reports are received, this would mean AC power to the communicator was interrupted and that standby power (battery) was unavailable due to a disconnected or dead battery or a blown battery fuse. When power is restored the unit will be armed and a battery restoral report will be initiated.

TROUBLE & RESTORAL REPORTS closely spaced may indicate a shorted cell in the standby battery.

INSTRUCTIONS TO USERS

1. Registered terminal equipment must not be repaired by the user. In case of trouble, the device must be immediately unplugged from the telephone jack. The factory warranty provides for repairs.

2. Registered terminal equipment may not be used on party lines or in connection with coin telephones.

3. Notification must be given to the telephone company:
   a. The particular line(s) to which the service is to be connected.
   b. The FCC Registration Number: **AJ996H-62363-AL-R**
   c. The Ringer Equivalence: **O.OB**
   d. Make, model and serial number (or date of manufacture), of the device.

LIMITED WARRANTY

RADIONICS, INC. WARRANTY — RADIONICS, INC. manifests warranty of each new Omegalarm 4000/8000, 5000 and 6000 against defects in workmanship materials for a period of one year from date of purchase under the following conditions.
During the first year following date of purchase. any RADIONICS. INC. Communicator which fails to operate properly under normal wear and tear may be returned to RADIONICS, INC., 228 Reindollar Ave., Marina, California 93933, for factory repair or optional replacement at no charge to the consumer. Local battery failure is not included in the RADIONICS. INC. repair or replacement policy. Each unit will be returned to the sender via prepaid common carrier. Any requested special handling charges will constitute an additional billing.

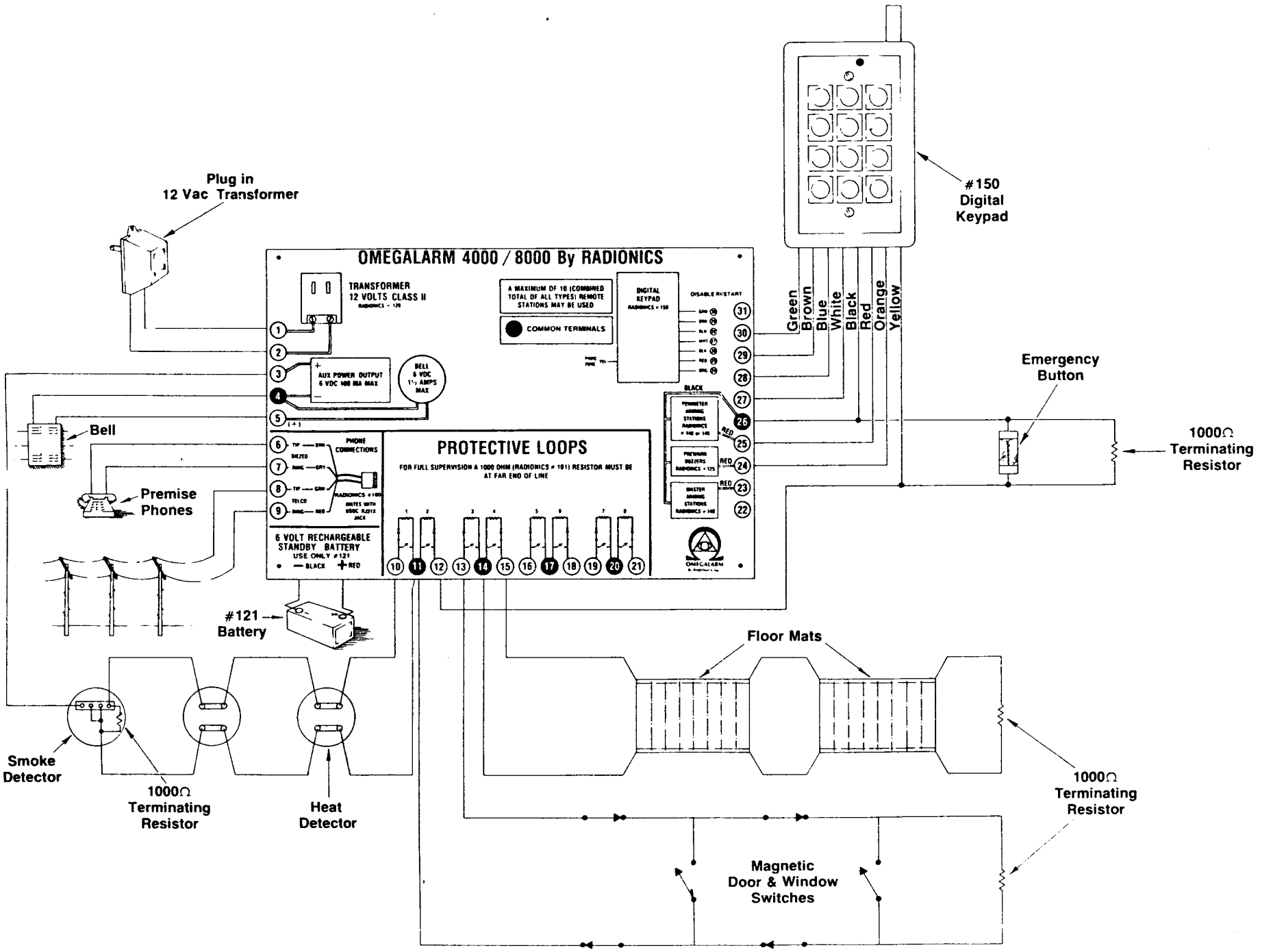
It is expressly agreed that there are no warranties, express or implied, nor any obligation of any kind assumed to be made by the manufacturer on any of the manufacturer's products except manufacturer's warranty against defective materials and workmanship as follows:

Purchaser agrees that this warranty is in lieu of all express or implied warranties in law or in fact of merchantability, fitness or otherwise.

Manufacturer reserves the right to make changes or improvements in all its products without imoosing any obligation upon itself to make such changes or improvements in the same products previously manufactured.

The manufacturer offers a service/repair contract after warranty expiration. All equipment repairs must be made by manufacturer or authorized agents only.

ALL RETURNED MERCHANDISE SHOULD INCLUDE A BRIEF DESCRIPTION OF THE PROBLEM ENCOUNTERED AND SENT PREPAID TO: RADIONICS INC. 228 REINDOLLAR AVE., MARINA, CA 93933


Plug in
12 Vac Transformer
#150
Digital
Keypad
OMEGALARM 4000 / 8000 By RADIONICS
TRANSFORMER
12 VOLTS CLASS II
A MAXIMUM OF 10 (COMBINED TOTAL OF ALL TYPES) REMOTE STATIONS MAY BE USED
COMMON TERMINALS
DIGITAL KEYPAD
DISABLE RESTART
AUX POWER OUTPUT
6 VDC 100 MA MAX
BELL
6 VDC
1½ AMPS
MAX
Green
Brown
Blue
White
Black
Red
Orange
Yellow
Emergency
Button
1000Ω
Terminating
Resistor
Bell
Premise
Phones
PHONE
CONNECTIONS
PROTECTIVE LOOPS
FOR FULL SUPERVISION A 1000 OHM (RADIONICS # 181) RESISTOR MUST BE AT FAR END OF LINE
6 VOLT RECHARGEABLE
STANDBY BATTERY
USE ONLY #121
— BLACK + RED
#121
Battery
Floor Mats
Smoke
Detector
1000Ω
Terminating
Resistor
Heat
Detector
1000Ω
Terminating
Resistor
Magnetic
Door & Window
Switches