AIPHONE

# SUB-MASTER FOR THE MASTER SENTRY

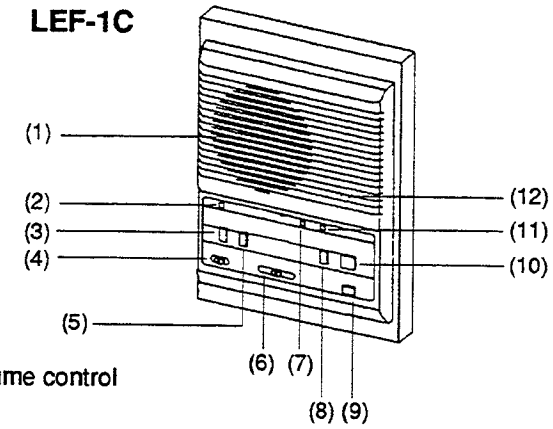
**Model:** **LEF-1C**

Door answering sub-master station with All Call, door release, and privacy features

# INSTRUCTIONS

## 1 NAMES AND FUNCTIONS

**LEF-1C**




**LEF-1C**
(1) Speaker
(2) Privacy LED
(3) Privacy button
(4) Background music volume control
(5) Door release button
(6) Voice volume control
(7) Occupied LED
(8) OFF button
(9) All call button
(10) TALK button to door station
(11) OFF LED indicator
(12) Microphone

## 2 FEATURES

* Door answering by simply pressing the TALK button, and releasing to listen.
* Hands free reply when called by a master station.
* All Call to every station selected to receive all call. One button operation.
* Electric door release allows opening the door from the intercom.
* Privacy to prevent eavesdropping.
* Individual volume controls for communication and background music.

***** SPECIAL NOTE:**
**The LEF-1C must be used in a system that includes the BGR-10A Control Center, which allows All Call, Chime, and AM/FM Radio. This allows the LEF-1C sub-master to receive a chime when the door station calls in, and to make an ALL CALL.**

## 3 INSTALLATION GUIDELINES

- Aiphone recommends that when installing any of its communication products, the wiring must be run at a distance of at least 2 feet (60cm) from AC wiring, fluorescent lights, or dimmer switches.
- Aiphone Corporation is not responsible for improper installations of its products which result in interference generated by AC voltage, dimmer switches, fluorescent lighting fixtures, or other similar electrical devices. If noise is induced into the intercom system from one of these sources, it must be corrected at the source by the installing party.

LEF Audio Intercom System **Pre-Installation: Wiring**

1. Select the proper type of wire for the system being installed. Use the maximum number of conductors for the system. Consult the following wiring information to determine how many conductors will be required for your system, and what gauge is required.

2. Shielded wire is recommended, but not required. It may help to minimize possible interference from outside sources.

3. Use a **multi-conductor cable** with an overall shield, not twisted pairs.

4. Run the cable in a "daisy-chained" configuration, in and out of each station in the system from beginning to end. Door stations and sub stations may be homerun to the nearest master station in the system.
   *NOTE: Some intercom stations require the same common wires, plus individual wires for each station on the wire run. Assure that the cable has enough conductors for every station included.*

5. When running intercom cable, maintain a distance of at least 24" from any AC wiring, fluorescent lighting, and dimmer switches. When crossing AC wires, do so at a 90° angle. Avoid running intercom cable in the same stud space with electrical wiring, and install the intercom station on a different portion of the wall from electrical devices.

**Installation:**

1. Lay out your system in advance, determining which stations will be located in each room, and what their respective **station number** will be. Fill in this information on your wiring diagram.

2. Cut the proper sized holes in the wall to semi-flush mount the intercom stations (C-version units only).

3. Separate the intercom from the back chassis by carefully removing the control panel cover and directory strip and loosening the screws. Lift up on the intercom portion before pulling it outward. Unplug the connectors, and store the intercom unit in the box until the wiring is completed.

4. Install the back chassis in the wall, and make wire connections as shown in the appropriate wiring diagram. Be sure to tighten screws securely onto the wires.

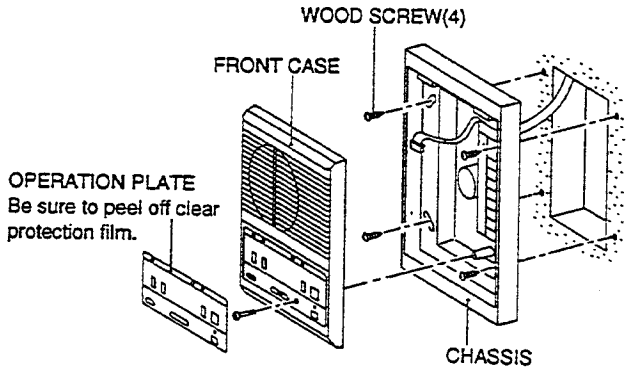
5. Reattach the intercom unit to the back chassis with the connectors, and place it on the back chassis from the top. Tighten the screws, and replace the directory strip and cover. Remove the plastic film over the control panel cover.

6. After all connections are made and intercom stations installed, test the operation of the system according to the Owner's Guide. Leave the Owner's Guide with the end-user for their use.

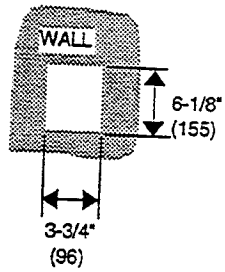
7. Fully train the end-user as to the functions and features of their intercom system. Advise the end-user on which rooms are assigned to each station number so they can fill in the directory card on each station.

## 3 INSTALLATION GUIDELINES (Continued)

### ■ LEF-1C



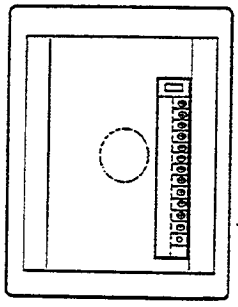

CUTOUT HOLE DIMENSIONS




Cut out a hole on the wall;
H: 6-1/8" x W: 3-3/4"(155 x 96mm),
securing a space of 1/8"(3mm) on each left and right side.

## 4 TERMINAL IDENTIFICATION

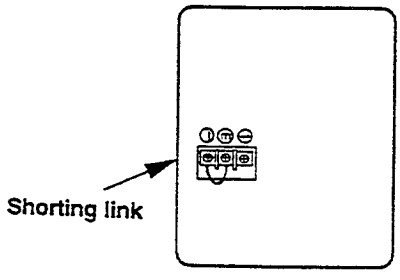
### ■ LEF-1C



Chassic Inside View

| | |
|---|---|
| C | for receiving a call from master and music |
| E | for common audio communicaiton |
| DA | for door station communication |
| +, - | for power supply |
| R | for occupied LED |
| Y | for controlling occupied mode when called |
| L | for DOOR RELEASE |
| P1 | for controling ALL CALL |
| P2, P3 | for ALL CALL output |
| K | for camera control |

### ■ LE-D, LE-DA

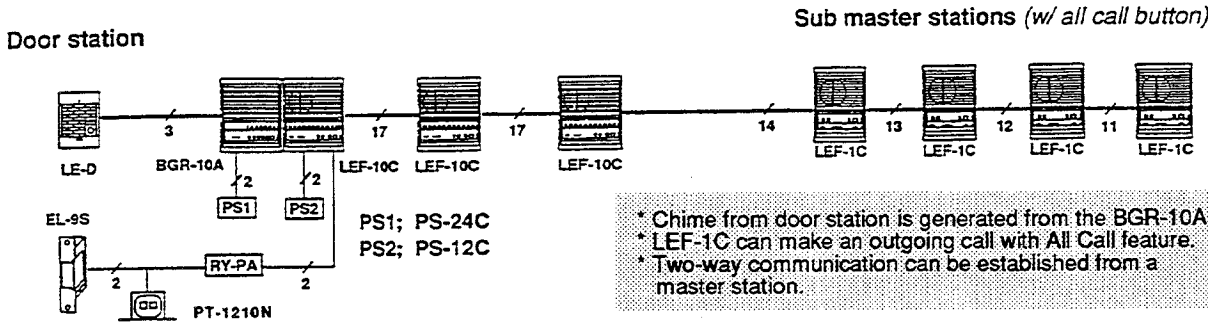



Back View

| | |
|---|---|
| 1 | for connecting to DA terminal(BGR-10A) |
| E | for connecting to E terminal(BGR-10A) |
| – | for connecting – terminal(BGR-10A)<br>(Remove a shorting link between E and –) |

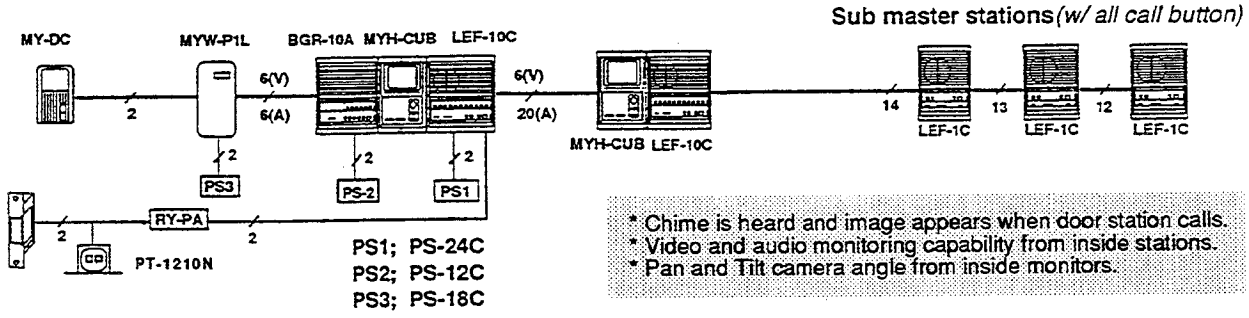
# 5 SYSTEM LAYOUT / WIRING DIAGRAMS

## 1 Basic audio system, with one audio door station



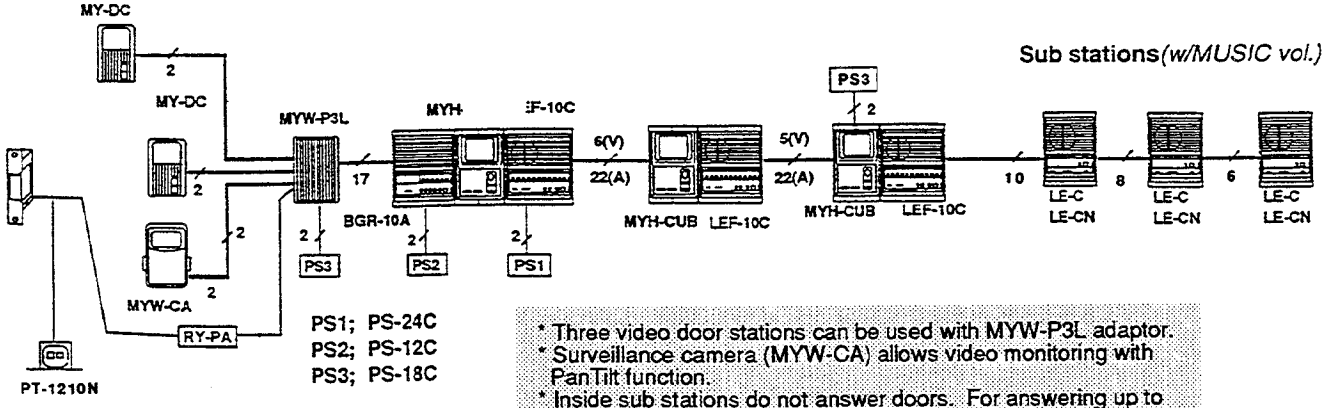

* Chime from door station is generated from the BGR-10A.
* LEF-1C can make an outgoing call with All Call feature.
* Two-way communication can be established from a master station.

## 2 Basic video system, with one video door station;




* Chime is heard and image appears when door station calls.
* Video and audio monitoring capability from inside stations.
* Pan and Tilt camera angle from inside monitors.

## 3 Expanded multi-station video system, with max. three video door stations;




* Three video door stations can be used with MYW-P3L adaptor.
* Surveillance camera (MYW-CA) allows video monitoring with Pan Tilt function.
* Inside sub stations do not answer doors. For answering up to three doors, use LEF-3C master stations.

## Wiring distance;

Between MY-DC and MYW-P1L, P3L;

| AWG | 22AWG | 18AWG |
|---|---|---|
| Distance | 165' | 330' |
| Diameter | 0.65mm | 1.0mm |
| Distance | 50m | 100m |

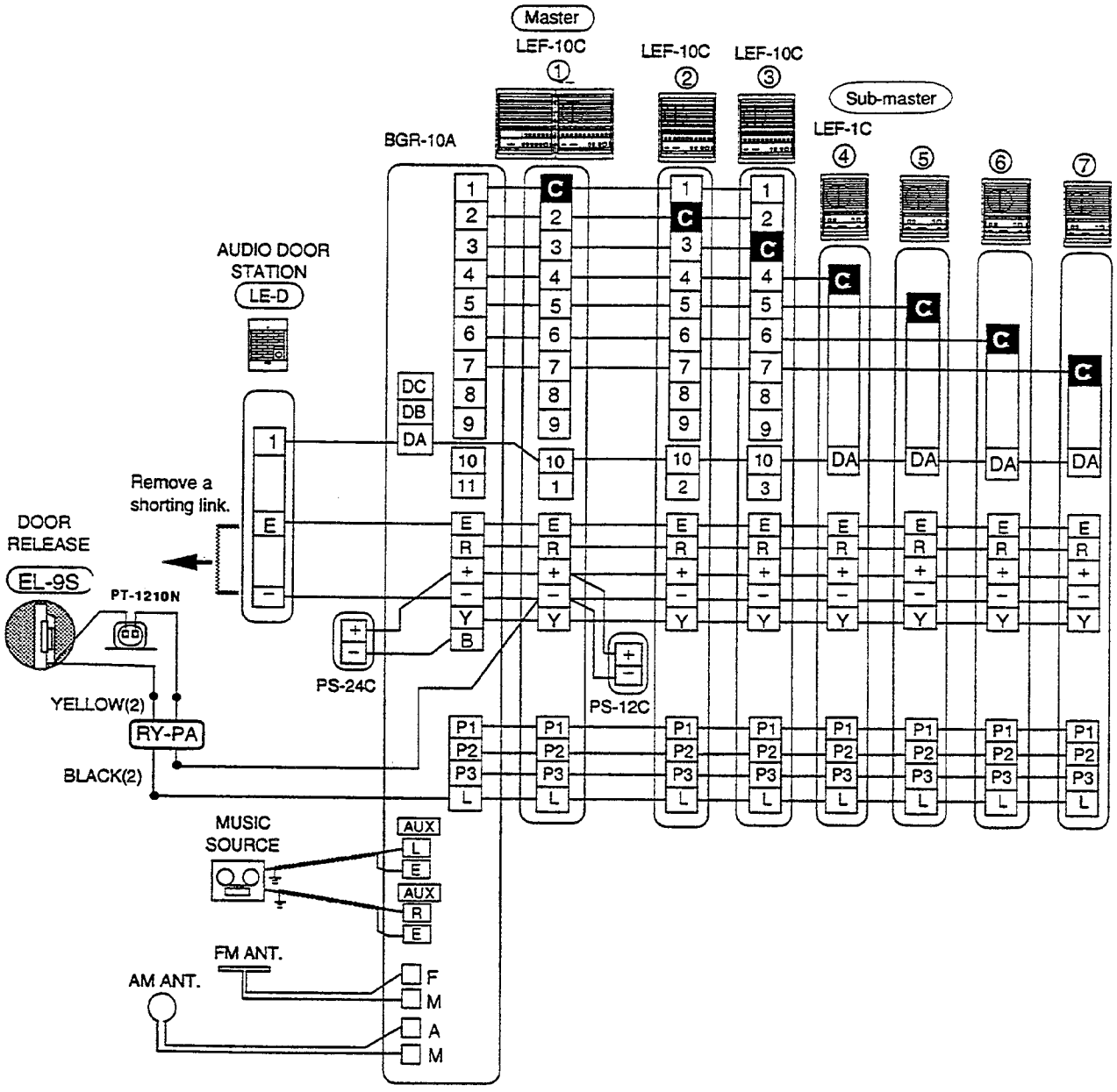
Between MYW-P1, 3L and PS-18C

| AWG | 18AWG |
|---|---|
| Distance | 16' |
| Diameter | 1.0mm |
| Distance | 5m |

Between MYW-P1, 3L and farthest MYH-CUB;

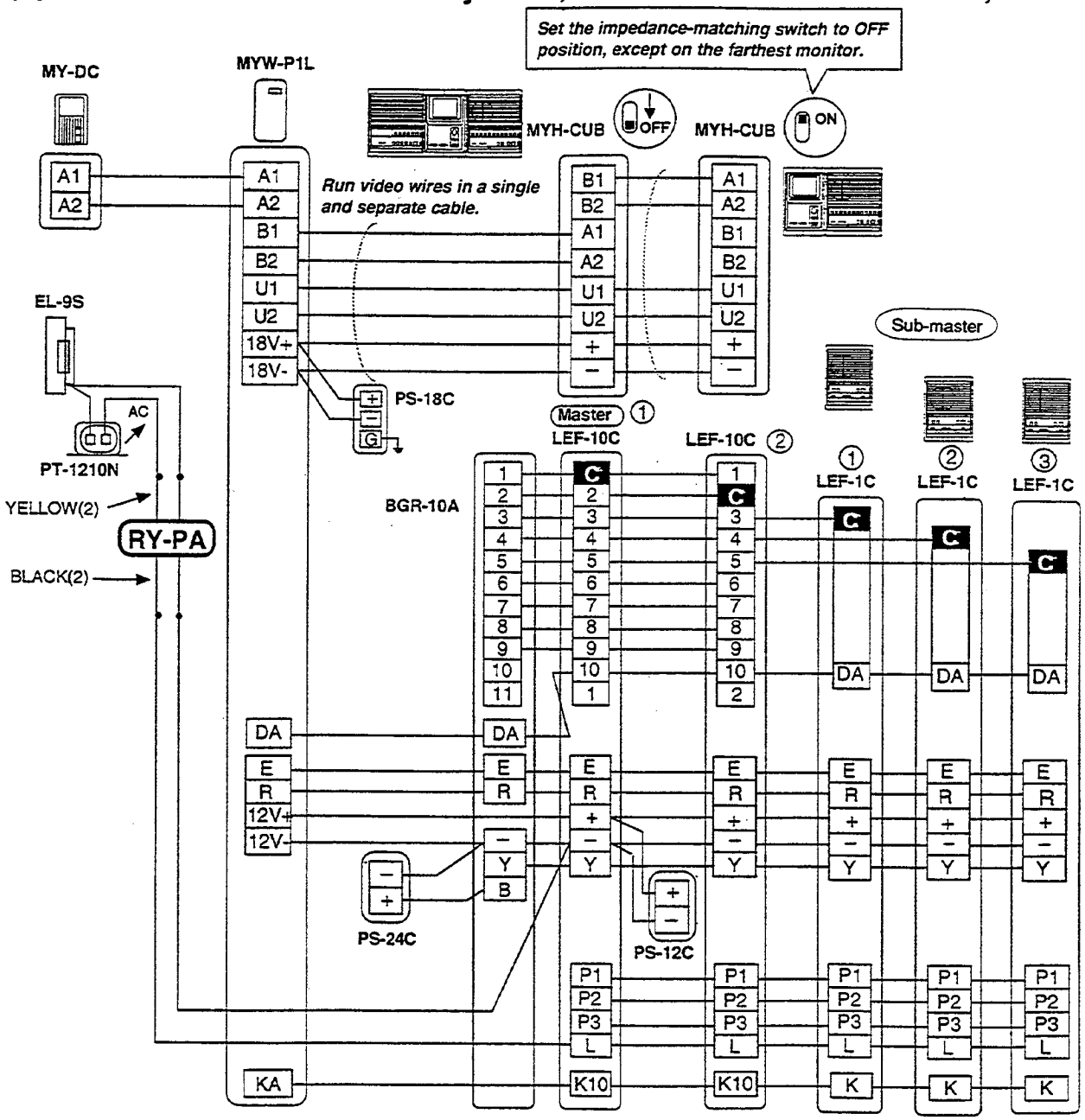
| | w/ 2 monitors | w/ 1 monitor |
|---|---|---|
| Distance/ diameter | 35m/ 1.0mm | 75m/ 1.0mm |
| Distance/ AWG | 115'/ 18AWG | 245'/ 18AWG |
| Wnen +, - wires are doubled; | 75m/ 1.0mm 245'/ 18AWG | — |

## (1) LEF-10C Music Center System, w/ one audio door station;




**The BGR-10A Music Control Center provides the All Call, Door Chime, and Radio features. For receiving a chime from the door and making an all call from the LEF-1C stations, the BGR-10A is required in the system.**

## (2) LEF-10C Music Center System, w/one video door station;




**The BGR-10A Music Control Center provides the All Call, Door Chime, and Radio features. For receiving a chime from the door and making an all call from the LEF-1C stations, the BGR-10A is required in the system.**

## 6 OPERATIONS

**(1) PLACING AN ALL CALL;**
Depress and hold down the ALL CALL button while making an announcement (Occupied light will turn on). Upon completion, simply release the button. To receive an answer back, another All Call can be made from a sub-master, or a master station can selectively call to the station that made the All Call.
*Note: By depressing OFF button, the system is in "standby" mode, and ready to accept another call. When the system is not in use, all OFF buttons should be de-pressed. Only the initiating master's OFF button should be up during communication.*

**(2) RECEIVING A CALL;**
When the station is not in "privacy" mode, simply respond hands free. To release the privacy button, depress the privacy button again.
When answering a call from the door, press the TALK button to talk, and release to listen. When finished, depress the OFF button.

**(3) VOLUME CONTROLS;**
Each station is equipped with voice volume and music volume controls. Adjust for desired volume at each station.

## 7 SPECIFICATIONS

Power source.....DC 12V. Use PS-12C.
Current consumption.....Maximum 300 mA per station
Power Output.....Maximum 800 mW at 20 ohms (reception)
Maximum 500 mW at 20 ohms (transmission)

LEF-1C dimensions.....8-1/4"H x 6-1/8"W x 1-3/8"D

Wiring requirements: Multi-conductor with an overall shield
From master.....

| | |
|---|---|
| Audio, All Call, and Music | 9 common conductors PLUS 1 conductor per station on loop |
| Plus Door Release | 10 common conductors PLUS 1 conductor per station on loop |
| Plus Video | 11 common conductors PLUS 1 conductor per station on loop |

*(i.e. If 5 LEF-1C stations are looped together on a system including door release, a 15 conductor cable is required.)*

Power supply.....2 conductor, 18AWG

Wiring Distance:
22AWG=650'
18AWG=1600'

## WARRANTY

Aiphone warrants its products to be free from defects of material and workmanship under normal use and service for a period of one year after delivery to the ultimate user and will repair free of charge or replace at no charge, should it become defective upon which examination shall disclose to be defective and under warranty. Aiphone reserves unto itself the sole right to make the final decision whether there is a defect in materials and/or workmanship; and whether or not the product is within the warranty.

This warranty shall not apply to any Aiphone product which has been subject to misuse, neglect, accident, or to use in violation of instructions furnished, nor extended to units which have been repaired or altered outside of the factory.

This warranty does not cover batteries or damage caused by batteries used in connection with the product.

This warranty covers bench repairs only, and any repairs must be made at the shop or place designated in writing by Aiphone. Aiphone will not be responsible for any costs incurred involving on site service calls.

Aiphone Co., Ltd., Nagoya, Japan
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**For Technical Assistance, call (206) 455-0510 between 6:30 a.m. and 5:00 p.m. Pacific Time. Or FAX us anytime at (800) 832-3765.**

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