



83081800 0993 ®

# MUSIC & CHIME ADAPTOR

Model;

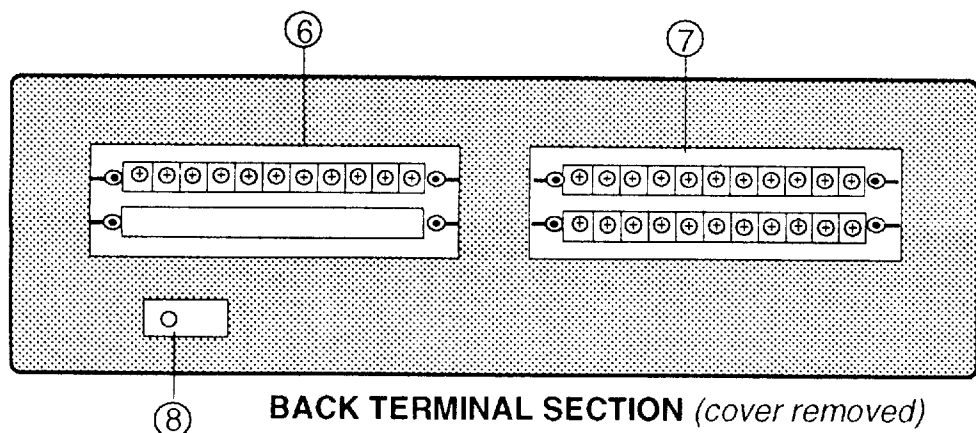
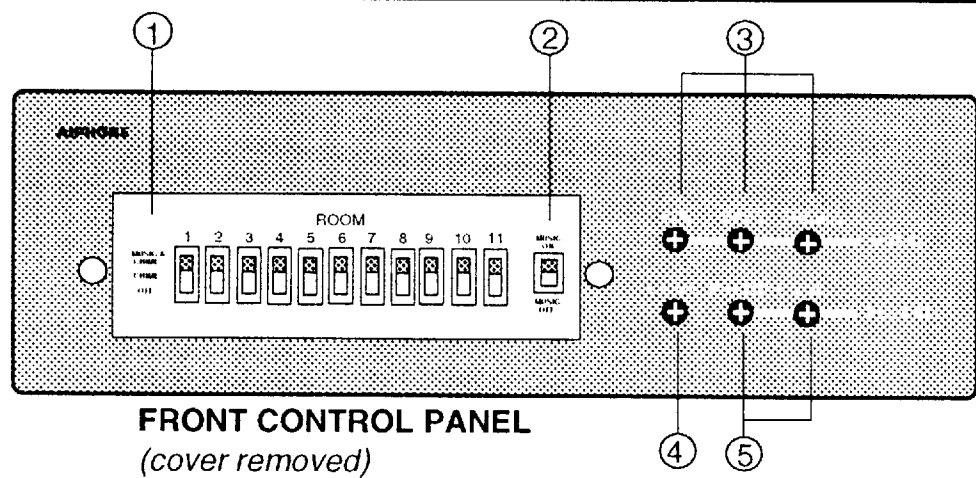
## BG-10C

(Music, All-call & Chime adaptor for LEF-C and LEF systems)

## INSTRUCTIONS

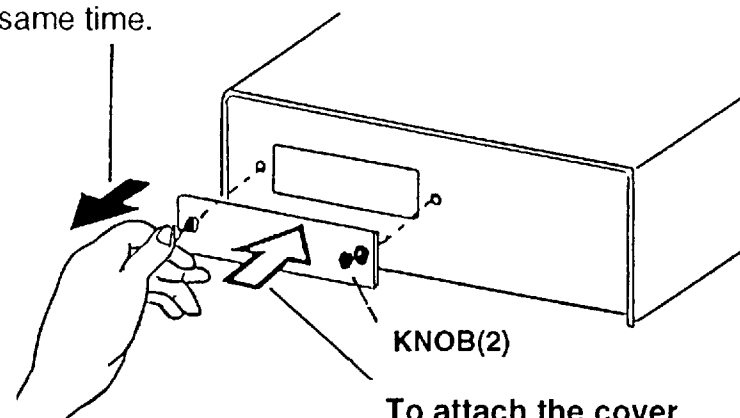
# 1

### NAMES AND FUNCTIONS



**To open the cover,**

pull the two knobs at the same time.



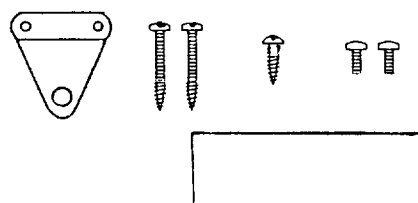
KNOB(2)

**To attach the cover,**

push the knob until it locks.

- ① Music & Chime selector switch
- ② Music ON/OFF switch
- ③ Music volume, Bass & Treble controls
- ④ Chime volume control
- ⑤ All-call Pretone volume and Speech volume controls
- ⑥ Terminals for power supply, music & door station connection
- ⑦ Terminals for LEF-C network (all call & music receiving)
- ⑧ Cable clamp

#### Mounting Accessories;



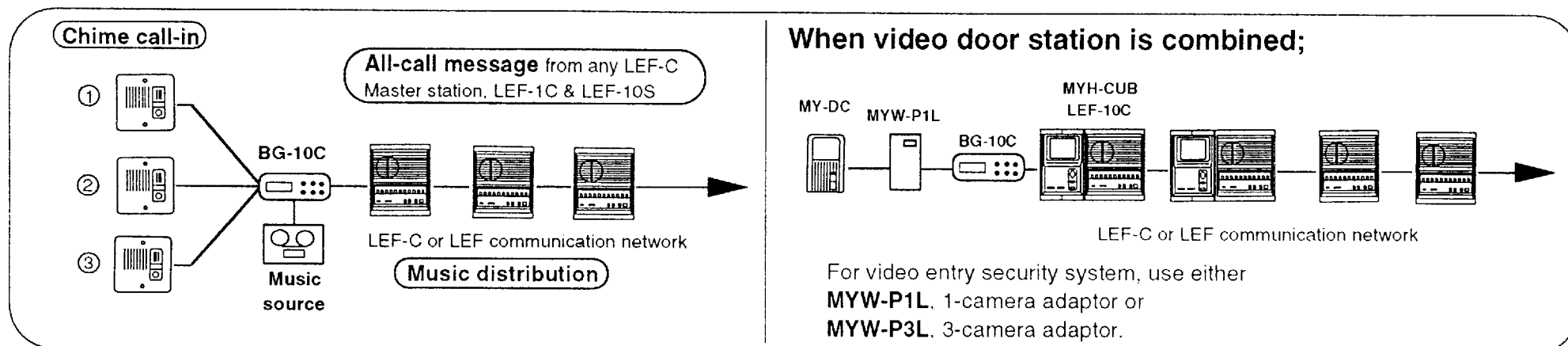
- \* Mounting bracket
- \* Operation seal(1)
- \* Wood screw(2)
- \* Wood screw & screw(2)  
(for attaching bracket)

# 2

### FEATURES

\* BG-10C adaptor provides three functions for your LEF or LEF-C communication system.

1. **All-call announcement** from any LEF-C Room master Station(& LEF-10S, surface-mount and LEF-1C sub master station)
2. **Music distribution** (all-call & music can be received at all masters & LEF-1C, LE-C, CN subs)
3. **Chime distribution** for door station call-in



# 3

## INSTALLATION GUIDELINES

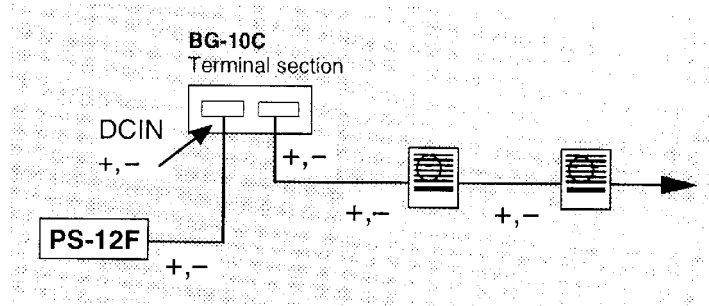
For installation of LEF-C intercom & MY video systems, refer to Instructions for LEF-C & BGR-10A. According to the system configuration, make wiring diagram between BG-10C and the first LEF-C station.

**\* BG-10C works with only 2-wired PanTilt MY video system.**

Coax-cabled camera adaptors MFW-P1 and MFW-P3B cannot be used with BG-10C.

**\* Power supply:**

Use one PS-12F power supply for an entire LEF-C and BG-10C adaptor.  
On BG-10C, connect +,- wires from PS-12F to DCIN +,- terminals, then extend power supply wires +,- to LEF-C network.



**\* Selector switches:**

On BG-10C unit, 11 selector switches are provided to turn on/off music & chime tone for each LEF-C Room Station. **After completing all the wirings, check if all MUSIC & CHIME selector switches are set properly.**

**\* Music input voltage to AUX:**

Rated input voltage to AUX terminal should not exceed 1V. If surpassed, it could cause sound distortion, intermittent transmission or unit failure.

**\* Do not open the case:**

Do not open the case while BG-10C is powered. Some components inside the unit are warm while operational.

**\* Surface temperature:**

During operation, it is possible that BG-10C's housing surface temperature could be warm to the touch. This a normal occurrence.

**\* Incorrect wiring:**

Strictly observe the wiring polarity. Never connect PS-12F +,- power supply wires to any other terminals than DCIN +,- on BG-10C. If PS-12F +,- wires are wrongly connected to 1 ~11 and E, or to P2 and P3 on BG-10C, it could cause system disorder and severe damage to BG-10C. If +,- wires on BG-10C would be connected to No.(1 ~ 10) terminals on LEF-C unit, it could cause damage to LEF-C unit.

**\* Door station calling:**

If a door station calls in while a unit is in the all-call mode, the chime will be heard through all of the stations, regardless of the position of each music/chime on/off switch.

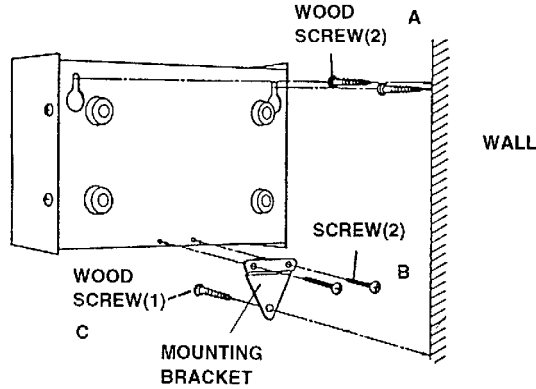
**\* Installation locations:**

Select the installation locations that would not be exposed to temperature/humidity extremes, water, oil, dust, iron dust, inflammable and chemical products, etc.

It is suggested that BG-10C unit and wiring be kept more than 2m(7') away from a radio, etc., as it may pick up chime call tone.

# 4

## MOUNTING GUIDELINES



Attach the mounting bracket with the two screws B (supplied) on back of chassis.

Fasten the two screws A(supplied) on the wall, with a space of 220 mm (8-5/8"), protruding approximately 10 mm (3/8") from the wall. Hook the BG-10C unit onto the screws and pull the unit downward until it locks in place. Pass wires through cable clamp. Connect wires on terminal section. Fix the mounting bracket with the wood screw C. Attach terminal cover.

Put an operation seal after mounting to wall or on the rack.  
(The operation seal is for terminal location reference only, and not for filling in ON/OFF mode.)

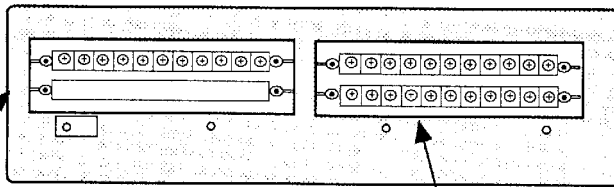
UnscREW at 2 points.

Move the cable clamp to a place more convenient, if required.

When cable is passed

# 5

## TERMINAL IDENTIFICATION



**BG-10C BACK VIEW**  
(cover is removed)

- DCIN +, - DC 12V input (for PS-12F power supply connection)
- AUX R, E Music source input
- AUX L, E Music source input
- DA, DB, DC Call signal output

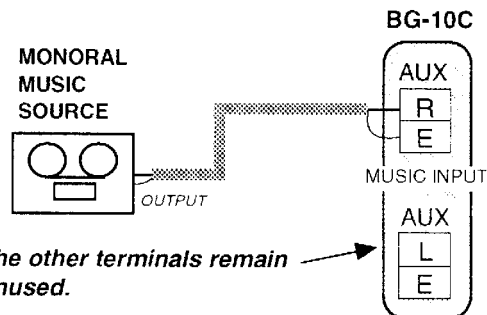
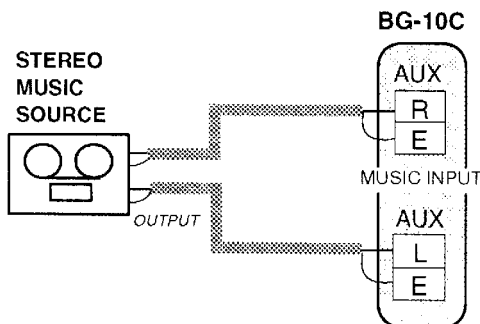
**Note:** For MONORAL output source connection, use terminals either AUX R, E or AUX L, E.

- 1 ~ 11 Music & all-call signal output to each station
- E Common communication
- Common negative
- Y Occupied mode control during all call
- R Occupied mode control
- P1 All call activation control
- P2, P3 All call communication input
- + , - DC 12V output (for LEF-C communication network)

# 6

## WIRING DIAGRAMS

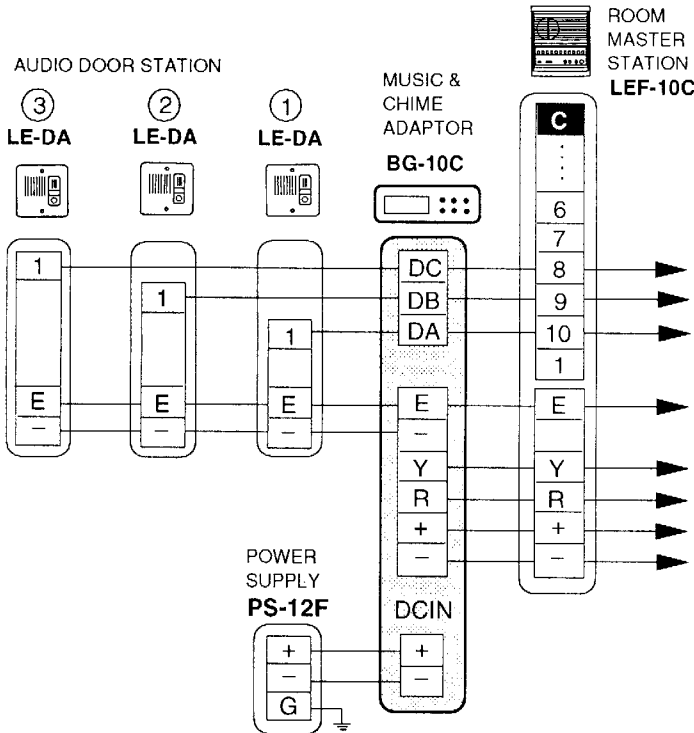
### 1. Music Source Connection;



# 6

## WIRING DIAGRAMS (continued)

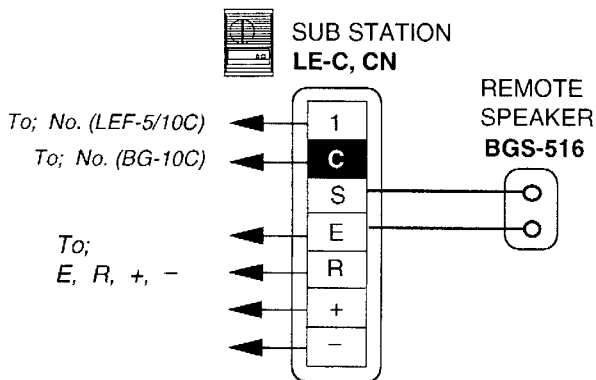
### 2. Door Station Connection;



#### NOTES;

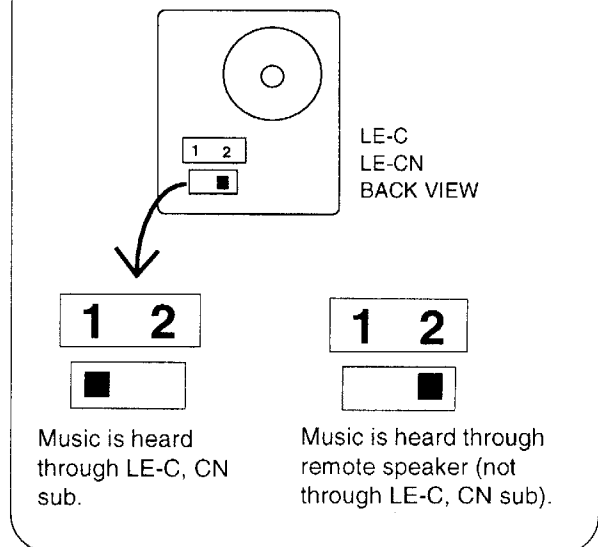
- 1 **Max. 3 door stations** can be connected to BG-10C & LEF-10C network.
- 2 Use LEF-C No. terminal for each door station;  
**DA - 10 for door #1**  
**DB - 9 for door #2**  
**DC - 8 for door #3**
- 3 Connect to **as many LEF-C room master stations as required** (limited only by system capacity) for door station chime call-in (*Chime is heard only when BG-10C is used*).

### 3. Music Speaker Connection



LE-C, CN sub station has C terminal, to be connected to BG-10C for music & all-call reception. If a remote speaker is installed for music reception at an LE-C/CN sub station, extend two wires from S, E terminals to remote speaker. (*communication and all call are still received through LE-C/CN speaker*)

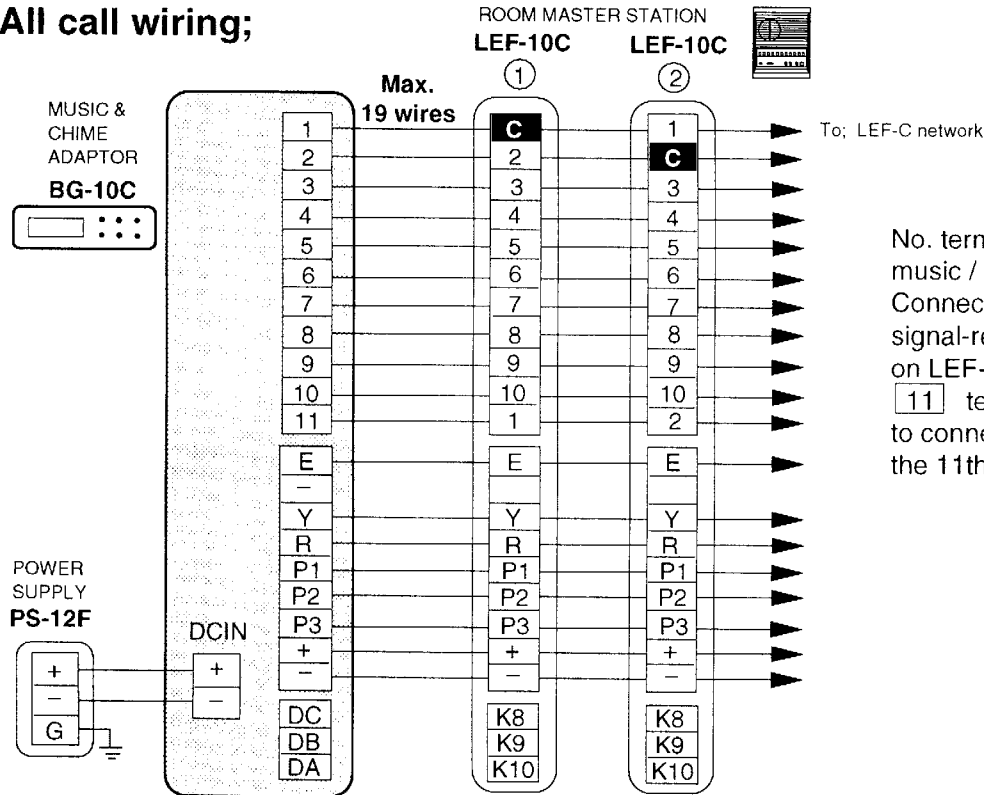
#### Speaker Switch Setting



# 6

## WIRING DIAGRAMS (continued)

### 4. All call wiring;

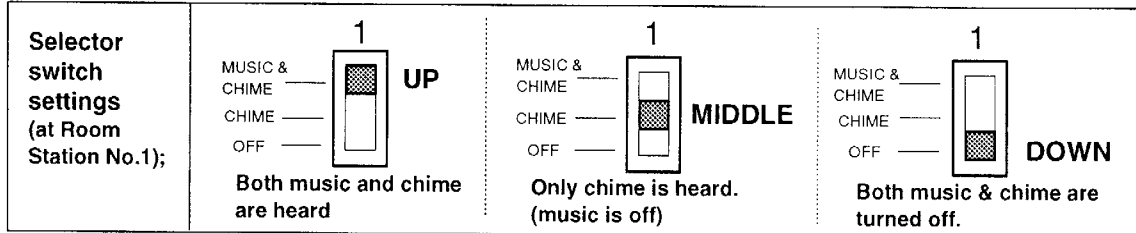


No. terminals 1 ~ 11 are for music / all-call voice signals. Connect each No. terminal to signal-receiving C terminal on LEF-C stations. **11** terminal on BG-10C is to connect to C terminal on the 11th station in the system.

## BG-10C OPERATIONAL SETTINGS;

### For music distribution;

- Put MUSIC switch to ON position. Turn on power of music source. Music is distributed through all of the connected LEF masters, LEF-1C sub master and LE-C/CN subs speakers. If music is not required at a particular station(s), set the MUSIC/CHIME selector switch to OFF or CHIME only position.

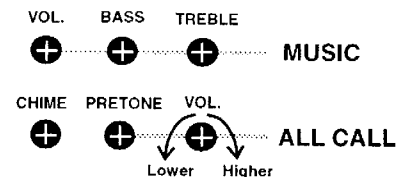


- Music mutes automatically during station-to-station communication or All call.
- Put MUSIC switch to OFF position to cut off music throughout the system.

### For all call;

Initiate all call at one LEF-C master station or at LEF-1C sub master station. Depress ALL CALL switch, which produces pre-tone through all of LEF masters, LEF-1C & LE-C/CN subs. Send message while depressing and holding TALK button. Depress ALL CALL switch, and the switch is released. (on LEF-1C only, press and keep pressing ALL CALL switch to send message)

Turn control clockwise to increase each volume, treble and bass.



- \* Do not initiate all call or any other operation, while Occupied LED is lit.
- \* During room-to-room communication, call in from door station is annunciated by chime tone. Terminate present communication by depressing OFF button. Then depress a corresponding number button with a lighted LED to reply to door station.

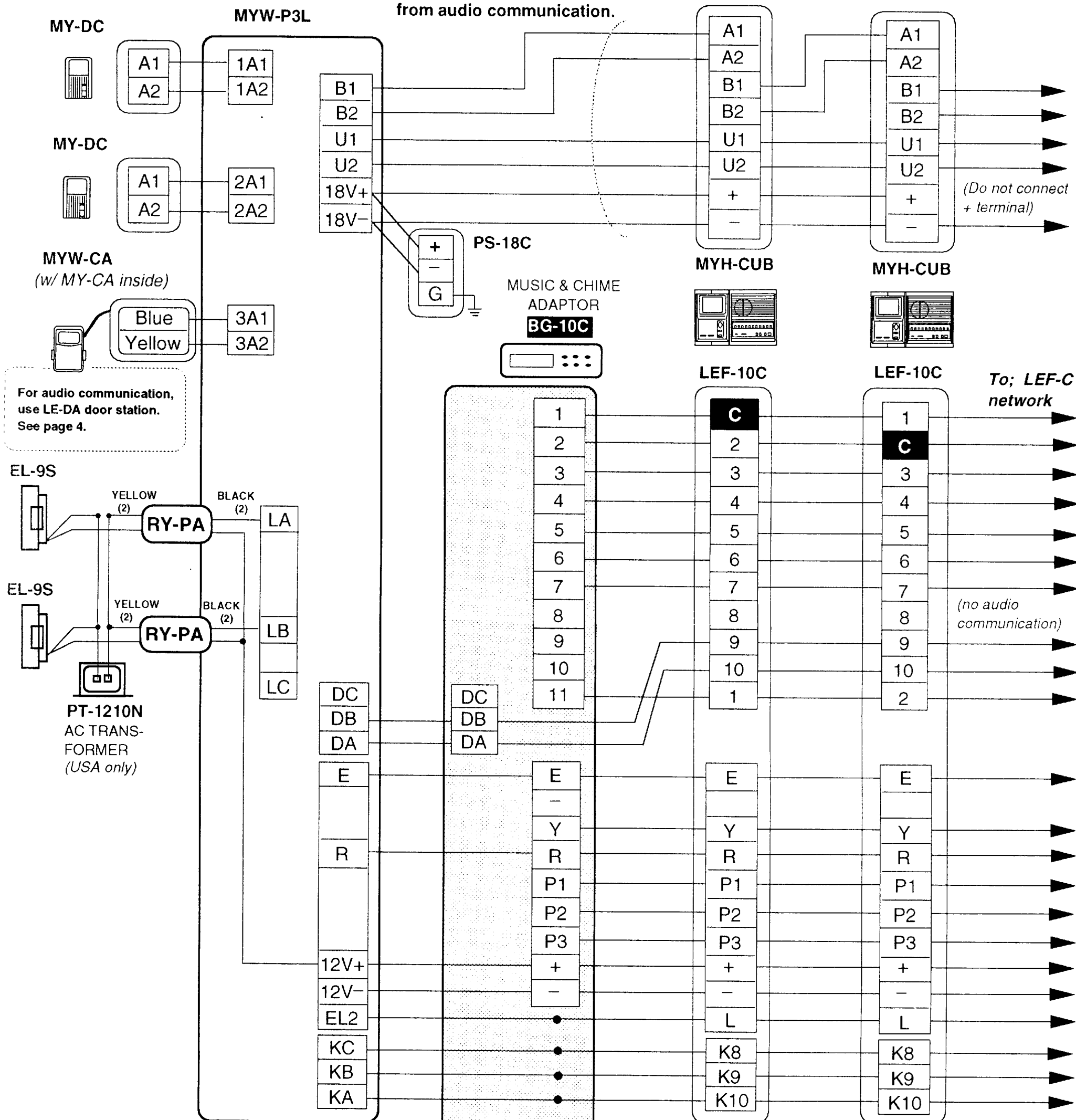


# 6

## WIRING DIAGRAMS (continued)

### 6. LEF-10C & 2-Entry plus Surveillance PanTilt MY Video System;

Run video wires in a separate sheath from audio communication.



**Door Station Terminal Correlations**

ENTRANCE	1	2	3
Door station	1A1, 1A2	2A1, 2A2	3A1, 3A2
Door release	LA, 12V+	LB, 12V+	LC, 12V+
Video control	KA	KB	KC
Chime activation	DA	DB	DC
Number terminal (LEF-C)	10	9	8

# 7 SPECIFICATIONS

* <b>Power source:</b>	<b>DC 12V.</b> Use <b>PS-12F</b> power supply for entire LEF-C system and BG-10C adaptor																																								
* <b>Current consumption:</b>	<b>Max. 1.5A</b> (music, chime & all-call) <b>Max. 2.5A</b> (music maximum output) <b>0.1A</b> (standby)																																								
* <b>All-call initiating station:</b>	From <b>LEF-3C, LEF-5C, LEF-10C and LEF-10S</b> (surface) master stations, and <b>LEF-1C</b> sub master station																																								
* <b>All-call receiving station:</b>	All master stations, and LEF-1C sub master & LE-C, CN sub stations																																								
* <b>No. of door stations:</b>	<b>Max. 3 door stations</b> (audio or audio /video)																																								
* <b>Maximum intercom stations:</b>	<b>11 stations</b> (room master + door station) in total																																								
* <b>Wiring:</b>	<b>19 wires</b> between BG-10C and LEF-10C (max. in all-master system w/11 LEF-10C) <b>3 wires</b> between BG-10C and each door station (max. 3 door stations per system) <b>7 wires</b> between BG-10C and MYW-P3L, 3-camera adaptor (when 3 video door stations are installed)																																								
* <b>Wiring distance:</b>	<p>* Between BG-10C and the farthest LEF;</p> <table border="1"> <tr> <td>AWG</td> <td>24AWG</td> <td>22AWG</td> <td>20AWG</td> <td>18AWG</td> </tr> <tr> <td>Distance</td> <td>300'</td> <td>500'</td> <td>750'</td> <td>1180'</td> </tr> <tr> <td>Diameter</td> <td>0.5mm</td> <td>0.65mm</td> <td>0.8mm</td> <td>1.0mm</td> </tr> <tr> <td>Distance</td> <td>90m</td> <td>150m</td> <td>230m</td> <td>360m</td> </tr> </table> <p>* Between door station and the farthest LEF-10C;</p> <table border="1"> <tr> <td>AWG</td> <td>24AWG</td> <td>22AWG</td> <td>20AWG</td> <td>18AWG</td> </tr> <tr> <td>Distance</td> <td>400'</td> <td>650'</td> <td>1000'</td> <td>1600'</td> </tr> <tr> <td>Diameter</td> <td>0.5mm</td> <td>0.65mm</td> <td>0.8mm</td> <td>1.0mm</td> </tr> <tr> <td>Distance</td> <td>120m</td> <td>200m</td> <td>300m</td> <td>480m</td> </tr> </table>	AWG	24AWG	22AWG	20AWG	18AWG	Distance	300'	500'	750'	1180'	Diameter	0.5mm	0.65mm	0.8mm	1.0mm	Distance	90m	150m	230m	360m	AWG	24AWG	22AWG	20AWG	18AWG	Distance	400'	650'	1000'	1600'	Diameter	0.5mm	0.65mm	0.8mm	1.0mm	Distance	120m	200m	300m	480m
AWG	24AWG	22AWG	20AWG	18AWG																																					
Distance	300'	500'	750'	1180'																																					
Diameter	0.5mm	0.65mm	0.8mm	1.0mm																																					
Distance	90m	150m	230m	360m																																					
AWG	24AWG	22AWG	20AWG	18AWG																																					
Distance	400'	650'	1000'	1600'																																					
Diameter	0.5mm	0.65mm	0.8mm	1.0mm																																					
Distance	120m	200m	300m	480m																																					
* <b>Dimensions &amp; weight:</b> (H x W x D)	165 x 250 x 77mm; 6-1/2" x 10" x 3" Approximately 1,800g (3.97 lbs.)																																								

## 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  
Aiphone Corporation, Bellevue, WA, USA



COMMUNICATION SYSTEMS  
**AIPHONE**  
HOME, BUSINESS, INDUSTRY