



**Inside Stations - Select up to 2 units (optional)**



2 wires  
Aiphone  
#871802  
(Max. 33')

**PS-2420UL**  
Power Supply, 24V DC, 2A  
(One PS-2420UL per two video monitors)  
→ p.120

4 wires  
Aiphone  
#871802 x 2  
(Max. 330'  
between master  
and farthest sub)

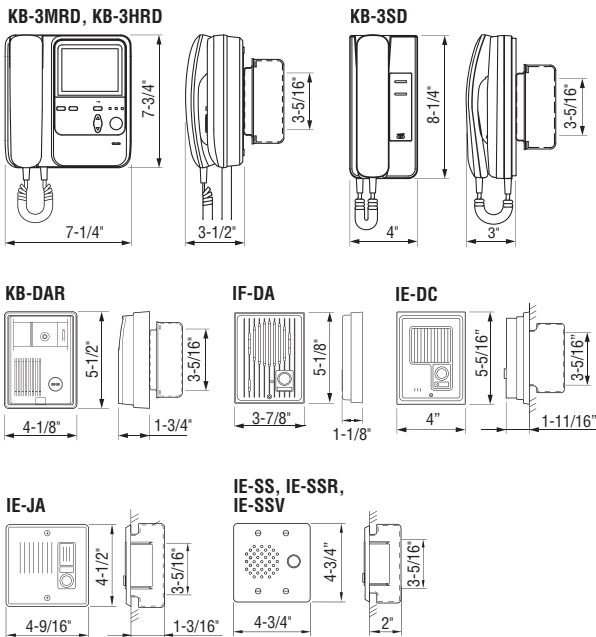
**Inside Stations - Select up to 2 units (optional)**



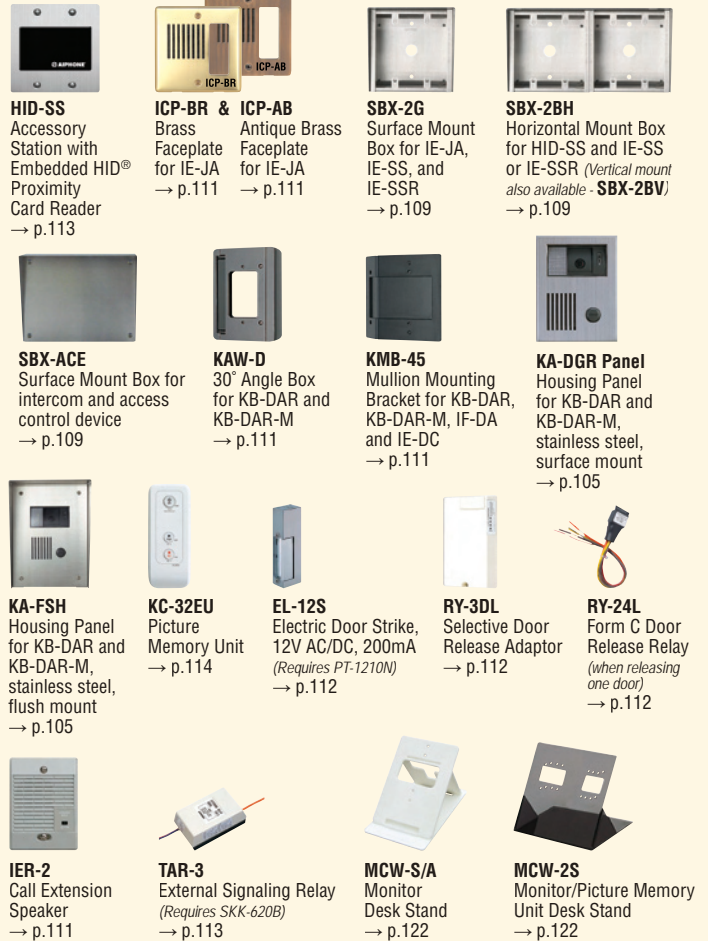
2 wires  
Aiphone  
#871802  
(Max. 33')

**PS-2420UL**  
Power Supply, 24V DC, 2A  
(One PS-2420UL per two video monitors)  
→ p.120

**Unit Dimensions**



**Options & Accessories**



**Specifications**

<b>Power Source</b>	24V DC - Use PS-2420UL
<b>Calling</b>	Chime, image and audio approx. 30 sec., hear and see door instantly
<b>Communication</b>	Pick up at any station to reply, 2-1/2 min. timed, recycle with MONITOR, monitor audio and image of door, hands-free with MONITOR, push a station selector and call by voice, the called station replies hands-free, lift handset, push All Call button to call the other stations with pre-tone and voice
<b>Video Monitor</b>	4" direct-view TFT color LCD
<b>Scanning Line</b>	525 lines
<b>Image View Area</b>	Approx. 2' horizontal, 3'8"~7'9" vertical at 4'3" high and at 20" in front of camera
<b>Night Viewing</b>	5 Lux at 1' distance with LED projected
<b>Door Release</b>	Contact rating: 12V AC, 400mA Use RY-24L for larger contact rating or RY-3DL for 2~3 doors
<b>Wiring</b>	Door to master: 2-cond., mid cap, solid, non-shielded Master to subs: 2x2-cond., mid cap, solid, non-shielded
<b>Distance</b>	Master to door: 330'(22AWG) 650'(18AWG) Master to farthest sub: 165'(22AWG) 330'(18AWG) Master to IER-2: 165'(22AWG) 330'(18AWG)
<b>Wire Type</b>	Aiphone #871802

Diagrams are for illustrative purposes only. System wiring may vary by installation. Refer to instructions for actual installation directions.

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# Access Control

## HID® Proximity Card Reader



**HID-SS**  
Accessory Station  
with embedded  
HID® Proximity  
Card Reader

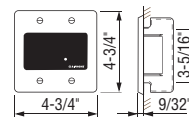
### Features

- 2-gang stainless steel unit containing an HID ProxPoint® Plus Card Reader
- Installs next to any one of Aiphone's 2-gang stainless steel door stations, creating a unified look
- Horizontal (SBX-2BH) and vertical (SBX-2BV) boxes are available for mounting the HID-SS with a 2-gang stainless steel door station
- May be used as a stand-alone card reader
- Provides electronic access to a building through the standard Access Control system (not supplied by Aiphone)

### Specifications

Power Source 5~16V DC  
Terminations Pigtail cable, 18" (45cm)  
Requirements 20mA avg., 75mA peak @ 12V DC

### HID-SS



### Used for:

AI-RS150, AI-RS160, AI-RS170, AI-RS180, AI-SSV, IE-JA, IE-SS, IE-SSR, IE-SSV, LE-DA, LE-SS, LE-SSR, LE-SSV, NE-JA, NE-SS, NE-SSR, and NE-SSV

## Access Control Keypads



**AC-10S**  
Access Control Keypad, zinc die cast to match JF-DV & JK-DV, surface mount



**AC-10F**  
Access Control Keypad, stainless steel, flush mount

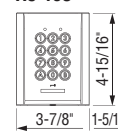
### Features

- Access control with up to 100 unique user codes
- Can be used as a stand-alone access control device
- Compact size in a stylized design
- 12-digit backlit keypad
- Matches JF-DV and JK-DV (AC-10S)
- Easy to install

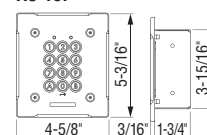
### Specifications

Power Source 12~24V AC/DC  
Output Rating 2 relays, N/O and N/C  
3A (resistive), 1A (inductive) @ 24V  
Dimensions **AC-10S:** 4-15/16"H x 3-7/8"W x 1-5/16"D  
**AC-10F:** 3-15/16"H x 3-1/3"W x 1-3/4"D

### AC-10S



### AC-10F



### Used for:

AX, JF and JK Series or Stand-alone

## XP Door Station Kit

### XP-KIT\*

Includes keypad (XRP3), programming cards, and 10 blank entry cards (XC4/9)



\* (1) XP-KIT is required per system

### Features

- Wireless programming allows user to easily add and remove credentials
- Different security levels can be assigned so individuals have appropriate access
- All credentials have a unique 9-digit ID number for organization and logging
- A blank log sheet template is included to document card ID numbers, authorized users, access level, as well as additional notes
- Additional proximity cards can be ordered (P/N 289950)

### Used for:

Programming the AX-DV-XP, AX-DVF-XP, JF-DVF-XP, and JK-DVF-XP embedded Stand-Alone Card Reader Door Stations.

# External Relays

## External Signaling Relays



**RY-AC/A**  
External Signaling Relay



**TAR-3**  
External Signaling Relay  
(Requires SKK-620B)



**SKK-620B**  
Power Supply, 6V DC

### Features (RY-AC/A)

- RY-AC/A allows external device to be triggered when intercom is called
- External device will be activated momentarily as long as the call button on the door station is activated
- DAK-2S required when used with C-123LA/LW and LEM/LEM-1DL

### Specifications (RY-AC/A)

Power Source 12V DC  
Relay Contact Rating 240V AC, 0.3A, 24V DC, 1A (bell, buzzer, chime, etc. must be AC operated or DC mechanical type only)

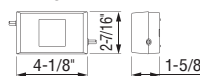
### Features (TAR-3)

- Allows integration of a doorbell to intercom
- Device will be activated as long as chime is ringing

### Specifications (TAR-3)

Power Source 6V DC - Use SKK-620B  
Relay Contact Rating 240V AC, 0.3A, 24V DC, 1A (bell, buzzer, chime, etc. must be AC operated or DC mechanical type only)

### RY-AC/A, TAR-3



### Used for:

C-123L/A, C-123LW, IE-8MD, LEF, LEM, and LEM-1DL, and TD-H/B

### Used for:

AT-406, DB Series, IE-1AD, IE-1GD, IE-2AD, IE-8MD, JA Series, JF Series, JK Series, KB Series, KC Series, and TC-M Series

# Picture Memory Unit

## Picture Memory Unit



**KC-32EU**  
Picture  
Memory Unit

**KC-1GRD**  
Master  
Station



**KC-32EU**  
Picture  
Memory Unit  
(Shown with KC-1GRD)

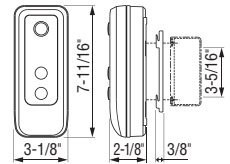
### Features

- 16 (single or quad view), 32 or 60 max. images - quad images may be viewed separately
- Easy add-on to existing or new system, color or black and white
- 16, 32 or 60 pictures can be saved for replay
- Max. of 8 pictures storable in memory
- Pictures in memory are not erased from power failure
- In 4-frame mode: 4 consecutive views of caller in 2 sec. intervals
- One KC-32EU per door station
- Must be used with master station
- 24V DC (color) power source

### Specifications

Power Source	24V DC, 160mA (color)
Wiring	2 parallel wires to door (non-polarized) 2 wires to master (polarized)
Distance	KC-32EU to door: Varies by system KC-32EU to master: 8"(22AWG) 16"(18AWG) KC-32EU to power supply: 33'(22AWG) 65'(16AWG)
Dimensions	7-11/16"H x 3-1/8"W x 2-1/8"D

### KC-32EU



**Used for:**  
KB-3MRD, KC-1GRD  
and KC-1MRD

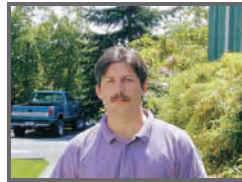
**NOTE:**  
KC-32EU is NOT  
compatible with the  
GF and GH Series

### Programming:

- Date and time position
- Date and time
- Save mode
- Automatic picture save
- Manual picture save (when viewing)
- Absence set
- Replay
- Store in memory
- Erase one or all pictures



16-picture  
(4-frame)  
save mode



16, 32 or 60-picture  
save mode



## Long Distance Adaptors

### Long Distance Adaptors for color video door stations



**JBW-BA**  
Long Distance Door  
Station Adaptor



**JKW-BA**  
Long Distance Door  
Station Adaptor

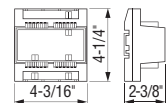
### Features

- Extends wiring distance to video monitors up to 980' max. (820' max. when used with JF Series)
- Functions with JA, JF, JK, and KC video door stations
- Requires low capacitance Aiphone cable #851602

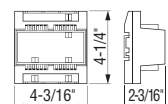
### Specifications

Power Source	<b>JBW-BA:</b> 18-24V DC <b>JKW-BA:</b> 18V DC
Capacity	One adaptor unit for each video door station located beyond the standard specified wire distance
Mounting	Use W-DIN11
Dimensions	4-1/4"H x 4-3/16"W x 2-3/8"D (JBW-BA) 2-3/16"D (JKW-BA)
Distance	<b>JBW-BA:</b> 820' (JF Series), 980' (JA & KC Series) <b>JKW-BA to Door:</b> 650' (JK Series) <b>JKW-BA to last monitor:</b> 330' (JK Series)
Wire Type	Aiphone #851602 or #851602DB (direct burial)

### JBW-BA



### JKW-BA



**Used for:**  
**JBW-BA -**  
JA Series, JF Series,  
and KC Series  
**JKW-BA -** JK Series



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# UL Listed Class 2 Power Supplies and Transformers

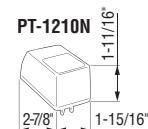
## AC Transformer – 12V AC



**PT-1210N**  
AC Transformer,  
12V AC

### Specifications

Model PT-1210N  
Input Voltage 120V AC, 60Hz  
Output Voltage 12V AC, 10VA, 830mA



**Used for:**  
CCS-1A, EL-12S, IE-8MD,  
LEM-1DL, and LDC

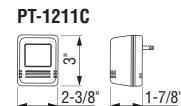
## AC Transformer – 15V AC



**PT-1211C**  
AC Transformer,  
15V AC

### Specifications

Model PT-1211C  
Input Voltage 120V AC, 60Hz  
Output Voltage 15V AC



**Used for:**  
DA-1DS and DA-4DS,  
DB-1MD, DB-1SD

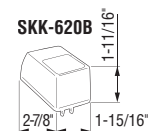
## Power Supply – 6V DC



**SKK-620B**  
Power Supply,  
6V DC

### Specifications

Model SKK-620B  
Input Voltage 120V AC, 60Hz  
Output Voltage 6V DC, 200mA



**Used for:**  
AT-406, C-123L/A, C-123LW,  
LEM, and TAR-3

## Power Supplies – 12V DC



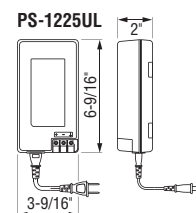
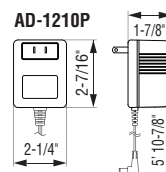
**AD-1210P**  
Power Supply,  
12V DC, 1A



**PS-1225UL**  
Power Supply,  
12V DC, 2.5A

### Specifications (PS-1225UL)

Model PS-1225UL  
Input Voltage 100~240V AC,  
50/60Hz,  
37W, 65-82VA  
Output Voltage 12V DC, 2.5A



### Specifications (AD-1210P)

Model AD-1210P  
Input Voltage 120V AC, 60Hz  
Output Voltage 12V DC, 1A

**Used for:**  
**AD-1210P** – AN Series  
**PS-1225UL** – LEF and LEF-C, MP-S,  
TB-AD10, TD-H/B, and NEW-5

Accessories

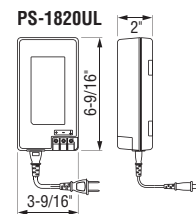
## Power Supply – 18V DC



**PS-1820UL**  
Power Supply,  
18V DC, 2A

### Specifications

Model PS-1820UL  
Input Voltage 100~240V AC,  
50/60Hz,  
45W, 75-95VA  
Output Voltage 18V DC, 2A



**Used for:**  
JF Series, JK Series, and TC-M Series

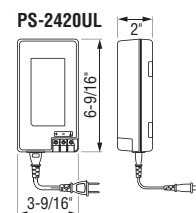
## Power Supply – 24V DC



**PS-2420UL**  
Power Supply,  
24V DC, 2A

### Specifications

Model PS-2420UL  
Input Voltage 100~240V AC,  
50/60Hz, 60W,  
100~125VA  
Output Voltage 24V DC, 2A



**Used for:**  
AX Series, GF Series,  
GH Series, IM Series, JA Series  
**KB Series**, KC Series, MC-60/4A Series,  
NDR Series, NEM Series, NHX Series, and YAZ



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# Surge Arrestor

## Surge Arrestor

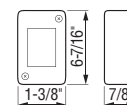


**SA-1**  
Surge  
Arrestor

### Features

- A surge arrestor designed to protect Aiphone intercom systems from damage due to power surges and lightning strikes
- Can be used to protect power inputs to all Aiphone DC powered systems and intercom circuits by dispersing surges on the station wires
- Each SA-1 will protect two intercom station wires and discharge up to 180V of surge voltage

### SA-1



### Used for:

AP-M, C-123L/A, CCS-1A, GF Series, IE Series, KB Series, KC Series, LEF, LEM, MC-60/4A, MP-S, NEM, and Power Supplies

# Miscellaneous Accessories

## All Call, Music & Chime Adaptor

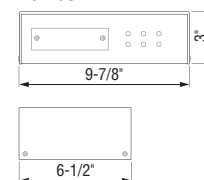


**BG-10C**  
All Call, Music  
and Chime Adaptor  
(1 BG-10C is required  
for every 11 stations)

### Features

- Music ON/OFF switch plus music and chime selector switch for each station
- Chime volume control plus music, bass and treble controls
- All Call pre-tone volume and speech volume controls
- Terminals for power supply, music and door station connection and LEF-C network (All Call and music receiving)
- Provides All Call and door chime for LEF-C and LEF-10S systems
- Background music input

### BG-10C



### Specifications

Power Source	12V DC, 2.5A (music max. output), 1.5A (All Call, music and chime), 0.1A (standby)
All Call Transmit	From LEF-1C, LEF-3C, LEF-5C, LEF-10C, LEF-10S, LAF-nC and LDF-nC (11 station output per BG-10C)
All Call Receive	All LEF master stations plus LE-C and LE-CN
BGM Input	AUX R, E and AUX L, E
Controls	Music ON/OFF, 11 selector switches of music and chime (chime only or off)
Wiring	BG-10C to LEF-10C: 19 wires max. To each LE-D or LE-DA: 3 wires
Wire Type	Aiphone #822220

### Used for:

LEF and LEF-C Series

## Motion Detector Adaptor for video door station(s)



**MKW-DK/A**  
Motion Detector  
Adaptor for video  
door station(s)

### Features

- For enhanced security with Aiphone video entry systems, a standard motion detector (with N/O contacts) can be used to activate the camera automatically
- The MKW-DK/A can be used with JA, JF, and KC Series
- Connects to motion detector or remote activation device
- Small enough to be concealed behind the video door station (with the KB system use the KB-DAR-M)
- Only wiring needed is from the motion detector to the camera location

### Used for:

JA, JF, and KC Series

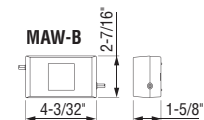
## Auxiliary Light Control Relay



**MAW-B**  
Auxiliary Light  
Control Relay

### Features

- Used for turning on an auxiliary light to spotlight a caller at the entrance
- Light is illuminated when the door call button is pushed and during visual monitoring mode



### Specifications

Power Source	24V DC - Use PS-2420UL of system
Contact Rating	Dry closure contact for incandescent light for general lighting of less than 100W

### Used for:

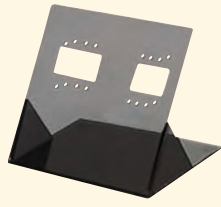
KB-3MRD  
and GF-DA

# Miscellaneous Accessories (continued)

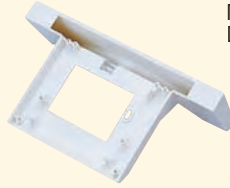
## Desk Stands



**MCW-S/A**  
Monitor  
Desk  
Stand



**MCW-2S**  
Monitor/Picture  
Memory Unit  
Desk Stand

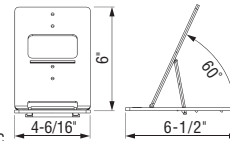


**GFW-S**  
Desk  
Stand

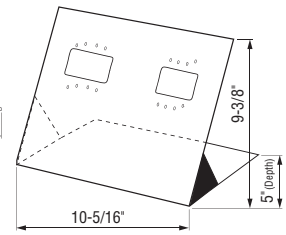
### Features

- Allows desk mounting of monitor and/or handset
- Monitor and/or handset is propped up for easier viewing
- Pre-drilled mounting holes
- MCW-S/A is made of ABS plastic
- MCW-2S is made of plexiglass
- Adjustable to 45° or 60° angles (MCW-S/A)

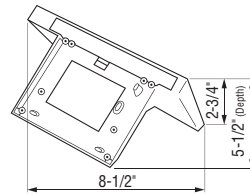
**MCW-S/A**



**MCW-2S**



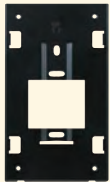
**GFW-S**



### Used for:

**MCW-S/A** – AX-8M, AX-8MV, AX-8MV-W, DB-1MD, DB-1SD, GH-1KD, JA-2MCD, JA-2MECD, JF-2MED, JF-2HD, JK-1MD, JK-1HD, JK-1MED, **KB-3MRD, KB-3HRD**, KC-1GRD, KC-1HRD, KC-1MRD  
**MCW-2S** – KB and KC monitors with KC-32EU, and TD-H/B Video  
**GFW-S** – GF-MK and GH-MK

## Mounting Plates



**MKW-P**  
Mounting  
Plate, 1-gang



**DAW-P**  
Mounting  
Plate, 1-gang

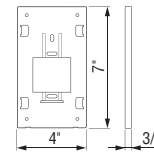
### Features

- Hardware included
- Adapts surface mount door stations to standard 1-gang box or ring

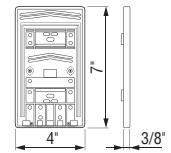
### Used for:

**MKW-P** – JF-DV and JK-DV  
**DAW-P** – DA-1DS, DA-2DS, and DA-4DS

**MKW-P**



**DAW-P**



## Dual Master Adaptor Kit



**DAK-2S**  
Dual Master  
Adaptor Kit

### Features

- Allows second master station to be used in C-123L/A, LEM and MP-S systems
- Allows RY-AC/A to be used for external signaling in C-123L/A, LEM and MP-S systems
- Two component modules per kit
- Included with the C-123LW and C-ML/A

### Used for:

C-ML/A, LEM-1DL, MP-1S, and MP-3S

## Gooseneck Microphone & Acoustic Tube

**IME-100**  
Gooseneck  
Microphone



**IAX-100**  
Acoustic Tube  
Extension, 33"



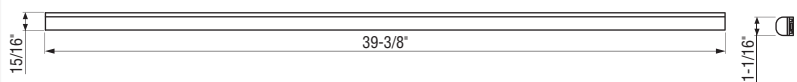
### Specifications (IME-100)

Microphone Condenser microphone, omni-directional  
 Input Sensitivity -46dB  
 Weight Approx. 190g (0.42lbs.)

**IME-100**



**IAX-100**



### Specifications (IAX-100)

Housing Aluminum  
 Weight Approx. 650g (1.43lbs.)

### Used for:

IM Series

## Optional Microphone & Sensor



**IME-150**  
Optional  
Microphone



**ISE-100**  
Proximity  
Sensor

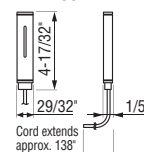
### Specifications (IME-150)

Microphone Condenser microphone, omni-directional  
 Housing Aluminum  
 Weight Approx. 150g (0.31lbs.)  
 Wire Aiphone #821802

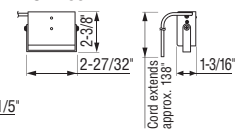
### Specifications (ISE-100)

Power Source 24V DC - supplied by IMU-100  
 Housing Aluminum  
 Weight Approx. 120g (0.26lbs.)  
 Wire Aiphone #821802

**IME-150**



**ISE-100**



### Used for:

IM Series



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# WIRE BY STOCK NUMBER

STOCK #	LENGTH	AWG	DESCRIPTION	INSULATION	CAPACITANCE	LOOP RES.
81220550C	500'	22	5 conductor, non-shielded	PVC	23.60 pf/ft	17.50 ohm
81221050C	500'	22	10 conductor, non-shielded	PVC	23.60 pf/ft	17.50 ohm
81221650C	500'	22	16 conductor, non-shielded	PVC	23.60 pf/ft	17.50 ohm
82180210C	1000'	18	2 conductor, overall shield	PVC	47.00 pf/ft	6.92 ohm
82180310C	1000'	18	3 conductor, overall shield	PVC	47.00 pf/ft	6.92 ohm
82220250C	500'	22	2 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82220210C	1000'	22	2 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82220350C	500'	22	3 conductor, overall shield	PVC	44.62 pf/ft	17.50 ohm
82220650C	500'	22	6 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82221050C	500'	22	10 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82221250C	500'	22	12 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82221550C	500'	22	15 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
82222050C	500'	22	20 conductor, overall shield	PVC	44.65 pf/ft	17.50 ohm
83220410C	1000'	22	2 twisted pair, non-shielded	PVC	23.60 pf/ft	17.50 ohm
85160210C	1000'	16	2 conductor, low cap, PE, solid, non-shielded	PE	12.50 pf/ft	4.02 ohm
851602DB10C	1000'	16	2 conductor, low cap, PE, solid, non-shielded, direct burial	PE	12.50 pf/ft	4.00 ohm
85220710C	1000'	22	7 conductor, low cap, PE, non-shielded	PE	16.50 pf/ft	17.50 ohm
86220810C	1000'	22	4 twisted pair, low cap, PE, overall shield	PE	15.28 pf/ft	10.15 ohm
86221025C	250'	22	5 twisted pair, low cap, PE, overall shield	PE	15.28 pf/ft	10.15 ohm
87180250C	500'	18	2 conductor, low cap, PE, solid, non-shielded	PE	11.05 pf/ft	6.39 ohm
87180210C	1000'	18	2 conductor, low cap, PE, solid, non-shielded	PE	11.05 pf/ft	6.39 ohm
871802P10C	1000'	18	2 conductor, low cap, PVC, solid, non-shielded, plenum rated	FEP	13.00 pf/ft	6.52 ohm
87180450C	500'	18	4 conductor, Low cap, PE, solid, non-shielded	PE	13.60 pf/ft	6.39 ohm
87180650C	500'	18	6 conductor, Low cap, PE, solid, non-shielded	PE	13.60 pf/ft	6.39 ohm
87200250C	500'	20	2 conductor, Mid cap, PE, solid, non-shielded	PE	20.96 pf/ft	10.15 ohm
87200210C	1000'	20	2 conductor, Mid cap, PE, solid, non-shielded	PE	20.96 pf/ft	10.15 ohm

### WIRE NUMBER CODING:

1st digit: **8** = Aiphone approved wire

2nd digit: Type of Wire → **1** = non-shielded      **5** = low capacitance  
**2** = shielded      **6** = twisted pair/shielded  
**3** = twisted pair      **7** = solid PE, mid/low capacitance

3rd & 4th digits: Gauge → **22** = 22 AWG    **20** = 20 AWG    **18** = 18 AWG    **16** = 16 AWG

5th & 6th digits: Number of conductors → **02** = 2 conductors    **12** = 12 conductors

7th & 8th digits: Length of wire → **10** = 1,000' box    **50** = 500' box    **25** = 250' box

9th digit: "C" indicates new wire

DB = direct burial

P = plenum

#### WIRE NUMBER CODING EXAMPLE:

1st: Aiphone Approved	2nd: TYPE - Shielded	3rd & 4th: GAUGE - 22 AWG	5th & 6th: CONDUCTORS 02=2 Conductors	7th & 8th: WIRE LENGTH 10=1,000' Box	9th: "C" is New Wire
<b>8</b>	<b>2</b>	<b>22</b>	<b>02</b>	<b>10</b>	<b>C</b>

### WIRE INFORMATION

All wire is stranded unless otherwise indicated.

All wires have a gray jacket.

All wire meets the following standards: UL, C(UL), UL 444, CA Fire Marshal

**Contact Aiphone for current pricing.**

**USING AIPHONE WIRE EXTENDS YOUR AIPHONE PRODUCT WARRANTY BY ONE YEAR.**