CO Input   **Chime**   **Unlock Door**   **Intercom**   **Power**   **Phones**

Ring

Strike Active

12VAC

Intercom Active

* or #
No CO
3/5 mg
1 2 3
Strike Time

Model P-0920

CHANNEL VISION™

TELEPHONE ENTRY CONTROLLER

CO Input

Telephones

P-0920
Telephone Entry Controller

CHANNEL VISION™

• Intelligent Entertainment • Infrastructure • Security Solutions

The **P-0920** is a telephone entry controller that works with Channel Vision's IU and DP series door stations to create an elegant door intercom system. When the door station button is pressed, the phones will ring. Simply answer the phone and you will be able to speak to the person at the door.

Features:

! Distinctive telephone ring
! LED status indicators
! RJ-45 connections for input and output

Phone line in from the service provider CO (Central Office).

Dry contact that closes when the doorbell button is pressed.

Connect a standard push-button. When the button is pressed the door strike relay will be activated.
Note: TE110DS is sold separately.

Connect a compatible door intercom station.

Orange Terminal - Connect 12VAC power supply

Output to telephones.
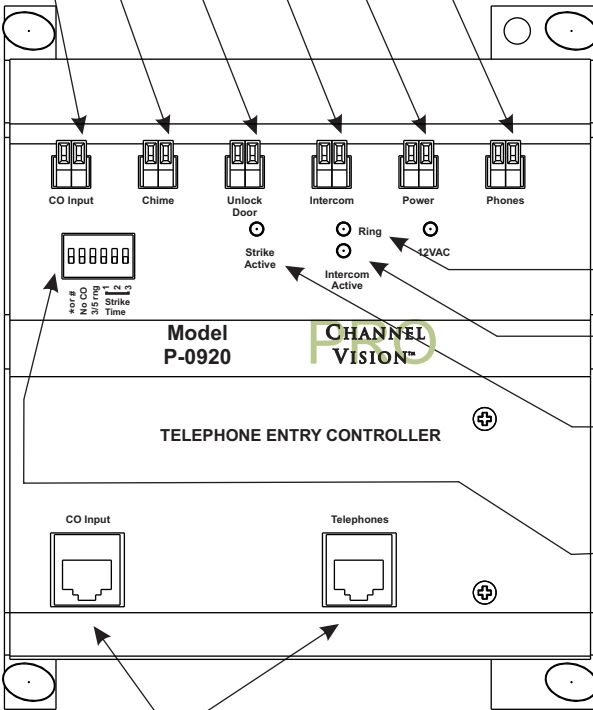
WARNING!
Power should only be applied to the orange power terminal.
If power is applied to other inputs, the resulting damage is not covered under warranty.

CO Input   Chime   Unlock Door   Intercom   Power   Phones

Strike Active   Ring   Intercom Active   12VAC

* or #
No CO
3/5/7 rng
1
2
3
Strike Time

Model P-0920

PRO
CHANNEL VISION™

TELEPHONE ENTRY CONTROLLER

Ring LED
Flashes when phones ring.

Intercom Active LED
Lights when door intercom station is in use.

Strike Active LED
Lights when the door strike relay has been activated.

Configuration switches (see basic setup).

CO Input   Telephones

RJ-45 input for CO lines and output to Telephones.
These allow pass-through of 4 telephone lines.
Note: only line 1 is affected by the telephone entry controller.
Important: The RJ-45 input and output cannot be used if there is a CO line connected to the wire terminal input.

2

Compatibility

The P-0920 must be used together with a compatible door intercom station. Channel Vision offers a variety of compatible units such as the popular IU-series and DP-series intercom stations. Example: model DP-0212 is compatible.

Important Exceptions:
Channel Vision offers some IU-series and DP-series intercom stations that are only compatible with Panasonic KSU phone systems. These model numbers, which end with the letter "P", will NOT WORK. Example: model DP-0212**P** is NOT COMPATIBLE.

How it Works

The P-0920 is installed in-line between your telephone service provider and your telephone distribution system. A compatible door intercom station is installed and connected to the P-0920. When the door intercom's button is pressed, the phones in the house will ring. If the phone is answered within 20 seconds you will be automatically connected to door intercom station. If you wish to contact the door intercom station after 20 seconds has passed, pick up the phone and dial ** (or ## depending your configuration).

If you are using the optional TE110DS door strike relay module, it can be activated by dialing the appropriate touch-tone code (see the user's guide section) or by pressing a button that is connected to the "Unlock Door" terminals. You can use the "Unlock Door" terminals If you would like to open an access gate from outside of the house without using a telephone. Simply wire a standard push button to these terminals that will provide a momentary short when the button is pressed.

Use the "Chime" terminals if you would like to use a traditional doorbell chime in addition to ringing the telephones when the door intercom button is pressed.

Wiring Options

For convenience, there are two different ways to connect the active phone line input and telephone output.
Option 1: connect the active phone using a single pair of wires to the wire terminals labeled "CO Input". Then connect a single pair of wires to the wire terminals labeled "Telephone" and connect the other end of those wires to your telephone distribution wiring system.
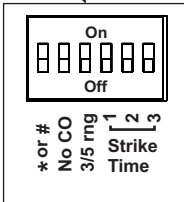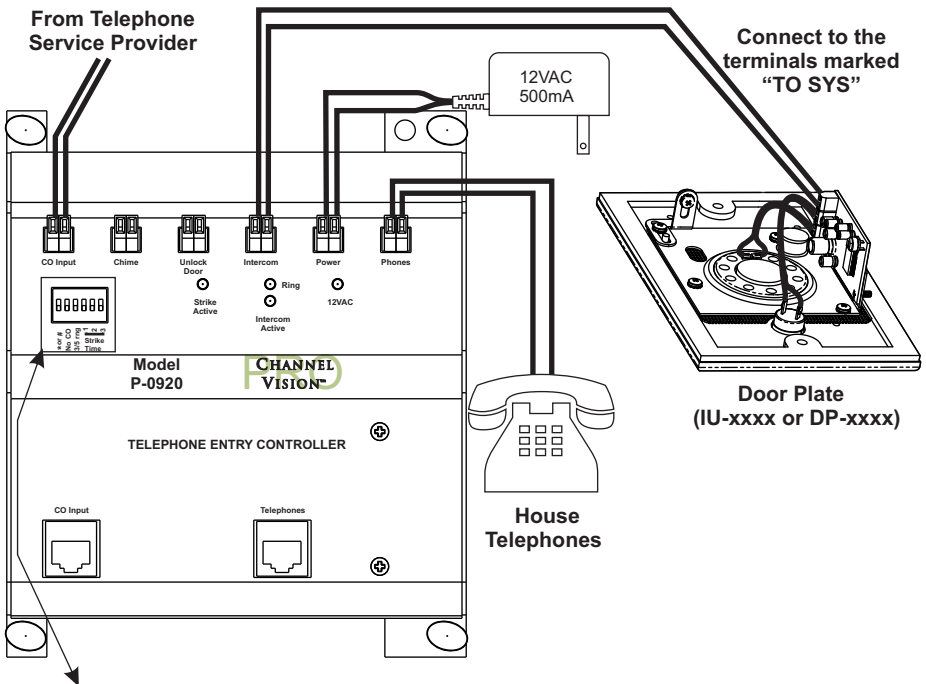Option 2: use the RJ-45 jacks to connect the "CO Input" and "Telephone" output. This option simplifies wiring because CAT5 jumper cables can be used to interconnect the P-0920 with other Channel Vision telephone modules.

Basic Application

For proper operation, the system must be connected as shown. If telephones are connected directly to the telephone service provider, those telephones will not be able to utilize the entry system.

This system uses a 12 Volt AC power supply. Make sure you use the power supply provided with the unit (or an equivalent replacement). If a DC power supply is used, the system may appear to work normally, but it will not be able to ring the phones.

The configuration switches affect many of the P-0920's features. Use the guide below to configure the P-0920 for your application.

From Telephone Service Provider

Connect to the terminals marked "TO SYS"

12VAC 500mA

CO Input   Chime   Unlock Door   Intercom   Power   Phones

Strike Active   Ring   12VAC

Intercom Active

Model P-0920   **CHANNEL VISION**

TELEPHONE ENTRY CONTROLLER

CO Input   Telephones

Door Plate (IU-xxxx or DP-xxxx)

House Telephones

Key * - #: Sets the activation key for the P-0920. On = #, Off = *

No CO-on: Enables "No CO" mode, allowing the unit to work if there is no active telephone line.

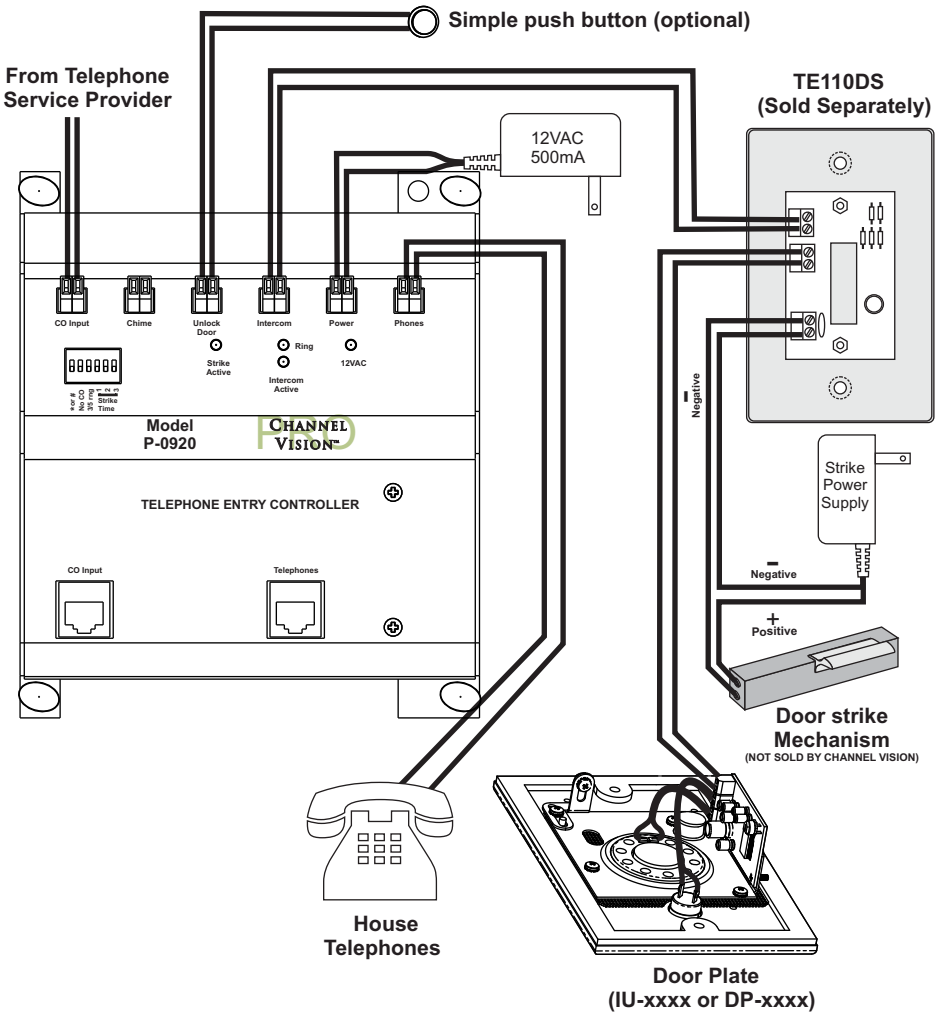**Rings 3-5**: Sets the ring pattern. On = 5 rings, Off = 3 rings.

Strike Time: Sets the length of time the TE110DS will be activated. See the chart below.

On / Off

* or #   No CO   3/5 rng   Strike Time

1	2	3	
Off	Off	Off	3 Seconds
On	Off	Off	5 Seconds
Off	On	Off	8 Seconds
On	On	Off	15 Seconds

1	2	3	
Off	Off	On	20 Seconds
On	Off	On	40 Seconds
Off	On	On	120 Seconds
On	On	On	240 Seconds

Using the TE110DS
Door Strike Relay

TE110DS is a normally open dry contact. It can be activated from your telephone by pressing a sequence of keys on your touch tone phone. When activated, the contact closes, allowing power to be delivered to the electronic door opener (or strike). The contact will remain closed for the duration set by the "Strike Time" configuration switches as shown in the "Basic Application" diagram.
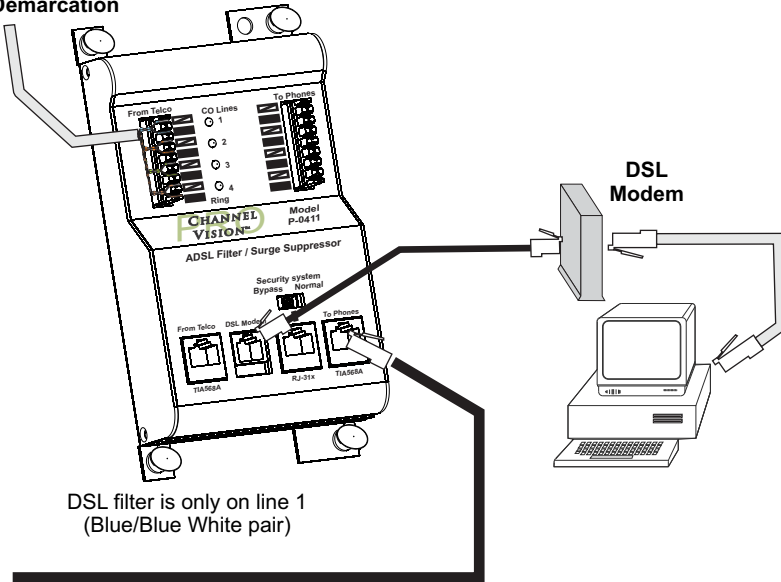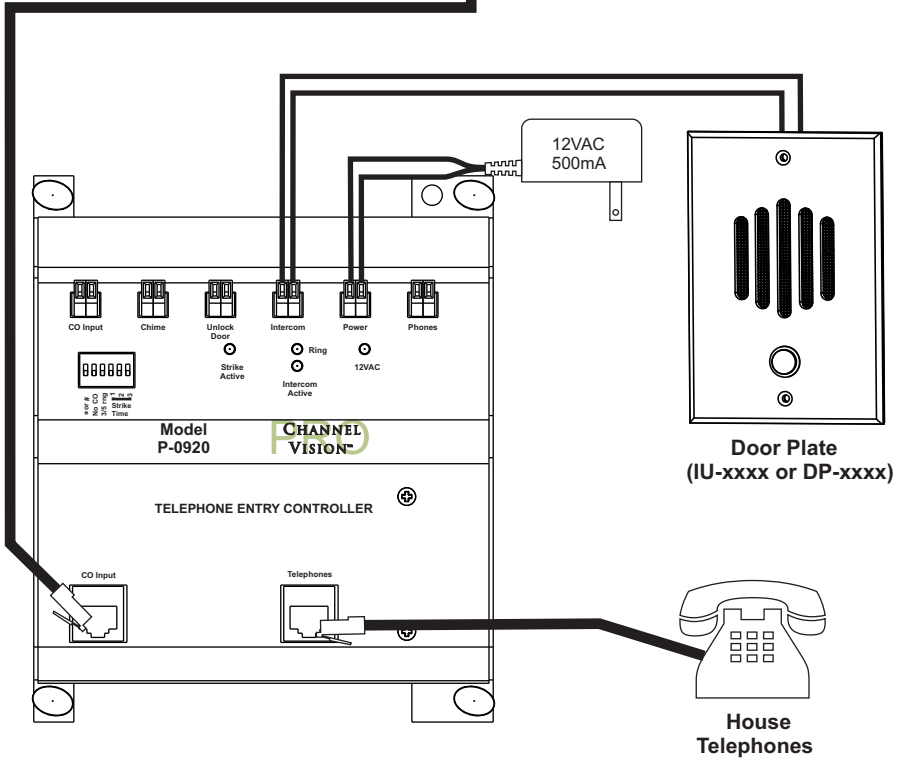
Simple push button (optional)

From Telephone
Service Provider

TE110DS
(Sold Separately)

12VAC
500mA

CO Input   Chime   Unlock Door   Intercom   Power   Phones

Strike Active   Ring   12VAC

Intercom Active

# of CO   No CO   3/6 ring   1   2   3
Strike Time

Model
P-0920

CHANNEL VISION™

TELEPHONE ENTRY CONTROLLER

CO Input   Telephones

Negative

Strike Power Supply

− Negative

+ Positive

Door strike Mechanism
(NOT SOLD BY CHANNEL VISION)

**House
Telephones**

**Door Plate
(IU-xxxx or DP-xxxx)**

Basic DSL Filtering for TE110 system

TELCO Demarcation Block

Phone Line with Data

DSL Modem

DSL Filter

Voice Line Only

12VAC 500mA

CO Input Chime Unlock Door Intercom Power Phones

Strike Active Ring 12VAC

Intercom Active

* or # No CO 3/6 ms Strike Time

Model P-0920

CHANNEL VISION™

PRO

TELEPHONE ENTRY CONTROLLER

CO Input Telephones

Door Plate (IU-xxxx or DP-xxxx)

House Telephones
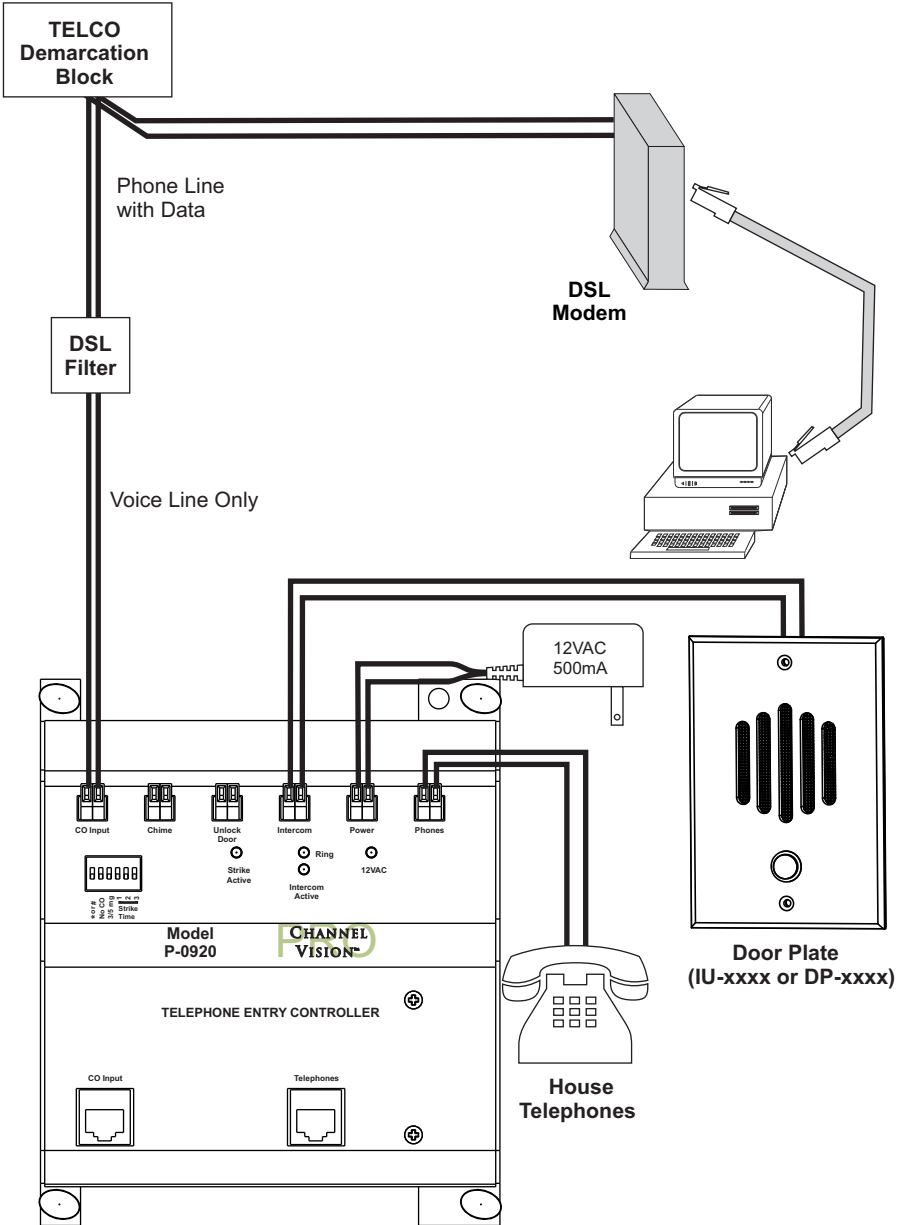
Filtering DSL Using the P-0411

From TELCO Demarcation

DSL Modem

From Telco   CO Lines   To Phones
1
2
3
4
Ring

Model P-0411

CHANNEL VISION™

ADSL Filter / Surge Suppressor

Security system
Bypass   Normal

From Telco   DSL Modem   To Phones
TIA568A   RJ-31x   TIA568A

DSL filter is only on line 1
(Blue/Blue White pair)

12VAC
500mA

CO Input   Chime   Unlock Door   Intercom   Power   Phones

Strike Active

Ring

Intercom Active

12VAC

or
No CO
3/4 ring
Strike Time

Model P-0920

CHANNEL VISION™

TELEPHONE ENTRY CONTROLLER

CO Input   Telephones

**Door Plate
(IU-xxxx or DP-xxxx)**

House Telephones

Using a traditional Door Chime

If you would like the P-0920 to ring the phones and a traditional doorbell chime, this can be easily done by following the diagram below. The wire terminals labeled "Chime" are simply dry contacts that close whenever the button on the door intercom is pressed. Wire any standard door chime to these wire terminals as if the wire terminals were the actual doorbell button. When the door intercom button is pressed these wire terminals will short together and your doorbell chime will ring.

Doorbell Chime

Doorbell Transformer

Doorbell power supply or AC power

From Telephone Service Provider

DO NOT PLUG POWER SUPPLY INTO INTERCOM

12VAC 500mA

CO Input | Chime | Unlock Door | Intercom | Power | Phones

Ring

Strike Active

12VAC

Intercom Active

Model P-0920

CHANNEL VISION™

PRO

TELEPHONE ENTRY CONTROLLER

CO Input

Telephones

Door Plate (IU-xxxx or DP-xxxx)

House Telephones

User's Guide

Basic Configuration:

Note: see the basic application page for details on switch settings.

Set the switch labeled "Key # - *" to determine which key will activate the system.

Set the switch labeled "No CO" for the desired mode.

Set the switch labeled "Rings 3-5" to the desired distinctive ring pattern. You can choose between a 3-ring or 5-ring pattern.

Set the switches labeled "Strike Time" to allow an electronic door release to be activated for a specific period of time.

Basic Operation:

Note: The following instructions <u>assume that the "Key * - #" switch is set for "*" operation</u>.

When the doorbell button is pressed, you will hear the distinctive ring pattern selected above:

within 20 seconds - simply pick up the telephone to be connected to the door speaker.

after 20 seconds - pick up the telephone and press "**" to be connected to the door speaker.

To end communication with the door speaker, you can hang up the phone or press "**".

If you are already on the phone when the doorbell button is pressed you will hear a call waiting tone. Simply press "**" to put your call on hold while you are connected to the door speaker. Press " **" to return to your call.

To close the door strike relay while you are already communicating with the door speaker, press "*7".

To close the door strike relay when you are not communicating with the door speaker, press "***7".

To close the door strike relay without using a phone, you can use an optional push button wired to the "Unlock Door" terminals (see "Using the TE110DS Door Strike Relay" for details).

Connection Tips and Troubleshooting

1) **When the doorbell is pressed the phones do not ring, but you can activate and speak to the door station by pressing **** (or ## depending on setup).

   a. Make sure that you have the correct power supply and that it is supplying 12 VAC.

   b. Measure the AC voltage on the "Phones" terminals at the time when the unit should be ringing (just after the doorbell button is pressed). There should be between 70 - 90 VAC across the terminals during a ring cycle.

2) **The phones in the house cannot communicate with the door station**.

   a. Make sure the power supply is plugged in.

   b. Make sure the phones are connected to the output labeled "Phones" on the telephone entry controller. To test unit, connect one phone directly to the "Phones" wire terminals.

3) **A static or "screeching" noise is heard when speaking to the door station.**

   a. If DSL is present in the system, install a DSL filter on the phone line before the telephone entry controller.

4) **The phone does not release the line when it is hung up after speaking to the door station.**

   a. This occurs when the phones in use draw unusual amounts of current and the telephone entry controller cannot sense the change. To disconnect, press the disconnect key (this could be either ## or ** depending on setup).

5) **The TE110DS does not activate.**

   a. Make sure you're pressing the correct key sequence.

   If already speaking to the door station, just press *7 (or #7).

   If not already speaking to the door station, press ***7 (or ###7).

   b. Measure the voltage on the wire terminals labeled "INTERCOM"

   When the system is idle, there should be 1 VDC on the terminals.

   When speaking to the door station, there should be approximately 6 VDC on the terminals.

   When the TE110DS is activated there should be at least 10 VDC on the terminals.
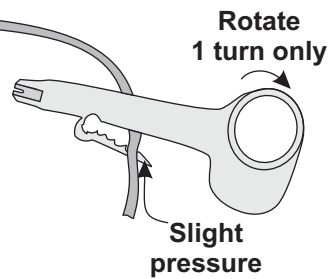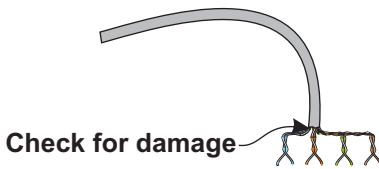
Stripping and Connecting CAT5 Wire

CAT5 cable should be stripped with a proper stripping tool, such as Channel Vision's J-110 tool.

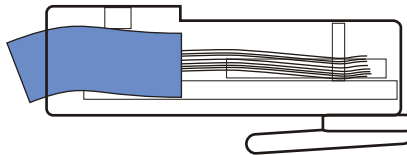**1.** Place the CAT5 between the blade and the first notch of the J-110 tool.

CAT5   **Blade**
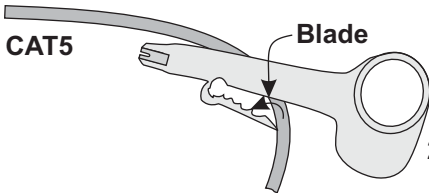
2. Rotate the tool only once. Multiple turns could damage the inner wires.

Rotate 1 turn only

3. Inspect the inner wires for damage. If any wires are cut start over at step 1.

Check for damage

Slight pressure

TIA-568A RJ-45 Modular Plug

Side view:

Top view:

Green/White
Green
Orange/White
Blue
Blue/White
Orange
Brown/White
Brown
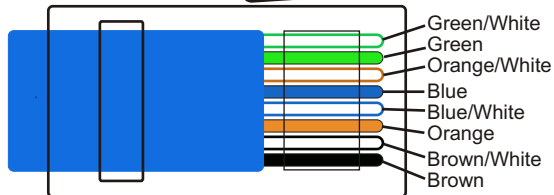
Specifications: (typical @25º C)
Power Supply:	12VAC, 500mA
Cable Requirements:	CAT5 or better
REN:	0.1
Ring Output:	>5 (capable of ringing >10 phones with a REN of 0.5)
Dimensions:	6.5" x 5.5" x 1.5"
Operating Temperature:	-10ºC to +50ºC

Specifications subject to change without notice.

CHANNEL VISION™

1 Year Limited Warranty

Channel Vision Technology will repair or replace any defect in material or workmanship which occurs during normal use of this product with new or rebuilt parts, free of charge in the USA, for one year from the date of original purchase. This is a no hassle warranty with no mail in warranty card needed. This warranty does not cover damages in shipment, failures caused by other products not supplied by Channel Vision Technology, or failures due to accident, acts of God, misuse, abuse, or alteration of the equipment. This warranty is extended only to the original purchaser when purchased through an authorized reseller. A purchase receipt, invoice, or other proof of original purchase date will be required before warranty repairs are provided.

Mail in service can be obtained during the warranty period by calling (714) 424-6500. A Return Authorization number must be obtained in advance and can be marked on the outside of the shipping carton.

This warranty gives you specific legal rights and you may have other rights (which vary from state to state). If a problem with this product develops during or after the warranty period, please contact Channel Vision Technology, your dealer or any factory-authorized service center.

Channel Vision products are not intended for use in medical, lifesaving, life sustaining or critical environment applications. Channel Vision customers using or selling Channel Vision products for use in such applications do so at their own risk and agree to fully indemnify Channel Vision for any damages resulting from such improper use or sale.

FC Tested To Comply With FCC Standards   RoHS

This device complies with part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

CHANNEL VISION™

• Intelligent Entertainment • Infrastructure • Security Solutions

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