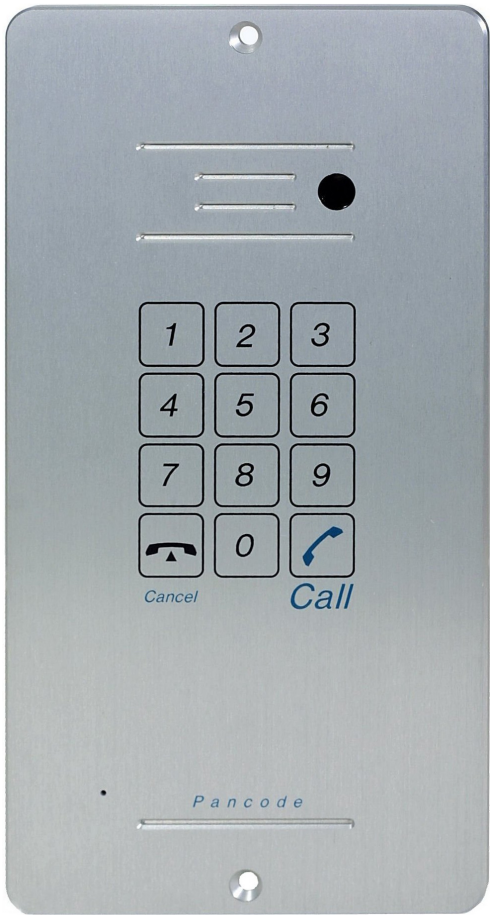
Installation instructions for Aluminium Pantel, Pancode and Pancam C & T Telephone door access control units



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PanCam-C PanCam-T Pantel Pancode
Installation and Programming Manual

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1 Introduction

We offer a wide range of Access Control Door Phones for indoor and outdoor entry control. These solutions range from the simplest one button unit to the most sophisticated unit with a keypad and built-in camera to monitor visitors at the entrance. All of the Access Control Door Phones incorporate cutting edge technology, providing a high quality speakerphone and a built-in electromagnetic lock controller. All the Access Control Door Phones are easy to set-up, modern and durable in design and provide "plug and play" installation.

This guide provides installation and programming instructions for the following products:

- PanCam unit
- Pantel Outdoor unit
- Pantel Indoor unit
- Pancode Outdoor unit
- Pancode Indoor unit

1.1 PanCam

The PanCam unit is available in two versions: PanCam-C (with keypad) and PanCam-T (one button). Both are wall mounted access control door phones, connected to an analog port of a PBX or a Key Telephone System, with an internal black & white or color high-quality pinhole camera encased within the unit. Both, PanCam-C and T are vandal and weather resistant, suitable for outdoor installation.

General Features

The PanCam controls the camera, providing three different modes of operation:

- Always on
- Powered by pressing any button
- Powered by pressing the call button

Calling the PanCam unit from any extension will activate its camera, enabling the door supervisor to see who is in the direct neighbourhood of the unit.

PanCam-C Features

The PanCam-C unit has the following features:

- Direct dialing to any extension
- Speed-dial to internal or external subscribers
- Automatic Busy & Disconnect Cadence Detection
- Door opening from any extension
- Programmable day and night destinations
- Two different operation modes, standard/speed-dial
- High quality speaker phone with volume control
- Entry access code
- Works in conjunction with card readers and security devices
- Simple to operate and program
- Smart looking durable design
- Internal black & white or color high-quality pinhole camera

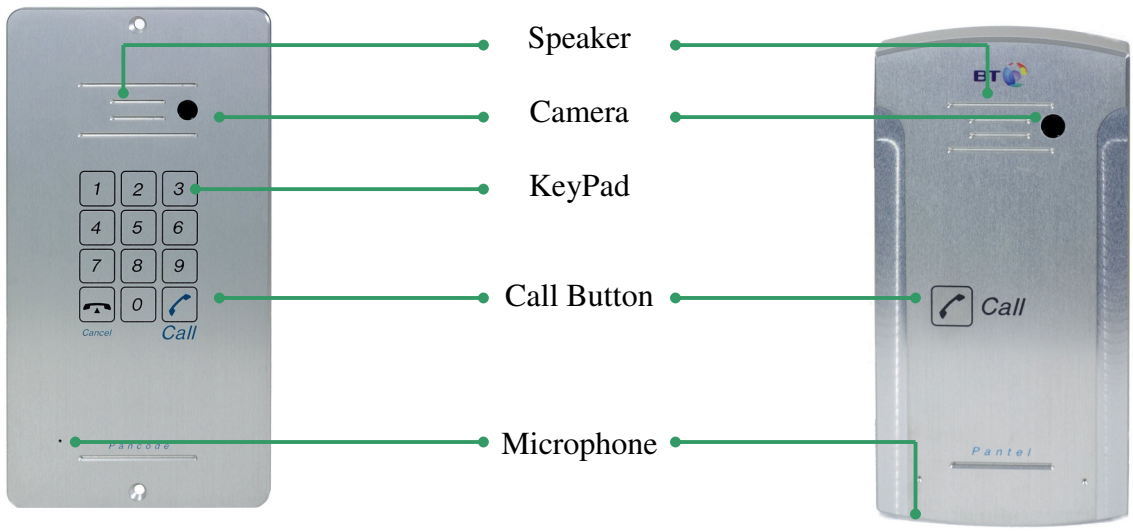
PanCam-T Features

The PanCam-T unit has the following features:

- Dialing to a pre-defined extension/subscriber
- Door opening from any extension
- Programmable day and night destinations
- Automatic Busy & Disconnect Cadence Detection
- Designed for wall mounting
- Works in conjunction with card readers and security devices
- High quality speaker phone with volume control
- Simple to operate and program
- Internal black & white or color high-quality pinhole camera

PanCam Physical Description

The following figure describes both units.



Pancam C Flush Mount

Pancam T Surface Mount

The front panel of the PanCam-T unit incorporates a speaker and a Call button. The microphone can be found at the bottom of the unit. The PanCam-C unit also features a keypad. The front panel is attached to the wall using a bracket and screws.
The PanCam units are hardwired units, powered by an external 12V DC transformer, included in the package.

1.2 Pantel

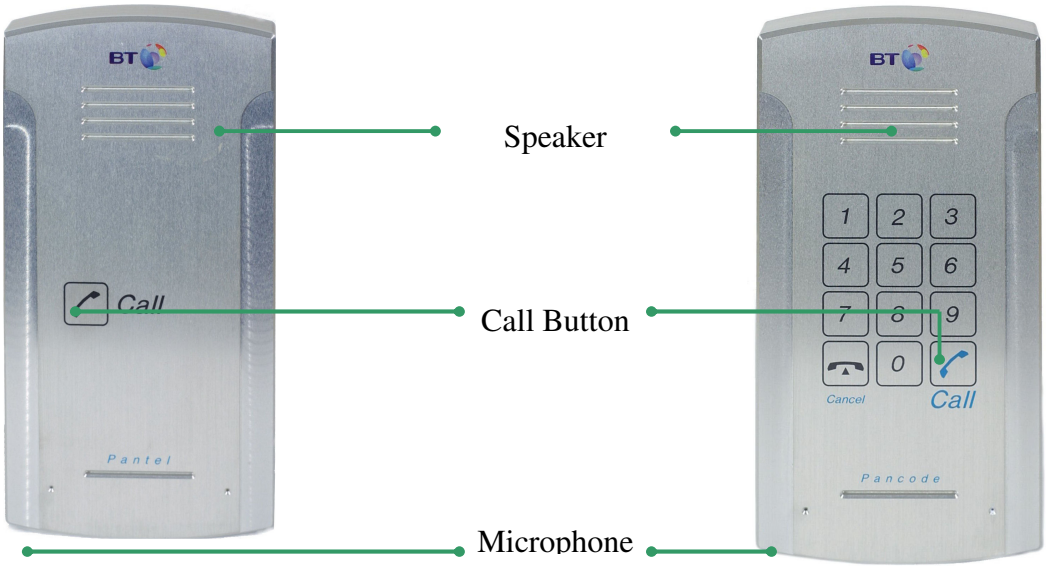
The Pantel is a wall mounted access control door phone, which is connected to an analog port of a PBX or a Key Telephone System. The Pantel is compatible with most known telephone systems and PBX types.
With the press of a button, the Pantel dials a pre-defined extension number of up to 20 digits, allowing a conversation to take place and then enables the dialed party to open the door for the caller by pressing touch tone digit(s).
The Pantel is available in either an aluminum unit for outdoor installation, which is weather and vandal resistant, or a plastic unit for indoor installation.

Features

The outdoor and indoor Pantel units have the following features:

- Dialing to a pre-defined extension/subscriber
- Door opening from any extension
- Programmable day and night destinations
- Automatic Busy & Disconnect Cadence Detection (outdoor unit only)
- Designed for wall mounting
- Works in conjunction with card readers and security devices
- High quality speaker phone with volume control
- Simple to operate and program
- Outdoor or indoor installation

Pantel/Pancode Physical Description



Pantel Pancode

The front panel of the Pantel unit incorporates a speaker and a Call button. The microphone can be found at the bottom of the unit. The front panel is attached to the wall using a bracket and screws.
The Pantel unit is a hardwired unit powered by an external 12V DC transformer, included in the package.

1.3 Pancode

The Pancode is a smart wall mounted access control door phone that is connected to an analog port of a PBX or a Key Telephone System, allowing door entry control.
The Pancode is available in either an aluminum unit for outdoor installation, which is weather and vandal resistant, or a plastic unit for indoor installation.

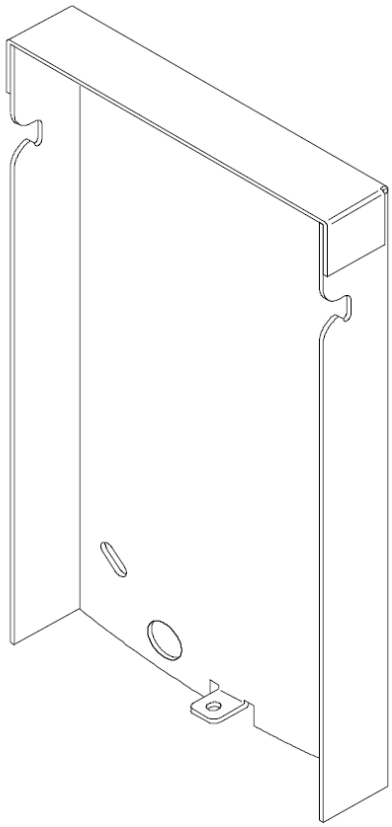
Features

The outdoor and indoor Pancode units have the following features:

- Direct dialing to any extension
- Entry access code
- Speed-dial to internal or external subscribers
- Automatic Busy & Disconnect Cadence Detection (outdoor unit only)
- Door opening from any extension
- Programmable day and night destinations
- Two different operation modes, standard/speed-dial
- High quality speaker phone with volume control
- Outdoor or indoor installation
- Works in conjunction with card readers and security devices
- Simple to operate and program
- Smart looking durable design

2 Installation

The PanCam/Pantel/Pancode is mounted to the installation bracket provided; this mounting bracket should be installed with the arms of the bracket positioned at the bottom.



To Install the PanCam/Pantel/Pancode wall bracket

1. Measure and mark the location on the wall where the holes will be drilled for the mounting bracket.
2. Drill the holes and insert the wall anchors into the holes. The wall anchors should be flush with the wall.
3. Attach the mounting bracket using the wall screws provided.

2.1 Installation Instructions

Installing the PanCam

Power (12V DC) is provided to the camera via an extended connector in the PanCam. The camera is activated, once the relevant instruction is given (e.g. push on the call button, etc.).

Caution

To avoid damage to the camera, make sure to connect the correct polarity to the connector

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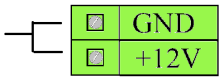
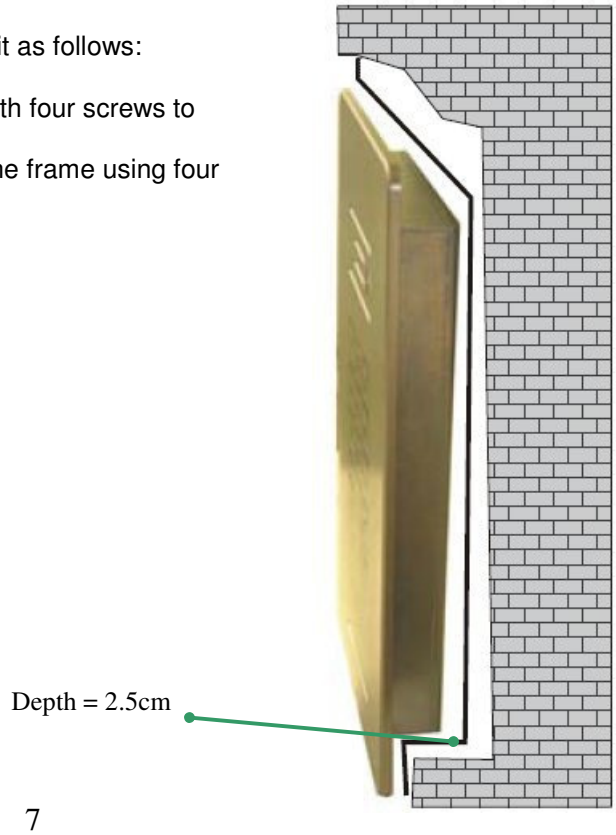
Camera connector 12V DC



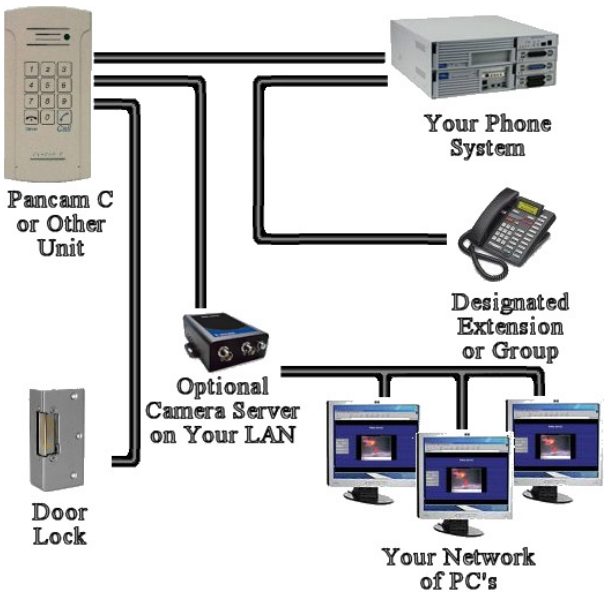
If your Pantel/Pancode unit is flush, install the unit as follows:

- Cut a 2.5 cm deep cavity in the wall.
- Insert the adaptor into the cavity and screw it with four screws to the wall.
- Place the unit into the adaptor and attach it to the frame using four screws.



PanCam Schematic setup

The following picture show the schematic setup of the PanCam unit.



The video signal is independent and connected directly to third-party video equipment (e.g. a video recorder, monitor, multiplexer, PC, etc.).

The unit is connected to the PBX as an analog extension. The unit powers the Door Lock and the Camera.

The Pancode / Pantel are connected the same but without the camera connections.

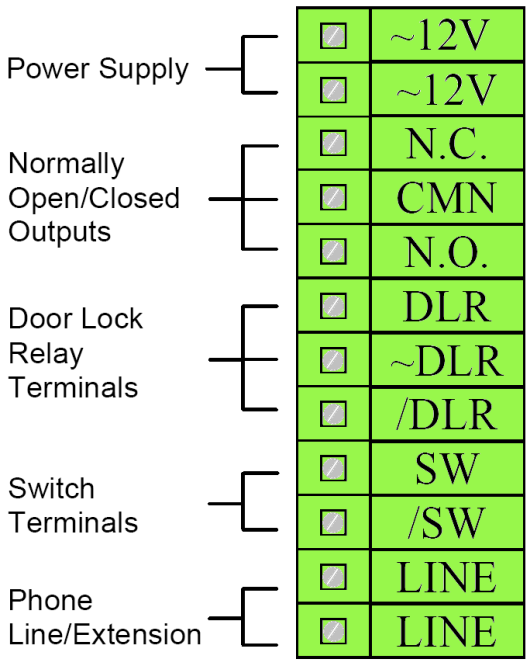
Installing the Pantel/Pancode

The Pantel/Pancode can be installed as the individual access control or can be used with adjacent access-control devices, such as card reading devices. For more information on adjacent access-control device installation, see section 2.2, Adjacent Access Control Device.

A 12V DC external power supply is included with the Pantel/Pancode unit. The power adapter should not be located further than 10m (30ft) from the Pantel/Pancode.

The following figure shows the terminal locations on the wire connector provided with the Pantel/Pancode. This connector is attached at the base of the internal component. All wiring to the Pantel/Pancode is attached to the wire connector.

The Pantel/Pancode supports a press to exit switch installation. This allows opening the door with a hardwired switch. A press to exit switch should be connect to the SW and /SW terminals.



The wiring connector is a screw connector type. In order to attach a wire you must insert the stripped end of the wire into the proper terminal and tighten the terminal screw. This will crimp the wire connection.

Caution

To avoid damage to the Pantel/Pancode, the power supply should be removed prior to connecting wires to the Pantel/Pancode unit.

Note

When connecting a lock or magnet it is not advised to connect to the unit using the Door Lock Relay terminals. It is preferable to connect using the Common and Normally Open or Normally Closed contacts

1. Remove the cover from the Pantel/Pancode unit and disconnect the wire connector, found at the base of the internal component.
2. Connect the two 12V lead wires from the 12V DC power adapter, one to each of the "~12V" terminals.
3. Connect the two PBX extension wires, one to each of the "LINE" terminals.
4. Connect the door-lock relay wires to the edge "~12V" and "N.O." terminals -or- If the door-lock relay is a powered-locked-state type lock or a magnet, connect the door-lock relay wires to the edge "~12V" and "N.C." terminals. Then connect a short loop of wire between the "Common" and the other "~12V" terminals
5. If a press to exit switch is used, connect the push button wires to the "SW" and the "/SW" terminals.
6. Plug the wire connector to the base of the Pantel/Pancode inner component.
7. Place the Pantel/Pancode onto the mounting bracket.
8. Switch on the power to the 12V adapter.

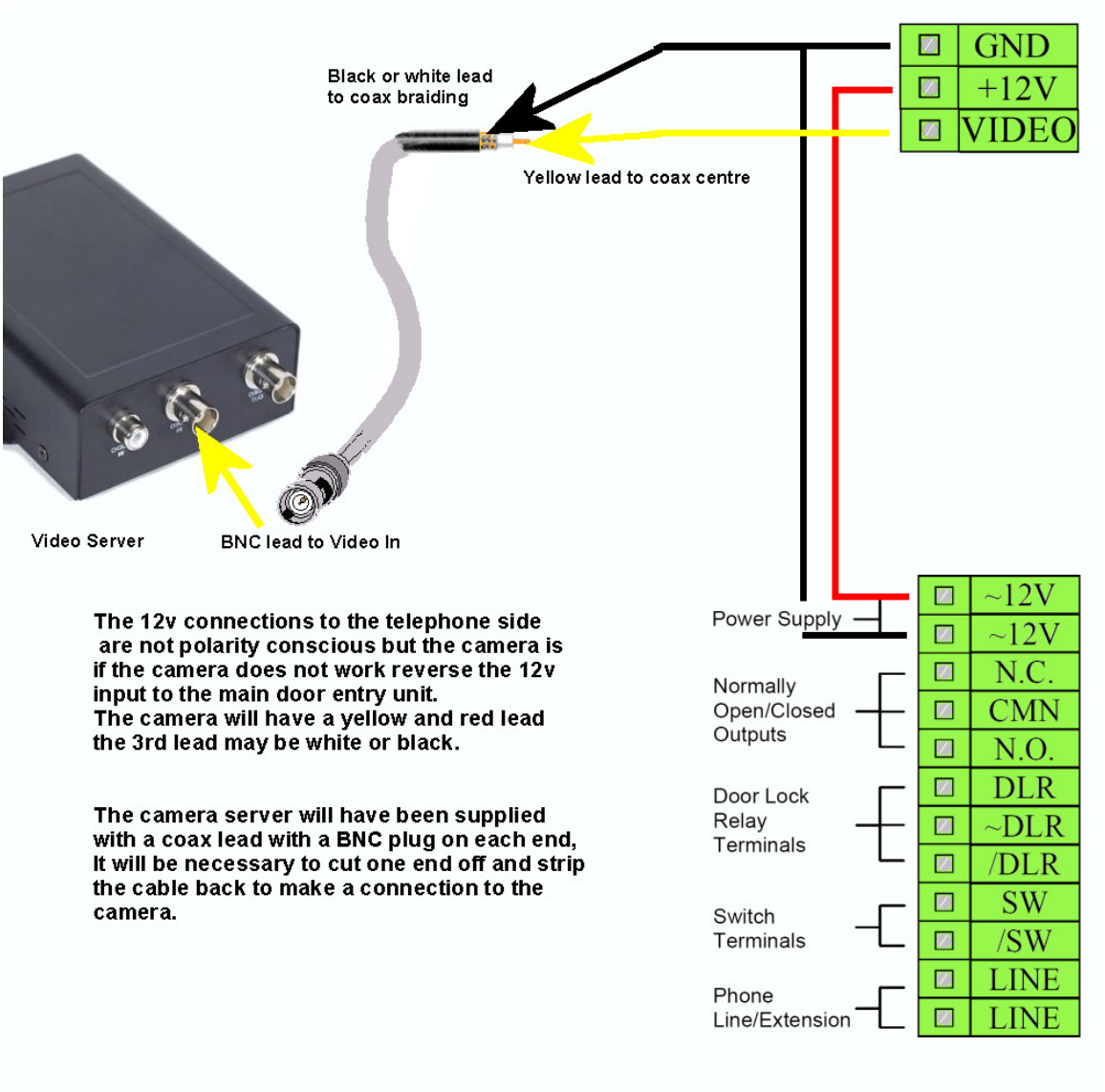
After installation, you can now program the Pantel/Pancode unit. For details on programming, see section 3, Programming.

Installing Pantel / Pancode with a camera

Power (12V DC) is provided to the camera via an extended connector in the Pancode / Pantel aluminium. The camera is activated, once the relevant instruction is given (such as a push on the call button).

Connection a door entry camera to a video server

The following diagram shows how to connect the camera up.



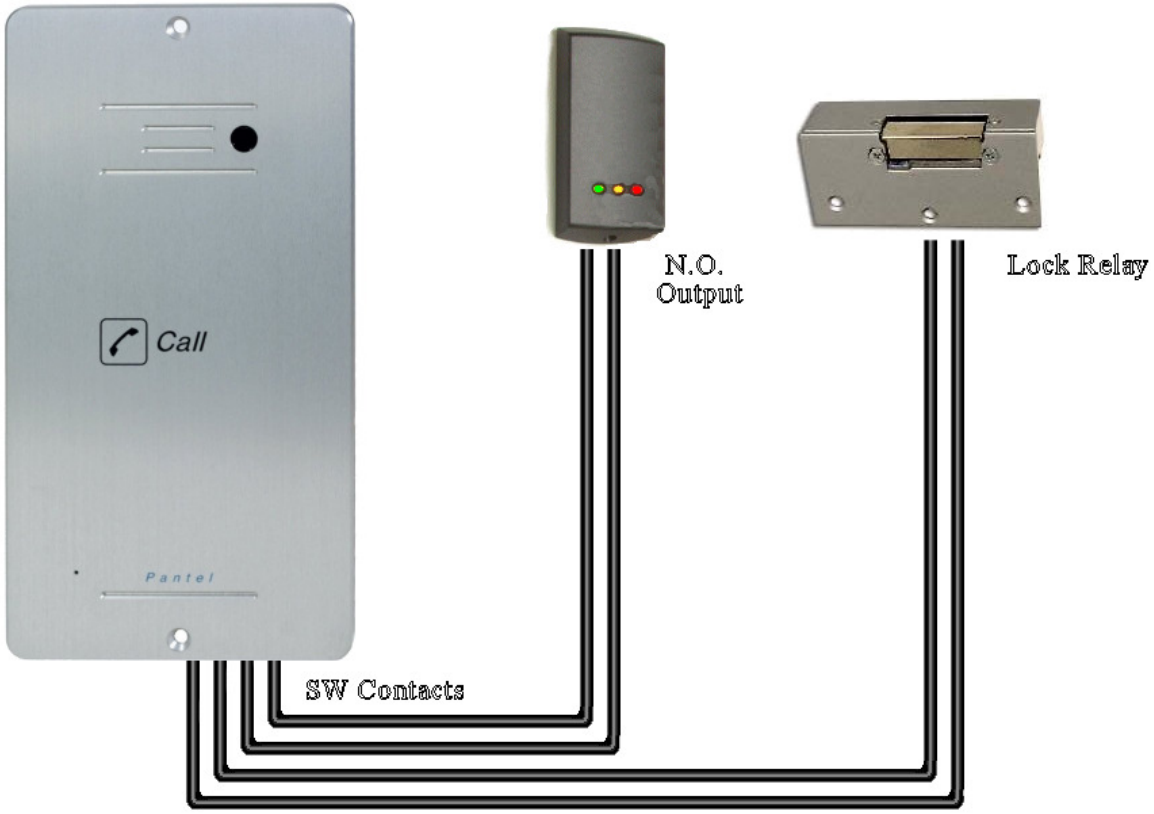
The camera server has a default IP address of 192.168.0.99.
With a pc that has an IP address in this range (ie 192.168.0.200) you can connect to the server using internet explorer by typing http://192.168.0.99 into the address bar and pressing enter.
From here the settings can be changed including changing the IP address to a different range.
The server will need restarting after changing the IP address.

2.2 Adjacent Access Control Device

This section describes adding an access-control device to an existing Pantel/Pancode, and adding a Pantel/Pancode to an existing access-control device. The key difference between these two installations is which Access-control device controls the door lock relay.

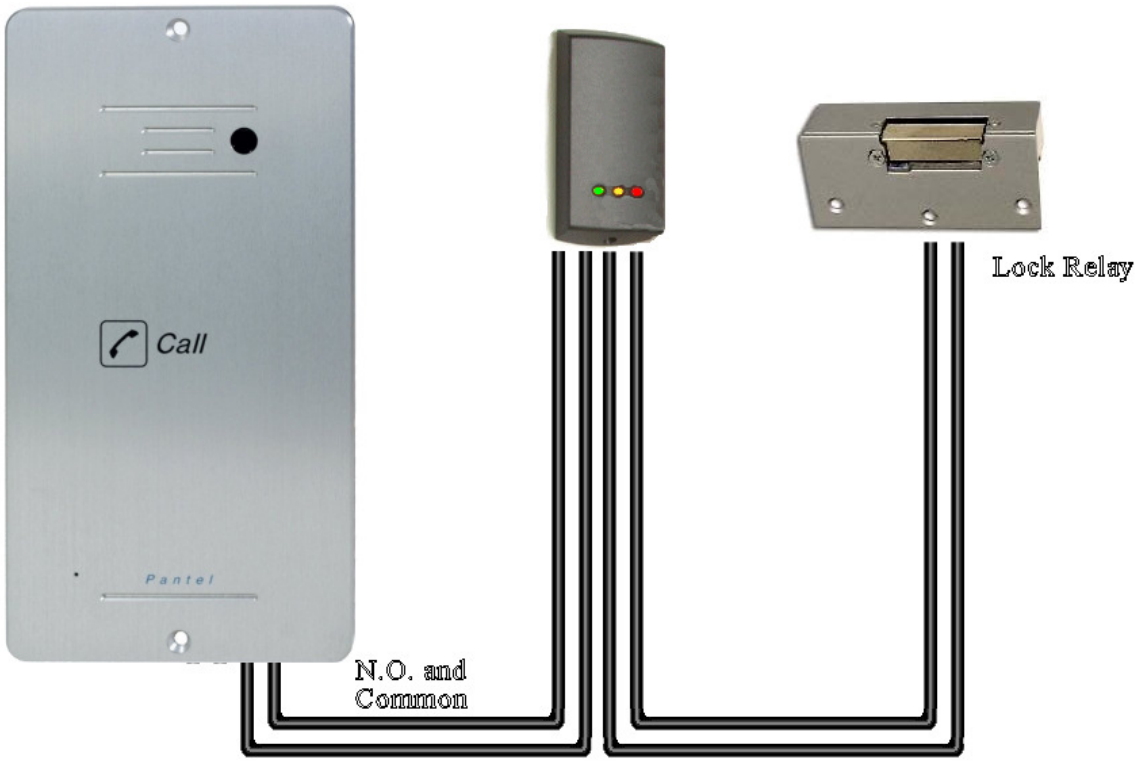
Adding an Access Control Device to the Pantel/Pancode

When activated, the access-control triggers the Pantel/Pancode “SW” terminal, which activates the door-lock relay and opens the door.
For this type of installation, the access-control device “N.O.” output wires are connected to the Pantel/Pancode Switch terminals



Adding Pantel/Pancode to an Access Control Device

The access control device opens the door when the Pantel/Pancode triggers the access-control device.
For this installation, the access-control device bypass “Switch” wires are connected to the “N.O.” and “CMN” terminals of the Pantel/Pancode. The door-lock relay wires are connected to the access-control device

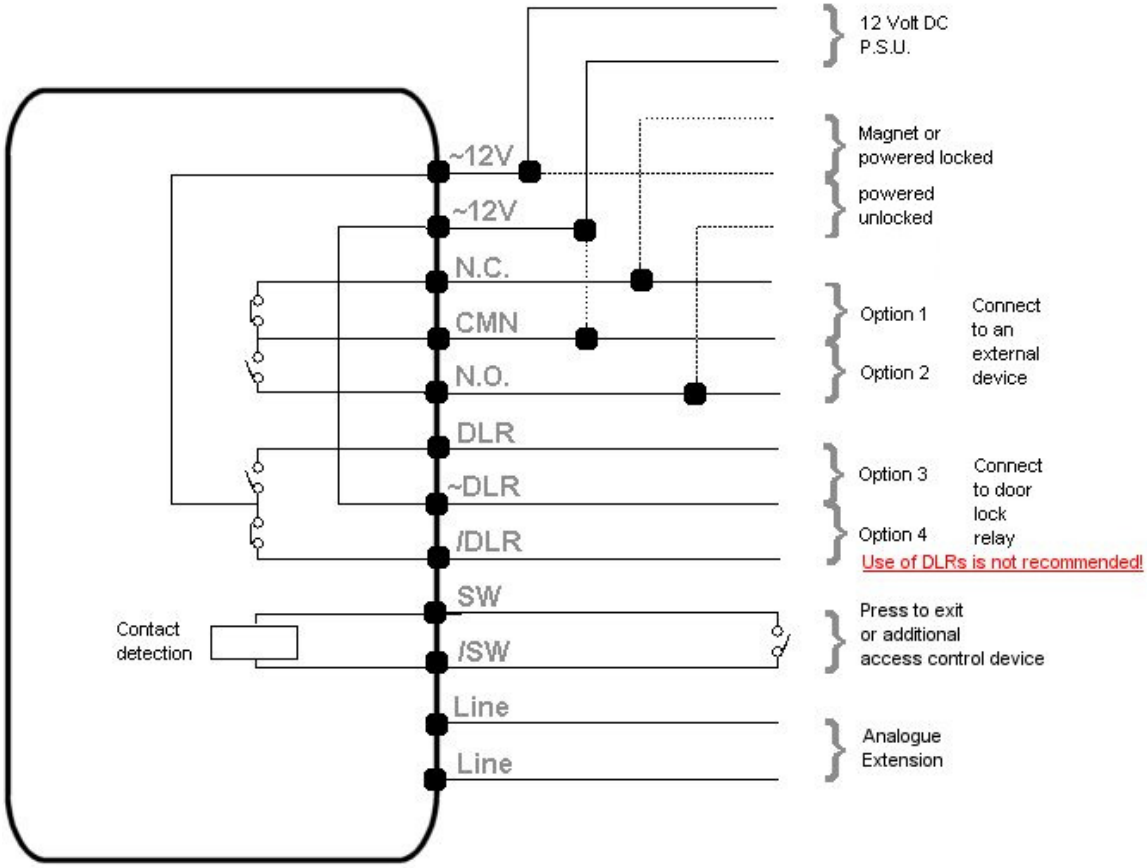


2.3 Connection Schematic

The Pantel/Pancode offers multiple wiring options.

- Option 1: For use with an external device, which requires the Pancode to be set up as “Normally Closed”
- Option 2: For use with an external device, which requires the Pancode to be set up as “Normally Open”
- Option 3: For use with the powered-unlocked-state lock relay (most common)
- Option 4: For use with the powered-locked-state lock relay

Options 3 and 4 are not recommended as using these options can cause a buzzing sound on the speech path.
The wiring for these option is shown below.



2.4 Volume Control

The volume of the PanCam/Pantel/Pancode speaker can be adjusted using the volume controller located on the unit’s back panel.
After installing the unit, test the volume. In case it is too low/high, remove the unit from the mounting bracket and adjust the volume using a small screwdriver.

3 Programming

Programming can be done from any telephone or extension on the PBX, using keypad DTMF tones. The following programming functions are discussed in this section:

- Day/Night Mode Selection
- Entering Programming Mode
- Resetting the PanCam/Pantel/Pancode

3.1 Day/Night Mode Selection

Day and Night mode specify which of the programmed destination numbers, Day or Night number, will be called when the Call button is pressed. The operator can manually change the Day/Night mode.

To Change the Day/Night Mode

1. Dial the PanCam/Pantel/Pancode line/extension from any touch-tone telephone.
2. Wait until the PanCam/Pantel/Pancode answers and beeps.
3. Enter *80 for Day Mode -or- enter *81 for Night Mode.

3.2 Entering Programming Mode

Note: You will hear a confirmation tone every time you enter a programming command.

To Enter Programming Mode

1. Dial the PanCam/Pantel/Pancode line/extension from any touch-tone telephone.
2. Wait until the PanCam/Pantel/Pancode answers and beeps.
3. Dial *900.
4. Enter the Programming Access Password (default password is 1234).

To Exit Programming Mode

- Dial *900

–or–

if no dialing occurs within 45 seconds, the program mode automatically exits.

3.3 Resetting the PanCam/Pantel/Pancode

Resetting the PanCam/Pantel/Pancode will automatically change the parameters in the unit to the manufacturers default.

To Reset the Unit

1. Enter programming mode (see section 3.2, Entering Programming Mode).
2. Dial *151.
3. A confirmation tone will be heard.
4. Exit programming mode.

To Reset the Unit in “speed dial” mode (only PanCam-C and Pancode)

1. Enter programming mode (see section 3.2, Entering Programming Mode).
2. Dial *152.
3. A confirmation tone will be heard.
4. Exit programming mode.

3.4 PanCam-T & C/Pantel & Pancode Setup and Operation

The following table contains programming functions, which can be accessed in the programming mode for Setup and operation.

OPERATION	COMMAND	DEFAULT
The Day/Night DN will be dialled when the call button is pressed, respective to day/night mode. The error DN is dialled after receiving three invalid Access Code entries in a row	***360 + X + DN + #** where: X = 1; Day destination X = 2; Night destination X = 3; Error DN = Up to 20 digits. For special character input, see section 3.6 Entering Special DTMF Characters.	Default = 0 Night = 0 Error = No default
Delete a destination number assigned to Day, Night or Error DN's. This command must be entered separatly for each X value.	***360 + X + #** Where: X = 1 Day X = 2 Night X = 3 Error	
Programming the prefix-digit(s) for PBX extensions dialling. When beginning with these digits, the units will process them as extension numbers	***170 + prefix-digit(s) + #** Maximum 4 digits (Do Not use * or # as prefix digit) To cancel this operation enter ***170 + #**	No default
Digit(s) to open the door from any extension	***441 + XXXX + #** Where: XXXX = digits (0-9) Note: up to 4 digits	8
Changing the door opening Access Code (Auminium Pancode only)	***442 + (New access Code)** Access Codes can be upto 4 numeric digits, if the new code is less than 4 digits, press the # after the last digit. Access digits cannot include * or #. **Note:** The access Code cannot begin with the same digits as PBX extension numbers	9876

OPERATION	COMMAND	DEFAULT
conversation time limit (Sec).	***462 + XX** Where: XX = Seconds (10 - 99)	
door opening time limit (Sec)	***464 + X** where: X = Number of seconds (1-).	45 sec
Changing the programming password	***600 + (New password)** Programming access password must be four numeric digits. (Don't use * or # keys).	3 sec
Camera instructions	***620 + X** X = 0 camera off X = 1 camera on X = 2 camera powered when call button is pressed X = 3 camera powered when any key is pressed	1234

Speed-Dial Setup

The following table contains programming functions, which can be accessed in the programming mode for Speed-Dial mode operation.

OPERATION	COMMAND	DEFAULT
Assigning a Speed-Dial destination number. This command must be entered separately for each X value.	***120 + X + DN + #** X = a digit 1 through 9 DN = destination number up to 20 digits including * and #	No Default
Canceling a Speed-Dial destination number.	***120 + X + #** X = a digit 1 to 9	No default
The Day/Night DN will be dialled when the call button is pressed, respective to day/night mode. The error DN is dialled after receiving three invalid Access Code entries in a row	***360 + X + DN + #** where: X = 1; Day destination X = 2; Night destination X = 3; Error DN = Up to 20 digits. For special character input, see section 3.6 Entering Special DTMF Characters.	Default = 0 Night = 0 Error = No default
Delete a destination number assigned to Day, Night or Error DN's. This command must be entered separatly for each X value.	***360 + X + #** Where: X = 1 Day X = 2 Night X = 3 Error	
Digit(s) to open the door from any extension	***441 + XXXX + #** Where: XXXX = digits (0-9) Note: up to 4 digits	8
Changing the door opening Access Code (Aluminum Pancode Units)	***442 + 0XXX** 0XXX = new Access Codes up to 4 numeric digits. The first digit of the access code in sped dial mode must be 0. If the new code is less than 4 digits, press the # after the last digit. Access digits cannot include * or #.	0123

OPERATION	COMMAND	DEFAULT
door opening time limit (Sec)	***464 + X** where: X = Number of seconds (1-).	3 sec
Changing the programming password	***600 + (New password)** Programming access password must be four numeric digits. (Don't use * or # keys).	1234
Camera instructions	***620 + X** X = 0 camera off X = 1 camera on X = 2 camera powered when call button is pressed X = 3 camera powered when any key is pressed	0

3.6 Entering Special DTMF Characters

Special characters can be entered using the keypad. The following table shows the corresponding keypad entries needed for creating special DTMF characters.

DTMF Character	Number to dial
Digits 0-9	0-9
*	**
Pause	*1, indicates a 1 sec pause
#	*4
A	*5
B	*6
C	*7
D	*8

4 Specifications

4.1 General Specifications

Power Supply (External)	12V DC@1.6A (supplied with unit)
Line Voltage	24-72V DC
DC Leakage	< 10 μA
On-Hook Insulation (Resistance Between Line Terminal and Ground)	0-100V DC > 5MΩ 100-200 V DC > 30 KΩ 500V AC/50Hz > 20KΩ 100V AC/25Hz > 100KΩ
Ring Capacitor	0.47 μF ±10%
On-Hook Impedance	@50V DC, 40V AC/25Hz>3000Ω
Ring Detect	27-100 V AC/16-60 Hz
DC Resistance (Off-Hook)	24-66V DC @ 20-100mA/350Ω
Impedance (Off-Hook)	300-3400Hz 500-700Ω
Imbalance Ratio	300-3400Hz > 46dB
Return Loss	300-3400Hz > 18dB
Current During Break	< 700 μA
DTMF Transmission: Frequency Tolerance Frequency Level (High) Frequency Level (Low)	±1.5% -6 to –8dBm -8 to –10dBm
Inter-Digit Pause Time	70-80ms
Relay Switching Current	2A max
Dimensions Outdoor Unit Indoor Unit	19.4cm x 10.2cm/7.6inch x 4.0inch 18.5cm x 9.5cm/7.3inch x 9.5inch
Operating Temperature	Outdoor: -20ºC to +50ºC/4ºF to 122ºF Indoor: 0ºC to +35ºC/32ºF to 95ºF

4.1 General Specifications

4.2 Color Camera

Model no.	MTV-54KOPI
TV System	PAL/NTSC
Image Sensor	¼-inch CCD Image Sensor
CCD Total Pixels	542(H) x 586(V)
SYNC System	Internal
Minimum Illumination	0.5 Lux F1.2 5600°K
Resolution	380 TVL/470 TVL (Enhanced)
S/N Ratio	52dB (MIN)/60dB(TYP) (AGC OFF)
White Balance	ATW/AWB/FIX (Zero color rolling)
White Balance Range	AWB, ATW(3200---10000°K) /FIX(3299°K)/
Electronic Shutter	1/50-1/120000 sec.
Video Output	1.0Vp-p composite video signal at 75 ohm
Gamma Correction	0.45
Gain Control	AGC
Lens & View Angle	45° > 0.7 mm

5 End User Quickstart Programming guide

The following are the most common features programmed and are that are required to get a system up and running.

To Enter Programming Mode

1. Dial the PanCam/Pantel/Pancode line/extension from any touch-tone telephone.
2. Wait until the PanCam/Pantel/Pancode answers and beeps.
3. Dial *900. (confirmation beep)
4. Enter the Programming Access Password (default password is 1234). (Confirmation beep)

To set called number on call button

***360 + 1 + extension number to be called + #.** (Confirmation beep)
The # is need to tell the system that the extension number is complete as extension numbers have varying numbers of digits.

***442 + New Access Code 4 digits**. (Confirmation beep)

To Exit Programming Mode

• Dial *900

–or–

if no dialing occurs within 45 seconds, the program mode automatically exits.