



Installation Guide



TX400



TX400DC



TX400DC/RS422



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Contents

Important	3
Introduction	4
Unpacking	4
A simple TX400 system	4
TX400DC/RS422 connecting a Breakout box	5
Layout of the TX400	5
Keypad functions	6
Lens action	6
Auxiliary function switches	6
Self test	7
Iris level program	7
Presets	8
Patrols	9 – 10
Spare outputs	11
20mA Twisted pair output	11
Selecting protocols on the TX400DC/RS422	12
Internal view of the TX400DC/RS422	12
TX400DC/RS422 – Address setting	13
Sending # Commands	14

IMPORTANT

Please read the following points before servicing or installing.

Pre-installation checks - It is recommended that the unit be bench tested prior to installation on the site.

Safety during installation or servicing - Particular care should be taken to isolate the pan/tilt head in order to prevent operation while engineering work is being carried out. In addition any ladder or other means of working on the receiver **MUST NOT** rest on the pan/tilt head as it is possible for the head to move when not expected.

Safety check - Upon completion of any service or repairs to the unit, safety checks should be performed to ensure that the unit is in proper operating condition.

Coax grounding - If an outside cable system is connected to the unit, be sure the cable system is grounded.

Adhere to Safety Standards - All normal safety precautions as laid down by British Standards and the Health and Safety at Work Act should be observed.

WARNING - TO PREVENT DANGER OF FIRE OR SHOCK, DO NOT EXPOSE THE INTERNAL COMPONENTS OF THIS EQUIPMENT TO RAIN OR MOISTURE.

Damage requiring service - Servicing by qualified personnel should be carried out under the following conditions:

- (a) When the power supply cord or plug is damaged;
- (b) If liquid has been spilled, or objects have fallen into the unit;
- (c) If the unit does not operate normally by following the operating instructions.
- (d) If the unit has been dropped or the enclosure is damaged;

Replacement parts - If replacement parts are required, ensure that only replacement parts recommended by the product manufacturer are used.

Introduction

The TX400 & TX400DC are very easy to use keypads for single camera CCTV systems. They are easily installed into either a new or an existing system simply by connecting a BNC input and output, or twisted pair cable and a 9V supply.

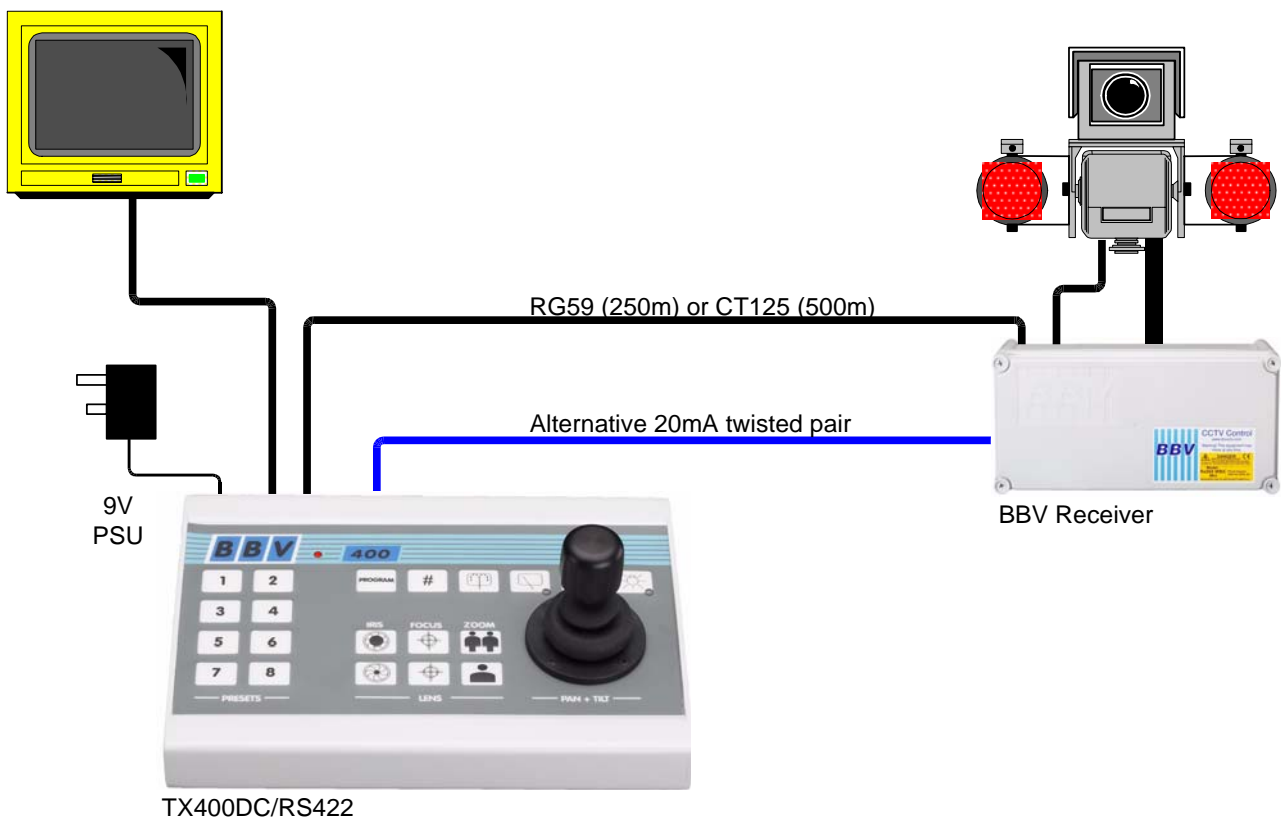
The TX400 & TX400DC provide full control of single pan/tilt/zoom camera installations.

The TX400DC/RS422 is a simple to operate keyboard with joystick and RS422 output for use with single or multiple camera systems. The TX400DC/RS422 provides full control of single pan/tilt/zoom camera installations, and is compatible with the full range of BBV coax and RS422 telemetry receivers. It is a powerful tool for the field engineer and can control all 128 addresses of the BBV 422 protocol. The TX400DC/RS422 can also output Pelco P and Pelco D.

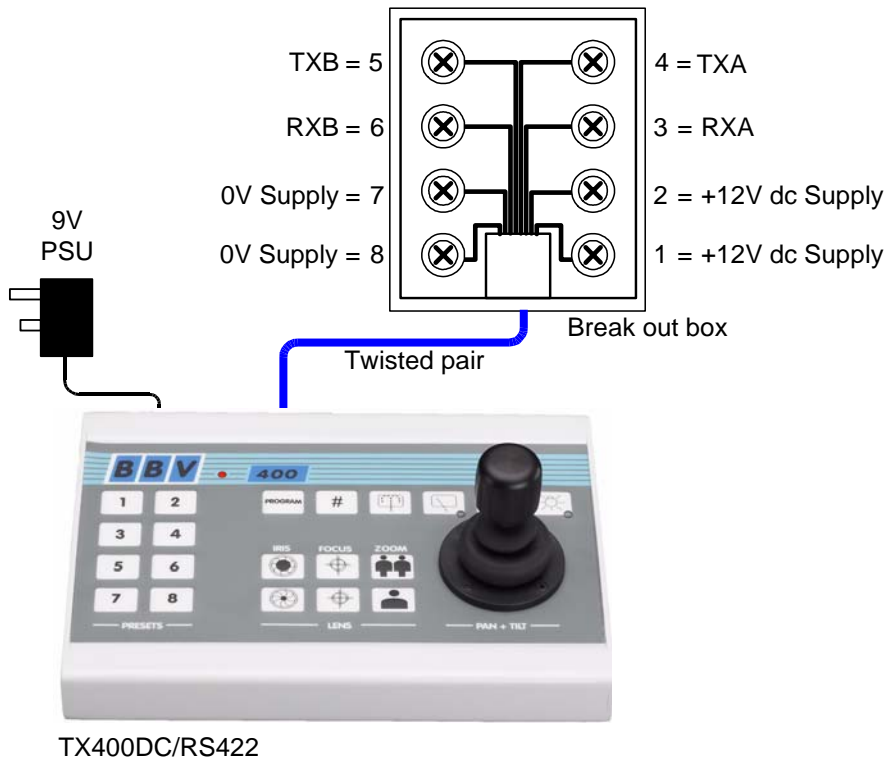
Unpacking

Inspect the packaging for signs of damage. If damage has occurred, advise the carriers and/or the suppliers immediately. Unpack the transmitter carefully and check that all the items are included:

Part number	Description	TX400	TX400 DC	TX400DC/ RS422	9V PSU	Manual	Rubber Feet x 4	Warranty card
TX400	Telemetry transmitter P/T/Z with 8 presets, wash, wipe, lights, autopan	X			X	X	X	X
TX400DC	Telemetry transmitter P/T/Z with 8 presets, wash, wipe, lights and autopan, with joystick		X		X	X	X	X
TX400DC/RS422	Telemetry transmitter P/T/Z with 8 presets, wash, wipe, lights and autopan, with joystick, supports BBV RS422, Pelco D and Pelco P			X	X	X	X	X

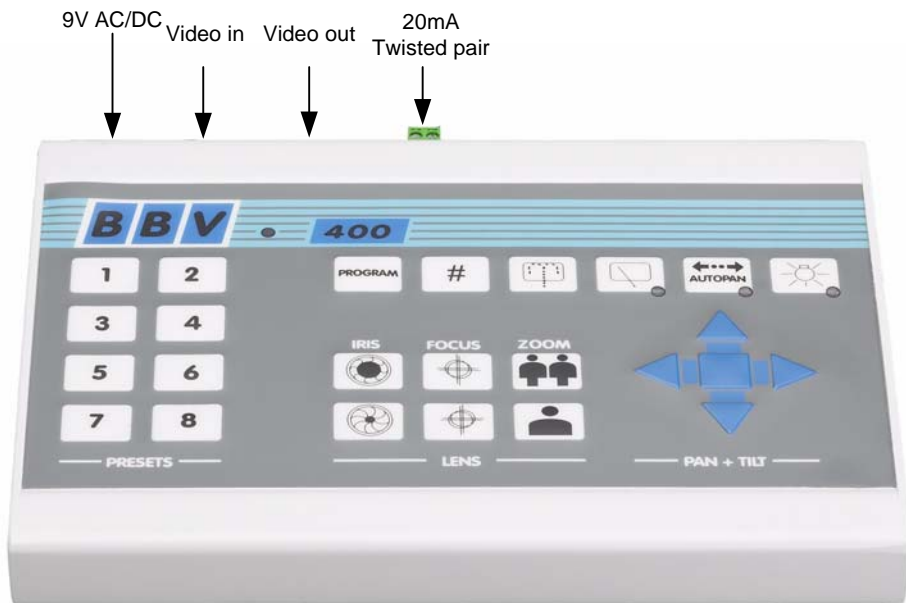


A simple TX400 system

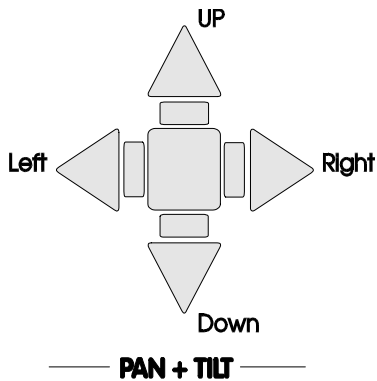


TX400DC/RS422 connecting via a Breakout box

Layout of the TX400 series keypads



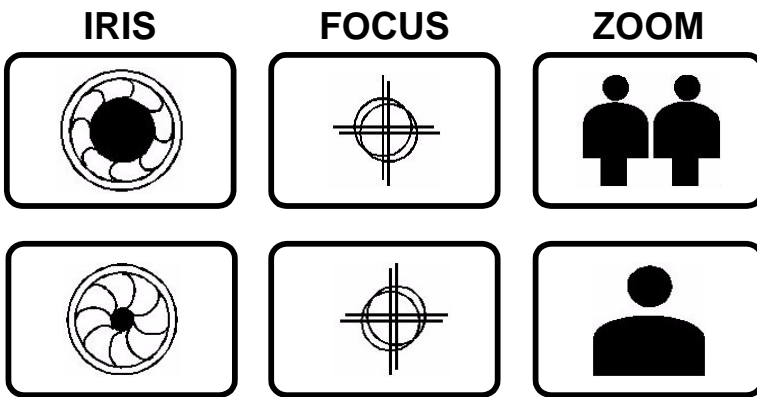
Keypad Functions



Pan and Tilt Action:

Press the relevant direction arrow

Lens Action

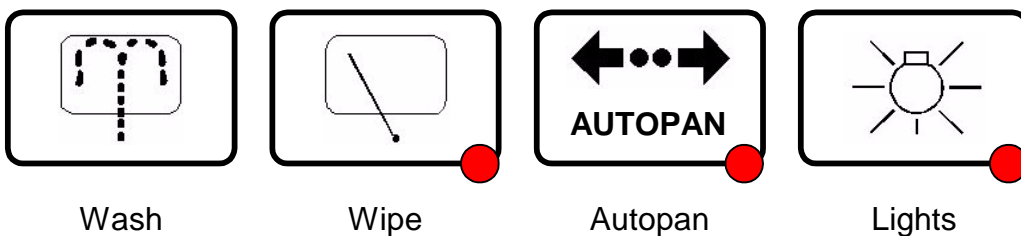


There are six lens function switches on the TX400 and TX400DC keypad. These are **IRIS OPEN**, **IRIS CLOSE**, **FOCUS NEAR**, **FOCUS FAR**, **ZOOM IN** and **ZOOM OUT**. Press and hold the relevant key until the desired picture is obtained.

Note: If the key is pressed and held for longer than one second, High Speed Lens Action is activated. Inching is achieved by quick presses of the key.

Auxiliary Function Switches

There are four auxiliary function switches on the TX400 and TX400DC keypad:



- | | | |
|---------|---|---|
| WASH | - | Press and hold for washer motor to run |
| WIPE | - | Latching output, press on/press off |
| AUTOPAN | - | Press, LED lights up and the Autopan motor starts. Pressing Left or Right stops Autopan |
| LIGHTS | - | Latching output, press on/press off |

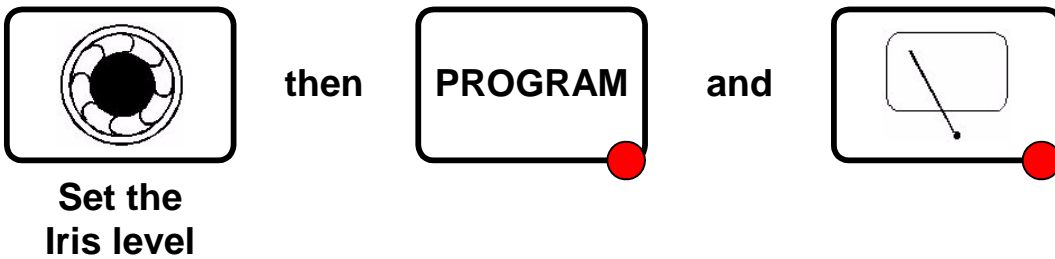
Self Test (This function is only available for BBV coax and 20mA)

To run a self test, press and hold **PROGRAM** whilst pressing **WASH**. This activates the self test routine in the BBV range of receivers. See the receiver Installation Guide for more details.



Iris Level Program (This function is only available for BBV coax and 20mA)

To preset the aperture of the iris, press **IRIS OPEN** or **IRIS CLOSE** until the desired level is reached, then press and hold **PROGRAM** whilst pressing **WIPE** to set.

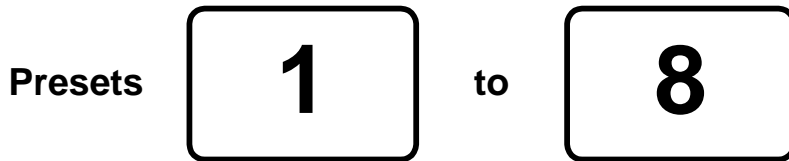


Note: After adjustment, there is a 15 second period in which to program the Iris setting. After this time, the iris reverts to its default setting.

The remainder of this manual refers to features found only on the receivers supporting presets, RX100 dome interface, RX400P AC preset receiver, RX45X and RX55X multiple protocol advanced receivers.

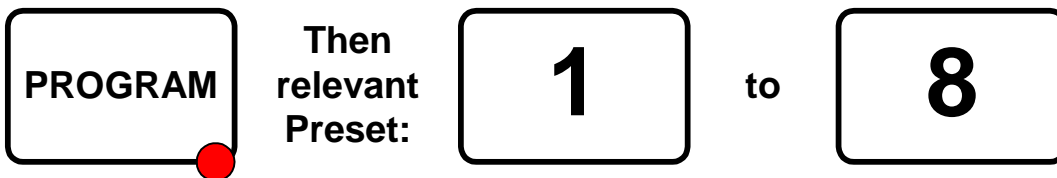
PRESETS

To select a programmed preset, press one of the Preset keys 1 to 8.



PROGRAMMING A PRESET

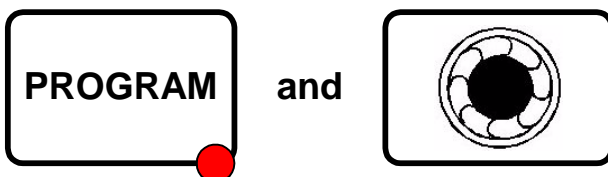
Position the camera using **UP/DOWN** and **LEFT/RIGHT** arrows. Then set Zoom and Focus. When satisfied with the position and the quality of the picture, press and hold **PROGRAM** then press and release one of the Preset keys 1 to 8.



TO ERASE A PRESET

Select the preset to be erased, then press and hold **PROGRAM** then press and release **IRIS OPEN**.

For example, to erase Preset 4, press preset key 4, press and hold **PROGRAM**, then press and release **IRIS OPEN**.



PATROLS (This function is only available for BBV coax and 20mA)

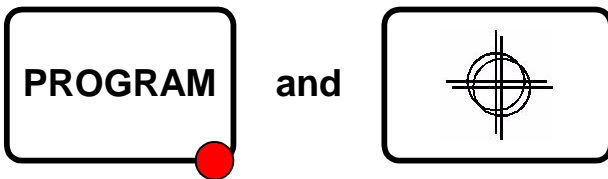
A Patrol automatically runs through a sequence of selected presets with a programmed delay between each preset. The receiver continues in this mode until a pan or tilt key is pressed.

Each BBV receiver is capable of operating two patrol modes made up of the 16 presets. The TX400 & TX400DC will only control the first 8 presets. When a preset is programmed it is automatically entered into both patrols. Presets can be removed from either patrol to make up the required sequences.

If a preset is erased it is automatically removed from a patrol.

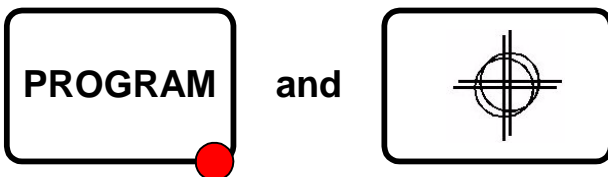
To remove a preset from Patrol 1:

Select the preset you wish to remove from the patrol by pressing the appropriate Preset key. Press and hold PROGRAM whilst pressing FOCUS NEAR.



To remove a preset from Patrol 2:

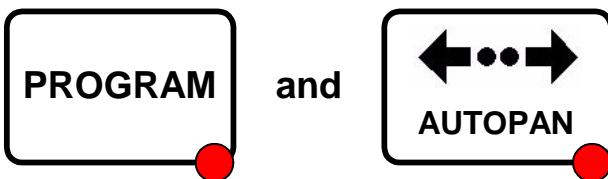
Select the preset you wish to remove from the patrol by pressing the appropriate Preset key. Press and hold PROGRAM whilst pressing FOCUS FAR.



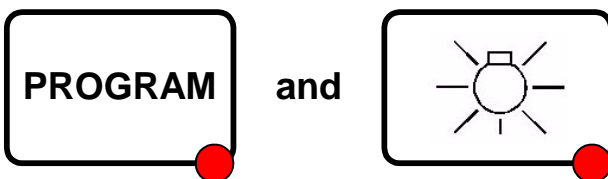
Starting a Patrol:

On starting a patrol the receiver will immediately move to the first preset in the patrol.

To start patrol 1 - Press and hold PROGRAM whilst pressing AUTOPAN.



To start patrol 2 - Press and hold PROGRAM whilst pressing LIGHTS.



Stopping a Patrol: Patrols can be stopped at any time by pressing LEFT, RIGHT, UP or DOWN.

Programming the Patrol delay (This function is only available for BBV coax and 20mA):

The default delay is 30 seconds. To programme a different delay, first determine the time delay required from the table below:

Preset Key 1	-	Random switching from 0 to 100 seconds
Preset Key 2	-	12 Seconds switching
Preset Key 3	-	24 Seconds switching
Preset Key 4	-	36 Seconds switching
Preset Key 5	-	48 Seconds switching
Preset Key 6	-	60 Seconds switching
Preset Key 7	-	72 Seconds switching
Preset Key 8	-	84 Seconds switching

Programming a Patrol delay on Patrol 1:

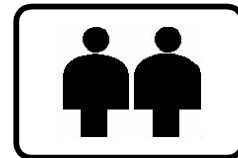
Press and release the preset key that corresponds with the delay desired, then press and hold PROGRAM whilst pressing ZOOM OUT to set patrol 1 delay. For example, to set a delay of 12 seconds, press and release Preset Key 2, then press and hold PROGRAM whilst pressing ZOOM OUT.

**Press & release
relevant Preset
key**

Then



and

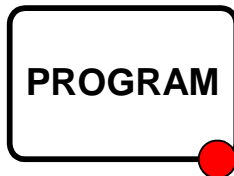


Programming a Patrol delay on Patrol 2:

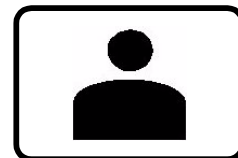
Press and release the preset key that corresponds with the delay desired, then press and hold PROGRAM whilst pressing ZOOM IN to set patrol 1 delay. For example, to set a delay of 84 seconds, press and release Preset Key 8, then press and hold PROGRAM whilst pressing ZOOM OUT.

**Press & release
relevant Preset
key**

Then



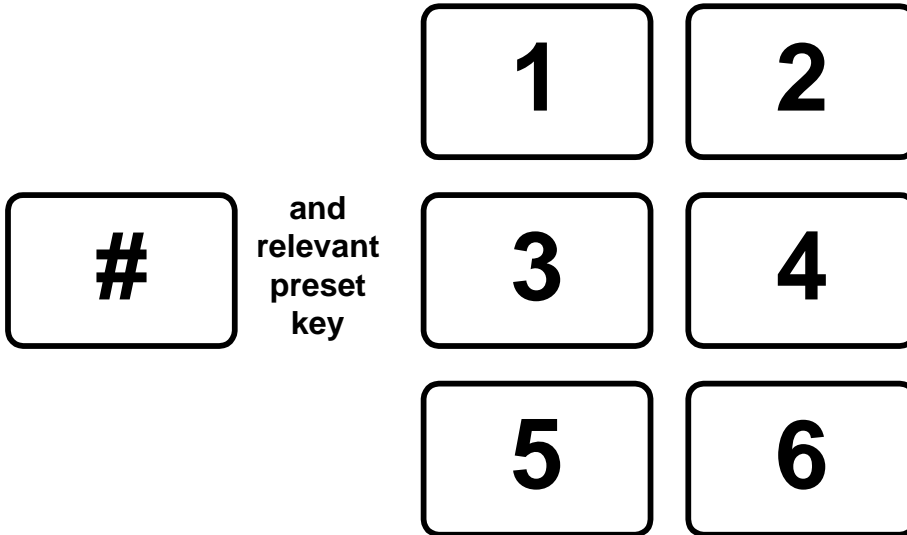
and



Spare Outputs

Depending on the receiver the spare output is used to provide additional outputs or used for advanced features with the RX100 and RX45X/55X range.

To activate, press and hold # whilst pressing preset key 1,2,3, 4, 5 or 6:



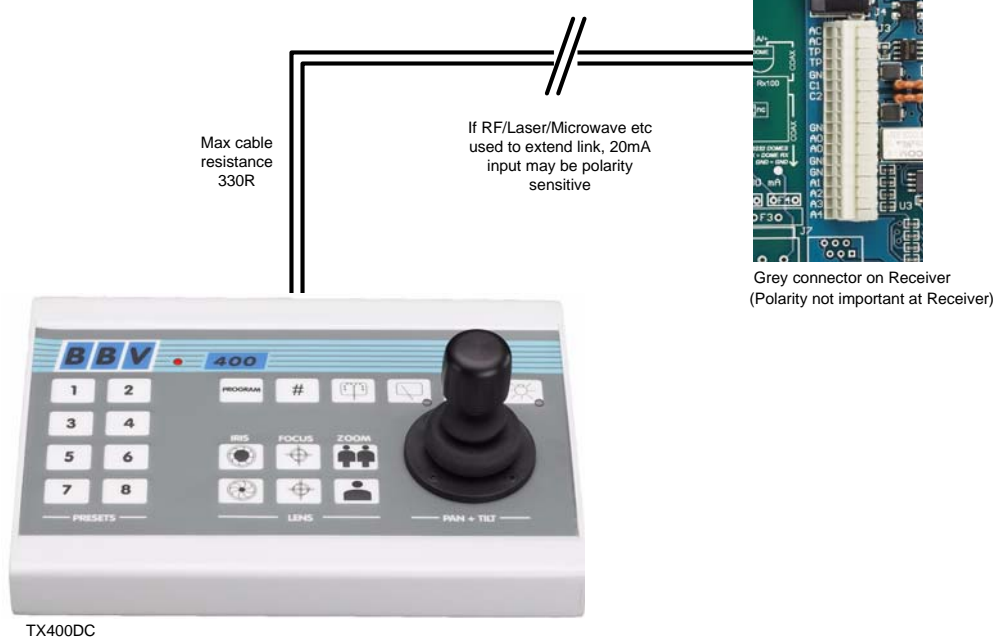
See page 14 for BBV RS422, Pelco D & Pelco P commands.

20mA twisted pair output (TX400 and TX400DC only)

The twisted pair output sends telemetry signals from the transmitter to the receiver as a 20mA compatible output. The format is 1200 baud 8 data bits 1 stop bit, Even parity.

The normal reason for using a twisted pair option is to connect to a non-cable transmission system, fibre, microwave etc. or when the electrical conditions are too 'noisy' to use up-the-coax telemetry.

A video cable connection is still required for picture information.



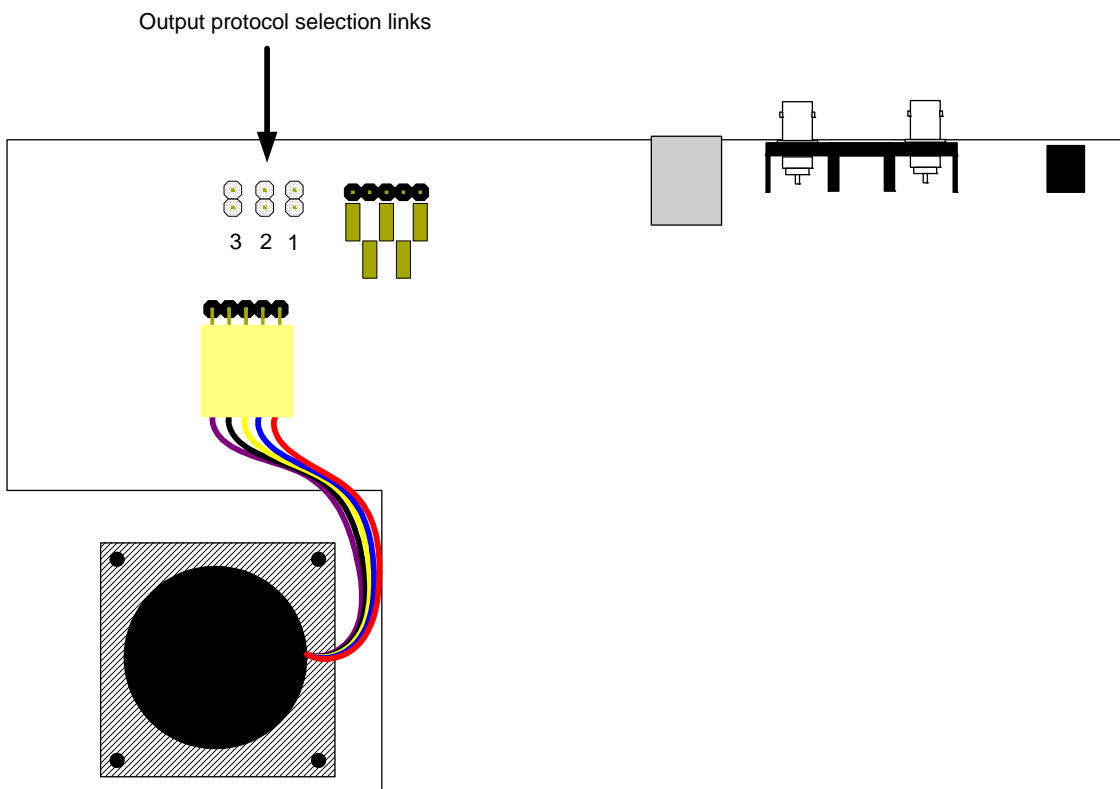
Selecting protocols on the TX400DC/RS422:

The TX400DC/RS422 can output 3 different protocols:

- BBV RS422
- Pelco P 9600 N 8 1
- Pelco D 2400 N 8 1

To select the protocol, take the back off the keyboard and adjust the links:

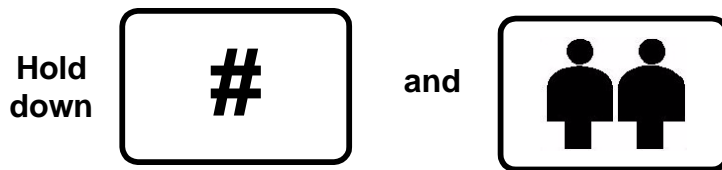
- Link fitted to Pin 3 = Pelco D 2400 N 8 1
- Link fitted to Pin 2 = BBV RS422
- Link fitted to Pin 1 + 2 = Pelco P 9600 N 8 1



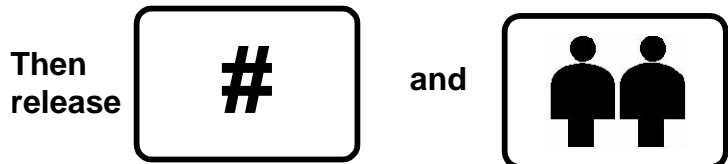
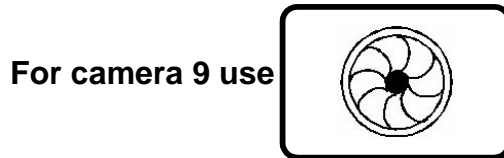
Internal view of the TX400DC/RS422

TX400DC/RS422 – Address setting

To Select an address:



While holding these keys, select and then release the camera number. Use numbers 1 - 8 for cameras 1 - 8



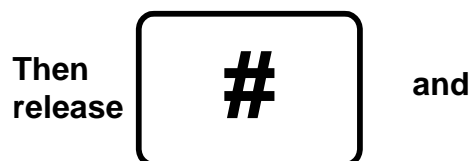
For example, to select camera address 16:



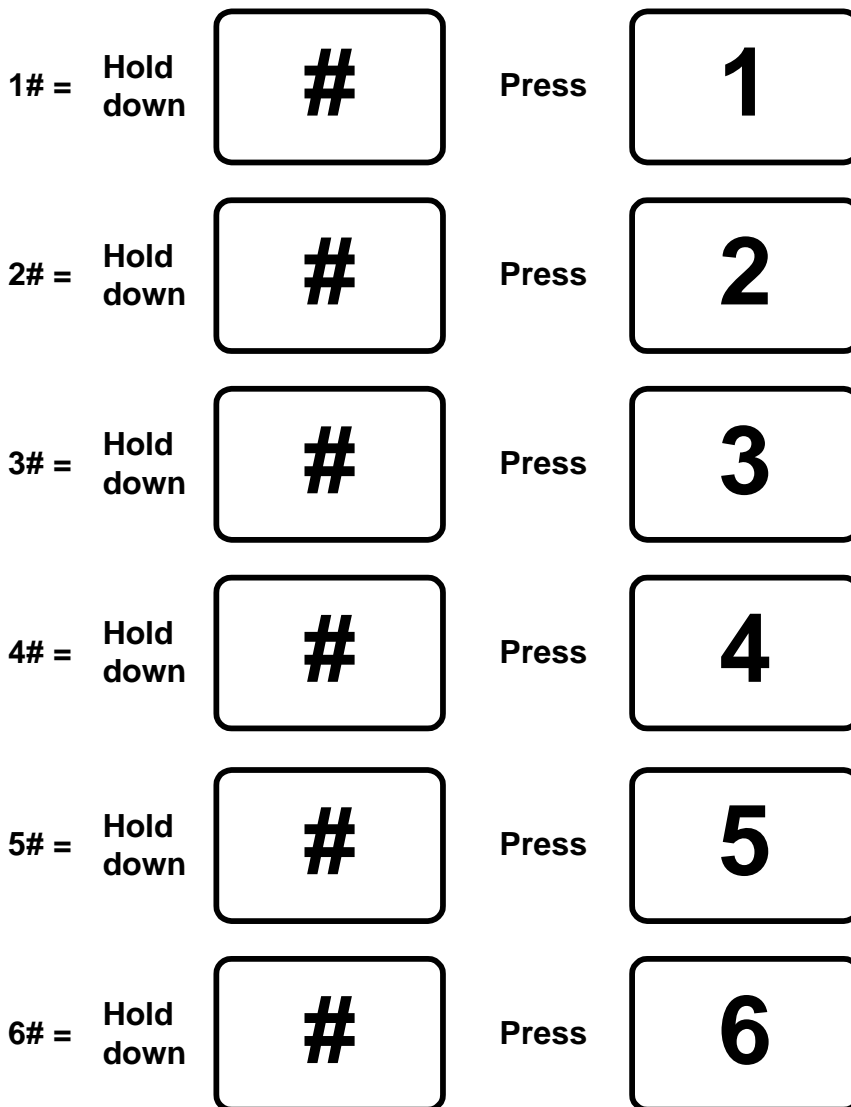
While holding these keys, press and release



Then press and release



Sending # Commands



# Command	BBV RS422	Pelco P	Pelco D
1	Save Preset 95	Save Preset 95	Save Preset 95
2	Go to Preset 33	Run Pattern 1	Run Pattern 1
3	Go to Preset 94	Set Pattern start	Set Pattern start
4	#4	Set Pattern stop	Set Pattern stop
5	N/A	180 flip	Go to 0 Pan
6	N/A	Remote Reset	Remote Reset

- Blank for your notes -

Extend your BBV Warranty from 12 months to 3 years

As of the 1st September 2008 BBV have offered our customers the opportunity to extend the standard 12 month warranty to 3 years.




You must register for the extended warranty within 12 months of the date of manufacture.

How to register for the 3 year warranty

Registering for the new, longer 3 year warranty term is quick and easy.

Either:

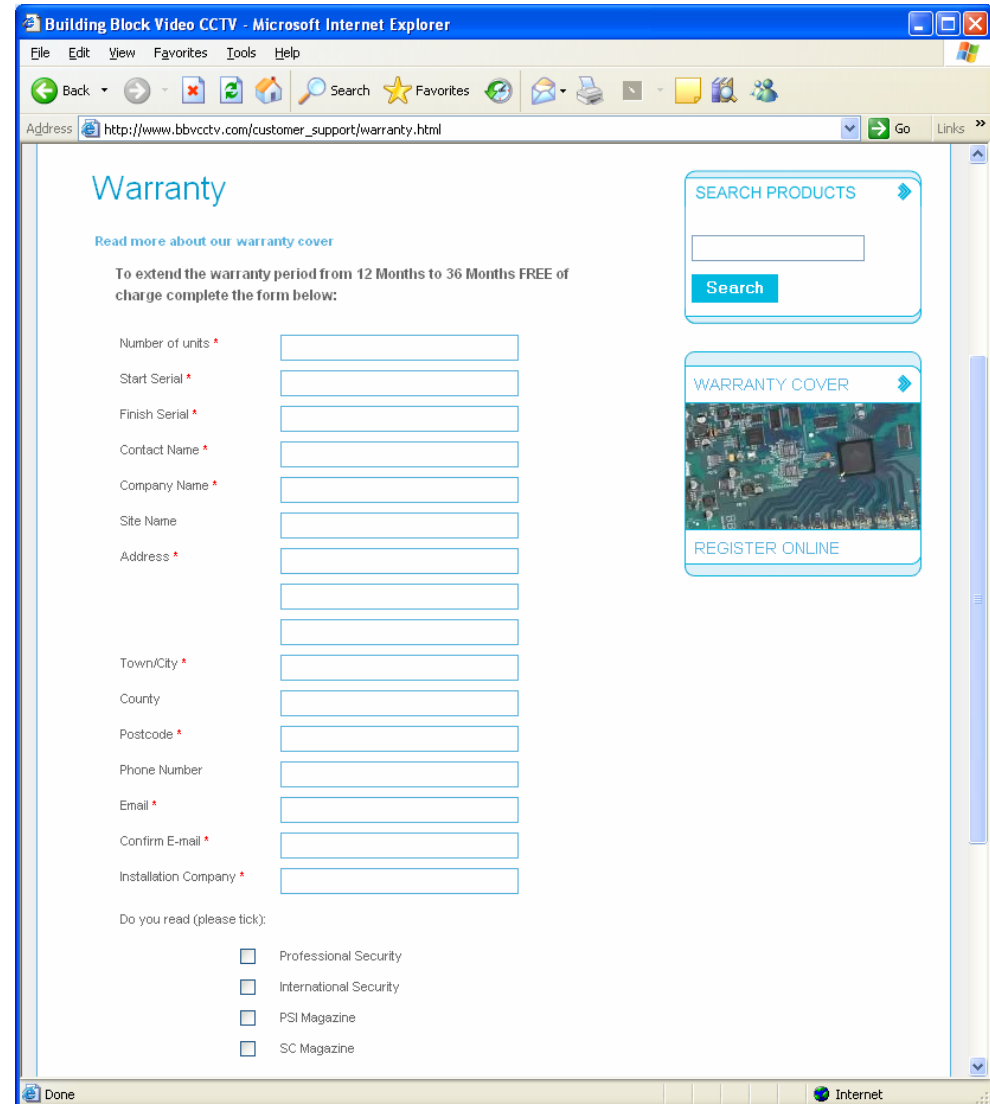
Complete the warranty application card that comes in the box with your BBV product, and return it FREEPOST to BBV:

		
BBV 3 Year Warranty		
If this card is returned with the serial number of the product and the Installation company details BBV will extend the warranty period from 12 Months to 36 Months.		
<input type="checkbox"/> Number of Units, _____	<input type="checkbox"/> Start Serial No. _____	<input type="checkbox"/> Final Serial No. _____
Contact Name, _____		
Company Name, _____		
Phone Number, _____		
Site Name, _____		
Address 1, _____		
Address 2, _____		
Address 3, _____		
Post Code, _____		
e-mail address, _____		
Do you read,   PSI MAGAZINE SC		
<input type="checkbox"/> I do not require any other further product information, Please refer to WWW.BBVCCTV.COM for terms, conditions & exclusions		
<small>VAT Reg. No. 621756439 Registered in England No. 2852921 Registered office: 17 Apex Park Diplocks Way Hailsham East Sussex UK BN27 3JU</small>		

Or alternatively:

Register online at: www.bbvctv.com

Simply enter your details on the 'Warranty Cover' page.



The screenshot shows a web browser window titled "Building Block Video CCTV - Microsoft Internet Explorer". The address bar shows "http://www.bbvctv.com/customer_support/warranty.html". The page content includes a "Warranty" heading, a "SEARCH PRODUCTS" box, and a "WARRANTY COVER" box with a "REGISTER ONLINE" button. The main form asks to "Read more about our warranty cover" and "To extend the warranty period from 12 Months to 36 Months FREE of charge complete the form below:". The form fields include: Number of units, Start Serial, Finish Serial, Contact Name, Company Name, Site Name, Address, Town/City, County, Postcode, Phone Number, Email, Confirm E-mail, and Installation Company. There are also checkboxes for "Do you read (please tick):" with options for Professional Security, International Security, PSI Magazine, and SC Magazine.



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