



HIGH-RES Receiver.



# Installation Guide



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# INDEX

Safety instructions	4
General installation instructions	5
High-Res Technical Specification	6
Overview and set up voltage options	7
Setup of Telemetry Type	8
Setup of Receiver Address	8
High-Res Receiver Connections	9
Telemetry – Daisy Chained	10
Telemetry – Star Wired	10
BBV 422 Telemetry Information	11
High-Res Telemetry Wiring Example	12
Camera Board Connections	13
PSU Board Connections	14
Relay Board Connections	14
Fujinon D60 Lens connections	15
Self Test	16
Receiver setup	17
Setting Lens Direction	17
Setting Pan/Tilt speed	17
Diagnostic Aids	17
Cable Length Compensation	17
Programming the receiver	17
Menu structure overview	18
Menus in detail	19
COMMS MENU	19
PRESET MENU	19
ALARM MENU	19
OPTIONS MENU	20/21
DISPLAY OPTIONS	20
RELAY OPTIONS	21
PRESET FLAGS MENU	21
DEFAULTS MENU	21
TEST MENU	22
ENGINEER MODE	22
MOTOR OPTIONS	22
User guide	23
FEATURE MENU	23
Upgrading the receiver software	24

# **SAFETY INSTRUCTIONS**

**Check Contents** - Unpack the receiver carefully and check that all the items are present and correct. If any items are missing or damaged, contact your equipment dealer.

**Servicing** - Servicing of the receiver should only be undertaken by qualified service personnel, as opening or removing covers will expose dangerous voltages.

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

Any modification or repair not undertaken by the equipment manufacturer will invalidate the warranty and may create a fire or safety hazard.

**Pre-installation Checks** - It is recommended that the receiver be bench-tested prior to installation on the site.

**Coax Grounding** - If an outside cable system is connected to the receiver, the cable system must be grounded.

**Safety During Installation or Servicing** - Particular care should be taken to isolate the pan/tilt head in order to prevent operation whilst engineering work is being carried out on the receiver.

NOTE: When connected normally and powered, the head will move during self test of the receiver.

## **Damage Requiring Servicing:-**

- (a) When the power-supply cord or plug is damaged;
- (b) If liquid has been spilled into, or objects have fallen into, the receiver
- (c) If the internal electronics of the receiver have been exposed to moisture
- (d) If the receiver does not operate normally by following the operating instructions
- (e) If the receiver has been dropped or the enclosure is damaged
- (f) If the receiver exhibits a distinct change in performance

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

## **WARNING**

**TO PREVENT DAMAGE TO THIS RECEIVER, OR RISK OF FIRE OR SHOCK, DO NOT EXPOSE THE INTERNAL COMPONENTS OF THIS EQUIPMENT TO MOISTURE.**

# GENERAL INSTALLATION INSTRUCTIONS

The receiver is supplied in an IP67 rated polycarbonate external weatherproof enclosure. It will be necessary to make suitable holes in the enclosure to permit cable entry and exit. Adequately rated cable glands and/or flexible conduit should be used at all times to avoid compromising the protection afforded by the enclosure as supplied. Any holes made in the enclosure should be sealed with a non-hardening waterproof sealant, taking care to ensure that the internal electronics are not contaminated.

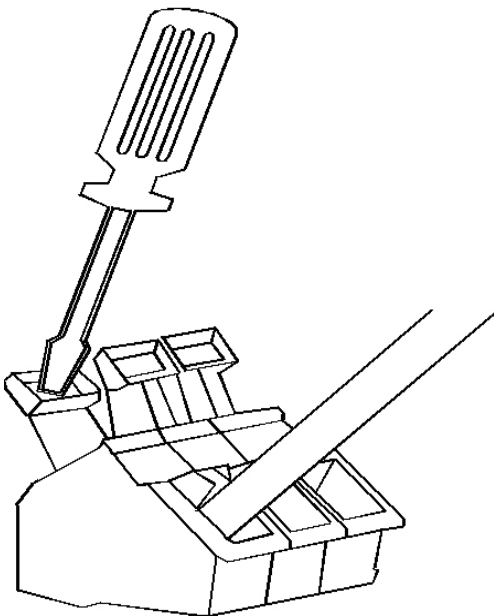
Enclosure mounting holes are provided at the corners of the enclosure, outboard of the seal between enclosure and lid.

## CABLE CONNECTIONS

The receiver comprises 2 printed circuit boards mounted one above the other. The lower board contains the power supply and output connectors for the pan/tilt head and auxiliary outputs. The top board has the microprocessor and the low voltage connectors including lens, presets, local alarms, telemetry etc.

Cage clamp connectors are used for all wired connections apart from power supply and video. The diagram below shows how the cage clamp connectors should be used.

**Disconnect power BEFORE connecting and disconnecting wires.**



Prepare wires as follows:

Use only wire between 0.08 and 2.5 mm<sup>2</sup>  
Strip the wire to a length of 5 to 6 mm (0.23 in)

The correct method of attachment is as follows:

1. Press down the relevant terminal block lever with a suitable screwdriver.
2. Insert wire.
3. Remove screwdriver.

To detach wires:-

1. Press down the relevant terminal block lever with a screwdriver.
2. Remove wire

# **HIGH-RES TECHNICAL SPECIFICATION**

<b>Power Requirements</b>	230Vac or 110Vac (24Vac as special order)
<b>Max Load</b>	5A @ 230V (1150 W)
<b>Receiver Current Draw</b>	Maximum of 100VA max
<b>Fuses</b>	Auxiliary fuse F2 5A T (20mm ceramic cartridge)
<b>Outputs</b>	Total maximum of pan/tilt/lens and 24Vac auxiliary is 100VA. Auxiliary outputs for Wash/Wipe/Lights (1000W max) Driven at supply voltage or 24Vac selectable by SW2
<b>Video Input</b>	1v p-p 75Ω terminated input via BNC socket.
<b>Video Output</b>	1v to 4v p-p 75Ω impedance via BNC socket. Video launch amplifier gain <i>LOCALLY &amp; REMOTELY ADJUSTABLE</i>
<b>Lens Drives</b> <b>REMOTELY ADJUSTABLE</b>	Zoom and focus - adjustable between 6 – 12Vdc. Inching speed - adjustable between 0 – 12Vdc. 1 second inching built in. Iris output – can be set for either direct drive for 3 motor lens or Auto-iris override voltage. In auto-iris mode, the output returns to the preset level 15 seconds after manual iris control. Preset level is adjustable. Each output has red and green LEDs to indicate direction and voltage.
<b>Presets</b> Lens 10 bit resolution Head 12 bit resolution	Inputs are provided for pan, tilt, zoom & focus preset feedback pots. Optional sin/cos pan input for continuous rotation heads. Up to 32 full-scene presets can be stored within the receiver, i.e. pan, tilt, zoom, and focus. (16 with BBV & Baxall up-the-coax protocols)
<b>Alarm facilities</b>	8 alarm inputs from volts-free normally closed contacts. Output is 1 normally closed volts-free contact which can be set to operate either immediately or when the preset is approached after an alarm input. <b>NOTE:</b> - The output is used for iris override when using Fujinon or Pentax lens mode.
<b>Additional facilities</b>	Software Random Pan Sequential preset patrol with individual programmable preset dwell. Datum - return to preset 1, start preset patrol or random pan after menu programmable duration of inactivity.
<b>Features</b>	LED readout for continual system status. Programming menu with On Screen Display. 12Vdc/500mA unswitched output provided. Colour coded outlets – live, neutral, earth and low voltage.
<b>Boxed Dimensions</b>	Width: 380mm, Length: 190mm, Height: 130mm
<b>Weight</b>	3.43kg

# OVERVIEW

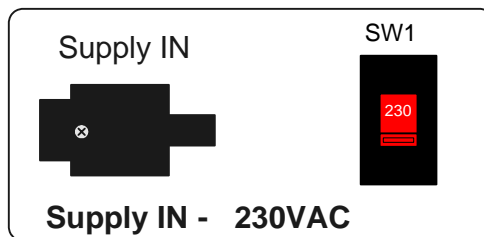
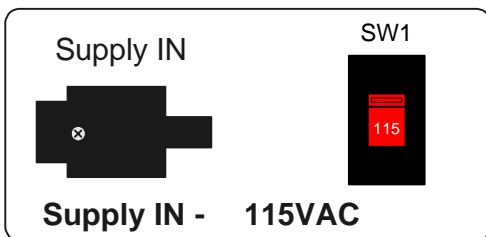
The Hi-Res system is designed to provide a complete package solution for specifications requiring a much greater degree of accuracy than a normal pan tilt head and receiver.

The receiver can be controlled using either a daisy chained or star wired BBV RS485 network, for a control system with a single BBV RS485 telemetry output, a BBV STARCARD can be used to allow star wiring of the site.

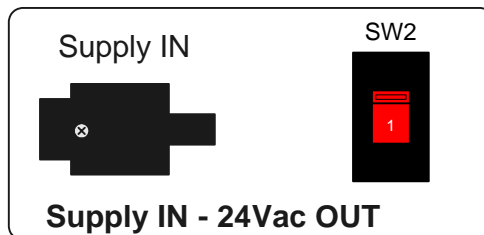
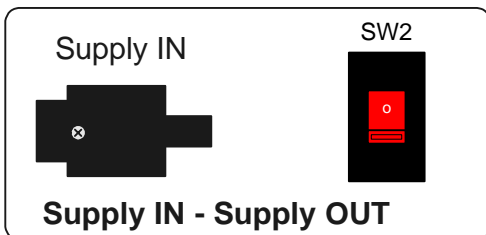
An on screen menu system allows easy setup, test control and diagnostic display either locally or remotely.

On the Lower Board there are two option switches.

SW1 selects the Supply Voltage the options are 115VAC or 230VAC



SW2 selects the auxiliary output Voltage the options are Supply Voltage or 24VAC



# LOCAL SETUP OF TELEMETRY TYPE AND ADDRESS

(Useful for off-site setup without video source connected. When used with a HIGH-RES system the protocol MUST be set to BBV RS422.)

As shipped, BBV RS422 protocol is selected. To select other protocols:-

- 1) Connect a video monitor to the output BNC marked 'TO MATRIX'. Press and hold SW2 (MENU/SET) and power up the receiver. A menu on a blue background will be shown with 'COMMUNICATIONS' flashing.
- 2) Release SW2 and press SW2 again to select 'COMMUNICATIONS'. The next screen shows the current telemetry type and receiver address. If these are correct, power down the receiver. (No address shown with coax protocols)
- 3) To change the telemetry type or address use SW1/SW3 to highlight 'MENU UNLOCK' and press SW2 to toggle to 'UNLOCK'.
- 4) Use SW1/3 to select 'TELEMETRY TYPE' or 'UNIT ADDRESS' and press SW2 to access submenu. Press SW1/SW3 to obtain required selection, and then press SW2 to confirm.
- 5) With the telemetry type and unit address set correctly, use SW1/SW3 to highlight 'SAVE CHANGES AND EXIT' and press SW2.
- 6) The receiver then re-starts. Power off and continue with the physical installation.

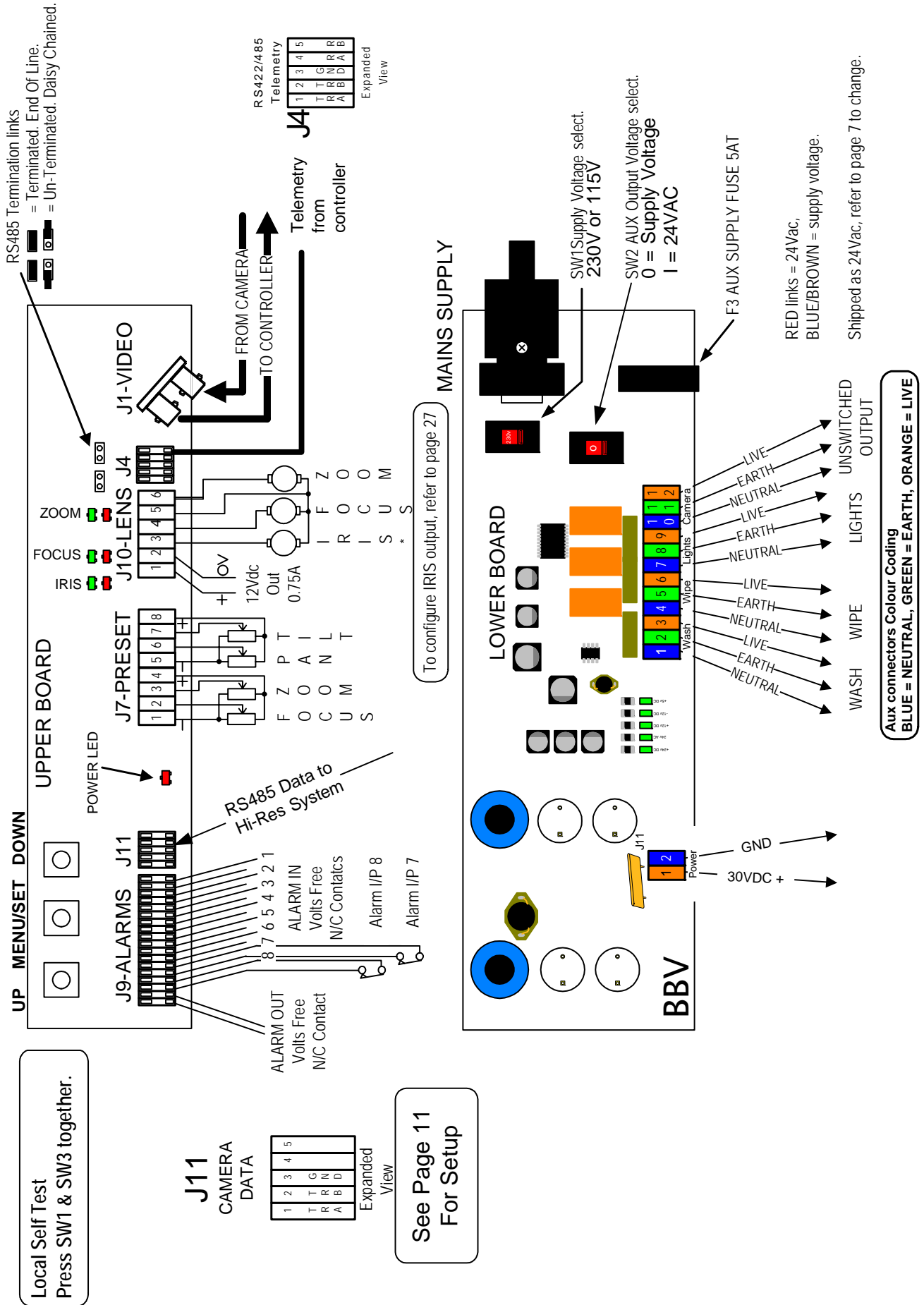
## WIRING OF RECEIVER

The lens drive outputs can be reversed using the OPTIONS menu of the receiver instead of swapping the lens wiring.

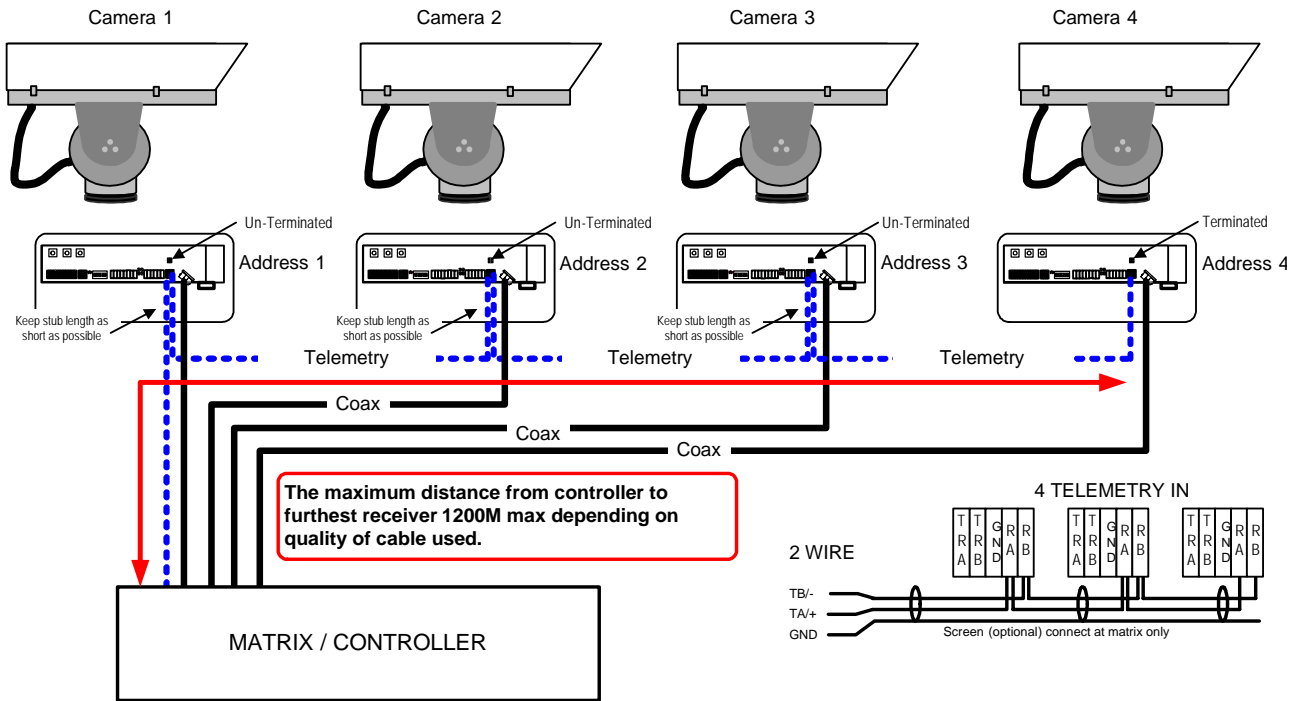
Polarity of the Hi-Res lens drive outputs are shown below. Refer also to specific wiring diagram..

Hi – Res receiver lens drive polarity								
J10	ZOOM IN	ZOOM OUT	J10	FOCUS FAR	FOCUS NEAR	J10	IRIS OPEN	IRIS CLOSE
	RED LED	GREEN LED		GREEN LED	RED LED		LED	LED
ZM	-ve	+ve	FC	-ve	+ve	IR	-ve	+ve

# HIGH-RES RECEIVER CONNECTIONS.

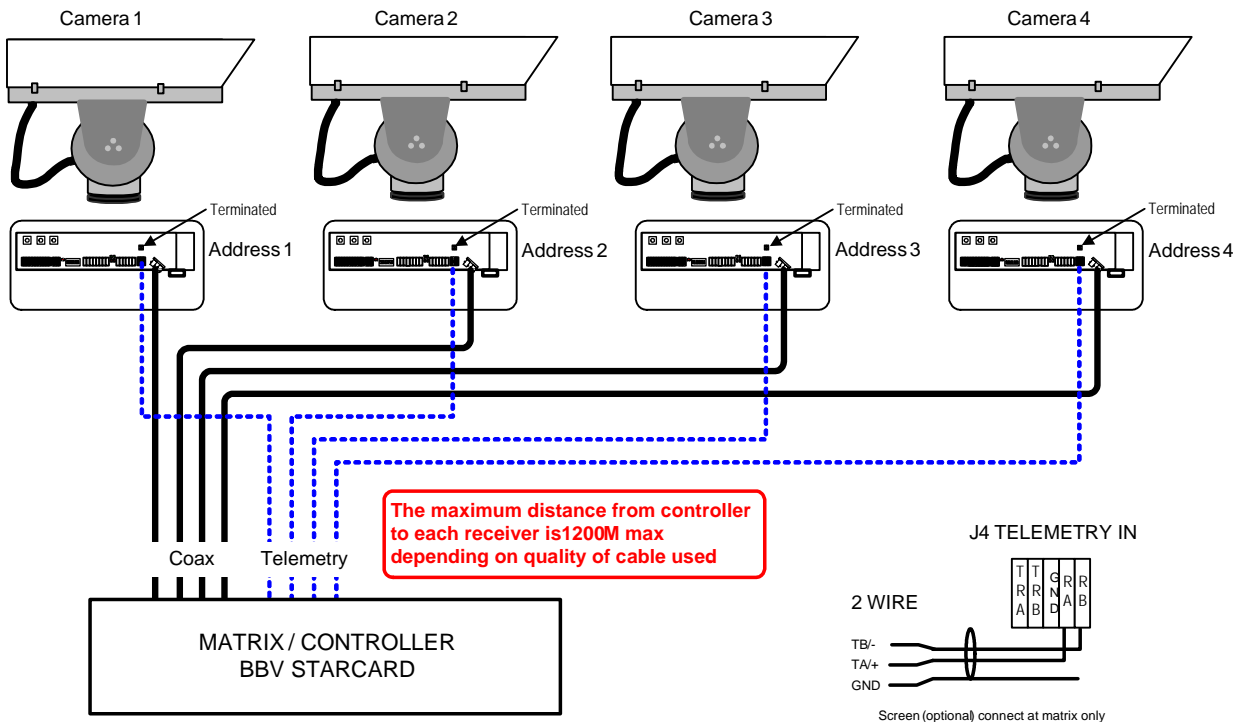


# DAISY CHAINED TELEMETRY EXAMPLE



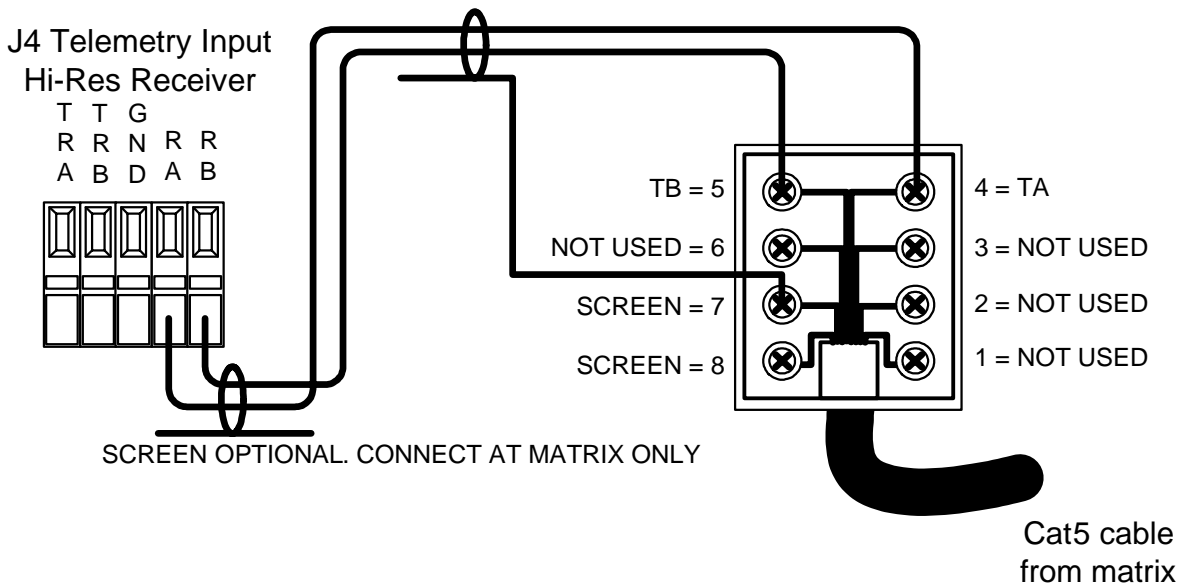
When using a daisy chained RS485 system, the stubs must be kept as short as possible and no longer than 25cm. Intermittent and/or sluggish control can be the result of excessive stub lengths.

# STAR WIRED TELEMETRY EXAMPLE

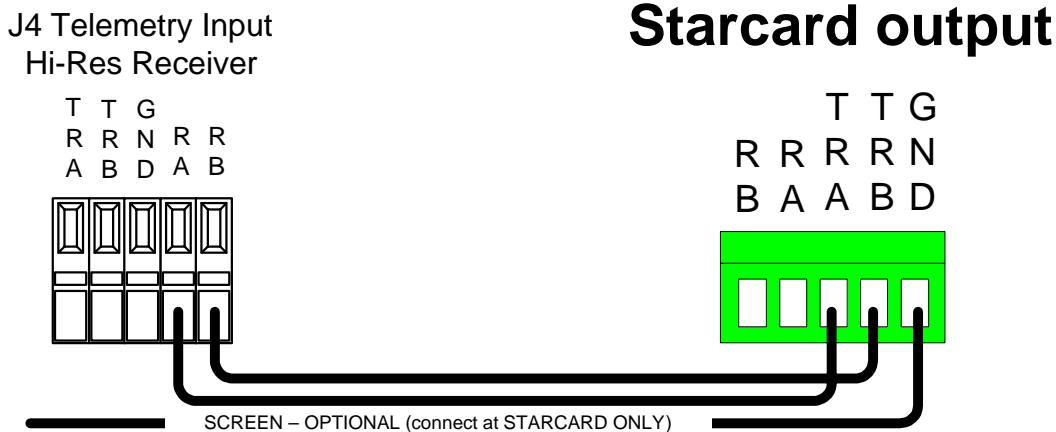


## BBV RS422 TELEMETRY

BBV RS422 uses a single twisted pair for simplex telemetry control.



Using a BBV STARCARD with star wired telemetry.



Address range is 1 – 128. (Use only 1 – 16 with a TX1000)

The receiver supports 32 preset positions.  
Limit of 16 with TX1000.

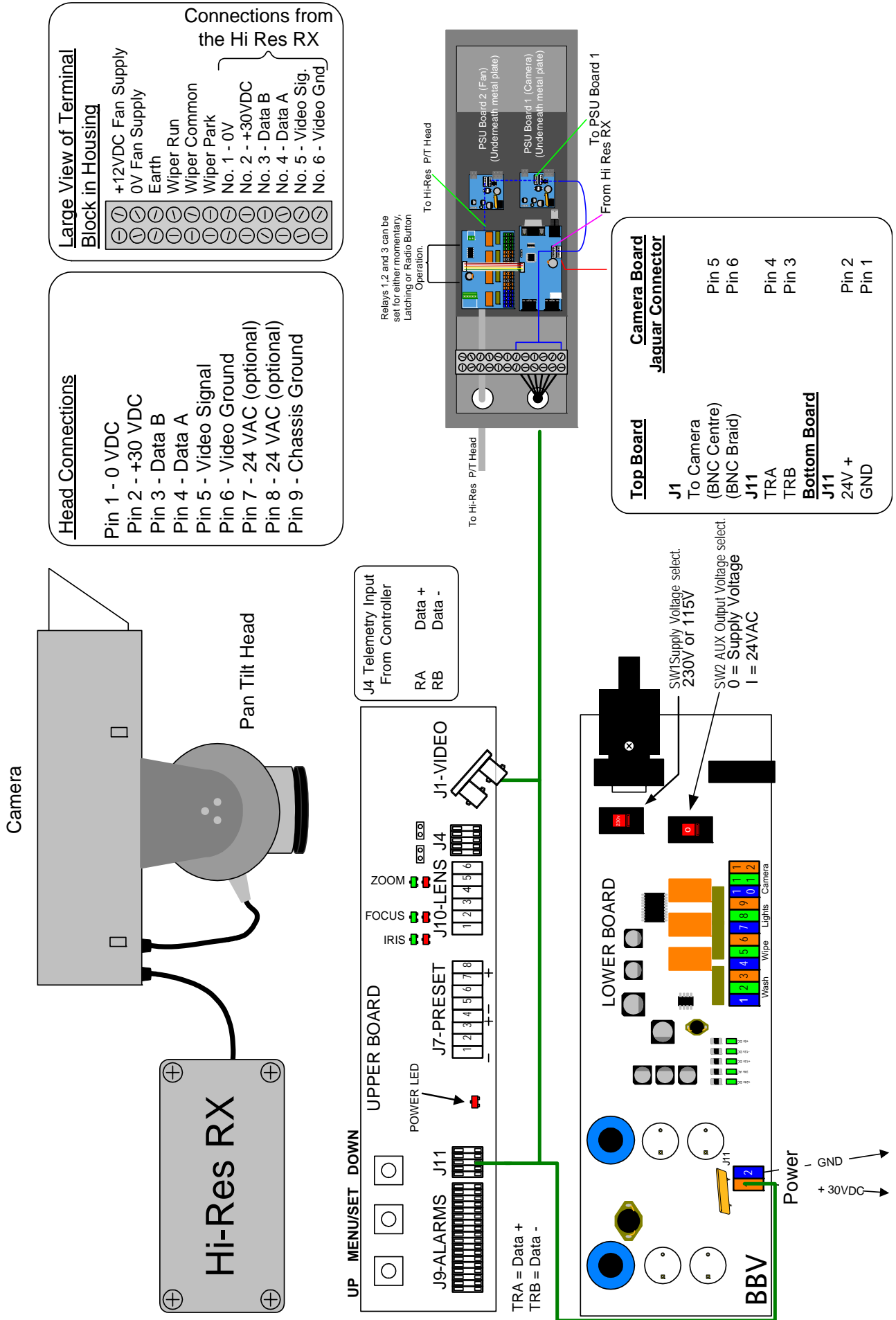
Key presses for menu access:-

Controller -	TX1000/MK2	TX1500
<b>MAIN MENU</b>	'#' WASH	1 '#'
<b>X2 LENS MULTIPLIER</b>	'#' WIPE	2 '#'
<b>FEATURE MENU</b>	'#' AUTOPAN	3 '#'
<b>Hi-Res RELAY BOARD CONTROL</b>	'#' LIGHTS	4 '#' (see page 13)

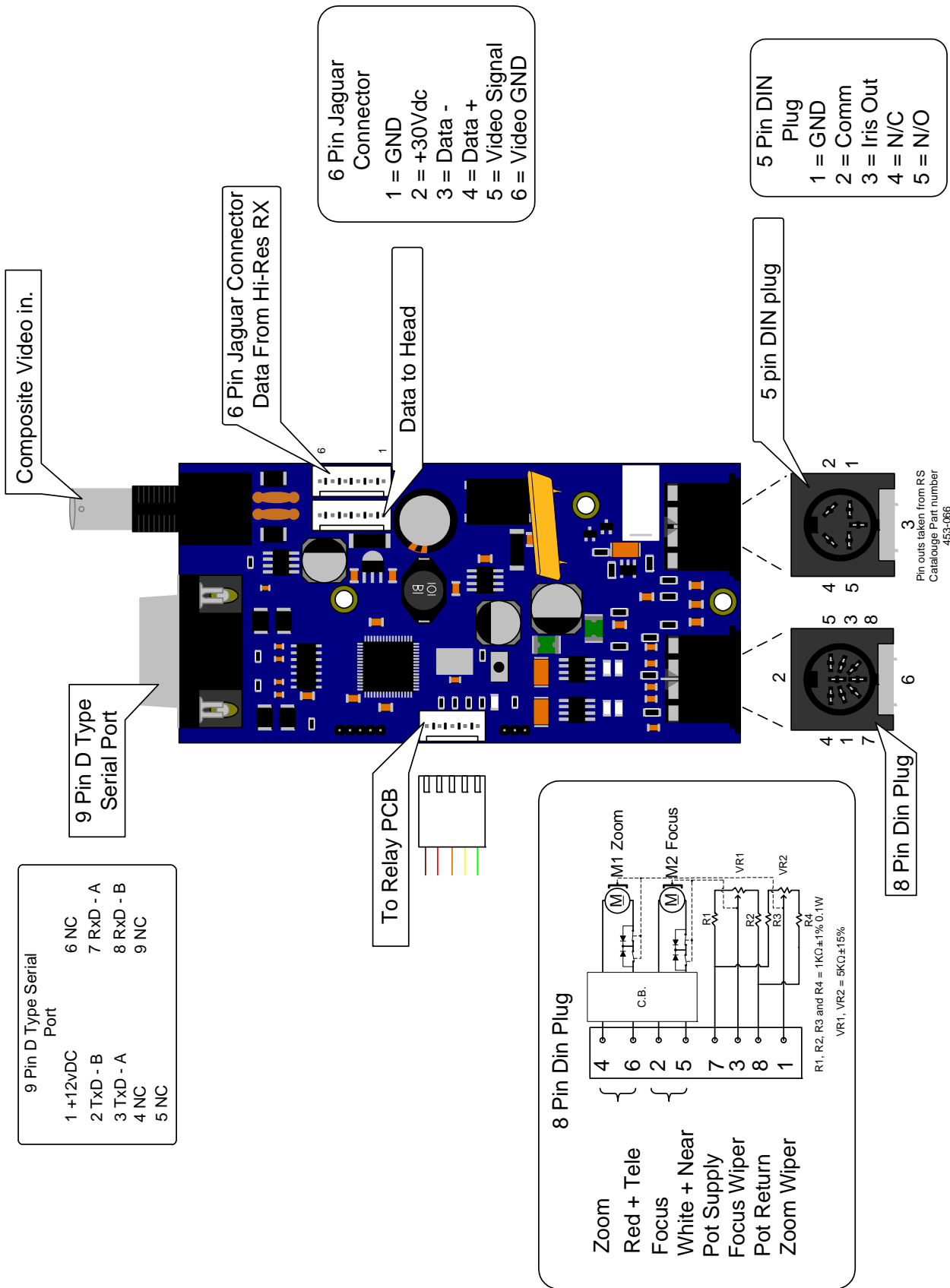
Use the joystick for menu navigation. Up or Down to highlight different items, and Right or Left to confirm or change the selected value.

The red power led flashes off when a valid telemetry command is received.

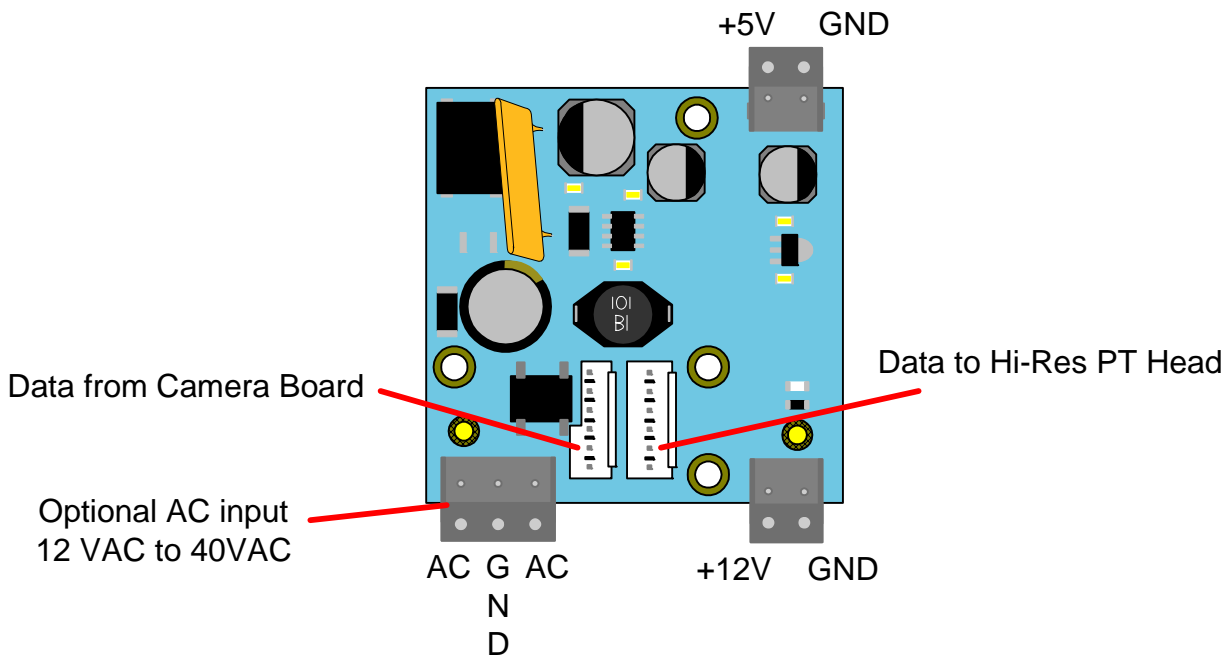
# Hi-Res Telemetry Wiring Diagram



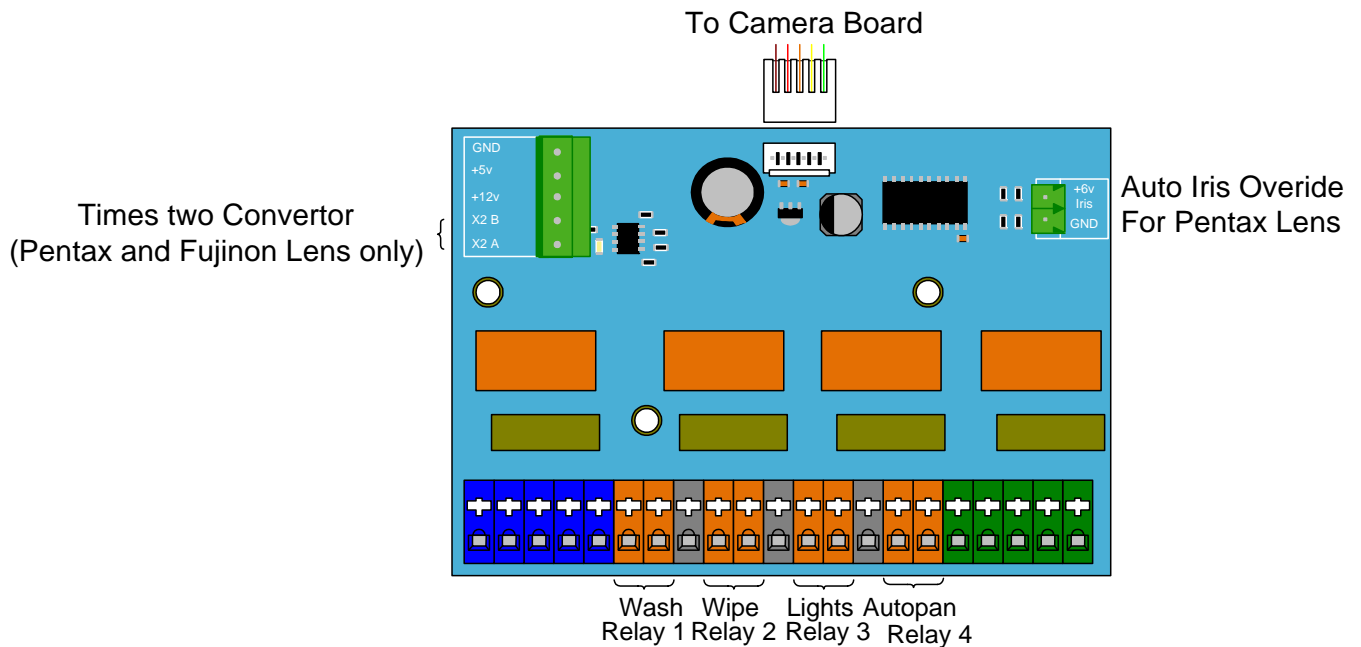
# Generic `Camera Board Connections.



# Generic PSU Board Connections



# Generic PSU Board Connections



The Hi-Relay Board can be activated using the normal wash, wipes, lights, buttons on a BBV Control system. Alternatively in the 3<sup>rd</sup> page of option menu you can select Radio or Momentary or Latch or Auxiliary. If either Radio, Momentary or Latch is selected you can control them by sending:

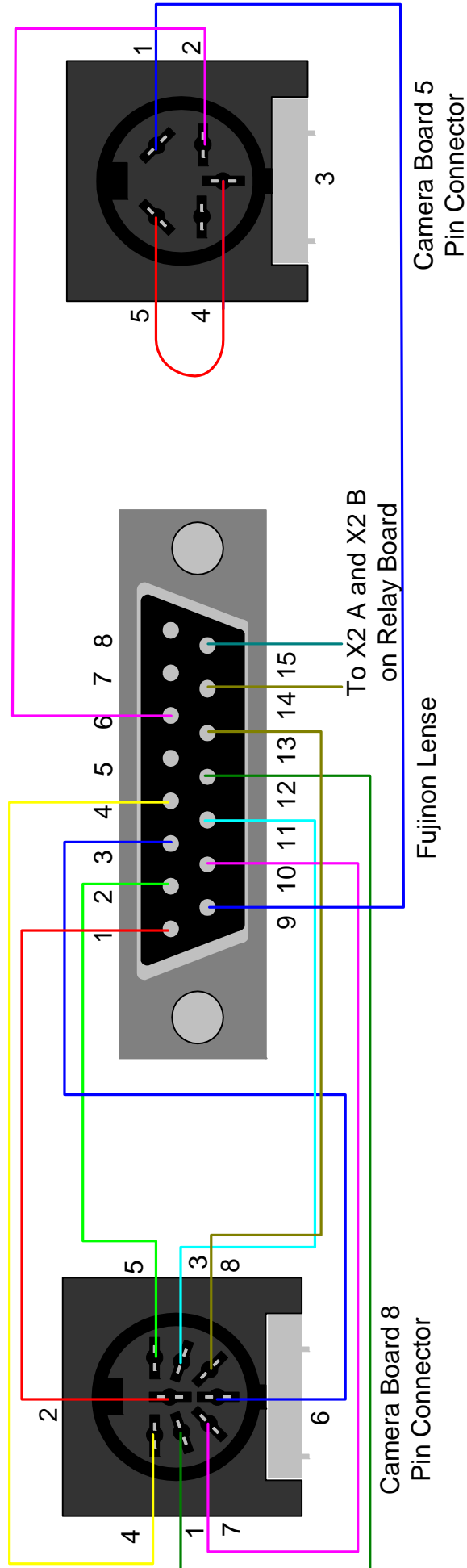
TX1500	TX1000	TX400
4 '#'	'#' Lights	'#' 4

And then pressing Goto preset 1 to 4 to activate the corresponding relay. Then you will need to send 4 '#' to exit this mode.

# Connecting The Camera Board to a Fujinon D60 Lens

Fujinon	9 Pin Connector
1	2
2	5
3	6
4	4
10	7
11	3
12	1
13	8

Fujinon	5 Pin Connector
6	2
9	1
(pins 3 and 5 linked)	



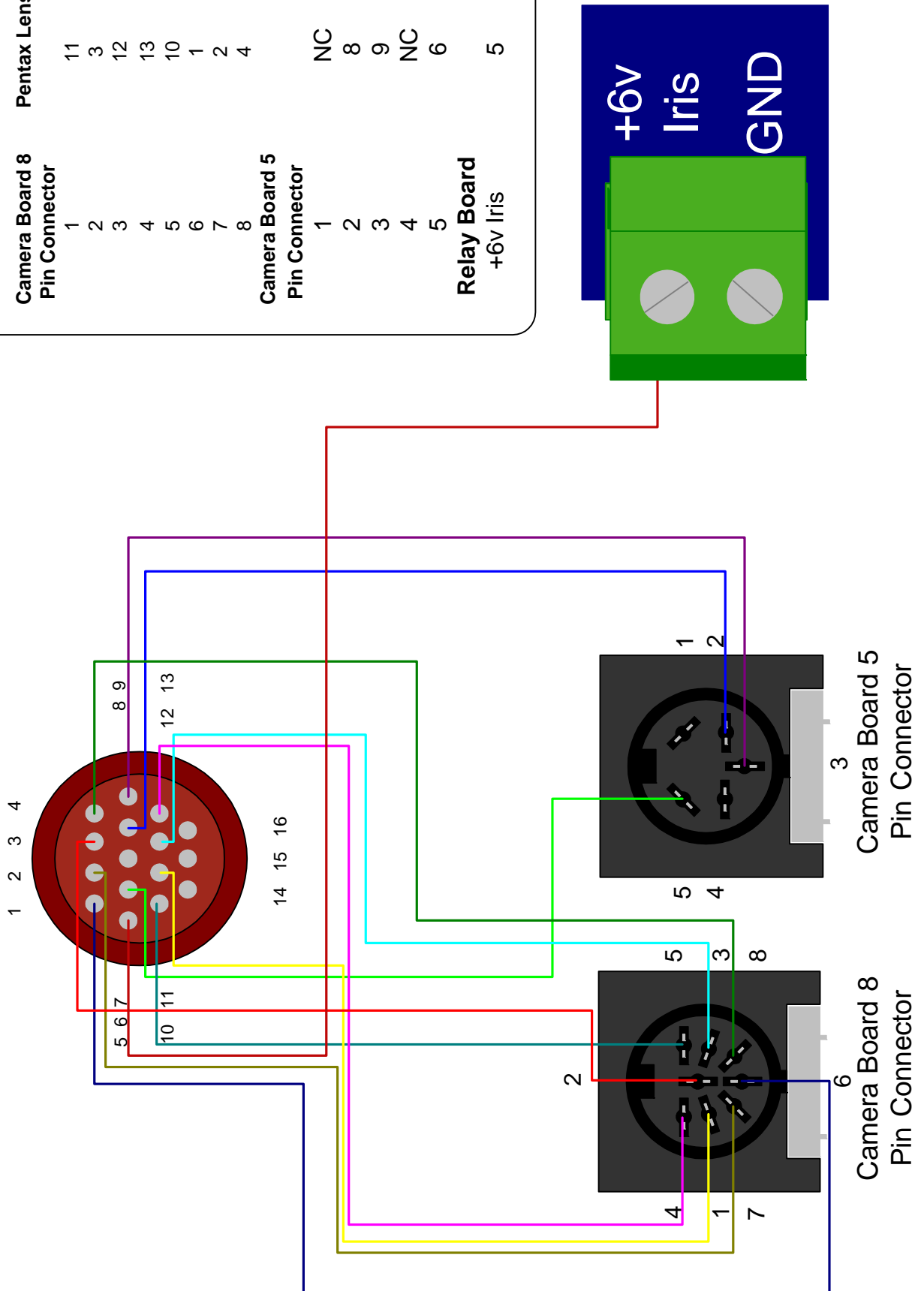
# Connecting The Camera Board to a Pentax TV Zoom Lens

**Pentax Lens Connections**

Camera Board 8 Pin Connector	Pentax Lens
1	11
2	3
3	12
4	13
5	10
6	1
7	2
8	4
	NC
	8
	9
	NC
	6
	5

Camera Board 5 Pin Connector	Relay Board +6v Iris
1	NC
2	8
3	9
4	NC
5	6



## SELF-TEST

After wiring the head and lens to the receiver, carry out a self test by pressing both UP (SW1) and DOWN (SW3) buttons simultaneously on the receiver top PCB. All receiver outputs will activate in turn for 2-3 seconds.

### ***The head will move during the self test.***

The self test can also be started remotely by using the receiver's onscreen menu with the self test progress being shown by two status lines as below:-

**FUNCTION** ← shows the current function being driven.

**Pxxxx Txxxx Zxxxx Fxxxx** ← shows feedback voltages for pan, tilt, zoom and focus.

Each value will change smoothly as the corresponding function is driven.  
The values shown will be in the range 0000 - 1023. 0000 = 0V and 1023 = 5V.

<b>Function</b>
PAN LEFT
PAN RIGHT
TILT DOWN
TILT UP
ZOOM IN/TELE (to end stop)
ZOOM OUT/WIDE (to end stop)
FOCUS NEAR
FOCUS FAR
IRIS OPEN
IRIS CLOSE
AUX LIGHTS
AUX WASHER
AUX WIPER

During the self test, the presence and sense of each preset input is recorded. Following the self test the display shows if the preset inputs for pan, tilt, zoom and focus were detected.

The pan/tilt head and lens outputs are driven for approx 5 seconds to indicate the results. If the drive led is GREEN then preset for this output is ok and if RED then not ok.

# RECEIVER SETUP

## SET THE LENS DRIVE DIRECTION.

If, after wiring the pan/tilt head, any lens function is found to drive in the opposite direction, e.g. pressing 'ZOOM IN' causes the lens to zoom out, then this can be corrected by using the receiver's MAIN/OPTIONS/ZOOM FOCUS IRIS menu.

**A self test must be performed after changing the lens driving direction.**

## SET PAN/TILT SPEED WITH HI-RES RECEIVER.

The receiver can be adjusted to a pan/tilt head's motor characteristics.

Use the MAIN/MOTOR OPTIONS menu.

Use the lowest speed settings for 'MIN PAN' and 'MIN TILT' that allows the head to move without stalling as soon as the joystick is moved. This gives the greatest speed range.

The maximum pan and tilt speeds can be reduced to prolong head life. The default speed is maximum, 255, which can be reduced to the minimum speed settings.

## DIAGNOSTIC AIDS

A single LED labelled POWER is lit while the receiver is powered.

This LED will flash off when the receiver has received correct telemetry data including correct receiver address.

Additional diagnostic aids are available in the receiver's MAIN/DIAGNOSTICS menu.

## CABLE LENGTH COMPENSATION

The receiver incorporates a remotely adjustable video launch amplifier to compensate for video cable losses.

The gain can be adjusted from 0 to 255 in the receiver's MAIN/OPTIONS menu, the default value is 0 (minimum). As gain is increased, high frequency lift is increased.

# PROGRAMMING THE RECEIVER

An easy to use menu structure allows programming of the receiver's advanced features. The menu can be accessed either locally using the 3 push buttons on the receiver or remotely using the telemetry controller.

**Local access:** - Pressing the MENU/SET (SW2) button displays the '**MAIN**' menu. Pressing the UP (SW1) or DOWN (SW3) button moves the flashing highlight up or down. Pressing MENU/SET (SW2) again displays the selected sub menu, or confirms a value or choice. To exit the menu structure, select '**EXIT**' from the '**MAIN**' menu. The receiver resets and resumes normal operation. The menu will automatically exit after a period with no button presses.

The receiver menu can be displayed remotely from most controllers. Refer to the specific protocol instructions.



COMMUNICATIONS

RX55X DC COMMS MENU  
 TELEMETRY TYPE PELCO P  
 UNIT ADDRESS 1  
 BAUD RATE 9600  
 PARITY NONE

MENU UNLOCK LOCKED

SAVE CHANGES AND EXIT

RETURN IGNORING CHANGES

This is the telemetry type  
 Unit address must be unique and match camera number  
 RS485 baud rate 2400/4800/9600 (PELCO ONLY)  
 Parity NONE/EVEN/ODD (PELCO ONLY)

Must be set to UNLOCKED to allow setting of above

All settings are saved and receiver is reset

Return to MAIN menu

PRESETS

RX55X DC PRESET MENU

PATROL DWELL OM 5  
 DISPLAY PAT YES  
 PRESET NUMBER 1 SET  
 DELETE ?  
 ADD TO PATROL YES  
 INDIVID DWELL NA

RETURN

Dwell in minutes & seconds during preset patrol  
 Display preset number during patrol (YES/NO)  
 Select preset (1-32) SET = preset programmed  
 Delete current preset (if SET above)  
 YES = is in preset patrol.  
 Override patrol dwell for this preset in  
 minutes & seconds

Return to MAIN menu

ALARMS

RX55X DC ALARM MENU 1

ALARM 1 ON  
 ALARM 2 ON  
 ALARM 3 ON  
 ALARM 4 ON  
 ALARM 5 ON  
 ALARM 6 ON  
 ALARM 7 ON  
 ALARM 8 ON

NEXT

Each local alarm input can be disabled  
 individually.  
 Set to OFF to disable the alarm input  
 and set to ON to enable the alarm input

Display the ALARM MENU 2

NEXT

RX55X DC ALARM MENU 2

DISPLAY ALARM ON  
 DELAYED ALARM OFF  
 ALARM 8 NORMAL

BACK RETURN

Receiver OSD displays ALARM message when ON  
 When OFF, the alarm output operates immediately  
 When alarm 8 is set to GLOBAL, alarm inputs 1-7 are  
 disabled when alarm input 8 is shorted to ground

When delayed alarm is ON, the alarm output operates  
 only as the head approaches the preset position to  
 prevent a triggered video transmission/recording  
 system from sending 'blurred' frames.

BACK to ALARM menu 1, or RETURN to MAIN menu

*OPTIONS*

**RX55X DC OPTIONS MENU**

**LAUNCH AMP GAIN 0**  
**MAIN LENS VOLTS 12V0**  
**INCH LENS VOLTS 6V8**  
**IRIS TYPE MOTOR**  
**DC IRIS LEVEL NA**  
**ZOOM FOCUS IRIS N N N**  
**DATUM DELAY OM 0**  
**WASH TIME 1 SEC**  
**NEXT**

Coax cable compensation 0-255, 255 = maximum gain  
 Lens drive voltage 3-12V, set to suite lens  
 Set the drive voltage for first second of travel.  
 Set lens iris type or 3 motor lens  
 Sets iris voltage range for lens autoiris override  
 Allow each lens function to be reversed  
 Delay in mins/secs before return to preset 1, 0=never  
 Seconds that WASH output is active following WIPE  
 Display OPTIONS MENU 2

*LENS DRIVE*

**RX55X DC LENS DRIVE**

**ZOOM NORMAL**  
**FOCUS NORMAL**  
**IRIS NORMAL**

NORMAL/REVERSE  
 NORMAL/REVERSE  
 NORMAL/REVERSE

**SELF TEST IF CHANGED**

Initiate self test if any drives changed to ensure preset feedback is correct

**RETURN**

RETURN to OPTIONS MENU

*NEXT*

**RX55X DC OPTIONS MENU 2**

**RAND PAN DELAY 1**  
**DISPLAY OPTIONS**  
**TEXT ON LINE 10**  
**ON POWER UP NO ACTION**  
**PRIVACY SETUP NORMAL MODE**  
**SIN COS IP NOT FITTED**  
**BACK RETURN**

Random pan delay,1=fast,10=slow,0=AUTOPAN which requires an optional card within the pan/tilt head. Goto DISPLAY OPTIONS submenu.  
 Position of status line on screen, 1=top,10=bottom  
 Select goto PRESET 1/RANDOM PAN/PATROL 1/NO ACTION  
 NORMAL or SETUP=SETUP PRIVACY BOARD (if fitted)  
 FITTED=continuous rotation input with sin/cos pots

BACK to OPTIONS MENU 1 or RETURN to MAIN MENU

For 'PRIVACY SETUP' Refer to the privacy board manual for details.

*DISPLAY OPTIONS*

**RX55X DC**

**DISPLAY OPTIONS**

**WIPE/LIGHTS/AP YES**  
**PAN/TILT/LENS YES**  
**ALARM STATUS NO**  
**LENS IRIS TEXT YES**

YES/NO YES=display auxiliary status  
 YES/NO YES=show pan/tilt/zoom/focus/iris status  
 YES/NO YES=display local alarm input open circuit  
 YES/NO YES=display when iris is under manual control

**RETURN**

RETURN to OPTIONS 2 MENU

**NEXT**

**RX55X DC OPTIONS MENU 3**

Camera port	HIGH RES
<b>RELAY OPTIONS MENU</b>	
dB Limit	10.0
dB Line No	16
db Baud Rate	9600
HIGH RES DIAG	OFF

**RETURN**

For use with a High-Res Solutions ensure that this is set to HIGH RES  
Goto Relay Options Menu

Displays High Res Diagnostic information on screen

**RELAY OPTIONS MENU**

**RX55X DC RELAY MENU**

This menu is only relevent if you have a high resolution camera board fitted.

**RELAY ACTION      Auxilliary**

Relay Action is either OFF, MOMENTARY, LATCHING or RADIO.

OFF the relays do nothing.

MOMENTARY the relays will change state for 500 milli-Seconds

LATCHING the relays change state until manually altered

RADIO one relay will change state and remain in that state until another relay changes state, when the second relay changes state the original relay reverts back to its original state

**PRESET FLAGS**

<b>PRESET FLAGS</b>	<b>LOCKED</b>
	<b>SET BY SELF TEST</b>
<b>PAN</b>	<b>YES</b>
<b>TILT</b>	<b>YES</b>
<b>ZOOM</b>	<b>NO</b>
<b>FOCUS</b>	<b>NO</b>
<b>PAN DIR</b>	<b>NORMAL</b>
<b>TILT DIR</b>	<b>REVERSED</b>
<b>ZOOM DIR</b>	<b>NORMAL</b>
<b>FOCUS DIR</b>	<b>NORMAL</b>
<b>RETURN</b>	

Toggle to UNLOCK to alter settings.

During a self test, the receiver senses the presence and direction of preset input voltages. Should the receiver incorrectly sense the presence or direction then this menu allows manual setting. Toggle between YES/NO to enable/disable presets for each movement axis. The direction can be toggled between NORMAL or REVERSED if the head/lens drives in the wrong direction during a preset call.

Please use with caution to prevent mis-operation.

RETURN to MAIN MENU

**DEFAULTS**

**RX55X DC DEFAULTS MENU**

**RESET RECEIVER**

**CLEAR ALL PRESETS**

**RETURN**

These two items should be used with caution!

Set receiver to factory defaults. All preset/patrol settings etc will be cleared.

Erase ALL preset positions only.

A second menu will be displayed to display an ARE YOU SURE message!

RETURN to MAIN MENU

*TEST MENU*

**RX55X DC TEST MENU**

**SELF TEST**  
**ENGINEER MODE <PCB ONLY>**

**MOTOR OPTIONS**  
**PAN FINE CONTROL 25**  
**NET TRAFFIC OFF**

**RETURN**

Starts receiver self test procedure  
displays the ENGINEER MODE screen

Displays various pan/tilt speed options  
25-100 lower figure slower pan/tilt when zoomed in  
BBV use to display RS485 telemetry commands when ON

RETURN to RECEIVER MENU

*ENGINEER MODE*

**ENGINEER MODE**

**PAN LEFT PAN RIGHT**  
**TILT UP TILT DOWN**  
**ZOOM IN ZOOM OUT**  
**FOCUS NEAR FOCUS FAR**  
**IRIS OPEN IRIS CLOSE**  
**WASH WIPE**  
**LIGHTS AUTOPAN**

**RETURN**

**P0456 T0223 Z1023 F1023**

Can only be accessed locally.  
Allows each output to be tested individually  
Select the required output and press SW2.  
The output will drive until SW2 is released.  
If ZOOM/FOCUS/IRIS are driving in reverse  
use OPTIONS menu and toggle between REVERSE/NORMAL

AUTOPAN only functions with RX45X

RETURN to TEST MENU

Preset feedback voltages. 0000=0V, 1023=5V

*MOTOR OPTIONS*

**RX55XDC MOTOR OPTIONS**

**MAX PAN 255**  
**MIN PAN 15**  
**MAX TILT 255**  
**MIN TILT 50**  
**RANDOM SPEED 30**  
**MAX PRE PAN 255**  
**MAX PRE TILT 255**

**RETURN**

These settings allow the receiver to be adjusted to  
different pan/tilt motors. The MIN/MAX values set  
the minimum and maximum speeds for manual control  
255 is maximum speed and 0 is minimum  
If the minimum is too low, the head may stall at  
low speeds.

Pan speed during random pan, RX55X only.

To increase head life, the pan and tilt speeds can  
be reduced during presets.

RETURN to TEST MENU

# USER GUIDE

Select the camera to control using the telemetry controller. Use pan/tilt commands and lens functions to control the camera. Multiple functions can be controlled simultaneously, e.g. Pan Left and Tilt Down.

The receiver OSD can be set to display auxiliary functions (see detailed menu) as below:-

W Wipe auxiliary output is active

\* Lights auxiliary output is active

← OR → Random Pan is running

## **PROGRAMMING PRESETS.** Refer to the specific controller manual.

*Ensure that none of the drives ARE AT A LIMIT STOP as intermittent preset operation could occur.*

*Note: preset functions require a preset head for pan/tilt positioning and a preset lens for zoom/focus positioning.*

This is the FEATURE MENU which is displayed after pressing the relevant keys shown in the protocol specific pages.

```

FEATURE MENU

ALARM MENU
AUTO/RANDOM PAN OFF
PATROL           OFF
CANCEL
    
```

Use the UP/DOWN keys to choose a line, and LEFT or RIGHT to toggle ON/OFF or display ALARM MENU

Display ALARM menu to enable/disable alarm inputs  
 Start RANDOM PAN or AUTO PAN  
 Start preset patrol  
 Quit menu

‘RANDOM PAN’ starts a random panning sequence until either a manual command or a local alarm occurs.

‘PATROL’ starts the preset patrol sequence until a pan/tilt command resumes manual control. The OSD displays P and the preset number if ‘display patrol’ has been set.

```

ALARMS
RX55XDC ALARM MENU 1

ALARM 1      ON
ALARM 2      ON
ALARM 3      ON
ALARM 4      ON
ALARM 5      ON
ALARM 6      ON
ALARM 7      ON
ALARM 8      ON
NEXT
    
```

Each local alarm input can be disabled or enabled individually.  
 Setting to OFF disables the alarm input and setting to ON enables the alarm input

Use the UP/DOWN keys to choose a line, and LEFT or RIGHT to toggle ON/OFF

Return to the FEATURE MENU

When an alarm input is activated, the receiver drives the head to the corresponding preset position, i.e. alarm 1 activates preset 1.

# How to program a HI-RES receiver

The software within the HI-RES can be updated using a RS232-RS422 converter such as the BBV TxLD along with programming software, 'flashsimple', that can be found on our web site at [www.bbvctv.com/utills.htm](http://www.bbvctv.com/utills.htm)

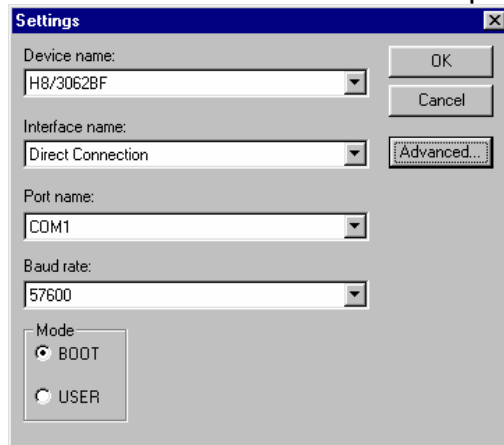
Steps to follow:

1. How to program the receiver

- a. Power off receiver.
- b. Connect full duplex RS232-RS422 converter between PC COM port and the receiver camera connector.

TXLD	HI RES Receiver J11 (CAMERA)
TX A(+)	RA
TX B(-)	RB
RX A(+)	TRA
RX B(-)	TRB

- c. Fit link across receiver PROG LINK next to camera connector.
- d. Run flashsimple.exe
- e. Click on "FLASH/SETTINGS" and set up as follows.



- f. Click OK.
- g. Click BROWSE and navigate to software, e.g. RX55X\_V31.MOT
- h. Power on the receiver and click "FLASH program"

If all is well a status bar is displayed showing the progress. When it has finished with successful verification, power off the receiver and remove the link from the PROG LINK pins.

## Notes

# BBV products.

Product	Description
<b>TX400</b>	Single camera desktop telemetry transmitter with coax & 20mA telemetry, Pan/Tilt/Lens, Lights, Wash, Wipe, Autopan, 8 presets, preset patrol.
<b>TX400DC</b>	As TX400 including joystick for proportional Pan/Tilt control. Option of RS485 telemetry output.
<b>TX1000 MK2</b>	8 or 16 camera, 2 monitor telemetry transmitter. Up to 2 keyboards. BBV up-the-coax and RS422 standard with options for alarm inputs and 20mA telemetry.
<b>TX1500</b>	Mid size matrix 16 – 96 camera, 8 monitor. Up to 4 control positions (keyboard & remote control) options for alarms, remote control, BBV up-the-coax and RS485 telemetry.
<b>FBM range</b>	Large size matrix. Configurable up to 4096 cameras and 64 monitor outputs. Up to 8 control positions (keyboard & remote control) options for alarms, remote control RS485 telemetry with various options. Please call to discuss requirements.
<b>All RX receivers below are powered by 230V ac or optional 110V or 24V ac.</b>	
<b>RX100</b>	Dome Interface to drive a large library of dome cameras. BBV up-the-coax and 20mA telemetry. Mains or plugtop supply.
<b>RX200</b>	AC receiver for Pan only heads or static cameras, Wash/Wipe/Lights. BBV up-the-coax and 20mA telemetry.
<b>RX300</b>	AC receiver for Pan/Tilt/Zoom/Focus/Iris Override and 1 Auxiliary output. BBV up-the-coax and 20mA telemetry.
<b>RX400P</b>	AC full function receiver. PTZFI 4 Auxiliary outputs, 16 presets. BBV up-the-coax and 20mA telemetry.
<b>RX400DC</b>	24Vdc high/variable speed receiver. 16 presets, 8 local alarm inputs, 3 Auxiliary outputs. BBV up-the-coax and 20mA telemetry.
<b>RX45X (AC) RX55X (DC)</b>	Multiple RS485/422 and up-the-coax controllable AC and DC receivers. PTZFI control, 32 presets, preset patrol, 8 local alarm inputs, 12V 500mA supply output. OSD for remote setup, test & diagnostics. 3 Aux. outputs RX55X or 4 Aux. outputs RX45X. Optional Privacy board. BBV RS422, UP-THE-COAX, 20mA current loop BAXALL STANDARD & ALTERNATE UP-THE-COAX, DENNARD RS422/485, PELCO P/D RS422/485, PHILIPS/BOSCH RS422/485 (OPTIONAL BI-PHASE INPUT), MOLYNX RS422/485, SENSORMATIC/AD RS422, VCL/HONEYWELL RS422/485, VICON RS422
Multi serial protocol and up-the-coax telemetry receivers	
<b>RX450/550</b>	PANASONIC RS485 Protocol only version of RX45X/55X.
<b>STARCARD</b> STARCARD/CONVERTER	8 * RS485 output, 2 wire simplex RS422, 4 wire full-duplex RS422, 2 wire half-duplex RS485. Option STARCARD/CONVERTER offering protocol conversion to drive an increasing range of 3 <sup>rd</sup> party protocols.
<b>CTI 16</b>	Multi-protocol serial converter that gives up-the-coax control to 16 cameras. BBV RS422, Dennard RS485, Pelco P, Pelco D, Philips/Bosch RS485/232, VCL RS485, Sensormatic RS422, Molyntx, Vicon
<b>ACCESSORIES</b>	TxLD (bidirectional RS422-RS232 converter) 98005 (bidirectional 20mA-RS232 converter)

See all our products at [www.bbvctv.com](http://www.bbvctv.com)