



HIGH-RES Receiver.



Installation Guide



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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.

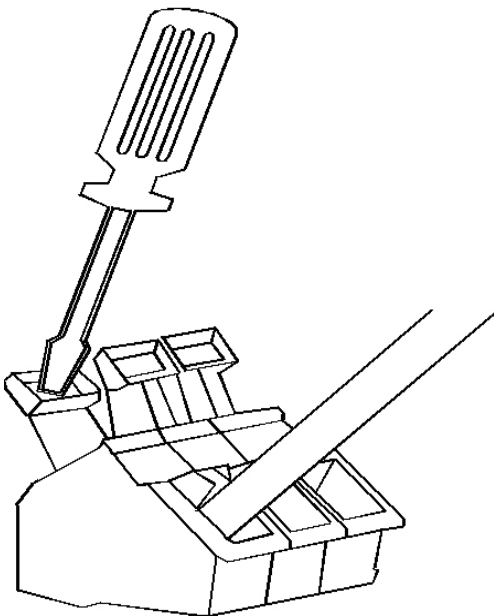
Enclosure mounting holes are provided at the corners of the enclosure, outboard of the seal between enclosure and lid.

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 mm²
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

| | |
|--|---|
| Power Requirements | 230Vac or 110Vac (24Vac as special order) |
| Max Load | 5A @ 230V (1150 W) |
| Receiver Current Draw | Maximum of 100VA max |
| Fuses | Auxiliary fuse F2 5A T (20mm ceramic cartridge) |
| Outputs | 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 |
| Video Input | 1v p-p 75Ω terminated input via BNC socket. |
| Video Output | 1v to 4v p-p 75Ω impedance via BNC socket. Video launch amplifier gain <i>LOCALLY & REMOTELY ADJUSTABLE</i> |
| Lens Drives REMOTELY ADJUSTABLE | 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. |
| Presets 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) |
| Alarm facilities | 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. NOTE: - The output is used for iris override when using Fujinon or Pentax lens mode. |
| Additional facilities | 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. |
| Features | 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. |
| Boxed Dimensions | Width: 380mm, Length: 190mm, Height: 130mm |
| Weight | 3.43kg |

OVERVIEW

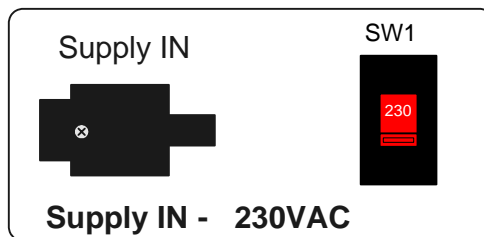
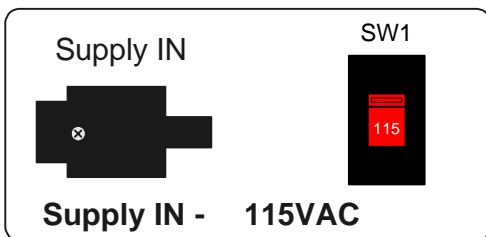
The Hi-Res system is designed to provide a complete package solution for specifications requiring a much greater degree of accuracy than a normal pan tilt head and receiver.

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.

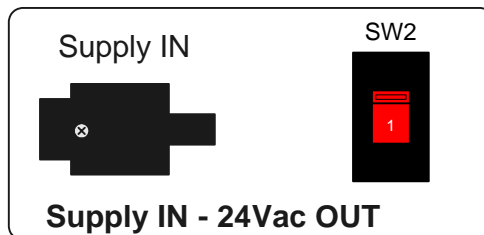
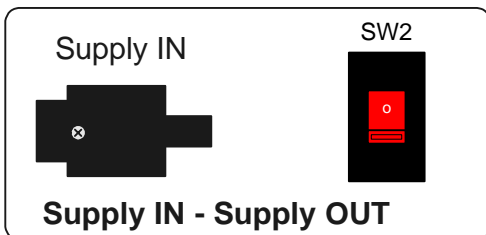
An on screen menu system allows easy setup, test control and diagnostic display either locally or remotely.

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.

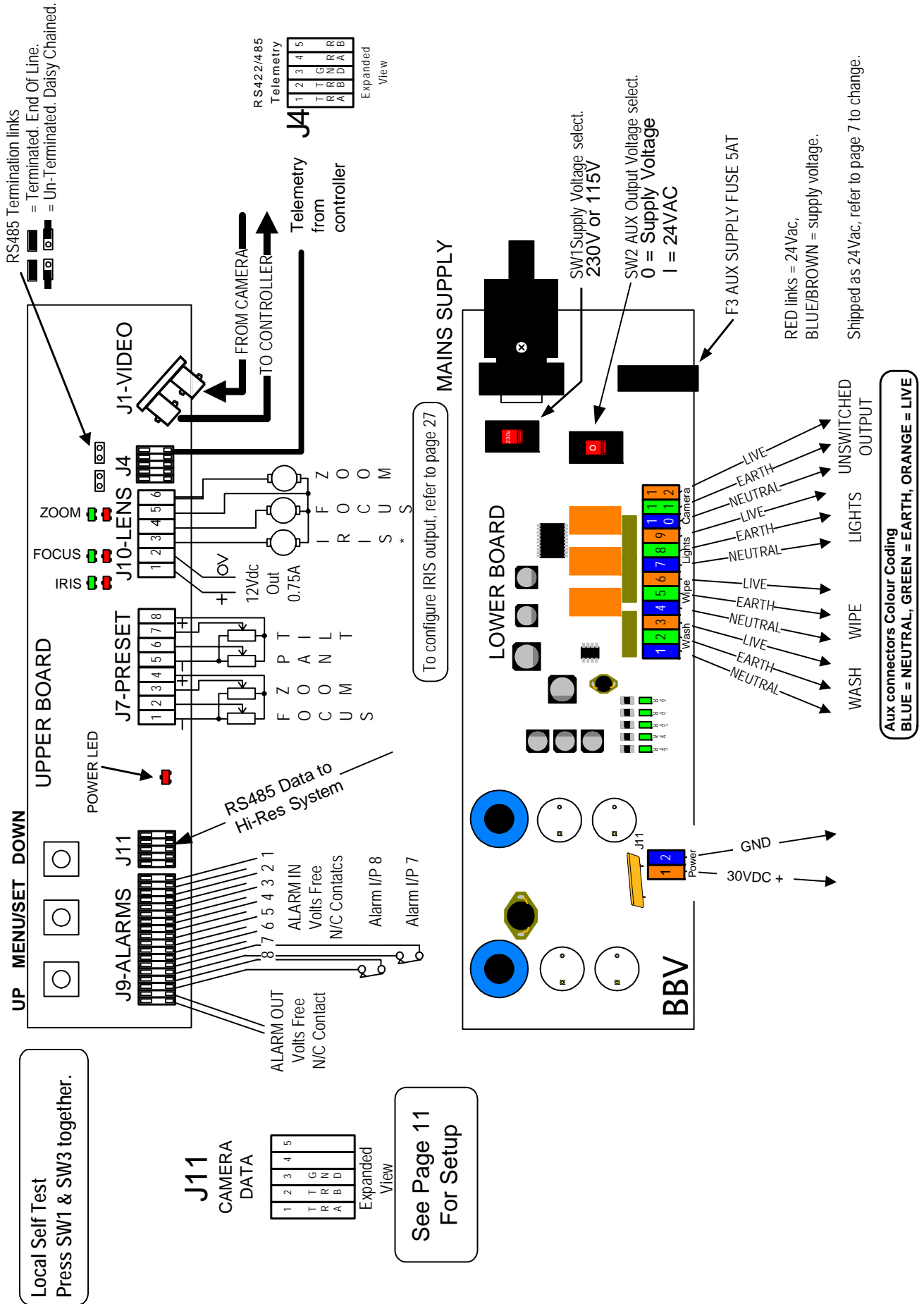
WIRING OF RECEIVER

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

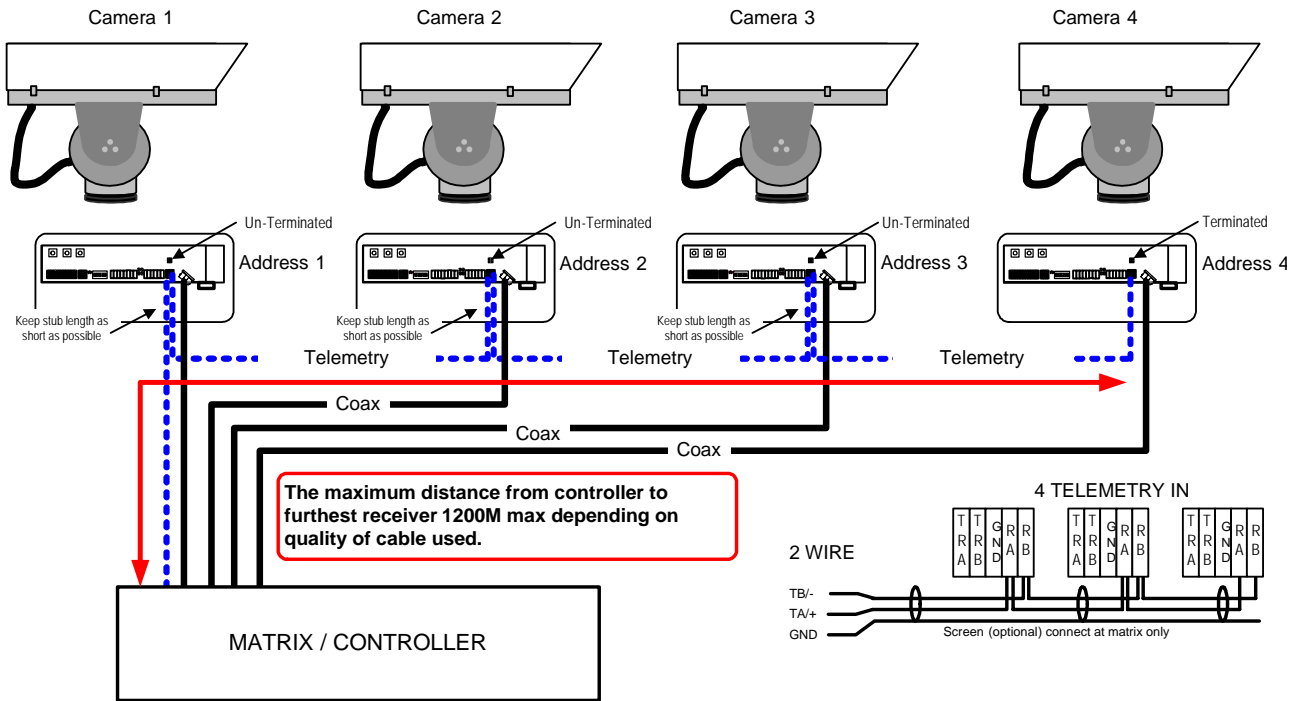
Polarity of the Hi-Res lens drive outputs are shown below. Refer also to specific wiring diagram..

| 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.

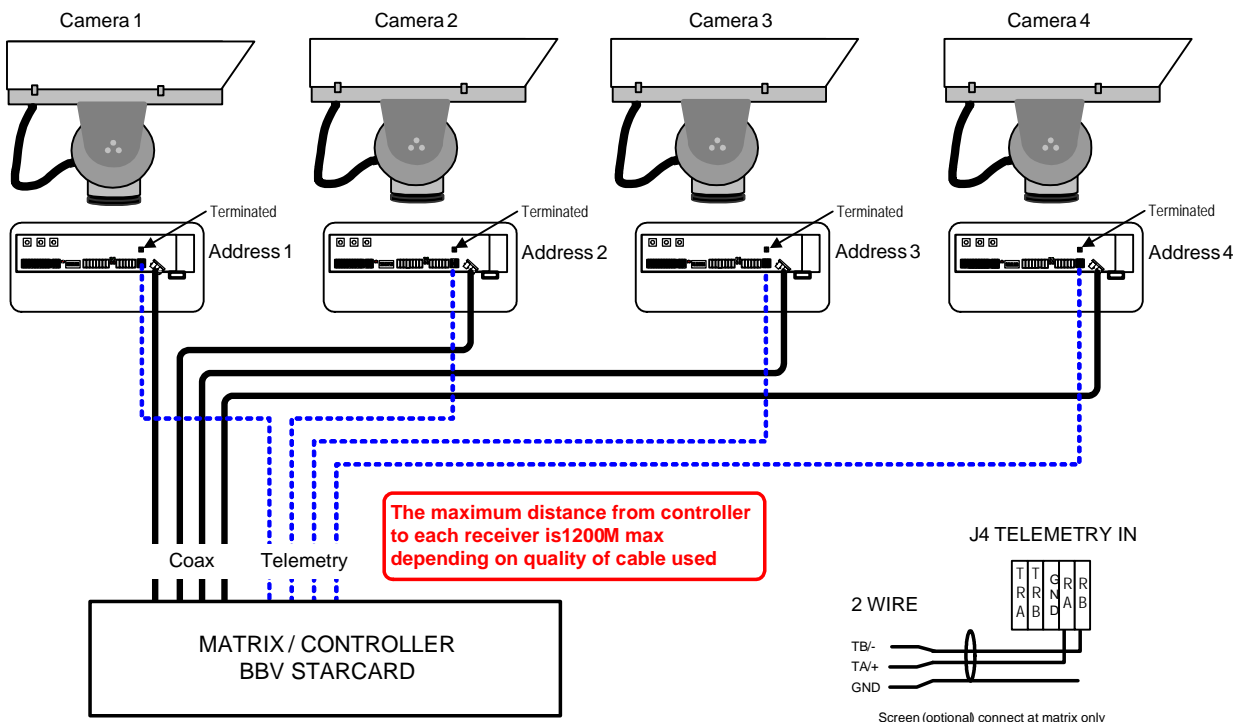


DAISY CHAINED TELEMETRY EXAMPLE



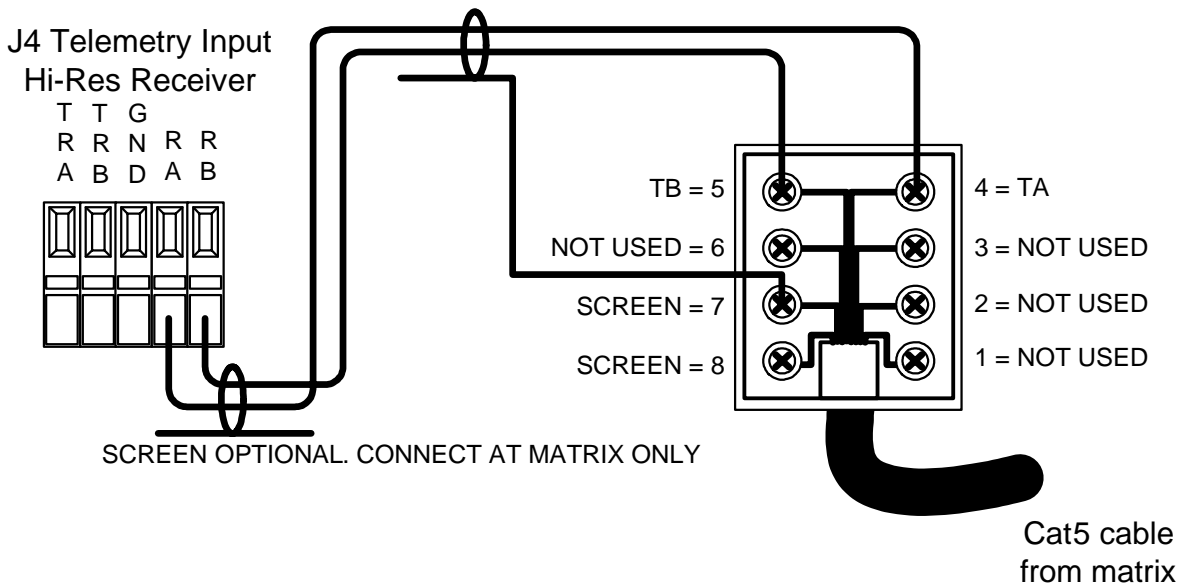
When using a daisy chained RS485 system, the stubs must be kept as short as possible and no longer than 25cm. Intermittent and/or sluggish control can be the result of excessive stub lengths.

STAR WIRED TELEMETRY EXAMPLE

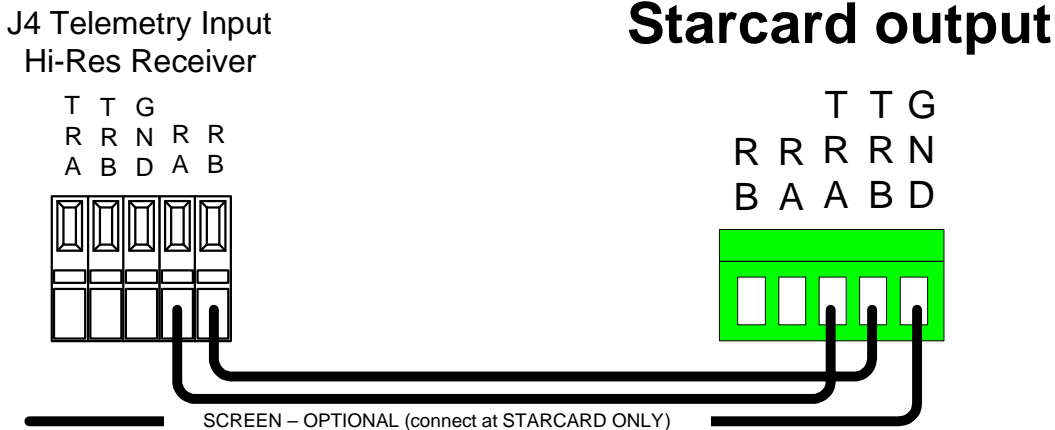


BBV RS422 TELEMETRY

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.

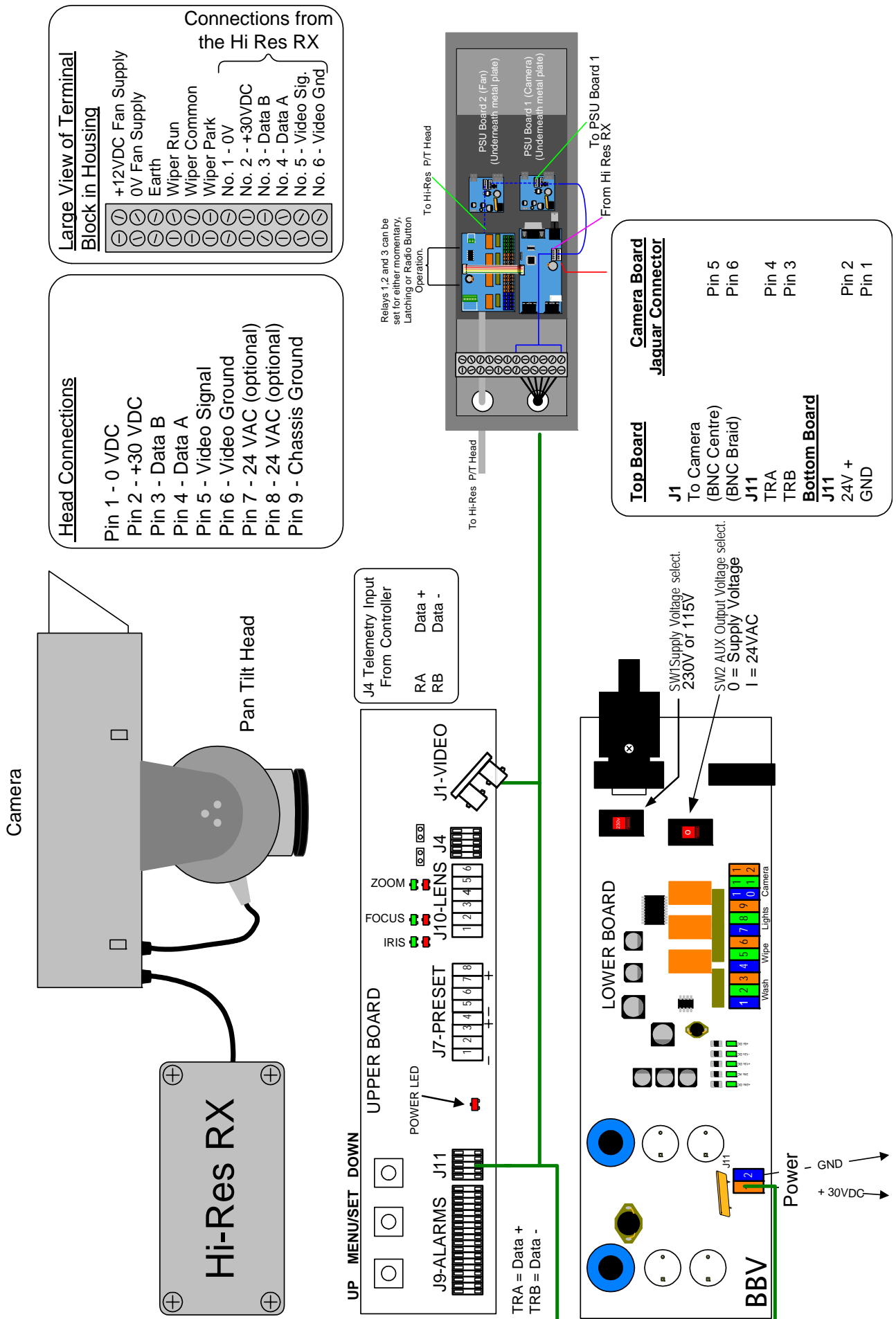
Key presses for menu access:-

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

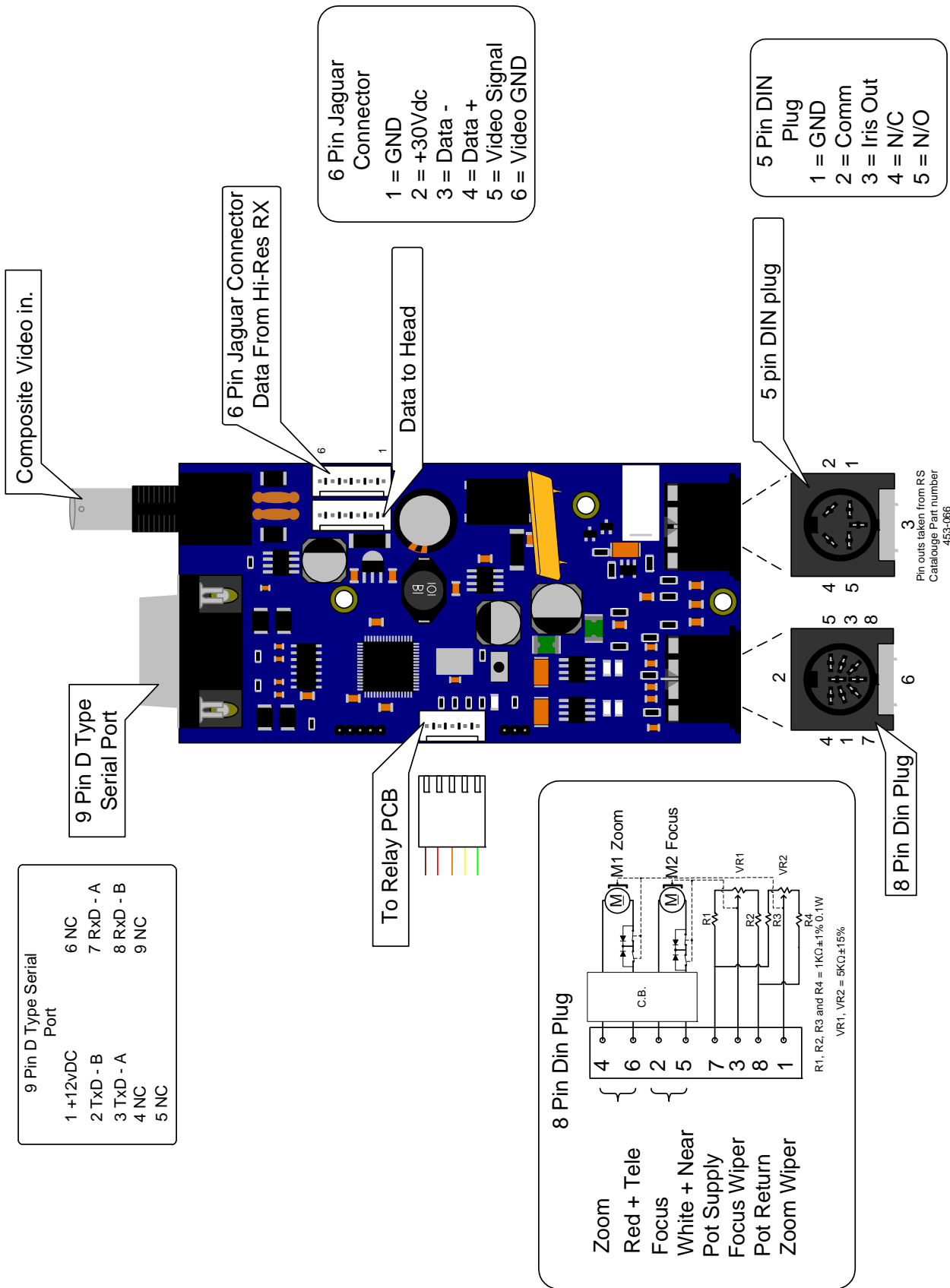
Use the joystick for menu navigation. Up or Down to highlight different items, and Right or Left to confirm or change the selected value.

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

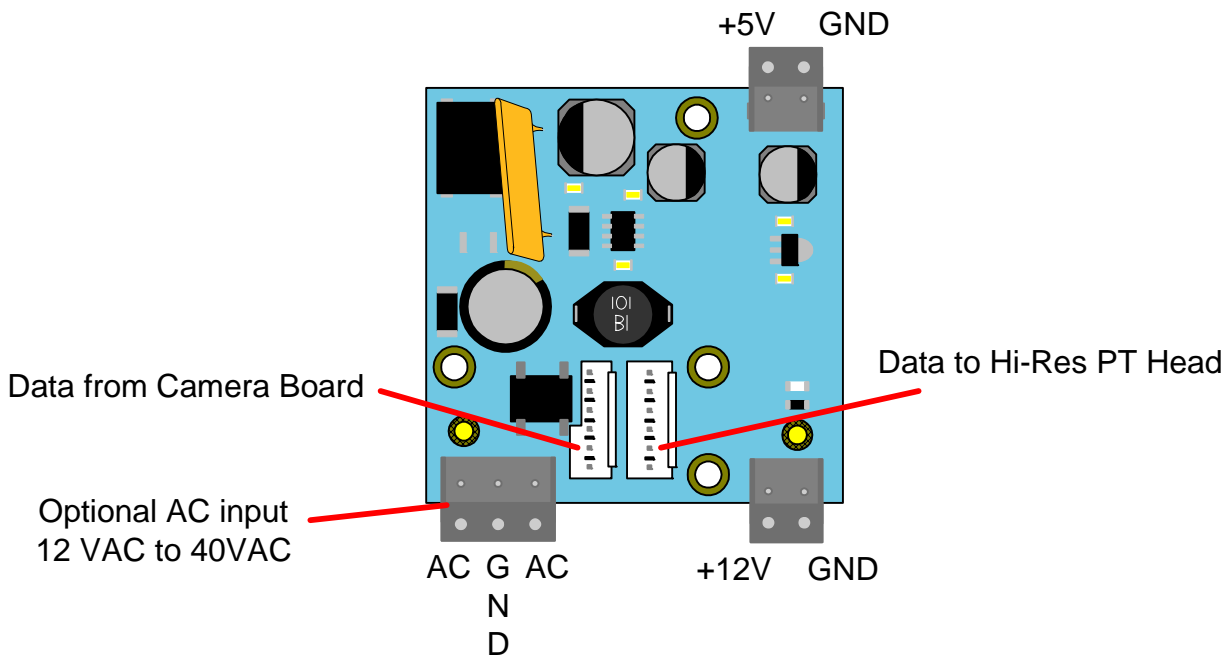
Hi-Res Telemetry Wiring Diagram



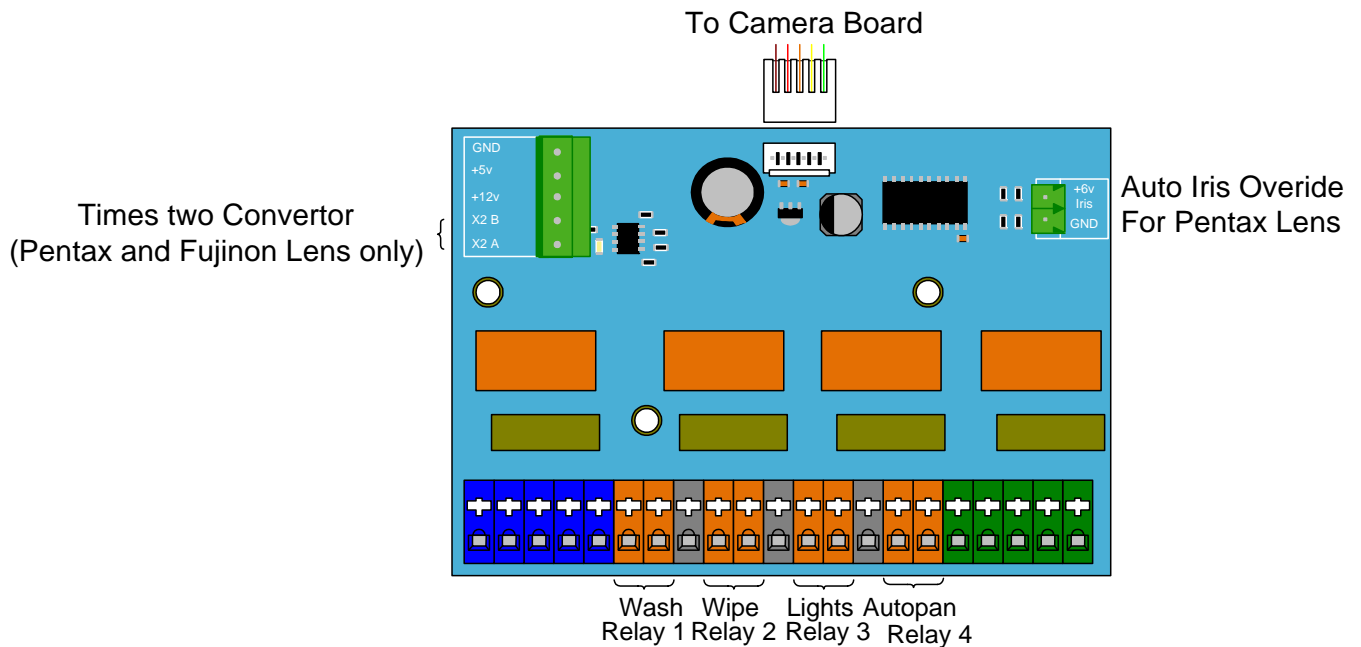
Generic Camera Board Connections.



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 3rd 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 |

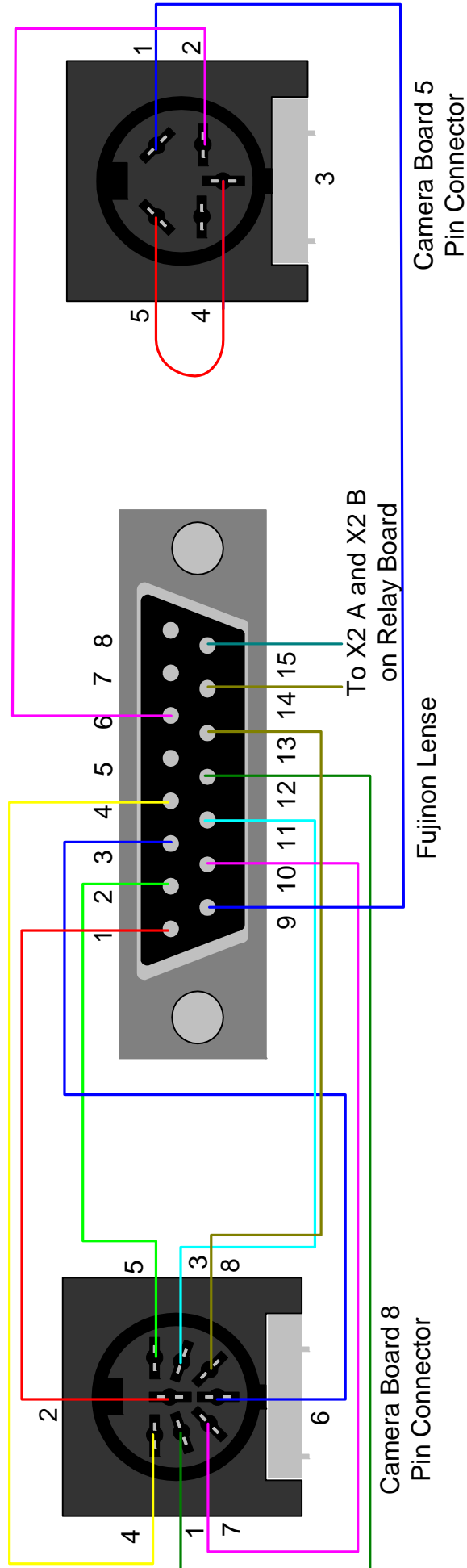
And then pressing Goto preset 1 to 4 to activate the corresponding relay. Then you will need to send 4 '#' to exit this mode.

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)

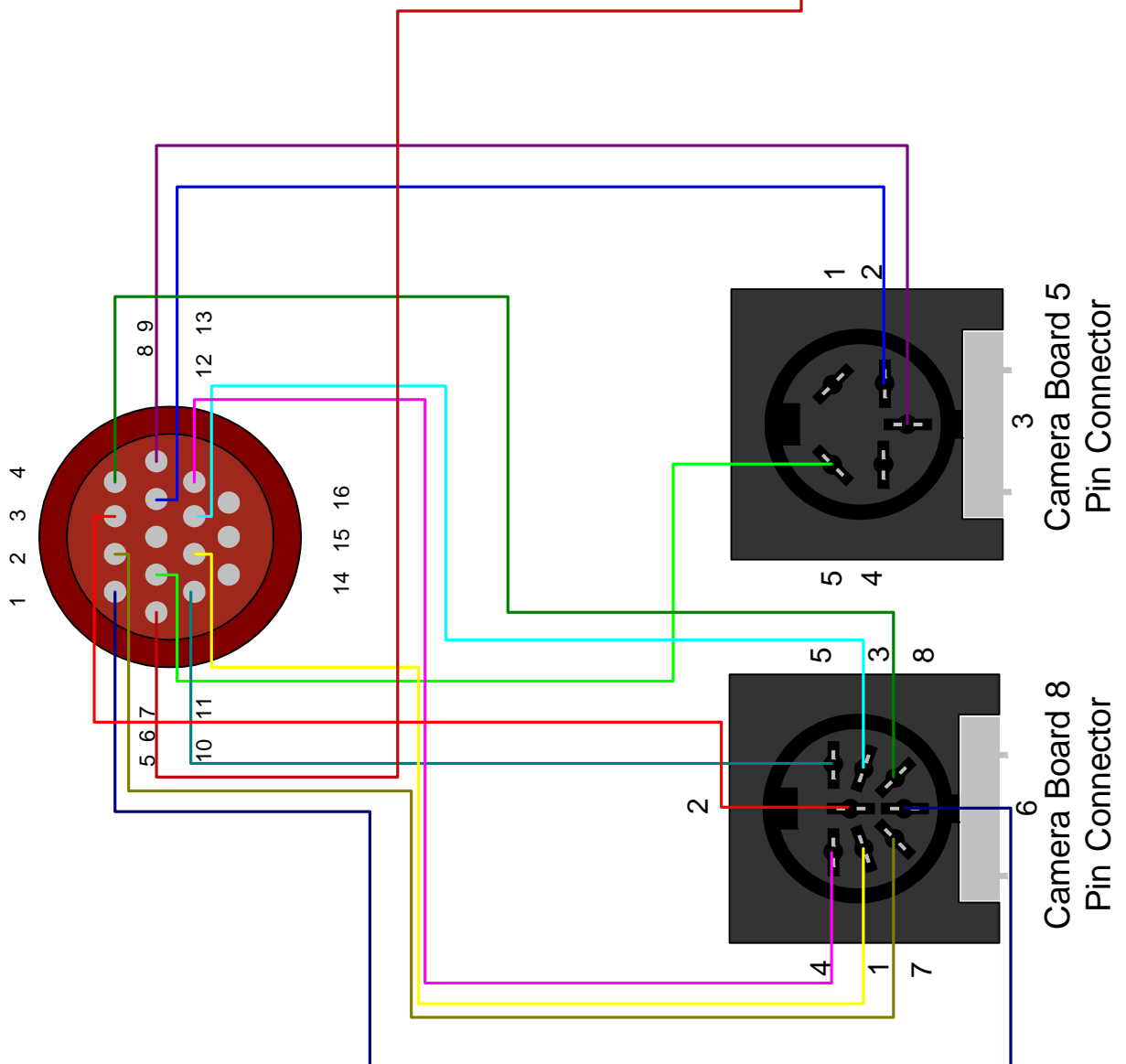
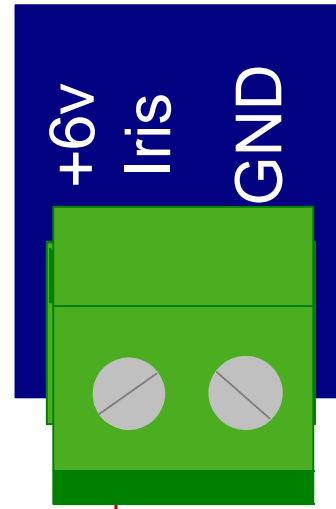


Connecting The Camera Board to a Pentax TV Zoom Lens

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 | NC |
| 8 | 8 |
| 9 | 9 |
| NC | NC |
| 6 | 6 |
| 5 | 5 |

| Camera Board 5 Pin Connector | Relay Board +6v Iris |
|------------------------------|----------------------|
| 1 | 1 |
| 2 | 2 |
| 3 | 3 |
| 4 | 4 |
| 5 | 5 |



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.

| Function |
|-----------------------------|
| 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.

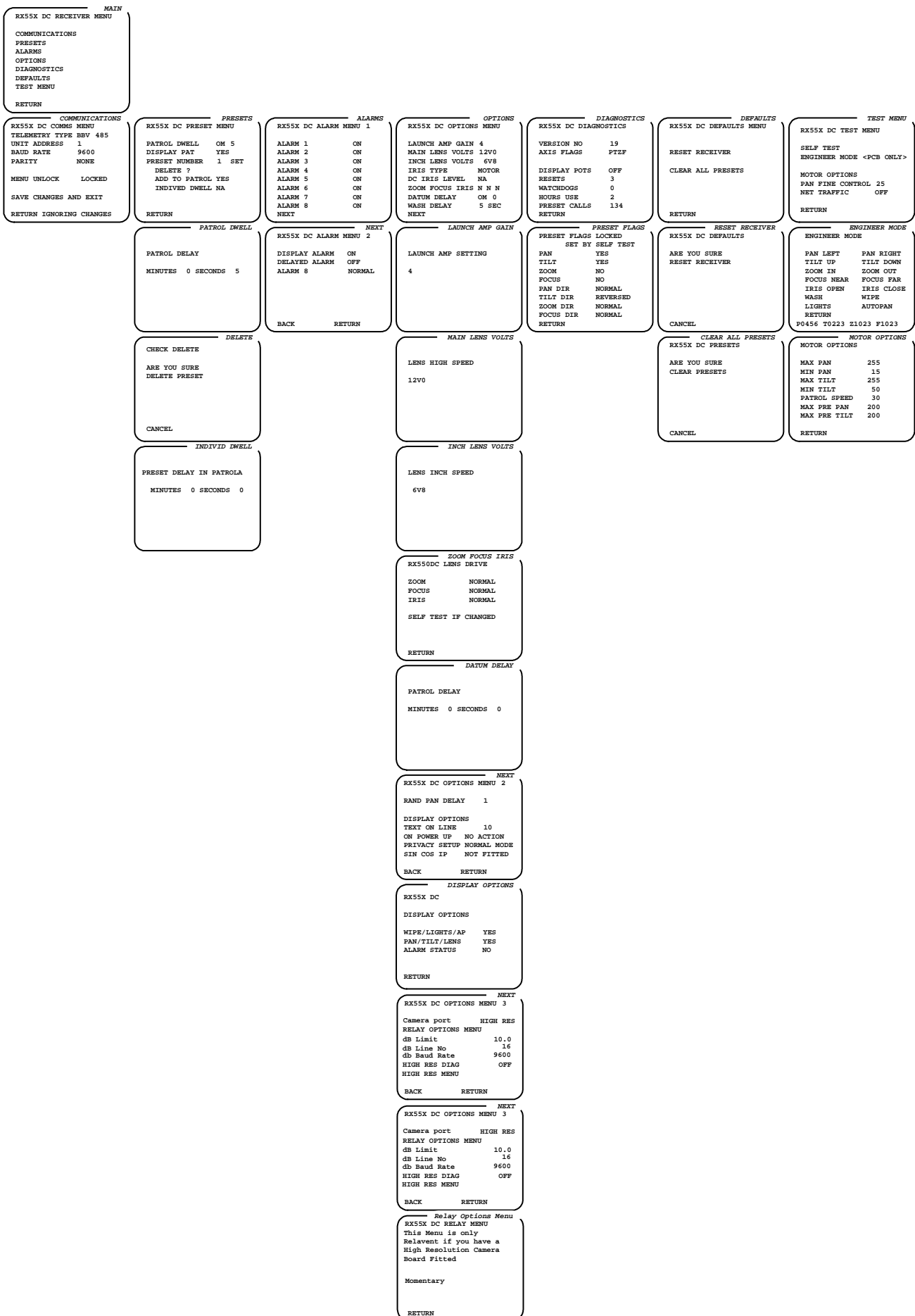
PROGRAMMING THE RECEIVER

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.

RECEIVER MENU STRUCTURE OVERVIEW



Detailed description of the receiver menu system follows

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 |
| RELAY OPTIONS MENU | |
| 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

| | |
|---------------------|-------------------------|
| PRESET FLAGS | LOCKED |
| | SET BY SELF TEST |
| PAN | YES |
| TILT | YES |
| ZOOM | NO |
| FOCUS | NO |
| PAN DIR | NORMAL |
| TILT DIR | REVERSED |
| ZOOM DIR | NORMAL |
| FOCUS DIR | NORMAL |
| RETURN | |

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

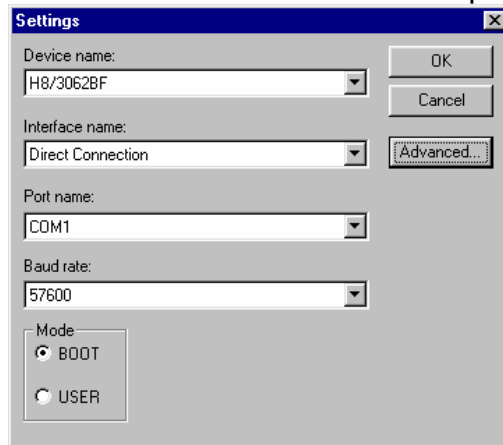
Steps to follow:

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

Notes

Notes

BBV products.

| Product | Description |
|--|--|
| TX400 | Single camera desktop telemetry transmitter with coax & 20mA telemetry, Pan/Tilt/Lens, Lights, Wash, Wipe, Autopan, 8 presets, preset patrol. |
| TX400DC | As TX400 including joystick for proportional Pan/Tilt control. Option of RS485 telemetry output. |
| TX1000 MK2 | 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. |
| TX1500 | 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. |
| FBM range | 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. |
| All RX receivers below are powered by 230V ac or optional 110V or 24V ac. | |
| RX100 | Dome Interface to drive a large library of dome cameras. BBV up-the-coax and 20mA telemetry. Mains or plugtop supply. |
| RX200 | AC receiver for Pan only heads or static cameras, Wash/Wipe/Lights. BBV up-the-coax and 20mA telemetry. |
| RX300 | AC receiver for Pan/Tilt/Zoom/Focus/Iris Override and 1 Auxiliary output. BBV up-the-coax and 20mA telemetry. |
| RX400P | AC full function receiver. PTZFI 4 Auxiliary outputs, 16 presets. BBV up-the-coax and 20mA telemetry. |
| RX45X (AC) RX55X (DC) | 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 | |
| RX450/550 | PANASONIC RS485 Protocol only version of RX45X/55X. |
| STARCARD 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 rd party protocols. |
| CTI 16 | 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 |
| ACCESSORIES | TxLD (bidirectional RS422-RS232 converter) 98005 (bidirectional 20mA-RS232 converter) |

See all our products at www.bbvcctv.com