

# Receiver Installation Guide



Models covered

# **Rx552 24Vdc VCL RS485** compatible telemetry receiver

Software Version 1 (29/6/2001)

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# 1. PRE-INSTALLATION CHECKS AND SAFETY PROCEDURES

#### **UNPACKING**

**Check Packaging -** Upon taking delivery of the unit, inspect the packaging for signs of damage. If damage has occurred, advise the carriers and/or the suppliers immediately.

**Check Contents -** Upon taking delivery of the unit, 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.

**Retain Packaging -** The shipping carton is the safest container in which to transport the unit. Retain undamaged packaging for possible future use.

#### **IMPORTANT SAFETY PRECAUTIONS**

**Read Instructions -** All relevant safety, installation and operating instructions should be read before attempting to install, connect or operate the unit.

**Retain Instructions -** All safety, installation and operating instructions should be retained for future reference.

**Heed Warnings -** All warnings on the unit and in any relevant safety, installation or operating instructions should be adhered to.

**Cleaning -** Unplug the unit from the power outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

**Attachments -** Do not use attachments not recommended by the product manufacturer as they may cause hazards.

**Water and Moisture -** Do not expose the internal electronics of this unit to water or dampness; for example, in an unprotected outdoor installation, or in any area classified as a wet location. The unit as supplied conforms to ingress protection rating IP 67. This rating will be affected by any holes made in the enclosure. Cable entry points should be protected by the use of suitably rated glands and/or flexible conduit. It is not necessary to make further holes in the enclosure for mounting purposes, as mounting holes are provided at the corners of the enclosure outboard of the seal between enclosure and lid.

**Accessories -** Do not attach this unit to an unstable stand, bracket or mount. The unit may fall, causing serious injury to a person and serious damage to the unit.

**Power Sources -** This unit should be operated only from the type of power source indicated on the manufacturer's label. If you are not sure of the type of power supply you intend to use, consult your equipment dealer or local power company. For units intended to operate from battery power or other sources, refer to operating instructions.

**Power Connector -** This unit is equipped with connector mounted at the edge of the PCB for mains power input. Do not attempt to alter this connector in any way.

**Power Cord Protection -** Power supply cords should be routed so that they are not likely to be trapped, pinched or otherwise damaged by items in close proximity to them, whether inside the unit or outside it. Particular attention should be paid to cords at plugs, connection units and the point of exit from the unit.

**Overloading -** Do not overload outlets and extension cords, as this can result in fire or electric shock.

**Object and Liquid Entry -** Never push objects of any kind into the unit, as they may touch dangerous voltage points or short out parts that could result in fire or electric shock. Never spill liquid of any kind on or inside the unit.

**Servicing** - Servicing of the unit should only be undertaken by qualified service personnel, as opening or removing covers may expose you to dangerous voltages or other hazards.

**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 internal electronics of the unit have been exposed to rain or water;
- (d) If the unit does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions, as improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the unit to normal operation;
- (e) If the unit has been dropped or the enclosure is damaged;
- (f) If the unit exhibits a distinct change in performance. This indicates a need for service.

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

**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.

**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 on the Rx552 receiver.

**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.

DO NOT OPERATE THE UNIT WITH ANY INTERNAL COVERS REMOVED. DANGEROUS VOLTAGES ARE PRESENT ON THE POWER SUPPLY. THE UNIT MUST ONLY BE SERVICED BY QUALIFIED PERSONNEL.

The "lightning flash with arrowhead" symbol inside an equilateral triangle is used to warn the user of this equipment that there are sufficiently high voltages within the enclosure to constitute a risk of electric shock.

The "exclamation point" symbol inside an equilateral triangle is used to alert the user of this equipment to important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

# 2. INTRODUCTION

### **GENERAL**

The Rx552 receiver is designed to control 24Vdc operated pan/tilt mechanisms using a VCL RS485 telemetry control system.

The receivers can be connected using either a daisy chained or star wired RS485 network depending upon the model of VCL controller used.

The Rx552 receiver is supplied in an IP 67 rated 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 for any other purpose 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.

# **Technical Specification**

**Power Requirements** 86 - 265Vac (24Vac option)

Max Load 5A @ 240V (1250 W)

Receiver Current Draw 400VA max

**Fuses** Auxiliary fuse F2 5A T (20mm cartridge)

Outputs Linear 0-24Vdc output for pan & tilt motor drive

Switch 24Vdc output to drive motor brakes.

Lens drive adjustable between 3-12Vdc 150mA max

Switched AC output to drive Wash/Wipe/Lights(1000W max)

**Facilities** LED readout for continual system status.

Programming menu with On Screen Display.

**REMOTELY ADJUSTABLE** Video launch amplifier provided with cable length adjustment

12Vdc/750mA camera power provided.

Colour coded outlets - live, neutral, earth and low voltage.

24Vac output option available.

**Telemetry Signal** RS485 – VCL compatible.

Auto Iris Output Returns to original setting 15 seconds after key release. Level

programmable from controller.

**Video Input** 1v p-p  $75\Omega$  terminated input via BNC socket.

**Video Output** 1v to 4v p-p  $75\Omega$  impedance via BNC socket.

**Lens Drive** 

REMOTELY ADJUSTABLE Adjustable via menu between 3 and 12 volts. Inching speed selectable via

menu between 0 – 100% of full lens speed. 1 second inching built in. Provides drive for Zoom & Focus. Each lens drive carries a bi-colour LED

to indicate direction and drive voltage.

Presets Inputs are provided for pan, tilt, zoom & focus preset feedback pots.

These are 10 bit resolution. Upto 32 full-scene presets can be stored

within the Rx552, i.e. pan, tilt, zoom, focus for each preset.

Other Outputs RS485 Serial port available to drive advance features on selected

cameras.

Additional Information Autopan or Random Pan

Sequential preset patrol. The preset dwell is programmable individually. Datum - return to preset 1 after programmable duration of inactivity. Iris output - either direct drive for 3 motor lens or Autoiris override voltage

for Seiko/Cosmicar lenses etc.

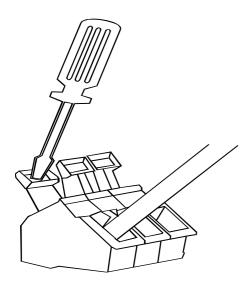
8 alarm inputs, volts free normally closed contacts. A single opening volts free contact sums the alarms either immediately or as the preset is approached. If a video transmission system is activated with the alarm output, then setting the alarm to delayed prevents unwanted frames being

transmitted.

**Options** 24Vac output option available. Either 230Vac/24Vac or 110Vac/24Vac.

**Boxed Dimensions** Width: 380mm, Length: 190mm, Height: 130mm

Fig. 1: Wago connectors



The WAGO series 256 PCB terminal block is a simple-to-use method of attaching cables to PCBs quickly and easily. Prepare cables as follows:

- 1. Use only cable between 0.08 and 2.5 mm<sup>2</sup>
- 2. Strip the cable 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.

The procedure for detaching wires is the reverse of the 3 attachment steps, ensuring that **power is disconnected** before starting.

# 3. INSTALLATION

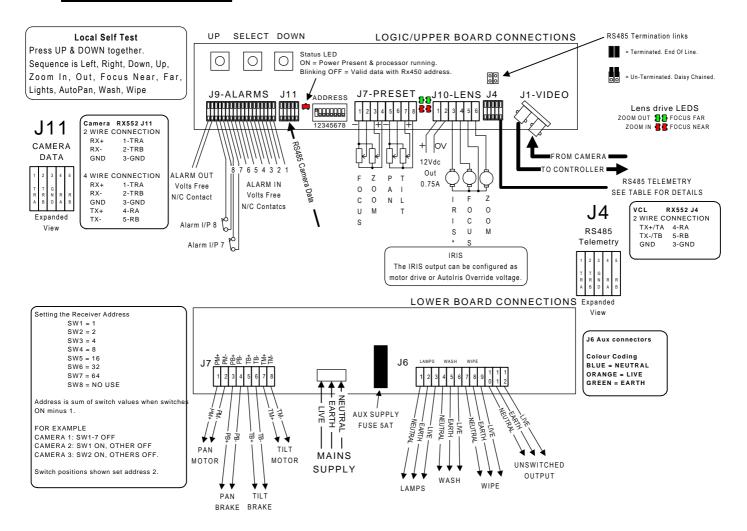


Table showing the polarity of pan/tilt head and lens outputs. Use in conjunction with head/lens manual to determine correct wiring. Ensure that the pan/tilt motor and brake wiring is correct and NOT crossed before powering up the receiver as damage could be caused.

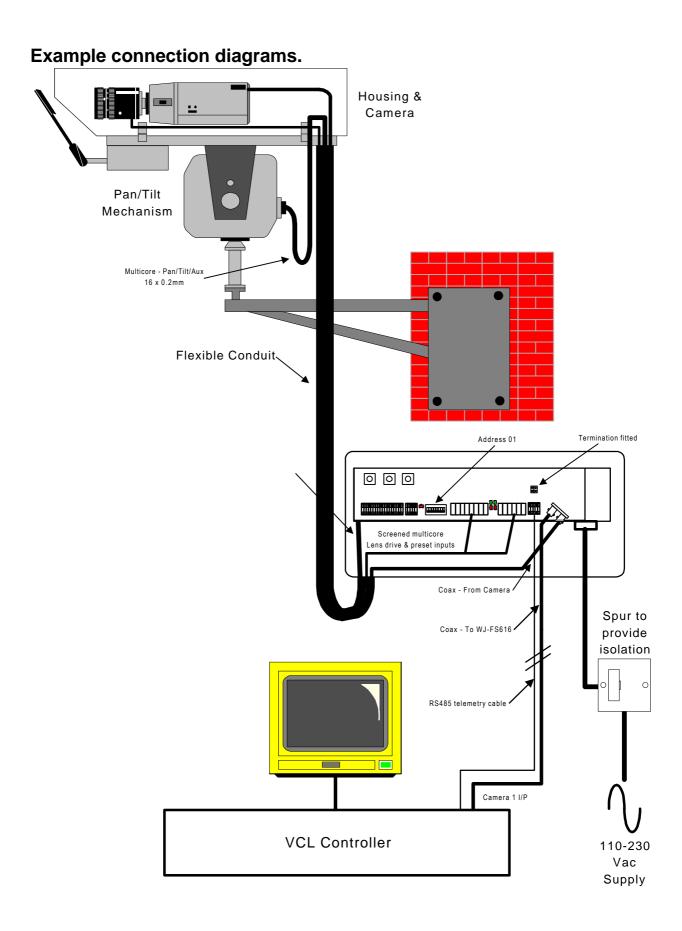
Pin J7	Pan LEFT	Pan RIGHT
	(RED)	(GREEN)
PM+	+	0
PM-	0	+
PB+	+	0
PB-	0	+

Pin J7	Tilt UP (RED)	Tilt DOWN (GREEN)
TM+	+	0
TM-	0	+
TB+	+	0
TB-	0	+

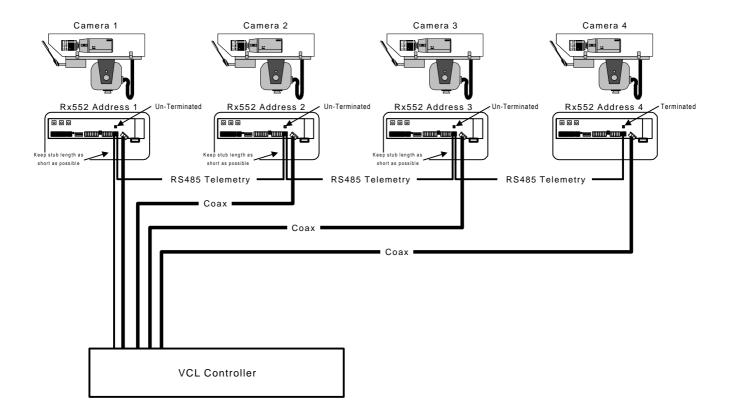
Pin J10	Zoom IN	Zoom
ZM	(RED)	(GREEN) +
Pin	Focus	Focus

Pin	Focus	Focus
J10	FAR	NEAR
	(GREEN)	(RED)
FC	-	+

Pin	Iris	Iris
J10	OPEN	CLOSE
IR	-	+



Single Rx552 installation



Multiple Rx552

# Notes:

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.

The receiver comprises of two pcbs mounted above an enclosed psu. The low voltage logic board is the top board whilst the 24Vdc head output and AC connections are on the middle board.

The low voltage connection can now be made to the logic board.

Each receiver on a network must have a unique address. The following table shows the switch settings for receiver address 1 - 32. The receiver can be addressed from 1 - 128. The receiver address is the sum of switches 1 - 7 minus 1.

ADDRESS	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
	(1)	(2)	(4)	(8)	(16)	(32)	(64)	CHECK
1 - 0x80	off	off	off	off	off	off	off	off
2 - 0x81	ON	off	off	off	off	off	off	off
3 - 0x82	off	ON	off	off	off	off	off	off
4 - 0x83	ON	ON	off	off	off	off	off	off
5 - 0x84	off	off	ON	off	off	off	off	off
6 - 0x85	ON	off	ON	off	off	off	off	off
7 - 0x86	off	ON	ON	off	off	off	off	off
8 - 0x87	ON	ON	ON	off	off	off	off	off
9 - 0x88	off	off	off	ON	off	off	off	off
10 - 0x89	ON	off	off	ON	off	off	off	off
11 - 0x8A	off	ON	off	ON	off	off	off	off
12 - 0x8B	ON	ON	off	ON	off	off	off	off
13 - 0x8C	off	off	ON	ON	off	off	off	off
14 - 0x8D	ON	off	ON	ON	off	off	off	off
15 - 0x8E	off	ON	ON	ON	off	off	off	off
16 - 0x8F	ON	ON	ON	ON	off	off	off	off
17 - 0x90	off	off	off	off	ON	off	off	off
18 - 0x91	ON	off	off	off	ON	off	off	off
19 - 0x92	off	ON	off	off	ON	off	off	off
20 - 0x93	ON	ON	off	off	ON	off	off	off
21 - 0x94	off	off	ON	off	ON	off	off	off
22 - 0x95	ON	off	ON	off	ON	off	off	off
23 - 0x96	off	ON	ON	off	ON	off	off	off
24 - 0x97	ON	ON	ON	off	ON	off	off	off
25 - 0x98	off	off	off	ON	ON	off	off	off
26 - 0x99	ON	off	off	ON	ON	off	off	off
27 - 0x9A	off	ON	off	ON	ON	off	off	off
28 - 0x9B	ON	ON	off	ON	ON	off	off	off
29 - 0x9C	off	off	ON	ON	ON	off	off	off
30 - 0x9D	ON	off	ON	ON	ON	off	off	off
31 - 0x9E	off	ON	ON	ON	ON	off	off	off
32 - 0x9F	ON	ON	ON	ON	ON	off	off	off

Ensure that the Rx552 is set to the same baud rate as the controller. The receiver default setting is 9600 baud, No Parity, 8 Data bits, 1 Stop bit. The baud rate is set from the **BAUD RATE** line of the MAIN/RECEIVER/COMMUNICATIONS/MENU.

# 4. SETUP

#### **DIAGNOSTIC AIDS**

A single diagnostic LED labelled POWER provides indication of presence of power and also data from the multiplexer.

When the Rx552 is powered, the LED illuminates.

The LED will blink when the Rx552 has received correct telemetry data with the same address as the DIP switch address. If the telemetry data is invalid or the data is addressed to another device, the LED will remain illuminated.

Additional diagnostic aids are available in the Rx552 MAIN/RECEIVER/DIAGNOSTICS menu. (see later)

# CABLE LENGTH COMPENSATION

The Rx552 incorporates a remotely adjustable high quality launch amplifier to compensate for video cable losses over extended cable distances.

The gain of the launch amplifier can be adjusted in the Rx552 LAUNCH AMP GAIN line of the MAIN/RECEIVER/OPTIONS menu. The gain can be varied from 0 - 255, the higher the number, the higher the gain. The default value is 4. As the amplifier gain is increased, high frequency lift is also increased.

# SELF-TEST AND DIAGNOSTIC SEQUENCE

The diagnostic system and status check, which will activate each receiver function for two seconds in turn, is activated by selecting **SELF TEST** from the Rx552 **MAIN/RECEIVER/TEST** menu. The self test can also be activated by pressing both the **UP** and **DOWN** buttons on the Rx552 top pcb simultaneously, allowing local self test of a stand alone receiver. (Please refer to earlier diagram for button positions).

The Rx552 OSD displays the self test progress with two status lines as shown below.

**FUNCTION** ← this line will show the current function being driven.

Pxxxx Txxxx Fxxxx ← the xxxx indicate preset pot values for pan, tilt, zoom and focus. Each value should change smoothly as the corresponding function is driven.

Functions:	Active output
PAN LEFT	J7/PM+/- PB+/-
PAN RIGHT	J7/PM+/- PB+/-
TILT DOWN	J7/TM+/- TB+/-
TILT UP	J7/TM+/- TB+/-
ZOOM IN	J10/ZM
ZOOM OUT	J10/ZM
FOCUS NEAR	J10/FC
FOCUS FAR	J10/FC
AUX LAMPS	J6/LAMPS
AUX WASHER	J6/WASH
AUX WIPER	J6/WIPE
Diagnostic check complete,	
Rx552 will reset and continue	
normal operation.	

During the self test, the presence and sense of each preset input is recorded. The status of each preset is displayed on the **AXIS FLAGS** line of the **MAIN/RECEIVER/DIAGNOSTICS** menu. **P**, **T**, **Z** and **F** will be displayed if the Pan, Tilt, Zoom or Focus preset have been found.

# **PROGRAMMING THE Rx552**

An easy to use menu structure allows programming of the receiver's advanced features. The menu can be accessed either local to the receiver using the three push buttons on the Rx552 logic pcb or remotely using the VCL telemetry controller.

The three buttons on the Rx552 logic board allow navigation through the menu structure. Pressing the **SELECT** button displays the **MAIN MENU**. Pressing the **UP** and **DOWN** buttons move the flashing highlight up or down. Pressing **SELECT** again allows the selected sub menu to be displayed or a value to be changed. To exit the menu structure, select **EXIT** from the **MAIN MENU**. The Rx552 will now reset and resume normal operation.

The receiver menu can also be accessed remotely using the VCL controller by issuing a GOTO PRESET 95. The exact keystrokes required vary depending upon the model of controller used. The UP and DOWN keys move the flashing highlight up and down whilst the LEFT & RIGHT key is used as the select key.

The receiver menu structure is shown on the following page.

#### GOTO PRESET 95 RX552DC RECEIVER MENU

RX552DC RECEIVER ME
COMMUNICATIONS
PRESETS
ALARMS
OPTIONS
DIAGNOSTICS
DEFAULTS
TEST MENU

# RX552 MENU STRUCTURE

Notes:

Navigation: UP and DOWN to move selected line. IRIS OPEN to either select the submenu or cycle options. NEXT will display the next screen of multi-screen menus and BACK will display the previous screen. RETURN will display the previous menu.

EXIT quits the receiver programming allowing normal operation.

RETURN		
COMMUNICATIONS  RX552DC COMMS MENU  RX552DC PRESET MENU  RX552DC ALARM MEI	ALARMS OPTIONS OPTIONS DIAGNOSTICS NU 1 RX552DC OPTIONS MENU RX552DC DIAGNOSTICS	RX552DC DEFAULTS MENU RX552DC TEST MENU
CAMERA DATA 2 WIRE DISPLAY PAT YES ALARM 2 PRESET NUMBER 1 SET ALARM 3	ON LAUNCH AMP GAIN 4 VERSION NO 1 ON MAIN LENS VOLTS 12V0 AXIS FLAGS PTZF ON INCH LENS VOLTS 6V0 MAX TEMP 23	RESET RECEIVER SELF TEST LENS OFFSET 12
PATROL A INC YES ALARM 5 MENU UNLOCK LOCKED INDIVID DWELL NA ALARM 6	ON	CLEAR ALL PRESETS  MOTOR OPTIONS ZOOM REDUCTION 50
ALARM 7 ALARM 8 NEXT	ON DATUM DELAY OM 0 HOURS USE 2 WASH DELAY SECS 5 NEXT RETURN 134 RETURN	RETURN RETURN
PATROL DWELL RX552DC ALARM MEI	NU 2 LAUNCH AMP GAIN PRESET FLAGS LOCKED	RESET RECEIVER LENS OFFSET
PATROL DELAY DISPLAY ALARM ( DELAYED ALARM ( MINUTES O SECONDS 5 ALARM 8	OFF TILT YES NORMAL 4 ZOOM NO	ARE YOU SURE RESET RECEIVER LENS STOP 12
	FOCUS NO PAN DIR NORMAL TILT DIR REVERSED ZOOM DIR NORMAL	
BACK RET	FOCUS DIR NORMAL	CANCEL
CHECK DELETE	MAIN LENS VOLTS	CLEAR ALL PRESETS NOTOR OPTIONS RX551DC MOTOR OPTIONS
ARE YOU SURE DELETE PRESET	LENS HIGH SPEED	ARE YOU SURE MAX PAN 255  CLEAR PRESETS MIN PAN 15  MAX TILT 255
		MIN TILT 50 PATROL SPEED 30 MAX PRE PAN 255 MAX PRE TILT 255
CANCEL		CANCEL
INDIVID DWELL PRESET DELAY IN PATROLA	INCH LENS VOLTS	
PRESET DELAY IN PATROLA MINUTES 0 SECONDS 0	ENS INCH SPEED	
	ZOOM FOCUS IRIS  RX552DC LENS DRIVE  ZOOM NORMAL	
	FOCUS NORMAL IRIS NORMAL	
	RETURN	
	DATUM DELAY	
	MINUTES 0 SECONDS 0	
	NEXT	
	RX552DC OPTIONS MENU 2 RAND PAN DELAY 1	
	SHOW AUX STATE YES TEXT ON LINE 10	
	ON POWER UP NO ACTION CAMERA MODEL NA	
	BACK RETURN	

# THE Rx552 MENU SYSTEM IN DETAIL

Please refer to the menu structure on the previous page to help navigation through the menu structure.

COMN		

RX551DC COMMS	MENU
BAUD RATE CAMERA DATA	9600 4 WIRE
MENU UNLOCK	LOCKED
RETURN	

RS485 baud rate 2400/4800/9600 8 data, No parity, 1 stop 2 WIRE/4 WIRE connection to camera

Must be set to  ${\tt UNLOCKED}$  to allow setting of above

Return to RECEIVER menu

PRESETS

RX551DC PRESET MENU

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

Dwell in minutes & seconds during preset patrol
Display preset number during patrol (YES/NO)
Toggle current preset (1 - 32) if present, shows SET
Delete current preset
Include preset in patrol (YES/NO)

Override patrol dwell for this preset minutes & seconds  $% \left( x\right) =\left( x\right) +\left( x\right) +\left($ 

RETURN

Return to RECEIVER menu

RX551DC	ALARM	MENU 1	S
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 disable or enabled individually.

Setting to OFF disables the alarm input and setting to ON enables the alarm input

THIS IS A SPECIAL ALARM SEE NOTES Display the ALARM MENU 2  $\,$ 

NEXT

RX551DC ALARM MENU 2

DISPLAYED ALARM ON
DELAYED ALARM OFF
ALARM 8 NORMAL

Receiver displays ALARM message when alarm active if ON OFF/ON. see note below

NORMAL/GLOBAL. If NORMAL then alarm input 8 functions as normal input to drive to preset 8. Setting to GLOBAL allow alarm inputs 1-7 to be disabled by adding a short between ALARM INPUT 8 and GROUND.

BACK RETURN

BACK displays ALARM 1 and RETURN displays RECEIVER menu

#### **DELAYED ALARM**

When set to ON, the receiver generates a alarm message and opens the alarm output contacts when the head slows down as preset position is approached. This is useful when used with video transmission or other event recording equipment to prevent potential of recording 'blurred' images whilst the head is moving. Setting to OFF generates the alarm output as the alarm input is generated.

#### OPTIONS

RX551DC OPTIONS MENU

LAUNCH AMP GAIN 4
MAIN LENS VOLTS 12V0
INCH LENS VOLTS 6V0
IRIS TYPE MOTOR
DC IRIS LEVEL NA
ZOOM FOCUS IRIS N N N
DATUM DELAY OM 0
WASH DELAY SECS 5
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 for autoiris override or 3 motor lens
Sets iris voltage range for Seiko or Cosmicar lens
Allow each lens function to be reversed
Time in minutes/seconds to return to preset 1, 0=never
Seconds that WASH output is active following WIPE
Display the OPTIONS MENU 2

\_\_\_\_\_ NEXT

RX551DC OPTIONS MENU 2

RAND PAN DELAY 1

SHOW AUX STATE YES
TEXT ON LINE 10
ON POWER UP NO ACTION
CAMERA MODEL NA

BACK RETURN

Random pan delay,1=fast,10=slow,0=AUTOPAN which requires an optional card within the pan/tilt head.

YES/NO: Display or Hide auxilliary output status 1-10. Position of status on screen, 1=top,10=bottom NO ACTION/PRESET 1/RANDOM PAN/PATROL 1 Future expansion - select camera type

BACK to OPTIONS 1 or RETURN to RECEIVER MENU

#### ON POWER UP

This setting determines the receiver operation following power up and also after the DATUM time if this has been set in the OPTIONS menu. The four options are: NO ACTION – dormant. PRESET 1 – goto preset position 1. RANDOM PAN – start Random Pan operation. PATROL 1 – start Preset Patrol, same as PRESET 98.

#### \_ DIAGNOSTICS

RX551DC DIAGN	OSTICS
VERSION NO	1
AXIS FLAGS	PTZF
MAX TEMP	23
DISPLAY POTS	OFF
RESETS	3
WATCHDOGS	0
HOURS USE	2
PRESET CALLS	134

AXIS FLAGS

RETURN

PAN	PRESENT		
TILT	PRESENT		
ZOOM	ABSENT		
FOCUS	ABSENT		
PAN DIR	NORMAL		
TILT DIR	REVERSED		
ZOOM DIR	NORMAL		
FOCUS DIR	NORMAL		
RETURN DO	NOT ALTER		

**DEFAULTS** 

RX551DC DEFAULTS MENU

RESET RECEIVER

CLEAR ALL PRESETS

RETURN

TEST MENU

RX551DC TEST MENU

SELF TEST

LENS OFFSET 12

MOTOR OPTIONS

ZOOM REDUCTION 50 NET TRAFFIC OFF

RETURN

Receiver software version

Indication of preset input status - see AXIS FLAGS below
Maximum internal enclosure temperature (relative value)
Display preset pot values.Useful during diagnosis work
Number of receiver power-ups.Useful diagnosis tool
Number of processor watchdogs(supply glitches)

Hours receiver powered Number of preset calls RETURN to RECEIVER MENU

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 PRESENT/ABSENT 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 DIAGNOSIS MENU

These two items should be used with extreme 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 RECEIVER MENU

Starts receiver self test procedure

BBV use to zero the lens drive output. Using a DC volt meter on the ZOOM output, alter this value to give OV.

Displays various pan/tilt speed options 25 - 100, % of pan/tilt speed when zoomed IN. BBV use to display RS485 telemetry commands

RETURN to RECEIVER MENU

	MOTOR OPTIONS
RX551DC MOTOR	R OPTIONS
MAX PAN	255
MIN PAN	15
MAX TILT	255
MIN TILT	50
PATROL SPEED	30
MAX PRE PAN	255
MAX PRE TILT	255
RETURN	

These settings allow the receiver to be tailored to different pan/tilt motors. The MIN/MAX values set the minimum and maximum speeds during manual control 255 is maximum speed and 0 is minimum

If the minimum is too low, the head may stall at low speeds.

To increase pan/tilt head life, the pan and tilt speeds can be reduced during preset calls. Again take care that the head doesn't stall.

RETURN to TEST MENU

## **Rx552 USER GUIDE**

Select the camera to control using the VCL controller.

Manual control of the pan/tilt head and lens is accomplished by pressing the relevant key or moving the joystick. Multiple functions can be controlled simultaneously. E.g. Pan Left and Tilt Down.

To move the pan/tilt head to a preset position, refer to the VCL controller manual. The Rx552 supports preset 1-32. If this preset has been programmed and a self test has been carried out following installation, the head/lens will move to show the preset position.

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

Controlling auxiliary outputs. LIGHTS/WIPE/WASH AUX1/2/3

LIGHTS: Turn AUX1 output on/off to allow the LIGHTS output to be switched. If SHOW AUX STATE is set to YES in the OPTIONS 2 menu then the lights symbol is displayed whilst the lights are on.

WASH/WIPE: The WASH key is will cause the WASHER output to activate for a maximum time as set in the OPTIONS menu. Turning on the WIPER will cause the WASHER to activate for the WASH time and the WIPER to activate until switched off from the controller. If SHOW AUX STATUS is set to YES in the OPTIONS 2 menu then an wipe symbol is displayed whilst the wiper output is on.

Rx552 characters displayed.

W Wipe auxiliary output is active

\* Lights auxiliary output is active

Random Pan is running

Automated functions:

Selecting AUTOPAN or 0 AUTOPAN will start a RANDOM PAN movement until stopped by using the Joystick.

- 1 AUTOPAN will start the sequential preset patrol.
- 2 AUTOPAN will start a random preset patrol.

An additional menu is available using GOTO PRESET 96 as shown below.

ALARM MENU AUTO/RANDOM PAN OFF PATROL OFF CANCEL

GOTO PRESET 96 displays this menu

Use the UP/DOWN keys to choose a line and IRIS OPEN
to either toggle ON/OFF or display ALARM MENU

Display the alarm menu

Start auto or random pan depending on setting in OPTIONS
Start Preset Patrol - Same as 1 AUTOPAN
Ouit menu

When RANDOM PAN is selected, the head starts a random panning sequence until either a manual command or a local alarm occurs. If SHOW AUX STATE is set to YES in the OPTIONS 2 menu then an arrow is displayed showing the direction of pan travel.

PATROL: Starts the preset patrol. If DISPLAY PATROL is set to YES the receiver displays PATROL and the current preset number. Pressing one of the pan/tilt keys will stop the patrol and manual control is resumed.

ALARM MENU: This item displays the ALARM MENU allowing the local alarms to be enabled/disabled individually.

				ALARMS
RX552D	С	ALARM	MENU	1 `
ALARM	1		01	N
ALARM	2	ON		
ALARM	3	ON		
ALARM	4	ON		
ALARM	5	ON		Ŋ
ALARM	6	ON		
ALARM	7	ON		
ALARM	8		01	Ŋ
NEXT				

Each local alarm input can be disable or enabled individually.

Setting to OFF disables the alarm input and setting to ON enables the alarm input

Use the UP and DOWN keys to select an alarm input. The Left or Right key will toggle the state from ON/OFF. When the alarms have are configured correctly, select the NEXT line to resume normal operation.

Return to the AUTOPAN MENU

Alarm inputs are normally closed. The alarm is activated when contact open and the receiver drives the head to the preset position corresponding to the alarm input.

Programming preset positions.

Follow the instructions for the VCL controller to program preset positions. Before preset positioning is used, a receiver self test must be performed to allow the receiver to detect the presence and wiring sense of any preset head and lens.

Please ensure that all the directions ARE NOT 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.

Summary of advanced features offered.

GOTO PRESET 95 - access the receiver menu

GOTO PRESET 96 - Additional Menu