

# WARDRAY PREMISE

## Safeview CCTV MR6500



**OPERATORS MANUAL**



## **Introduction**

Thank you for purchasing the MR6500 Safeview CCTV. This product is manufactured and tested to the highest standards to give artefact free scans when correctly installed.

The system is intended for use in fields up to 3T

To ensure that you obtain maximum benefit from the MR6500 Safeview CCTV system, please take a few minutes to read the enclosed information regarding Installation, Operation and Maintenance. After reading this manual, store it in a safe place for future reference.

If you have any problems in the meantime or would like any advice about this or any other MR products from the Wardray Premise range, please contact us at the following address:-

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## **General Information for MR6500**

### **General**

**Background Guidance Notes re Installation of Safe View CCTV - MR6500**  
**See Installation notes for the actual installation procedures.**

It needs to be remembered that the majority of these systems that are to be installed are being done in scanner systems which are already on field. Great care needs to be taken especially when taking items past the magnet.

When drilling the hole for the filter unit in the Penetration Panel it is imperative that both the Scan room side and the Technical room side of the Penetration Panel are checked for obstructions prior to drilling the hole, and that suitable provisions are put in place to catch all swarf created by the drilling.

Wherever possible only non magnetic tools should be used. If this is not possible then great care needs to be taken with the tools that are used so as not to create risks to either yourself or to others, and also to stop any possible damage to the scanner caused by the missile effect.

## **Installation Instructions - Safeview CCTV - MR6500**

The camera assembly has been pre-wired, tested and the field of view/focus set to approximately 2 metres. Connecting shielded cable and fibre optics are all pre-terminated to make for a plug & play installation.

Some final adjustment will need to be carried out once the system is installed. The lens has three adjustment's, the rear ring controls the aperture, the middle ring controls the field of view (zoom) (and should be adjusted first if needed), and the front ring adjusts the focus. The front two rings have threaded spindles and must be loosened before making an adjustment, and hand tightened afterwards.

### **Camera Installation:**

The camera is normally mounted on the wall at the rear of the magnet. Position the camera above the axis of the magnet such that the camera does not 'see' the opening at the opposite end of the bore.

The camera housing and wall bracket assembly is supplied pre-wired with trailing fibre and XLR power connectors fitted

The top cover of the housing has to be hinged back using a 5mm Allen key to provide access to the focus and zoom controls. When closing the lid ensure the RF gasket is sitting correctly in the groove provided.

The fibre optic cables may be supplied with protective covers which should be discarded before assembly. Note also that the fibre optic connectors are of the bayonet type, which have a locating groove.

## **Installation Instructions - Safeview CCTV - MR6500**

The camera unit must be securely fixed to the wall using the three mounting holes on the camera enclosure.

The camera housing and wall bracket assembly is supplied pre-wired with trailing fibre and XLR power connectors fitted

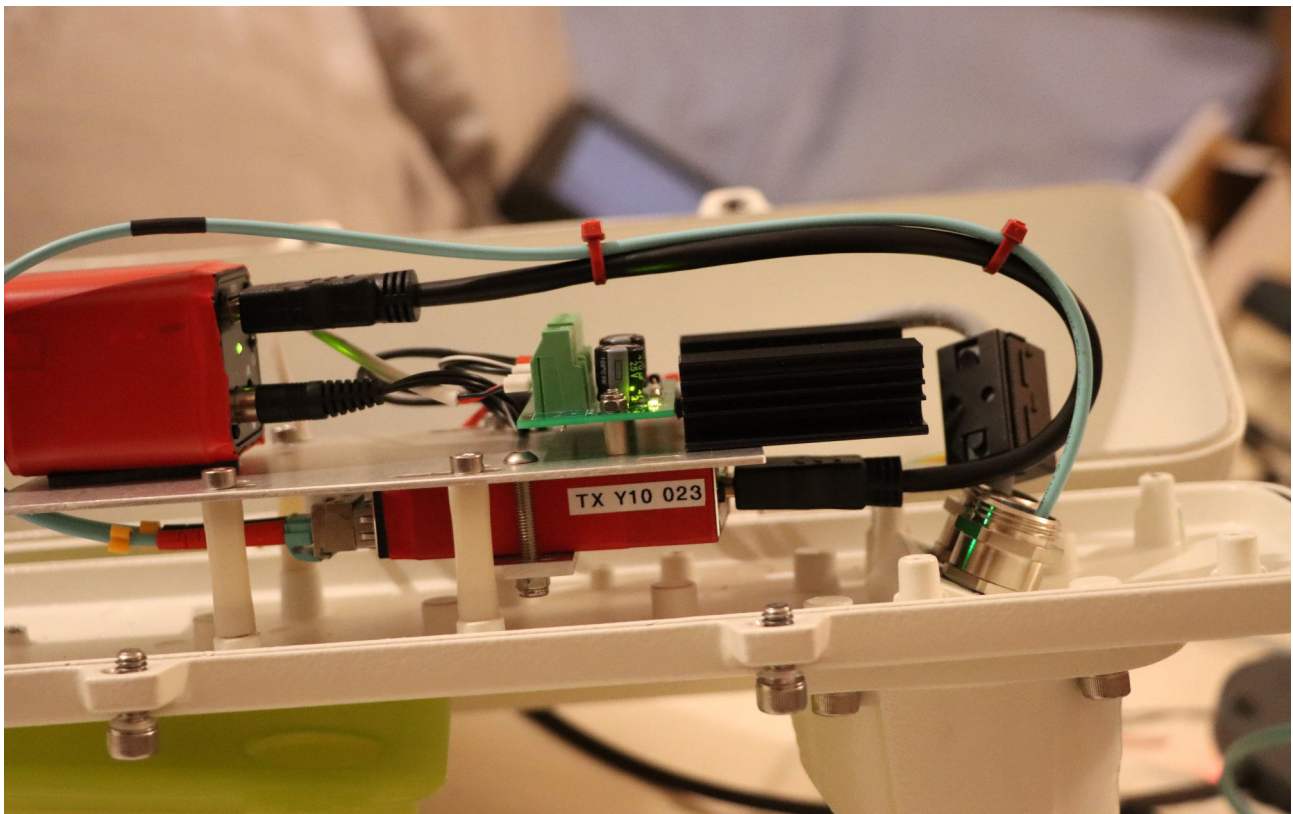
Depending on the wall construction, the enclosure can be fitted directly to the wall or if needed fitted to the wall using a 400mm square MDF mounting board, (not supplied)

The camera's power & fibre cables appear at the wall mounting face of the bracket to allow the two cables to be taken through the wall into the cavity between the cage and wall finishing, typically double thickness plasterboard

An Allen key is needed to tighten the screw in the camera housing bracket after final positioning.

Leave the top cover off until the unit has been powered up to allow any final adjustments to the zoom and focus settings.

Internal view:



## **Installation Instructions - Safeview CCTV - MR6500**

### **Camera power supply:**

The camera's 12v power supply should be installed in the technical room, in a suitable position. It provides power to the camera via a pen panel filter.

### **Mounting the pen panel filter:**

The pen panel filter has a 60mm x 30mm footprint and requires a single 19mm diameter mounting hole. A filter fitting kit for making the hole and securing the cables is supplied with the camera.

Find a suitable location on the pen panel and drill, first a 3mm pilot hole then enlarge with a 10mm hole for the hole punch from the technical room side. Make arrangements to catch any swarf on the other (magnet) side.

Insert one half of the hole punch from the technical room side and get a helper to attach the other half of the hole punch from the magnet side. Using the supplied 8mm AF allen key tighten the punch to make the hole.

Mount the filter box using the Lemo connector barrel from the technical room side and get a helper to fix the single nut on the magnet side. Make the fixing secure by tightening the Lemo nut with a 20mm spanner.

The power supply should be connected to the pen panel filter using the adaptor cable and powered from the main 230/240 AC supply.

On the magnet side install the power supply cable working backwards from the camera, into the ceiling void, routing the cable around the outside wall of the room and dropping down into the pen panel area. The power cable and fibre video cable are normally put in surface mount trunking taking the cables into the ceiling void, and then around the edge of the room and dropped into the pen panel area.

Cable exit from camera housing bracket. There are two options, first using surface trunking from the top of the camera wall bracket where a cut out has been provided. Or second, if there is access to the wall finishing, make a hole in the wall at the camera position and thread the fibre and power cables from the ceiling void area down between the wall and cage to emerge at the camera site.

In both cases, plug together the pre-terminated cables inside the void of the camera wall bracket.

A XLR plug->XLR socket extension cable can be supplied on request.



## **Installation Instructions - Safeview CCTV - MR6500**

### **Fibre Optic cable installation:**

The 30m twin red/black colour coded fibre optic cable should be routed from the camera position to the monitor location via the penetration panel or any available waveguide filter. The trailing fibre optic camera cable is supplied with female to female barrel connectors. Connect red to red and black to black.

Normally there are existing fibre optic cables passing through the penetration panel. Slacken any clamps holding these existing cables, and pass through the CCTV fibre optic cable and re-assemble the clamps.

It is important to avoid tight radius bends when positioning fibre optic cables. The control room end of the fibre optic cable should be plugged into the black box fibre optic receiver unit where indicated, and the power supply DC cable plugged in to the vacant socket.

Remember to connect the twin fibre cable, red to red and black to black

Connect the mains lead of the 12 volt power supply to a convenient mains socket.

Using the HDMI-HDMI lead supplied, connect the black box output to the TFT monitors input. The input to be selected on the TFT panel is HDMI.

### **Light levels versus video noise on CCTV display:**

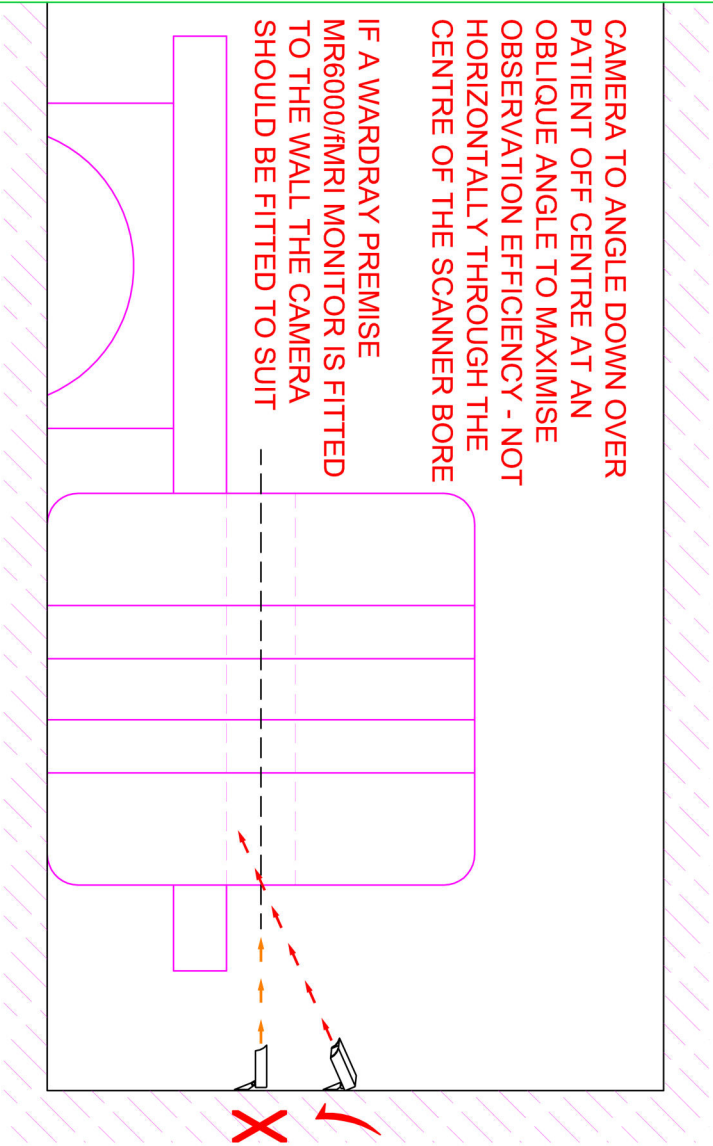
Due to the low light levels often encountered in magnet rooms, the lens is normally operated with the manual iris fully open. The electronic AGC within the camera will adjust the video output to get a viewable image. The camera does operate at low ambient light levels but it can only operate with the available light. If the image remains unacceptably noisy, even with the lens iris fully open then the only remaining option is to increase the ambient light levels.



DIAGRAM SHOWING CORRECT  
CAMERA POSITIONING

CAMERA TO ANGLE DOWN OVER  
PATIENT OFF CENTRE AT AN  
OBLIQUE ANGLE TO MAXIMISE  
OBSERVATION EFFICIENCY - NOT  
HORIZONTALLY THROUGH THE  
CENTRE OF THE SCANNER BORE

IF A WARDRAY PREMISE  
MR6000/fMRI MONITOR IS FITTED  
TO THE WALL THE CAMERA  
SHOULD BE FITTED TO SUIT



**CORRECT**

**WRONG!**

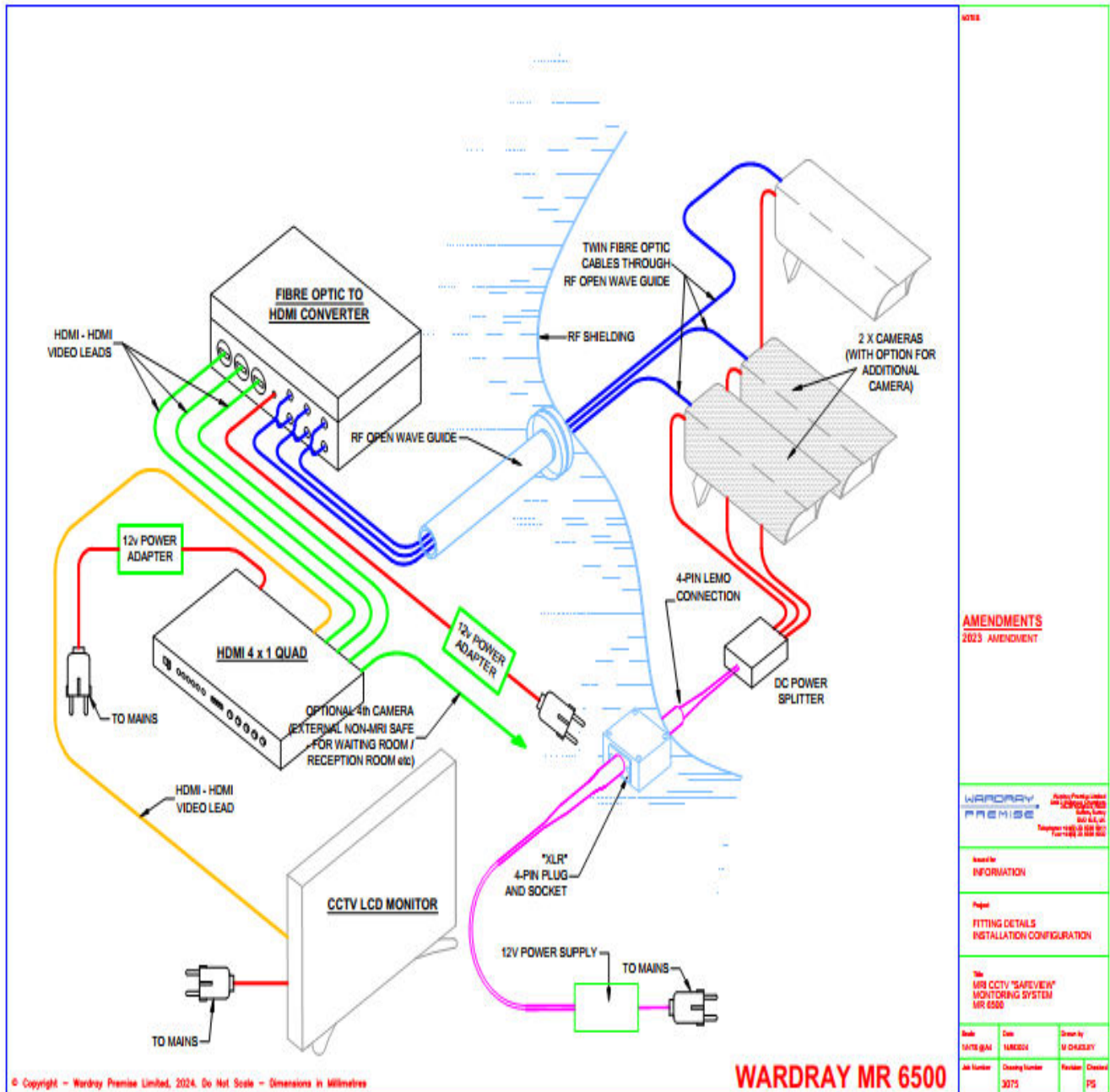
NOTES

© Copyright – Wardray Premise Limited, 2010. Do Not Scale – Dimensions in Millimetres

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Project FITTING DETAILS MRI CCTV OBSERVATION CAMERA			
Title CORRECT CAMERA POSITION			
Scale NTS@M4	Date 25/3/2010	Drawn by M CHADLEY	
Job Number 1641	Drawing Number	Revision	



## MR6500 - Multi Camera Head configuration





## **Aftercare**

This CCTV system only requires regular dusting with a dry cloth to optimise a clear image.

There are no user serviceable parts but if the systems requires a service this should only be serviced by a Wardray Premise trained engineer, as they will carry the correct spares to guarantee the continued safety and compatibility of this product. Failure to comply with this will invalidate your warranty and could compromise its MR compatibility and safety of this product.

**Should you have any concerns with this product, please contact your Wardray Premise service provider.**

# WARRANTY REGISTRATION FORM



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Surrey  
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Website: [www.wardray-premise.com](http://www.wardray-premise.com)

**REPLY FAX: +44 (0)20 8398 8032**

Name.....  
Title.....  
Company.....  
Address.....  
.....  
Telephone.....  
Fax.....  
E.mail.....

**To receive full warranty cover on your equipment, please complete and return this form at your earliest convenience.**

Product serial number

Please enter date product received

**PLEASE INDICATE BELOW ANY OTHER WARDRAY PREMISE PRODUCTS YOU CURRENTLY HAVE IN YOUR DEPARTMENT, AS WE WOULD BE HAPPY TO OFFER YOU AN ALL INCLUSIVE SERVICE PACKAGE.**

MR WHEELCHAIR

☐

MR OXYGEN MONITOR

☐

MR ADJUSTABLE HEIGHT TROLLEY

☐

MEDI MATTRESS

☐

PULSE OXIMETER – TESLA OXYSAT

☐

NOMAG INCUBATOR

☐

RELAX & VIEW VIDEO / DVD  
RELAXATION SYSTEM

☐

MR PORTERING CHAIR

☐

MR PATIENT MONITOR – TESLA  
GUARD

☐

MR PORTERING CHAIR

☐

MR FIXED HEIGHT TROLLEY

☐

RELAX & VIEW IMAGE COLLECTION

☐

TESLA NIBP / TESLA ETC02

☐

PURESOUND AUDIO RELAXATION  
SYSTEM

☐