

**PRODUCT SAFETY**

This camera range is designed for use in general purpose CCTV applications and has no other purpose. Only operate your camera between the temperatures of -10°C and +50°C. Do not operate your camera outside its specified power supply range. Cameras must only be used in clean, dry, dust-free environments unless housed in suitable protective housings to IP65 or better.

**⚠ WARNING**

In order to avoid damaging the camera note the following points.

1. Installation and servicing is only to be carried out by suitably qualified and experienced personnel.
2. Only power cameras from a class 2 isolated power supply.
3. Do not touch the image-surface of the sensor. If the sensor is accidentally touched, only clean it using isopropanol.
4. Do not expose the sensor to direct sunlight as this may impair the performance of the camera.
5. For outdoor use, an appropriate protective housing conforming to IP65 or UL50 or better must be used.

**ELECTROMAGNETIC COMPATIBILITY (EMC)**

**⚠ CAUTION**

This is a class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

This product is intended solely for use in general CCTV applications.

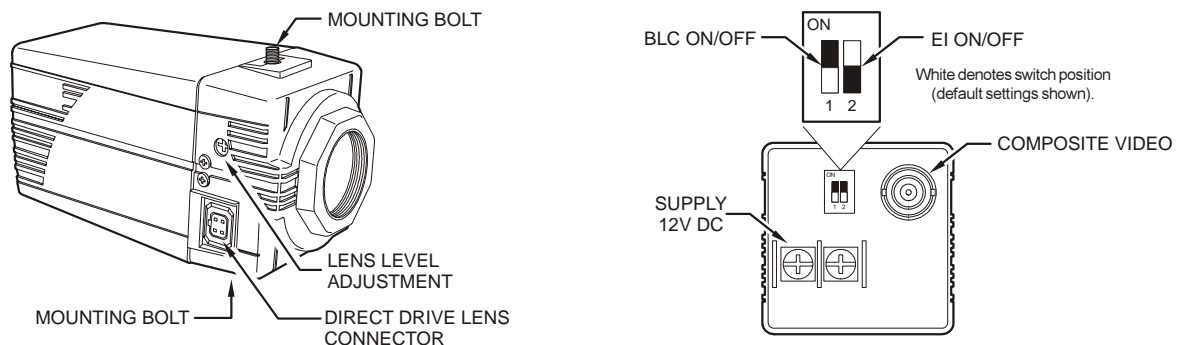
The product must be installed and maintained in accordance with good installation practice to enable the product to function as intended and to prevent problems. Refer to Norbain SD Limited for installation guidance.

**MANUFACTURER'S DECLARATION OF CONFORMANCE**

The manufacturer declares that the equipment supplied with this manual is compliant with the essential protection requirements of the EMC directive 89/336 and the Low Voltage Directive LVD 73/23 EEC. Conforming to the requirements of standards EN 55022 for emissions, IEC801 parts 2, 3 and 4 for immunity and EN 60950 for Electrical Equipment safety.

**CONTROLS AND SWITCHES**

The diagram below shows the locations and functions of the controls and switches.



**Mounting Bolt**

Two 1/4" 20 UNC mounting bolts are provided for mounting the camera, one on the top of the case and one on the bottom of the case.

**Lens Level Adjustment**

If the camera is used with a direct drive (DD) lens this potentiometer varies the DC reference voltage used to control the lens. The potentiometer has the effect of increasing or decreasing the lens aperture. This potentiometer should be adjusted to obtain a 1V pk-pk video output and is therefore the factory setting.

**Composite Video**

To obtain a 1.0V [pk-pk] composite video signal, connect a video coaxial cable terminated with a 75 Ohm BNC connector to the BNC socket marked VIDEO OUT.

**Supply Terminals**

These terminals accept a power supply of 12 VDC ±10%, ripple less than 200mV.

**EI on/off**

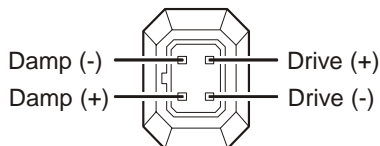
The Electronic Iris (EI) compensates for excessive light level by automatically adjusting the shutter speed. The electronic iris should be **ON** when using fixed or manual iris lenses. When using Auto Iris DC lenses, the EI must be **OFF**. See also Lens Level Adjustment. The default setting is **ON**.

**BLC on/off**

The BLC (Back Light Compensation) facility compensates for back-lit scenes by enhancing objects in the centre of the scene which would previously have been in silhouette. Select **ON** or **OFF** using the BLC switch. Default is **OFF**. BLC will only function with a manual iris lens when the Electronic Iris facility is switched on. For direct drive lenses, BLC will still function even though the Electronic Iris facility is switched off.

**DD/AI Lens Connector**

This 4-pin connector supplies the power and DC control signal for use with Direct Drive Auto Iris lenses. If the lens does not have a DD plug fitted then wire the lens to a suitable plug in accordance with the diagram below:

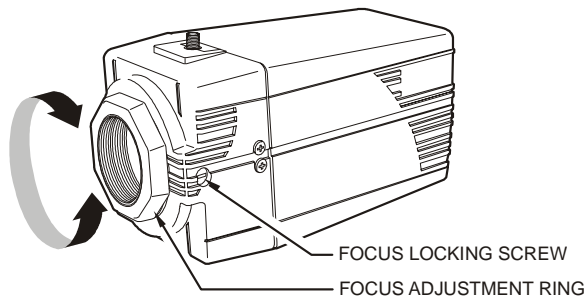


Direct Drive lens connector pin definitions (viewed looking at the connector itself)

LENSES

VC200 series cameras are suitable for CS mount lenses in fixed iris, manual iris or direct drive DC versions. The camera has a mechanism for adjusting the distance from the back of the lens to the CCD sensor. To adjust, use a suitable tool to loosen the focus locking screw, then rotate the focus adjustment ring either clockwise or anticlockwise as required. Tighten the focus locking screw when adjustment is satisfactory.

Lens Size	VC202M	VC212M	VC202C	VC212C
1/3"	●	●	●	●
1/2"	●	●	●	●
2/3"	●	●	●	●
1"	●	●	●	●



SPECIFICATIONS

Option	VC202M	VC212M	VC202C	VC212C
Mono	●	●		
Color			●	●
Resolution (TVL)	380	570	330	470
Sensitivity (lux @ f1.2)	0.1	0.2	1.0	1.2
CCD Sensor size	1/3"	1/3"	1/3"	1/3"
Scanning system PAL			●	●
Scanning system CCIR	●	●		
Digital Signal Processing (DSP)			●	●
Auto White Balance			●	●
Electronic Iris (EI) on/off	●	●	●	●
Backlight Compensation (BLC) on/off	●	●	●	●
Direct (D.C.) Drive Auto Iris connector	●	●	●	●
<b>Supply</b>				
12 VDC ±10%	●	●	●	●

