





# 1. Introduction

The DCC1/DCC2 Door Entry System enhances entry security by enabling the user to recognise the visitor by audible and visual means before openiing the door.

The external intercom incorporates LED lighting to illuminate the visitor for the camera. This type of lighting has an indefinte life.

An electric door catch (not supplied) is available as an optional extra for the DCC1/DCC2 to make the door opening automatic.

The external and internal intercoms are connected by a four core cable. With the cable supplied the distance between these units is limited to 15m. By using a larger core diameter cable this distance can be increased to a maximum of 100m, see section 9 (specifications) for further details.

# 2. Product Overview

If operation with an electric door catch is required then part DCLR is a fail (power off) secure catch available from Timeguard. It requires an additional mains adaptor part DCADAP to enable operation. See fig 2 for wiring of these parts. An additional two core cable run (using 13/0.2 bell flex) will be required between internal intercom and door catch via the additional mains adaptor.

#### Fig 1a - Internal intercom (Front view - mains adaptor not shown)

- 1. Handset
- 2. Handset on-hook switch
- 3. Integral speaker
- 4. "Door Open" button
- 5. "Video Off" button
- 6. "Video On" button
- 7. Monitor screen



#### Fig 1b - Internal intercom (Rear view and wall mounting plate)

- 8. Volume control
- 9. Brightness control
- 10. Contrast control (colour control DCC2)
- 11. Mains adaptor low voltage socket
- 12. Wall mounting plate





#### Fig 1c - External Intercom and Wall Box

- a. Camera and LED lighting assembly
- b. Integral speaker
- c. Name plate
- d. Call button
- e. Integral microphone
- f. Wall box





#### Fig 2 - Wiring diagram



(rear view)

## **3. Selecting intercom sites and cabling** 3.1 Intercom sites

The internal intercom should be located at a convenient position for all potential users at the height indicated in fig 3a and at a maximum distance of 70m from the external intercom. If all the users are significantly above or below average height then a different mounting height may be considered appropriate.

The external intercom should be sited in an area away from driving rain and surface water, out of direct sunlight as far as possible and protected by the minimum of an open porch in a position readily accessible to potential entrants. It should be mounted at the height indicated in fig 3b.



Fig 3a Internal intercom mounting height



Fig 3b External intercom mounting height and coverage

### 3.2 Cabling

Connection between the internal and external intercoms is by 4 core cable. A 15m length is supplied.

A separation of intercoms up to 100m is possible, refer to section 9 (specifications) to see how cable core diameter needs to be increased with increasing separation.

The cable run should be kept at least 100mm away from any mains cable.



## 4. Fixing Intercoms 4.1 External intercom

Important: To give the best possible waterproofing and appearance we recommend taking the wiring through the exterior wall directly behind the external intercom so that the cabling will feed directly through a back box cable knock out. If the surface to be fixed to is not even (e.g. pebbledash or brickwork with raised pointing) we recommend the use of at least 10mm (3/8") thick marine ply as a mounting plate between the wall and the back box to prevent its distortion and loss of waterproofing.

- Remove the back box from the external intercom in the following way. Insert a small screwdriver blade in the end cap screwdriver notch (fig 4, i) and lever end cap so that it slides outwards from the main case (in opposite directions to those shown in fig 4, iv). Remove the two fixing screws (as shown in fig 4, iii) and remove the back box from the rear of the external intercom.
- ii This is a convenient time to mark the nameplate.

Referring to fig 5, remove screw holding the PCB assembly to the transparent housing. Lever one of the catches on the transparent housing clear of the PCB assembly and lift the PCB assembly clear of the transparent housing.

Lever out the diffuser and nameplate from the transparent housing.

Mark the nameplate as required with a permanent fibre-tipped pen. When dry insert the nameplate into its recess in the housing ensuring it is the right way up. Replace the diffuser on top of the nameplate and push the PCB housing to engage with the catches of the transparent housing. Replace the screw holding the transparent and PCB housings together.

iii Offer the back box up to the required position on the wall (refer to section 3.1). Decide which of the cable knock outs is to be used. Score around the groove with a sharp knife and push the centre out. Feed the 4 core cable through this knock out in the back box (see fig 4, ii). Mark the positions of the four fixing screws (no 8 roundhead) using the back box as a template (see fig 4, ii). Remove the back box, drill and, if necessary plug holes. Feed the cables through the wiring slot. Fix the back box to the wall with No. 8 roundhead screws.



v Slide the two end covers inwards as shown until fully home (see fig 4, iv).

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#### Fig 5 – Rear access to nameplate

#### 4.2 Internal intercom

Choose a position which can be reached easily by all potential users. If one person usually in one location will be the main user it may be considered appropriate to locate the internal intercom within reach of that person.

Mark out two holes suitable for No. 8 roundhead screws using the wall mounting plate as a template (ensure this is the correct way up by referring to fig 6).

Drill and plug the holes if necessary. Offer the wall fixing plate up to the wall and drive the fixing screws home, ensuring the plate is not distorted by mounting on an uneven surface.

Connect the four core lead from the external intercom according to fig 2. Plug the mains adaptor low voltage plug into the mains adaptor socket (see fig 1). Arrange the two cables at the back of the internal intercom. Finally locate the internal intercom mounting slots on the wall fixing plate mounting hooks, and slide intercom downwards into position.



# 5. Commissioning/Use

Press the call button (fig 1c, d) at the external intercom – a buzz will be heard locally and the camera will activate for 1 minute. A ring tone will be heard at the internal intercom for two to 3 rings and the display will show the visitor.

Once the handset is lifted two way communication is possible via the microphone and speaker at the external intercom.

The video on button (fig 1a, 6) when pressed will give a minute of camera and display active at any time. This can be brought to an end earlier by pressing the video off button.

To end the conversation and turn off the camera and display replace the handset on hook.

Finally, if a door catch is fitted, the door open button (fig 1a, 4) should be pressed and, the door can be opened.

It is not necessary for the handset to be lifted to use the door open faciliity. If necessary the audio volume, video brightness and video contrast can be adjusted using the controls 8, 9 and 10 respectively (fig 1b).

# 6. Do's and Dont's

- 1. Never use the product if it shows any signs of damage.
- 2. In case of damage to the product unplug the mains adaptor from the mains supply to avoid any possibility of electric shock and have the damage examined by a competent person.
- 3. When laying cabling ensure that no cables (particularly mains cables) are damaged.
- 4. Never try to operate the mains adaptor at a voltage other than 230V 50Hz.
- 5. The installation should only be carried out by a competent person.
- 6. The internal intercom should be kept out of reach of children and unauthorised persons.
- 7. Keep low voltage cabling at least 100mm away from any mains cabling.
- 8. Ensure that all electrical connections are made and wires are arranged according to the instructions.
- 9. Do not cover the louvres on the internal intercom.

## 7. Troubleshooting

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No Audio or video	Check cable between internal and external intercoms is connected correctly.
	Check that there are no breaks or damage to the interconnecting four core cable.
	Check that the mains adaptor is plugged in and switched on.
<b>Door catch not working</b> (if fitted)	Check cable between external intercom and door catch for breaks or damage.
	Check that terminations are correctly made at each end of the above cable.
	Check that both the mains adaptors are plugged in and switched on.

# 8. Cleaning

Unplug mains adaptor before cleaning product.

Clean internal and external intercoms with a damp cloth only – no cleaning agents.

Remove dust deposits from the louvres on the internal intercom with a soft brush or vacuum cleaner.

## 9. Specifications

Mains adaptor:	230V 50Hz/15V, 1A		
	Secondary current:	Operating	J 710mA DCC1,
			100mA DCC2
		Standby	160mA DCC1,
			44mA DCC2
	Max ambient temp:	35°C	
DCC1 – Black & White			
Monitor:	4" flat black & white CRT, resolution 320 lines		
Camera:	F=2.0 lens, 1/4 CMO	S image	
DCC2 – Colour			
Monitor:	3.5" flat colour LCD, resolution 480 x 234 dots		
Camera:	F=2.0 lens, 1/3 CMOS image		
Operating ambient temp:	-10°C to +55°C DCC1, -10°C to +45°C DCC2		
Door Catch:	Max 12V DC 1A		

The table below gives the minimum diameter for each core in the four core cable for various distances between the indoor and outdoor intercoms (monitor and camera).

Distance between the camera and the monitor	Diameter for each wire inside the cable		
From 1m to 20m	0.45mm		
From 20m to 50m	0.50mm		
From 50m to 100m	0.75mm – 1mm		





## **3 Year Guarantee**

In the unlikely event of this product becoming faulty due to defective material or manufacture within 3 years of the date of purchase, please return it to your supplier in the first year with proof of purchase and it will be replaced free of charge. For years 2 and 3 or any difficulty in the first year telephone the helpline on **020 8450 0515**.



## Recycling

When service life is over please consult your local authority regarding method of disposal.



# HELPLINE 020-8450-0515



For a product brochure please contact:

Timeguard Ltd. Victory Park, 400 Edgware Road, London NW2 6ND 020-8452-1112

or email csc@timeguard.com

67-058-233