



# Instruction Manual

VDP210

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## Introduction

The new and improved DoorKnox VDP207 and VDP210 from serial numbers HCA01001 and HCB00401 onwards have many new features.

With a stylish brushed aluminium & gloss black finish and quality build the DoorKnox is ideal for retail and commercial projects.

Our touch button monitors provide you with full control of your door entry system and are available in a choice of two sizes; 7" and 10".

Two door cameras and two door locks can be connected to the main monitor.

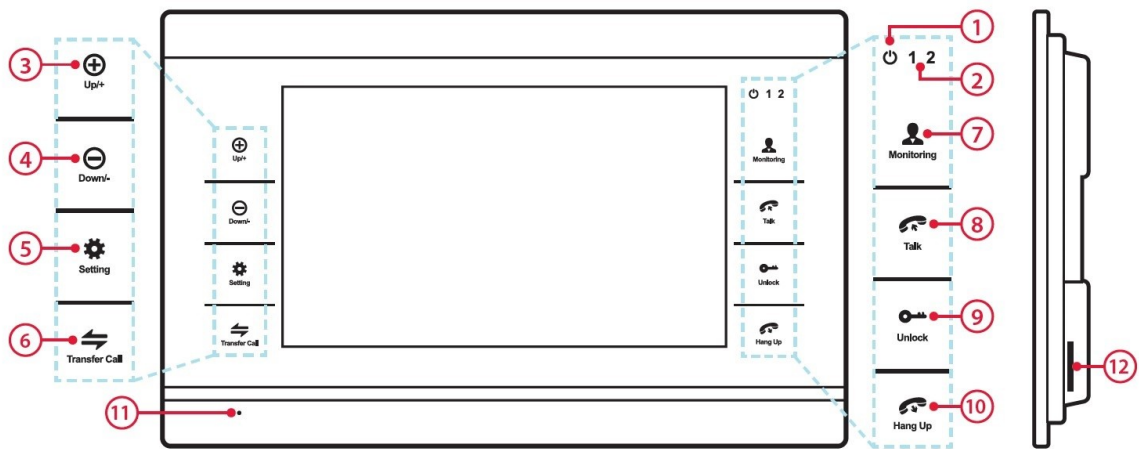
Note:

DoorKnox Monitors from serial numbers VDP207 (HCA01001) & VDP210 (HCB00401) cannot be used along side existing DoorKnox Monitors with earlier serial numbers

### 1.1 Key Features

- Up to 6 monitors on a system. 1 Main Monitor plus 5 Auxiliary Monitors.
- Camera to Monitor Intercom
- Monitor to Monitor Intercom
- 12 built ringtones
- Customise ringtone MP3
- Motion detection
- Ring at camera
- Automated Message & Video Mail Recording
- Local Unlock
- Standby Screen Saver Customisation
- Media Player - Music, Video & Pictures

## Controls & Features



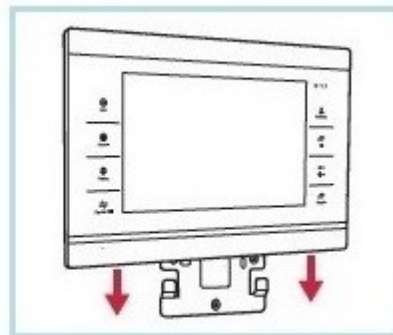
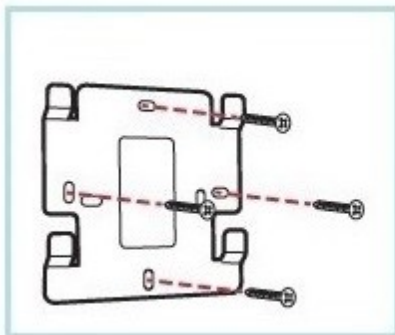
1	Power Indicator
2	Door camera indicator shows which camera is being displayed
3	Up - Volume up / Move up in menu system
4	Down - Volume down / Move down in menu system
5	Settings - Enter menu system / Press again to make selection
6	Transfer - Send call to other monitor(s) / Intercom

7	Monitoring - Switch between camera inputs
8	Talk - Answer call
9	Unlock - Unlock door connected to camera being displayed
10	Hang Up - End call / Return to previous screen / Cancel
11	Microphone
12	SD card slot

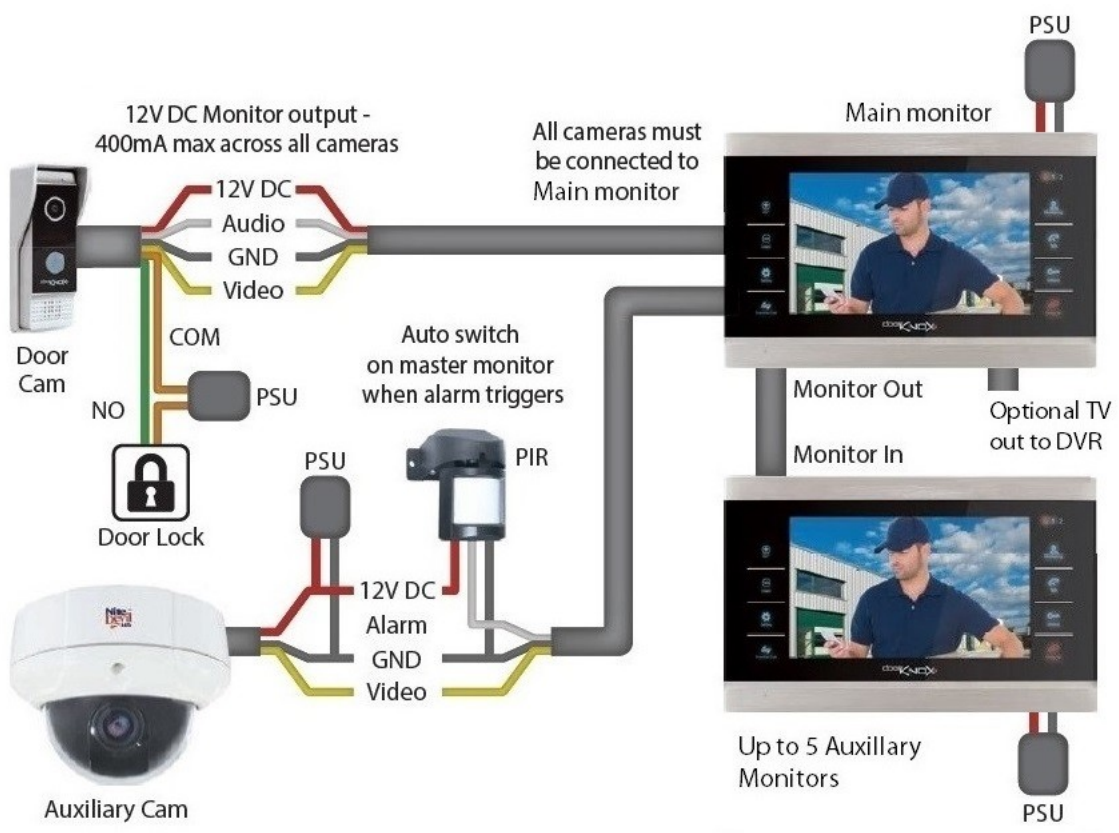
## Mounting

The mounting plate is secured to the mounting surface and then the monitor slots on to it.

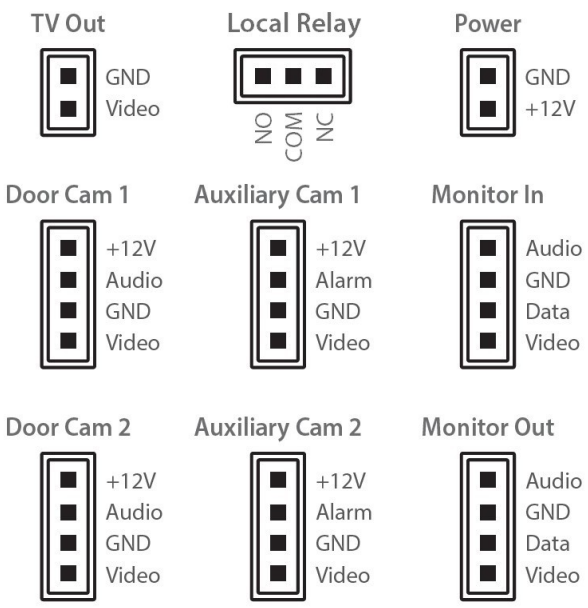
There is a large hold in the centre of the mounting plate to allow the cables to pass through.



# Connections and Wiring



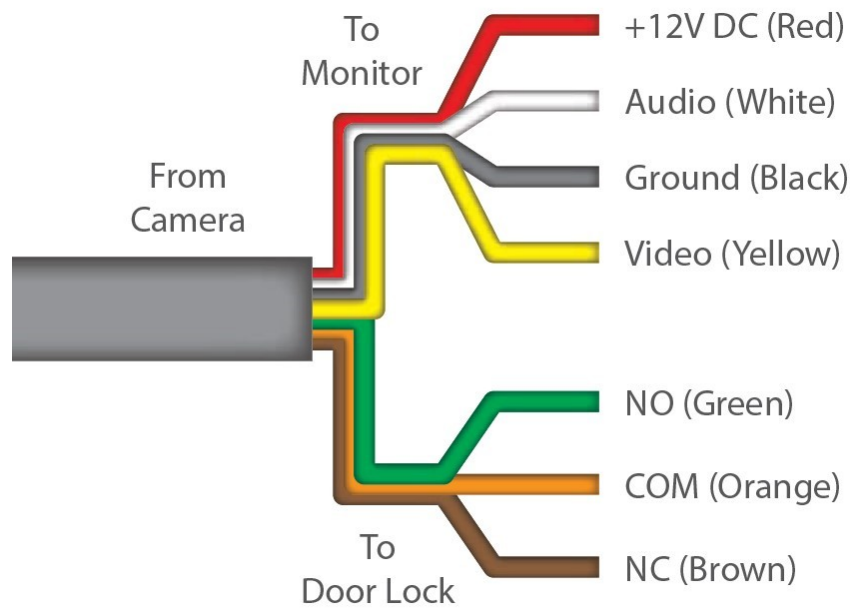
To make life easier all three monitors feature the exact same connection layout as shown below.



### 4.1 Cameras

All of our door cameras have connection cables terminated into the same 7 colour coordinated wires. 4 wires are used to connect to the monitor and then 2 of the 3 remaining wires are used to connect to an electronic door lock.

The common (COM) wire is always used along with either the normally open (NO) or normally closed (NC) wire depending on the lock type, power for the lock is separate as the Door Lock relay does not provide power output.



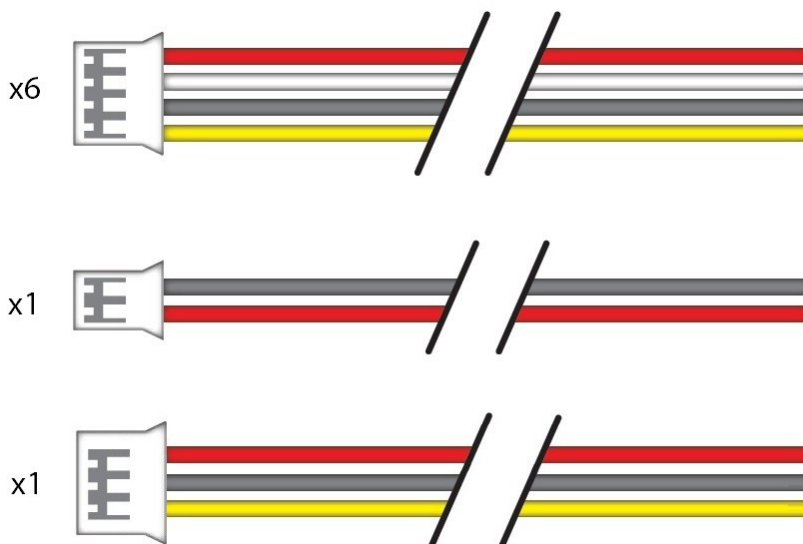
## 4.2 Monitors

Every monitor is supplied with 6x 4 wire y-leads, 1x 2 wire y-lead and 1x 3 wire y-lead.

The 4 wire y-leads are terminated into 4 pin plugs which are simply inserted into the sockets on the rear of the monitor. These are used for connecting door cameras, auxiliary cameras and auxiliary monitors, the 4 wires are colour co-ordinated to match the 4 wires from the door camera.

The 2 wire y-lead is terminated with a 2 pin plug and is used as the TV out for connecting the door monitor to a TV monitor or DVR.

The 3 wire y-lead is terminated for the local relay plug and is used to unlock a local relay like a door release local to the monitor.



## 4.3 Powering Cameras

Door cameras and auxiliary cameras can be powered in two ways, either locally or via the main monitor.

The DoorKnox monitors can supply a 12V DC output to any of the four cameras but can only supply a maximum of 400mA across all outputs.

To power a camera locally connect the Audio (white) and Video (yellow) to the door monitor, the GND (black) to the PSU and the door monitor and then the 12V DC (red) to the PSU only.

## 4.4 Powering Monitors

Door monitors are supplied with a 12V DC 2A plug-in PSU that terminates into a 2 pin plug which slots into the rear of the monitor.



### 4.5 Cable Runs

The maximum achievable cable run is limited by the voltage drop in the chosen cable and also the quality of the video cable which can cause signal loss and interference.

Resistance differs depending on the cable used and the higher the resistance the more the voltage drops hence the shorter cable run achievable.

It is recommended to use one of three types of cable, PTZ combo cable sometimes known as RG59+4, CAT5+2 cable or 4 core cable with 0.3mm<sup>2</sup> cores.

Below shows the maximum recommended cable run for each cable type. Cable runs exceeding the stated maximum run are at risk of issues caused by voltage drop and non performance of equipment.

#### Camera to Main Monitor

Cable Type	Max Cable Run
PTZ Combo Cable (RG59+4)	Up To 150m
CAT5+2 Up To 100m 4 Core Cable (0.3mm <sup>2</sup> )	Up To 100m
4 Core Cable (0.3mm <sup>2</sup> )	Up To 50m

#### Main Monitor to Auxiliary Monitors

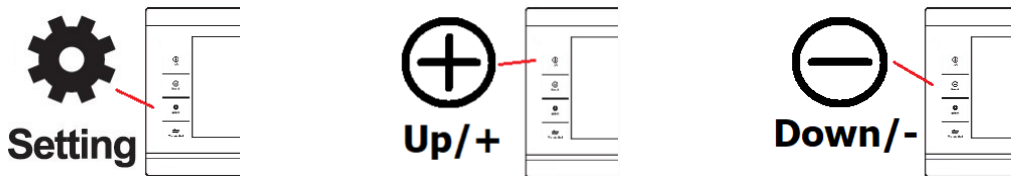
Cable Type	Max Cable Run
PTZ Combo Cable (RG59+4)	Up To 30m (Per Monitor)



## Menu Navigation

The Main Menu is entered by pressing the **Setting** button and navigated by using + for up or left, and – for down or right.

Once in the menu the Setting button is used to select the feature.



To go **back** at any time or to **exit** the menu use the **Hang Up** button. Repeatedly pressing this button from any page will take you out of the settings. Any settings that you have made will be automatically saved.



## Basic Monitor Settings

If only using 1 door camera and 1 monitor then skip setting **monitor ID** and **camera switch**.

### 6.1 Setting Monitor ID

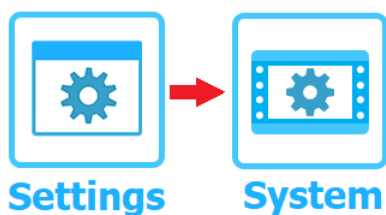
Up to 6 DoorKnox Monitors can be used, this means 1 Main Monitor and up to 5 Auxiliary Monitors

#### NOTE

The Main Monitor ID must be set to 1, and the Auxiliary Monitors ID range is set 2 to 6.

#### To set Monitor ID

1. From the menu select **Settings** and then **System**

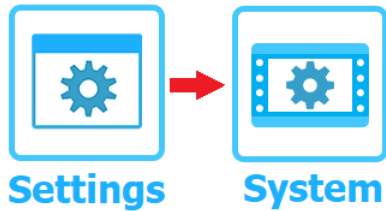


2. In the **System** menu select **Device ID** use the + and – buttons to change the ID and then use the **Hang up** button to exit.

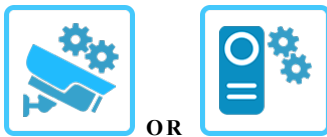
## 6.2 Camera Switch

As default Door Cam 2 and CCTV (Auxillary) Cameras are turned off.

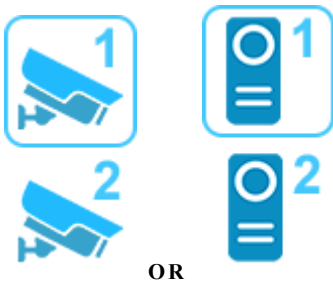
1. From the menu select **Settings** and then **System**



2. Go to **Door Cams / CCTV Cams**



4. Select **Channel**



5. Then change **Status** in the list to **ON**.

## Using the Door Entry System

### 7.1 Visitor Calls

When a visitor presses the call button on a door camera the ringtone will be played and their image will be displayed on all door monitors. To answer the call press the **Talk** button



1	Door Camera Number	8	Outdoor Door / Camera Relay Unlock
2	Video Format	9	Local Relay Unlock
3	Recording Status	10	Picture Settings
4	Storage Status	11	Transfer Call
5	Call Time	12	Answer Call
6	Snapshot	13	Hang Up
7	Manual Video Record		

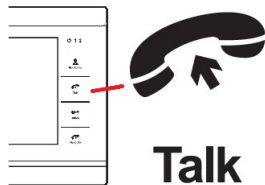
## 7.2 Intercom (Monitor to Monitor Audio only)

Press and hold **Transfer Call** button to show different monitor extension IDs



Press the **Up** and **Down** to select the different monitor IDs then select using **Setting** to call another monitor.

To answer the call press the **Talk** button on the receiving monitor.

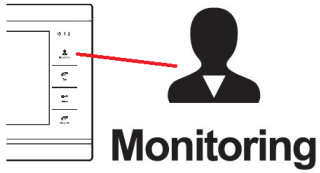


To end the call press the **Hang Up** Button.

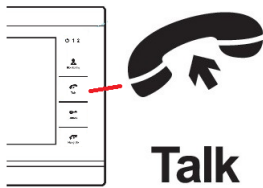


## 7.3 Monitoring Cameras

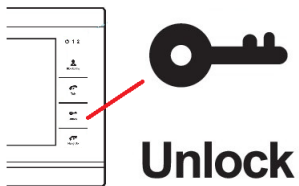
To monitor any camera press the Monitoring button to cycle through camera inputs.



When monitoring a door camera open two way audio by pressing the Talk button.



Unlock door by pressing the Unlock button.



When monitoring cameras the door monitor will return to standby after 60 seconds of inactivity.

## Monitor Features

### 8.1 Standby Mode

The standby screen mode can be set to either:

**Clock mode** - which shows time date and the notifications bar at the bottom

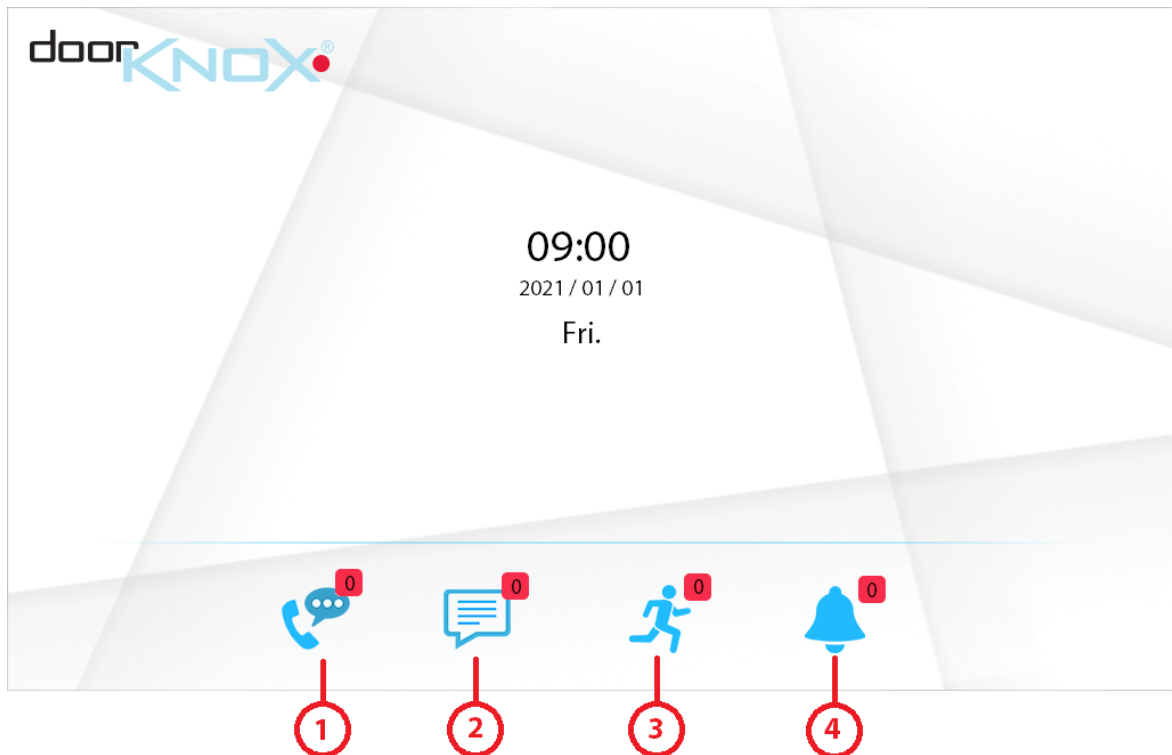
**Digital Photo Frame mode** - Which shows a slideshow / image which can be accompanied with background music.

#### 8.1.1 Clock Mode

On clock mode the monitor will go back to the clock screen after 1 minute of inactivity in the menu.

The clock will display for 1 minute, after the screen will turn off.

## Notifications



**1. Call** - During any Door Camera call, the monitor automatically captures a snapshot or records video.

**2. Messages** - Automatic Video Message recording when no one answers the call on a monitor.

**3. Motion** - Motion can be set to record when motion is triggered at a door camera or CCTV (Auxiliary) Camera.

**4. Alarm** - When CCTV (Auxiliary Camera) alarm input is triggered the monitor automatically captures a snapshot or records video.

**NOTE:**

This feature requires an SD Card to be installed in the monitor.



### 8.1.2 Digital Photo Frame Mode

Digital photo frame mode will play the pictures on the SD card in standby.

The monitor will create a **"Photo"** folder on the SD Card, any pictures required for the system to play need to be placed in this folder.

Remove the SD Card and place into a compatible device, like a PC or Phone.

On the SD Card go to:-

**User > Photo**

Any photos placed in this folder will then automatically display as a digital photo frame.

### Standby Mode Options

1. From the menu select **Settings**



2. Select **Standby Mode**



Standby Mode Options	
Digital photo frame	OFF / ON
Digital photo switch time	1 – 30 Seconds
Background music	OFF / ON
Background music volume	1 – 10

## 8.2 Motion Detection

Can be setup to trigger recording to the SD card in the monitors connected and also be reviewed later as a notification from the menu.

1. From the menu select **Settings**



2. Go to **Door Cams / CCTV Cams**
3. Select **Channel**
4. Set **Motion Detection** to **ON**

**Motion Sensitivity** - Adjustable **Low, Medium** and **High**

**Motion Record Time** - Adjustable **10s - 20s , 40s, 60s, 80s, 100s, 120s, 140s, 160s, 180s, 200s, 220s, 240s, 260s, 280s, 300s**

All Motion Events will then be displayed as a notification from the main screen which can be played back.



### NOTE

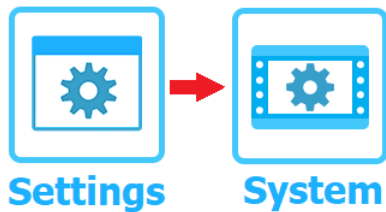
Motion will only trigger and record an event on 1 channel at a time. For example, If Door Cam 1 is triggered and recording motion and Door Cam 2 is also triggered, then only Door Cam 1 will record the motion event. i.e simultaneous recording from multiple cameras is not possible, as the first event is the event which is logged.

### 8.2.1 Motion Detection Preview

When motion is detected then the camera which is activated can be set to display on the monitor.

To turn Motion Detection Preview on:-

1. From the menu select **Settings** and then **System**



2. Set **Motion Detection Preview** to **ON**

#### NOTE

If Digital Photo Frame is running and Motion is triggered then the motion event will trigger and show the motion event. If motion detection preview is turned off then the digital photo frame will be interrupted and to show the message "**motion detection, video recording**". Select **setting** to remove event or the notice will end after the motion event has finished.

## 8.3 Messages & Availability Status

The monitor supports Automated Message Recording if nobody answers the call on a monitor. The monitor will handle this differently depending on your availability status.

Message needs to be turned on in the Door Camera First, Message Time can also be set, go to:-

1. From the menu select **Settings**



2. Go to **Door Cams**



3. Select **Channel**



4. Set **Message** to **ON**

6. Set **Max Message Time** - 30s, 60s, 120s

## Availability Status

This is set in the Main Menu on the monitor

**Available** - The call will go through to the monitor and ring for 30 seconds. Then "Please leave a message" audio will play at the camera, then the caller can leave a message.



**Unavailable** - The call will go straight to "Please leave a message" audio at the camera, then the caller can leave a message.



**Silent** - The call will go through to the monitor but will not ring or sound for 30 seconds. Then "Please leave a message" audio will play at the camera, then the caller can leave a message.

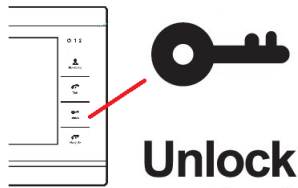


## 8.4 Local Relay Unlock

The local relay to the monitor can be setup to unlock a door from the monitor itself without having to setup a install push button separate to the monitor.

This can be activated in two ways:-

**Option 1.** Press and hold **Unlock** to activate local relay



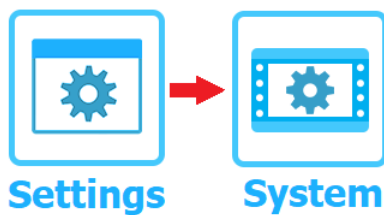
**Option 2.** in the Main Menu Select Lock



### 8.4.1 Unlock Time

To change the unlock time (Default 2 seconds)

1. From the menu select **Settings** and then **System**



2. Set **Internal Unlock time**, this is adjustable **1 - 10s**

## 8.5 Additional Features

Additional features like Media Player and Ringtones that may not be included this version of the manual will be added later.

## Troubleshooting

### 9.1 Signal Loss / No Image

**Poor Connections** - A poor lead connection may cause signal loss or interference so check that each component is firmly plugged in and any joints (soldered or otherwise) have been made well and solid with no shorts or crossed wires.

**Lack Of Power** - May cause a lack of picture or other intermittent results. Check your equipment works on a short lead to rule out unsuitable cable runs. Ensure that each add-on item such as cameras, PIRs etc. have their own adequate power supply source. Finally try powering the unit locally with a suitably rated power supply unit (12V DC 2A). See [Powering Monitors](#)<sup>5</sup> for help on this.

**Long Cable Runs Causing Signal Loss** - A long cable run may result in poor or complete signal loss. Firstly check if this is the cause by testing the camera and screen on a short test cable. If the problem disappears then both units are working correctly.

Next check if the correct cable is being used. If your cable is below specification then it will need replacing with a more suitable heavier duty cable. See [Connections and Wiring](#)<sup>3</sup>

**All above checks should be carried out in any situation where one unit does not appear to be receiving a signal whether video, audio or data from another unit.**

### General Maintenance

- Ensure that nothing is obscuring the field of view, position the camera to ensure the subject is in field of view and can be seen clearly.
- Ensure that the Microphone is clear and not obscured at all.
- Routinely clean the monitor to prevent dust build up as this can effect the performance. We recommend a damp non-abrasive microfibre cloth.
- Routinely check the connections for power and data to ensure the connections are secure and solid.
- Check that the monitor is firmly attached to the wall mounting bracket.
- Check playback in the monitor to ensure it is recording & triggering properly on the SD Card

## VDP210 Specification

<b>Screen Size</b>	10"
<b>Video Input</b>	CVBS
<b>Resolution</b>	1024 x 600
<b>Camera Input</b>	2x Door Cameras / 2x Auxiliary Cameras
<b>Door Monitor Inputs</b>	1
<b>Door Monitor Outputs</b>	1 (5 Auxiliary Max)
<b>TV Monitor Outputs</b>	1 (720 x 576)
<b>SD Card</b>	Micro SD / 2GB – 128GB Class 10 Min (32 GB Supplied)
<b>Power /Consumption</b>	12V DC / 1200mA (2A PSU Supplied)
<b>Build</b>	Brushed Aluminium & Plastic
<b>Dimensions</b>	(H) 210 x (W) 334 x (D) 27mm



## Conditions

All specifications are approximate. System Q Ltd reserves the right to change product specifications or features without notice. Whilst every effort is made to ensure that these instructions are complete and accurate, System Q Ltd cannot be held responsible for any losses, no matter how they arise, from errors or omissions in these instructions, or the performance or non-performance of the equipment referred to.

*This symbol indicates that equipment must not be mixed with general household waste. For treatment, recovery and recycling please return to your local designated WEE/CG0783SS collection point as defined by your local council.*



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