

# PTZ635

Handbook &  
Instructions



High speed mini IR PTZ  
panning at 200° a second.

XPTZ635

## Introduction



The PTZ635 is a stunning mini IR PTZ camera.

It's simple to setup thanks to its auto protocol, auto baud rate features and easy to use menu system.

Unlike some other PTZs the PTZ635 reacts instantly to keyboard or DVR commands. With a pan speed of 200° per second, proportional pan and 360° continuous rotation makes adjusting the camera quick and easy.

The versatile high speed PTZ camera can be wall or ceiling mounted both indoors and out. Being IP66 rated and boasting 6 high power IR LEDs, ensures the PTZ635 will work perfectly in all light and weather conditions.

# Features

## Intelligent Setup

- **Auto Protocol** - (Pelco D, Pelco P, HIK, DAHUA)
- **Auto Baud Rate** - (2400, 4800, 9600)

## PTZ Control

- **Auto Patrol** - Presets can be saved into groups. These groups can then be set to run automatically when the PTZ is idle.
- **No Blind Spots** - Thanks to 360° continuous rotation and auto flip.
- **200°/sec Pan Speed**
- **0.6°/sec to 200°/sec Pan Speed Range**
- **3.5°/sec to 30°/sec Tilt Speed Range**
- **30°/sec Tilt Speed**
- **Proportional Pan** - The PTZ735 automatically adjusts its Pan/Tilt speed according to zoom level. This ensures easy control and accurate movement at all times.

## Presets, Patrols & Tours

- **220 Presets** - Each preset can position and zoom the camera.
- **8 Tours** - Performs a specified presets in order.
- **4 Patterns** - You can record 4 patterns each containing up to 100 movements.
- **AB Auto Scan** - Left and right boundaries and pan speed can be set. The Camera will then continuously pan between these boundaries at the desired speed.

## OSD

- **Quick & Easy** - Easily display and change the camera's parameters.
- **Informative** - Pan/Tilt angle, zoom level and preset information can be displayed on screen.

## IR LEDs

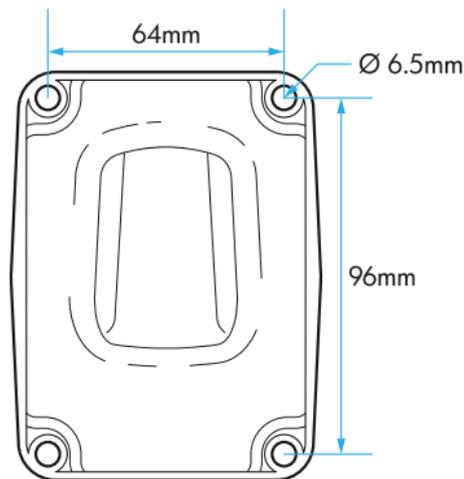
- **Night Vision** - With its 6 powerful IR LEDs the PTZ635 is able to see in complete darkness.

# Mounting The PTZ

The PTZ635 can be wall or ceiling mounted.

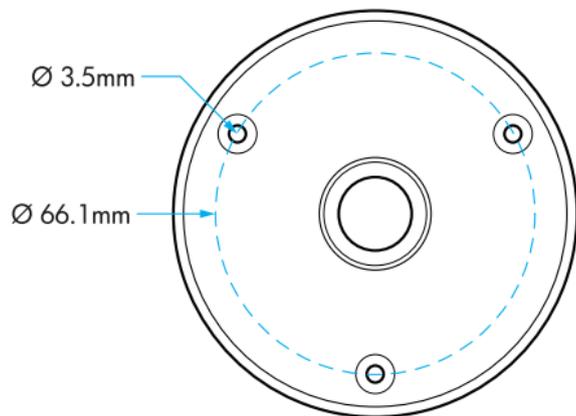
## Wall Mounting

To wall mount the camera simply drill four holes as shown in the fixing hole diagram below. Then attach the bracket to the wall using four anchor bolts.



## Ceiling Mounting

To ceiling mount the camera, remove the wall mount bracket by unscrewing the three screws on the top of the PTZ. Feed the cable through the ceiling mount bracket, then fix the bracket to the top of the PTZ with the three screws previously removed. Drill three holes into the ceiling according to the fixing hole diagram shown below.



# Camera Setup

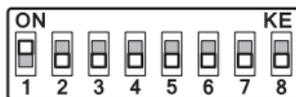
The cameras **Baud Rate**, **ID** and **Terminal Resistor** are all controlled using dip switches located on the underside of the dome, above the lens.

Unscrew the two screws and remove the clear plastic cover to gain access to the dip switches. There are two sets of dip switches. **SW1** is used to configure the camera's ID. While **SW2** is used to configure the camera's baud rate and terminal resistor.

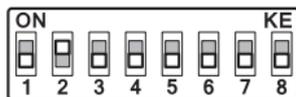


## ID Setup

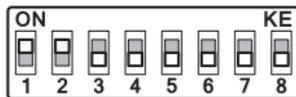
The camera's ID (Address) is configured using the SW1 set of eight dip switches. SW1 uses a binary system where switch 1 represents the number 1, through to switch 8 representing the number 128. Each PTZ on a system must have its own unique ID. Examples of how to set the camera's ID are shown on the right.



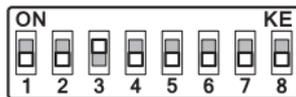
PTZ number 1



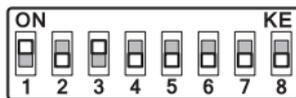
PTZ number 2



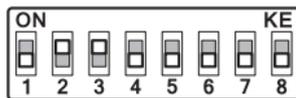
PTZ number 3



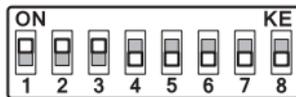
PTZ number 4



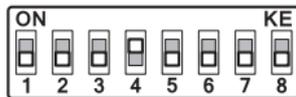
PTZ number 5



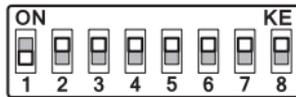
PTZ number 6



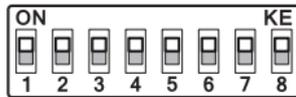
PTZ number 7



PTZ number 8



PTZ number 254

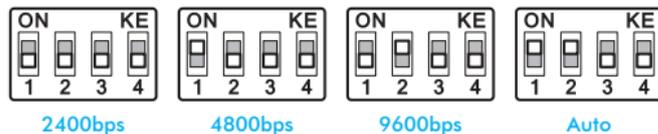


PTZ number 255

# Camera Setup

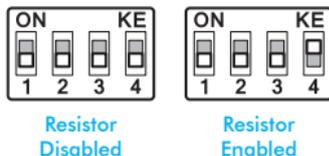
## Baud Rate Setup

Setting the Baud Rate is done using the SW2 set of four dip switches. The Baud Rate can be set to 2400bps, 4800bps, 9600bps or Auto as shown below.

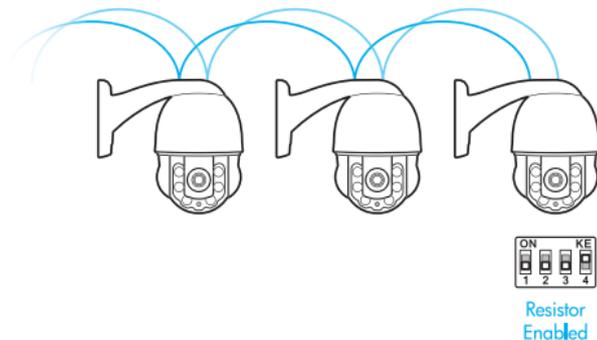


## Terminal Resistor Setup

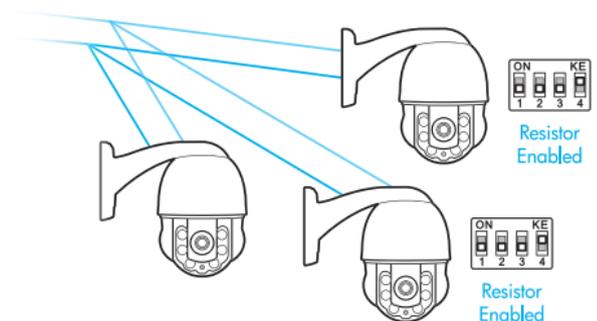
The PTZ635 has an in-built 120Ω terminal resistor. When setting up multiple PTZs certain PTZs must have their resistors enabled. When setting up PTZs in a Daisy Chain formation the last PTZ must have its resistor enabled. If you decide on a Star formation the two furthest PTZs must have their resistors enabled.



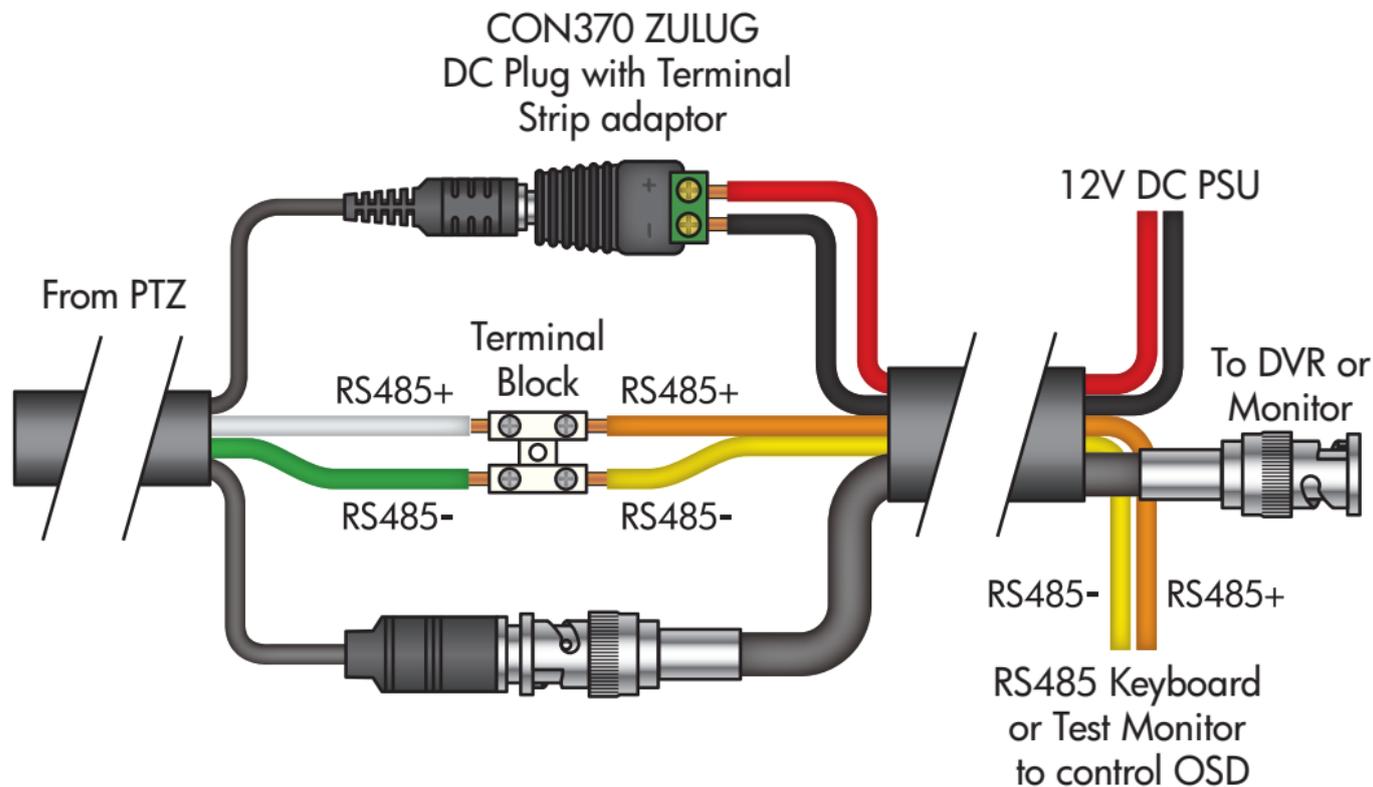
## Daisy Chain Formation



## Star Formation



## Wiring The PTZ635 with RG59+4 (PTZ Combo Cable)



# Camera Operation

## Self Test

After turning on the PTZ it will automatically start to pan and tilt as it performs a self-test. The self-test will check all functions are working as they should be.

## Controlling The PTZ

The PTZ635's functions can be controlled through a keypad or compatible DVR.

## Creating Presets

Creating a new preset is done in 3 easy steps:

1. Select the camera you would like to create a preset for.
2. Position and zoom the camera as required.
3. Press **PRESET**. Input the number you would like assigned to the new preset. Finally press **ENTER** to save the new preset.

## Calling Presets

To call a preset follow the steps below:

1. Select the desired camera.
2. Press **SHOT** (Call), input the number of the preset you wish to call and press **ENTER**.

## Creating Patrols (Tours)

A patrol (tour) is a collection of at least 3 presets. The presets are run in order with the camera stopping at each preset before moving on to the next

To create a patrol follow these steps:

1. Enter the main menu **SHOT ▶ 95 ▶ ENTER**
2. Go to **SYSTEM SETTINGS ▶ PATROL TRACK**
3. Set the patrol number
4. Go to **EDIT** and add presets to the patrol, set the speed the PTZ moves between positions and the amount of time the PTZ stays in each position.

# Camera Operation

## Calling Patrols

To call a patrol press **CALL ▶ NNN ▶ ENTER**. NNN represents the patrol number you wish to call. e.g. **35** calls patrol 1, **36** calls patrol 2 etc.

## Recording Patterns

A pattern is a recording of manual movements made by the operator, which can then be replayed when called. A pattern can contain a maximum of 100 movements and at least 120 seconds long.

Follow the steps below to record a pattern:

1. Select the desired camera
2. Position the camera where you wish the pattern to start.
3. Enter the main menu **CALL ▶ 95 ▶ ENTER**
4. Go to **SYSTEM SETTINGS ▶ PATTERN**
5. Set the pattern number

6. Go to **EDIT** to start recording the pattern
7. Press **IRIS+** (Open) to stop recording

## Running Patterns

To run a pattern press **CALL ▶ NNN ▶ ENTER**. NNN represents the pattern number you wish to call. e.g. **41** calls pattern 1, **42** calls pattern 2 etc.

A list of helpful pre-installed presets are displayed on the next page.

**Note** - 'CALL' may be labelled 'SHOT' on some control equipment.

## Pre-installed Presets

The PTZ635 comes with a large number of presets all ready set up. These presets cover popular functions, configuration and maintenance.

Preset Number	Function
95	Displays the PTZs main menu
98	Performs a High speed auto-scan
99	Performs a Low speed auto-scan
92 Or 221	Setting A position of AB line Scan
93 Or 222	Setting A position of AB line Scan
223	High speed scan
224	Medium speed scan
94 Or 225	Low speed scan
226	Outer-arc scan
227	Inner-arc scan
228	Enable alarm function
229	Disable alarm function

Preset Number	Function
230	Clear screen
35-38 Or 231-238	Call patrol 1-8/1-4
41-44 Or 241-244	Call pattern 1-4
245-250	Not Used
251	Manual high speed
252	Manual medium speed
253	Manual low speed
254	Motor calibration

# OSD Menu System

This section explains the OSD menu system and how to navigate through it using a keypad.

## Entering The OSD Menu

To display the OSD menu simply call preset 95.

Move the joystick **UP** and **DOWN** to select different items in the current menu. Pressing the **IRIS+** (Iris Open) key confirms a selection. Press the **IRIS-** (Iris Close) key to cancel and return to the previous menu. Pressing **IRIS-** whilst viewing the main menu exits the OSD menu.

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## Main Menu

Menu Item	Function
System Information	Displays the System Information menu <a href="#">see page 12</a>
Display Settings	Displays the Display Settings menu <a href="#">see page 12</a>
System Settings	Displays the System Settings menu <a href="#">see page 13</a>
IR LED Settings	Displays the IR LED Settings menu <a href="#">see page 18</a>
Restart Camera	Restart the camera module
Reset	Reverts the PTZ to factory settings
Exit	Exit the OSD menu system

## System Information

Menu Item	Function	Options Available
Protocol	Displays the communication protocol of the PTZ	Auto
Baud Rate	Displays the communication speed of the PTZ	Auto
Hard Addr	Displays the hardware address	1 - 255
Soft Addr	Displays the soft address	1 - 255
Soft Addr Enable	Enable and disable soft address	On / Off
Temperature	Displays the inner temperature of the PTZ	-
Version	Displays the current firmware version of the PTZ	-
Exit	Exit the System Information menu	-

## Display Settings

Menu Item	Function	Options Available
Info Tips	Displays the time on screen when PTZ is in use	1 / 2 / 3 / 4 / 5 / Never
PTZ Display	Displays the time when PTZ is in use	1 / 2 / 3 / 4 / 5 / Never / Always
Alarm Display	Set the alarm	No / 1 / 2 / 3 / 4 / 5 / Never / Always
Exit	Exit the Display Settings menu	-

## System Settings

Menu Item	Function
Camera	Displays the Camera menu <a href="#">see page 14</a>
Movement Control	Displays the Movement Control menu <a href="#">see page 15</a>
Preset	Displays the Preset menu <a href="#">see page 16</a>
Patrol Track	Displays the Patrol Track menu <a href="#">see page 16</a>
Pattern	Displays the Pattern menu <a href="#">see page 17</a>
Alarm	Displays the Alarm menu <a href="#">see page 17</a>
Remove	Displays the Remove menu <a href="#">see page 18</a>
Exit	Exit the System Settings menu

## Camera

Menu Item	Function	Options Available
Screen Tips	Enable/disable inner tips of the zoom module	On / Off
Auto ICR	Enable/disable auto colour to B&W	On / Off
Auto Focus	Enable/disable auto focus	On / Off
Focus Speed	Set the focus speed of the PTZ	Fast / Slow
Digital Zoom	Enable/disable digital zoom	On / Off
Zoom Speed	Set the zoom speed of the PTZ	Fast / Slow
Exit	Exit the Camera menu	-

## Movement Control

Menu Item	Function	Options Available
Auto Flip	Image will automatically flips so that it always viewed the correct way up	On / Off
Proportion Pan	Pan/tilt speed automatically decreases according to zoom level	On / Off
Park Time	Set amount of time idle before park action starts	0 - 255
Park Action	Set park action	On / Preset 1 - 8 / Patrol 1 - 4 / Pattern 1 / Scan / AB Scan / No
Power Action	Set action to be automatically preformed when the PTZ is turned on	On / Preset 1 - 8 / Patrol 1 - 4 / Pattern 1 / Scan / AB Scan / No
Control Speed	Set the rotation speed of the PTZ	High / Medium / Low
AB Scan Setting	Set start and stop position for AB auto scan	-
AB Scan Path	Set the scanning path	I-arc / O-arc
AB Scan Speed	Set AB scan speed	High / Medium / Low
Limit Stop	Enable/disable limit stop	On / Off
Limit Setting	Set up, down, left and right limits of the PTZ	-
The North Setting	When prompted adjust the camera to face north	-
Exit	Exit the Movement Control menu	-

## Preset

Menu Item	Function	Options Available
Number	Select the number of the preset required	1 - 220
Label	Default (Can not be changed)	-
Edit	Set position and zoom for chosen preset	-
Remove	Delete selected preset	1 - 220
Exit	Exit the Preset menu	-

## Patrol Track (Tour)

Menu Item	Function	Options Available
Number	Select the number of the patrol required	1 - 8
Edit	Set the Speed the camera moves between presets and the amount of Time in seconds the PTZ stays at preset position	Speed: 0 - 063 Time: 0 - 240
Preview	Preview the patrol selected	1 - 8
Remove	Delete selected preset	1 - 8
Exit	Exit the Patrol Track menu	-

# OSD Menu System

## Pattern

Menu Item	Function	Options Available
Number	Select the number of the pattern required	1 - 4
Edit	Edit and record path for selected pattern	At least 120 Secs / Max 100 Movements
Preview	Preview the pattern selected	1 - 4
Remove	Delete selected pattern	1 - 4
Exit	Exit the Pattern menu	-

## Alarm

Menu Item	Function	Options Available
Channel	Select the alarm channel	1 - 2
Enable	Enable/disable alarm	On / Off
Input	Set the input mode of the alarm (normally closed or normally open)	NC / NO
Stay Time	Set the alarm trigger time	1 - 240 / Always / Follow
Action	Set the action to perform when alarm is triggered	NO / Preset 1 - 8 / Patrol 1 - 8 / Pattern 1 - 8 / Scan / AB Scan
Exit	Exit the Alarm menu	-

## Remove

Menu Item	Function	Options Available
Preset	Delete the selected preset	1 - 220
Patrol Track	Delete the selected patrol track	1 - 8
Pattern	Delete the selected pattern	1 - 4
Exit	Exit the Remove menu	-

## IR LED Setting

Menu Item	Function	Options Available
Control Mode	Set the control mode for the IR LEDs	Auto / On / Off
LED On Value	Set the minimum light level before the IRs turn on	0 - 250
LED Off Value	Set the minimum light level before the IRs turn off	0 - 250
Brightness	Set the brightness control of the IRs	Low Power / Uniform / Manual
Current Level	Displays the current IR level (Can not be edited)	0 - 250
Exit	Exit the IR LED Setting menu	-

# Fault Finding

Fault	Check	Possible Cause	Solution
No movement and no image after power up	Power adapter	Faulty/wrong power supply	Replace power supply
There is an image but the camera does not self-test when powered up	Motor for any peculiar sounds	Mechanical problem	Check nothing is stuck in the PTZ preventing movement
	PTZ swings/falls and settles in a certain position	PTZ is mounted at an angle	Mount the PTZ so the dome sits straight
	Power Supply	Insufficient Power	Swap the power supply for one that meets requirements
There is no image but the camera does a self-test when powered up	BNC Cable	BNC cable not connected properly	Make sure all connections are correct
There is an image and the camera preforms a self-test, but the camera no telemetry control	RS485 Cable Connections	RS485 polarity connected incorrectly (+ & -)	Make sure all connections are correct
		PTZ has encountered an error	Power off and restart
	RS485 Settings	Protocol, baud rate & ID not configured correctly	PTZ controller protocol, baud rate & ID must match settings on the PTZ camera
Video image is foggy		PTZ is focused manually	Move the PTZ or call a preset to return to auto-focus
	Transparent lens cover	Lens cover is dirty	Clean lens cover

# 10 Reasons the alienHero DVR is great value for money

alienHero 16ch



1. **Built-in Video Analytics** (*finds evidence instantly!*)
2. **True Realtime D1 Recording** (*even on the 16ch*)
3. **High Definition HDMI Output** (*along with VGA & BNC*)
4. **Easy to Use Interface** (*said to be best in class*)
5. **AutoPort Plug-and-Play** (*for easy internet setup*)
6. **Compact Space Saving Case** (*slim modern design*)
7. **Free Dynamic DNS Setup** (*saves you time*)
8. **Full Alarm Inputs** (*16 on the 16 way*) - (*triggered how you want*)
9. **Bespoke Software Available** (*you want it, we write it*)
10. **Video Tagging** (*tag recording with keywords such as "theft"*)

Order Codes

4ch 1TB: ALIEN654K

8ch 1TB: ALIEN658K

16ch 2TB: ALIEN666N

## Other Products To Consider - PTZ Accessories

### RS485 Combiner



Order Code: ACC704

- 4 Inputs for control devices
- 1 Output for Up To 128 PTZ Cameras
- Wall Mount

Control multiple PTZ cameras from up to four devices down one RS485 cable.

### Alarm Input Module



Order Code: PTZ752

- Adds 8 Alarm Inputs
- Uses Presets 39-46
- Normally Open or Closed
- Wall Mount

Add up to 8 Alarm Inputs to your PTZ Camera with this Handy Module...

### PTZ Keyboard Controller



GEM™

- Control Up To 255 PTZs
- 14 Different Protocols
- Connect Up To 15 Auxiliary Keyboards
- 8 Programmable Buttons
- Surge Protection

The PTZ735 is very easy to operate and control all the features of connected PTZ cameras such as pan, tilt, zoom etc. The PTZ735 has 8 programmable buttons giving quick access to 8 commonly used functions.

Order Code: PTZ735

Find out more at [www.systemq.com](http://www.systemq.com)

# Other Products To Consider - Power & Connection

## RG59+4 (PTZ Combo)

Glued foil sheath provides maximum protection against interference and prevents "loose" foil shorting to the centre pin

Solid copper centre core for long runs



Black 150m Order Code: **CAB080**

## 2A 12V DC Plug-In PSU



Order Code: **POW900**

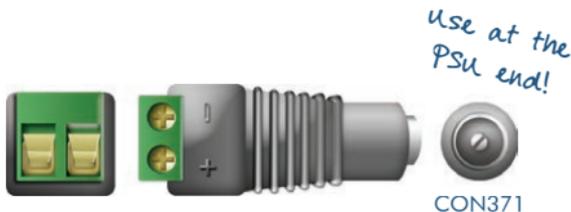
## 100 x 3pc BNC Crimps



Order Code: **CON430**

## Zulug Connectors

The Zulug range of DC connectors are a hassle free way of extending the distance between a camera and a power supply. By using the terminal strip the connector can be easily added to your cable saving you time.



DC Plug With Terminal Strip Adaptor: **CON370**

DC Socket With Terminal Strip Adaptor: **CON371**

## Other Products To Consider - Useful Tools

### BNC Ratchet Crimp



Crimps - 2pc✓ 3pc✓ Mini 3pc✓



Order Code: TOO980

Learn how to crimp a BNC! [See online tip 248](#)

### CCTV Test Monitor

[cctvmate.com](http://cctvmate.com)



- PTZ Control Testing
- DC/AC Voltage Tester
- RS485 Data Test Function
- 29 Protocols Supported
- Check Video Signal Strength
- 12V Camera Power Function
- Up to 10 Hours Battery Life
- Network Cable Testing
- Monitor Output Testing

Kit includes:



Carry case, DC/AC Voltage probes, RS485 Data test cable, Camera power cable, BNC Lead, Neck strap, Network cable tester & PSU.

Order Code: LCD330

Find out more at [www.systemq.com](http://www.systemq.com)

# Technical Specifications

Function	Specification
Resolution	650TVL
Digital Zoom	x12
Power Input	12V $\pm$ 10%
Current Consumption	2A
Terminal Resistor	Built In (120 $\Omega$ )
Communication	PELCO-D / PELCO-P / HIK / DAHUA
Baud Rate	2400 / 4800 / 9600 / Auto
PTZ Address	1 - 255
IR LEDs	6
Rotation	360° Continuous
Tilt Rotation	90° (Auto Flip)
Pan Speed	0.6°/sec - 200°/sec
Tilt Speed	3.5°/sec - 30°/sec

*All specifications are approximate. System Q Ltd reserves the right to change any 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 in any way for any losses, no matter how they arise, from errors or omissions in these instructions, or the performance or non-performance of the equipment that these instructions refer to.*

Function	Specification
Presets	220
Preset Modes	Patrol / Auto Scan / Pattern
Patrols (Tours)	8
Patterns	4
Operating Environment	Outdoor: -20°C to 60°C Indoor: -10°C to 50°C
Humidity	0 - 95%
IP Rating	IP66
Installation	Wall / Ceiling Mount
Dimensions	218 x 199 x 136mm (Wall Mount)



WEE/CG0783SS

This symbol on the products and/or accompanying documents means that used electronic equipment must not be mixed with general household waste. For treatment, recovery and recycling please return this unit to your trade supplier or local designated collection point as defined by your local council.