

## PTZ Fault Diagnosis – Please Perform the Following Steps...

### 1. Requirements before you start

Ensure you have read the PTZ manual and have available the keyboard/DVR manuals.

### 2. Powering the PTZ

You will need a psu for powering the PTZ. This may be 12v DC or 24v AC. Read your manual before connecting to ensure you have the correct psu and that the psu is of a suitable amperage ie: provides a minimum of 25% spare capacity to avoid the regulator running too hot. If you are not using RG59+2 cable (Composite) you will need 2 core @ 3amp power cable.

### 3. Video Cabling Checks

The PTZ requires a video cable. The video cable can be a RG59 cable or one matched twisted pair in a CAT5 cable with baluns. Ensure that the pair is a matched pair. If the cable run is longer than 100 metres you may need active video baluns. If you are using RG59 on a run over 100 metres you will probably need a video amplifier. To test video always use a short length of cable direct to a CCTV monitor.

### 4. RS485 Data Cabling Checks

Use a matched twisted CAT5 pair for the data cabling connection. Data signals cannot be amplified so do not need to be connected to baluns. Ensure that the data cable is connected to the A-Line and B-Line correctly at the PTZ end and at the keypad **OR** DVR end. (A = +RS485 and B = -RS485)

### 5. Monitor Checks

Ensure that you are using a CCTV monitor. If you are connecting to a TV you will need to connect via the TV Scart socket or convert the Composite Video signal from the PTZ camera to an RF signal using an RF modulator.

### 6. PTZ Operation Checks

Check if the PTZ is undertaking a self centering test when first powered up. Most PTZs are set with this test. Check your manual to confirm. If it does the test then power is being received to the unit. If video is not displayed through the DVR, then connect the video cable direct from the PTZ to the monitor. If video is not in colour, or image is breaking up this may be due to a long video cable run. Refer to check number 3.

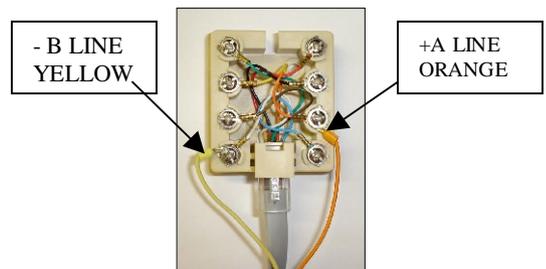
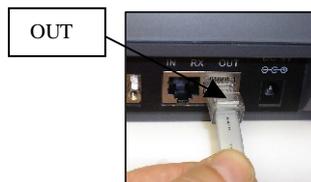
### 7. PTZ Telemetry Not Working but Video is Okay

Ensure RS485 data connections have been connected correctly. Check against your manual and check number 4. If connecting to a keypad ensure +A line and -B line connections are right way round. Ensure the PROTOCOL, BAUD RATE and camera ADDRESS are set correctly in the dipswitch settings. Ensure that the Jumper Termination is correctly set as per manual.

### 8. Keypad Control

Ensure that the keyboard is using the correct protocol and baud rate. Refer to keyboard manual. Select the correct camera address. Ensure the commands used are entered as per manual. If none or some keyboard options work then power off the keypad power supply and re-power.

Check RS485 connections on keypad/keypad breakout



### 9. DVR CONTROL

The DVR PTZ menu must be setup with camera address, protocol and baud rate. Always save the settings and reboot DVR to ensure settings are correctly applied. Refer to DVR manual. Ensure PTZ address is padded with leading zeroes filled ie: Address 1 = 001. Check RS485 connections on DVR.

# SYSTEM Q LTD : PTZ Assistance Request Form

System Q Ltd, Turnoaks Business Park, Hasland, Chesterfield. S40 2WB  
 Tel : 01246 200 000 Fax : 01246 222 888

<b>Company Name</b>	
<b>Address</b>	Post Code
<b>Contact Name</b>	
<b>Telephone</b>	Please - No Mobile Numbers
<b>Email Address</b>	

PTZ Model	Serial Number	Setup on Bench : Yes / No

**Description of Problem**

<b>Address Dip Switch</b> (from left to right)	<b>No PTZs Used</b>	<b>Chain/Star</b>	<b>Termination Jumper</b>																										
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<b>Protocol / BAUD Rate Dip Switch</b>	<b>Power Supply Details</b>														
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**Cabling Information**

What type of cable has been used (twisted pair, Cat5 etc) ? :

Length (m) :

What type of Baluns have been used ? :

**PTZ Controller**

What type of PTZ controller is being used ? :

What camera address number is the keypad displaying ? :

**Please complete all details & fax or post back to System Q along with a wiring diagram of your installation**