

CCTV Troubleshooting Checklist

1. Check the voltage at the camera's end, this should be 12V DC + or - 10%.
 - a. If you don't see any voltage, check the PSU.
2. Check the camera with your CCTV tester for the video feed.
3. Check the cable for resistance or continuity using a Multimeter.
 - a. If you have no resistance or continuity found, you may have an open circuit.
4. Check the camera for the video feed at the other end of the cable.
5. Check the DVR (Digital Video Recorder) for correct settings.

Problem	Possible Cause(s)	Troubleshooting / Solutions
Poor image quality on monitor/recording equipment	Low video signal strength due to inadequate power	Ensure the camera has adequate power using a regulated power supply. If using long runs of LVT, make sure the wire gauge is large enough to account for voltage drop.
	Low video signal strength due to video loss.	Make sure video cable length does not exceed maximum allowable distance. Video loss increases at each connection point which reduces transmission distance. Install video amplifiers or replace cable with heavier gauge.
	Low video signal strength due to video loss.	Examine the cable installation. Older cable may have corrosion/moisture damage and may need replacing. Is the cable installed too close to other electrical wiring? RF or EM interference with the video signal can occur if the video cable is installed close to other wiring.
Fluctuating video quality	Power fluctuation to camera due irregular voltage current.	Install a distributed power supply with fused outputs to ensure consistent voltage
Image out of focus	Varifocal lens screw locks have come loose - usually due to vibration or sudden shock at the camera.	Refocus lens. If a persistent problem, consider replacing the camera with a fixed lens model.
Total image loss	No power	Check if the power adapter has failed by testing the camera with another supply. If using a distributed power supply check for blown fuses.

	Camera failure	Test camera with a verified power source and replace if needed.
Rolling bars on monitor	Video ground loop due to more than one ground between camera and monitor/head-end.	Ground Loop problems can be resolved by making sure that only one end of any video cable is connected to a local ground. Make sure the video cable shields do not come into direct contact with each other to prevent unintentional local grounding. This can easily occur with cable installed in conduit or cable trays. Tape all connectors in such situations to minimise this risk. Keep camera runs as short as possible with all video cables cut to fit. Excess cable left along any run can increase the risk of interference. Wherever cables share common connection points such as between buildings or in conduit junction boxes take extra care to tape the connectors and cable. At the monitor end make sure all the CCTV equipment is connected to same power point to provide a common local ground.

