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OPERATING INSTRUCTIONS – T808 CAMERA

T808



Your new T808 camera

The T808 camera is designed to operate on an Alliance push-rod system that has a termination suitable for their colour camera. The T808 is designed to operate at the same voltage and current. However, the T808 produces more light output by utilizing 4th generation LED's and saves energy by using a passive uprighting system.

The camera is designed to work in 3" pipes and above. The maximum pipe size is dependant on the material the pipe is constructed from but 9" – 12" pipes are successfully illuminated as long as the material has good reflectance.

LIGHTING

The lighting on the T808 camera has at least twice the output of standard cameras and you may find that good results can be obtained with lower settings. The T808 utilises the latest auto-exposure system for excellent pictures in most pipe sizes and construction.

The lighting is designed to illuminate only the area that the video camera is viewing, concentrating the lighting to the side of the pipe with a little light directed further down the pipe. This is achieved by using four 5W LED's, the lighting produces the perfect pattern for use in pipework.

CAMERA PROTECTION

The front of the camera is protected from knocks by the use of a heavy guard, below the guard is the LED window that protects the LED's from moisture, and this section is sealed from the rest of the camera to prevent moisture ingress.

A thick-sectioned sapphire window protects the video camera; this is optically flat for best results and has a high surface-hardness to protect from damage. The sapphire window is a replaceable item and can be purchased separately as a window kit complete with 'O' rings.

The camera utilizes shock-mounting of the internal camera chassis to protect against damage, this is operational in all three axis.

AUTO – UPRIGHTING

The auto-uprighting is achieved by the use of precision bearings and a weighted internal chassis. The bearings are loaded with a fixed-viscosity fluid that varies the damping only by small amounts over the camera's operating temperature. The damping has been tested for compatibility in all pipe sizes and provides the most reliable method of auto-uprighting in all situations.

OPERATING REQUIREMENTS AND PERFORMANCE

CAMERA VOLTAGE	8V-12V DC (0.6W)
LIGHTING VOLTAGE	8V-12VDC (0 – 10W)
VIDEO OUTPUT	Buffered, 1V into 75 Ohms
CAMERA PERFORMANCE	1 lux, 512 x 582 pixels CCD
SHUTTER SPEEDS	1/50 to 1/96000 sec
CAMERA WEIGHT	0.9 KG

MAINTAINANCE

The camera requires no maintenance except for the cleaning of the LED and camera windows.

The sapphire window can be cleaned with water with a little detergent to removed deposits, a final clean with a soft lint-free cloth is recommended to achieve the best optical performance.

The LED window can be cleaned using the same methods although a soft brush is useful for removing dirt that is trapped in the guard cavities.

Do not use any solvents or high-pressure water jets as these may damage the camera.

DO NOT DISSASSEMBLE THE CAMERA, the camera is produced in a low-humidity environment.

REPAIRS

The only user-replaceable part is the sapphire window. This can be ordered from your distributor or Troglotech and is supplied with a pre-greased 'O' ring and a replacement snap-ring.

The sapphire window has an extremely hard surface but can be scratched by solid objects that are abrasive. It is worth checking the condition of the window at regular intervals, as the quality of the video picture will slowly become more blurred as the window surface is damaged.

The window is 5mm in depth so it is unlikely that it will ever crack and allow moisture within the camera. However, if this does occur then return the camera to your distributor for repair.

Replacement of the sapphire window must be performed in a clean environment. Make absolutely sure that the camera front is clean and free from silt before a replacement is carried out. Make sure that the window is not removed for any period of time as the camera is assembled in low-humidity conditions and the ingress of moist air may cause misting of the inside of the window.

The sapphire window is held in place with a snap-ring. This is similar to a circlip but has no holes at the ends. The camera front has a small cut-out (shown here), this allows a thin-bladed screwdriver (1.5mm) to push the snap-ring upwards and inwards. The snap-ring is quite springy and may come out rather quickly....watch your eyes!



Use a cotton-bud with some Blu-Tak on the end to get a grip on the face of the window and pull straight upwards. The window will have some resistance to pulling due to the 'O' ring pressure but should lift using this method.



Remove the old 'O' ring using a pair of tweezers. Fit the new 'O' ring ensuring that the greasy surface of the ring does not touch the lens. Ensure that the new sapphire window inner surface (the smaller end) is free from all grease and dust and then push this into the camera front using a lint-free cloth.

Due to the air pressure within the camera and the 'O' ring the sapphire window may show some resistance. Leave the window a little proud and then push the new snap-ring into the camera front.



Using a pair of small screwdrivers work the snap-ring into the groove as shown here. The best technique is to get one end of the snap-ring into the groove while pushing down on the window and then use the other screwdriver to work the other end into the groove.

Clean the outer face of the window with a soft lint-free cloth.

