

Scout S Camera Handset HS-1 Handset for advance camera control

The Scout S Camera system has been designed to allow access to advanced functions within the camera. The advanced functions allow the user to manually set up the camera to specific conditions where the cameras automatic setting may not quite match what the user desires.

The *HS-1* eighteen key Handset gives control over lens functions such as Zoom, Focus, Aperture and Iris. Internal camera functions are accessible too, Shutter Speeds, Wide Dynamic Range on/off, Auto focus on/off, Automatic Exposure on/off, Digital Zoom and Brightness can be adjusted and saved using the *HS-1* Handset.

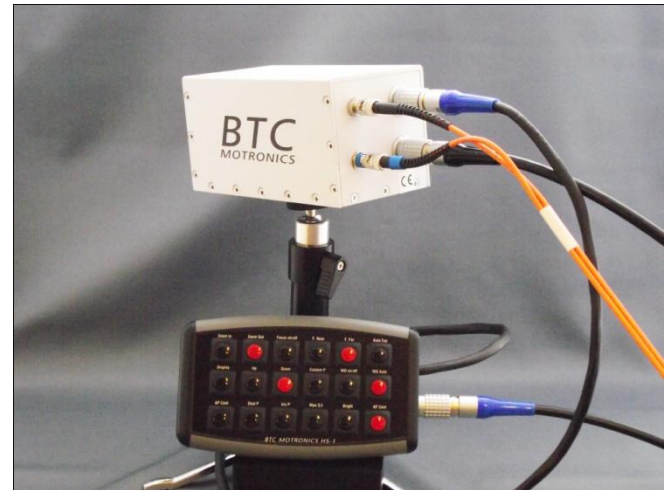
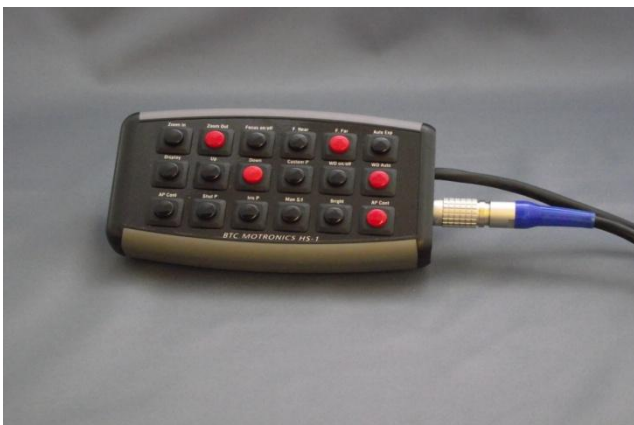
In testing the *HS-1* Handset is connected between the Scout S Camera head and its supply source, typically a Shielded Battery Pack, the Scout S Camera is adjusted for the desired picture and the setting is saved using the Custom Preset button. The *HS-1* Handset is then removed and the power source reconnected so EMC Testing can continue.

Applications include heads up display testing, LCD displays, Aircraft display panels and Car dash boards.

Advanced Functions

Zoom

The Zoom function will allow the user to manually Zoom in and out. At the end of the optical zoom the Digital Zoom will engage. The Digital Zoom when used with the optical Zoom will give up to 324 times Zoom. The overall resolution will deteriorate as the effective picture elements (pixels) are progressively reduced at the extreme end of the Digital Zoom.



Focus on/off

Auto focusing can be enabled using the Focus on/off function, the minimum focus distance is 10mm at the optical wide end and 1500mm at the optical tele end and is independent of the digital zoom. The Auto Focus function automatically adjusts the focus position to maximise the high frequency content of the picture in a centre measurement area taking into consideration the high luminance and strong contrast components. The system can be set back to manual focusing if required. Near and far focusing can be achieved by using the allocated buttons when using manual focusing.

Auto/Manual Exposure

In full Auto Exposure mode the Iris and Gain are automatically varied and the shutter speed is fixed at 50Hz(PAL) or 60Hz(NTSC).

In Manual Exposure mode the Iris, Shutter and Brightness functions can be accessed.

Shutter

The variable shutter has 16 speeds varying from 1/1 to 1/10,000 sec. The shutter can be varied to eliminate or minimise flicker of the Device Under Test. For example the Shutter would be set to 1/100 for NTSC in Countries using a 50Hz power supply and 1/120 for PAL in Countries using a 60Hz power supply. More detail on available shutter speeds can be seen in the Specification panel.

Iris

The Iris can be freely set by the user in 18 steps from F1.35 through to close. When in Auto Exposure the shutter speed and camera gain are set automatically as the Iris is adjusted. Iris adjustment is used when varying light conditions are encountered.

Brightness

The *Bright* control function adjusts both Gain and Iris using an internal algorithm, according to a brightness level freely set by the user. Exposure is controlled by gain when dark and by iris when bright. Only when the *Auto Exposure mode* is switched to *Full Auto* or *Shutter Priority*, can you select *Bright*.

Aperture Control

The *Aperture Control* is a function which adjusts the enhancement of the edges of objects in a picture. There are 16 levels of adjustment, starting from 'no enhancement'. When shooting text this control may help by making the text 'sharper'.

Wide Dynamic Range Mode

The Wide Dynamic Range mode is a function that divides the Image into several blocks and correcting blocked up shadows and blown out highlights in accordance with the intensity differences. It enables the user to obtain images in which portions ranging from dark to light can be recognised, even when capturing a subject with a large intensity difference that is backlit or includes extremely light portions.

In the Scout S Camera head a CCD for shooting a wide dynamic range is employed, and an image processor combines a long exposure signal (normal shutter) and a signal of the high intensity portions obtained by a short exposure (high speed shutter) to achieve images with a Wide Dynamic Range.

Custom Preset

When all the changes are made and the picture is as desired the Custom Preset function can be selected, the camera will save the settings and the camera will start up with these settings every time the camera is switched on.

Display

When activated the On Screen Display (OSD) displays any selected functions current status, for example the level of zoom will be displayed as a bar in the top left hand corner of the screen. Once the desired functions have been 'set' the display can then be switched off as desired.

Additional Specifications

Shutter Speeds

NTSC	PAL
1/10000	1/10000
1/6000	1/6000
1/4000	1/3500
1/3000	1/2500
1/2000	1/1750
1/5000	1/1250
1/1000	1/1000
1/725	1/600
1/500	1/425
1/350	1/300
1/250	1/215
1/180	1/150
1/125	1/120
1/100	1/100
1/90	1/75
1/60	1/50
1/30	1/25
1/15	1/12
1/8	1/6
1/4	1/3
1/2	1/2
1/1	1/1

Iris range

F1.35	F6.8
F1.6	F8
F2	F9.8
F2.4	F11
F2.8	F14
F3.4	F16
F4	F19
F4.8	F22
F5.6	CLOSE

Further Details

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