BRADLEY ENGINEERING
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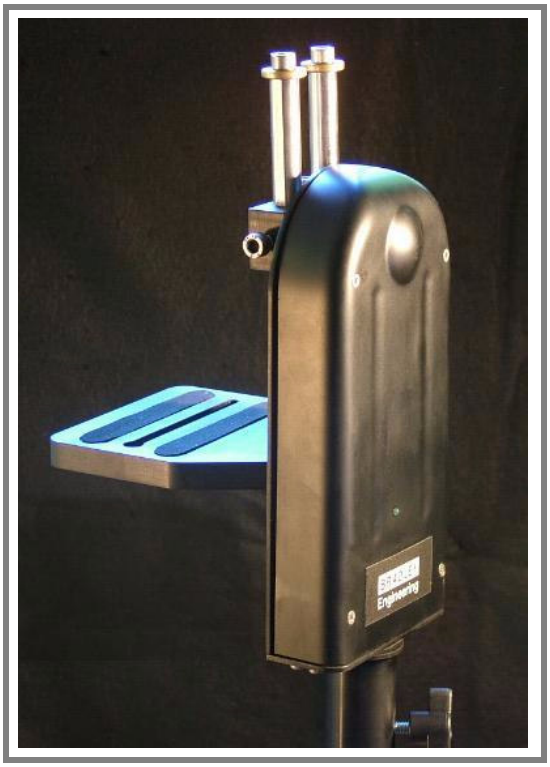
Z-Head (HDV Remote)



The **Z-Head** is very simple to rig and operate and will function with any of the Bradley Engineering Remote Controllers. Power and data are connected via the supplied XLR4 - 9way D connector.

Before using the **Z-head** it is important to balance the camera properly on the head. An out-of-balance camera may result in degraded performance.

The camera needs to be balanced in both 'fore-aft' ***and*** vertical axis. Allen bolt adjustments are provided for the vertical axis and the camera can be moved fore and aft with the mounting screw. Depending on the actual camera, lens and mounting screw position it may be necessary to provide a simple plate to move the camera balance beyond the slot adjustment.

Balance the camera with all the cables, batteries and accessories connected. Remember the maximum load is 4kg.

The balance can be checked either through operation of the tilt or by removing the cover and loosening the clutch nut beneath the dome protrusion. Be sure not to over tighten this nut when complete.

When fitted with 'Broadcast Mechanics' an external hand nut is fitted to ease the balance process.

In general, the camera may 'judder' on a slow tilt when moved towards the direction of weight bias. Move it a few millimeters at a time and keep checking.

David Bradley Engineering Ltd - 2006

The **LANC** output is via the 3.5mm jack socket. This sends commands using SONY* protocols and controls various functions of the camera including; Zoom, Run/Stop, Focus, etc. The control functions are dependent on the camera as different cameras respond to fewer or more commands.

If fitted with a **Broadcast Lens Drive** simply plug the male 12pin Hirose lens cable into the camera for power and iris drive (if selected internally) and the female Hirose 12pin into the Z-Head. For single cable lenses, the Z-Head can be configured to provide power via the 12pin Hirose plug.

If fitted with alternative **Camera Control Protocols** connect the appropriate cable via the Fisher socket on the Z-Head.

The simplest way to connect the **Z-Head** is to supply power to the joystick controller and then connect the head to the joystick controller output. Using XLR4 cables and ***4 core*** cable this is very straightforward.

Pin Connections;

GND	XLR pin 1	9way pin 1	
Data A	XLR pin 2	9way pin 2	
Data B	XLR pin 3	9way pin 3	
+ve	XLR pin 4	9way pin 4	pins 5-9 not connected

For long cable runs (greater than 50 metres) the input voltage may need to be increased (Max 24v) or power should be supplied locally to the camera via a 'Y Cord' or a Bradley Engineering data/power box.

Data can be sent via cable to distances of 1km using good quality cable. Audio cable can be used for this using only pins 1, 2 & 3.

Specifications;

Weight; 1.5kg

Max. Load; 4kg

Electrical; 12-24v, <1A