PEE-POD 500

(FOR SOFTWARE VERSIONS 2.29.7 OR LATER)

USER'S GUIDE

IMPORTANT !!

The PEE POD 500 is a sophisticated tool and extreme care must be taken in its use.

Before the equipment is used the following safety procedures must be followed :-

Check for any signs of damage, loose or missing fixings. If in any doubt do not use the equipment.

Never overload the Head. (Max. Load - Two Axis & Three Axis 60 lbs (27kgs)

After turning off the power to the system, wait 5 seconds before turning power on again.

These guidelines are to be read and fully understood before using the equipment.

CHECKING SOFTWARE VERSION IN DISPLAY CONSOLES

This can be found by pressing the ENT button once the system has been started and the first screens have finished loading.
INDEX

- Head Format Illustrations 3, 4
- Console Format & Control Illustrations 5, 6

Using Standard Joystick Console

- Initial Setup 7
- To Set Axis Limits 7
- To Select Camera Start / Stop / VTR Format 7
- To Select Camera Run 7
- Iris Control For Video Lenses 8

Using Display / Memory Joystick Console

- Initial Setup 8
- Pan Cable limits 8
- To Activate Console Lockout 9
- To Select Camera Start / Stop / VTR Format 9
- To Set Axis Limits 9
- Changing Default System Settings 10
- To Store and Recall Position & Moves 11
- Selecting Advanced System Settings 12
- To Select Head Type 13
- To Erase Moves Memory 13
- To Prepare Lens 13
- To Reverse Display 13
- To Select Console Check Screen 13
- Pan Bar Cable Diagram 14
- Linking Head To Host Computer 15
- Transfer of New Firmware Software to Console 16
- Transfer of New Safeware Software to Console 16
- Transfer of Moves & Positional Data 17
- Power Buster for Film Camera power supply 18
- Which leads to use for Video Lens Control 19, 20

Using Jib Arm Console and Hand Controls

- To Follow
Some Of The PEE POD 500 Head Formats

Post Pod

Low Profile

250 Jib Arm Chassis

450 Jib Arm Chassis
Jib Arm & Third Axis

235 Jib Arm Chassis
PEE POD 500 Console Formats

Standard Console

Display / Memory Console
Foot Pedals (For Use On Joystick Consoles)

Standard Jib Arm Console

Memory Jib Arm Console

Mk3 Pan Bar (Shown with Memory Jib Arm Console)
**PEE POD 500 Standard Console Initial Setup**

**For Film Camera Use**

- Fit Head to Jib Arm and fix Film Camera To Head.
- Fit Digital Lens Motors to Lens and Cable up system.
- Power Up Head
- Head will now run through its Auto Setup for the Lenses.
- Power Up Camera and Accessories.

**For Video Camera Use**

- Fit Head to Jib Arm and fix Video Camera To Head.
- Cable up system and Lens drives
- Power Up Head and Camera
- Head will now run through its Auto Setup for the Lenses.

**Note !**

When the PEE POD 500 is first turned on, the system will not respond until the Red LED next to the Green Tilt limit button begins to flash.(Approx. 6 secs).

**To Set Axis Limits**

**Note !**

With this console, only the Tilt limits can be Set.

- Make sure the LED next to the Green Tilt Limit Button is flashing Red and then move Tilt with Controls to First required limit position.
- Press the Green Tilt Limit Button to Set Limit.
- Make sure the LED next to the Green Tilt Limit Button is flashing Green and then move Tilt with Controls to Second required limit position.
- Press the Green Tilt Limit Button to Set Limit.
- The LED is now Green and the Tilts limits are now on.
- To turn the Tilt limits off press the Green Tilt Limit Button. The LED will now turn to flashing Red.

**Note !**

With this console once the Tilt limits have been turned off, they have to be reset using the above procedure.

**To Select Camera Start / Stop / VTR Format ( Normal or Pulse )**

- Press Green Button next to CAMERA START / STOP
- Format changes from NORMAL (Red LED) to PULSE (Green LED) each time the Green Button is pressed. Once selected this will become the default setting.

**Notes !**

1. Set to PULSE for Video Cameras (VTR)
2. Pressing this Green button will not start / stop the Camera

- To Start the Camera Press the lower Green button next to Camera Running the LED will turn Red to indicate that the camera is running.
- Pressing the Green button again will stop the camera.
Iris Control For Video Lens (using the MK2 Video Drop Box)

For the older type Analogue Video Lenses a Iris Video Iris Interrupter Junction Box will need to be fitted in between the Video lens cable that plugs into the body of the camera and the camera.

For the later lenses that offer a direct serial link for controlling the lens digital drive, use the A & C Digi link cable for the lens in question.

When the Iris “REV-OFF-REV” switch is in the middle position (OFF), the iris is controlled by the camera or through the Triax.

When the Iris “REV-OFF-REV” switch is in the other positions, Iris is now controlled by the Iris control knob on the Console.

Pan Cable limits

The Pan gearbox can be limited to four turns in either direction (8 turns total) using an electronic limit. This prevents the cables that have been fed through the middle of the gearbox shaft being twisted to the point of failure.

To enable the Pan Cable limits the Aux “REV-OFF-REV” switch should be set to the “OFF” or middle position before the system is powered up.

PEE POD 500 Display Console Initial Setup

For Film Camera Use
• Fit Head to Jib Arm and fix Film Camera To Head.
• Fit Digital Lens Motors to Lens and Cable up system.
• Power Up Head
• Head will now run through its Auto Setup for the Lenses.
• Power Up Camera and Accessories.

For Video Camera Use
• Fit Head to Jib Arm and fix Video Camera To Head.
• Cable up system and Lens drives
• Power Up Head and Camera
• Head will now run through its Auto Setup for the Lenses.

Note !
When the PEE POD 500 is first turned on, the display will show the following main menu:-

- When the display asks TO STORE DATUM move Head to any reference point and press [ENT]. (DATUM is only important if you want to save the positional information for use at another time).
To Activate Console Lockout

- To activate keypad lockout press [999] and press ENT
- To reactivate keypad press [999] and press ENT

To Select Camera Start / Stop / VTR Format (Normal or Pulse)

- Press Green Button next to CAMERA ON / OFF
- Format changes from NORMAL to PULSE each time the Green Button is pressed.
  Once selected this will become the default setting.
  
  Notes! 1. Set to PULSE for Video Cameras (VTR)
          2. Pressing this Green button will not start / stop the Camera

Setting Axis Limits (First Menu)

* To Set Roll Limits *

- Move Roll with Controls to first required limit position.
- Press Green button next to SET ROLL LIMITS
- Move Roll with Controls to second required limit position.
- Press Green button next to SET ROLL LIMITS
- The Roll limits are now on.

* To Turn Off Roll Limits *

- Press Green button next to ROLL LIMITS ON/OFF
- Roll Limits are now turned off.

* To Set Tilt Limits *

- Move Tilt with Controls to first required limit position.
- Press Green button next to SET TILT LIMITS
- Move Tilt with Controls to second required limit position.
- Press Green button next to SET TILT LIMITS
- The Tilt limits are now on.

* To Turn Off Tilt Limits *

- Press Green button next to TILT LIMITS ON/OFF
- Tilt Limits are now turned off.

* To Set Pan Limits *

- Move Pan with Controls to first required limit position.
- Press Green button next to SET PAN LIMITS
- Move Pan with Controls to second required limit position.
- Press Green button next to SET PAN LIMITS
- The Pan limits are now on.

* To Turn Off Pan Limits *

- Press Green button next to PAN LIMITS ON/OFF
• Pan Limits are now turned off.

**Changing Default System Settings (Second Menu)**

![Menu Screen]

* Movement Damping *

• Damping can be selected by the panel switch on the Master Console.
• The Damping rate can be changed by pressing the Green button next to DAMPING FACTOR, entering a new damping number 0 to 9 and pressing ENT. This will now become the default setting.

* APZ (Automatic Proportional Zoom) *

• APZ automatically reduces Pan and Tilt speeds as the lens travels from Wide to Telephoto.

• To activate APZ press the Green button next to APZ.
• The APZ is now on in the Forward direction.
• Pressing the Green button again will change APZ to the Reverse direction.
• Pressing the Green button again will turn APZ off.

* To Change Max.Speed *

• Press the Green button next to MAX SPEED and the top speed will change from 2.5 seconds for 360 degrees of movement to 2.1 seconds.
• Pressing the Green button again will change it back to 2.5 seconds.

* To Change The Position Recall Time *

• Press the Green button next to RECALL TIME and entering a new recall number 0 to 9 and pressing ENT.

* Head Datum Functions *

**To Recall Datum**
• Press the Green button next to HEAD FUNCTIONS.
• Press R.
• Press ENT (Enter).

**To Set New Datum**
• Move head to new Reference point and press Green Button next to HEAD FUNCTIONS.
• Press ENT (Enter).
To Store and Recall Positions & Moves

* To Store a Position (Pan - Tilt - Roll - Lens Functions) *

- Using Controls, point Camera at desired position and adjust Lens Functions.
- Press **S** (Store)
- Press **P** (Position)
- Key in position number **00** to **99**
- Press **ENT** (Enter). Position is now stored.

* To Recall a Stored Position *

- Press **R** (Recall)
- Press **P** (Position)
- Key in stored position number **00** to **99**
- Press **ENT** (Enter). Head will now recall stored position

* To Store a Move (Pan - Tilt - Roll - Lens Functions) *

- Using Controls, point Camera at desired starting position and adjust Lens Functions.
- Press **S** (Store)
- Press **M** (Move)
- Key in move number **00** to **99**, avoid numbers already used to store positions.
- To start recording press **ENT** (Enter) and run system through your move.
- To stop recording press ANY KEY. Move is now stored.

* To Recall a Stored Move *

- Press **R** (Recall)
- Press **P** (Position)
- Key in stored move number **00** to **99**
- Press **ENT** (Enter), this will position Head at start of the move.
- Press **R** (Recall)
- Press **M** (Move)
- Key in stored Move number **00** to **99**
- Press **ENT** (Enter). to replay stored move.

**Note !**

To **terminate** a Move or Position replay at any time press **ANY KEY** to abort.
Selecting Advanced System Settings  (Fourth Menu)

∗ Frame Rate ∗

• Use this Green Button to change the synchronise rate that the Head information is stored to. This is helpful for synchronising the PEE-POD 500 to other systems.

∗ Data Rate ∗

• Pressing this Green button changes the communication speed from 9600 to 4800 Baud between the Console and the Head. This is for use over RF links if reception is less than ideal.

∗ Zoom Kick ∗ (For Use Only With Preston type Lens Motors)

Zoom Kick is a Program option that cancels out any backlash that is present in either the Zoom motor or the Lens internal mechanics. It gives the Zoom repeatability in either direction that it is invaluable for virtual applications and post production.

• Press the Green button next to ZOOM KICK and the Zoom motor will start to move in and out every 1/3 of a second. (You might not see this at first.)
• Pressing \text{[P]} will increase this movement and pressing \text{[M]} will decrease this movement. Keep pressing the \text{[P]} until this pulsing becomes visible in the Camera picture, now reduce this pulsing using the \text{[M]} until the pulsing is no longer visible.
• Press the \text{[ESC]} and the system will now remove Zoom backlash. You will see that there is a three digit number given to the ZOOM KICK, you can enter this number instead of using the \text{[P]} and \text{[M]} next time you are setting up ZOOM KICK.

∗ Roll Rtn ∗ (Makes the Roll Spring Back to the Horizon)

• Align the Roll axis with the horizon.
• Press this Green button, this tells the Roll to return to its horizon when the Roll control is in its rest position.
• Adjust the Roll speed pot to increase/decrease the amount of Roll movement.
• Press this Green Button again to turn off this function.
• Roll Rtn can also be turned ON/OFF by pressing the \text{[ESC]} & \text{[ENT]} together.

∗ Pan Bar On/Off ∗

• Press this button to show “Pan Bar On” when using a Pan Bar for operating the Head.
• Press this button to show “Pan Bar Off” when using other controls like the Joystick or Hand Wheels.

**Note!** This function only changes the minimum signal that the controls will respond to and in most cases will only be noticed when the lens is zoomed in to Telephoto.
To Select Head Type (Third Menu)

- Press the Green button next to SELECT HEAD TYPE for POWER-POD 2000, PEE-POD 1600 or PEE-POD 500. This will now become the default setting.

To Erase Moves Memory (Third Menu)

- Press the Green button next to ERASE MEMORY, now follow display instructions using the password 1 2 3 4, and then press ENT when requested.
  or
- To erase all move memories using the keypad, press ESC then press M. Now follow display instructions using the password 1 2 3 4, and then press ENT when requested.

To Prepare Lens (Third Menu)

- Press the Green button next to PREPARE LENS, this will start the lens Auto-Setup
  or
- To initialise a lens Auto-Setup using the keypad, press ESC then press P. Now press ENT.

To Reverse Display (Third Menu)

- Press the Green button next to REVERSE DISPLAY, this will reverse the display. This will now become the default setting.

To Select Console Check (Third Menu)

- Press the Green button next to CONSOLE CHECK to activate the diagnostic screen shown below.

  - This screen confirms all command inputs, speed knobs for fault finding.
  - To exit this screen press ESC and the screen will return to Third Menu.
HOW TO CONNECT THE CABLES TO THE MK3 PAN BAR

BNC LINK

Power Supply

To Video Iris Link Box (Older systems)

Back Of Console

Zoom/Focus Handset

To Head

Computer Link

Base Of Pan Bar

Zoom/Roll Handset With Freeze Button

Freeze Button

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Linking The Pee Pod 500 to Host Computer (Display Consoles Only)
The PEE POD 500 can be linked into just about any Computer using a standard Terminal Program. We recommend that although all Windows based Programs have an Terminal program, that you use "HYPERTERMIAL" found on Windows

Note! Its always advisable to try out the following instructions before its needed on location.

If your Computer does not have HyperTerminal or you wish a better version use - HyperTerminal Private Edition

This is a freeware program that can be downloaded for no cost providing that it is not sold to anyone after.

It is a better version of the program that is often included as part of the Windows Operating systems. One of the many websites that this program can be downloaded from is:-
http://www.5star-shareware.com/WebDev/TelnetApplications/hyperterminal.html

Once you have downloaded the program to your computer, just double click on the program Icon and follow the instructions

* Using Hyperterminal Windows Program *

• Connect the POD 500 Console to your Computer using the Special Null Modem cable provided by us in the kit.

• Turn on the POD 500 and your Computer

• [CLICK] on Start Button (Bottom Left Corner)

• For Windows 95 - Select Programs then Accessories and then [CLICK] on HYPERTERMIAL

• For Windows 98 - Select Programs then Accessories then Communications and then [CLICK] on HYPERTERMIAL

• [CLICK] on the ICON labelled Hypertm

• Enter a name for this use e.g. PODLINK

• Select and Change the Option "Connect Using " to Direct Com 1

• [CLICK] OK

• Select and Change Bits per second to 19200

• Select Advanced Settings and Change Receive Buffer to Low

• [CLICK] OK

• [CLICK] OK again and when you press [RETURN] you should see exactly what is appearing in the Centre of the POD 500 Display

• You can now control the Head from the Computer keyboard.
To Download New Firmware From Computer to Display Console

- The New Firmware will have a PWP extension to the File Name (e.g.2200.PWP) make sure that the New Firmware is on a Floppy Disk in the A: drive of the Computer.
- Turn off the Power (wait 5 seconds) and then Turn the Power back on again whilst holding down the [ENT] key on the Display Console.
- The display on the Console should now show.

Now key in 4 3 2 1 (Repeat if Necessary).

- "CLICK" on Transfer at the top of the computer screen.
- "CLICK" on Send Text File.

- Under File of Type "CLICK" on All Files (*.*)
- Under Look In "CLICK" on the 3.5” Floppy (A)
- "CLICK" on the file containing the New Software (e.g.2294.PWP)
- "CLICK" on Open.

- When the Chevrons stop appearing on the screen the Loading Complete message will appear on the Computer Screen.
- Turn off the Power and then Turn the Power back on again.
- The Display Console Now Has The New Firmware Software.

To Download New Safeware From Computer to Display Console

- The New Safeware will have a PWP extension to the File Name (e.g.2200.PWP) make sure that the New Safeware is on a Floppy Disk in the A: drive of the Computer.
- Turn off the Power and then Turn the Power back on again whilst holding down the [ESC] 0 [ENT] M keys together on the Display Console.
- The Console should now show.
Now key in 2 7 3 8 (Repeat if Necessary).

- "CLICK" on Transfer at the top of the computer screen.
- "CLICK" on Send Text File.

- Under File of Type "CLICK" on All Files (*.* )
- Under Look In "CLICK" on the 3.5" Floppy (A)
- "CLICK" on the file containing the New Software (e.g. 2294.PWP)
- "CLICK" on Open.

- When the Chevrons stop appearing on the screen the Loading Complete message will appear on the Computer Screen.

- Turn off the Power and then Turn the Power back on again.

- The Display Console Now Has The New Safeware Software.

**Transfer Of Move and Positional Information**

* To Upload Information From POD 500 Console To Computer *

- Press "UP" on Computer keyboard
- "CLICK" on Transfer at the top of Screen
- "CLICK" on Capture Text
- Give name to Text File (e.g. POD1.TXT) and press RETURN
- Press RETURN again
- Text will scroll onto screen
- When text stops scrolling "CLICK" on Transfer at the top of screen - then "CLICK" on Capture Text - then "CLICK" on Stop
- Now press ESCAPE. You have now Copied (Uploaded) all the information from the POD 500 Console to your Computer Text file.

* To Download Information From Computer Text File To POD 500 Console *

- Press "DOWN" on Computer keyboard
- Enter 1 2 3 4 on your Computer keyboard (This is your CODE)
- "CLICK" on Transfer at the top of the screen
- "CLICK" on Send Text File
- Select and "CLICK" on Text file you want to Transfer and press RETURN
- When the Chevrons stop appearing on the screen the Transfer has finished.
POWER BUSTER for Film Cameras power supply

Film Cameras can draw heavy current that would normally give problems over long cable lengths.

This problem is prevented by using the POWER BUSTER system.

The POWER BUSTER power supply can be recognised from the standard power supply as it uses a Green LED on its front panel (instead of a Red LED that is on the standard power supply).

This setup uses sense lines to compensate for the drop in voltage over long cable lengths.

The system has been tested to give 26.5 volts DC @ 17 Amps over at least 200 ft.

Cable Diagram For POWER BUSTER Setup
Which Video Lenses will **PEE-POD** Systems Control

All of the **PEE-POD** Video Lens Control systems are aimed at the **Broadcast** range of lenses.

Most manufactures have other lenses which are sometimes described as Conferencing or Industrial and occasionally Professional. These lenses do not always have the same Control options as the **Broadcast** lenses and sometimes cannot be controlled by the PEE-POD without our non standard leads.

The **PEE-POD** range of Heads has:

A Lemo 3 Pin Socket (1B 303 Black Washer) for controlling the Analogue Focus servo’s on Video lenses.

A Lemo 7 Pin Socket (1B 307 Red Washer) for controlling the Analogue Zoom servo’s on Video Lenses and Start/Stop of VTR.

A Lemo 2 Pin Socket (1B 302 White Washer) for controlling Analogue Iris (only on the later Mk 2 Video Drop Box).

A Lemo 4 Pin Socket (1B 304 Yellow Washer) for controlling the Digital Lenses through a direct serial link. This single lead can control Zoom, Focus & Iris (only on the later Mk 2 Video Drop Box).

The most Common Video lens leads used with the PEE-POD systems are:-

**IRIS CONTROL**

<table>
<thead>
<tr>
<th>Stock No 10329</th>
<th>Iris Control for all Analogue lenses (you must also have the Iris Junction Box).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock No 10324</td>
<td>Iris Junction Box.</td>
</tr>
</tbody>
</table>

**FUJI**

<table>
<thead>
<tr>
<th>Stock No 10311</th>
<th>Fuji Focus (3 Pin Black) for all Fuji ENG Broadcast lenses with built in Focus Servo’s or add on Focus Servo Modules with 12 Pin Control Socket e.g. FSP 13.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stock No 10322</td>
<td>Fuji Zoom (7 Pin Red) for all Fuji ENG Broadcast lenses Fitted with 12 Pin Control Socket.</td>
</tr>
<tr>
<td>Stock No 10325</td>
<td>Fuji Zoom (7 Pin Red) for Older Broadcast lenses and Conferencing or Industrial and occasionally Professional grade units, fitted with 8 Pin Connector.</td>
</tr>
<tr>
<td>Stock No 10330</td>
<td>Fuji Serial link to Digi Lenses (for control of Zoom, Focus &amp; Iris).</td>
</tr>
</tbody>
</table>
CANON

Stock No 10313  Canon Focus (3 Pin Black) for all Canon ENG Broadcast lenses with built in Focus Servo’s or add on Focus Servo Modules with 6 Pin Control Socket e.g. FPM40/50/70/77/80/400/420/500.

Stock No 10321  Canon Zoom (7 Pin Red) for all Canon ENG Broadcast lenses Fitted with 12 Pin Control Socket.

Stock No 10326  Canon Zoom (7 Pin Red) for Older Broadcast lenses and Conferencing or Industrial and occasionally Professional grade units, fitted with 8 Pin Connector.

Stock No 10331  Canon Serial link to Digi Lenses (for control of Zoom, Focus & Iris).

OTHER LENS LEADS ARE AVAILABLE FOR OTHER MANUFACTURERS

If your **PEE-POD** System does not have the new Mk 2 Video Drop Box for direct serial Digi Control, you can control the Canon Digi Lenses through the Analogue lens leads as follows.

When using the Canon Digital Lenses on the PEE-POD you need to get from Canon two adapter leads that plug into the 20 pin sockets on the lens and the PEE-POD Leads plug into these adapter leads.

The Canon Part numbers are:-

- CC 20-12
- CC 20-6

It does not matter which one of the 20 pin sockets you plug the adapter leads into.

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