

AeroHead

Quick Reference Guide



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How do I...

...power up the system?

NOTES: CHECK PWR. FIRST!! (Use circuit checker). If the system is wired so that both the head and the control box are powered from the same supply, you can merely turn on power. If not, you should pwr. up the control box first and then the head.

...turn on and off motor power?

1. (CANCEL HOME HARD FIRST!!!!) Press the red **MOTORPOWER** button in the upper right corner of the control panel.

NOTES: Some functions will not be available until motor power is turned on.

...change the type of “gearshift” that the hand wheels use¹?

1. Press one or more axis buttons (e.g. **PAN**, **TILT** or **ROLL**)².
2. Press **SETUP**.
3. Turn the **Jog Wheel** to select from **PANAGEAR**, **ARRIGEAR**, or **USERGEAR**.
4. Press **ACCEPT**. New speed choices will be available for the axes selected.

...change the speed of the hand wheels?

5. Press one or more axis buttons (e.g. **PAN**, **TILT** or **ROLL**)².
6. Press the **SPEED** button.
7. Turn the **Jog Wheel** to select the speed (**PANA1-3**, **ARRI 1-3**, **USER SPEED 0-29**).
The speed changes immediately as you turn the knob.
8. Hit **ACCEPT** or **CANCEL** when done³.

...change the tightness or smoothness of the hand wheel motion?

1. Press one or more axis buttons (e.g. **PAN**, **TILT** or **ROLL**)².
2. Press **SMOOTH**.
3. Turn the **Jog Wheel** to select the new smoothness from **SMOOTH 0** (no smoothing) to **SMOOTH 8** (most smoothing).
4. Hit **ACCEPT** to make change or **CANCEL** to abandon changes.

¹ The *AeroHead* can emulate the three gearshifts of a Panavision™ head or an ARRI™ head, or you can select from 29 different user speeds. Because the speed of head can be changed “live,” while you are panning, tilting or rolling, it is not desirable to change abruptly from one type to another. Therefore, you must specify which type of head you are emulating. This is typically only changed once and is then remembered by the controller for future sessions.

² The axes that are selected will be solidly illuminated. Axes not selected will be flashing, indicating that you can still select them.

³ Because hand wheel speeds change immediately, it does not make a difference whether you press **ACCEPT** or **CANCEL** in this case.

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How do I...

...set a limit or keep the head from going past a certain point?

1. Press one or more axis buttons (e.g. PAN, TILT or ROLL) ².
2. Press LIMIT.
3. Turn the *Jog Wheel* to select SETLIMIT.
4. Hit ACCEPT. The display will prompt you to “MOVE THE AXES TO ONE LIMIT AND PRESS Go”.
5. Using the hand wheels, move the axes you selected in step 1 above to the limit you wish to establish⁴.
6. Hit ACCEPT to make change or CANCEL to abandon changes.
7. Repeat this process to set a limit at the other end of travel

...delete a limit at one end of travel?

1. Press one or more axis buttons (e.g. PAN, TILT or ROLL) ².
2. Press the LIMIT button.
3. Turn the *Jog Wheel* to select CLRLIMIT.
4. Hit ACCEPT. The display will prompt you to “MOVE THE AXES TO ONE LIMIT AND PRESS Go”.
5. Using the hand wheels, move the axes you selected in step 1 above to the limit you wish to delete⁴.
6. Hit ACCEPT to make change or CANCEL to abandon changes.

...delete all limits so that I can pan, tilt and roll as much as I want?

7. Press one or more axis buttons (e.g. PAN, TILT or ROLL) ².
8. Press LIMIT.
9. Turn the *Jog Wheel* to select CLRBOTH.
10. Press ACCEPT to make change or CANCEL to abandon changes.

...make sure that one axis doesn't move if I should bump the hand wheel⁵?

1. Press one or more axis buttons (e.g. PAN, TILT or ROLL) ².
2. Press AUTO.
3. To enable the axes to move again, repeat steps 1 and 2.

NOTES: The red LED under the axes selected will light to indicate that these axes will not move.

⁴ The controller uses the last direction you moved to determine which limit you are trying to set. For example, if you panned left, the controller would remember this position as the left-most position to which the head can pan. This limit has no effect on how far you could pan to the *right*, which means that you could pan 360 degrees to the right and be at the same position, possibly passing through the region you were trying to protect.

⁵ Works for *PanBar* and *JoyStick* modes as well.

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How do I...

... change direction that an axis moves in response to the hand wheels (Overslung)?

1. Press one or more axis buttons (e.g. PAN, TILT or ROLL) ².
2. Press **SETUP**.
3. Turn the **Jog Wheel** to select **REVERSE**.
4. Press **ACCEPT**.

NOTES: The blue LED under the axes selected will light to indicate that these axes are reversed. To restore the axes to their normal direction, follow this same procedure, but select Forward in step 3. If you are just changing the orientation from underslung to overslung, you can simply press the Overslung button.

...SetZero and initializing the AeroHead for data recording?

1. Move each axis (i.e. Pan, Tilt and Roll) to a logical starting position. This would typically be level for Tilt and Roll, and straight ahead (i.e. parallel with the crane or pointing towards the action) for Pan.

NOTE: If you are setting up on sticks (tripod) or you can accurately return the camera to its starting position, you can line up the cross-hair of the lens with a fixed point on a wall to establish a zero position.

2. Press one or more axis buttons (e.g. PAN, TILT or ROLL).
3. Press **SETUP**.
4. Use the **Jog Wheel** to select **SETZERO**.
5. Hit **ACCEPT** to set new zero/home position or **CANCEL** to abort, recheck marks.
6. Put marks on the head so that you can return to this position manually if necessary.

NOTES: Physical marks may not be necessary where you have used an accurate level or through-the-lens method of establishing the home position.

...send the head back to its zero positions?

1. Press **AUTO**.
2. Use the **Jog Wheel** to select **Go To ZERO**.
3. Hit **ACCEPT** to go to zero, or **CANCEL** to abort (make sure there are no obstructions).

...get the head back to zero positions after I accidentally release the rotator gear?

1. Press **AUTO**.
2. Use the **Jog Wheel** to select **Go To ZERO**.
3. Hit **ACCEPT** to go to zero, or **CANCEL** to abort (make sure there are no obstructions).

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4. Disengage the rotator gear and move the axis to its home position as marked during setup.

NOTES: When the motor is energized, there will only be one place that you can re-engage the rotator gear & still be on your start mark.



5. Re-engage the rotator gear.

...record a move for data capture or playback?

1. Press the RECORD  button.
2. Press ACCEPT to begin the move.
3. Press ACCEPT again to finish the recording.

NOTES: The move will begin immediately with the first ACCEPT, unless TRIG ON and/or SHUT ON have been selected. Timecode will be displayed while the move is being recorded. You can press CANCEL at any time to discard the move. When the move has been recorded, the move number (e.g. 00 to 99) will be displayed briefly, so that you can return to this take.

...playback a recorded move?

1. Press the HOME  button.
2. Turn the *Jog Wheel* to select the take (e.g. 00 to 99) you wish to play back.
3. Press ACCEPT to adjust to the beginning of the move.
4. Press the PLAY  button.
5. The display should already show the number of the move you just HOMED to. If not, use the *Jog Wheel*.
6. Press ACCEPT to begin the move.

NOTES: The system will HOME automatically if you use the *Jog Wheel* after pressing PLAY to select a new move. This can be useful to quickly review a move.

...export a recorded move to an external computer?

1. Connect the *AeroHead* data cable between the controller box and a Windows™ compatible computer.
2. Run the *AeroHead Data Capture Software* on the computer.
3. Enter a short descriptive name for the scene.
4. Enter a take number to begin with.
5. Press SETUP.
6. Press the PLAY button. EXPORT will show in the display.
7. Press ACCEPT.

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8. Turn the **Jog Wheel** to select the take (e.g. 00 to 99) you wish to export.
9. Press **ACCEPT** (SEE NOTES NEXT PAGE).


NOTES: The exporting of data is automatic. Files are created and saved with a unique name consisting of the scene name, the take number, the current time and date. The take number is incremented automatically. If you save multiple takes, make sure to check the take number to assure that it is incrementing correctly.

...use a bloop (also called blip or sync) light?

1. Plug the **AeroHead Bloop Light Cable** into the three-pin **Accessory Connector** on the back of the controller box⁶ **OR** into the identical connector on the back of the tilt box on the **AeroHead**.


NOTES: The bloop light will turn on for one frame at the beginning of every recording or playback. It is recommended that the camera be allowed to get to speed before recording or playback is begun. The connector on the head allows you to hard-mount a bloop light (e.g. LED) on the matte box. The **AeroHead** bloop light also provides an audible indication.

...use an external trigger to start recording or playback?

1. Connect the external trigger to the three-pin **Accessory Connector** on the back of the controller box⁷.
2. Press **SETUP**.
3. Press the **PLAY**  button.
4. Turn the **Jog Wheel** to select **TRIG ON**⁸.

NOTES: During recording or playing back, motion will not begin until a trigger is received from the external device (which can be a simple push button). To turn this feature off, follow the same steps, but select **TRIG OFF**.

When **No TRIG** is displayed on the controller, you can begin

recording or **playback** immediately by pressing the **PLAY**  button.

⁶ If TeachMode is being used, you cannot use the connector on the controller box.


⁷ Schematics and cables available on request.

⁸ **TRIG ON** can be used in combination with **SHUT ON**, in which case recording or playback waits for an external trigger and then starts in phase with the shutter.

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How do I...

...make sure that recording and playback start in phase with the camera shutter?

1. Connect the three-pin ***Accessory Connector*** on the tilt-box of the ***AeroHead*** to the camera connector containing the shutter pulse⁹.
2. Press **SETUP**.
3. Press the **PLAY**  button.
4. Turn the ***Jog Wheel*** to select **SHUT ON**⁸.

NOTES: During recording or playing back, motion will begin in phase with the shutter blade. If the shutter pulse is not recognized (usually indicating a wiring error), recording or playback will not begin and the display will indicate **NO SHUTR**. To turn this feature off, follow the same steps, but select **SHUT OFF**.

When **NO SHUTR** is displayed on the controller, you can begin

recording or ***playback*** immediately by pressing the **PLAY**  button.

...program an output to trigger an external device?

1. Press **SETUP**.
2. Press **PLAY**.
3. Turn the ***Jog Wheel*** to select **STROBEON**.
4. Plug an ***AeroHead Teach Button*** into the ***Accessory Connector*** on the back of the controller box.
5. Plug an ***AeroHead Accessory Cable*** into the ***Accessory Connector*** on the back of the controller box.

NOTES: ***Y Adaptors*** are available so that two devices (one input and one output) can be plugged into each ***Accessory Connector***).

Whenever you ***record*** a take, the output on the ***AeroHead Accessory Cable*** will follow the ***AeroHead Teach Button***. This allows you to choreograph external events (e.g. Lightening Strikes) with live action.

When you ***playback*** this take, the events will happen on exactly the same frames. The event data also is saved to the notebook computer.

⁹ Cables are available for all common motion picture cameras. Special cables can be supplied on request.

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How do I...

...record a position so that I can return to it quickly later?

1. Press **AUTO**.
2. Turn the ***Jog Wheel*** to select **SET MARK**.
3. Press **ACCEPT** to create the mark.

NOTES: The number of the mark, from 00 to 99, will be shown briefly in the display

...return to a mark I recorded using AutoMarks?

1. Press **AUTO**.
2. Turn the ***Jog Wheel*** to select **GOTOMARK**.
3. Press **ACCEPT**.
4. Turn the ***Jog Wheel*** to select an ***AutoMark***.

NOTES: The head moves to the selected mark as soon as the number is displayed. You can turn quickly through the marks without harming the ***AeroHead***.

...quickly level the Roll axis?

1. Press **AUTO**. The display will read **LEVEL**.
2. Hit **ACCEPT** to level immediately or **CANCEL** to abort.

NOTES:

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