FG-02
Fluid-Gimbal Head

FG-02 LR PICTURED
 SPECIFICATIONS: FG-02

Load Capacity ................................................................. 50 pounds (23kg)
Damped Load Capacity ...................................................... 15 pounds (6.8kg)
Pan & Tilt Range ............................................................ 0-360° continuously
Damping Adjustment ............................................................ 3 levels + Off
Assembled Height ........................................................... 9.5 inches (241mm)
Weight VA / HB / Combined ........................................... 1.4 / 1.5 / 2.9 pounds (630g / 703g / 1333g)
Operating Temperature Range ........................................... 0º to 140ºF (-18º to 60ºC)

GUARANTEE

ALL REALLY RIGHT STUFF BRAND PRODUCTS ARE GUARANTEED TO
THE ORIGINAL PURCHASER TO BE FREE OF DEFECTS IN MATERIALS OR
WORKMANSHIP FOR FIVE (5) YEARS FROM THE DATE OF PURCHASE.
PRODUCTS WILL BE REPAIRED OR REPLACED AT OUR OPTION.

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INITIAL SET-UP & SAFETY

Your FG-02 Fluid-Gimbal Head features selective fluid-damped gimbal motion to deliver balanced motion with superior smoothness. The highly adjustable FG-02 Fluid-Gimbal Head supports the camera and lens based on its own center of mass, allowing for smooth and easy manipulation. Choose from three levels of fluid damping to ensure the camera feels smooth and consistent throughout the entire range of motion. Proprietary damping grease maintains a consistent pan-and-tilt feel over a wide range of temperatures.

Add a patented RRS lever-release clamp to your FG-02 for quick & secure mounting of your cameras and lenses; a perfect mate with RRS lens plates and rails. A distinctive feature of the FG-02 is the integrated dovetail base, which allows quickly swapping between tripods and various setups.

Please follow the safety and set-up points below to assure safe and proper use of your FG-02 fluid-gimbal head.

• Read this User Manual before installing or using the fluid-gimbal head.

• Never disassemble any part of the FG-02. Aside from routine lever-release clamp maintenance, head is not serviceable by user.

• Use a tripod with sufficient load capacity and rigidity to support your load. Ensure the tripod is stable, balanced, and that all leg and angle locks are firmly locked. Typical FG-02 rigs mounted atop tripods are top-heavy. Along with the head’s pan-tilt action, this combines to form a high risk of tip-over. Reinforce the tripod with hanging weights or sand-bagged legs whenever feasible.

• Always operate the FG-02 within the recommended temperature range. Damping performance will suffer at extreme temperatures. Performance will return when it is again operating within the recommended temperatures.

• When mounting the FG-02, only use either the integrated dovetail or the 3/8”-16 threaded socket. Avoid adapting it to other rail systems or smaller threading. When using the integrated dovetail installation method, double check that the quick-release clamp is properly closed before using the head.

• Always check that brakes are properly engaged when needed to avoid damage to the rig. Pan-tilt brakes are meant to stop the weight of the rig only. Avoid resting on the camera or lens.

• Stated load capacities don’t apply while the FG-02 is transported, either on foot or by vehicle.

• When the FG-02 is set up for multi-row panoramas, the camera/rig center of gravity may be shifted behind the tripod’s center of gravity. This could cause the rig to tilt if left unattended and/or unlocked, possibly causing damage.
KEY FEATURES

1. **Tilt Lock Lever** — Rotate the Tilt Lock Lever in the direction of the Lock symbol on the arrow to lock the head’s tilt axis at any position. Loosen the tilt axis by rotating the lever the opposite direction. Lever is captive and factory-set with the proper amount of clamping force (lever is also captive and not intended for removal; do not force).

2. **Precision Laser Markings** — Tilt axis is laser engraved in 2.5° increments from 0-360°; scale is lasered in 15° increments. Three index marks in 90° intervals aid in repeatable positioning.

3. **Circular Spirit Level** — 15mm bullseye level aids in precision leveling.

4. **Safety Stops** — Dual safety stops help prevent accidental release of Vertical Arm. Safety stops are removable; use included M2.5 hex key.

5. **Pan Lock Knob** — Rotate the Pan Lock Knob clockwise to tighten the panning base and prevent rotation. Rotate a single turn counter-clockwise in order to loosen the panning base (knob is captive and not intended for removal; do not force).


7. **Pan Damping Selector Switches** — Press Selector Switches to engage four levels of pan fluid damping: OFF (no Switches pressed), LOW (single chevron), MEDIUM (double chevron), HIGH (press both Selector Switches). See bottom of page 9 for details on filled chevrons versus empty chevrons.

8. **Horizontal Base Centering Index Mark** — Bullseye marks center of pan axis. Bullseye aids in precise horizontal positioning of Vertical Arm and camera/lens.

9. **Integral Tool** — One 5/32” hex key for clamp installation/removal.

10. **Precision Laser Markings** — Horizontal Base is laser engraved in 1mm increments from 40-180mm relative to center of bullseye/pan axis. Vertical arm dovetail jaw is laser engraved ±15mm to aid in precise positioning.

11. **Dovetail** — Integrated dovetail allows quick mounting into any RRS-style quick-release clamp.


13. **Tilt Damping Selector Switches** — Press Selector Switches to engage four levels of pan fluid damping: OFF (no Switches pressed), LOW (single chevron), MEDIUM (double chevron), HIGH (press both Selector Switches). See bottom of page 9 for details on filled chevrons versus empty chevrons.

14. **Mounting Sockets** — One centered ¼”-20 socket with anti-twist boss (clamp must have anti-twist relief groove on the bottom), two metric 5 sockets spaced 30mm on center (accepts RRS B2-AS II, B2-LR II, and B2-Pro clamps), two metric 5 sockets spaced 45mm on center (accepts RRS B2-LLR II & B2-Pro/L clamps).
RECOMMENDED CONFIGURATIONS

FG-02 Fluid-Gimbal Head: FG-02 LR
For side mounted rigs. Recommended for use with most collared telephoto lenses. Can be used with non-collared lenses when load balancing or finding No-Parallax Points isn’t strictly required.

FG-02 Fluid-Gimbal Head: FG-02 FG

FG-02 HB with FAS-Clamp
All-in-one single row panorama setup. Use the FAS-Clamp (pictured) for shooting panos when mounting the camera with non-collared lenses. See our website for other sliding clamp options.
FG-02 Fluid-Gimbal Head: FG-02 VC
Similar to FG-02 LR. For side mounted rigs when more motion control is desired. Repositionable control arm smoothes out movement and start-stops. Also reduces noise and vibrations picked up in-camera due to handling.

FG-02 LR with Nodal Slide
Great setup for shooting panoramas. FG-02 LR shown at right with MPR-CL II nodal slide. See our website for other nodal slide options.
BALANCING THE LOAD

Properly balancing the load will result in effortless motion of the camera load. Follow these steps for each unique camera setup. Balance the load before setting the damping to achieve the most consistent results.

1 Level the FG-02
Unit is level when the bubble is centered within the scribed black circle.
2 Center Camera, Step 1
If mounting camera, align centering index marks on camera plate and balance rail. If mounting collared telephoto lens, lens axis is already aligned with tilt rotational axis.
Loosen Tilt Lever and point camera straight down. Lock Tilt Lever.

3 Center Camera, Step 2
Partially loosen the FG-02 VA Position Lock Knob (“A”) to allow Vertical Arm to slide along the dovetail rails of the Horizontal Base. Align center of viewfinder with bullseye symbol: . Lock the FG-02 VA Position Lock Knob.

4 Balance Load, Step 1
Point camera forward. Check Damping Selector Switches are set to “Off” (both switches should protrude on side with filled chevrons).
**Balance Load, Step 2**
Keeping one hand on the camera and/or lens for support & safety, loosen the Tilt Lock Knob. Gently allow the camera to tilt under its own weight. Adjust positioning until camera’s weight is balanced and it no longer tilts under its own weight.

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**SET DAMPING**
The FG-02 Fluid-Gimbal Head features four distinct damping settings for both pan & tilt. This gives the operator the flexibility of choosing a setting that is right for the shoot and feels comfortable for the operator. Select the damping after balancing the camera in order to achieve the most consistent results. Press Selector Switches to set the desired damping level.

Note that chevrons are marked on both sides of the FG-02. One side displays filled chevrons → 
One side displays empty chevrons →
When you press a Selector Switch on the filled chevron side, it appears raised on the empty chevron side. This allows you to visually check damping levels from either side.
**SHOOTING PANORAMAS**

When mounted on a leveling base, the FG-02 Fluid-Gimbal Head is ideal for shooting panoramic images. Use the Horizontal Base with a sliding clamp for single row panos. Use the full FG-02 with a nodal slide for multi-row panos.

**TROUBLESHOOTING**

❓ **Damping Selector Switches are pressed, but there is no damping.**
Check the position of the switches. Damping is engaged when either one or both switches are fully pressed on the **filled** chevron side: 🔄. If one or both switches appears to be pressed on the filled chevron side, check that switch is **fully** pressed; damping is engaged only when switches are fully pressed.

❓ **Damping Selector Switch is pressed, but it’s loose.**
Unlock the Lock Knob. When the Tilt Lock or Pan Lock knobs are in the locked position, damping is not engaged and Damping Selector Switches will feel loose. As soon as Tilt or Pan is unlocked, the Damping Selector Switch will engage.