



Knowing that camera movement destroys image sharpness but that profitable pictures are often made on the run, smart pros seek a compromise between tripod and handheld exposures. Countless portable supports exist, but even if a stationary object can be found on location, critical shots can be lost in the time needed to set up. Minimum clarity sometimes depends on use - a soft image being acceptable, say, for news but not evidence work - but when the maximum percentage of tack sharp handheld shots are needed the gyro stabilizer is in order. Enter the Kenyon Gyro Stabilizer, a small, battery-powered, pod-like case that screws into a tripod socket and "floats" the camera in free space with only its weight supported by your hands. The device is maintenance free, works with any camera, spotting scope or binocular and, best of all, retains the freedom and speed of handheld shooting. The Kenyon system is neither a musing of some future technology nor a magic trick, but an intelligent application of basic physics.

### **Admiral KS-8**

The Admiral has been developed to provide Ken-Lab's simplified stabilization for camera equipment in the 3,6 to 5,4 kg range. Through the use of heavy metal tungsten wheels the effect of two KS-6 units is achieved in a standard KS-6 housing, with no increase in running power required. This is our most powerful unit to date.

#### **Specifications:**

**Size:** diameter 8,6 x 14,7 cm long

**Weight:** 2330 gr.

**Power:** 115/230 volts, 400 Hz, 26 watts starting with 11 watts running after 4 minutes. 3 hours running on a fully charged KP-6 Power pack.

**Panning Rate:** 30 degrees per second





## Commander KS-6

Designed to handle the more difficult assignments, the KS-6 provides almost twice the stabilization of the KS-4. Steady sequences with smooth panning from helicopters, boats or any moving vehicle is now a possibility. Troublesome vibrations are dampened out for medium format cameras or long lenses, without the loss of hand-held freedom of motion. The KS-6 is easily attached to camcorders, videotape television cameras, etc. to realize the full potential of telephoto and zoom lenses. One or two KS-6 gyros are often used for in Steadicam systems. The KS-6 is recommended for equipment as heavy as 2,7 kg.

### Specifications:

**Size:** diameter 8,6 x 14,7 cm long

**Weight:** 1480 gr.

**Power:** 115/230 volts, 400 Hz, 26 watts starting with 11 watts running after 4 minutes. 3 hours running on a fully charged KP-6 Power pack.

**Panning Rate:** 20 degrees per second



## Universal KS-4

Versatile in its stabilization capability for high power binoculars, the Universal KS-4 provides lowest cost per device served. Ultra heavy metal gyro rims enable maximum stabilization in a minimum casing size. Military tested and approved, the KS-4 has shown the recognition capability of binoculars to be improved 2.4 times. For photographic work in low light levels, exposures to 1 second can be used (hand held). Hand-held devices to 1 kg can be easily stabilized by the KS-4.

### Specifications:

**Size:** diameter 7,1 x 11,4 cm long

**Weight:** 970 gr.

**Power:** 115/230 volts, 400 Hz, 12 watts starting with 4 watts running after 4 minutes run up time.

6 hours of run time off our 7.2 amp hour power pack.

**Panning Rate:** 20 degrees per second





Engineered and built for demanding field conditions, Kenyon Gyro Stabilizers are, in the manufacturer's words, the invisible tripod of countless uses. Press and nature photographers will appreciate slower shutter speeds with long lenses, and videographers will save on production costs by handholding sequences previously requiring a dolly. Stabilization equipment is not inexpensive, but your image, both photographic and professional, is well worth the investment. The Kenyon Gyro Stabilizers are a small pod-like unit that runs off our 12-volt power pack, which has a shoulder strap. Thus with the unit attached to the camera and the battery on one's shoulder (or in a carpenter's belt) one has complete freedom to move about. The units are 400 cycles AC. We have a small inverter between the battery and the gyro to access its DC power, and the portable power pack comes with an overnight charger.

The unit operates two gyroscopic wheels which are in opposing axis to each other, and when they are up to their normal 22000 RPM operating speed, resist both pitch and yaw, when in line with the lens, the motors are brush less and the unit is helium filled, hermetically sealed and is maintenance free. One can expect several thousand hours of worry free use.

One can bypass the battery and use external 12-volt power, such as in a plane or car, or boat. A 24 -28-volt inverter is available for helicopter use. If one has access to 400-cycle power (military and some helicopters) one does not need to use the inverter at all.



Complete kit in case



Inverter 12V or 24V feed



**Q: How do I know which gyro stabilizer will work for my camera(s)?**

**A:** Any of our units can easily stabilize approximately twice their personal weight. The KS-2 at 1.5 lbs will handle most lightweight binoculars. The KS-4 at 2.13 lbs will handle most 35 mm cameras not going over 400 mm lens and the heavier binoculars, those around 4 lbs. The KS-6 at 3.25 lbs is the usual gyro of choice for medium format cameras and Steadicam operators (who often use 2 KS-6 gyros). The KS-8 at 5.13 lbs is more for the movie cameras weighing up to 11-12 lbs. It has heavier spring, which permits a faster panning rate. If one has more than one camera, one may want to use the stronger of the choices of gyros, as there is nothing wrong with overkill.

**Q: What is the difference between the KS-2 and KS-4, KS-6 and KS-8?**

**A:** The KS-2 and the KS-4 are both the same size, run off the same inverter and have the same run time off the same battery. The difference is that the KS-2 has LIGHTER wheels than the KS-4. Thus though the wheels are both spinning at the same speed (approx. 20 thousand RPM) the difference in weight makes the KS-4 a stronger unit for resisting the forces against it, than the KS-2. (For this reason we build the KS-2 only on order). The KS-6 is similarly different from the KS-8; both are the same size, same run time off the battery, and use the same inverter. The KS-6 is the usual choice for aerial photographers. The KS-8 is for the really serious photographer who can handle an extra 5 lbs of equipment and is often shooting in extreme conditions.

**Q: Can I run the gyros off 12 or 24-volt power straight from the plane or boat?**

**A:** The gyros are 400 cycles AC. We build 12-volt inverters to access either our 12-volt battery pack power or alternative 12-volt power. We also build 24-volt power to access helicopter or other 24-volt power.

**Q: How long will the gyro's run on the standard battery packs?**

**A:** The KS-2 and KS-4 will run for 5.5 to 6 hours off our 7.2 amp hour battery-start up and straight run time. The KS-6 and KS-8 will run for 2.5 to 3 hours of start up and straight run time. One can get a longer run time off the battery if one 'cycles' the gyro. This is running the gyro up to speed, getting the shot one needs and if there is a down time between shots, one can shut the inverter off (no need to disconnect anything) and the gyro will freewheel, (with sound stabilization-for half of the time it takes for the gyro wheels to come to a stop-) and when approaching the next target simply turn the inverter back on. The gyro will take 1/2 to 1/3 the time to come back up to speed, and take the next shot. By cycling one can get even an extra 1/2 to whole hour of run time before the battery must be recharged.



**Q: How do I know that it is time to recharge the batteries?**

**A:** We now have an LED on the inverter; one can look at this as a fuel gauge for the battery. The LED will be GREEN when the battery is fully charged. The same LED will then turn yellow as the battery is down to 1/3 of its strength for running the gyro. It will then turn ORANGE as the battery is now down to 1/4 and finally RED upon which time the battery is down to 10.5 volts and it is time to recharge the battery. The gyro will continue to run once the battery's LED has turned RED, but one is beginning to exhaust the cells in the battery. If done too often, the battery will not take a full charge.

**Q: Do you have chargers that can be used both overseas and in the states?**

**A:** Yes, we now have 115-230 switches on all our chargers, so they can be used overseas as well as in the states. One needs only to remember to switch to the correct current when about to use the charger.

**Q: How do I know when the battery is fully charged or that the charger is receiving current?**

**A:** All our chargers have LED's on them. The RED indicates "current in"-that the charger is receiving current. When the charger's GREEN light comes on, the battery is fully charged and ready for use.

**Q: What happens if I leave the charger on for longer than the time it takes for the GREEN Led to come on?**

**A:** All our chargers are fully regulated, so one cannot overcharge the battery. The charger will go into a "trickle charge" mode when the GREEN Led comes on, thus saving the cells from overcharge damage.

**Q: What sort of "tune up" do the gyros require?**

**A:** No, the gyros are built using brush less motors. They are hermetically sealed and run in Helium. They require no special care unless they are dropped- especially if running when dropped. They will provide thousands of hours of carefree use needing no fine-tuning whatsoever. When used a great deal, or if they take a hit, the bearing will become a bit less round- and the gyro will get a bit noisy. But this does not affect the gyros usefulness. After many years of use they may require new bearings. Rebuilding the gyros can only be done here, as the wheels have to be rebalanced after the unit is taken apart. A total rebuild, repairing everything the unit needs, costs \$ 400.00 US. One then has essentially a new gyro on one's hands.

**Q: Are the gyros used only for optics, binoculars and cameras?**

**A:** No, the gyros have been used for tank sites, guns, remote gimbal mounts, Steadicams, helicopter mounts, rifles, hand guns, telescopes, even by NASA.



**Q: Does anyone else build such gyro stabilizers?**

**A:** No, not like ours. Most gyros, either un-housed or housed, contain a single wheel and thus only one axis is covered, the only relative similarity is the image stabilized lens- here the physics are the same but the IS lens uses tiny gyros to act on a prism to change the line of light in the lens. We use larger wheels; such mass in our gyros will stabilize the whole camera or binoculars, not just the line of light into the optics.

**Q: Can one use the IS lens with the gyrostabilizers?**

**A:** Yes, they work well with each other.

**Q: Can one use digital cameras with the gyrostabilizers?**

**A:** Yes.

**Q: Has the gyros ever been used in the movies?**

**A:** Yes, First is the "air motorcycle" shoot in the first Star Wars, then very successfully (so much so as to win an award) in "Das Boot" where a Steadicam was needed but would not fit. There have been many more- too long to list, but one of the more recent is "The Lord of the Rings". The standard Tyler mounts are equipped with 3 of our KS-8's or two KS-8's and one KS-12.