

## 600E GERMAN EQUATORIAL MOUNT WITH QUARTZ MICRO-DRIVE (600QMD)

Astro-Physics 600E German Equatorial mount offers many fine features to provide superb performance in a compact, portable package. It was engineered to provide a firm, steady platform for your high-resolution instrument. Both axes respond to fingertip pressure with no hint of backlash. Built-in clutches can be disengaged for ultra-smooth sweeping or locked for astro-photography.

The 600E is constructed of the highest quality components to provide you with years of observing pleasure. All parts are machined of aluminum and stainless steel. We avoid the use of any carbon steel shafts or plated-steel fasteners because they will deteriorate with time. This mount will not rust or bind up and will retain its appearance and function throughout the years.

Rigid aluminum castings enclose the worm gears and the right-ascension and declination motors. Drive components are protected from dirt and dust., extraneous wires and gearing are eliminated, and the overall appearance is enhanced.

Fine-pitch, precision gears are the heart of the drive system. These gears are cut with Class AA hobbs on a highly accurate gear cutting machine. High-resolution stepper motors deliver 150 inch-oz. torque with a fraction of the power required by normal synchronous motor-drive corrector systems. Designed for the utmost in convenience, this drive system operates from a portable battery pack or the cigarette lighter of your automobile.

Included in the hand control is a choice of drive rates for lunar, solar, and sidereal tracking. A reversing switch for declination allows the 4 button controller to be properly oriented on both sides of the meridian. The fine-guiding rate is designed for accurate tracking of guidestars at very high powers. The slew rate can be used for leisurely cruising on the lunar surface or for rapidly centering objects in the field of view.

Over the years, our mounts and drive systems have functioned reliably in the coldest environments of Canada, Norway and remote Alaska. The circuitry of our controller has been proven since the mid-1970s and is comprised of the highest-quality military spec components. We have seen many of our competitors' controllers constructed with flimsy, hygroscopic (water absorbing) circuit boards, components rated for indoor use, and poor solder connections. Astro-Physics controllers will stand up to the humidity and temperature extremes common to many observing locations.

When coupled with the options described separately, the 600E will be your portable observatory for home or dark-sky site. Within minutes, you will be assembled and polar-aligned, ready to enjoy the wonders of the night sky.

### FEATURES

- Virgin aluminum sand castings, precision hollow cast and machined for light weight and rigidity
- Gears and motors are fully enclosed
- Quartz micro-drive with 12 Volt Controller
- Gear in declination axis allows full 360 degree continuous rotation; scope can move through zenith for photography
- Large UHMW thrust bearings form ultra-stable thrust surfaces for tremendous rigidity in a small package
- Hollow right-ascension and declination shafts maximize strength at minimum weight
- Right-ascension shaft threaded for optional polar scope for quick, accurate polar alignment in the field
- Removable stainless steel counterweight shaft for compact storage
- Engraved setting circles with Porter Slip Ring Design; polar-axis ring is driven; it follows the stars without needing to be reset each time you look at a new object
- Fine altitude and azimuth adjustments for quickly and accurately zeroing in on the pole in the field

### SPECIFICATIONS OF EQUATORIAL HEAD

Worm wheel:	4" fine pitched bronze wheel
Worm gear:	stainless steel
Latitude range:	15 to 57 degrees
Azimuth adjustment:	approximately 17 degrees
Setting circles:	Porter Slip Ring design
Right ascension:	10-minute increments, 2-minute vernier
Declination:	1-degree increments, pointer
Capacity:	Will accommodate refractors up to 6" f9, reflectors to 8", Cassegrains to 10"
Weight of equatorial head:	27 lbs (12.3 kg)

### SPECIFICATIONS OF QUARTZ MICRO-DRIVE

- High-resolution stepper motors in both axes
  - Quartz micro-drive controller
  - PEM - Permanent Error Memory correction
  - Declination backlash control
  - R.A. and declination reversing switches for correct object orientation and movement in eyepiece
  - Power output to plug in guiding reticle or other accessory
  - Adjustable brightness control for guiding reticle
  - Plug-in for SBIG ST-4, ST-6, ST-7 and ST-8 Star Tracker/ Imaging Systems
  - Locking plug connection for power cord
- Dimensions of controller: 7.25" x 3" x 0.9"  
Drive rates: King sidereal, solar, lunar  
Guiding/ Slewing rates: 0.25x, 0.5x, 1x, 8x, 16x  
Hemisphere: Northern/ Southern switch  
Power consumption: 0.45 amps at normal rates  
Power requirements: 12 VDC  
Suggested power sources: Portable battery pack, auto battery, power inverter for 110 volts

### AVAILABLE OPTIONS

Please see the accompanying information sheets for descriptions:

- Portable Pier - 6" diameter (.083" wall thickness) heights 48", 54", 62"
- Sturdy, adjustable hardwood tripod with shelf and carrying case
- SBIG ST-4, ST-6, ST-7, ST-8 CCD Star Tracker/Imaging System
- Mounting Plates: FP600E, DOVE08, DOVE15, DOVELM
- 12 Amp-hr, 12 Volt Rechargeable Battery Pack
- Stainless Steel Counterweights- 6 lbs., 9 lbs.
- Encoders for Digital Setting Circles
- Polar Axis Scope with Illuminator
- JMI Digital Setting Circles
- Mounting Rings
- Carrying Case

