



Cercis Astro

DslrStar™ Controller - Model 400 Astronomical Digital SLR Camera Accessory PRODUCT & ORDERING INFORMATION

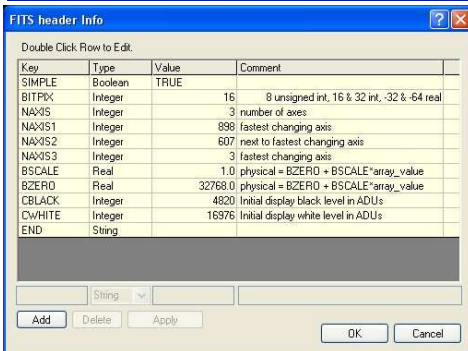
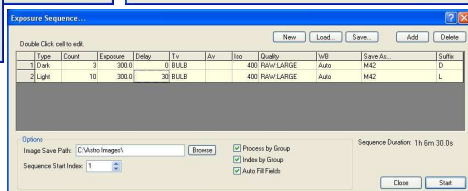
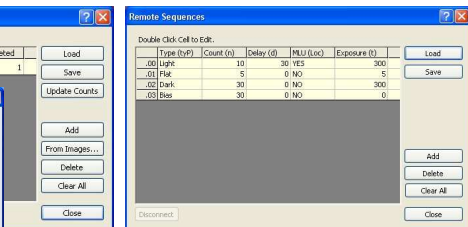
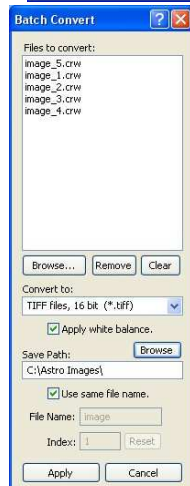
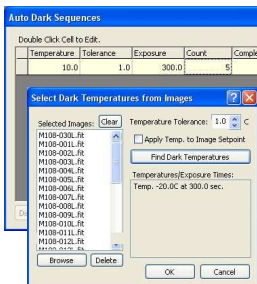


Cercis DslrStar digital single lens reflex camera astrophotography controller is designed to provide an integrated astrophotography system for DSLR cameras. It allows long exposures—either by computer control or standalone—and stores exposure information (time, temperature and type) in its non-volatile memory.

The DslrStar includes a full-function Windows® control program. DslrStar hardware connects to the camera's bulb connector, and has a computer USB interface. DslrStar has 4.7" X 3.7" X 1.3" sturdy metal case, with AC transformer for power, USB cable, and software CD included. Optional automotive jack or bulb cables are offered. A fully functional 30-day trial of software is available for download from the website: www.cercisastro.com.

Computer Interface Screens

The Main Program Box is shown at left, along with dialog boxes (Auto Dark Sequences with Dark Image Temperature Select, Image Sync, Exposure Sequence, Remote Sequences, FITS Header info) shown. See others on reverse. The Real-Time Clock of the DslrStar records the time and temperature when a photo is taken. This can be matched to the time recorded by the camera.



Compatibility

The DslrStar controller is compatible with: Canon 300D, Digital Rebel, Kiss; Canon 10D; Canon 350D, Digital Rebel Kiss XT; Canon 5D, 20D and Canon 20Da¹. Nikon D50, D70 and D70S are supported; these utilize the IR-LED connection with Cercis A613 IR emitter.

The USB port is compatible with any USB 1.1 or higher host controller. The AutoGuider port is compatible with any telescope with TTL- level guider inputs, and software includes ASCOM driver/hub. Input power to the DslrStar controller is 9-15 VDC at 200 mA max.

Included with the DslrStar software installation are full featured Windows COM interfaces for the DslrStar controller—including access to the BULB exposure, temperature monitoring, and AutoGuider hardware. With the COM interface DslrStar can be directly controlled via many programming languages (C++^R, Visual Basic^R, etc.), allowing third party developers to incorporate DslrStar functions into their existing or new products.

System Requirements (recommended minimum):

Memory: 256Mb **Speed:** 500MHz
Graphics: 24 bit high color

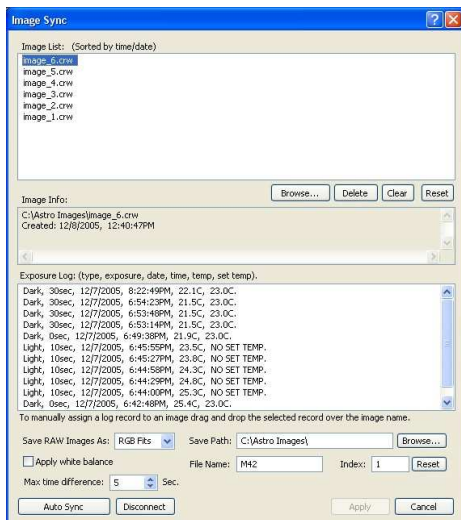
¹Including Hutech spectrum-enhanced versions..



Specifications subject to change with notice. All specs @ 25C 9/06DSLr™ Rev.B
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Image Sync (screen shown) - allows user to select images to synchronize with auto dark images.

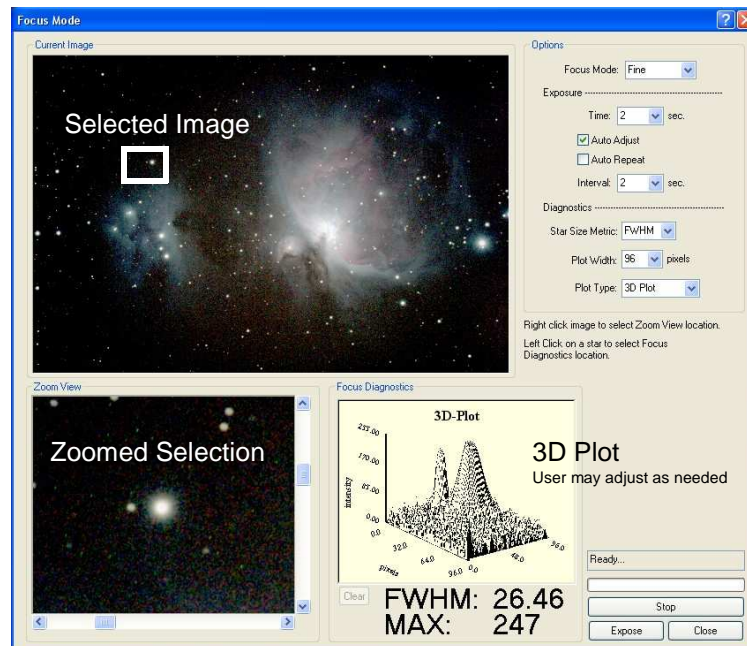


Temperature Sensor
DslrStar includes internal temperature sensor; an external precision temperature sensor is also available.

Power Requirements
The DslrStar controller requires power via standard 12V DC power jack or optional auto jack. A 20mm 3V lithium coin-battery provides power for on-board clock; this Energizer CR2032 or equivalent battery must be replaced ~1-2 years.

*Introductory \$150.00 1/1/06—3/31/06

Focus Mode (screen shown) - obtains the best focus when camera is attached to telescope. For each exposure, the dialog displays the full image resized to fit the dialog; a full size view of a selected area of the image; and focus diagnostic information on a selected star (i.e. star full width at half maximum (FWHM) in pixels, maximum intensity of the star (0-255 scale), a 2- or 3-dimensional plot of the star, or a running plot of either the max intensity or FWHM).



Ordering Information DslrStar includes the camera controller, Windows^R software, AC/DC A604P Wall Transformer and USB cable. The controller Bulb control cables, precision temperature sensor, and optional automobile power jack, are sold separately. To order, please email support@cercisastro.com or call or fax. VISA MASTERCARD, AMEX, personal check, or money orders accepted.

Features

DslrStar Controller	DslrStar Windows Software
Store ≤ 32 exposure sequences incl type, duration, delay, & mirror lockup use	Remote Control Camera, incl Tv, Av, ISO, mode, quality & white balance
Via Add/Edit/Delete sequences Keypad: Clear exposure log, reset controller	Control exposure-save path, with auto file naming & indexing
Store ≤ 400 exposure records, incl type, duration, time, date, tem, set temp	Create, save and load sequences from the hard disk
Accurate thermistor-based temperature sensor input—measures exact temperature of each exposure	Single/Series/Programmable-sequence exposures, w/ individual control of camera settings for each set in a sequence
Create AutoDark sequences specifying temp, temp tolerance & exposure time—controller monitors, takes darks in specified tolerance; auto-retrieval using exposure log information	Focus assist zoom view + 2D & 3D star plot diagnostics, FWHM, & metric trend plots. Auto-focus, auto repeat/adjust prevents image saturation
Opto-isolated BULB output - safe connection to DSLR camera	Full control of DslrStar Controller settings from computer
IR-Remote LED output—future support of wireless remote cameras	Load/Save/Edit controller sequences from computer
Four-digit red LED display of menus & status Standard 12V car battery power requirements, with protective fuse	Load/Save/Edit/Create AutoDark controller sequences, incl auto-creation from previously saved images' temp info
TTL-level auto-guider port - telescope guidance with compatible software	Auto Synchronize images w/controller exposure log for easy temp recording
Real-time clock w/ battery backup + Non-volatile storage of sequences & logs	Image viewer window—view as downloaded, or files w/ info for view & edit
USB computer interface - no USB-to-serial converters or PCMCIA parallel cards	Batch-convert dialog—convert multiple image files to any supported format
Sturdy all-metal enclosure	Windows Common Object Model (COM) interface—allows 3rd-party software use

Operating & Mechanical Data

Dimensions	in.	4.68 X 3.68 X 1.18
Weight—DslrStar	oz	11
Weight—shipping (estimated)	lb	1
Temperature Range—Operating	C (F)	-35 to +50 (-30 to 120)
Temperature Range—Storage	C (F)	-35 to +50 (-30 to 120)

Specifications subject to change without notice. Made in USA 9/06DSLr*Rev.B