.06
GURU
RCX400™
SERIES

Sky & Telescope magazine calls the RCX400, "as revolutionary today as the Schmidt-Cassegrain was when it was introduced over 30 years ago..."

Peter Lewis: *Small business owner, ultra-light pilot, RCX400 owner.*

Level:
As serious as it gets.

Mindset:
I'm ready for the observatory-level research telescope of my dreams. I can't wait to image, explore, and discover with one of the most advanced telescopes ever made.

Mantra:
Live to explore.

Priorities:
Ritchey-Chretién-like performance I can afford. A flat field perfect for astrophotography. A scope that can handle large-chip CCD imaging. The most mechanically tricked-out, precise, and user-friendly mount on the market.

Goals:
Take astrophotographs worthy of publication. Contribute to scientific research. Share astronomy with family and friends. Participate in supernova, comet, and asteroid searches.

Also used by: Fanatic, Master, Specialist

Performance:
Absolute state-of-the art system. Hands down.

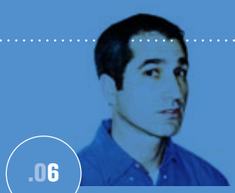
Optical Design:
Advanced Ritchey-Chrétien.

Strength:
Unparalleled crisp, flatter field-of-view. Observatory quality optics. Remote access via web or network. Fully-integrated turn-key system.

Buzz:
Sky & Telescope calls the RCX400 "the most electronically sophisticated mass-market telescope ever made."

.04
FANATIC

.05
MASTER



.06
SPECIALIST

.06

OBSERVATORY CLASS. For the pro in all of us.

RCX400™
ADVANCED RITCHEY-CHRÉTIEN

Carbon fiber tube

"The RCX400 does indeed perform like a Ritchey-Chrétien. The difference between the off-axis images (compared to a Schmidt-Cassegrain) was dramatic to say the least."

— Sky & Telescope magazine

"Out of the box the scope had the most responsive declination guiding that I have ever experienced with a mass-market telescope."

— Sky & Telescope magazine

"The scope is a quantum leap above conventional Schmidt-Cassegrains. It approaches the performance of telescopes that cost five or six times as much."

— Jason Ware, Astrophotographer

Imagine you're a seasoned astrophotographer saving up for the fast f-ratio, wide-field, coma-free, custom telescope of a lifetime. One that can handle the largest CCD chips. One with state-of-the-art optics and mechanics. One that is praised as "approaching perfection" by industry critics and astronomers alike. Suddenly you find out your telescope is available for one-fifth of what you thought—and you won't have to wait six months for it to be built. What would you do? You'd buy one.

Sky & Telescope Magazine says the RCX400 "fills a significant gap that existed between similar aperture Schmidt-Cassegrains and custom-made Ritchey-Chrétien reflectors." Until now, the only systems comparable to the RCX400 were custom-made and had to be pieced together with components from different vendors. To deliver a comparable research-grade system, fully integrated, out-of-the-box, would be a grand achievement at half the price. At less than one-third of the price, it's a miracle. That explains why the RCX400 won a 2005 "Best of What's New Award" from Popular Science Magazine.

Sky & Telescope's glowing review ended with this thought: "Some hobbyists mistakenly believe that a product review without equal doses of praise and criticism is biased or unbalanced. Truth is, I can't find many negative things to say about the RCX400...the RCX400 is a winner."

Patent-Pending Advanced (f/8) Ritchey-Chrétien optics. Astrophotographer Jason Ware says "the RCX400 is a huge jump [over the Schmidt-Cassegrain] as far as sharpness of image, flatness of field, and color." The fast (f/8) Advanced RC design produces a large, coma-free field of view from edge-to-edge. The corrector plate reduces astigmatism inherent in the traditional RC design (see pg. 49). A.

Legendary Diffraction-limited optics. Only Meade individually figures their Water White glass corrector lenses and Pyrex® primary and secondary mirrors in Irvine, California for observatory-class light transmission, temperature stability, smoothness and image correction. Advanced RC Optics are Meade's very best. And our optics lead the industry (see pg. 128). B.

Laser-Aligned, Fixed Oversized Primary Mirror. Laser aligned to the true optical path, then bonded in place, the mirror is fixed but literally floats on neoprene rubber seals. This results in zero stress to the glass and no distortion to the optics. C.

Electronic Front Focusing System. Patent-pending digital system electronically moves the entire front cell (corrector lens and secondary) in precise increments as fine as 1/1000 of a millimeter. A fixed primary means no image shift or focus backlash. Sky & Telescope says, "I've never used an electric focusing system that I liked more." D.

Nine Focus Position Presets. Customize up to nine perfect focus settings for moving from eyepiece to eyepiece, camera to camera, or observer to observer. Recall preset positions with the touch of a few buttons. E.

Electronic Collimation. The very best astrophotographs come from well-collimated (aligned) optics. The RCX400's unique collimation process is so easy that you can collimate in just seconds with simple up-down/left-right buttons on the AutoStar® II controller. F.

Built-In Anti-Dew Heater. A unique heating coil is affixed to the outside edge of the corrector lens. Temperature is adjusted via the AutoStar II controller. Uses a fraction of the energy of aftermarket anti-dew heaters. Sky & Telescope says it "worked exceptionally well." G.

Sony® GPS Receiver Sensor. Automatically inputs exact time, date, and geographical location to help quickly and precisely align your telescope. Gets a satellite fix in seconds despite obstructions like trees or buildings. H.

I.

J.

K.

L.

M.

N.

O.

P.

Q.

R.

S.

T.

U.

AutoAlign™. Automatically aligns your scope to the night sky. Sky & Telescope says, "Working with the RCX400 was a very pleasant out-of-the-box experience. In a perfect world all products would be like this..."

Smart Drive™. Provides Permanent Periodic Error Correction (PPEC) on both axes over the course of one or more training periods, thereby minimizing guiding corrections during long-exposure astrophotography.

Smart Mount™. Constantly refines pointing accuracy each time an object is centered and updated. Works in equatorial or altazimuth alignment. An indispensable feature for permanent installations.

AutoStar® II controller. AutoStar on steroids. Features "Hot Keys" for quick access to over 180,000 celestial objects. Operate RCX400 features like Electronic Focusing and Collimation, Anti-Dew Heater, Smart Drive and Smart Mount. Download software updates, guided tours, and timely objects like comets and new discoveries free at Meade.com (see pg. 86).

Ultra-Stable Tripod. This incredibly solid new patent-pending tripod was designed as standard equipment just for the RCX400. It features black anodized legs with quick release locks located at the top (instead of the bottom) for easy access. Makes it easy to level your tripod on uneven ground. A rock solid platform for long-exposure astrophotography.

Computer-Optimized Baffling. Baffles on the primary and secondary mirror are computer-optimized to provide high contrast images by preventing stray light rays from reaching the focal plane.

Carbon Fiber and Kevlar Optical Tube. This uniquely strong, yet light-weight material has thermal characteristics ideal for astrophotography. The tube resists expansion and contraction as temperature rises and falls. So RCX400 optics stay in focus even during the longest exposures.

UHTC.™ Our exotic optical coatings optimize light transmission. Image brightness is increased by 15% over standard coatings. It's like adding up to an extra inch of aperture (depending on scope size). Objects appear dramatically brighter (see pg. 68).

Internal Optics and Mechanics. Fork arms are longer and stronger. 10", 12", and 14" telescopes can reach 90° declination on a wedge, allowing you to reach the horizon. Longer fork arms also allow more back clearance so you can image all the way to the pole with most cameras. An OTA fan accelerates cool down so your optics will acclimate quicker to the ambient temperature.

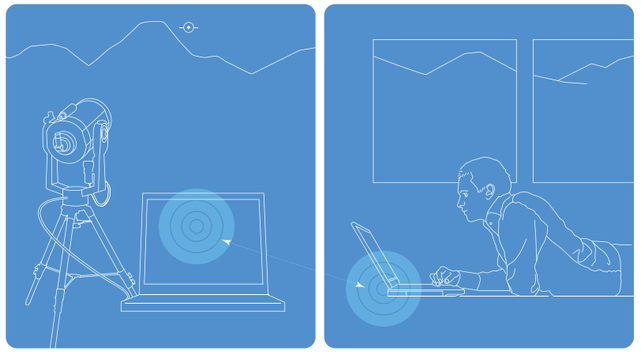
Multi-Port Control Panels. The first telescope to feature a powered, three port high speed USB 2.0 hub. Separate control panels are positioned on both the drive base and rear cell of the OTA, so you can plug equipment like the AutoStar® II and the Deep Sky Imager™ directly into the OTA control panel to avoid cord wrap and tangle.

Series 5000™ 2" Ultra Wide Angle Eyepiece. 24mm eyepiece gives you the ultimate in eyepiece design. It delivers extremely high-resolution, contrast and sharpness all the way across an astounding 82° apparent field of view. Several different types of exotic glass are combined to give you the highest possible level of optical performance.

AutoStar Suite™ Software. Easy-to-use planetarium software allows you to see what's in the sky tonight. Plan observing sessions, print star charts, take astrophotographs or control your telescope from your PC (windows only).

Remote Control Access. The Enhanced RCX400 AutoStar Suite lets you come in from the cold and operate your telescope. You can set-up, control, and image like the pros from the comfort of your home office or even across country via the web.

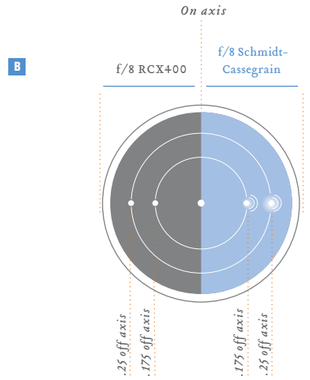
A



RCX400™ highlights

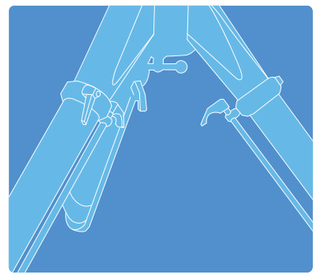
A. *The remote control observatory. Control your telescope from the comfort of your home, office, or even out-of-town with Meade's completely integrated AutoStar® II and RCX400 software systems. Access the computer that controls your telescope via network or Web access. Work like the pros, imaging whenever the weather, your schedule, and the universe align. With an RCX400, you have your own remotely controlled observatory. Just set-up, connect, control, and image. AutoStar II makes it easy.*

B



B. *Perfect star images edge-to-edge. This professional level of off-axis performance was previously unavailable without spending more than three times the cost of an RCX400.*

C



C. *Leveling made easy. New quick release locks are located at the top of the tripod legs (instead of the bottom). Legs can be extended or retracted with a flip of the waist-high lever. Especially helpful on uneven ground.*

A success story fresh off the drawing board.

On March 26, 2002, Meade engineers set out to design a telescope with the most sophisticated optics, mechanics and electronics ever manufactured. If successful, the new scope would make observatory-level performance accessible to any serious astronomer or astrophotographer who desired it.

The 2006 RCX400 review in Sky & Telescope magazine said, "Meade claimed that one of its goals in developing the RCX line was to address various problems... that had dogged Schmidt-Cassegrains for more than 30 years. My feeling is that the company really has succeeded. Even when you judge it by the demanding criteria imposed by long-exposure imaging, the RCX400 is a winner."

Thinking beyond the Schmidt-Cassegrain.

Like NASA's Hubble Space Telescope, almost every professional observatory reflector in the world today is a Ritchey-Chrétien. So it's no surprise that Meade engineers chose their Advanced Ritchey-Chrétien design as the ideal optical configuration. This design improves on the traditional Ritchey-Chrétien design by adding a corrector lens to reduce astigmatism and diffraction spikes. For details see pg. 49. Then Meade engineers designed the RCX400's mechanical and electronic systems from a clean slate (and thousands of amateur astronomer suggestions) to ensure it would become the most capable telescope.

For serious research or fast, flatter, wide-field fun.

Recognizing the growing popularity of astrophotography, Meade chose a fast (f/8) focal ratio for the RCX series. This offers astrophotographers optimal speed in combination with a large, coma-free field-of-view (from edge-to-edge). Despite all of its visual and technical prowess, an RCX400 is just plain fun. Sky & Telescope says, "One aspect of the RCX400 that repeatedly amazed me [was] ease of use. Working with the RCX400 was a very pleasant out-of-the box experience. In a perfect world all products would be like this..."

Observatory-precise pointing and tracking.

The RCX400's mechanical systems are complex. But what really matters is results. Sky & Telescope described a first experience autoguiding the RCX400 with a large format CCD camera. After a few initial set-up procedures... "the numbers looked good, so I tried a 5-minute autoguiding exposure. The image was perfect... I went on to make 15 more 5-minute exposures that night, and every one was a keeper!"

We thought of everything. Then made it electronic.

From electronic focusing and collimation, to electronic drive-training and sensor calibration, from electronic temperature controls to electronic High-Precision Pointing (HPP), the RCX400 can help you do anything from imaging Saturn to imaging an 18th magnitude galaxy too dim to visually confirm before you take the shot (see pgs. 92, 93).

Adding on to your RCX400.

Your RCX400 is absolutely the telescope of a lifetime. See pgs. 130-143 for additional accessories that will help your scope grow with you for years to come.

RCX400 10" #1008-40-01

10" (254mm) aperture
Advanced Ritchey-Chrétien
f/8 focal ratio (2032mm)
AutoStar II (180,000 object database)
16-Channel Sony® GPS Receiver
Ultra-Wide Series 5000™ 24mm eyepiece
UHTC™ Optical Coatings included
84 lbs net weight, less tripod
18.5" x 13" x 34.5" OTA and Mount
8 C batteries (user supplied)
Slew Speed: 2x sidereal to 8.5°/sec in 9 increments
Guide Speeds: 0x and 2x

RCX400 12" #1208-40-01

12" (305mm) aperture
Advanced Ritchey-Chrétien
f/8 focal ratio (2438mm)
AutoStar II (180,000 object database)
16-Channel Sony® GPS Receiver
Ultra-Wide Series 5000™ 24mm eyepiece
UHTC Optical Coatings included
94 lbs net weight, less tripod
20.38" x 16" x 36" OTA and Mount
8 C batteries (user supplied)
Slew Speed: 2x sidereal to 8.5°/sec in 9 increments
Guide Speeds: 0x and 2x

RCX400
10" 12"

RCX400 14" On Tripod: #1408-40-01

14" (356mm) aperture
Advanced Ritchey-Chrétien
f/8 focal ratio (2845mm)
AutoStar II (180,000 object database)
16-Channel Sony® GPS Receiver
Ultra-Wide Series 5000™ 24mm eyepiece
UHTC Optical Coatings included
121 lbs net weight, less tripod
23.5" x 19" x 38.75" OTA and Mount
8 C batteries (user supplied)
Slew Speed: 2x sidereal to 8.5°/sec in 9 increments
Guide Speeds: 0x and 2x

RCX400 16" On Tripod: #1608-40-01

16" (406.4mm) aperture
Advanced Ritchey-Chrétien
f/8 focal ratio (3251mm)
AutoStar II (180,000 object database)
16-Channel Sony® GPS Receiver
Ultra-Wide Series 5000™ 24mm eyepiece
UHTC Optical Coatings included
250 lbs net weight, less tripod
31.5" x 22" x 47.25" OTA and Mount
8 C batteries (user supplied)
Slew Speed: 2x sidereal to 8.5°/sec in 9 increments
Guide Speeds: 0x and 2x

16" is also available on AZ Pier, EQ Pier, or Fork Mount w/o Tripod. See meade.com for details.

RCX400
14" 16"

RCX400 16" MAX MOUNT On Tripod: #1608-MAX-01

16" (406.4mm) aperture
Advanced Ritchey-Chrétien
f/8 focal ratio (3251mm)
AutoStar II (180,000 object database)
16-Channel Sony® GPS Receiver
Ultra-Wide Series 5000™ 24mm eyepiece
UHTC Optical Coatings included
643 lbs net weight (mount and tripod)
12 VDC, 5 amp power supply required
Slew Speed: .01 sidereal to 2°/sec in 115 increments
Guide Speeds: 0x and 2x

16" on MAX w/AZ Pier: #1608-MAX-02

RCX400 20" MAX MOUNT On Tripod: #2008-MAX-01

20" (4064mm) aperture
Advanced Ritchey-Chrétien
f/8 focal ratio (4046mm)
AutoStar II (180,000 object database)
16-Channel Sony® GPS Receiver
Ultra-Wide Series 5000™ 24mm eyepiece
UHTC Optical Coatings included
670 lbs net weight (mount and tripod)
12 VDC, 5 amp power supply required
Slew Speed: .01 sidereal to 2°/sec in 115 increments
Guide Speeds: 0x and 2x

20" on MAX w/AZ Pier: #2008-MAX-02

RCX400
16" 20"
MAX MOUNT

For a full list of specifications go to www.meade.com. Specifications are subject to change without notice.

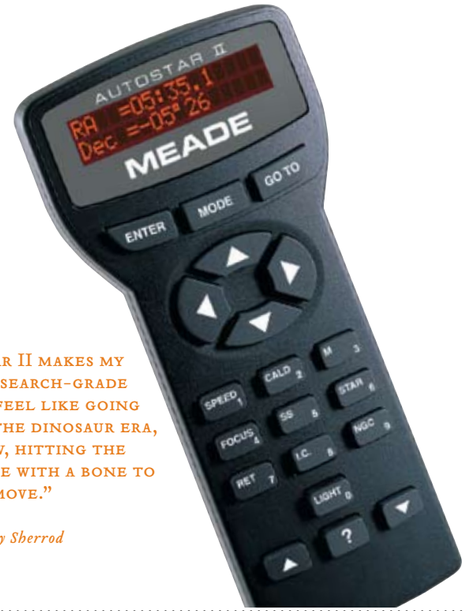
AutoStar® II

EXHIBIT | 7

150,000 objects and an equally staggering number of features.

AutoStar II's database of over 150,000 deep sky treasures (over 180,000 in RCX400 scopes) is by far the largest collection of targets in the commercial telescope industry. It's enough material for a lifetime of deep space study for even the most serious astronomer. But the AutoStar II controller also supports observatory-class LX200™ and RCX400™ functions that help you make the most of that extensive database.

Just a handful of those features include: GoTo capability to any RA and Dec. coordinates, a 200-object user-defined library, custom-guided tours, Smart Drive™ permanent periodic error correction, electronic focus control, 185 different slew speeds, 7 alignment modes, and any of 2000 custom tracking rates. Plus AutoStar II is fully upgradable online, with custom tours, satellite tracking info, and new capabilities available on a regular basis.



"AutoStar II makes my other research-grade systems feel like going back to the dinosaur era, you know, hitting the telescope with a bone to make it move."

– Dr. P. Clay Sherrod

Precise mechanical control at your fingertips.

The AutoStar II controller is your push-button portal to astrophotography essentials like Smart Mount™ and Smart Drive™ (see pg.92), which have helped the LX200 series become the most widely used astrophotography platform in astronomy today. The relatively new RCX400 series offers even more advanced features via AutoStar II; like digital focusing, 9 focus presets, and electronic collimation (see pg. 93). The RCX400's AutoStar II database is even expanded to over 180,000 objects.

AutoStar II Database

OBJECTS	SOURCE
5,386	Galaxies, nebulas, and star clusters. The complete Index Catalog (IC).
7,840	Galaxies, nebulas, and star clusters. The complete New General Catalog (NGC).
109	Best objects for small telescopes from the Caldwell Catalog.
110	Messier objects. The complete Messier catalog.
26	Earth-orbiting satellites.
9	Planets. All the major ones from Mercury to dwarf planet Pluto.
12,940	Uppsala Galaxy Catalog.
12,939	Morphological Catalog of Galaxies.
29,364	General Catalog of Variable Stars and other variable stars.
42,277	SAO and Hipparcos Star Catalogs.
21,160	Draper Star Catalog (HD).
8,977	Yale Bright Star Catalog (HR).
1,055	Large Bright Quasars Survey (LBQS).
4,313	Named Objects.
400	Herschel Catalog.
2,712	Abell Catalog of Galaxy Clusters.
635	Arp Catalog of Irregular Galaxies.
1,754	Lunar features.
120	Asteroids and Comets.
88	Centroids of the constellations.
492	Solar/Lunar eclipses, meteor showers.

Wireless AutoStar® II

Cut the cord. And still connect with the universe. Sometimes a few extra steps of freedom amount to a quantum leap. Whether you're busy at your laptop taking astrophotographs, or just sharing the view with a friend, the Wireless AutoStar II lets you control your telescope with unprecedented freedom. Available as an accessory (see pg. 143).

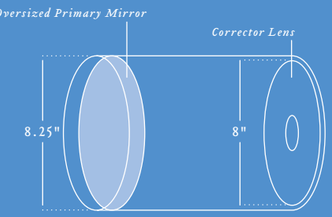
EXHIBIT | 8 Oversized Primary Mirrors

Meade's oversized primary mirrors capture the lost light.

Light that travels millions or even billions of years to get here is precious stuff. To have a ray of light spend that much time traveling across the universe only to enter your telescope and miss the primary mirror is a shame. That's why Meade Instruments designs and manufactures the primary mirrors in its compound telescopes in diameters larger than their listed aperture—something no other commercial manufacturer does. This yields a wider field of view than competing standard-sized primary mirrors. In fact, Meade Schmidt-Cassegrains have off-axis field illuminations about 10% brighter than competing scopes. Meade believes you should see the light other telescopes leave behind.

MEADE PRIMARY MIRROR SIZES

MAKSUTOV-CASSEGRAINS					
LISTED APERTURE	90mm	125mm			
PRIMARY MIRROR SIZE	96mm	138mm			
SCHMIDT-CASSEGRAINS					
LISTED APERTURE	8"	10"	12"	14"	16"
PRIMARY MIRROR SIZE	8.25"	10.38"	12.38"	14.57"	16.38"
ADVANCED RITCHEY-CHRÈTIENS					
LISTED APERTURE	8"	10"	12"	14"	16"
PRIMARY MIRROR SIZE	8.25"	10.38"	12.38"	14.57"	16.38"



Meade compound scopes are 10% brighter off-axis than competing scopes.

LIGHT IS PRECIOUS STUFF.

From precise manufacturing methods to advanced optical coatings, Meade does all it can to ensure that light from distant objects doesn't make the long journey across time and space only to enter your telescope and never make it to your eyepiece. Oversized primary mirrors are an innovation so simple, we can't believe we're the only company that produces them. A 10% increase in off-axis illumination may not sound like much to the novice. But to the passionate, it's priceless fossil light.

.06

MAX ROBOTIC MOUNT. The last mount you'll ever need.

MAX MOUNT™
GERMAN
EQUATORIAL
MOUNT

MAX Mount w/Tripod: # MAX-00
MAX Mount w/AZ Pier: # MAX-02
MAX Mount w/o Tripod or Pier: MAX-01

For 16" and 20" RCX400 and
MAX Mount combinations see pg. 85

"MAX is unquestionably the finest German Equatorial Mount I have ever used. It delivered my dream of a professional quality observatory at home."

— John Hoot, Astronomer/Beta-tester

"Views through the 20" are absolutely breathtaking. The spiral arms of M51 were extremely bright and clearly defined. It very easily equaled my 25" f/5 reflector."

— Jack Newton, Astrophotographer

"The MAX is like a German Tank crafted by Swiss watchmakers. No matter the payload, it glides from target to target with pinpoint accuracy."

— John Hoot, Astronomer/Beta-tester

Behold Meade's MAX German Equatorial Mount. A behemoth instrument in a class all its own. In a single, bold stroke, Meade has given the world a production mount that competes with the most expensive custom installations. Now any school or university (and many private individuals) can afford a true professional quality observatory mount.

Even with its massive payload capacity (500 lbs including counterweights), the Max tracks as smoothly and accurately as if it were carrying a feather. Astronomer John Hoot says, "I can shoot two-minute exposures without guiding and get pinpoint stars." The MAX's multiple attachment points let you load it up with wide-field astrographs, video indexing cameras, DSLRs, etc. without affecting tracking accuracy.

Outfit your state-of-the-art MAX Mount™ with a 16" or 20" RCX400 Advanced Ritchey-Chrétien Optical Tube Assembly and you have an observing system that rivals custom installations that cost three to five times more. It's the first fully integrated system of its kind and, as one astrophotographer put it, "the Max is a gift to the astronomical community."

Aperture. Aperture. Aperture. 16" and 20" available. See pg. 78-99 for details on Meade's revolutionary RCX400 Advanced Ritchey-Chrétien optics. The MAX Mount is available with 16" and 20" (half-meter) versions of this revolutionary new flat-field instrument—enough aperture for serious astronomical research. A well-sited 20" RCX400 will reach magnitude 19 with a Meade Deep Sky Imager™ in less than 1 minute. A.

500 Pound Total Capacity. The MAX blows away every other production mount on the market. This means you can add guide scopes, wide-field instruments, spectrographs, heavy cameras and coolers to your mount with confidence. B.

13.625" Dual Drive Gears with 652 Teeth. More teeth means more torque. And because the worm turns more quickly, periodic error decreases in proportion to the tooth count. MAX has roughly half the periodic error of competing 360-tooth mounts. C.

Periodic Error As Low As 2 Arc Seconds. Periodic error of about 2 arc seconds is better than the seeing condition on most nights. For serious astrophotographers, snap shooters, supernova hunters, asteroid researchers, variable star studies and other research projects, the MAX Mount is point-and-shoot. GoTo pointing accuracy with SmartMount™ is sub arc minute. D.

Interchangeable Quick Release Dovetail Plates. Swapping scopes takes only about two minutes. Simply slew scope down for access, loosen two handles (no tools required), swap scopes, then use MAX's computer-assisted balancing and quick release counterweights to get back to work in a hurry without losing alignment. Compare that to competing mounts with their milled and drilled plates, Allen wrenches, and lots of time. E.

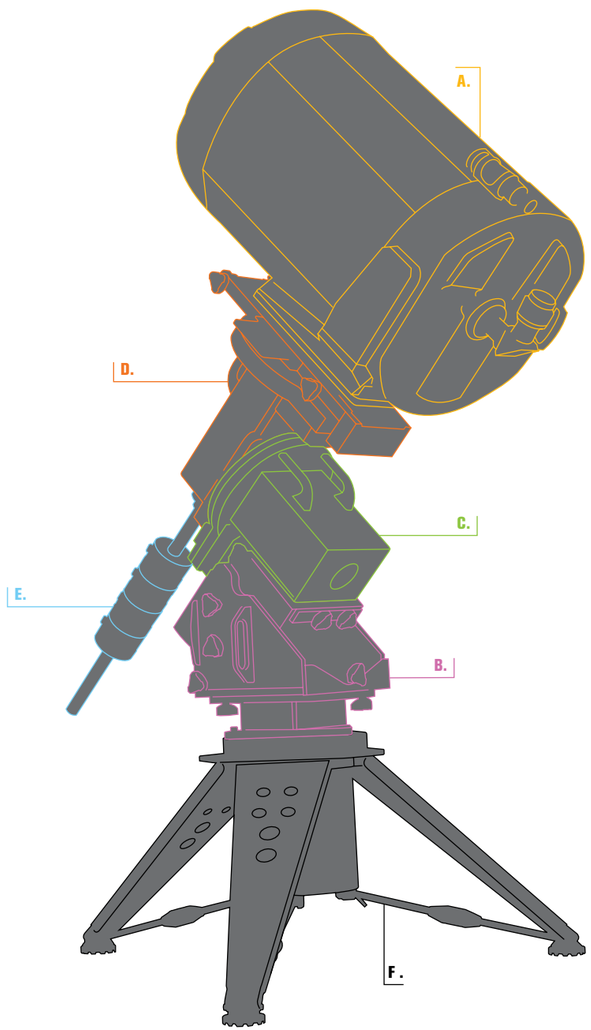
Internal Cabling. The MAX puts all the controls you need for your OTA and modern cameras up on the saddle plate to allow a cable-free installation of most instruments. Competing mounts make you get out your fish tape and pull cables through the RA and DEC axes yourself (or call an electrician). F.

0-90° Latitude. MAX Mounts can be used anywhere on earth from Pole to Pole. No other maker of heavy-duty mounts can make this claim. G.

Expanded AutoStar Suite™ software with Network and Web Control. AutoStar Suite version 4.0 gives you a complete turnkey observatory control system at no added cost. Control your scope remotely via web browser from any remote PC, Macintosh, PDA or even cell phone without installing new software. Easily operate your scope anywhere from the classroom to the hotel room. H.

MAX MOUNT™ COMPONENTS. Massive. Modular. Mobile.

MAX MOUNT
GERMAN
EQUATORIAL
MOUNT



For a detailed MAX Mount Q & A, visit meade.com/maxmount/faqs.html

Specifications are subject to change without notice.

The MAX Mount's unique modular design allows two or three people to assemble (and/or transport) a mount twice the size of any previously available commercial mount. Because its components fit easily into a station wagon, SUV, minivan or small truck, the MAX represents the world's most portable permanent observatory (a very desirable contradiction in terms).

Massive Optical Tube Assembly. In recent years, Meade's 16" Schmidt-Cassegrain on a fork mount has become the ubiquitous scope of choice for serious amateurs, colleges, and universities. The new MAX Mount means these same individuals and institutions can own a coma-free Advanced Ritchey-Chrétien with either 16" or 20" of aperture (a full half-meter!). A search of astronomical literature indicates the vast majority of good science is produced by telescopes in the half-meter to one-meter class. **A.**

Pedestal Assembly. MAX's rock solid pedestal assembly represents the perfect marriage between stability and adjustability. Standard field adjustments can be made quickly and easily (without tools) with MAX's ergonomic adjustment knobs. The pedestal assembly can easily be configured to cover three altitude ranges without disassembly. This makes the MAX the only mount in its class that can operate anywhere on the planet. **B.**

Right Ascension Housing Assembly. The RA Housing mates to the Pedestal easily by sliding firmly into a 100 square inch dovetail block. When locked into place, this broad footprint assures your mount will operate as a single rigid block for accurate and repeatable pointing and tracking. The RA Housing contains Meade's proven AutoStar® II telescope control system and a massive 13.625" pitch diameter worm gear built to handle gigantic loads. **C.**

Declination Housing Assembly. The DEC Housing mates to the RA Housing using another huge dovetail block. When locked in place, the mount is one single rigid structure ready to point your instrument anywhere in the universe with phenomenal accuracy. The mount can cover the whole sky, tracking more than 6 degrees past the meridian (prime seeing area) without interference. In addition to quick-change dovetail plates for your primary OTA, generous wing mounts allow you to attach a variety of secondary instruments without interfering with MAX's "all sky" design. **D.**

Counterweights. MAX counterweights are beautifully crafted with sure locking, quick release buttons. Add MAX electronic balancing and you can balance your scope quickly and get back to work. **E.**

Tripod or Pier Assembly. The MAX tripod can be transported or permanently installed. Its wide stance will safely carry MAX's massive payload in all orientations. But it will still collapse down to a size that's easy to handle. Like the MAX, it sets up, knocks down, and adjusts without tools. The MAX pier is exclusively for permanent installations. It too can handle the MAX's payload in all orientations and withstand vibration. Pier height must be specified at time of order. **F.**

Other notable pointing and tracking features.

+ Computer-assisted squaring of your optical axis.
+ Photographic polar alignment eliminates the need for drift alignment.
+ No clutches or worm releases means no extra alignment, even if you switch instruments during an observing run.

Advanced Pointing and Tracking

EXHIBIT | 9

OBSERVATORY–LEVEL PRECISION.

Smart Drive.™ Permanent Periodic Error Correction.
Meade's SmartDrive technology allows Permanent Periodic Error Correction (PPEC) on both axes that offers an observatory standard of precision of 5 arc seconds or less. Because no worm gear is perfect, no matter how precisely it is manufactured, small inconsistencies will always occur in the drive system of any telescope. Meade's Smart Drive allows you to train your telescope's software to automatically compensate for these tiny periodic errors in the worm/gear system. This will bring your telescope's tracking accuracy up to a level consistent with the world's top observatories. The programming is stored forever, independent of any power source, yet may be erased, updated or averaged with future programming if you choose.

High-Precision Pointing (HPP). Finding objects too faint to see.
This feature is most helpful to astrophotographers interested in imaging objects too faint to be confirmed with the naked eye. Or those who want to place an item dead center on a very small CCD chip. When you turn this feature on and ask the scope to slew to an object, the scope will first slew to a star right next to the object and ask you to center that star perfectly. The star is likely to be perfectly centered already (that's how accurate Meade telescopes are). But once you have confirmed the star's precise location, the scope will slew to the nearby deep sky object and place it exactly in the center of your field of view. For normal observing, this level of precision isn't necessary (a Meade scope will center objects anyway). But HPP gives you the confidence to kick off a two-hour long imaging sequence without even visually confirming a faint object's existence!

Smart Mount.™ Added accuracy for permanent installations.
By constantly refining pointing accuracy every time an object is centered and updated, Smart Mount helps targets fall in the center of the field-of-view or the CCD chip every time. Smart Mount is mostly a tool for people who do high-volume automated astronomy (such as supernova searches). Say, for example, you want your telescope to follow an imaging script and shoot pictures of various galaxies throughout the night unattended; Smart Mount ensures every galaxy will be dead center.

"MEADE TELESCOPES ARE DESIGNED FOR EVERYONE FROM THE CASUAL VISUAL OBSERVER TO THE MOST DEMANDING SCIENTIFIC RESEARCHER, WITH THE DEDICATED ASTROPHO-TOGRAPHER IN THE MIDDLE. NO COMPARABLY PRICED SCOPE WILL POINT OR TRACK BETTER."

– John Hoot, San Clemente, CA

ASTROPHOTOGRAPHY: CHUCK DOMARAKI / NGC 6992 - VEIL NEBULA / DSI PRO II

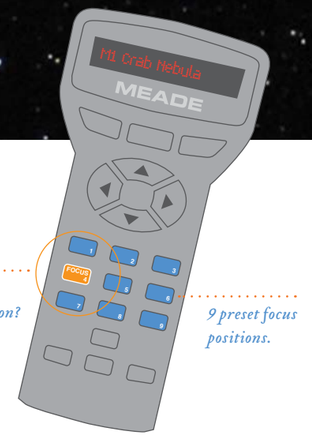
EXHIBIT | 10

Electronic Focus & Collimation

ELECTRONIC FRONT FOCUSING.

Try RCX400 focusing once and you'll never go back.
Focusing the RCX400 is radically different from traditional telescopes. The first thing you need to know is that the entire front cell (lens and secondary) moves to focus the telescope, not the primary mirror. This single, patent-pending innovation eliminates any trace of image shift and refocusing that has dogged other optical designs like Schmidt-Cassegrains (of all makes) for decades. To focus, the front cell is moved digitally by three encoder-controlled motors in increments as fine as 1/1000 of a millimeter. Focusing is easy with a single key press on the AutoStar® II controller. A digital readout of the focus position lets you see positions and repeat them for different eyepieces or camera set-ups. You can preset up to nine focus positions and repeat them at will.

Our new focusing system has its fans. Astrophotographer Jason Ware says, "Front focusing makes it very, very nice. I'll set up for the night, start imaging, and once my focus looks good, there are many nights I don't re-focus for the rest of the night. I'll move all over the sky and not have to re-focus." Sky & Telescope says, "Everything is done with internal motors; there are no add-on accessories. You operate everything from the hand control without ever touching the telescope. After spending a few minutes learning to operate the focusing system, I fell in love with it... The scope(s) I tested had almost no image shift as the focus direction was reversed. And there was no focus or image shift as the telescope was moved around the sky."



Precise focus? Easy collimation? Push a button.

9 preset focus positions.

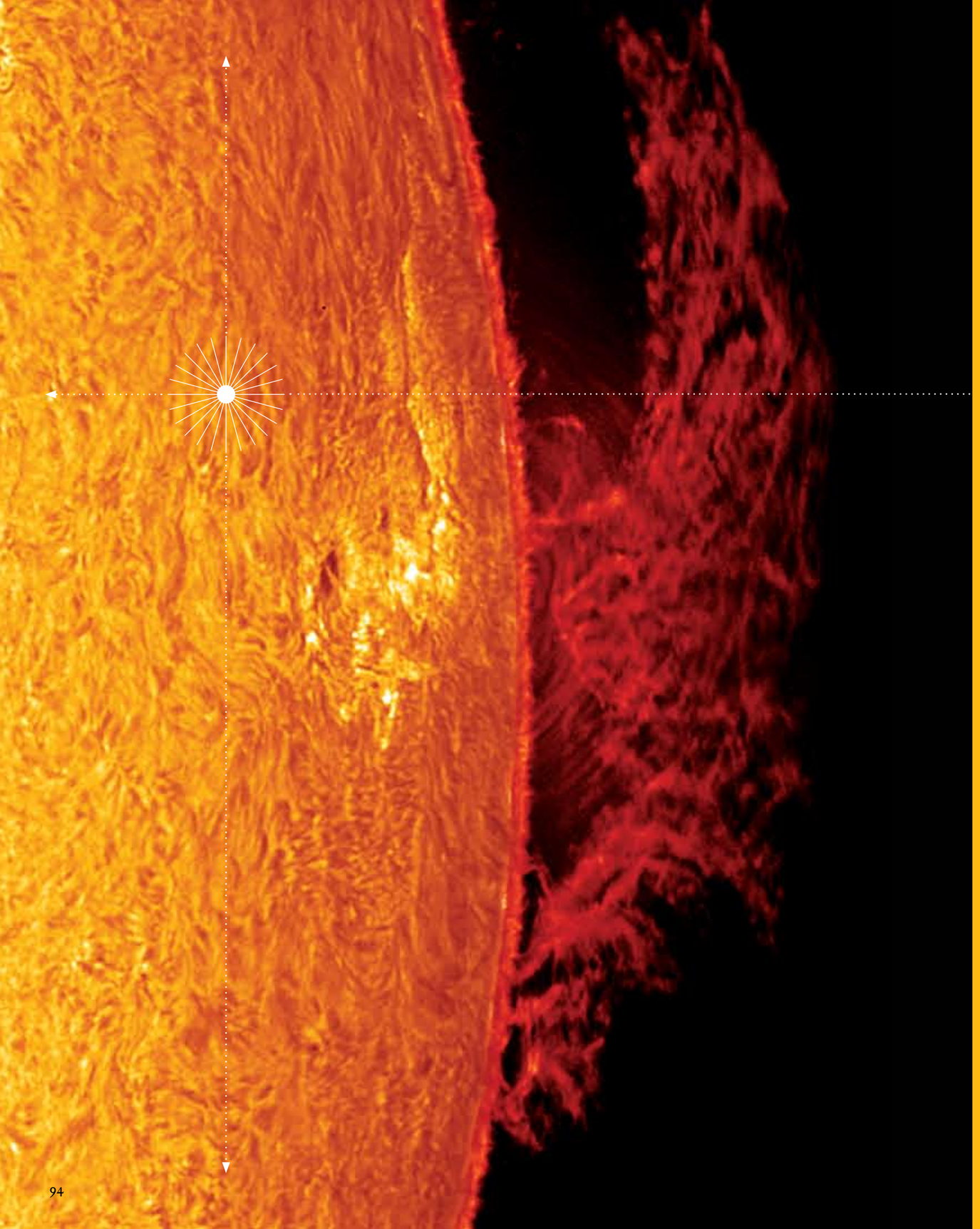
ELECTRONIC COLLIMATION.

Always essential. Now it's easy too.
Dr. P. Clay Sherrod says, "Perfect collimation [alignment] of optics is absolutely the key to great contrast and resolution with any compound telescope." Now the RCX400 makes collimation something you can do with the push of a button. Sky & Telescope says, "While I rarely needed to collimate the RCX400 during my months of testing, I found the system very easy-to-use. All the instructions for adjusting collimation are displayed on the hand control, so you don't have to refer to the manual." Indeed, collimation has never been easier. Sky & Telescope adds, "you don't ever have to worry about screwing up the collimation, since there's a default setting you can return to with the press of a button."

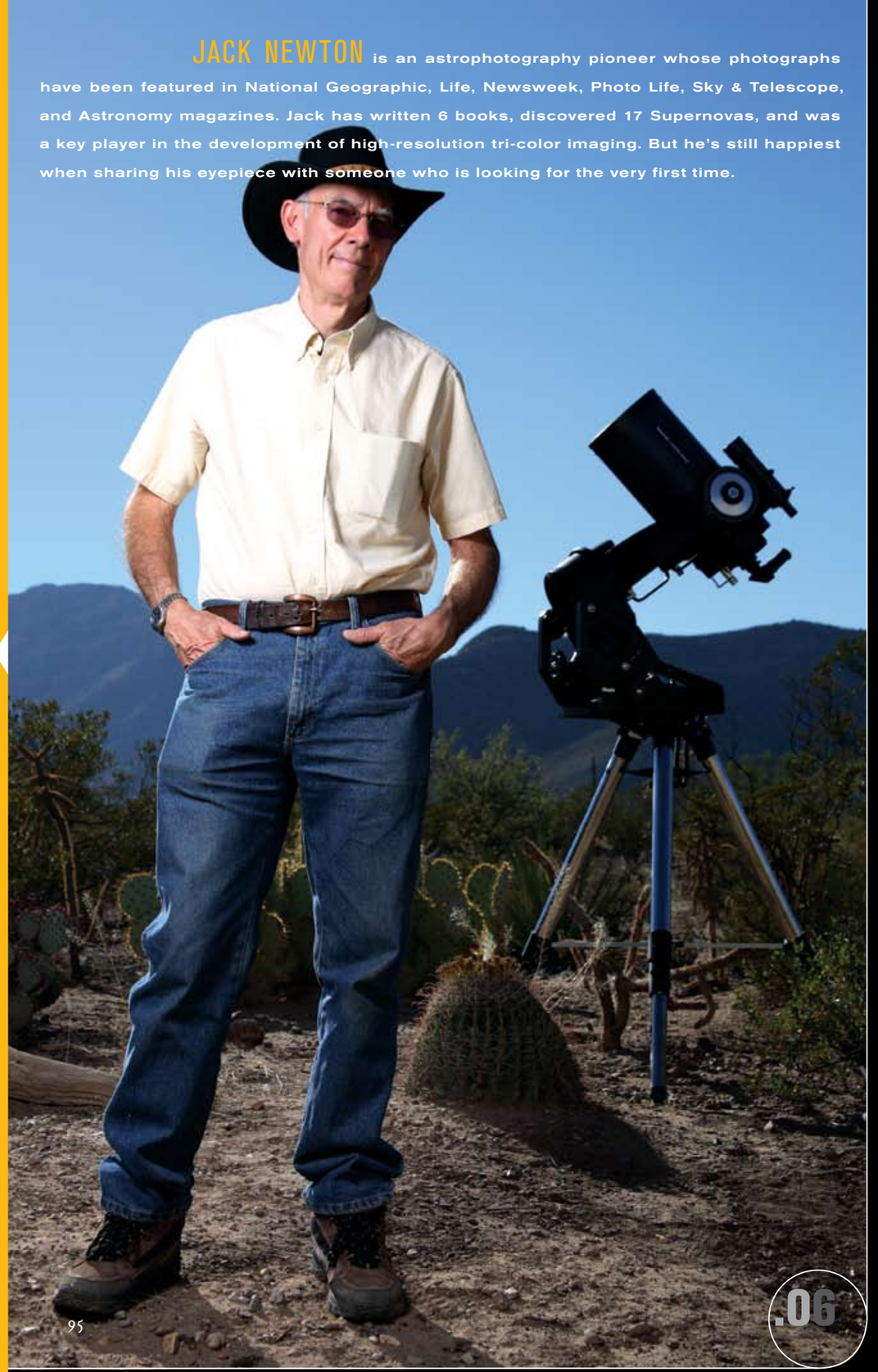
"AS AN IMAGER THE RCX400 REALLY SHINES. THE ELECTRIC FOCUSER IS A DREAM TO USE."

– Astronomy Magazine

ASTROPHOTOGRAPHY: JASON WARE / M1 - CRAB NEBULA / RCX400

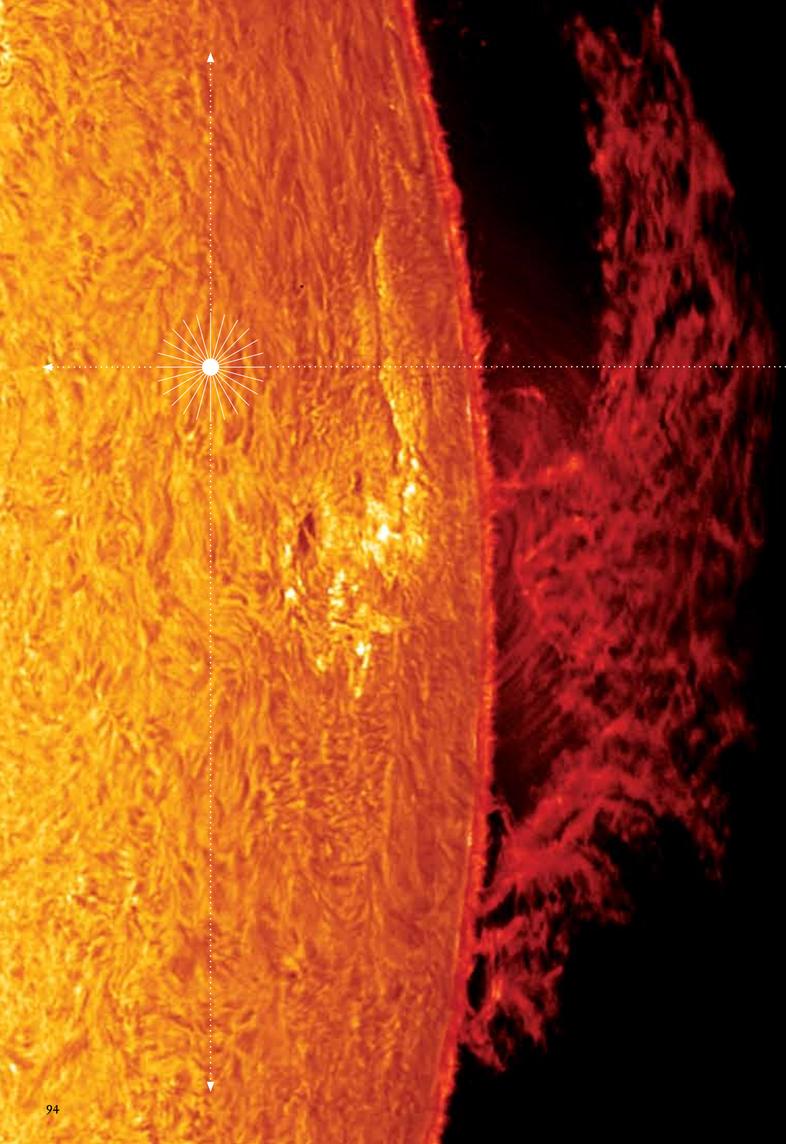


JACK NEWTON is an astrophotography pioneer whose photographs have been featured in National Geographic, Life, Newsweek, Photo Life, Sky & Telescope, and Astronomy magazines. Jack has written 6 books, discovered 17 Supernovas, and was a key player in the development of high-resolution tri-color imaging. But he's still happiest when sharing his eyepiece with someone who is looking for the very first time.



.06

RCX400™



"IN SHARING THE JOYS OF ASTRONOMY I'VE LEARNED TO EXPECT OOHS, AAHS, AND EVEN MORE COLORFUL LANGUAGE."

There are a lot of things that really move you in astronomy. More often than not, it's giving people their first chance to look through a telescope.

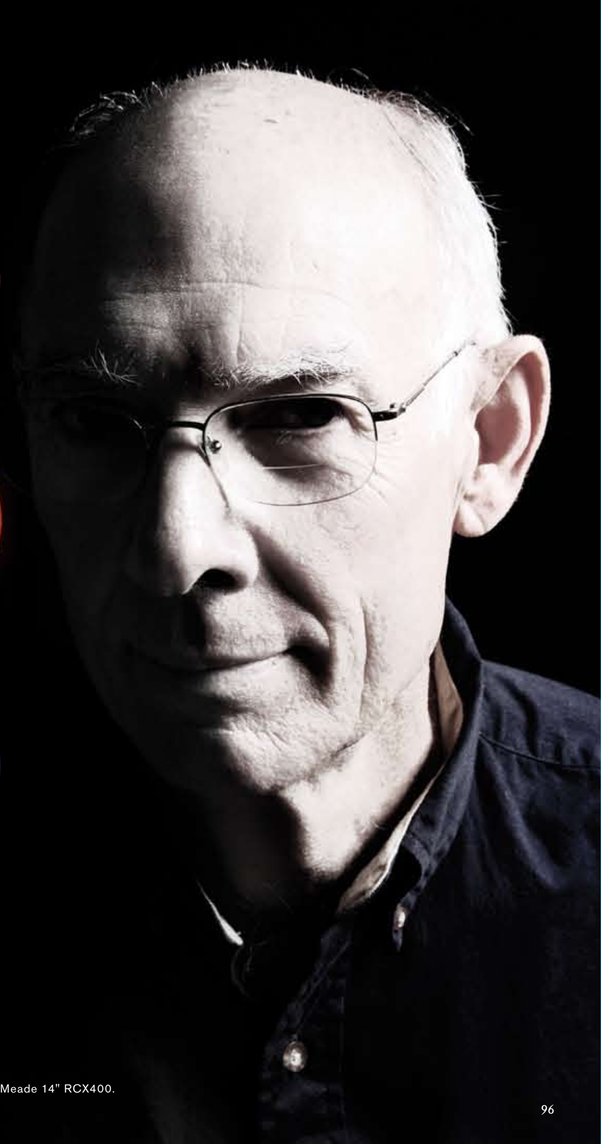
I teach astrophotography at our Bed and Breakfast. So I get to see the look on people's faces when they take their first astrophotograph. They absolutely shake with excitement. You get people who will write you a letter and say, "you've changed my life." One woman cried when she saw her photo of the Andromeda Galaxy.

But even better things happen when I let people look through the eyepiece. One very young child, couldn't have been more than six or seven, came to our Observatory B&B with his parents. They were visiting from the U.K. He was up on the stepladder with Saturn in view. When he saw the rings, he hauled off and squealed out a swear word. It wasn't a very bad one. But it shocked the parents so that he gulped when he saw their reaction. The poor kid was just so excited. It does your heart wonders.

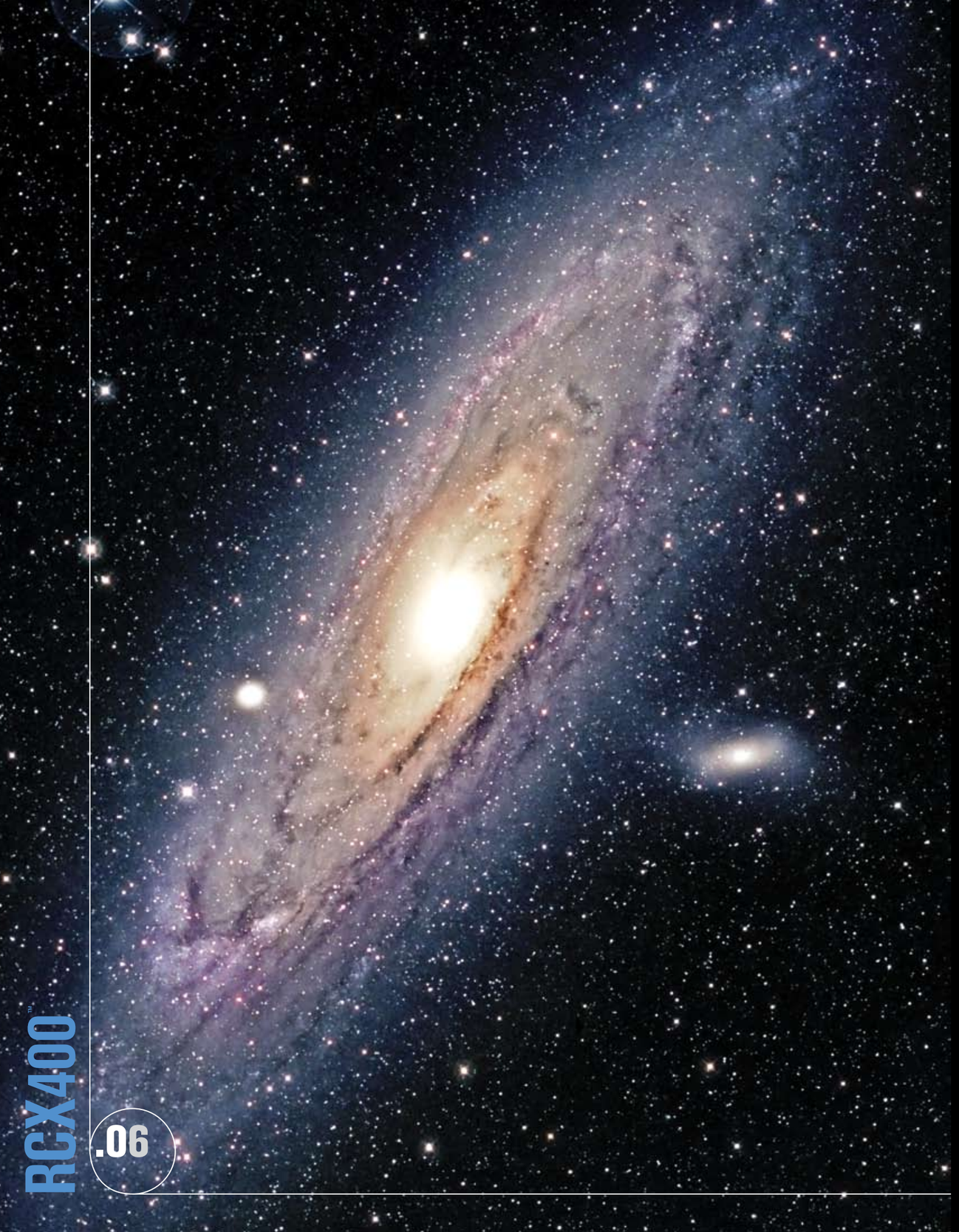
The greatest joy I've had was probably discovering my first supernova. Because at that moment, it hits you that you're going down in history with your name on an object. Since then, I've discovered 16 more. That opens the door to just about any observatory in the world. They know who I am from all these discoveries and welcome me with open arms. So I'm fulfilling my dream of contributing to science in a meaningful way.

But my first love is still teaching. We just can't do enough. I've always felt that someday many years from now, maybe some Senator will sign the check because Jack Newton showed him Saturn when he was a little boy. That would be payoff. Big time. We need that next generation of space telescopes up there.

Sometimes I wish I could have a few minutes at the eyepiece with every person in the world. Because that's what astronomy really comes down to: People and pure joy.



Jack has shot thousands of images with his two Meade 16" LX200s and is currently expanding his horizons with a Meade 14" RCX400.



“THE FIRST TIME I SAW A GALAXY
(that wasn’t a picture in National Geographic)
I GOT A LUMP IN MY THROAT.”

Of course, then my wife looked in the telescope and said, “That’s pretty cool. How long are we going to be out here?” That’s typical for most people. I’m drawn to astronomy for the appreciation of what you’re looking at: A galaxy with a hundred billion stars, forty million light years away. But if you’re drawn to it for the visual beauty, astrophotography is your key to the hobby.

The total automation of the RCX400 makes astrophotography accessible to millions of regular people like me. I mean, you can do these 6-hour long exposures and still have a life. I’ll kick off a sequence and go do something else. The scope’s in my backyard working away, and I’m off playing in a hockey game. Or some nights I go to bed. I wake up and have a whole series of images to process the next day. Sometimes I check up on my scope’s progress remotely by doing a VNC session on my Trio cell phone. It’s just phenomenal what amateurs are doing these days. I have these friends who are always saying, “Someday, I’m going to own a telescope.” Well there’s never been a better time.

— JASON WARE , ASTROPHOTOGRAPHER OPPOSITE PAGE / JASON WARE / M31 - ANDROMEDA GALAXY / MEADE 12" SCHMIDT CAMERA

JASON WARE / MOON / RCX400

JASON WARE / M8 - LAGOON NEBULA / RCX400