



CASSINI™
TRACKER
ASTRONOMICAL REFLECTOR
TELESCOPE SERIES

#C-80080TR #C-1100102TR #C-1000120TR
#C-1000120TREF #C-900135TR



COSMO BRANDS INC.
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CASSINI REFLECTING TELESCOPE OPERATING INSTRUCTIONS

INTRODUCTION

THIS TELESCOPE HAS BEEN PRODUCED TO PRECISE SPECIFICATIONS.

PRIOR TO USING YOUR NEW CASSINI TELESCOPE, PLEASE READ THE FOLLOWING SETUP AND USAGE INSTRUCTIONS. IT IS IMPORTANT TO PROPERLY ASSEMBLE YOUR TELESCOPE IN ORDER TO ALLOW IT TO FUNCTION PROPERLY.

USE THE TELESCOPE FOR TERRESTRIAL (LAND) VIEWING BEFORE ATTEMPTING TO VIEW ASTRONOMICAL OBJECTS. THIS WILL FAMILIARIZE YOU WITH HOW POWERFUL EACH EYEPIECE WILL BE, AS WELL AS INTRODUCE YOU TO THE FUNCTIONS OF YOUR ACCESSORY LENSES.

THE IMAGE YOU SEE WILL BE UPSIDE DOWN AND BACKWARD. THIS IS DUE TO THE FACT THAT YOUR TELESCOPE IS AN ASTRONOMICAL TELESCOPE AND HAS BEEN MANUFACTURED FOR ASTRONOMICAL OBSERVATIONS. IN ASTRONOMICAL VIEWING, THERE IS NO UP OR DOWN, NO RIGHT OR LEFT.

WE RECOMMEND YOU BEGIN WITH THE LOWEST POWER EYEPIECE (25MM). WHEN USING THE HIGHEST POWER EYEPIECE (10MM), YOUR POWER WILL BE HIGHER, BUT THE IMAGE WILL APPEAR DARKER; THIS IS DUE TO THE BASIC PHYSICAL PROPERTIES OF THE TELESCOPE. THE HIGHER THE POWER YOU USE THE DARKER THE IMAGE WILL APPEAR AND YOUR VIEWING FIELD WILL BE MORE NARROW.

PLEASE BE PATIENT WHEN USING YOUR TELESCOPE. IT IS A VERY SENSITIVE INSTRUMENT THAT IS CAPABLE OF USING HIGH POWERS. HOWEVER, THE MORE POWER YOU USE, THE MORE SENSITIVE THE TELESCOPE BECOMES. AS A RESULT, THE SLIGHTEST MOVEMENT OF THE TELESCOPE COULD CAUSE YOU TO LOSE THE IMAGE YOU HAVE IN YOUR EYEPIECE. PRACTICE WILL ENABLE YOU TO KNOW HOW MUCH MOVEMENT TO EXPECT WITH EACH EYEPIECE AND IT'S CORRESPONDING POWER.



GETTING THE MOST FROM YOUR TELESCOPE

TAKE THE TIME TO BECOME FAMILIAR WITH YOUR NEW TELESCOPE. LEARN THE NAMES OF THE VARIOUS PARTS, WHERE THEY ARE LOCATED AND THEIR FUNCTION. IT IS THE BEST TO PERFORM THESE FUNCTIONS DURING THE DAY TIME.

WHEN SETTING UP FOR A VIEWING SESSION, PLACE THE TELESCOPE IN AN AREA SHELTERED FROM THE WIND IF POSSIBLE. THE BEST NIGHT TIME VIEWING WILL BE AWAY FROM CITY LIGHT AND WHEN THE ATMOSPHERE IS "STEADY".

WITH A LITTLE PRACTICE YOU WILL LEARN TO JUDGE WHEN VIEWING CONDITIONS ARE GOOD. LOOK FOR THE NIGHTS WHEN THE STARS SHINE BRIGHTLY WITH LITTLE OR NO TWINKLING.

USE LOW POWER TO TAKE ADVANTAGE OF THE WIDER FIELD OF VIEW AND BRIGHTER IMAGE. RESERVE YOUR HIGH POWERS FOR THE NIGHTS WHEN THE VIEWING CONDITIONS ALLOW FOR DETAILED OBSERVATIONS.





ACCESSORIES

- A. FULLY ADJUSTABLE ALUMINUM TRIPOD



- B. EYEPIECES(DIFFERENT IN EACH P/N TELESCOPE)
TAKE C-80080TR FOR EXAMPLE:
25MM = 32X LOWEST POWER/BRIGHTEST IMAGE
10MM PLÖSSL = 80X HIGHER POWER/LESS BRIGHTEST



- C. 3X BARLOW.
USED TO INCREASE THE POWER OF ANY GIVEN EYEPIECE BY 300%. FOR
EXAMPLE THE 25MM IS 32X POWER AND WITH THE 3X BARLOW IT IS 96X
POWER



- D. MARS-EYE ELECTRONIC FINDER:
USED TO LOCATE OBJECTS PRIOR TO USING MAIN TELESCOPE.
PLEASE NOTE YOU MUST ALIGN THE FINDER WITH THE MAIN
TUBE PRIOR TO INITIAL ASTRONOMICAL OR TERRESTRIAL USE.



- E. 1.25 INCH HELICAL RACK & PINION FOCUSER.
ALLOWS FOR PRECISE FOCUSING.



- F. TRACKER MOUNT



NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.



ACCESSORIES

G. VERTICAL ADJUSTMENT.



H. HORIZONTAL ADJUSTMENT.



I. CASSINI CD-ROM
STELLARIUM
FROM ANY LOCATION YOU CAN SEE THE SKY AS IT APPEARS AT
ANY TIME OF DAY, OR EVEN IN THE FUTURE.



#C-1000120TREF ONLY

J. ELECTRONIC FOCUSER
IMAGE STABILIZING ELECTRONIC FOCUSER WITH HELICAL
RACK & PINION FOCUSING. ALLOWS FOR PRECISE FOCUSING.



INCLUDES: WIRELESS HANDBOX



NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.



CASSINI REFRACTOR TELESCOPE ASSEMBLY INSTRUCTIONS

CAUTION: NEVER POINT YOUR TELESCOPE AT THE SUN. VIEWING THE SUN WITH THIS TELESCOPE OR EVEN THE UNAIDED EYE CAN RESULT IN BLINDNESS OR OTHER SERIOUS EYE DAMAGE.

1. REMOVE PRE-ASSEMBLED TRIPOD

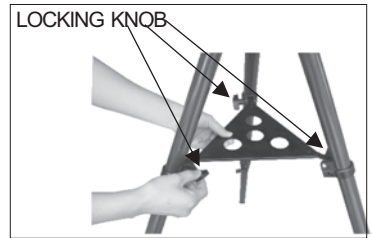
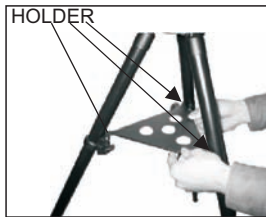
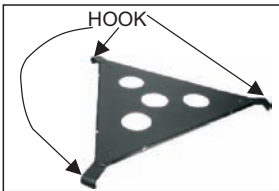
2. ADJUST TRIPOD TO PROPER HEIGHT BY LOOSENING, ADJUSTING AND TIGHTENING THE LOCKING KNOBS.



3. ATTACH TRACKER MOUNT TO TRIPOD. (AS SHOWN) REMOVE CONNECTING KNOB FROM BOTTOM OF THE MOUNT. PLACE THE MOUNT ON TOP OF THE TRIPOD AND RECONNECT THE KNOB.



4. ATTACH ACCESSORY TRAY



ACCESSORY TRAY

- (1) SPREAD TRIPOD LEGS APART SO THE TRAY WILL FIT UNDERNEATH
- (2) PLACE THE TRAY'S HOOK OVER THE HOLDER'S METAL ROD AND PUSH DOWN
- (3) TIGHTEN THE HOLDER'S LOCKING KNOB TO HOLD THE ACCESSORY TRAY IN PLACE

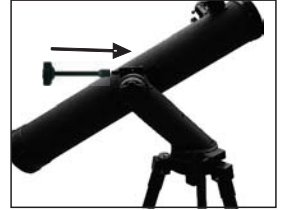
5. ATTACH THE TELESCOPE TO THE TRACKER MOUNT. LOOSEN CONNECTING TRACK KNOB AT THE TOP OF THE TRACKER MOUNTING BRACKET. SLIDE THE TELESCOPE INTO AND CENTER IT IN THE MOUNTING BRACKET. TIGHTEN THE CONNECTING KNOB.



6. LOOSEN SCREWS ON MARS-EYE ELECTRONIC FINDER AND SLIDE ONTO BRACKET. TIGHTEN ATTACHMENT SCREWS. (PLEASE SEE FURTHER INSTRUCTIONS ON MARS-EYE FINDER).



7. ATTACH VERTICAL ADJUSTMENT TO TRACKER MOUNT.



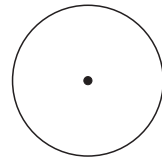
8. ATTACH HORIZONTAL ADJUSTMENT TO TRACKER MOUNT.



9. REMOVE CAPS WHEN TELESCOPE IS IN USE, AND REPLACE WHEN NOT IN USE. THIS WILL KEEP THE TELESCOPE'S OPTICS CLEAN.



10. THE COLLIMATION SPOT ON THE PRIMARY MIRROR IS FOR THE OPTICAL ALIGNMENT OF THE TELESCOPE, AND IS NOT A DEFECT.





CASSINI REFLECTING TELESCOPE





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ASTRONOMICAL REFLECTOR
TELESCOPE SERIES

MODEL	MODEL SPECIFICATION	EYEPIECES	BARLOW	FOCUSER
C-80080TR	800×80MM	KF25MM PL10MM	3x BARLOW	1.25 INCH METAL FOCUSER
C-1100102TR	1100×102MM	KF25MM PL10MM	3x BARLOW	1.25 INCH METAL FOCUSER
C-1000120TR	1000×120MM	KF25MM PL10MM	3x BARLOW	1.25 INCH METAL FOCUSER
C-1000120TREF	1000×120MM	KF25MM PL10MM	3x BARLOW	1.25 INCH ELECTRONIC FOCUSER
C-900135TR	900×135MM	KF25MM PL10MM	3x BARLOW	1.25 INCH METAL FOCUSER



REFLECTING TELESCOPE

HOW TO USE EYEPIECES & ACCESSORIES

PROPER PLACEMENT OF THE EYEPIECES AND ACCESSORIES ARE IMPORTANT IN ORDER TO ASSURE EASY OPERATIONS AND CLEAR VIEWING.

PLEASE CONSIDER USING YOUR ACCESSORIES IN THE FOLLOWING ORDER. BY DOING THIS YOU WILL BETTER UNDERSTAND THE IMPACT EACH INDIVIDUAL ACCESSORY HAS ON THE FUNCTION OF YOUR TELESCOPE.



1. FOCUSING TUBE - TURN FOCUSING WHEELS TOWARD THE TELESCOPE UNTIL IT WILL GO NO FURTHER. TO FOCUS BEGIN TO TURN THE FOCUSING KNOBS TOWARD YOUR BODY, SLOWLY, UNTIL THE IMAGE IS CLEAR. NOTE: YOU MUST HAVE AN EYEPIECE INSERTED IN ORDER TO VIEW IMAGE. PLEASE READ FURTHER.



2. EYEPIECE INSERTION - INSERT AN EYEPIECE INTO THE RECEIVING END OF THE FOCUSING TUBE. WE SUGGEST YOU ALWAYS BEGIN WITH THE LOWEST POWER EYEPIECE (25MM). THE LOWER THE NUMBER ON THE EYEPIECE, THE HIGHER THE POWER YOUR TELESCOPE WILL BE USING. ALSO AS YOU INCREASE YOUR POWER YOU WILL DECREASE THE FIELD OF VIEW AND THE BRIGHTNESS OF YOUR TELESCOPE. WE SUGGEST YOU ALWAYS USE THE LOWEST POWER REQUIRED TO VIEW YOUR SUBJECT.



3. BARLOW LENS - THE BARLOW LENS IS USED TO ACHIEVE THE MAXIMUM POWER FROM YOUR TELESCOPE. INSERT THE BARLOW DIRECTLY INTO THE FOCUSING HOUSING, THEN INSERT AN EYEPIECE INTO THE RECEIVING END OF YOUR BARLOW LENS. REMEMBER YOU WILL HAVE TO READJUST YOUR FOCUSING DUE TO THE FACT THAT YOU HAVE INCREASED THE POWER OF YOUR TELESCOPE.

HOW TO USE EYEPIECES & ACCESSORIES



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PLEASE CONSIDER USING YOUR ACCESSORIES IN THE FOLLOWING ORDER. BY DOING THIS YOU WILL BETTER UNDERSTAND THE IMPACT EACH INDIVIDUAL ACCESSORY HAS ON THE FUNCTION OF YOUR TELESCOPE.



CAUTION:

CLUTCH KNOB MUST BE LOOSE IN ORDER TO FOCUS WITH LEFT FOCUSING KNOB. DO NOT TRY TO FOCUS WITH CLUTCH KNOB TIGHT. (FOR MANUAL FOCUSING ONLY.)

1. FOCUSING TUBE - TURN FOCUSING KNOB (LEFT SIDE) TOWARD THE TELESCOPE UNTIL IT WILL GO NO FURTHER. TO FOCUS MANUALLY BEGIN TO TURN THE FOCUSING KNOB TOWARD YOUR BODY, SLOWLY, UNTIL THE IMAGE IS CLEAR. NOTE: YOU MUST HAVE AN EYEPIECE INSERTED IN ORDER TO VIEW IMAGE. RIGHT SIDE IS CLUTCH KNOB



TIGHTEN CLUTCH KNOB WHEN USING THE WIRELESS HANDBOX TO FOCUS.*

2. EYEPIECE INSERTION - INSERT AN EYEPIECE INTO THE RECEIVING END OF THE FOCUSING TUBE. WE SUGGEST YOU ALWAYS BEGIN WITH THE LOWEST POWER EYEPIECE (25MM). THE LOWER THE NUMBER ON THE EYEPIECE, THE HIGHER THE POWER YOUR TELESCOPE WILL BE USING. ALSO AS YOU INCREASE YOUR POWER YOU WILL DECREASE THE FIELD OF VIEW AND THE BRIGHTNESS OF YOUR TELESCOPE. WE SUGGEST YOU ALWAYS USE THE LOWEST POWER REQUIRED TO VIEW YOUR SUBJECT. PROPER PLACEMENT OF THE EYEPIECES AND ACCESSORIES ARE IMPORTANT IN ORDER TO ASSURE EASY OPERATIONS AND CLEAR VIEWING.



3. BARLOW LENS - THE BARLOW LENS IS USED TO ACHIEVE THE MAXIMUM POWER FROM YOUR TELESCOPE. INSERT THE BARLOW DIRECTLY INTO THE FOCUSING HOUSING, THEN INSERT AN EYEPIECE INTO THE RECEIVING END OF YOUR BARLOW LENS. REMEMBER YOU WILL HAVE TO READJUST YOUR FOCUSING DUE TO THE FACT THAT YOU HAVE INCREASED THE POWER OF YOUR TELESCOPE.



4. 3X BARLOW LENS - IF YOU ARE CURRENTLY USING THE BARLOW LENS, REMOVE IT BEFORE INSERTING THE ERECTING LENS. INSERT THE ERECTING LENS DIRECTLY INTO THE FOCUSING TUBE, THEN PLACE THE EYEPIECE INTO THE RECEIVING END OF THE ERECTING LENS.



MARS-EYE ELECTRONIC FINDER MOUNTING & ALIGNMENT



WWW.CASSINTELESCOPES.COM/VIDEO/MARSEYE01 VIDEO.HTML

TO MOUNT:

- 1) REMOVE MARS-EYE ELECTRONIC FINDER FROM BOX.
- 2) LOOSEN THUMB SCREWS ON SIDE OF FINDER AND SLIDE FINDER ONTO DOVETAIL MOUNT LOCATED AT TOP OF MAIN TELESCOPE TUBE.
- 3) TIGHTEN THUMB SCREWS.

TO CHECK ALIGNMENT WITH MAIN TELESCOPE: (IMPORTANT!)

- 1) THE MARS-EYE ELECTRONIC FINDER IS NOT PRE-SET AT FACTORY. THE FOLLOWING WILL ALLOW YOU TO ADJUST THE ALIGNMENT.
- 2) DURING THE DAY LIGHT HOURS, AIM THE MAIN TELESCOPE AT AN OBJECT AT LEAST 1/4 MILE OR MORE IN THE DISTANCE AND BRING IT INTO FOCUS.(VERY IMPORTANT)
- 3) ONCE YOU HAVE CENTERED THE REFERENCE ITEM IN THE MAIN TUBE, TIGHTEN ALL KNOBS AND ADJUSTMENTS TO PREVENT ANY MOVEMENT.
- 4) REMOVE CIRCULAR BATTERY SAVER LOCATED BENEATH FRONT OF FINDER (BE SURE TO SAVE AND REPLACE THE BATTERY SAVER WHEN NOT IN USE.)
- 5) TURN FINDER ON BY SLIDING ON/OFF SWITCH FORWARD. ON/OFF SWITCH IS LOCATED ON THE RIGHT SIDE OF THE FINDER.



- 6) LOOK THROUGH THE FINDER AND LOCATE THE RED DOT.
- 7) IF THE OBJECT IN THE MARS-EYE FINDER IS NOT THE OBJECT YOU SEE THROUGH THE MAIN TELESCOPE TUBE, ADJUSTMENT IS REQUIRED.
- 8) TO MOVE THE RED DOT UP AND DOWN, SIMPLY TURN THE ELEVATION SCREW LOCATED ON THE REAR BOTTOM OF THE FINDER TO HEIGHT REQUIRED.
- 9) TO MOVE THE RED DOT LEFT AND RIGHT, SIMPLY TURN THE WINDAGE SCREW LOCATED AT THE FRONT LEFT SIDE OF THE FINDER TO THE PROPER POSITION.
- 10) THESE ADJUSTMENTS WILL ALLOW YOU TO POSITION THE RED DOT ON THE SAME OBJECT CENTERED IN THE MAIN TELESCOPE.





HOW TO USE THE CASSINI IMAGE STABILIZING ELECTRONIC FOCUSER

#C-1000120TREF ONLY

1. PUT THREE AAA BATTERIES INTO INTO BATTERY HOLDER.



2. INSERT BATTERY HOLDER INTO ELECTRIC FOCUSER COMPARTMENT.



3. CLOSE THE COVER



4. A. TIGHTEN THE RIGHT CLUTCH KNOB TO USE THE FOCUSER ELECTRONICALLY.

B. LOOSEN THE RIGHT CLUTCH KNOB TO USE THE FOCUSER MANUALLY (LEFT KNOB ONLY).

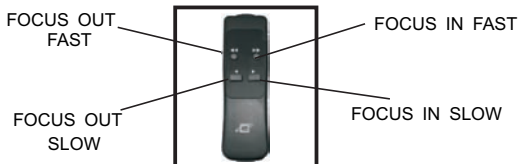
VERY IMPORTANT. SEE IMAGE



5. TURN ON THE ON-OFF SWITCH, THE INDICATOR WILL FLASH ONCE, ELECTRIC FOCUSER IS READY (ELECTRONIC FOCUS VERSION)



6. WIRELESS CONTROL BOX (ELECTRONIC FOCUS VERSION)





HOW TO USE THE CASSINI IMAGE STABILIZING ELECTRONIC FOCUSER

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7. USE WIRELESS CONTROL BOX TO CONTROL THE ELECTRIC FOCUSER. (MUST AIM TOWARD IR RECEIVER)



CAUTION: PLEASE REPLACE THE BATTERIES WHEN YOU SEE THE INDICATOR LIGHT OF ELECTRIC FOCUSER FLASHING CONTINUOUSLY, OR WHEN THE FOCUSING BECOMES IRREGULAR.

8. USE THE FAST FOCUS BUTTONS ON THE HANDBOX WHEN THE IMAGE IS NOT CLOSE TO FOCUS, AND USE THE SLOW BUTTONS WHEN YOU ARE CLOSE TO FOCUS AND THE FOCUS NEEDS TO BE FINE TUNED.



CASSINI TRACKER MOUNT LOCATING OBJECT

BEFORE LOCATING NEW OBJECT, RE-ALIGN YOUR VERTICAL AXIS



A. LOOSEN VERTICAL LOCKING KNOB ENOUGH TO WHERE TELESCOPE CAN BE MANUALLY ADJUSTED UP AND DOWN.



B. LOOSEN AZIMUTH LOCKING KNOB ENOUGH TO WHERE TELESCOPE CAN BE MANUALLY ADJUSTED LEFT AND RIGHT.

C. POINT YOUR TELESCOPE IN THE DIRECTION OF YOUR TARGET OBJECT, ZEROING IN USING THE MARS EYE RED DOT FINDERSCOPE. (SEE PAGE 14)
ONCE OBJECT IS LOCATED THROUGH THE MARS EYE FINDERSCOPE, TIGHTEN BOTH THE VERTICAL LOCKING KNOB AND AZIMUTH LOCKING KNOB FIRMLY.
DO NOT OVER TIGHTEN.



CASSINI TRACKER MOUNT LOCATING OBJECT

D. USING THE LOWEST POWER EYEPIECE (25 MM), LOOK THROUGH THE TELESCOPE TO SEE YOUR TARGET OBJECT.



E. IF THE OBJECT IS NOT CENTERED IN THE EYEPIECE, USE THE TOP FLEX CABLE (MICRO VERTICAL ADJUSTMENT) FOR PRECISE UP AND DOWN MOVEMENTS, AND THE BOTTOM FLEX CABLE (MICRO HORIZONTAL ADJUSTMENT) FOR PRECISE LEFT AND RIGHT MOVEMENTS TO CENTER YOUR TARGET OBJECT IN THE EYEPIECE.

REMEMBER AS THE EARTH ROTATES THE OBJECT WILL DRIFT OUT OF VIEW IN THE EYEPIECE. USE THE TOP AND BOTTOM FLEX CABLES TO MAKE SIMULTANEOUS UP/DOWN AND LEFT/ RIGHT MICRO ADJUSTMENTS TO KEEP YOUR TARGET OBJECT CENTERED IN YOUR EYEPIECE.



CASSINI TRACKER MOUNT LOCATING OBJECT

F. AS YOU MAKE UP/DOWN (VERTICAL) MICRO ADJUSTMENTS, BE CAREFUL TO MAKE SURE THE VERTICAL ADJUSTMENT GUIDE LINES DO NOT EXCEED THEIR PARAMETERS.

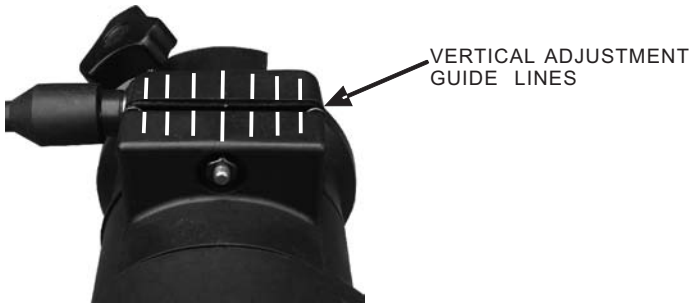


FIGURE 1.

G. WHEN THE GUIDE LINES APPEAR AS IN THE PICTURE BELOW, (FIGURE 2) RE-SET THE VERTICAL ADJUSTMENT USING THE TOP FLEX CABLE (MICRO VERTICAL ADJUSTMENT) TO MATCH FIGURE 1, THEN REPEAT STEP A. THROUGH STEP E.



FIGURE 2.



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CASSINI TM Limited One Year Warranty

We guarantee to replace or, at our option, repair any products or parts thereof which are found defective in material or workmanship during the first year from date of purchase. Our obligation with respect to such products or parts shall be limited to replacement or repair. In no event shall we be liable for consequential or special damages or for transportation, installation, adjustment, or other expenses which may arise in connection with such product or parts. The customer shall be responsible for all costs of transportation and insurance, both to and from CASSINI/COSMO BRANDS INC., and shall be required to prepay such costs. No expenses, warranties and implied warranties, whether or not merchantability of fitness for any particular use or otherwise (except as to title) other than these expressly set forth above which are made in writing and signed by executive officer of our corporation.

NO LIABILITY FOR CONSEQUENTIAL DAMAGES, IN NO EVENT SHALL THE MANUFACTURER OR ITS SUPPLIERS BE LIABLE FOR ANY DAMAGES WHATSOEVER. BECAUSE SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF THE POSSIBILITY FOR CONSEQUENTIAL OR INCIDENTAL DAMAGES, THE ABOVE LIMITATION MAY NOT APPLY TO YOU.

CASSINI TM

DIVISION OF COSMO BRANDS INC.

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**IF YOU NEED ANY FURTHER HELP WITH YOUR CASSINI TELESCOPE
PLEASE E-MAIL US AT CUSTOMERSERVICE@COSMOSOPTICS.COM**

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