



**CASSINI<sup>TM</sup>**

**MODEL: C-80EFS**

**800<sub>MM</sub> X 80<sub>MM</sub>**



**ASTRONOMICAL REFLECTOR  
W/ WIRELESS REMOTE  
STABILIZING FOCUS**

**COSMO BRANDS INC.  
WWW.COSMOSOPTICS.COM**



# CASSINI<sup>TM</sup> C-80EFS TELESCOPE OPERATING INSTRUCTIONS

## INTRODUCTION

CONGRATULATIONS ON YOUR PURCHASE OF THE CASSINI C-80EFS TELESCOPE.

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.

WE RECOMMEND YOU BEGIN WITH THE LOWEST POWER EYEPIECE (20MM) WHEN USING YOUR TELESCOPE. AS YOU INCREASE THE POWER TO 6MM 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 POWER. 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.



# CASSINI™ C-80EFS TELESCOPE ACCESSORIES

- A) 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.



- B) 3X BARLOW:  
USED TO INCREASE THE POWER OF ANY GIVEN EYEPIECE BY  
300%. EXAMPLE - 20MM EYEPIECE SEPARATELY PROVIDES 40X  
POWER, WHEN USED WITH THE 3X BARLOW, YOU NOW HAVE  
120X POWER.



- C) EYEPIECES:  
6MM EYEPIECE 133X (399X WITH 3X BARLOW)  
MOST POWERFUL - LEAST LIGHT  
20MM EYEPIECE = 40X (120X WITH 3X BARLOW)  
LEAST POWERFUL - MOST LIGHT



- D) IMAGE STABILIZING ELECTRONIC FOCUSER WITH HELICAL  
RACK & PINION FOCUSING.ALLOWS FOR PRECISE FOCUSING.



BATTERIES ARE NOT INCLUDED

- E) INCLUDED WITH THE ELECTRONIC FOCUSER IS THE  
WIRELESS HANDBOX.  
IT STABILIZES THE IMAGE BY ELIMINATING SHAKE.



- F) "CASSINI PLANETARIUM" CD ROM (PLUS INSTRUCTIONAL  
TELESCOPE VIDEO):  
FROM ANY LOCATION YOU CAN SEE THE SKY AS IT APPEARS AT  
ANY TIME OF DAY OR NIGHT, OR EVEN IN THE FUTURE. YOU  
CAN LEARN ASTRONOMICAL FACTS WITH NARRATED PHOTO-  
GRAPHS FROM THE HUBBLE SPACE TELESCOPE.



NOTE: SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT NOTICE.



# CASSINI<sup>TM</sup> C-80EFS 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 ALL PARTS FROM BOX AND IDENTIFY THEM.
  - TELESCOPE W/MOUNT ATTACHED
  - TRIPOD (PREASSEMBLED)
  - MARS-EYE FINDER
  - EYEPIECES (20MM & 6MM)
  - 3X BARLOW LENS
  - WIRELESS HANDBOX
  - ACCESSORY TRAY
  - CD-ROM

2. EXTEND TRIPOD LEGS EQUALLY AND TIGHTEN LOCKING KNOBS.

3. ATTACH THE TELESCOPE + MOUNT TO TRIPOD AS SHOWN  
DO NOT OVERTIGHTEN



4. ATTACH ACCESSORY TRAY (AS SHOWN).





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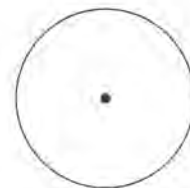
5. LOOSEN SCREW ON MARS-EYE FINDER AND SLIDE ONTO BRACKET. TIGHTEN ATTACHMENT SCREW. (PLEASE SEE FURTHER INSTRUCTIONS ON MARS-EYE FINDER).



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



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





# CASSINI™ C-80EFS TELESCOPE





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## HOW TO USE EYEPIECES & ACCESSORIES

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.



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 (20MM). 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.



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## MARS-EYE ELECTRONIC FINDER MOUNTING & ALIGNMENT

### 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.





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## USING THE BARLOW LENS

AS STATED EARLIER IN THE INSTRUCTIONS, THE BARLOW LENS INCREASES THE POWER OF THE EYEPIECES BY 3 TIMES.

TO USE SIMPLY INSERT THE BARLOW LENS INTO THE MAIN FOCUSING TUBE AND THEN PUT THE DESIRED EYEPIECE INTO THE RECEIVING END OF THE BARLOW LENS

PLEASE REMEMBER, THE HIGHER THE POWER YOU USE THE DARKER THE IMAGE WILL APPEAR.

### POWER CHART

EYEPIECE	POWER	POWER WITH 3X BARLOW
6MM	133X	399X
20MM	40X	120X

### 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 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 HIGHER POWERS FOR THOSE NIGHTS WHEN VIEWING CONDITIONS ALLOW FOR DETAILED OBSERVATIONS.



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## HOW TO USE THE CASSINI IMAGE STABILIZING ELECTRONIC FOCUSER

1. PUT THREE AAA BATTERIES INTO INTO BATTERY HOLDER.



2. INSERT BATTERY HOLDER INTO ELECTRIC FOCUSER COMPARTMENT.



3. CLOSE THE COVER



4. A. TIGHEN THE RIGHT CLUTCH KNOB TO USE THE FOCUSER ELECTRONICALLY.  
B. LOOSEN THE RIGHT FOCUSING 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



6. WIRELESS CONTROL BOX





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## HOW TO USE THE CASSINI IMAGE STABILIZING ELECTRONIC FOCUSER

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

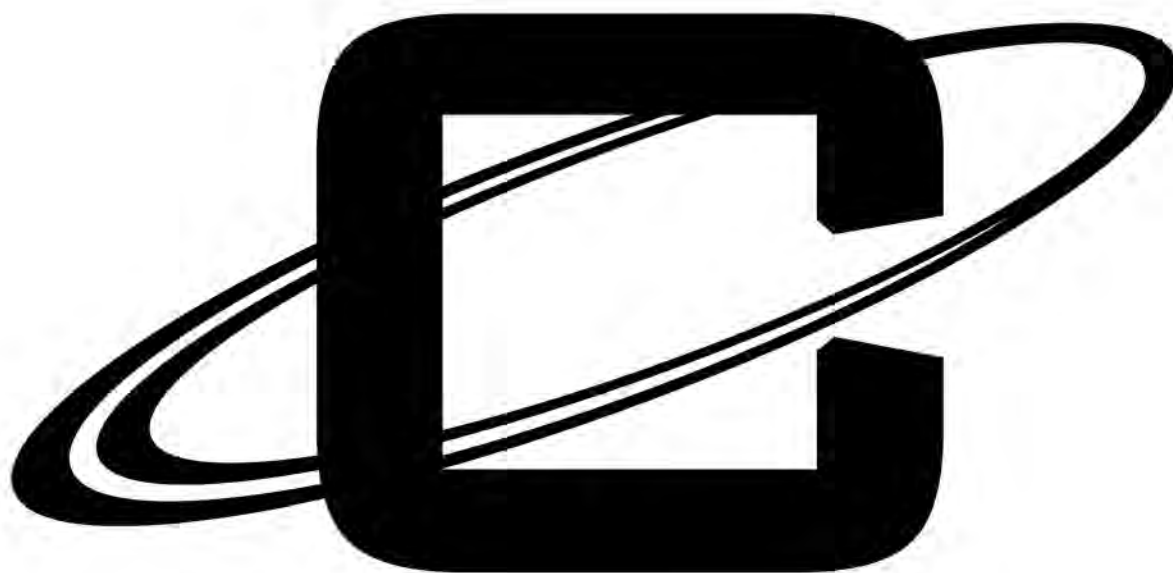


CAUTION: PLEASE REPLACE THE BATTERIES WHEN YOU SEE THE INDICATOR LIGHT OF ELECTRIC FOCUSER FLASHING CONTINUOUSLY, OR WHEN THE FOCUSING BECOMES IRREGULAR.

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.



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