This addendum accompanies the StarSense AutoAlign manual. Refer to this addendum to setup StarSense on your Sky-Watcher mount, including camera attachment and cabling to the relay box.

Once StarSense is setup on your mount, refer to the StarSense AutoAlign manual for all other functions which you will access in the hand control.

SYSTEM REQUIREMENTS

- SynScan compatible Sky-Watcher mount, such as the EQ6
- Cable used to connect your SynScan hand control to the mount
- Sky-Watcher compatible dovetail base for finder scope (will be used to attach the StarSense camera)
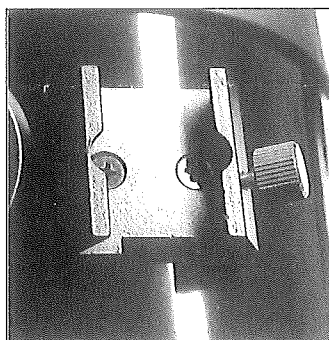
The StarSense hand control replaces the SynScan hand control.
Keep your SynScan cable, since this will be used to connect the relay box to the mount.

PARTS LIST

- StarSense camera
- StarSense hand control
- Relay box
- Large camera bracket (preinstalled on camera)
- Small camera bracket
- 6-pin cable, StarSense camera to auxiliary port relay box
- 4 mm Allen Wrench
- 2 thumbscrews for large camera bracket

ASSEMBLY

### ATTACHING THE STARSENSE CAMERA TO YOUR TELESCOPE

Most Sky-Watcher telescopes fit the small camera bracket. So you will need to remove the large camera bracket on StarSense.

To change from the pre-installed Large Camera Bracket to the Small Camera Bracket:

1. Slightly loosen the socket head screw using the included 4 mm Allen wrench. Do not remove the screw entirely.

2. Remove the lens shroud by unthreading it.
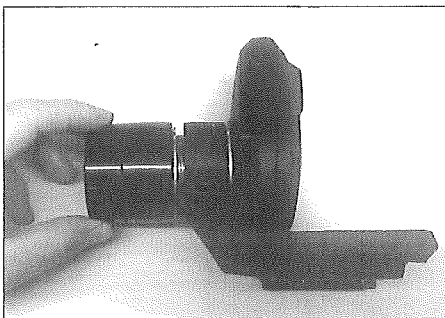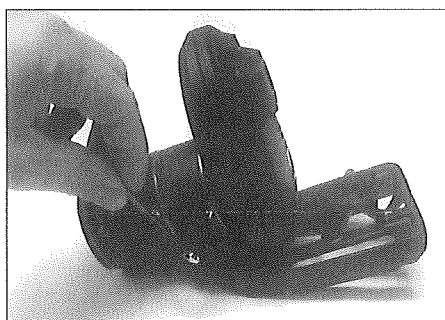
3. Slide the bracket off the front of the camera. Be careful not to lose the two orange rings.
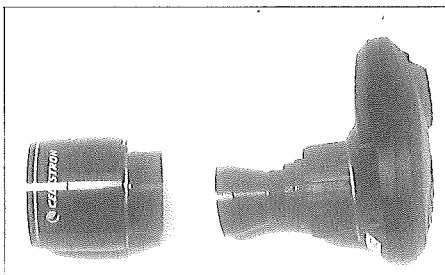

4. Slide the new bracket onto the camera and screw the lens shroud back on. Make sure each of the two orange rings are placed in front of and behind the bracket so they function as washers.
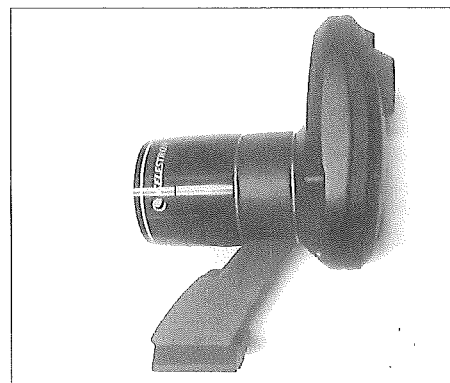
CONNECTING STARSENSE TO YOUR MOUNT

1. Secure the interface box to the tripod leg of your mount using the strap with the hook and loop fasteners.

2. Plug the 8-pin SynScan cable from the Interface Box to your mount. This is the cable that came with your Sky-Watcher mount that is normally used for your SynScan hand control.

3. Plug the included 6-pin cable from the Star Sense camera to the Interface Box.

4. Plug your StarSense hand control into the Interface Box.

5. Power the mount on as normal and begin using StarSense.
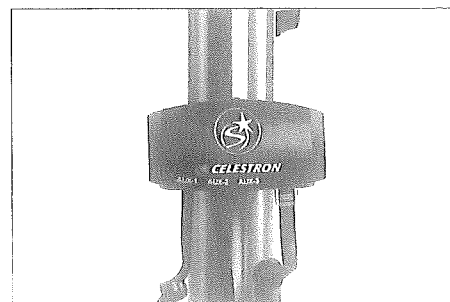
Turn the mount on, and StarSense will boot up. It will take several seconds for the camera to respond, then the hand control will display "StarSense Auto Press ALIGN to begin".

FOR MOUNTS THAT OPERATE IN BOTH EQUATORIAL AND ALTAZIMUTH MODES

If using the mount with StarSense for the first time, the hand control will prompt you with the mount mode selection: EQ or AZ.

You can switch modes at any time by pressing MENU → TELESCOPE → SETUP → ALIGN MODE

After your setup is complete, refer to the StarSense AutoAlign user manual to learn about the specific features of StarSense. This includes the calibrating the camera for the first time. The StarSense camera needs to know where the center of your telescope's field of view is in relation to the camera's center. This one-time calibration allows all subsequent StarSense automatic alignments to work without the need to center or align on a star.

OPTIONAL SKYSYNC GPS ACCESSORY

The additional AUX port can facilitate Celestron's SkySync GPS Accessory (#93969). Use of the optional GPS Accessory will eliminate the need to enter date, time and location information into StarSense.

CELESTRON TWO YEAR LIMITED WARRANTY

A. Celestron warrants your telescope mount to be free from defects in materials and workmanship for two years. Celestron will repair or replace such product or part thereof which, upon inspection by Celestron, is found to be defective in materials or workmanship. As a condition to the obligation of Celestron to repair or replace such product, the product must be returned to Celestron together with proof-of-purchase satisfactory to Celestron.

B. The Proper Return Authorization Number must be obtained from Celestron in advance of return. Call Celestron at (310) 328-9560 to receive the number to be displayed on the outside of your shipping container.

All returns must be accompanied by a written statement setting forth the name, address, and daytime telephone number of the owner, together with a brief description of any claimed defects. Parts or product for which replacement is made shall become the property of Celestron.

The customer shall be responsible for all costs of transportation and insurance, both to and from the factory of Celestron, and shall be required to prepay such costs.

Celestron shall use reasonable efforts to repair or replace any telescope mount covered by this warranty within thirty days of receipt. In the event repair or replacement shall require more than thirty days, Celestron shall notify the customer accordingly. Celestron reserves the right to replace any product which has been discontinued from its product line with a new product of comparable value and function.

This warranty shall be void and of no force of effect in the event a covered product has been modified in design or function, or subjected to abuse, misuse, mishandling or unauthorized repair. Further, product malfunction or deterioration due to normal wear is not covered by this warranty.

CELESTRON DISCLAIMS ANY WARRANTIES, EXPRESS OR IMPLIED, WHETHER OF MERCHANTABILITY OF FITNESS FOR A PARTICULAR USE, EXCEPT AS EXPRESSLY SET FORTH HEREIN. THE SOLE OBLIGATION OF CELESTRON UNDER THIS LIMITED WARRANTY SHALL BE TO REPAIR OR REPLACE THE COVERED PRODUCT, IN ACCORDANCE WITH THE TERMS SET FORTH HEREIN. CELESTRON EXPRESSLY DISCLAIMS ANY LOST PROFITS, GENERAL, SPECIAL, INDIRECT OR CONSEQUENTIAL DAMAGES WHICH MAY RESULT FROM BREACH OF ANY WARRANTY, OR ARISING OUT OF THE USE OR INABILITY TO USE ANY CELESTRON PRODUCT. ANY WARRANTIES WHICH ARE IMPLIED AND WHICH CANNOT BE DISCLAIMED SHALL BE LIMITED IN DURATION TO A TERM OF TWO YEARS FROM THE DATE OF ORIGINAL RETAIL PURCHASE.

Some states do not allow the exclusion or limitation of incidental or consequential damages or limitation on how long an implied warranty lasts, so the above limitations and exclusions may not apply to you.

This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Celestron reserves the right to modify or discontinue, without prior notice to you, any model or style telescope.

If warranty problems arise, or if you need assistance in using your telescope mount contact:
Celestron
Customer Service Department
2835 Columbia Street
Torrance, CA 90503
Tel. 800.421.9649
Monday-Friday 8AM-4PM PST

NOTE: This warranty is valid to U.S.A. and Canadian customers who have purchased this product from an authorized Celestron dealer in the U.S.A. or Canada. Warranty outside the U.S.A. and Canada is valid only to customers who purchased from a Celestron's International Distributor or Authorized Celestron Dealer in the specific country. Please contact them for any warranty service.

QUICK START: ALIGNING STARSENSE

Set up your telescope in a relatively unobstructed area that shows most of the sky. If you have obstructions like buildings or trees, StarSense will skip them during the auto alignment procedure.

Note: If your sky is heavily obstructed, please see "StarSense Manual Align".

Connect the StarSense Hand Control and camera to your telescope as described in Assembly. Remove the camera's dust cap.

1. Set your telescope up with an eyepiece and position the telescope in its home position or index marks. Equatorial mounts should be roughly polar aligned, but precise polar alignment is not required. Alt-Az mounts should have the altitude aligned to its index marks with the tube level to the ground.

2. Turn your telescope on. The StarSense Hand Control and Camera will boot up. In about 30 seconds, the Hand Control will display "StarSense Ready."

3. Press **ALIGN**, then select **STARSENSE AUTO** and press **ENTER**.

4. Press **BACK** to accept the time, date and location information. Press **ENTER** to edit the information.

5. Press **ENTER** to select **Location by City**. Choose your country and city by scrolling through the menus provided. Alternatively, you can enter your longitude and latitude by pressing the **OPTION** button on the lower left of your hand control's keypad. Press **ENTER** to move the underline cursor over to the next value.

OPTION Button

Once the location is entered, StarSense will check your telescope for information it may already have, such as GPS or site information saved from a Real Time Clock (RTC). If none of this information is available, StarSense will prompt you for time and date (this is primarily needed for locating Solar System Objects and establishing the horizons on EQ mounts). You only need to enter this information once for a given observing location.

6. When prompted with the **Select Time Source** screen, select the time source available for your telescope. StarSense will choose the best source found. A checkmark indicates which time source is selected. Press **ENTER** to continue.

7. Enter or confirm your local time and date. Press **ENTER** to move the cursor through the time and date fields.

Time is in 24-hour HH:MM:SS format. For example, 9:30 PM would be 21:30:00

Date is in MM/DD/YYYY format. For example June 14th, 2012 would be entered as 06/14/2012

Press **ENTER** to move the underline cursor over to the next value. To enter the time zone and to toggle DST (Daylight Savings) **YES/NO**, scroll **UP/DOWN** (also 6 and 9 keys) to make the selection, then press **ENTER**.

8. Confirm your telescope is positioned in its home position or index marks. Press **ENTER** when you see the "Set Align Start" screen.

StarSense will begin the alignment procedure. The telescope will begin moving to different areas of the sky automatically. The hand control will display "Acquiring Position," followed by "Acquiring Image," followed by "Sensing". Once sensing is complete, the number of stars found will be displayed. If no stars are found, a message "Too Few Stars" will display and StarSense will move the telescope to another region of sky.

Once StarSense has begun its alignment process, it is important not to touch or move the telescope in any way. Also, while imaging the sky, do not obstruct, cover or shine light into the camera lens.

After a successful automatic alignment, StarSense will display "Alignment Complete."

9. Press **ENTER** to continue.

FIRST TIME SETUP: CALIBRATE CENTER

The first time you use StarSense AutoAlign, StarSense needs to know the center of the telescope's field of view in relation to its camera. This one-time calibration process takes place inside the camera and will not require you to physically adjust the camera or your telescope. After you complete the calibration, you'll need to perform the StarSense Auto alignment again.

Before calibrating the center position of your telescope, a StarSense Auto (as outlined previously) or StarSense Manual alignment must first be performed. This allows your telescope to establish tracking and rough GoTo accuracy.

1. Press **STARS.** The first option shown is **Named** for named stars. Press **ENTER** to proceed.

2. Choose a named star from the list. For best results, choose a star that is at least magnitude 2 or less. Look at the bottom of the LCD for **Mag** and a value, such as **Mag : 1.8.** Use the **SCROLL** up/down buttons (also the 6 and 9 keys) to page through the list of named stars. Press **ENTER** to slew to the star. You do not need to know where the star is located. StarSense will slew the telescope to the star for you. It will be the brightest star in that region of sky.

3. Attach your widest angle/lowest power eyepiece to the telescope. Look through the eyepiece to see if the star is there. If you do not see the star in your eyepiece, proceed to step 4. If you can see the star, skip to step 5.

The hand control is now in coarse centering mode, which has a rapid slew rate.

4. Using the arrow keys on the hand control, move the telescope until the star appears in the eyepiece's field of view. Instead of looking through the eyepiece, try positioning your eye so that you create a line of sight down the barrel of the exterior of the telescope tube. Using this line of sight, point the telescope roughly at the star, then make

fine adjustments by looking through the eyepiece. Use the lowest power/widest-angle eyepiece available.

5. Press **ENTER**, once the star is in the field of view of your eyepiece.

The hand control is now in fine centering mode, which has a slow slew rate.

6. Switch to a higher power eyepiece if available. Center the star in the field of view. Make the final centering movements **UP** and **RIGHT**. A small checkmark will appear on the upper right screen when this is done. (This corrects any errors due to mechanical backlash in your mount.)

7. Press **ALIGN.**

StarSense will acquire a new image and note the offset of the star in the camera. A message will appear: **Solution Found** with a new center position displayed in coordinates on the camera.

8. Press **ENTER** to accept the new center reference. From this point forward, StarSense knows where the center of your telescope's field of view is in relation to the camera.

Do not move the StarSense camera after the center reference is established. As long as the camera does not get bumped, jarred, or rotated, you can remove the StarSense AutoAlign from your telescope and reattach it without recalibrating.

After this step is complete, a message will appear **Realignment Required.**

You can start a new alignment in the telescope's current position. There is no need to reset the telescope to its home position.

9. Now, perform another StarSense Auto alignment. When alignment is complete. your telescope is ready to view objects and StarSense will accurately locate them in your eyepiece's field of view.

STARSENSE MANUAL ALIGN

StarSense Manual alignment allows you to point the telescope in the part of the sky you wish to use for taking alignment images. This is particularly useful in locations where the horizon is obstructed or you have limited visibility. Manual StarSense Alignment is not as accurate as automatic alignment. However, it provides good pointing accuracy throughout the region of the sky that was used for the alignment.

To use StarSense Manual alignment:

1. With the telescope powered on, press the ALIGN button.

2. Use the UP/DOWN scroll keys to select StarSense Manual option and press ENTER.

3. Move the telescope to its home position or switch position. Alt-Az mounts should have the telescope pointing at the horizon. Equatorial mounts should be positioned to the index marks. Telescopes with switch postions will automatically move to the home switch positions.

4. Use the direction buttons to aim the telescope at a clear part of sky and press ENTER. When moving the telescope, remember to always finish slewing using the UP and RIGHT direction buttons on the hand control. A small checkmark will display at the right of the hand control display when this is done. (This corrects any errors due to mechanical backlash in your mount.)

StarSense will then begin taking the first image and will display "Acquiring Image" on the hand control display.

5. Once the image is captured and processed, the display will ask you to select the next alignment point. Use the direction buttons to slew the telescope to another clear portion of sky. Once

again, use the UP and RIGHT direction buttons to finish slewing the telescope. Press ENTER.

6. Once the second image is captured and processed, use the direction buttons to slew the telescope to a final clear portion of sky as far away as possible from the first alignment position. Press ENTER.

Once the third image is processed, StarSense is aligned and ready for use.

STARSENSE USER AUTO ALIGN

User Auto Align allows you to customize where StarSense points the telescope during alignment. This is useful if there are large portions of the sky that are obstructed or inaccessible. To setup the User Auto Align, you must first perform a StarSense Manual Align.

1. Perform a StarSense Manual Align as outlined in this manual. Select unobstructed areas of the sky that are at least 20 degrees apart.

2. Press MENU and use the UP/DOWN scroll keys to select STARSENSE. Scroll again to select USER AUTO ALIGN and press ENTER.

3. Press ENTER to save your StarSense Manual Align. This saves the areas of sky you selected so all subsequent StarSense User Auto Aligns will point to the same area.

Now you can use StarSense User Auto Align, and the telescope will automatically slew to the areas of sky you selected during the Manual Align.

IMPROVING POINTING ACCURACY WITH STARSENSE

Once your alignment is complete, StarSense can further enhance the pointing accuracy of your telescope by adding multiple alignment references. You can add up to 10 alignment reference points for extremely precise GoTo accuracy.

1. Press the **BACK** button until you see "StarSense Ready" on the display.

2. Press **ALIGN**. Add Align Ref will appear, then press **ENTER**.

3. Using the arrow keys, move the telescope several degrees away from its last alignment point. Remember to finish movement with the **UP** and **RIGHT** direction buttons. A checkmark will appear on the display to confirm this.

If you only intend to add one additional calibration reference point, then position the telescope in the area you are going to observe or image in.

4. Press **ENTER** and StarSense will acquire a new image and add the align reference point for a total of 10 reference points.

You can repeat this process up to 9 additional times in different regions of the sky. Adding calibration reference points improves the GoTo mount modeling, which accounts for flexure and other mechanical inaccuracies to provide the best possible pointing accuracy.

SOLAR SYSTEM ALIGN

Solar System Align provides good tracking and GoTo performance by using solar system objects (the Sun, Moon and planets) to align the telescope with the sky. Solar System Align is a great way to align your telescope for daytime viewing as well as a quick way to align the telescope for night time observing. Since the StarSense camera cannot detect celestial objects during the day, Solar System Align is done using the eyepiece.

WARNING

- Place cap over the camera lens! Since you may wish to use the Sun for your alignment, remember to place the cap over the camera lens to protect the imaging sensor.

- Never look directly at the Sun with the naked eye or with a telescope (unless you have the proper solar filter). Permanent and irreversible eye damage may occur.

1. Press the **ALIGN** button.

2. Use the **UP/DOWN** scroll keys to select Solar System Align from the alignment options and press **ENTER**.

3. Move the telescope to its home position or switch position. Alt-Az mounts should have the telescope pointing at the horizon. Equatorial mounts should be positioned to the index marks. Telescopes with switch postions will automatically move to the home switch positions.

4. Use the **UP/DOWN** scroll keys to select the Solar System object you wish to align and press **ENTER**.

The hand control will only display the solar system objects that are above the horizon for the day and time selected.

5. Following the prompts on the hand control. center the object in your eyepiece. Use the direction arrow buttons to slew the telescope to the alignment object. A finderscope or Star Pointer will help locate the object.

6. Press **ENTER** when the object is in the eyepiece's field of view. Then, center the object in the eyepiece and press **ALIGN**.

Once in position, StarSense will model the sky based on this information and display Alignment Complete.

Tips for Using Solar System Align

Once the telescope is aligned using Solar System Align, you have the option of adding additional alignment objects (either other planets or stars from the Named Star Catalog) to improve pointing accuracy. To add an alignment object:

1. Select the desired object from the Named Star or Solar System database and slew to it.

2. Press the **ALIGN** button on the hand control.

3. The display will ask if you want to add an alignment object or replace the existing one.

4. Select **ADD** to add the additional alignment object. If an additional object has already been added, then you have the option of replacing one of the existing objects with the new object.

5. Carefully center the object in the eyepiece. Start with coarse centering, press **ENTER**, then fine center using the **UP** and **RIGHT** buttons, then press **ALIGN**.

6. Press **ALIGN** to add the alignment object.

OTHER ALIGN FUNCTIONS

Save / Load Alignment: Allows you to save your alignment for future use or load a previous StarSense alignment.

To save an alignment:
1. When the hand control displays StarSense Ready, press **ALIGN**.

2. Scroll **UP/DOWN** (also the 6 and 9 keys) to select Save / Load Align and press **ENTER**.

3. Scroll **UP/DOWN** (also the 6 and 9 keys) to select the slot you wish to save under. There are 10 available save positions, 0-9.

4. Press **OPTION** (Celestron logo key on bottom left) and **ENTER** simultaneously to save the alignment.

The save name is a date code in YYMMDD HHMMSS format.

To load an alignment:
1. With StarSense powered on and booted up, press **ALIGN**.

2. Scroll **UP/DOWN** (also the 6 and 9 keys) to select Save / Load Align and press **ENTER**.

3. Scroll **UP/DOWN** (also the 6 and 9 keys to select the slot you wish to load.

4. Press **OPTION** (Celestron logo key on bottom left) and **ALIGN** simultaneously to load the alignment.

StarSense will need to sync the telescope position in the sky to restore your saved alignment.

5. Press **ENTER** when the hand controller displays **Sync Reference**.

6. Select **Camera** in the **Sync Reference** screen and press **ENTER**. Alternatively, you can scroll **UP/DOWN** and select **Switch** (requiring that you move the telescope to its home position) or **Index** position. Telescopes with switches will automatically move to their home switch position.

7. Slew the telescope to an open area of sky. Remember to finish the movement with the **UP** and **RIGHT** direction buttons. A small checkmark will appear on the upper right screen when this is done.

8. Press **ENTER**. StarSense will capture an image and complete the sync.

Quick Align: Sets the telescope home position as the sole reference point to determine where objects are in the sky based on the site information given. Use Quick Align for rough GoTo alignment. This can be useful if you want the telescope to be able to track without performing a full StarSense or Solar System alignment.

SYNC

Syncing on a star will shift the mount model to the star position. It will improve GoTo pointing in the region of sky close to the star you synced on. Sync can also be used if the mount was bumped or the clutches were loosened for either axis. Sync will restore the position of the StarSense GoTo without using the camera.

1. With a named star selected, press OPTION and ALIGN simultaneously.

2. Coarse center the star in your finder or eyepiece and press ENTER.

3. Fine center the star in your eyepiece, finishing in the UP and RIGHT directions and press ALIGN.

POLAR ALIGN

This feature aligns the mount through the hand controller, using any of the named stars in its database, essentially eliminating the need for a polar axis finder. Polar Align is use for Equatorial mounts, or wedge-mounted Altazimuth mounts only. Polar Align must be performed after a StarSense Auto or StarSense Manual Align. We recommend you also add multiple Cal Reference points to improve the mount model, thereby improving the polar alignment when adjustments are made to the mount.

1. After your mount's GoTo is aligned, Press ALIGN, scroll UP/DOWN, and select Polar Align and press ENTER.

2. The screen will display the polar alignment error of your mount. Press ENTER and select a named star from the list, then press ENTER to slew to that star.

3. The controller will prompt you to add a Cal Star to improve the accuracy, or you may press BACK to skip this step.

4. Adjust the mount by physically moving the alt-az adjustments. The direction buttons are locked out at this time to prevent accidentally moving the motors in the mount.

5. Press ENTER to complete the polar alignment. For best accuracy, perform another StarSense Auto alignment.

STARSENSE OVERVIEW
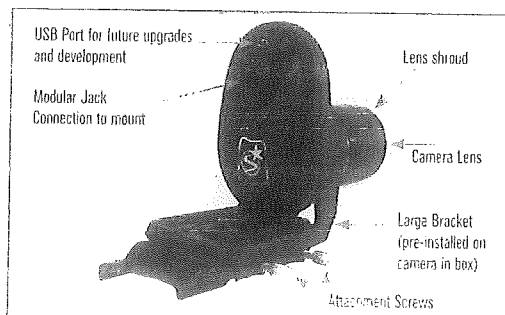
STARSENSE CAMERA

Modular Jack: Connects the StarSense Camera to your telescope using the provided cable.

USB Port: Available for future software development and camera firmware upgrades.

Camera Lens: A fully multi-coated 20mm f/2 lens responsible for capturing images to align the telescope.

Lens Shroud: Helps protect the lens from dew and peripheral light.

Large Camera Bracket: This bracket is preinstalled in the box with StarSense. The bracket can be removed and swapped with the smaller included bracket (see Assembly, Changing Brackets).

Camera Bracket Attachment Thumbscrews: Used with the large camera bracket.

STARSENSE HAND CONTROL

StarSense AutoAlign's hand control gives you instant access to the night sky. With automatic slewing to over 40,000 objects and common sense menu descriptions, even a beginner can master its features in just a few observing sessions. Below is a brief description of the individual components of the StarSense hand control:
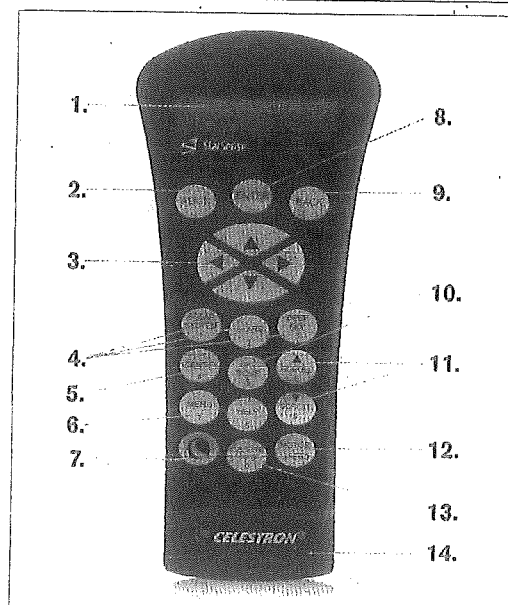
1. **Liquid Crystal Display (LCD) Window:** Features a four-line, 18-character display screen that has red backlighting for comfortable viewing.

2. **ALIGN:** Instructs StarSense to begin alignment of your telescope.

3. **Direction Buttons:** Used to manually slew your telescope in any direction and center objects in the eyepiece.

4. **Catalog Buttons:** StarSense has a key on the hand control to allow direct access to each of the main catalogs in its 40,000+ object database. StarSense contains the following catalogs in its database: Solar System, Stars, and Deep Sky.

5. **IDENTIFY:** Searches StarSense's databases and displays the name and offset distances to the nearest matching objects.

6. **MENU:** Displays the many utilities and setup functions, such as tracking rate, user defined objects, and others.

7. **OPTION (Celestron Logo):** Can be used in combination with other keys to access more advanced features and functions.

8. **ENTER:** Selects any of StarSense's functions, accepts entered parameters, and slews the telescope to displayed objects.

9. **BACK:** Exits the current menu and displays the previous level of the menu path. Press BACK repeatedly to get back to a main menu or erase data entered by mistake.

10. **SKY TOUR:** Activates the tour mode, which seeks out all the best objects in the sky and automatically slews StarSense to those objects.

11. **Scroll Buttons:** Used to scroll up and down within any of the menu lists. A double arrow symbol on the right side of the LCD indicates that the scroll keys can be used to view additional information.

12. **MOTOR SPEED:** Instantly changes the motor's rate of speed when the direction buttons are pressed.

13. **OBJECT INFO:** Displays coordinates and useful information about objects from StarSense's database.

14. **RS-232 Jack:** Connects your telescope to a computer to access software programs for point-and-click slewing, or updating firmware via PC.

OBJECT CATALOG

Selecting an Object

Now that the telescope is properly aligned, you can choose an object from any of the catalogs in the StarSense's database. The hand control has a key designated for each category of objects in its database, Solar System objects, Stars, and Deep Sky objects.

Solar System: The Solar System catalog will display all the planets in our Solar System that are currently visible in the sky, along with the Moon and Pluto. To allow the Sun to be displayed as an option in the database, see Allow Sun option in the Database Setup section of the manual.

Stars: The Stars catalog displays a custom list of variable stars, double stars, asterisms. named star, and the SAO star catalog.

Deep Sky: The Deep Sky catalog displays a list of the complete NGC, IC and Messier catalogs, including star clusters, nebulae. galaxies. and planetary nebulae objects. There is also an alphabetical list of all deep sky objects in order by their common name.

The Messier and NGC catalogs require you to enter a numeric designation. Selecting these catalogs will display a blinking cursor next to the name of the catalog chosen. Use the numeric key pad to enter the number of any object within these standardized catalogs. For example. to find "M42" (the Orion Nebula), press the DEEP SKY. use the UP/DOWN keys to scroll to Messier. then key in 042 and press ENTER.

Holding down either the UP or DOWN key allows you to scroll through any catalog faster. Holding down the OPTION button while pressing the UP/DOWN keys allows you to scroll through the database three objects at a time.

SLEWING TO AN OBJECT

Once the desired object is displayed on the hand control screen, you have two options:
- Press the **OBJECT INFO** Key. This will display information about the selected object such as magnitude, constellation, and extended information about the most popular objects.
- Use the **UP/DOWN** keys to scroll through the displayed object info.
- Press **BACK** or **OBJECT INFO** to return to the object database.
- Press **ENTER**. The telescope will slew to the object displayed on the hand control. While the telescope is slewing, you can still access many of the hand control functions, such as displaying information about the object.

Caution: Never slew the telescope when someone is looking into the eyepiece. The telescope can move quickly and may hit an observer in the eye.

SKY TOUR BUTTON

The StarSense includes a tour feature, which takes you through the most interesting celestial objects based on your time and location. The list of objects is prioritized based on where your telescope is pointed, so the telescope always slews to an object nearby rather than scattered throughout the sky. The tour will display only those objects that are within your set catalog filter limits. To activate the tour feature, press the **SKY TOUR** key on the hand control.

1. Press the **SKY TOUR** button on the hand control.

2. Follow the prompts on the hand control. Using the direction buttons, slew the telescope to its index marks or home position.

3. Press **ENTER** and the Sky Tour will begin. A message will appear **SkyTour Searching.**

StarSense will slew to the first object. After the object is located, you may press **ENTER** to proceed to the next object.

IDENTIFY BUTTON

Pressing the **IDENTIFY** button will search StarSense's database and display the name and angular distances to the nearest matching objects from the telescope's current location. This feature can serve two purposes. First, it can be used to identify an unknown object in the field of view of your eyepiece. Stars will be searched first, followed by deep sky objects.

Additionally, **IDENTIFY** can be used to find other celestial objects that are close to the objects you are currently observing.

For example, if your telescope is pointed at the brightest star in the constellation Lyra, choosing **IDENTIFY** will no doubt return the star Vega as the star you are observing. However, the Identify feature will also search its NGC and Solar System databases and display any planets or Deep Sky objects that are close by. In this example, StarSense would identify the Ring Nebula (M57), which is approximately 6° away.

You can specify the brightness and proximity of the objects displayed by the **IDENTIFY** feature using the Identify Filter under Telescope Setup.

DIRECTION BUTTONS
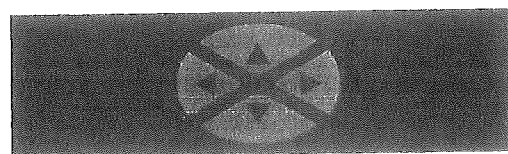
The StarSense has four direction buttons in the center of the hand control which slew the telescope in altitude (up and down) and azimuth (left and right).

MENU TREE

- Menu
  - Database Setup
    - Sky Tour Filters
    - Catalog Filters
    - Identify Filters
    - Filter Limits
    - Allow Sun
  - Telescope
    - Tracking Rate
      - Sidereal, Solar, Lunar, Off
      - RA Only, RA & DEC
    - Setup
      - Slew Limits
      - R.A. Limits (EQ Only)
      - Goto Approach
      - Cordwrap Button
      - Backlash Rates
      - Direction Buttons
      - Autoguide Rate
      - Database Rate 9
      - Meridian (EQ Only)
    - PEC
    - Set Axis Position
    - Home Position
    - Move Switch (Scopes with switch only)
    - Hibernate
  - StarSense
    - Get Status
    - Calibrate
    - Reset AIS Camera
    - User Auto Align
  - Time and Location
    - View/Mode Time
    - View/Mode Location
    - Time/Loc. Mode
  - View/Goto Pos.
    - RA/Dec
    - Axis Position
  - Hand Control
    - Get Version Info
    - Backlight
    - LCD Contrast
    - Tips
    - User Profiles
      - Load
      - Save
    - Restore Defaults

Align

- StarSense Auto
- StarSense Manual
- Solar Sys. Align
- Quick Align
- Save/Load Align

- Add Cal Reference
- Review Cal Reference
- Model Status
- Polar Align
- Reset Alignment