

LED 1 (BOTTOM) indicates the status of the Declination motor

LED 2 (TOP) indicates the status of the Right Ascension motor

LED's are bright and steadily
Normal Automatic Operations

LED has a steady 1 second period blink:

- (a) That motor has been forced to manual by a command from the serial port
- (b) That motor is sensing motor runaway

LED's flash fast
battery voltage falls below 11 volts

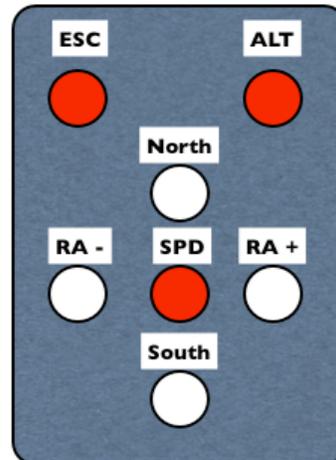
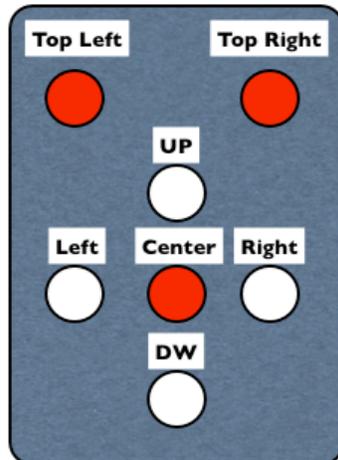
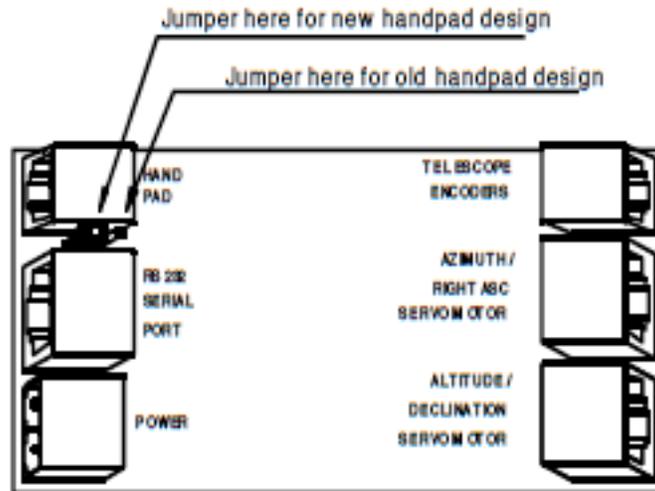
LED's are on very faintly, but steadily
serious problem with the CPU in the controller. Return the unit to factory for repairs

Press the **TOP LEFT** and the **TOP RIGHT** buttons on the handpad simultaneously, and both motors will be returned to automatic

HANDPAD

New or RF handpad type (there is no switch on a new type, there are only push buttons)

3 position jumper near the hand pad connector is toward the edge of the board.



[ALT] sometime is also called [RTN] for “return”

HANDPAD By Function

INCREASES DECLINATION [**North**].

DECREASES DECLINATION [**South**].

INCREASES HOUR ANGLE [**RA +**] Rotates the RA axis clockwise as seen from North.

DECREASES HOUR ANGLE [**RA +**] Rotates the RA axis counterclockwise as seen from North.

DECREASE TRACKING SPEED. [**ESC**]+[**South**]. It works ONLY AFTER scope Initialization.

INCREASE TRACKING SPEED. [**ESC**]+[**North**]. It works ONLY AFTER scope Initialization.

LOCAL SEARCH

START (High Power EP) [**ESC**]+[**South**]

START (Low Power EP) [**ESC**]+[**North**]

During local search

SLOWER [**ESC**]+[**South**]

FASTER [**ESC**]+[**North**]

REVERSE DIRECTION [**South**]

RESTORE DIRECTION [**North**]

PAUSE SEARCH [**SPD**]

RESTORE SEARCH [**SPD**] or [**North**] or [**South**]

EXIT [**RA+**] or [**RA-**]

PARK. [**ESC**]+[**ALT**]. Works if the motors are in automatic mode and Park position has been set

RETURN to AUTOMATIC. [**ESC**]+[**ALT**]. Works if the motors are in manual mode (led light flashing on the controller)

CHANGE SLEWING SPEED. [**SPD**]. It cycles among SLEW (Degrees per Seconds), PAN (Minutes per Seconds) and GUIDE (Seconds per Seconds)

START - STOP TRACKING. [**ALT**]. It works ONLY AFTER scope Initialization.

HANDPAD By Button Actions

[RTN] = [ALT]

[North] Increases scope declination.

[North] Restore search direction after START Local Search

[North] Resume search after PAUSE Local Search

[South] Decreases scope declination.

[South] Reverse search direction after START Local Search

[South] Resume search after PAUSE Local Search

[RA +] Increases Hour Angle (Rotates the RA axis clockwise as seen from North).

[RA+] Stops Local Search

[RA -] Decreases Hour Angle (Rotates the RA axis clockwise as seen from North).

[RA-] Stops Local Search

[ALT] Starts and stops Tracking but works ONLY AFTER scope initialization

[SPD] It changes the slewing speed cycling among SLEW (Degrees per Seconds), PAN (Minutes per Seconds) and GUIDE (Seconds per Seconds)

[SPD] PAUSE search (toggle) after START Local Search

[SPD] Resume search (toggle) after PAUSE Local Search

[ESC]+[South] Decrease tracking speed. It works ONLY AFTER scope Initialization.

[ESC]+[South] START Local Search for High Power EP

[ESC]+[South] SLOWER search speed after START Local Search

[ESC]+[North] Increase tracking speed. It works ONLY AFTER scope Initialization.

[ESC]+[North] START Local Search for Low Power EP

[ESC]+[North] Faster search speed after START Local Search

[ESC]+[ALT] Return the motors to automatic if they were in manual mode (led light flashing on the controller)

[ESC]+[ALT] Park the telescope. It works ONLY AFTER scope Initialization.