

The information here will assist in setup of a Polar Axis Scope (GP and SX models), the *Star Book* and *SkySensor 2000* controllers.

## North-American / Pacific Time Zones

The world is divided into time-zones approximately 15° apart. The table below lists the time-zones that span the North American continent and extend to Hawaii.

The central meridian of longitude that crosses the time-zone is listed in the table as the *Zone Meridian*. It is useful for calculating the meridian offset value for the Polar Axis Scope (next section).

Each time-zone is offset from Universal Time by the number of hours indicated in the table. Two columns are given because this number is modified if *Daylight Savings* or *Summer Time* (local clocks set ahead) is employed in a time-zone.

**Star Book and SkySensor 2000 Note:** In order for *Star Book* or *SkySensor 2000* to function correctly, you must set the local time and Universal Time offset. **Be sure to reset your Star Book or SkySensor 2000 when switching between standard and daylight time -- just like any other clock you own.** *Star Book*: set *Local Time Setting* and *Local* options in the configuration menu. *SkySensor 2000*: press SETUP key, select setup number and press ENTER at the Location & Time category.

North-American / Pacific Time Zone Table			
Time Zone	Zone Meridian (West Longitude)	<sup>1</sup> Standard Time Offset from Universal Time (Hours)	<sup>1</sup> Daylight Time Offset from Universal Time (Hours)
Atlantic	60°	-4	-3
Eastern	75°	-5	-4
Central	90°	-6	-5
Mountain	105°	-7	-6
Pacific	120°	-8	-7
Alaska	135°	-9	-8
Hawaii-Aleutian	150°	-10	-9

<sup>1</sup>Value to store under *Local* (hours) in *Star Book Configuration* menu or under TZ in the *SkySensor 2000 Location & Time* category.

## Polar Axis Scope Meridian Offset

The following table is a sample list of cities, their longitude, time-zone and the required Meridian Offset Setting for the Polar Axis Scope.

### **Austin, Texas Example:**

- Austin is located at longitude 97° 45' (west) -- which is 97.8° in decimal (divide the minutes [second number] by 60 and add to the whole degrees [first number]:

$$45/60 + 97 = 97.8$$

- Austin is in the Central time-zone. According to the **North-American / Pacific Time Zone Table** (above), this time-zone has Zone Meridian of 90° (west).

- The difference between Austin's longitude and that of the Central Meridian is 7.8° (just subtract the two numbers without regard to sign:  $97.8 - 90 = 7.8$ ). In the western hemisphere longitude increases going west. Longitudes greater than the Zone Meridian are offset west of this meridian, those less are offset east. Austin's 97.8° longitude value is greater than the Zone Meridian's 90°. Therefore the 7.8° offset will be set on the west side indicator of the Meridian Offset scale.

### **Polar Axis Scope Meridian Offset Scale Examples**

Example City	West Longitude (° ' / decimal°)	Zone Name / Meridian° (West)	Meridian Offset Setting (decimal° E/W)
Halifax, Nova Scotia	63° 36' = 63.6°	Atlantic / 60°	3.6° W
New York, New York	74° 0' = 74.0°	Eastern / 75°	1.0° E
Ottawa, Ontario	75° 42' = 75.7°	Eastern / 75°	0.7° W
Atlanta, Georgia	84° 23' = 84.4°	Eastern / 75°	9.4° W
Chicago, Illinois	87° 39' = 87.7°	Central / 90°	2.3° E
Austin, Texas	97° 45' = 97.8°	Central / 90°	7.8° W
Roswell, New Mexico	104° 31' = 104.5°	Mountain / 105°	0.5° E
Salt Lake City, Utah	111° 53' = 111.9°	Mountain / 105°	6.9° W
Las Vegas, Nevada	115° 8' = 115.1°	Pacific / 120°	4.9° E
Salem, Oregon	123° 2' = 123.0°	Pacific / 120°	3.0° W
Vancouver, British Columbia	123° 8' = 123.1°	Pacific / 120°	3.1° W
Juneau, Alaska	134° 25' = 134.4°	Alaska / 135°	0.6° E
Honolulu, Hawaii	157° 51' = 157.9°	Hawaii-Aleutian / 150°	7.9° W

### Reference Links

These are links to Time Zone maps.

#### **Time Zone Maps Reference Links**

USA	<a href="http://www.time.gov/">http://www.time.gov/</a>
Canada	<a href="http://www.canadainfolink.ca/daylight.htm">http://www.canadainfolink.ca/daylight.htm</a>
World	<a href="http://aa.usno.navy.mil/fag/docs/world_tzones.html">http://aa.usno.navy.mil/fag/docs/world_tzones.html</a>