

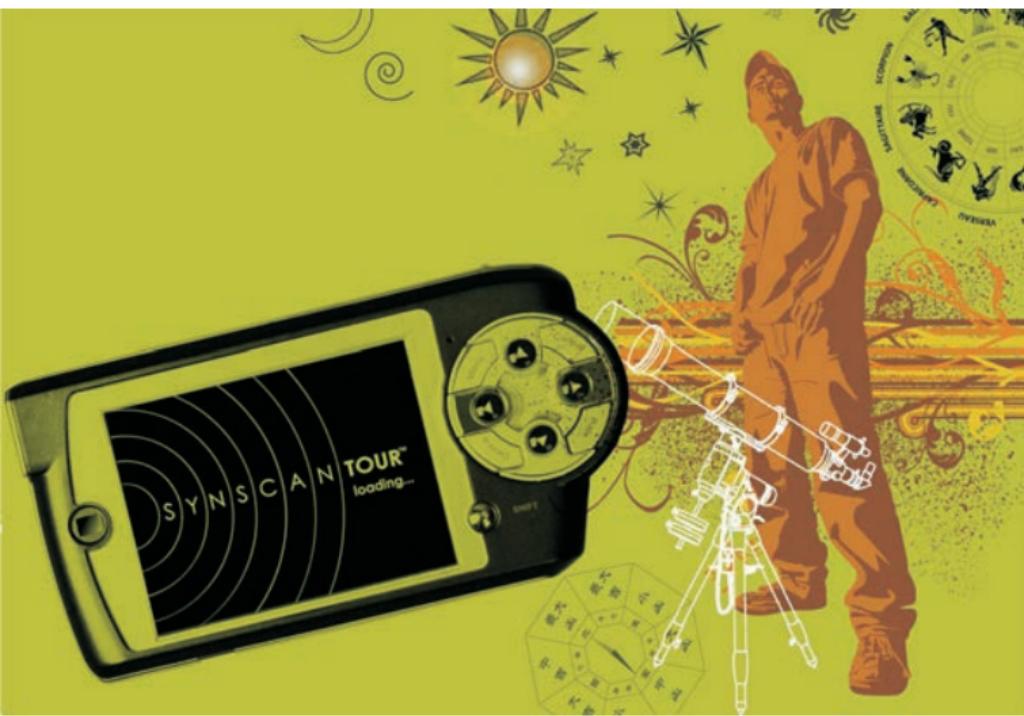
INSTRUCTION MANUAL

SynScan Tour

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CN Patent NO. : ZL200930238540.3

CN Patent Application NO.: 200820178045.8 201010105642.X
200810180631.0 200820180451.8



Welcome and thank you for your purchase of the SynScan Tour.

Disclaimer:

- 1) All SynScan Tour graphics are copyrighted by Suzhou Synta.
- 2) All SynScan Tour astronomical images are from the public domain or have been authorized for use.
- 3) Patent pending.

SynScan Tour is capable of many different exciting functions. These include:

Identify Stars and Constellations

Just point SynScan Tour to anywhere in the night sky and the display screen will show a star map of that exact same area! Identify constellations and stars in seconds!

Locate Celestial Objects

SynScan Tour guides you to the current location of any star or celestial object, simply enter the object's name or catalog number. No fumbling for cumbersome and confusing star atlases or planispheres in the dark anymore!

Tour the Sky

As its name implies, SynScan Tour takes you on tours of the best celestial objects currently visible in your night sky. SynScan Tour guides you to the object's location, and provides audio and video about it. Go outside anywhere, on any clear night, and instantly learn about the wonders of the universe above you.

Explore the Multimedia Celestial Object Database

The extensive database of exquisite photographs, factual audio commentary, and detailed text information makes the SynScan a virtual "astronomical encyclopedia". Enjoy the multimedia show indoors or outdoors.

Control Your Telescope

On top of it all, SynScan Tour is a hand controller for your telescope. It can be used with many popular equatorial and alt-azimuth mounts. SynScan Tour finds celestial objects in the night sky, then automatically and precisely points your telescope to them for a closer look.

Infrared Sensor Triggered Startup

SynScan Tour has a built-in infrared (IR) sensor. This is used to perform several motion-triggered functions. Play video clips or leave recorded audio messages for people who come by later. It's fun!

Bagua and Feng Shui

There are also special Feng Shui functions designed to work according to traditional Chinese Bagua theory. SynScan Tour uses your birth date and its compass to calculate your fortunes. It will tell you how to have the best outcomes and keep away from trouble!

Other features

SynScan Tour can also be used as a digital compass, an audio /video player, and an audio recorder. You'll find these extra features to be of great convenience.

Packing List:

SynScan Tour	1
Lithium battery	1
USB cable	1
Wrist strap	1

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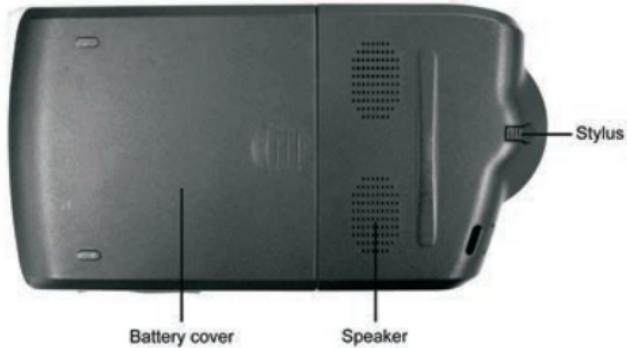
1. Hardware Description

1.1 Part Names

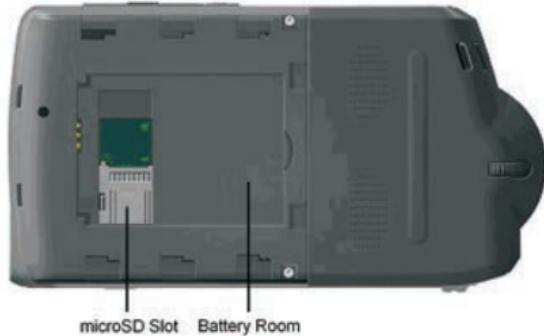
Front View



Back View



Back View w/ Battery Cover Removed

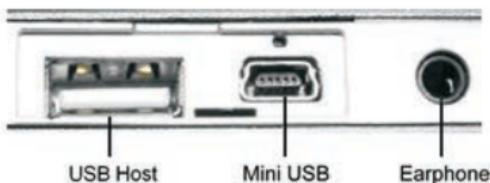


1.2 Interfaces

Left Side View



Bottom View



● Serial Port

- The serial port can be used to connect the SynScan Tour to a telescope (requires a telescope-specific cable)
- The serial port can also be used to connect an optional GPS receiver to obtain current time and location information.
- Note: When opening the serial port cover, gently pull at the top of the cover and rotate it 180 degrees downwards. Do not pull the cover forcefully, or it may break off of the SynScan Tour.*

● Mini USB Port

- The mini USB port is used to charge the internal battery. It can also be used to download and upload files to a PC.

● USB Host Port

- The USB host port is used to connect an optional USB storage device.
- This is where other optional devices for SynScan Tour connect to.

● Earphone jack

The earphone jack connects any earphone with a standard 3.5 mm stereo plug.

2. Setup and Startup

2.1 Installing the Battery

Remove the battery cover by sliding it off with your fingertips, then place the supplied battery into the battery compartment. The battery should be oriented as shown below. The pins on the edge of the battery should align with the pins in the battery compartment, and the battery's label should be facing upwards.



Notes:

- SynScan Tour will not work properly if the battery voltage becomes too low. If this occurs, recharge the battery as soon as possible.*
- If the SynScan Tour is stored for an extended period of time, remove the battery to avoid battery drainage.*

2.2 Charging the Battery

Before using SynScan Tour, the battery should be fully charged. To charge the battery, use the supplied USB cable to connect SynScan Tour to a PC. The cable plugs into SynScan Tour's mini USB port and into a PC's USB port. A green battery icon displays on the screen while SynScan Tour's battery is charging. The icon will disappear when the battery is fully charged.

SynScan Tour can also be charged from a powered telescope mount. This requires an optional cable to connect the SynScan Tour to your mount. Once connected, turn the power to the mount on while SynScan Tour is powered off, and SynScan Tour will begin charging its battery.

In the main menu screen, a battery icon appears in the upper left corner of the screen. This icon indicates how much charge the battery has left. Remember to fully-charge the battery before going outside for an extended astronomical observing session.

2.3 Startup

Press and hold the power button for about 2 seconds, and SynScan Tour will power on and startup. SynScan Tour will display a customized startup screen if it has been configured to do so.

2.4 Shut-down

Press and hold the power button while SynScan Tour is on, and the shut-down window will appear. Now, touch the "Power Off" button shown on the touch screen display, and SynScan Tour will shut down.



2.5 Using the Stylus

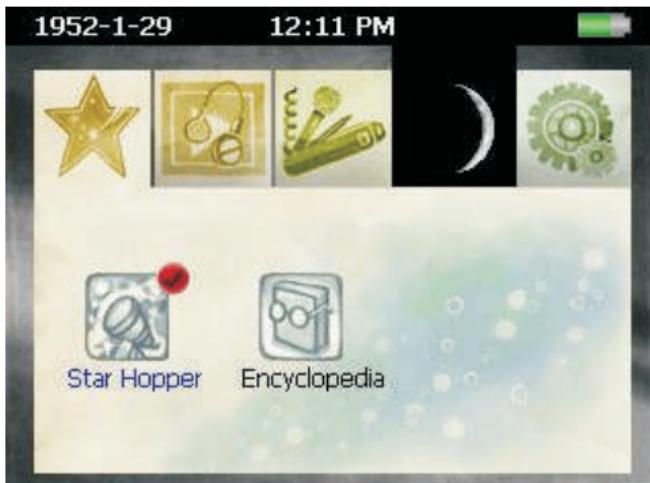
For touch screen operation, all you need to do is touch the display screen. A built-in stylus is provided to help give a move precise “touch” for screens with small icons and details. You'll find using the stylus is a great convenience, especially when you are outside on a cold night with gloves on!

The stylus is built into the right side of SynScan Tour; it is located just under the keypad. Once removed, the stylus can be extended by pulling it. Retract the stylus before replacing it into SynScan Tour.

3. Initial Operation

3.1 Main Menu

After SynScan Tour starts-up, the main menu appears on the display.



There are five selections in the main menu; these are shown near the top of the touch screen. These are the “Astronomy”, “Media”, “Tools”, “Calendar”, and “Settings” menus. Touch the corresponding icon on the screen to access each menu. You can also use SynScan Tour's up and down keys to scroll through the menus.

Upon selecting from the main menu, sub-menus will be shown below the main menu. Select a sub-menu by pressing the corresponding icon on the touch screen. You can also use the left and right keys to scroll through the sub-menus, then press the OK key to select.

The following table outlines the menus and gives a brief description of each menu's functions.

Main Menu	Sub-Menu	Function
Astronomy	Star Hopper	Real-time sky map and telescope controls
	Encyclopedia	Astronomy information and trivia
Media	Audio	Play audio files
	Images	Browse images
	Video	Play video files
Tools	Calculator	A simple calculator
	Notebook	Create and edit notes
	Compass	A directional compass
	Audio Recorder	Record and playback audio messages
	Feng Shui	Calculates Bagua and personal fortune
Calendar		Displays a calendar with the rise and set times of the Moon and Sun, also displays the lunar phase and gives the times of the end of dusk and the start of dawn
Settings	System	Adjust backlighting, volume, language, stylus calibration with touch screen, and display settings
	Date/Time	Input date and time
	Location	Input location
	Files	Manage files in internal flash memory,

3.2 Configuring for Astronomy

Before SynScan Tour can be used for real-time astronomy, it must be configured for the current time and location. This is simple to do. Start by pressing the Settings icon in the main menu.

3.2.1 Set the Date and Time

Press the “Date/Time” icon on the touch screen, and the following will be displayed:



Now, use these steps to set the date and time.

- Set the Time Zone

Touch the down arrow touch screen button in the time zone bar. Then, select your current time zone by using the touch screen or by using the up and down keys. If you use the up and down keys, press the OK key to select a time zone.

- Set the Date Format

Touch the date format button and select a preferred date format. Then, touch the “OK” button on the screen.



- Set Date and Time

Use the left and right keys to select a digit to be changed, then change the value of the digit using the up and down keys. You can also select a digit by touching it onscreen, then change the value by touching the up arrow that appears above it on the screen.

- Set Daylight saving

The “Daylight saving” box should have a checkmark in it if you are currently on daylight saving time, otherwise it should be unchecked. Select or deselect it by touching the “Daylight saving” box.

- Touch the “Apply” button onscreen to confirm.

- Touch the back arrow at the top left of the touch screen to exit.

3.2.2 Set the Location

From the Setting menu, touch the “Location” icon, and the screen will display the following:



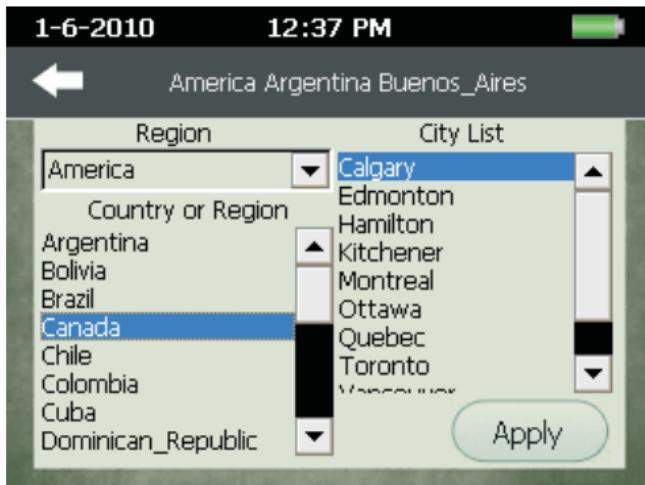
You can input your current location in the following three ways.

- Input data directly

This method can be used if the local geographic coordinates are known. Simply touch each data box, or use the left and right keys to scroll through the data boxes, then use the up and down keys to change the value. When done, touch the “Apply” button onscreen.

- Use the data of the nearest city

Touch the “City List” button onscreen, and the following window will appear:



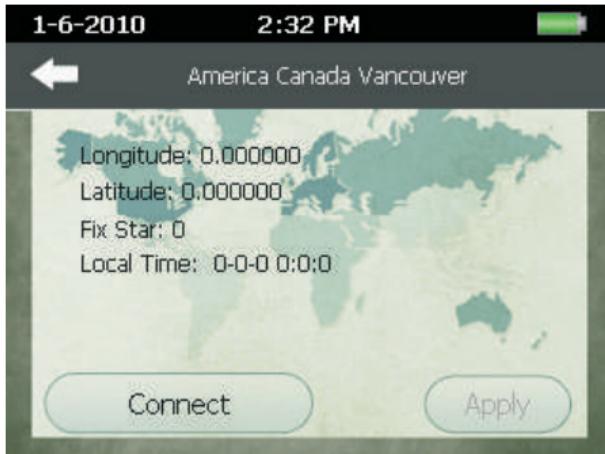
First select your Region, then your Country, and a list of cities will appear in the City List. Select the city closest to your current location, then touch the “Apply” button onscreen. Touch the back arrow at the top of the screen to exit.

If you want to use the arrow keys of the SynScan Tour to select a nearby city, use the Device key to switch between the Region, Country, and City Lists.

- Use optional GPS receiver

This requires an optional GPS receiver designed for the SynScan Tour.

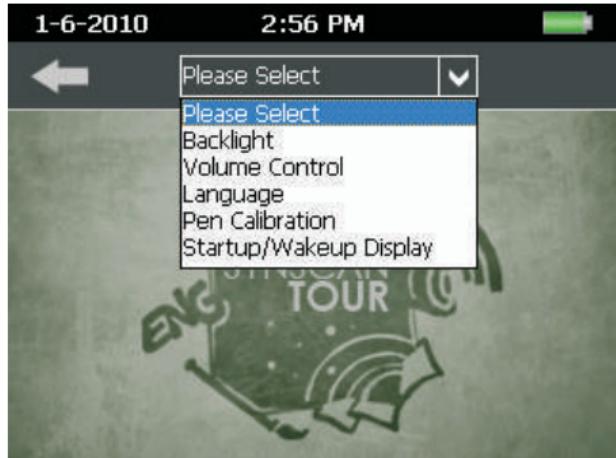
Plug the GPS receiver into the serial port's modular jack (in the left side of SynScan Tour). Touch the “GPS” button onscreen, and the following window will appear:



Make sure the GPS receiver is facing upwards, and point it to the sky directly above you (i.e. to zenith). Now, touch the “Connect” button onscreen. When the text on the button changes from “Locating...” to “Fixed”, press the “Apply” button to acquire and use the data.

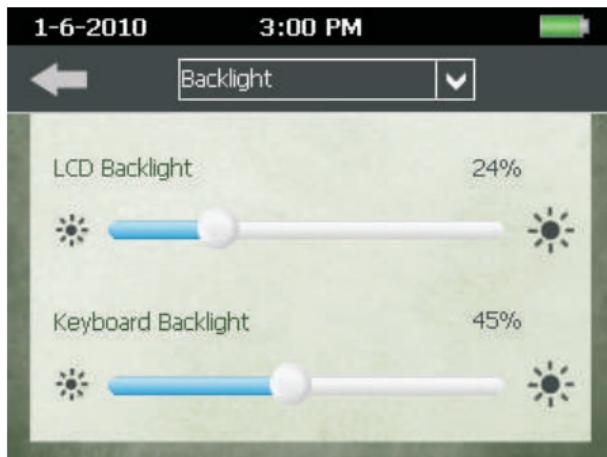
3.2.3 Configuring the Device Settings

From the Setting menu, touch the “System” button to configure the device settings. From here you can adjust the backlighting of the LCD screen, change the speaker volume, and calibrate the touch screen. These functions are chosen from the pull-down menu.



3.2.3.1 Setting the Backlighting

Select “Backlight” from the pull-down menu (using the touch screen or using the up/down keys and OK key), and the following window will appear:



Slide the circle left or right on the touch screen to adjust the brightness of the LCD Backlight and the Keyboard Backlight. The LCD backlight can also be adjusted using the left and right keys, and the Keyboard Backlight can be adjusted with the up and down keys.

Press the arrow at the upper left corner of the screen to exit, or select another function from the pull down menu.

3.2.3.2 Setting the Volume

Select “Volume Control” from the pull-down menu to adjust the volume of the internal speaker or earphone output.



Slide the circle left or right, or use the left and right keys to adjust the volume. You can also choose to disable sound, do this by deselecting one or both of the checkboxes.

Touch the arrow at the upper left corner of the screen to exit, or select another function from the pull down menu.

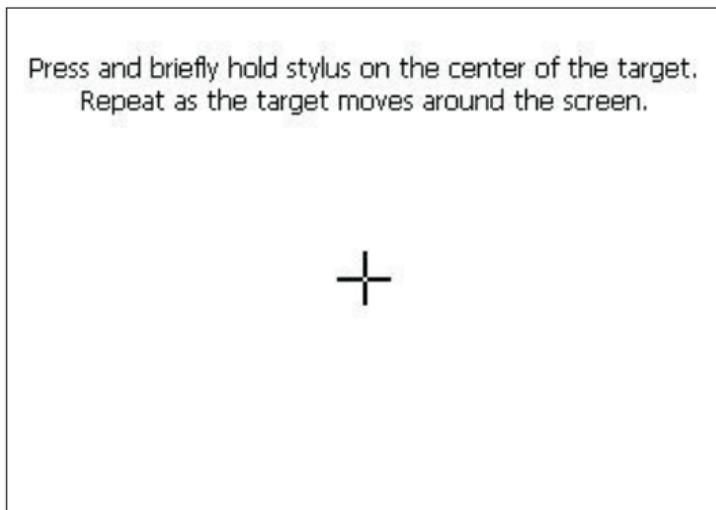
3.2.3.3 Setting the Language

To set the language SynScan Tour uses for its text and audio, select “Language” from the pull-down menu. Choose one of the languages

displayed, then touch the “Restart” button onscreen. Upon restarting, SynScan Tour will use the selected language.

3.2.3.4 Calibrating the Stylus and Touch Screen

To optimize the touch screen's sensitivity, Select “Stylus Calibration” from the pull-down menu. The following window will appear:



Use the SynScan Tour's stylus to touch the center of crosshairs, then follow the instructions shown on the screen.

Note: The “Startup/Wakeup Display” and “Language” functions in the System pull-down menu will be discussed later in this manual.