

# SKY-WATCHER VIRTUOSO GTi 150P, A GREAT ENTRY-LEVEL GOTO TELESCOPE.

PEDRO RÉ

<http://pedroreastrophotography.com/>

Sky-Watcher launched recently two dobsonian telescopes (130P & 150P) with GoTo capabilities, easy to transport and use (Figure 1).

The Virtuoso GTi are compact and easy-to-use tabletop telescopes, ideal for all kind of observations. The collapsible system makes it is particularly easy to store and transport. Just extend the tube, point the telescope using the red dot finder scope, insert the eyepiece and enjoy the night sky, these Sky-Watcher Telescopes will reveal details in Saturn's rings, Jupiter's bands, the Martian polar ice caps, and the phases of Venus and the moon.

The Virtuoso GTi suffered a major transformation from the original Sky-Watcher Virtuoso mount: (i) Larger aperture, (ii) faster focal ratio, (iii) a collapsible OTA, and (iv) built-in Wi-Fi for full GoTo telescope control via a smartphone and Sky-Watcher's free SynScan app for iOS and Android.



Figure 1 – Sky-Watcher 150 mm F/5 Virtuoso GTi (<http://skywatcher.com/>)

While the original Virtuoso from Sky-Watcher was more focused on planetary, solar, and lunar viewing with its long focal length and included solar filter, the all-new Virtuoso GTi borrows its collapsible optical tube design from the popular line of Flextube and Heritage Sky-Watcher Dobsonians for a versatile package that does it all.

Virtuoso GTi features Sky-Watcher's Radiant™ Aluminum Quartz (RAQ™) coatings on all optical surfaces for bright, bold views and comes complete with everything you need to start exploring the night sky out of the box including a red dot finder and two eyepieces (25 mm and 10 mm). With the free SynScan Pro app – available for iOS and Android -- the user has access to a database that contains

over 10,000 objects, including Messier, NGC, IC, and Caldwell catalogs. Align on the stars using one of four alignment methods to put Virtuoso's internal GPS to work and track objects like the Sun, Moon, and stars at precise rates. Patented Freedom Find™ technology uses dual encoders to allow manual control while retaining alignment.

## SPECIFICATIONS (150 F/5 Virtuoso GTi)

OPTICAL DESIGN	NEWTONIAN (PARABOLIC MIRROR)
DIAMETER	150 MM
FOCAL LENGTH	750 MM
F/RATIO	F/5
SECONDARY MIRROR DIAMETER	47 MM
MOUNT	ALTAZIMUTH DOBSONIAN TABLETOP MOUNT
MOTORS	DC SERVO MOTORS (TRACKING: SIDEREAL, SUN, MOON)
SLEWING SPEEDS	0.5x, 1.0x, 8.0x, 16x, 32x, 64x, 128x, 400x, 600x
ENCODER RESOLUTION	1068 STEPS PER REVOLUTION
HIGHEST PRACTICAL POWER	260 X
FAINTEST STELLER MAGNITUDE	13.3
FINDER SCOPE	RED DOT FINDER
FOCUSER DIAMETER	1.25"
EYEPIECES	1.25" 25 (30X) AND 10 MM (75X)
TUBE WEIGHT	4 KG
MOUNT WEIGHT	5 KG (TOTAL WEIGH 9 KG)
SHIPPING DIMENSIONS	42x41x55 CM

The Virtuoso GTi Dobsonian Mount Wi-Fi is controllable with iOS and Android and compatible with syncs hand controller. It uses Wi-Fi to control the telescope wirelessly with a mobile device: smartphone or tablet. The mount can be operated with 8 batteries or DC12V (Figure 2 and 3).

The SynScan App is an application running on Android, iOS, and Windows, for controlling the Sky-Watcher motorized telescope mount (Figure 4). This App also supports ASCOM on Windows and the driver can be downloaded from [www.skywatcher.com](http://www.skywatcher.com) or [www.telescope.com](http://www.telescope.com).

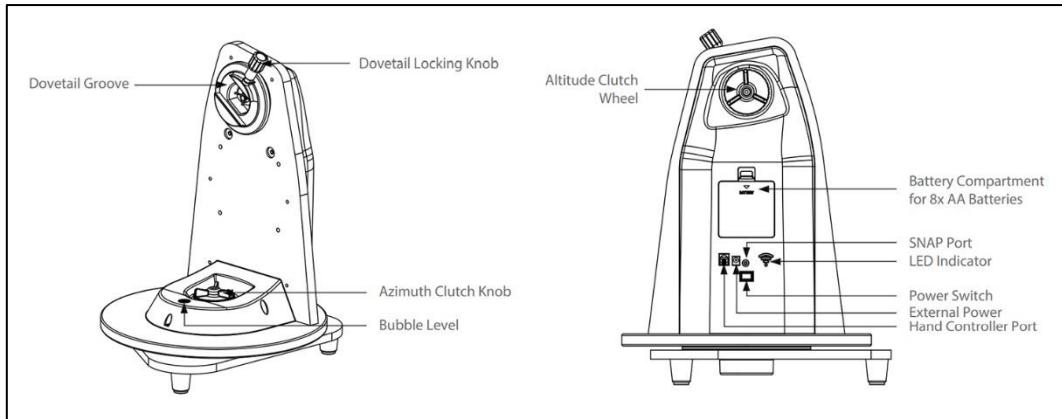


Figure 2 – Virtuoso GTi GoTo Altazimuth dobsonian tabletop mount.

- A. Eyepiece
- B. Hex Focusing Ring / Eyepiece Holder
- C. Red Dot Finder
- D. Telescope Main Tube
- E. Slider Lock Screw
- F. Dovetail

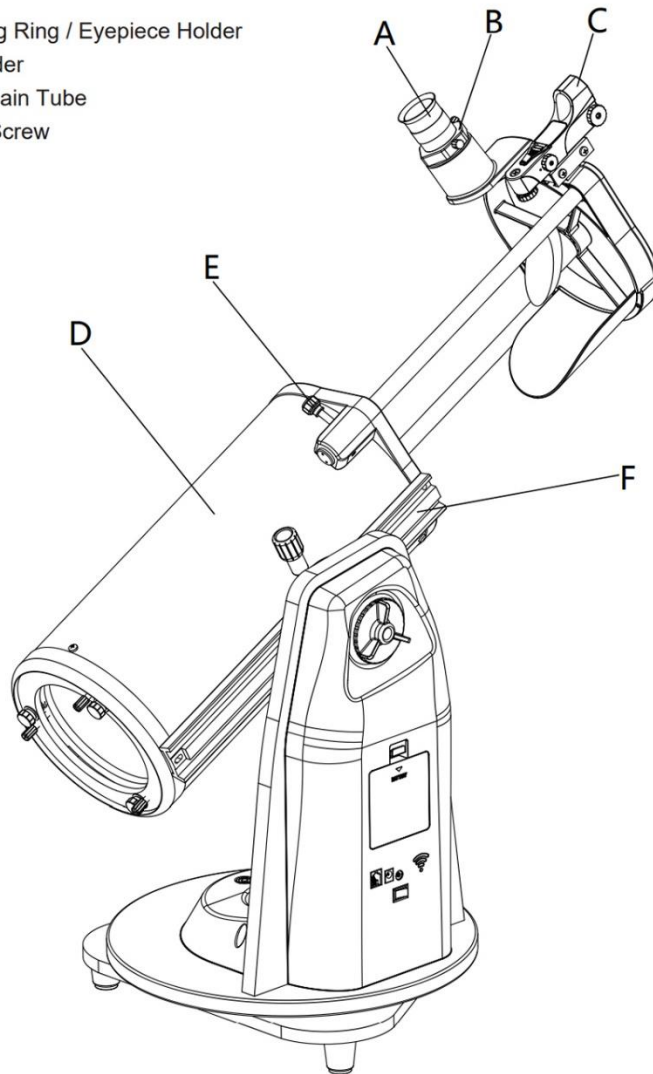


Figure 3 – 150 mm F/5 Virtuoso GTi.

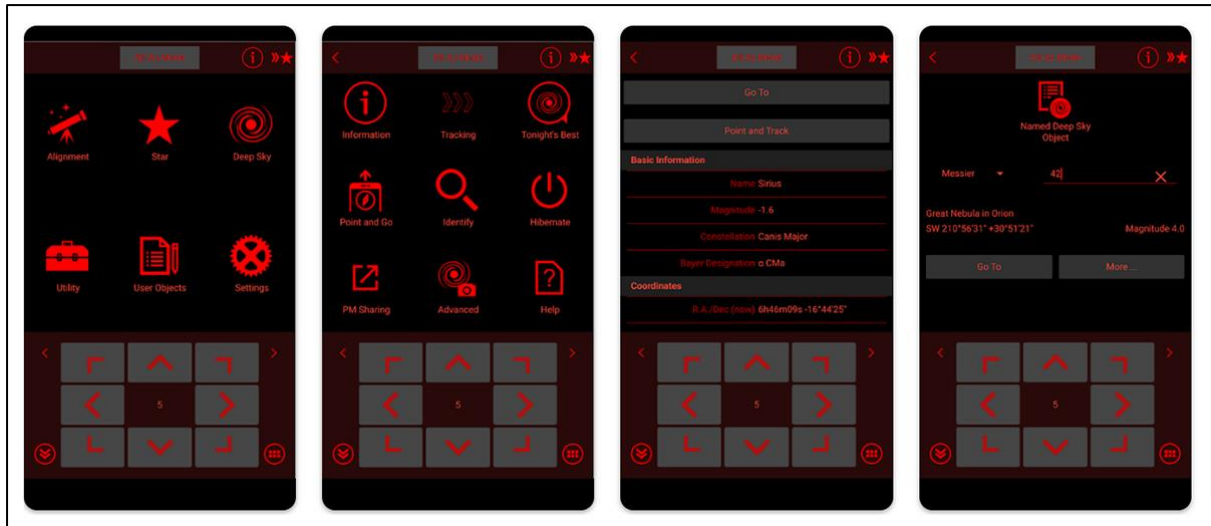


Figure 4 – SkyScan Pro App (Night mode).

After downloading the free SynScan Pro app from the App Store (for iOS) or Google Play (for Android), you must join the SynScan Wi-Fi network on your phone or tablet by hitting "Connect" on the app's opening screen. You're now ready to control your GoTo telescope with your mobile device.

The mount must be aligned to use its the GoTo capabilities. Open the Alignment Menu and choose Brightest star alignment and follow the prompts. The slew buttons must be used to centre the alignment star or stars in the telescope field of view. Always use the low power 25 mm eyepiece to perform star alignment. After choosing a target after the GoTo movement the mount will start tracking. The GoTo accuracy is dependent on the pointing model (it is preferable to use more than two alignment stars).

Point & Track is an alternative way to track an object, without the need to perform star alignment. This feature is very useful for tracking the Sun (using a full aperture solar filter), Moon and planets. You can choose different tracking speed, Solar, Lunar and Sidereal.

To perform Point & Track the mount must be level (use the bubble level), choose the object to track and select Point & then Track. The mount will keep the object centred in the field of view.





Figure 5- Collapsed 150 mm F/5 Virtuoso GTi mounted on a Sky-Watcher tripod.



Figure 6 – 150 mm F/5 Virtuoso GTi mounted on a Sky-Watcher tripod.



Figure 7 – 150 mm F/5 Virtuoso GTi.



Figure 8 – 150 mm F/5 Virtuoso GTi.



Figure 9 – 150 mm F/5 Virtuoso GTi.