Geoptik Nadirus 2BW Digital Setting Circles that do not need encoders Instructions for Use Feb 2024

- Use Skysafari APP; it must be the paid version 6 (also version 7 but this version is not yet reliable). The Nadirus Push-To does not work with the free version (Skysafari does not allow this)
- The Push-To device must be mounted perpendicular to the optical axis of any telescope (photo below shows mounted on a Dobsonian):

- Check that it is well fixtured to the finder base and that it does not move or vibrate.

- Once you have opened the Skysafari APP go to telescope settings and check the connection; preferably a connection via Bluetooth which is faster and more stable.
- Check that the 'telescope type' is 'Geoptik Nadirus' and 'mount type' is 'Push Alt-AZ'. In the same screen check that "encoder steps per revolution" are RA+8192 and AZ +8192 and that the "Get automatically" box is not active.
- This device need only one alignment star so after the first alignment you can proceed with Push-to "new star". DOES NOT WORK WITH MULPTIPLE STAR ALIGNMENT ON SKY SAFARI.
- The first alignment you must not point to the zenith otherwise the program does not know which direction you are moving; better a known star around 45°

Instructions on using Sky Safari for these operations:

The Scope Control view lets you connect to your telescope and control it. Before connecting, select your telescope type and communication options by tapping **Settings** in the Toolbar and then selecting **Setup** under the TELESCOPE section. By default, SkySafari's uses a "Demo" telescope. This is a dummy virtual telescope that lets you to use the controls without having a real scope connected. To connect to a real telescope, choose the telescope type and communication parameters in the Settings.

Please note: you can't use SkySafari's telescope controls when you are orbiting another object in the solar system. To use them, first return home to Earth. See the **Orbit** button Help for more information.

Connecting and Disconnecting

After setting up your telescope in the Settings, tap the Scope button in the Toolbar to show the Scope Control view at the bottom of the screen. The Scope Control view contains a button which lets you connect or disconnect from the scope.

Connect: This button opens a connection to your telescope. If you're using an iPhone, iPad, or iPad touch with our SkyWire serial accessory, then SkySafari will use SkyWire for telescope communication. If you are using an Android device with a paired bluetooth serial adapter, then SkySafari will use bluetooth for telescope communication. Otherwise, SkySafari will use Wi-Fi for wireless telescope communication.

Connect and Align: This button only shows when connecting to a Celestron WiFi telescope. Tapping it will connect and then guide you though an alignment process. The type of alignment can be chosen in the Telescope Setup > Setup and Control settings screen.

Once you've connected, this button's title will change to **Disconnect**. Tapping it will end your telescope control session.

Before tapping the Connect button, make sure you've selected the correct telescope type and communication options in the Settings. Make sure the scope is powered on, and any necessary alignment procedures are completed. Consult your telescope manual for details on the scope's alignment procedure.

After connecting, the sky chart is centered where SkySafari thinks the scope is pointing, as reported by your telescope. If this is wrong, your telescope is probably not star-aligned correctly.

While you're connected to a telescope, the **Compass** or **Gyro** button in the toolbar will be turned off. The sky chart cannot be centered on the telescope, and centered on the compass, at the same time.

Slewing and Aligning

Once your telescope is connected, arrow buttons appear on the sides of the screen (unless you have selected the "Tilt Device to Slew" option in the Settings). The status bar expands to show the scope's coordinates and target object. The arrow buttons let you move the scope directionally. A motion rate control appears, to let you control how fast the directional motion occurs.

The other buttons in the Scope Control panel are now active, too:

GoTo/Stop: This button issues a "GoTo" command to your telescope, which will physically slew it to the coordinates of the currently-selected object in the sky chart. To select an object in the sky chart, tap on it, or use the Search view.

While a GoTo is in progress, this button's title changes to "Stop", and pressing it will issue a command to stop the currently-in-progress GoTo. You can use this as an "emergency stop" if the telescope is in danger of hitting something, or if you have accidentally slewed to the wrong object.

Note that not all telescopes support GoTo commands, and that you cannot GoTo an object which is below the horizon.

Align: This synchronizes the scope to coordinates of the selected object. The bullseye indicator in the sky chart shows where the telescope thinks it is pointing. If that appears incorrect, the scope and the software must be synchronized. To do this:

1. Physically point the scope at a real star in the sky, using SkySafari's arrow buttons or the scope control panel. Center the object in the eyepiece.
2. Select that same object in SkySafari to make it the current target object. Do this by tapping the object in the sky chart, or by searching for it by name.
3. Tap the Align button.

Lock/Unlock: Tapping this button keeps the sky chart centered on the telescope's position. Moving the telescope will cause the sky chart to move, following the telescope's motion.

More: This button (which resembles 3 vertical dots) brings up a new control that allows you to "GoTo" a specific RA/Dec and to Reverse N/S or E/W.

Notes on Alignment

Note: for Celestron NexStar, Orion/SkyWatcher SynScan, iOptron GOTONova, and ServoCAT telescope controllers, tapping the Align button stores the offset between the telescope's reported position and the selected object's position. It subtracts that offset from the telescope's reported position whenever the telescope is within 10 degrees of the object you Aligned on. In other words, SkySafari performs a "local sync" around the alignment target. If you move the telescope to a very different part of the sky, you may want to Align on a target in that part of the sky. Also note that the telescope's RA/Dec reported by SkySafari will differ from the RA/Dec reported by its hand controller (since SkySafari is applying the alignment offset to the telescope's reported position.)

Note: for encoder-based "Push-To" systems, like the Tangent Instruments BBox, Celestron Astro-Master, JMI NGC-MAX, and Orion Intelliscope, SkySafari lets you perform a multi-star alignment (up to 10 stars). This eliminates the need to level your telescope mount base. Simply set up your telescope, point it at the first alignment star, select that star in SkySafari, and tap "Align". Repeat the process with a second alignment star, choosing "Align" rather than "Restart Alignment" when asked. Your encoders should now be aligned to the sky. You can continue to align on additional stars; SkySafari only uses the most recent 10 stars aligned on. If you want to forget the pervious alignment stars and align as your first star, choose "Restart Alignment".

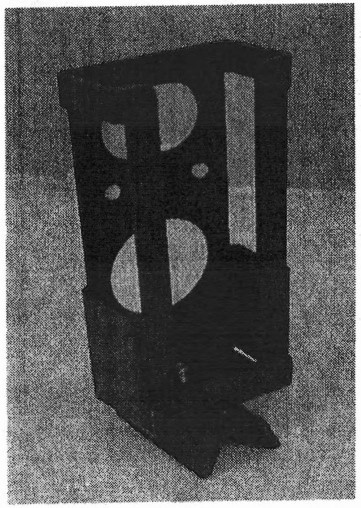
Make sure your two alignment stars are at least 10 degrees apart; 90 degrees apart is ideal. SkySafari will warn you if your alignment stars are too close together, or if their positions don't match - for example, if you've accidentally selected the wrong alignment star in SkySafari, or you're not really pointing the telescope at that star in the sky.

SkySafari remembers the telescope's alignment until you quit the app, so you should not have to realign if you disconnect (or are accidentally disconnected) from the encoder control box. However, if you accidentally kick the telescope mount, or otherwise destroy your alignment, you can realign without having to quit SkySafari. To start over, point the telescope at a star, select the same star in SkySafari, and tap Align. When given the option, align on the star as the "First Star". That will reset SkySafari's alignment process and start it over with the star you just selected.

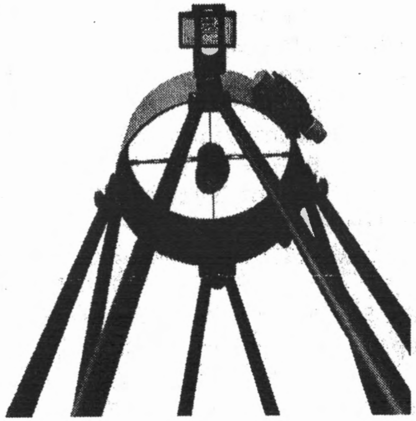
Going to a specific RA/Dec

Normally GoTo will take you to the coordinates of the selected object. To go to specific coordinates rather than the selected object, tap the More button in the scope control view and select **GoTo RA/Dec**. A small RA/Dec panel will pop up onscreen. Fill in the RA and Dec you want and tap GoTo in the panel. The coordinates may be entered using either decimal format or as HH MM SS.S for RA and DD MM SS.S for Dec.

GEOPTIK



10BW090 (optional)
Support for device



Device fit on the Dobson finderscopes base

Use the QR code for more information or use the link below

https://youtu.be/7-KhvQSNFW0

To download a more specific PDF version of the manual , go to the bottom of the product page on the website

www.geoptik.com - info@geoptik.com - geoptik@gmail.com

Made in Italy

GEOPTIK

PUSH-TO *NO ENCODERS*
BLUETOOTH + WI-FI

10 W001

8 050534 221336

RoHS 2002/95/EC

GEOPTIK - www.geoptik.com - info@geoptik.com

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PROCEDURA DI CONNESSIONE BLUETHOOT-ANDROID

Passo 1 : Attivare la modalità Bluethoot sul telefono
Passo 2 : Associare il “Geoptik-BT”
Passo 3 : Aprire l’App Skysafari (esclusa la versione “free”)
Passo 4 : Selezionare “Impostazioni” Setting)
Passo 5 : Selezionare “Configurazione” - connetti via Bluethoot (cliccare sulla voce e associare il bluetooth)
Passo 6 : Tipo di telescopio: Basic Encoder System (o Geoptik se presente)
Passo 7 : Tipo di montatura : “Spingi verso Alt-Az”
Passo 8 : Encoder steps x rev. : RA: +8192 Dec: +8192
Passo 9 : Non selezionare “Rilevamento automatico SkyFi”

PARAMETRI DI CONNESSIONE VIA WiFi–iOS–Android

Passo 5 : Selezionare “Configurazione” - Connetti via Wi-Fi
Passo 6 : Tipo di telescopio: Basic Encoder System (o Geoptik se presente)
Passo 7 : Tipo di montatura : “Spingi verso Alt-Az”
Passo 8 : Non selezionare “Rilevamento automatico SkyFi”

Indirizzo IP: 192.168.4.1 - Port : 3000
ID : Geoptik-WiFi - Password : Geoptik1234

Funziona con un alimentatore da 5V (come quello per caricare i cellulari) o un PowerBank da 5V (non compreso) Nessuna batteria interna.

ATTENZIONE: *A differenza del Bluethoot, la connessione via WiFi sarà leggermente ritardata nella trasmissione dei dati della posizione.*
In alcuni casi il Bleutooth ha bisogno di alcuni minuti per connettersi a Skysafari.

GEOPTIK

CONNECTION PROCEDURE BLUETHOOT–ANDROID

Step 1 : Activate your Bluethoot mode
Step 2 : Associate the “Geoptik-BT”
Step 3 : Open the Skysafari APP (not free version)
Step 4 : Select “Setting”
Step 5 : Select “Telescope Setup” (connect via Bluethoot) click in this box and associate the Bluetooth
Step 6 : Scope type: Base encoder system (or Geoptik if present)
Step 7 : Mount type: Alt-Az Push-To
Step 8 : Encoder Steps x rev. RA: +8192 Dec: +8192
Step 9 : Do not select "SkyFi auto-detection"

CONNECTION VIA Wi-Fi PARAMETER–iOS - ANDROID

Step 5 : Select “Telescope setup” - Connect via Wi-Fi
Step 6 : Scope type: Basic Encoder System (or Geoptik if present)
Step 7 : Mount type: Alt-Az Push-To
Step 8 : Do not select "SkyFi auto-detection"

IP: 192.168.4.1 - Port: 3000
ID: Geoptik-Wi-Fi - Password: Geoptik1234

Works with a 5V power supply (like the kind used to charge cell phones) or a 5V PowerBank (not included)
No internal battery.

WARNING: *Differently from Bluethoot, the connection via WiFi will be slightly delayed in transmitting location data.*
In some cases Bleutooth needs a few minutes to connect to Skysafari.

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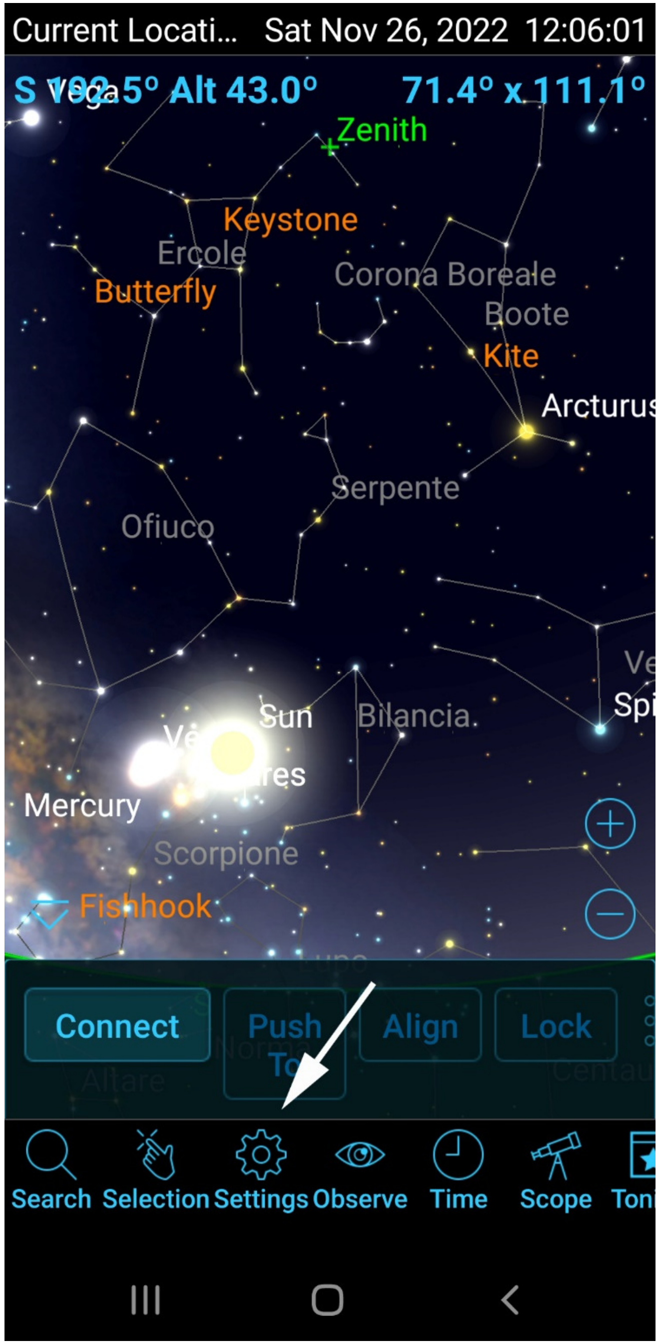
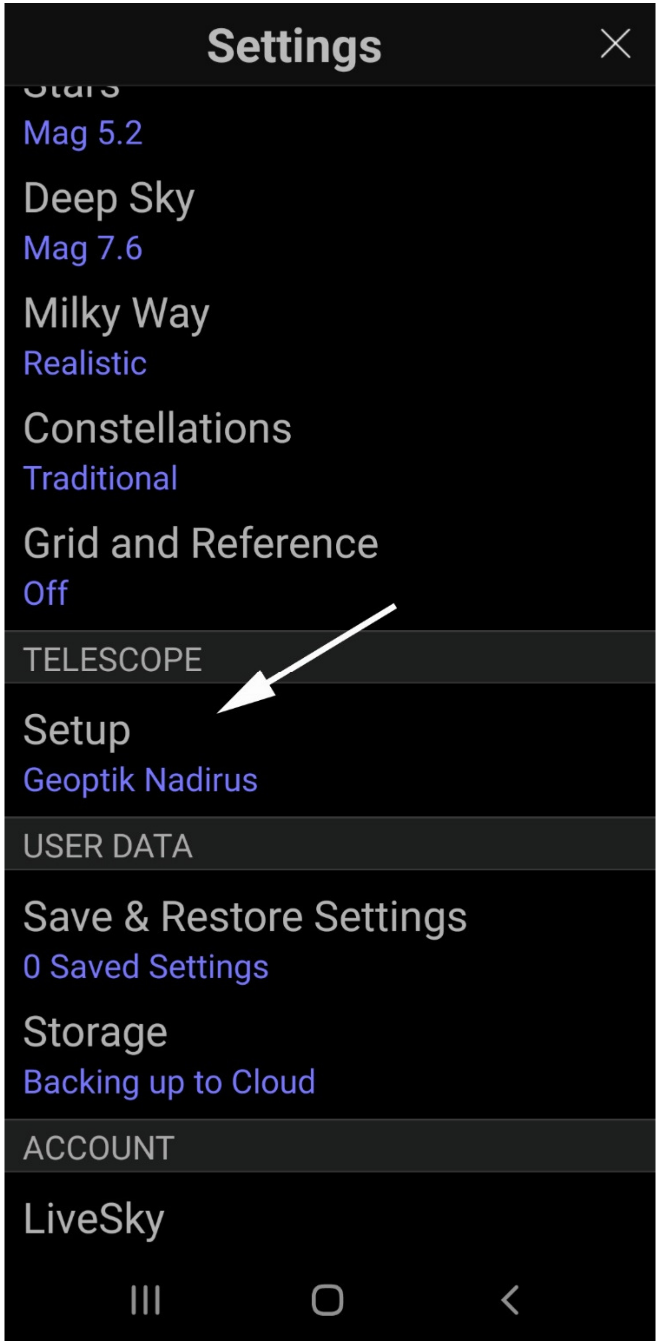
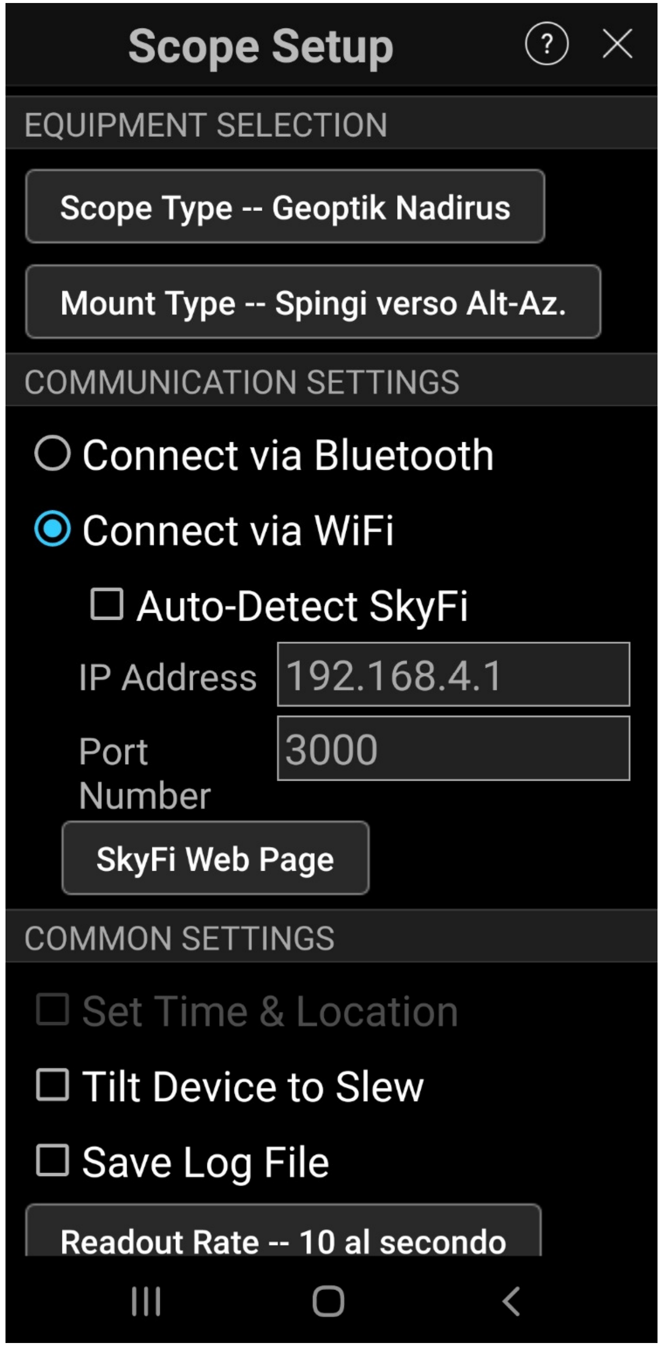
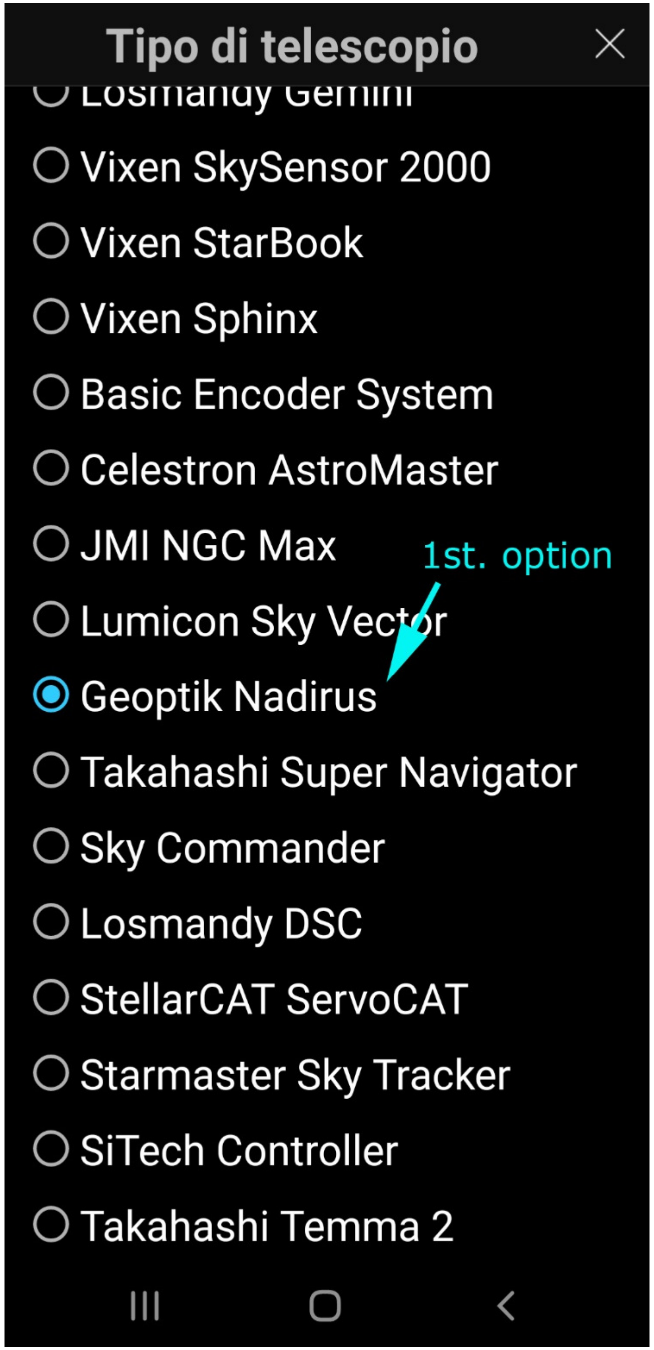
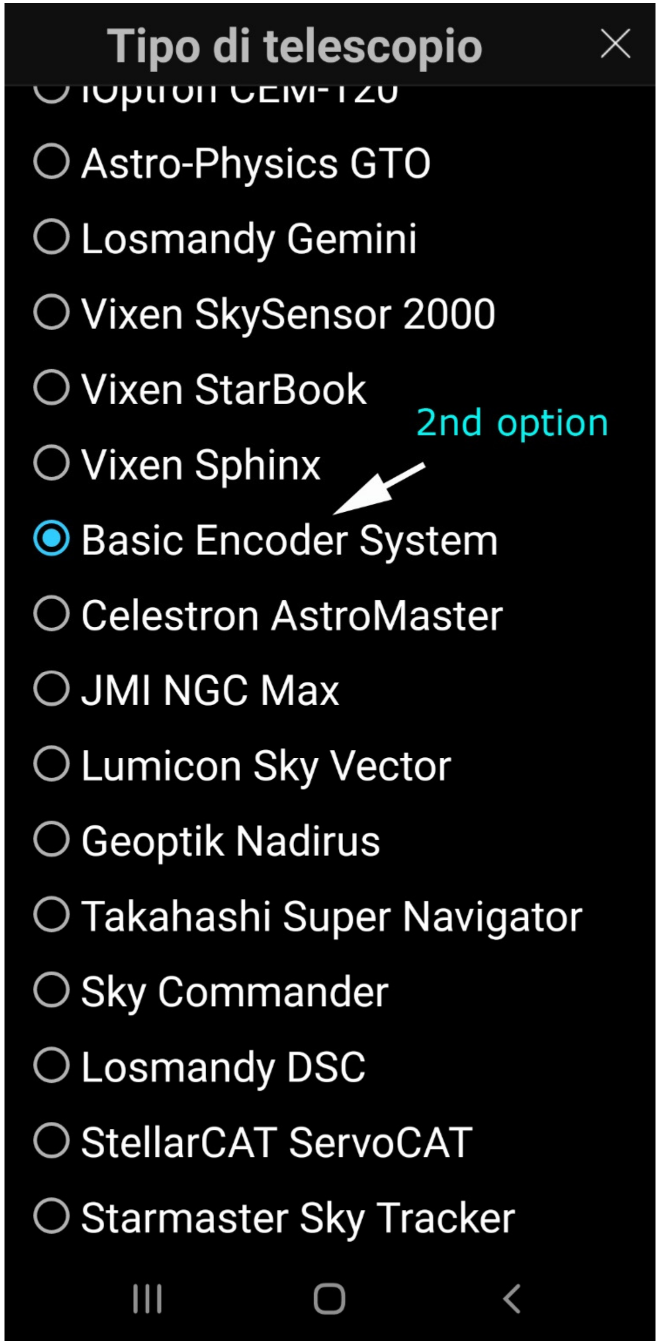
CONNEXION MODE VIA WI-FI AND BLEUTOOTH


Current Locati... Sat Nov 26, 2022 12:06:01
71.4° x 111.1°
Zenith
Keystone
Ercole
Butterfly
Corona Boreale
Boote
Kite
Arcturus
Serpente
Ofiuco
Sun
Bilancia
Mercury
Scorpione
Fishhook
Connect
Push To
Align
Lock
Search
Selection
Settings
Observe
Time
Scope


Settings
Mag 5.2
Deep Sky
Mag 7.6
Milky Way
Realistic
Constellations
Traditional
Grid and Reference
Off
TELESCOPE
Setup
Geoptik Nadirus
USER DATA
Save & Restore Settings
0 Saved Settings
Storage
Backing up to Cloud
ACCOUNT
LiveSky


Scope Setup
EQUIPMENT SELECTION
Scope Type -- Geoptik Nadirus
Mount Type -- Spingi verso Alt-Az.
COMMUNICATION SETTINGS
Connect via Bluetooth
Connect via WiFi
Auto-Detect SkyFi
IP Address
192.168.4.1
Port Number
3000
SkyFi Web Page
COMMON SETTINGS
Set Time & Location
Tilt Device to Slew
Save Log File
Readout Rate -- 10 al secondo


Tipo di telescopio
Losmandy Gemini
Vixen SkySensor 2000
Vixen StarBook
Vixen Sphinx
Basic Encoder System
Celestron AstroMaster
JMI NGC Max
1st. option
Lumicon Sky Vector
Geoptik Nadirus
Takahashi Super Navigator
Sky Commander
Losmandy DSC
StellarCAT ServoCAT
Starmaster Sky Tracker
SiTech Controller
Takahashi Temma 2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Losmandy Gemini
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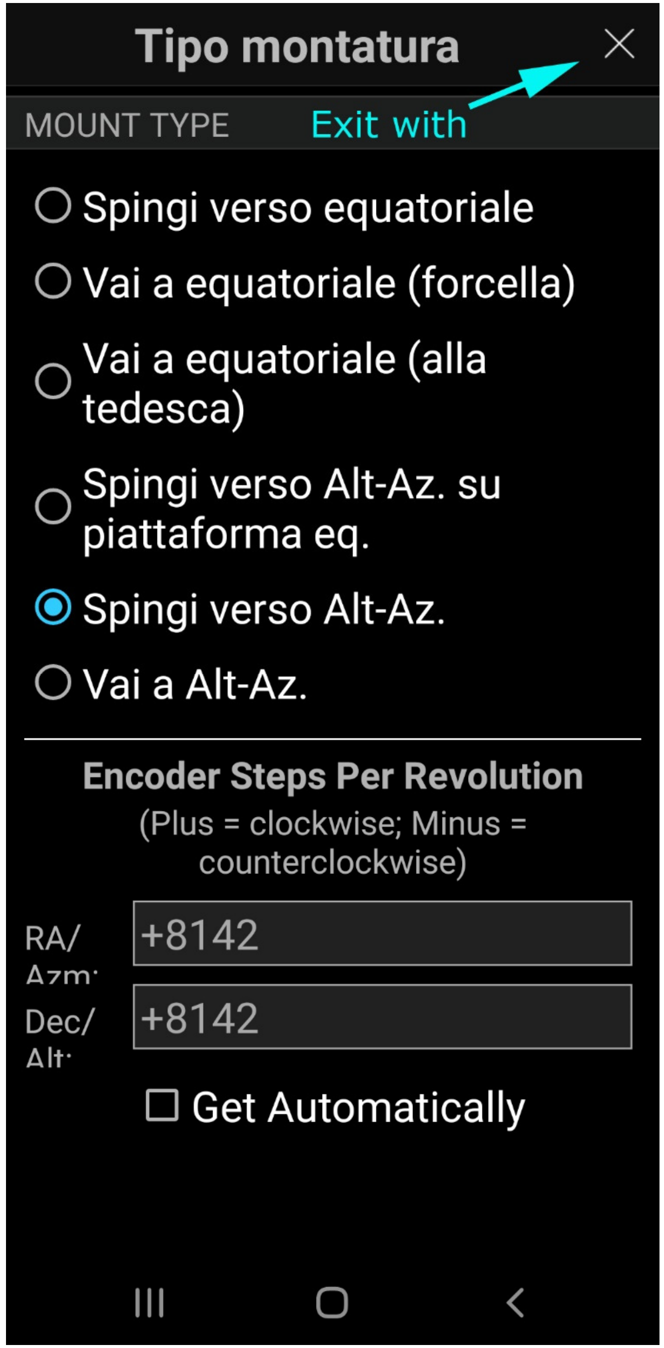
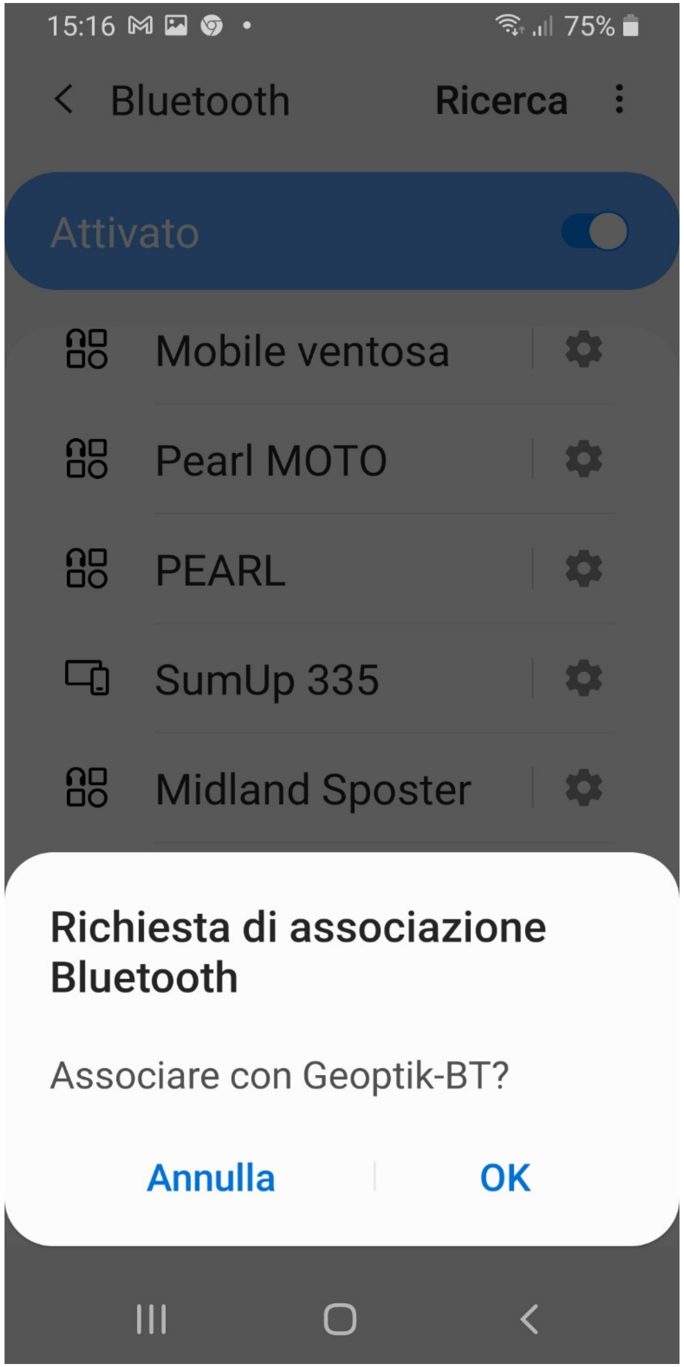
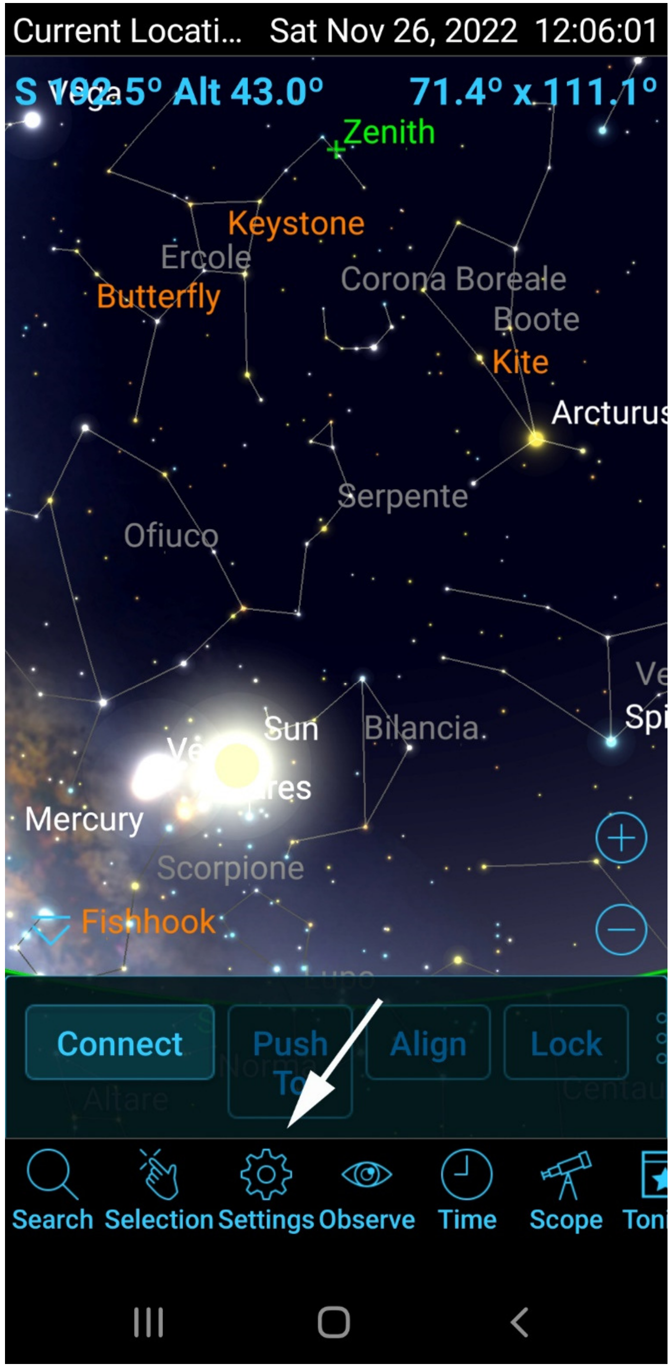

Tipo montatura
MOUNT TYPE
Exit with
Spingi verso equatoriale
Vai a equatoriale (forcella)
Vai a equatoriale (alla tedesca)
Spingi verso Alt-Az. su piattaforma eq.
Spingi verso Alt-Az.
Vai a Alt-Az.
Encoder Steps Per Revolution
(Plus = clockwise; Minus = counterclockwise)
RA/ Azm:
+8142
Dec/ Alt:
+8142
Get Automatically


15:18
75%
Selezionate dispositivo
Ricerca
Assicuratevi che il dispositivo che sta effettuando la connessione sia visibile agli altri dispositivi.
Dispositivi disponibili
Geoptik-BT
MUSIC SOUND
99229
GS805


15:16
75%
Bluetooth
Ricerca
Attivato
Mobile ventosa
Pearl MOTO
PEARL
SumUp 335
Midland Sposter
Richiesta di associazione Bluetooth
Associare con Geoptik-BT?
Annulla
OK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Corona Boreale
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Fishhook
Connect
Push To
Align
Lock
Search
Selection
Settings
Observe
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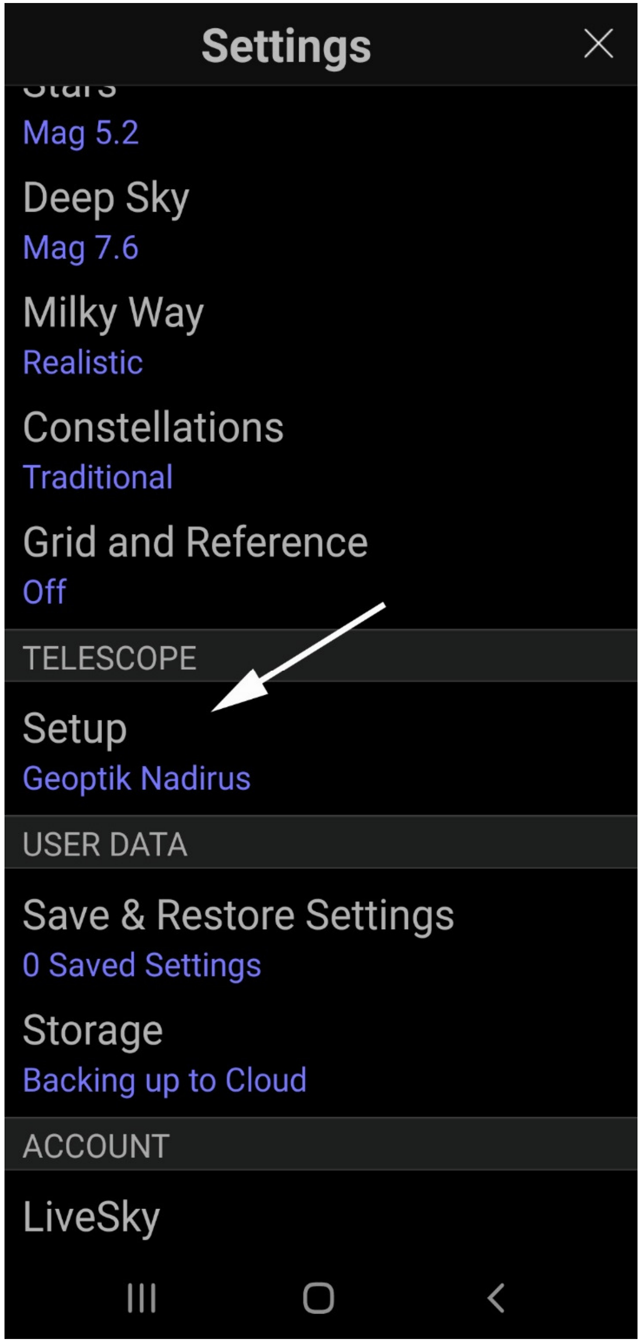
Scope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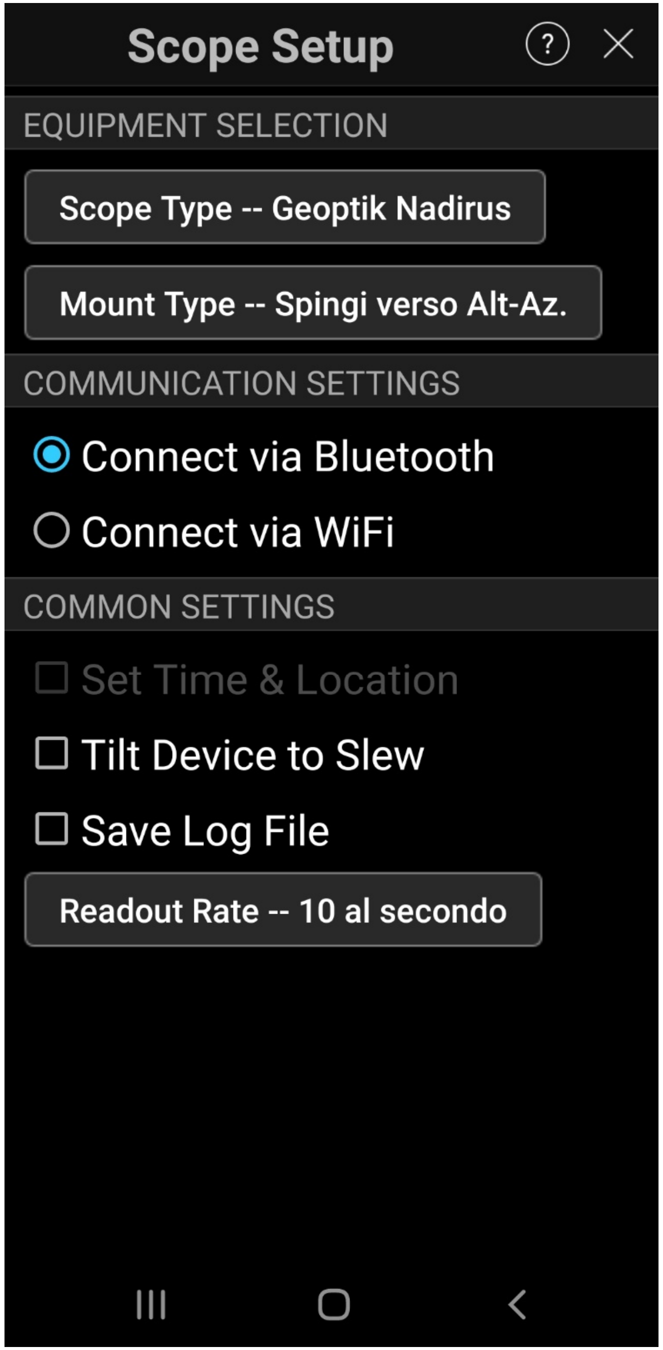
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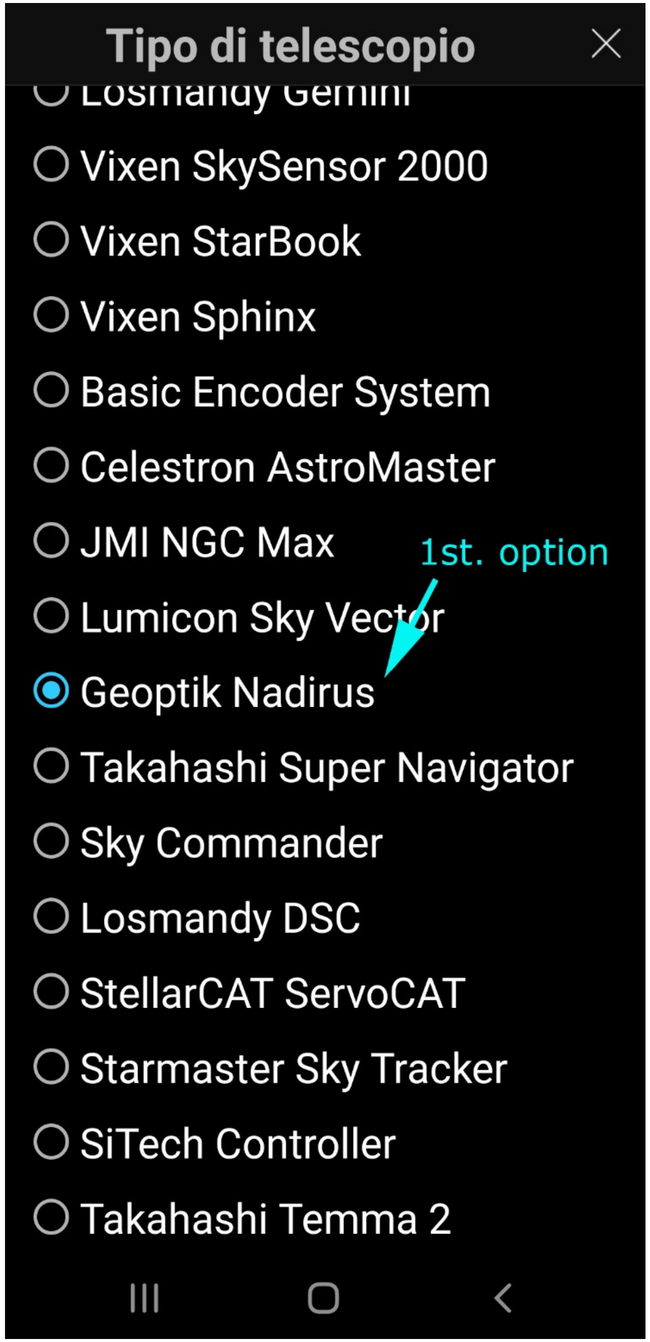
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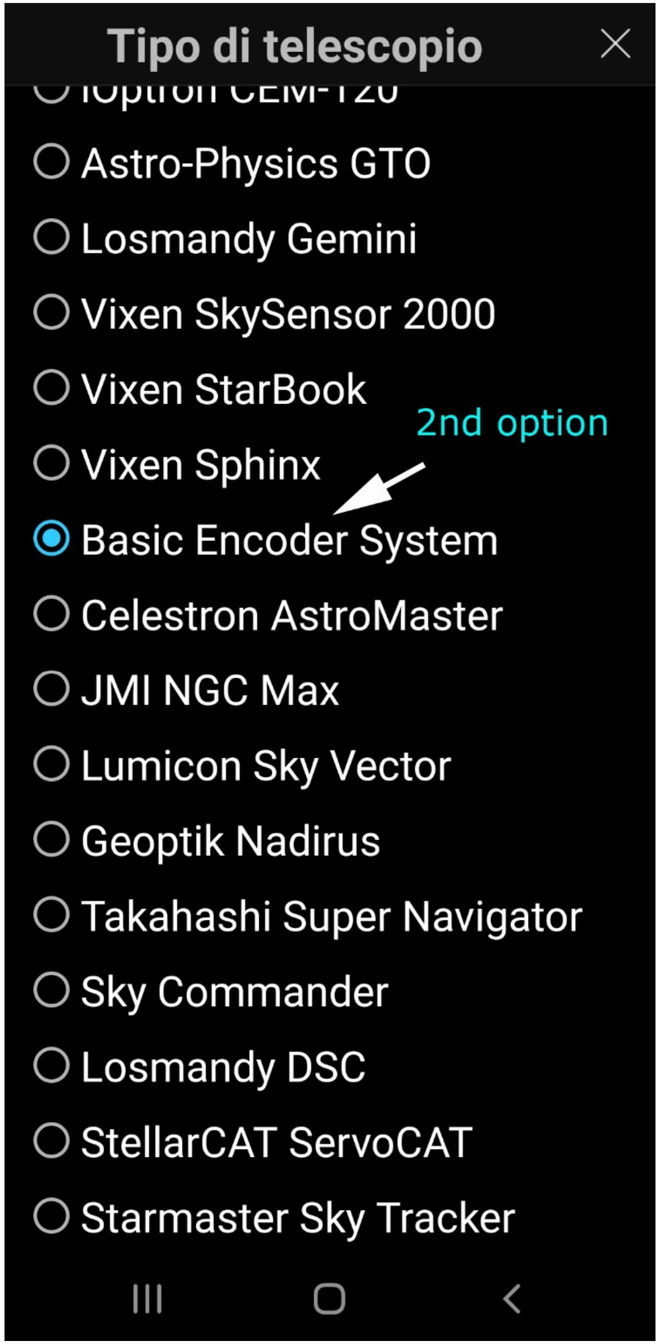
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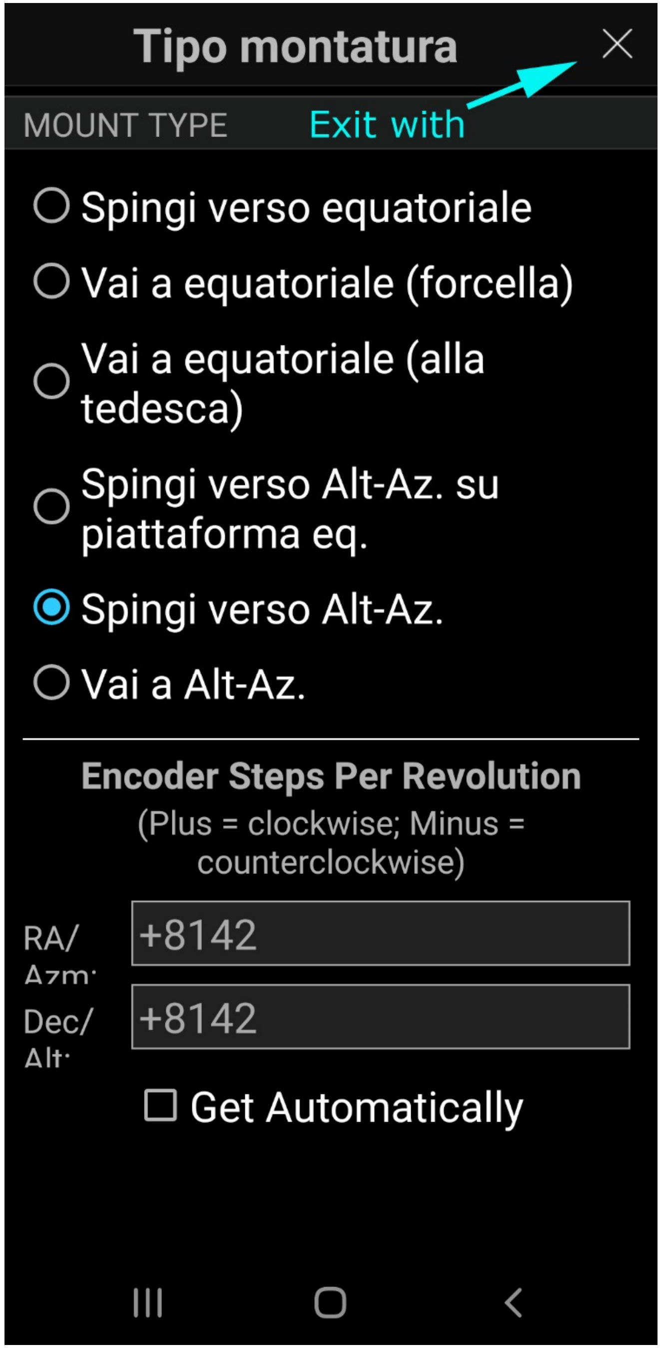
Tipo montatura
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Vai a equatoriale (alla tedesca)
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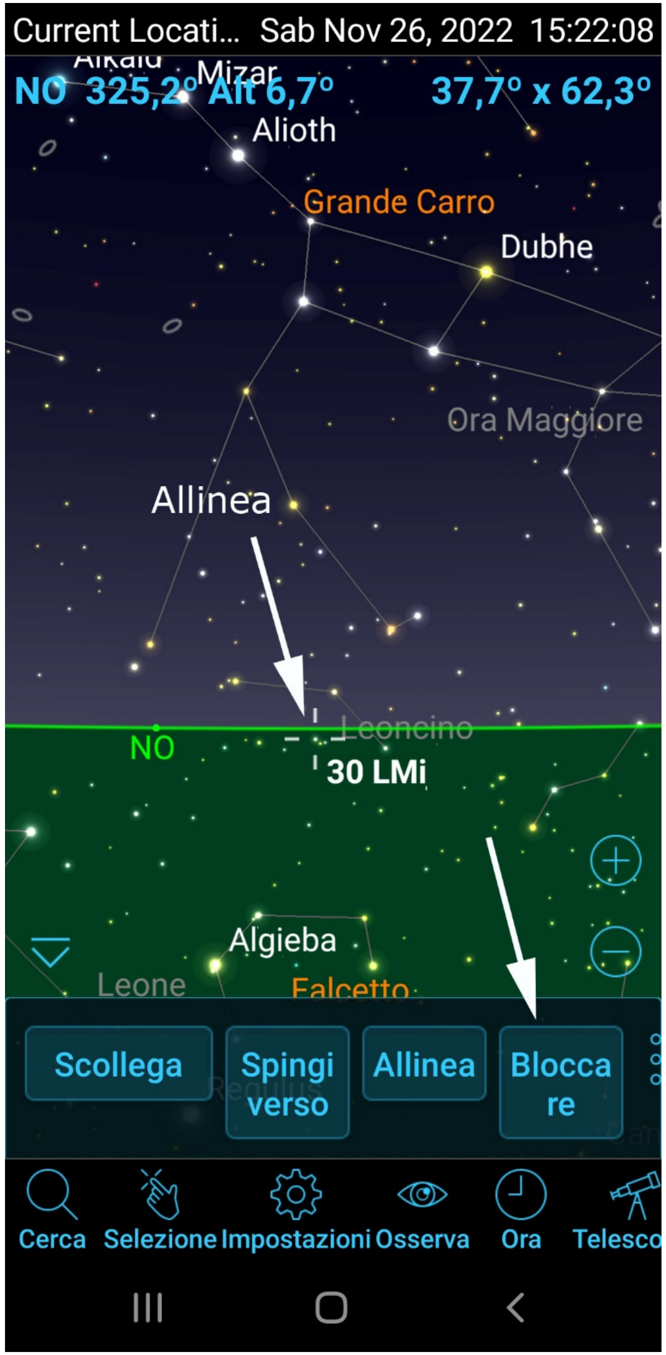
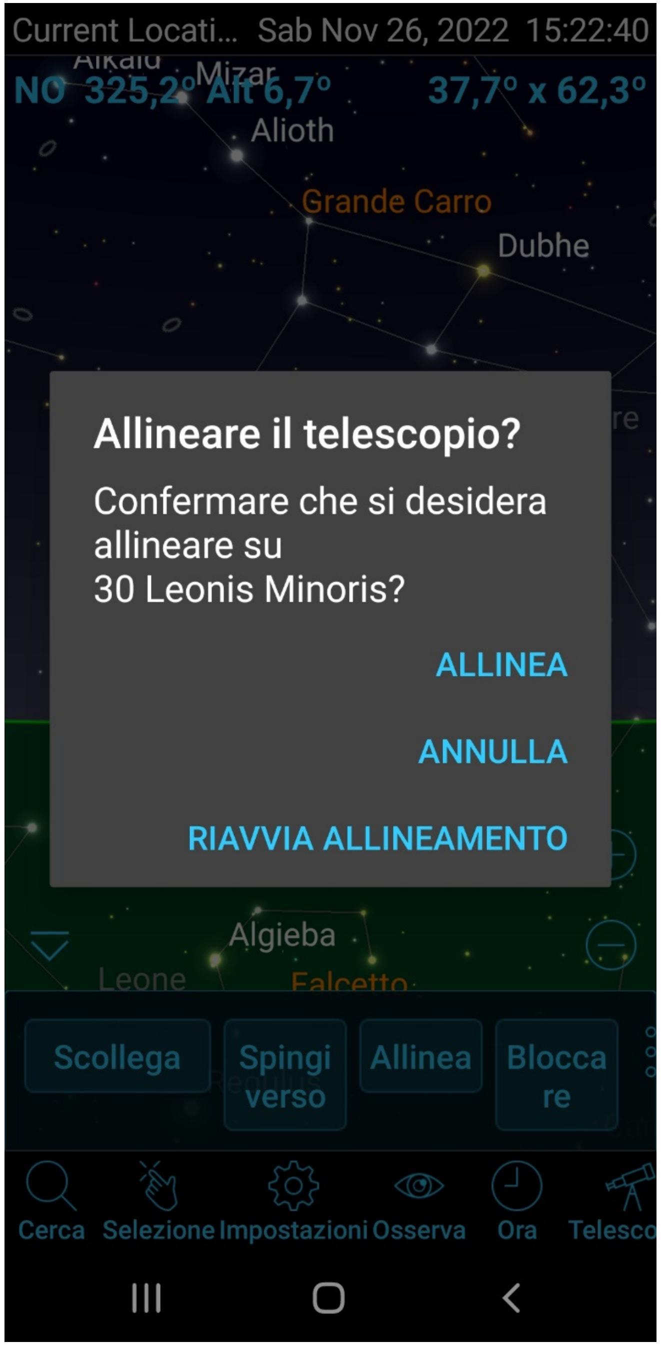

Current Locati... Sab Nov 26, 2022 15:22:08
NO 325,2° Alt 6,7°
37,7° x 62,3°
Mizar
Alioth
Grande Carro
Dubhe
Ora Maggiore
Allinea
NO
Leoncino
30 LMi
Algieba
Leone
Falcetto
Scollega
Spingi verso
Allinea
Blocca re
Cerca
Selezione
Impostazioni
Osserva
Ora
Telesco



RETURN TO THE SKYSAFARI HOME PAGE WITH THE "X"

POINT THE TELESCOPE AT THE HORIZON LINE AND GIVE THE COMMAND "ALIGN" OR "RESTART ALIGNMENT" THEN GIVE THE COMMAND "LOCK"

Reviews of Nadirus 2BW:

Rated **4** out of 5

Wouter van Reeven *(verified owner)* – 26 June 2023

Connecting to the device via WIFI on my iPhone, iPad and Intel MacBook is easy. My MacBook also allows me to connect via BlueTooth. The connection in SkySafari Pro 6 on my MacBook via BlueTooth is rock steady. The connection in SkySafari Pro 6 and 7 via WIFI isn't great as Geoptik already indicate in the "manual". The connection often hangs for a few seconds (which is annoying when homing in on a target) but then restores without losing alignment. Speaking of the "manual", a PDF with screenshots in Italian isn't a manual. After going through it and connecting to the device, I still had many questions. Ezio of Geoptik very kindly answered them quickly!

The device works well. For my first test I aligned with Venus before sunset and then was able to find Arcturus, Spica and Regulus. They showed up well within the 1.4º field of view of a Nagler 26 mm eye piece in my 12" F/5 dob. So why only 4 stars? The device doesn't handle large angular distances in azimuth well. A 45º slew goes well enough. Anything more than that and the object isn't in the field of view of that same 26 mm Nagler. Upon asking Geoptik about aligning on multiple star, Ezio kindly replied that that won't work. You need to align on an object (bright star, faint galaxy, doesn't matter) close by and then pointing will be good.

This proves to be true. First aligning on, for instance, the globular cluster M 3 allows me to slew very well to the globular cluster M 53 and then from there to the globular clusters M 5, M 10, M 12 and M 14 as well without the need for aligning in between. Slewing to M 13 was too much and I needed to align first on an object close by or on M 13 itself. Slewing then to M 92 was too much again and another align was needed.

Taking all of this into account and comparing to push-to solutions that use my iPhone's compass abilities, this device is well worth its money. It takes getting used to using it (the need to sync when slewing over large angles and the need for restarting alignment, as SkySafari calls it, since the device doesn't always accept align commands) but once done, the device works very well and accurately!

Purchase Invoice:

From: Geoptik <sito@geoptik.com>
Sent: 21 February 2024 10:56
To: Andrew Thornett <andrew@thornett.net>
Subject: Il tuo ordine su Geoptik è stato spedito.

GEOPTIK

Thanks for shopping with us

Hi Andrew,

We have finished processing your order.

[Order #4840] (9 February 2024)

Product	Quantity	Price
Push-To no encoders	1	262.30€
Push-To support	1	31.15€
Subtotal:		293.45€
Shipping:		41.00€ via Spedizione - Inghilterra
Payment method:		PayPal
Total:		334.45€

Billing address	Shipping address
Andrew *Thornett* *United Kingdom (UK)* *Ty Bedwen, Birch Grove*	*Andrew* *Thornett* *Blackwood Health Centre* *United Kingdom (UK)*

CAP / Zip code: WS13 6EP *P.IVA o Codice fiscale :* *Lichfield* *Staffordshire* *00447770841767* *andrew@thornett.net*	*Blackwood Health Centre, Blackwood Road, Streetly* *CAP / Zip code: B74 3PL* *Sutton Coldfield* *West Midlands*

Grazie per l’acquisto; Ottima scelta