SkyPro™ GPS Receiver

OWNER'S MANUAL

XGPS160

FCC ID : GJW-XGPS160

IC ID : 4038A-XGPS160

Introduction

Thank you for purchasing the XGPS160 Universal Bluetooth® GPS Receiver from Dual Electronics.

The XGPS160 works with signals from GPS satellites to determine your location anywhere in the world. It then can transit your location information to many kinds of devices which have Bluetooth connectivity most devices which have Bluetooth® connectivity and support the Bluetooth® Serial Port Protocol (SPP) profile. This includes:

- the iPhone® (3GS, 4, 4S, 5)
- the iPod touch® (generations 3 through 5)
- all iPad®.

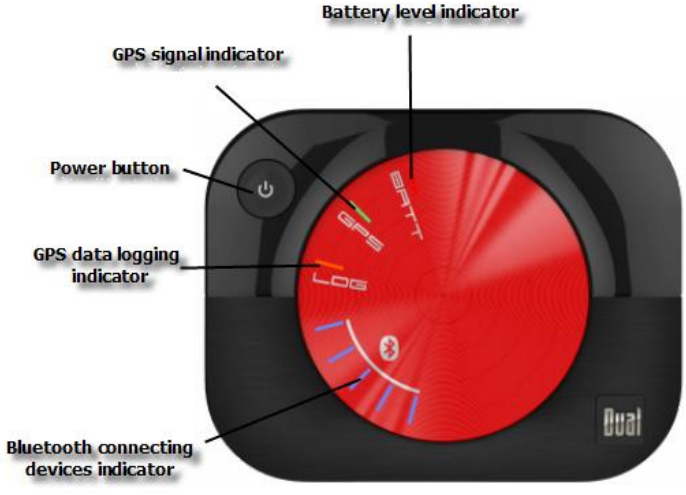
You can also connect the XGPS160 to many Android® , Windows® or Blackberry® smart phones and tablets, as well as to notebook computers running Windows® or OS X®.

NOTE: Not all manufacturers include SPP in their devices, even if the device has Bluetooth. Please consult the owner's manual for your specific device to determine whether it supports SPP. Some devices, like Android-based devices, may need a helper app to connect to the XGPS160. See Pairing with your device for more information.

Features

- **Power button**. Firmly press the power button to turn the device on and off.
- **Low battery indicator**. The light will flash red with the battery level is low and the device requires recharging. (See "How to charge the XGPS160" below.) During charging, this light will glow red and change to green when

charging is complete. This light is normally off while the XGPS160 is running.



- **Bluetooth indicator**. These lights will indicate whether the XGPS160 is searching for a device to connect to, negotiating a connection with a device, or successfully paired to a device. A slow flash (about once per second) indicates the XGPS160 is discoverable, and is available to connect to another device. A quick flash (20 times per second) happens when the XGPS160 is pairing with another device. A solid glow indicates that the XGPS160 is successfully paired and connected to another device. XGPS160 can connect with up to 5 devices simultaneously. Also these lights indicate the number of devices connecting with XGPS160 concurrently.
- **GPS signal indicator**. The GPS indicator will flash while XGPS160 is searching for satellite signals. The light will change to a steady green when your location is successfully determined.

- **GPS data logging**. XGPS160 can log the GPS data received in the flash memory included in the unit. Please, contact with CS about how to export the data from XGPS160 and for more information.

- **USB connection**. The USB connection is used for charging the XGPS160, and for updating the firmware.

Setup

The XGPS160 is very simple to use. There is a one-time setup process to connect it to your iPod, smartphone, tablet or laptop computer. Once this setup process is completed, simply turn on the XGPS160 to begin using it.

To setup the XGPS160 with your iPod, smartphone, tablet or computer, you will need to do two things:

1. Power on the XGPS160.
2. Pair the XGPS160 with the device you will be using.

Pairing the XGPS160 with your device

Pairing is the process connection two devices over Bluetooth and allowing them to communicate. You will need to go through the pairing process each time you use the XGPS160 with a new device, and the XGPS160 will automatically try to reconnect to the last device it was paired with

Pairing the XGPS160 with the iPod touch, iPhone and iPad

(NOTE: these instructions were written using iPhone OS version 6.1 and may be different if you are using a different version of the iPhone OS)

- On the iPod touch/iPhone, go to : **Settings-> BlueTooth**
  and turn on Bluetooth. The iPod will automatically begin looking for the XGPS160.
- Turn on XGPS160. The blue Bluetooth light on the XGPS160 will begin to blink slowly (about once per second).
- After a few seconds, the XGPS160 will appear as **XGPS160-xxxxxx** in the list of devices on the touch/iPad/iPhone screen.(The last 6 digits are part of the Bluetooth serial number and will be different for each unit.) The word Misc may also appear for a few moments before **XGPS160-xxxxxx** appears.
- Tap the XGPS160 in the list of devices to connect to it. The words **"Not Patied"** will disappear and replaced be the spinning cursor.
- After approximately 10 seconds, the **XGPS160-xxxxxx** name in the device list will change to blue text and the word **"Connected"** will appear. The blue light on the XGPS160 will blink rapidly for a few seconds and then stay illuminated, confirming the two devices have successfully paired and are communicating.

Pairing the XGPS160 with Android device.

(NOTE: these instructions were written using Android OS

version 3.2. and may be different if you are using a different version of the Android OS.)

- Turn on the XGPS160. The blue Bluetooth status light on the XGPS160 will begin to blink slowly (about once per second).
- On the Android device go to :
  Settings -> Applications -> Development and enable the option for **Allow mock locations**. This will let the Android device use GPS information from an external device like XGPS160.
- On the Android device go to :
  Settings -> Wireless & networks -> Bluetooth settings and select **Scan for devices**.
- After a few seconds, the word **XGPS160-xxxxxx** will appear in the list of devices.(Note: the last 6 digits are part of the XGPS160 Bluetooth serial number and will vary from device to device.) At this point, the Android device may say **Paired but not connected** and the Bluetooth indicator XGPS160 will continue to blink slowly.
- In order to for GPS-enabled apps to use information from an external GPS, you will likely need ro install a helper app runs in the background and will let apps communicate with the XGPS160. Several helper apps are available, and we recommend using a free app on the Android Market called **Bluetooth GPS**.

Using the *Bluetooth* GPS helper app with the XGPS160

- Please make sure you have completed the steps above in **Paring the XGPS160 with an Android device**.
- Download and install the ***Bluetooth* GPS Provider** app from Android Marketplace.
- Open the ***Bluetooth* GPS Provider** app and select the XGPS160 from the pull-down menu on the Main tab.
- Check the box next to **Enable Mock GPS Provider**.

- Tap the **Connect** button. Your Android device will connect to the XGPS160 and begin streaming location data to apps on your device. The blue Bluetooth indicator on the XGPS160 will illuminate without blinking.

Using the XGPS160.

Once the XGPS160 is paired with your device, you can begin using apps that utilize GPS information. The XGPS160 includes a non-slip pad for use in a ca or on a boat. Slide the XGPS160 into the pad to secure it, making sure that the lip of the pad seals over the top edges of the XGPS160. The XGPS160 is not water proof, but it will withstand light splashing when it is seated properly in the non-slip pad.

Charging the XGPS160

The XGPS160 is charged via the USB connector on the side of the device. To charge, simply connect the XGPS160 to the USB port on any computer using the included USB cable. A 12V cigarette lighter adapter is also included for charging the XGPS160 in a car. It takes approximately 2.5 hours to fully charge the XGPS160.

Tips for best performance

- Put the XGPS160 in a location with a clear view of the sky: the dashboard of your ca, a boat bulkhead.
- The range of the Bluetooth connection will drop as the battery level drops. If you find that the wireless connection is failing, try recharging the XGPS160.

Specifications

Dimensions(WxHxD in mm)

- XGPS160 :: 55.0 x 70.0 x 22.0
- Non-slip Pad: 107.0 x 122.0 x 25.0

Charging Voltage

- Input Voltage : 5V DC

Cigarette Lighter Power Adapter Voltage

- Input : 12V DC ~ 30V DC
- Output : 5V DC

GPS/GLONASS

- GPS and GLONASS supported simultaneously.
- SBAS(WASS, MSAS, EGNOS, GAGAN) supported.
- GPS : L1 1575.42 MHz
- GLONASS : L1 1598.0625 MHz ~ 1605.375 MHz
- Cold Start : <29 sec. Typical(Open sky)
- Warm Start : <25 sec. Typical(Open sky)

Bluetooth

- CSR engine
- Version : 2.1+EDR
- Range : ~10m(~33ft) (Open space)

Internal battery

- Capacity : 1,400mAh
- Operation time : ~10.0 hours(based on good GPS receiving and one device connection)
- Charging time : ~3 hours

Environmental requirements

- Operating temperature: 14°F ~ 140°F(-10°C ~ 60°C)
- Storage temperature: -4°F ~ 176°F(-20°C ~ 80°C)
- Relative humidity : 5% to 95%(non-condensing)

Compliance

ICC Compliance

This Class [B] digital apparatus complies with Canadian ICES-003.

This radio transmitter (4038A-XGPS160) has been approved by Industry Canada to operate with the antenna types listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna types not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

- IC Warning
This device complies with Industry Canada licence-exempt RSS standard(s).
Operation is subject to the following two conditions:
(1) this device may not cause interference, and
(2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autoriséee aux deux conditions suivantes :
(1) l'appareil ne doit pas produire de brouillage, et
(2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'encompromettre le fonctionnement.

FCC Compliance

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) this device may not cause harmful interference, and
(2) this device must accept any interference received, including interference that may cause undesired operation.

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Limited One-Year Warranty

This warranty gives you specific legal rights. You may also have other rights which vary from state to state. Dual Electronics Corp. warrants this product to the original purchaser to be free from defects in material and workmanship for a period of one year from the date of the original purchase.

Dual Electronics Corp. agrees, at our option, during the warranty period, to repair any defect in material or workmanship or to furnish an equal new, renewed or comparable product (whichever is deemed necessary) in exchange without charges, subject to verification of the defect or malfunction and proof of the date of purchase. Subsequent replacement products are warranted for the balance of the original warranty period.

Who is covered? This warranty is extended to the original retail purchaser for products purchased from an authorized Dual dealer and used in the U.S.A.

What is covered? This warranty covers all defects in material and workmanship in this product. The following are not covered: software, installation/removal costs, damage resulting from accident, misuse, abuse, neglect, product modification, improper installation, incorrect line voltage, unauthorized repair or failure to follow instructions supplied with the product, or damage occurring during return shipment of the product. Specific license conditions and copyright notices for the software can be found via http://www.dualav.com.

What to do?

1. Before you call for service, check the troubleshooting guide in your owner's manual. A slight adjustment of any custom controls may save you a service call.
2. If you require service during the warranty period, you must carefully pack the product (preferably in the original package) and ship it by prepaid transportation with a copy of the original receipt from the retailer to an authorized service center.
3. Please describe your problem in writing and include your name, a return UPS shipping address (P.O. Box not acceptable), and a daytime phone number

with your shipment.

4. For more information and for the location of the nearest authorized service center please contact us by one of the following methods:

    - Call us toll-free at 1-866-382-5476
    - E-mail us at cs@dualav.com

Exclusion of Certain Damages: This warranty is exclusive and in lieu of any and all other warranties, expressed or implied, including without limitation the implied warranties of merchantability and fitness for a particular purpose and any obligation, liability, right, claim or remedy in contract or tort, whether or not arising from the company's negligence, actual or imputed. No person or representative is authorized to assume for the company any other liability in connection with the sale of this product. In no event shall the company be liable for indirect, incidental or consequential damages.

Note

Dual Electronics Corp.
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www.dualav.com