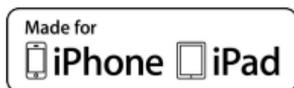




XGPS150A

~~OWNER'S~~ MANUAL

Universal GPS Receiver





Introduction

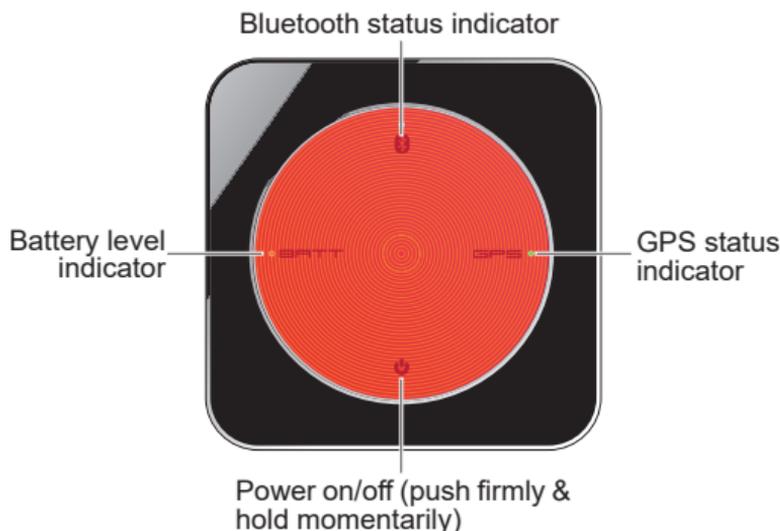
Thank you for purchasing the XGPS150A Universal Bluetooth® GPS Receiver from Dual Electronics.

The XGPS150A works with signals from GPS satellites to determine your location anywhere in the world. It then can transmit your location information to many kinds of devices which have Bluetooth connectivity and support the Bluetooth Serial Port Profile (SPP). This includes:

- the iPad® including Pro, Air and Mini
- the iPod touch® (recent generations) the iPhone®
- You can also connect the XGPS150A to many smart phones and tablets, as well as 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 XGPS150A. See ***Pairing with your device*** for more information.

Features



Power switch. Firmly press and hold the power icon for approximately 3 seconds to turn the device on or off.

Low battery indicator. This light will flash red when the battery level is low and the device requires recharging. (See **Charging the XGPS150A.**) During charging the light will glow red, and it will change to green when charging is complete. This light is normally off while the XGPS150A is running.

Bluetooth status indicator. This light will indicate whether the XGPS150A is searching for a device to connect to, negotiating a connection with a



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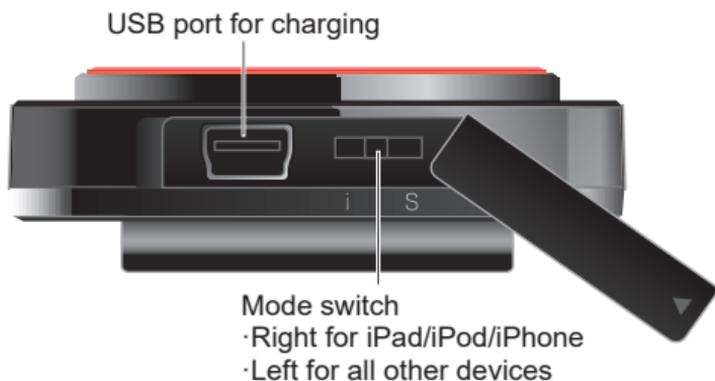
Features (cont'd)

device, or has successfully paired to a device. A slow flash (about once per second) indicates the XGPS150A is available to connect to another device. A quick flash (approx. 5 times per second) briefly happens when the XGPS150A is pairing with another device. A solid glow indicates that the XGPS150A has successfully paired and is communicating with another device.

GPS status indicator. The GPS indicator will flash while the XGPS150A is searching for satellite signals. The light will change to a steady green when your location is successfully determined. NOTE: when paired with an iPad, iPod touch or iPhone the GPS status light will not illuminate until an app is actively requesting GPS information.

USB connection. The USB connector is used for charging the XGPS150A.

Features (cont'd)



Mode switch. The mode switch must be set for the device you want to use the XGPS150A with:

Switch Position	For these devices:
Left (towards USB connector)	<ul style="list-style-type: none"> • Android, Windows & Blackberry devices, including tablets. • Windows and Mac laptop computers.
Right (away from USB connector)	<ul style="list-style-type: none"> • iPod touch, iPad and iPhone



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Setup

The XGPS150A is very simple to use. There is a one-time setup process to connect it to your iPad, iPod touch, iPhone, smart phone, tablet or laptop computer. Once this setup process is completed, simply turn on the XGPS150A any time you want to use it.

To set up the XGPS150A with your device, you will need to do two things:

- Set the mode switch on the XGPS150A for the type of device you will be using.
- Turn on the the XGPS150A and pair it with the device you will be using.

Setting the mode switch

With the tip of a fine ballpoint pen, move the mode switch to the proper position:

- If you are using the XGPS150A with an iPad, iPod touch or iPhone slide the switch right, away from the USB connector.
- To use the XGPS150A with an Android, Windows or Blackberry smart phone, laptop computer or tablet, move the mode switch to the left, towards the USB connector.

Turn on the XGPS150A

Press and hold the power button on the XGPS150A for about 3 seconds. The lights on the de-



vice will flash momentarily, and the blue light will continue to flash indicating that the XGPS150A is ready for pairing.

The battery in the XGPS150A is already partially charged and the device should turn on the first time you take it out of the box. If the device does not turn on, please charge it from a USB source before continuing - see ***Charging the XGPS150A*** on page 15.

Pairing with your device

Pairing is the process connecting two devices over Bluetooth to allow them to communicate. You will need to go through the pairing process the first time you use the XGPS150A with a new device. Once the XGPS150A is paired with a device, the two devices will remember their connection and you will not need to repeat the pairing process.

When powered on, the XGPS150A will automatically try to reconnect to the last device it was paired with. Keep this in mind when trying to use it with multiple devices: if you are having trouble getting a second device to recognize the XGPS150A, make sure the last device you used with the XGPS150A is turned completely off or is out of Bluetooth range.

Once the XGPS150A is paired with your device, you can immediately begin using apps that utilize GPS information.



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NOTE: *If your device requests a code to connect during the pairing process, use “0000” or “1234”.*

Pairing the XGPS150A with the iPad, iPod touch or iPhone

(NOTE: these instructions were written using iOS version 5.0 and may be different if you are using a different version of the iPhone OS.)

- Make sure the mode switch on the XGPS150A is positioned to the right (for more information, see **Setup**).
- If not already on, turn on the XGPS150A. The blue Bluetooth status light on the XGPS150A should be blinking slowly (about once per second).
- On the iPad/iPod touch/iPhone, go to:

Settings->General->Bluetooth

and turn on Bluetooth. The device will automatically begin looking for the XGPS150A.

- After a few moments, the XGPS150A will appear as **XGPS150-xxxxxx** in the list of devices on the iPod touch/iPad/iPhone screen. (The last 6 digits are part of the XGPS150A serial number and will be different for each unit.) The word **Misc** may also appear momentarily before **XGPS150-xxxxxx** appears.



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- Tap **XGPS150-xxxxxx** in the list of devices to connect to it. The words “Not Paired” will disappear and be replaced by the spinning cursor.
 - After approximately 10 seconds, the **XGPS150-xxxxxx** name in the device list will change to blue text and the word **Connected** will appear. The blue LED on the XGPS150A will blink rapidly for a few seconds and then stay illuminated, confirming the two devices have successfully paired and are communicating.
 - The iPad/iPhone/iPod touch will then display a message saying “*Application Not Installed: This accessory requires an application you do not have installed.*” **Despite what the message implies, the XGPS150A is ready to use with your iPad, iPhone or iPod touch and you do not need to download anything to make the XGPS150A work.** We do recommend that you download a free app from the app store, called the ***Bluetooth GPS Status Tool***, which shows you detailed information about the XGPS150A (device status & battery charge level) and the GPS signal reception. Tap “Yes” to be redirected to the app store to download this app, or “No” to download it later. The ***Bluetooth GPS Status Tool*** app is a completely optional download.



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Pairing the XGPS150A with an Android device

(NOTE: these instructions were written using Android OS version 3.1 and may be different if you are using a different version of the Android OS.)

- Make sure the mode switch on the XGPS150A is in the left position (for more information, see **Setup**).
- If not already on, turn on the XGPS150A. The blue Bluetooth status light on the XGPS150A should be blinking 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 the XGPS150A.

- On the Android device go to:

Settings->Wireless & networks

and turn on Bluetooth.

- On the Android device go to

Settings->Wireless & networks->Bluetooth settings

and select **Scan for devices**.

- After a few seconds, the word **XGPS150-xxxxxx** will appear in the list of devices. (Note:



the last 6 digits are part of the XGPS150A serial number and will vary from device to device.) At this point, the Android device may say **Paired but not connected** and the blue Bluetooth indicator on the XGPS150A will continue to blink slowly.

- In order for GPS-enabled apps to use information from an external GPS like the XGPS150A, you will need to install a helper app on your Android device. This helper app runs in the background and will let apps communicate with the XGPS150A. Several free helper apps are available on the Android Market. Please see the FAQ section on the Dual website (<https://www.dualav.com/gps-solutions>) for specific recommendations and installation instructions.

Pairing the XGPS150A with Windows

A driver is not required to use the XGPS150A with Windows . Please perform the following:

- Make sure the mode switch on the XGPS150A is in the left position (for more information, see **Setup**).
- If not already on, turn on the XGPS150A. The blue Bluetooth status light on the XGPS150A should be blinking slowly (about once per second). Wait a few moments for your computer to detect the XGPS150A.



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- On the computer go to:
**Control Panel -> Hardware and Sound
->Devices and Printers**
- Double-click the XGPS150A device icon to open the **Properties** window.
- In the **Properties** window, select the **Services** tab. Check the **Serial port (SPP)** option. Leave the **Wireless iAP** option unchecked.

Pairing the XGPS150A with OS X

(NOTE: these instructions were written using OS version 10.6.8 and may be different if you are using a different version of OS X.)

- Make sure the mode switch on the XGPS150A is in the left position (for more information, see **Setup**).
- If not already on, turn on the XGPS150A. The blue Bluetooth status light on the XGPS150A should be blinking slowly (about once per second).
- On the computer go to:
System Preferences -> Bluetooth
- Click the **+** icon to add a new device. The Bluetooth setup assistant will open and begin searching for Bluetooth devices. Wait a moment for the computer to find the XGPS150A.
- After a few seconds, the name **XGPS150-**



xxxxxx will appear in the list of devices. (Note: the last 6 digits are part of the serial number and will vary from device to device.)

- Select the XGPS150A and click **Continue**.
- The computer will take a few moments to complete the pairing process. If you are requested to enter a code during the process, use “0000” or “1234”.
- The computer will return to the Bluetooth window and show the XGPS150A in the list of devices. At this point, pairing is completed. However, the device status will be *Not Connected* and the blue light on the XGPS150A will continue to blink. This is normal. As soon you open an application on the computer which accesses the GPS, the device status will automatically change to *Connected*, and the blue light on the XGPS150A will stop blinking.



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- If not already on, turn on the XGPS150A. The blue Bluetooth status light on the XGPS150A should be blinking slowly (about once per second).

- From the Blackberry main menu go to:

Manage Connections

and turn on Bluetooth.

- From the Blackberry main menu go to:

Options->Bluetooth->Add Device

and select **Search**.

- After a few seconds, the name **XGPS150-xxxxxx** will appear in the list of paired devices. (Note: the last 6 digits are part of the serial number and will vary from device to device.)

- From the Blackberry main menu go to:

Options->Advanced Options->GPS

and select the **XGPS150-xxxxxx** from the **GPS Data Source** list of devices. Also, on the same menu, make sure that **GPS Services** is set for **Location On** and **Location Data is Enabled**.

If you need additional help connecting the XGPS150A to your device, please contact customer service (send email to cs@dualav.com or call 866-382-5476). However, due to the enormous variety of available devices, you may need to contact the manufacturer of your specific device for additional instructions.

Charging

The XGPS150A is charged via the USB connector on the side of the device. To charge, simply connect the XGPS150A to the USB port on any computer using the included USB cable. You can also charge the XGPS150A from any standard USB wall charger, including the one which came with your iPad/iPod touch/iPhone.

Tips for best performance

- Put the XGPS150A in a location with a clear view of the sky: the dashboard of your car, up on the glareshield of a plane, a boat bulkhead, the shoulder strap of a backpack, etc.
- 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 XGPS150A.
- Windshields with integrated heating elements or metalized films can severely attenuate GPS signals. If your car or aircraft has these, we recommend placing the XGPS150A in a side window for best reception.
- The XGPS150A includes a non-slip pad for use



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in a car or on a boat. Slide the XGPS150A into the pad to secure it, making sure that the lip of the pad seals over the top edges of the XGPS150A. The XGPS150A is not waterproof, but it will withstand light splashing when it is seated properly in the non-slip pad.

- You can renew the stickiness on the bottom of the non-slip pad by washing the pad with warm water and mild soap. Let the pad air dry upside down or dry with a lint-free cloth.
- A two-piece armband is also included for using the XGPS150A during hiking, geocaching, jogging, cycling or other outdoor activities. Use the armband without the extension to secure the XGPS150A around the strap of a backpack. With the extension, the XGPS150A can be secured around your arm.

Troubleshooting

- If you cannot pair the XGPS150A with a second device:

Step 1. Make sure the Mode switch on the XGPS150A is in the correct position.

Step 2. Check to see if the XGPS150A is still connected to the first device: if the blue light on the XGPS150A is not blinking, it is still connected to another device. Turn off Bluetooth on the first device, or move out of Bluetooth range. Please



note that the XGPS150A cannot connect to more than one device at a time. This is a limitation of Bluetooth.

Step 3. Completely power down and reboot both the device and the XGPS150A.

- The battery in the XGPS150A is not user-serviceable. For battery issues, please contact Customer Support for additional help: send email to cs@dualav.com or call 866-382-5476.

- Most connection problems with Android tablets are resolved by:

- a. Enabling the option for **Allow mock locations** on the tablet. This option is found under: **Settings->Applications->Development**

- b. Installing the correct helper app. See the FAQ section of the XGPS150 website for more information on helper apps:

<http://xgps150.dualav.com/faq.html>.

- c. For Android versions 3.x and above, select the option for “unsecure Bluetooth connection” in the helper app.

For other questions or additional help, please contact Customer Support via email at cs@dualav.com or call 866-382-5476.



XGPS150A

Specifications

Dimensions (WxHxD in mm)

- XGPS150A: 55.0 x 55.0 x 18.5
- Non-slip pad: 94.0 x 144.0 x 22.0

GPS

- L1 frequency, SBAS (WASS, MSAS, EGNOS, GAGAN) supported.
- Cold start: < 29 sec. typ. (open sky)
- Warm start: < 25 sec. typ. (open sky)

Bluetooth

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

Internal Battery

- Capacity: 680 mAh
- Operating time: ~8.5 hours
- Charging time: ~2.5 hours

Environment Requirements

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



ICC Compliance

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

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 in-



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Compliance (cont'd)

stallation. 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



Warranty (cont'd)

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 appropriate section in this manual. An simple adjustment 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 limita-



Warranty (cont'd)

tion 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.



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