DigiTrak® ECLIPSE
Dual-Frequency Receiver

Instructions for Setting Frequency and Calibrating Receiver

The Eclipse® locating systems have a feature called *dual-frequency capability*. With the Eclipse dual-frequency (EDF) transmitter, you can track at the standard 12-kHz frequency or at the lower frequency of 1.5 kHz. This lower frequency enables more accurate locating in areas where passive (metal) interference is a problem. The higher frequency provides more accuracy in areas of active interference.

The dual-frequency capability provides three frequency types: dual low (DL), dual high (DH), and single high (SH). The receiver must be set to either low-frequency (DL) or high-frequency (DH and SH) mode.

REMEMBER: All of the Eclipse menu options should be viewed as questions. For example:

If you see **Low Fre**, you are being *asked* if you want to switch to the low-frequency setting. The receiver is actually set to high frequency. You should see **Low Fre** when using the standard Eclipse transmitter or the EDF transmitter in SH or DH mode.

If you see **High Fre**, you are being *asked* if you want to switch to the high-frequency setting. The receiver is actually set to low frequency. You should see **High Fre** when using an EDF transmitter in dual-frequency low (DL) mode.

Setting the Frequency

1. From Eclipse main menu, toggle right to find the frequency menu, which will display as either **Low Fre** or **High Fre**.
   - If you are using the standard Eclipse transmitter (black), the receiver's menu should read **Low Fre**, which means the Eclipse receiver is at the high-frequency setting.
   - If you are using the EDF transmitter (lavender), the receiver's menu should read **High Fre** when in DL mode and **Low Fre** when in SH or DH mode.
2. To change the frequency setting, click the trigger.

Calibrating to EDF Transmitter

1. Start transmitter in dual-frequency mode (see back of this page), and then power up receiver. From Eclipse main menu, toggle right to verify that you see **Low Fre**, then toggle back to select **Configure** and then **1 pt. Cal.** Select "High Frequency" at the prompt and calibrate. Check depth readings against a tape measure to confirm an accurate calibration.
2. From Eclipse main menu, toggle right and change the frequency setting to read **High Fre**. Then select **Configure**, and then **1 pt. Cal.** Select "Low Frequency" at the prompt and calibrate. Check depth readings against a tape measure to confirm an accurate calibration.
3. This step alone is used for calibrating a standard black Eclipse transmitter or the EDF transmitter in single-high (SH) mode. Power up the standard black transmitter or the EDF transmitter in single-frequency mode (see back of this page). Change the frequency setting on the receiver to read **Low Fre**. Then select **Configure**, and then **1 pt. Cal.** Select "High Frequency" at the prompt and calibrate. Check depth readings against a tape measure to confirm an accurate calibration.

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DigiTrak® Eclipse
Dual-Frequency Transmitter

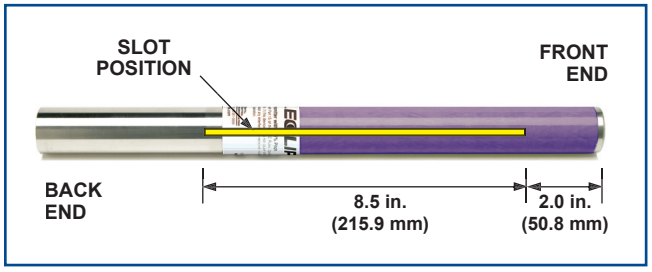
Housing Requirements and Startup Instructions

The Eclipse® dual-frequency transmitter (lavender color) operates in two modes: dual frequency (12 and 1.5 kHz) or single frequency (12 kHz). The frequency mode can only be changed at startup when the batteries (two C-cell batteries or one DCI SuperCell™ lithium battery) are loaded into the battery compartment.

Each of the frequency modes offers specific advantages. The dual-frequency mode provides a depth range of approximately 40 feet (12.2 m) in either frequency (12 or 1.5 kHz) and is recommended in areas where rebar, wire mesh, or other metal (passive) interference may be encountered. The single-frequency mode (12 kHz) provides a depth range of approximately 60 feet (18.3 m) and is intended for use in areas of active interference.

Housing Slot Requirements

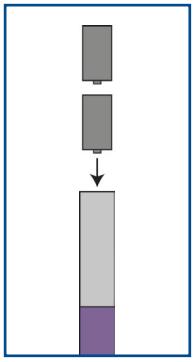
To achieve maximum range and battery life for all of DCI's transmitters, the slots in the housing must be long enough and correctly positioned. Slot measurements should always be taken from the inside of the housing.



The EDF transmitter requires at least three slots equally spaced around the circumference of the housing. Each slot should begin at least 2.0 inches (50.8 mm) from the front of the transmitter and must be at least 8.5 inches (215.9 mm) long.

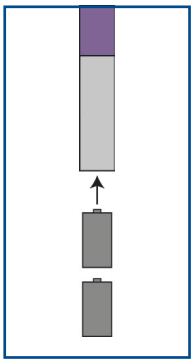
Starting Up in Dual-Frequency Mode

1. Remove battery cap and hold transmitter vertically with battery compartment up and front end pointing down.
2. Load two C-cell batteries (or a SuperCell battery) into battery compartment with positive terminal down.
3. While keeping transmitter in vertical position, replace battery cap, and then roll transmitter to verify startup. The signal strength at 10 feet (3 m) should be:
   – 510 to 520 with transmitter outside housing
   – 490 to 500 with transmitter inside housing



Starting Up in Single-Frequency Mode

1. Remove battery cap and hold transmitter vertically with battery compartment down and front end pointing up.
2. Push two C-cell batteries (or one SuperCell battery) into battery compartment with positive terminal entering first.
3. While keeping transmitter in vertical position, replace battery cap, and then roll transmitter to verify startup. The signal strength at 10 feet (3 m) should be:
   – 550 to 560 with transmitter outside housing
   – 530 to 540 with transmitter inside housing



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