

DigiTRAK[®] **F5**[®]

Directional Drilling Locating System

Operator's Manual

**Supplement B:
Changes in v3.04 Software
September 2014**

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Introduction

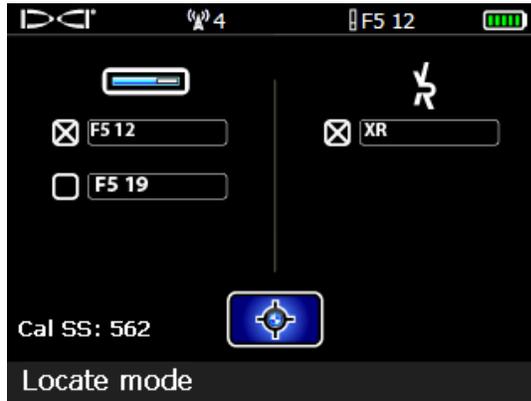
This document is intended as a supplement to the DigiTrak® F5® Operator’s Manual, which should be reviewed in its entirety before using the equipment or techniques described herein.

Larger 4.1-inch Display

The F5 receiver has been upgraded with a larger and brighter 4.1” color display.

Dual-Frequency Transmitter Shortcut Screen

From the Locate screen, hold the toggle right to open the Transmitter Shortcut menu. The current transmitter type and frequency in use (**F5 12** below) is marked with an **X**, and its calibration signal strength displays beside **Cal SS**.



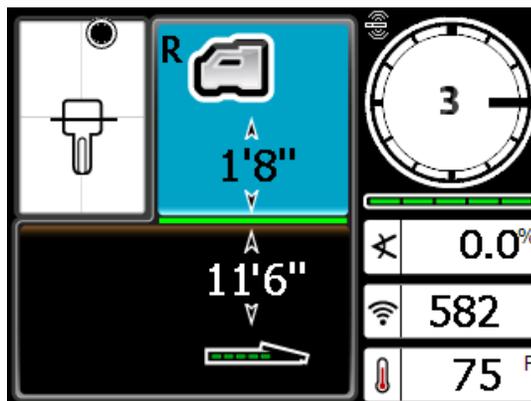
Transmitter Shortcut Menu Showing 19/12 kHz Transmitter

Select from the frequencies listed on the left. Select **Locate mode**  to return to the Locate screen.

XRange mode will function only when using a transmitter with "XRange" stamped on the metallic case.

New Depth Screen Layout

When holding the trigger to take a reading at either the locate line or front locate point, transmitter data like pitch and roll that used to be absent now appears on the right side of the screen. Additionally, the locating target (ball) now changes to solid black when the locate line appears.



Depth Screen at Locate Line (LL)

Calibration Signal Strength Screen

From the Main menu, select Calibration , then View Calibration  to check the most recent calibrations for a transmitter.



Type	Cal. Type	Signal	Timestamp
F5 19.2	1Pt	570	2013-04-26
F5 12	1Pt	0	2013-04-26
F5 12 SH	1Pt	0	0000-00-00
F5 12 DH	1Pt	0	0000-00-00
F5 1.3 DL	1Pt	0	0000-00-00
F5 18.5	1Pt	0	0000-00-00
F5 8.4	1Pt	0	0000-00-00

Transmitter calibrations page 1/3

View Calibration Screen

The table shows all compatible transmitter types, calibration type (1-point or 2-point), signal strength, and a timestamp. Transmitters that have not yet been calibrated to the receiver will have no data in the Signal and Timestamp columns.

Note that the F5 19/12 kHz dual-frequency transmitter shares the calibrations for each of its two frequencies:

- F5 19.2, F5 19.2p, F5 XR 19.2, and F5 XR 19.2p
- F5 12, F5 12p, F5 XR 12, and F5 XR 12p

For example, when you calibrate an F5 19.2 kHz, recalibration is not necessary when switching to 19.2p (pressure) or 19.2 XR (XRange) on the same transmitter.

Toggle down to view additional pages. Click the trigger to return to the Calibration menu.

Multiple Language Support

From the Main menu, select Settings , then Language Selection  to pick from English, Spanish, German, Hindi and Chinese.



Language Selection Menu

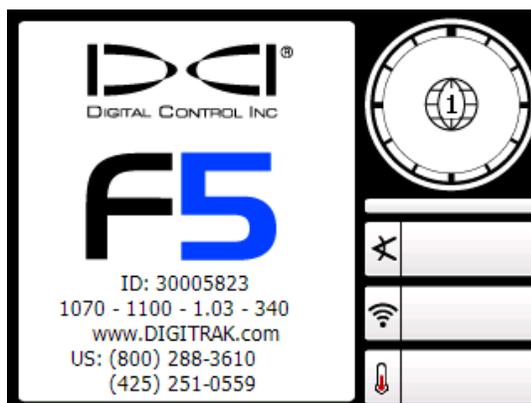
After a selection, the receiver beeps four times and restarts.

Diagnostic Menu

The Diagnostics menu includes two new features.

Perform System Self-Test

From the Main menu, select Diagnostics , then Perform System Self-Test  to start the same system self-test on internal components that is performed at startup.



Receiver Startup Screen

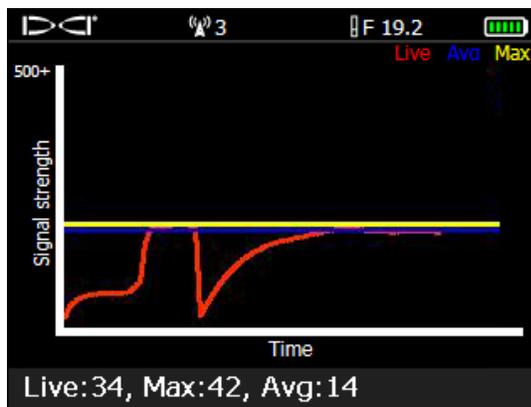
The receiver beeps four times after a successful system self-test. If the self-test is unsuccessful, it beeps twice and reports the discovered error on the Receiver Startup Screen.

Click the trigger to return to the Diagnostics menu.

Interference Noise Check

An Interference Noise Check (INC) can be performed in all frequencies for all transmitter types.

From the Main menu, select Diagnostics , then Interference Noise Check . While you walk the bore path with the receiver in this mode and the transmitter off, INC plots signal strength readings on a graph in real time. Take note of where background noise changes.



Sample Interference Noise Check Graph

The F5 receiver clears prior readings when INC begins, making it convenient to walk a bore path out in F5 12 KHz, note the areas of high interference, then select F5 19KHz and walk it back. The receiver takes about eight readings per second, averaging and drawing one data point every second. The graph displays about 4.5 minutes of data before the oldest data begins dropping off the screen as new data arrives.

The lines on the graph indicate the following:

- Red** Live signal strength readings
- Yellow** Maximum signal strength value encountered
- Blue** Running average of approximately the last 25 signal strength readings. This reading helps filter out small interference blips. If this line trends high, however, interference may be consistently high.

Toggle down to return to the Diagnostics menu.

End of Supplement.