

Supplement A

Top Toggle Control,
Improved Ease-of-Use Features,
and Other Updates



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Patents

Patent pending.

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Important Safety Instructions

Always operate your DigiTrak locating system properly to obtain accurate depth, pitch, roll, and locate points. If you have any questions about the operation of the system, please contact DCI Customer Service for assistance.

This document is a companion to your Falcon F2[®] guidance system operator's manual, which contains a more thorough list of warnings regarding the potential for serious injury and death, work slowdowns, property damage, and other hazards and warnings regarding the operation of horizontal drilling equipment. Please install, read, and understand the DCI DigiGuide™ App completely before operating the equipment described in this supplement.

Purpose of this Supplement

Supplement A addresses the changes to the user interface that accompany Falcon F2 with Top Toggle controls. If you purchased your Falcon F2 guidance system without this capability, you can contact Customer Service for details on obtaining an upgrade that includes these features. This supplement discusses the user interface changes that accompany these features.

Other Documentation

For the latest documentation for your Falcon F2 Guidance System, install the **DCI DigiGuide™App** from your smart device's App store or download the Operator's manual and related supplements from digital-control.com.

- Falcon F2 Operator's Manual
- Falcon LOC Supplement C

What's New

The latest Falcon F2[®] guidance systems include a top toggle control and other productivity-enhancing features.

- New menus and workflows, including new shortcuts
- Easier to use keypad controls for HAG, Target Steering, and LOC Security features
- Frequency Optimizer screen now includes a 2+9 band display for comparing the performance of the current bands to the newly optimized bands
- Target Steering data on the Locate Mode screen now displays depth data and an easier to use onscreen keypad
- Improved convenience features screens no longer time out, added Exit options, and an onscreen contrast control

To add these features to an earlier-model Falcon F2 locator, contact Customer Service at 425.251.0559 or dci@digital-control.com.



Top Toggle Controls

The Falcon F2 now uses two switches for operating the system: a toggle switch on the top of the locator and a trigger located under the handle. These are the same controls as the Falcon F5.

- Use the **Top Toggle** switch to access and navigate menus.
- Use the **Top Toggle** to access shortcut, such as on the Locate Mode screen, toggle right to swap the transmitter Up and Down bands.
- Use the **Trigger** switch to turn on the locator, select (click on) menu options, and change the screen view.



- 1. Top Toggle
- 2. Trigger

Changes to Menus and Screens

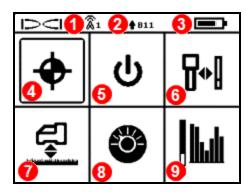
In addition to new controls, the following Falcon F2 menus have been improved for faster access.

- Main Menu
- Locate Mode
- Change Transmitter Band Shortcut
- Transmitter/Frequency Optimization
- · Settings Menu
- Roll Offset
- Target Steering
- Height-Above-Ground (HAG)
- LOC Security

Main Menu

The Main Menu is the first menu you see after you power on the locator. To access a screen or feature, use the top toggle to move the cursor to the option you want, and then click the trigger to select it.

The Main Menu has changed from the original Falcon F2 and some features have been moved to secondary menus. For more information, see the DCI DigiGuide™ App.



Main Menu

- 1. Telemetry channel
- 2. TX Band Up or Down and frequency band
- 3. Locator battery life
- 4. Locate Mode
- 5. Power off
- 6. Calibration settings and AGR
- 7. HAG settings
- 8. Settings
- 9. Transmitter/Frequency Optimizer (FO)

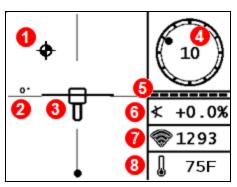
Locate Mode

The Locate Mode screen has new indicators, warnings and shortcuts.

• From the Main menu, select and click **Locate Mode** •







- 1. Locating ball (FLP or RLP)
- 2. LL Yaw Indicator
- 3. Locate Line (LL)
- 4. Roll indicator and Roll value
- 5. Roll/pitch update meter
- 6. transmitter pitch
- 7. Transmitter signal strength (high, standard, low)
- 8. Transmitter temperature

Transmitter Signal Strength

The Falcon F2 V2 transmitters have multiple power levels. The Transmitter Signal strength indicator on the Locate Mode screen displays the signal strength level for the paired transmitter. See the <u>V2 Transmitter Quick Start Guide</u> for more information on the transmitter signal strength.







High Power Level

Standard Power Level

Low Power Level

Transmitter Warnings

The Locate Mode screen displays warnings for the paired Falcon F2 V2 transmitters in the bottom left corner.



The Current Draw warning icon displays above the battery power icon if the Tx draws too much current from a weak battery (such as an alkaline battery used on High Power mode) or is used in an incompatible drill housing.

Replace the batteries with SuperCell or Lithium batteries and check that the transmitter housing meets the dimensional requirements. See the Transmitter Spec Sheet.

Locate Mode Screen Controls

Depth ScreenHold trigger at Locate Line (LL)Max ModeHold trigger for at least five seconds

Main Menu Toggle down

Predicted Depth Screen Hold trigger at Front Locate Point (FLP)

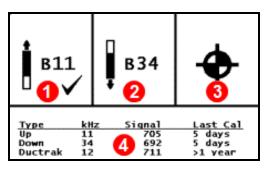
Target Steering Toggle up

Band Selection Menu Hold toggle right one second

Change Transmitter Band Shortcut

The Change Band Shortcut screen is a fast way to swap between the Up and Down bands paired with your locator.

• From the Locate Mode screen, toggle to the right.



Change Band Shortcut

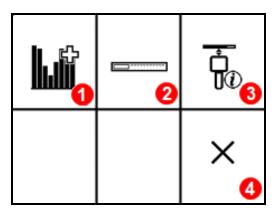
- 1. Up Band with band number (\checkmark = selected)
- 2. Down band with band number
- 3. Return to Locate Mode screen
- 4. Transmitter calibration history

Transmitter/Frequency Optimization

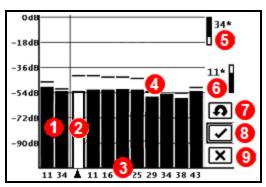
The Frequency Optimizer screen displays the current bands as the first two bands on the left of the display, which makes it easier to compare them to the newly optimized bands.

For more information, see the DCI DigiGuide™ App.

• From the Main Menu, toggle to and select **Transmitter/FO**



Transmitter/Frequency Optimization Menu

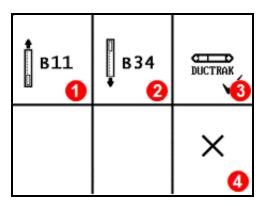


Frequency Optimization

- 1. Frequency Optimizer (FO)
- 2. Transmitter Selection Menu
- 3. Transmitter Information and runtime
- 4. Exit the Transmitter Selection Menu

- 1. Current bands
- 2. Band selector
- 3. Band numbers
- 4. Noise high water mark
- 5. Up band selection
- 6. Down band selection
- 7. Start frequency optimizer
- 8. Accept selected bands
- 9. Exit





Transmitter Selection Menu

- 1. Up band
- 2. Down band
- 3. DucTrak (✓ =selected)
- 4. Return to Locate Mode

- 1. V2 transmitters display the power levels on both bands. The selected band is underlined.
- 2. Transmitter current and voltage for the selected

SN: 30141401 Transmitter: FT2 Region: **1)** 43k **⋘**25k′ Band: Current: 0.131A Voltage: 2.512V Watts: 0.330W Temp: 23°C Max Temp: 25°C Version: 2.1.4.28 Runtime: 2 hours

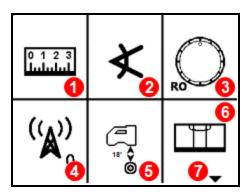
Transmitter Information

Settings Menu

The Settings Menu has been rearranged to bring more commonly used features to the first page and a new Adjust Contrast setting has been added. For more information, see the DCI DigiGuide™ App.

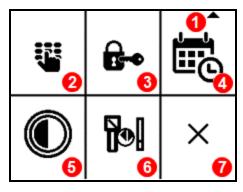
• On the Main Menu, select and click **Settings** .





- 1. Depth units setting
- 2. Pitch units setting
- 3. Roll Offset setting
- 4. Telemetry channel setting
- 5. Target Steering setting
- 6. Bubble level
- 7. Go to Page 2

Settings Menu - Page 1



1. Back to Page 1

- 2. LOC User unlock
- 3. LOC settings
- 4. System timer setting (Loaner mode)
- 5. Adjust contrast setting
- 6. Calibration signal strength values
- 7. Exit System Settings menu

Settings Menu - Page 2



Contrast can still be adjusted by holding the locator vertical and holding the trigger.

Roll Offset

The roll clock displays the relative position of the drill head using a clock analogy with the top being 12:00. Use Roll Offset if the transmitter's 12:00 position does not match that of the drill head.

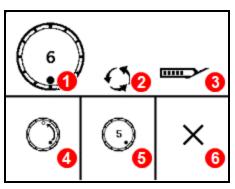


Roll offset must be disabled before changing bands using the 10-2-7 method.

- 1. Turn on and pair the transmitter to the locator.
- 2. Ensure that the drill head is at its 12:00 position.
- 3. Go to Settings menu, and then toggle over and select Roll Offset .
- 4. Select **Enable Roll Offset** .

The live clock changes to 12:00 and returns to the Locate Mode screen. RO displays at the bottom left of the roll clock.





Roll Offset Option Menu

- 1. Live roll clock indicating the current clock position
- 2. Indicates that the tool should be rotated to 12:00
- 3. Transmitter battery life
- 4. Enable Roll Offset
- 5. Disable Roll Offset
- 6. Exit back to Locate Mode screen with no changes

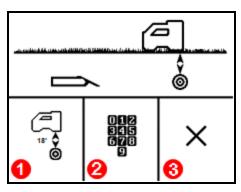


To view the original roll value prior to setting the Roll Offset to 12, from the Locate Mode screen, roll to 12. Toggle to **Settings** > **Roll Offset**. The uncorrected live clock is displayed.

Target Steering

Target Steering allows the Falcon locator to be placed ahead of the drill head and used as a steering target. New features on the Target Steering display include depth measurement and an easier to use keypad control. For more information, see the **DCI DigiGuide™ App**.

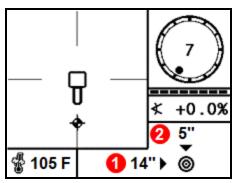
- From the **Settings** menu, click **Target Steering**.
- New shortcuts from the Locate Mode screen: To turn on Target Steering, toggle up. To turn it off, toggle down.



Target Steering Menu

- 1. Turn on Target Steering at the target depth value shown and return to Locate Mode screen in Target Mode
- 2. Program new target depth
- 3. Turn off Target Steering and return to Locate Mode screen





Locate screen with Target Steering Mode on

- 1. Horizontal distance from transmitter to locator
- 2. Approximate transmitter depth below the plane of the locator



New feature: To view the signal strength on the Depth screen, hold the trigger.

Height-Above-Ground (HAG)

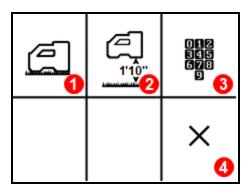
Use Height-Above-Ground (HAG) to set a height measurement on the locator, so you don't have to set it on the ground for a depth measurement. HAG now has simplified menus and an easier to use keypad. For more information, see the **DCI DigiGuide™ App**..



To prevent incorrect readings, Falcon always powers on with the HAG function off (disabled). HAG also automatically shuts off during calibration and when you change depth units, and is ignored during Target Steering and AGR tests. Any distance the locator will be above ground level needs to be added to Target Depth.

Until you enable HAG, the locator must be placed on the ground for accurate depth readings.

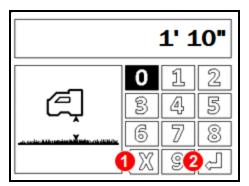
• From the Main Menu, select and click **HAG**



Height Above Ground (HAG) menu

- 1. Turn off HAG and go to the Locate Mode screen
- 2. Enable HAG at current height and go to the Locate Mode screen
- 3. Reset the HAG Height
- 4. Exit the HAG menu and go to the Locate Mode screen





Set HAG

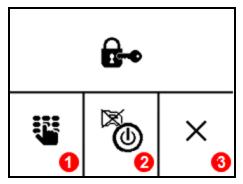
- 1. Backspace
- 2. Enter new height. Enables HAG and returns to the Locate Mode screen

LOC Security

 LOC^{TM} allows you to set a usage timer with lock-out capabilities on your Falcon locator. After the time expires, the locator is disabled until a code is entered. The LOC menus have been simplified and now use an improved keypad. For more information how to use LOC, see the LOC Supplement C and follow the Falcon F5 instructions.

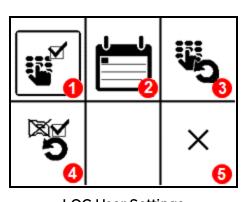
• Go to Settings menu, toggle down to the second set of icons. Select and click **Unlock**





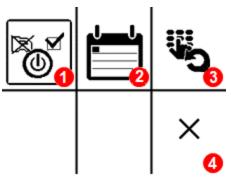
LOC Settings

- 1. LOC user settings
- 2. LOC Master Code timer settings
- 3. Exit menu



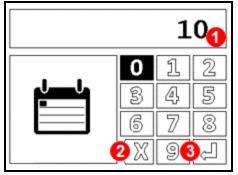
LOC User Settings

- 1. Enable or Disable User code timer (on $oldsymbol{\boxtimes}$ or off $oldsymbol{\boxtimes}$)
- 2. Set User Code timer in days
- 3. Change User Code
- 4. Refresh Master Timer (on or off \mathbf{X})
- 5. Exit menu



- 1. Enable or disable Master Code timer (on $oldsymbol{\boxtimes}$ or off $oldsymbol{\boxtimes}$)
- 2. Set the timer by selecting the number of days. (LOC no longer uses months or weeks.)
- 3. Change the Master Code
- 4. Exit menu

LOC Master Settings



User/Master Code Timer

- 1. Number of days for timer (1-365)
- 2. Backspace
- 3. Enter

- End of Supplement -