

DigiTRAK

# FALCON F1

## Directional Drilling Guidance System



- Falcon frequency optimizer helps minimize the impact of active interference
- The Falcon F1 single-band transmitter supports frequencies from 9.0 kHz to 13.5 kHz
- Infrared pairing of receiver and transmitter
- 0.1% precision pitch for completing critical grade bores
- Max Mode noise filtering boosts fringe data and stabilizes depth readings
- 12-position roll clock with roll offset
- Compatible with DigiTrak Aurora® touchscreen display

### Introducing DigiTrak Falcon F1

The Falcon F1 replaces DCI's popular DigiTrak® SE® and introduces Falcon technology to customers who typically perform short and shallow bores. DCI's Falcon technology minimizes the effect of active interference on jobsites, resulting in increased up-time for HDD crews. The Falcon F1 is a single-band receiver that uses the same frequency optimization technology as other Falcon receivers.

### Active Interference

Interference is one of the primary obstacles to completing HDD bores and can impair the accuracy of underground depth measurements. Interference varies between jobsites. The new Falcon F1 allows customers to measure active interference and then optimize frequencies to minimize its impact.

### We Work Where You Work

As a leader in the HDD industry, DCI invests in developing products that help customers be more productive and increase up-time in the field. Falcon technology employs an innovative approach of measure noise on the jobsite and then assembles the best-performing frequencies into a single band. The Falcon F1 offers the same familiar menu navigation and locating techniques, like *Ball-in-The-Box* locating, that you have come to expect from DCI. The Falcon F1 is upgradable to the Falcon F2 for those customers who want to unlock the performance advantages of choosing from all nine bands.

### Invest in Products that Invest in You

DCI now offers a new warranty program for its Falcon transmitters. The new warranty will allow you to receive, at no charge, warranty coverage for up to 3 years or 500 hours of transmitter usage, whichever comes first. Simply register your new Falcon 15-inch transmitter with DCI within 90 days and the warranty will remain in effect as you use it. This ensures you receive a return on your investment beyond the standard 90-day warranty. Optionally, ask your dealer about purchasing an additional 2 years / 250 hours of warranty coverage for your Falcon transmitter.

### How Does Falcon Technology Work?

Falcon receivers use a different approach to tackling interference. The Falcon F1 receiver allows a customer to scan for active interference along the bore path using Falcon's frequency optimizer. Results for Band 11 are shown on the screen of the receiver and can then be paired with the Falcon F1 transmitter. For extreme interference, engage Max Mode for a more stable depth reading.



Falcon Frequency Optimizer

## Receiver Specifications

Product ID .....	FF1
Model number .....	FAR2
Receiving frequencies .....	9.0-13.5 kHz
Telemetry channels <sup>1</sup> .....	4
Telemetry range <sup>2</sup> .....	defined by remote display
Power source .....	NiMH battery pack
Battery life .....	5-7 hrs
Functions .....	Menu-driven
Controls .....	Trigger switch
Graphic display .....	LCD
Audio output .....	Beeper
Accuracy .....	±5%
Voltage, current .....	14.4 VDC nominal, 300 mA max
Dimensions .....	27.94 x 13.97 x 38.1 cm
Weight (with battery) .....	3.4 kg

## Transmitter Specifications

### 15-inch

Product ID .....	FT1
Model number .....	BTW
Transmitting frequencies .....	9.0-13.5 kHz
Depth range <sup>3</sup> .....	15.2 m
Data range, Max Mode <sup>3</sup> .....	19.8 m
Pitch resolution <sup>4</sup> .....	±0.1% at level
Battery life, alkaline/SuperCell .....	up to 20/70 hrs

### 8-inch

Product ID .....	FT1S
Model number .....	BTS
Transmitting frequencies .....	9.0-13.5 kHz
Depth range <sup>3</sup> .....	7.6 m
Data range, Max Mode <sup>3</sup> .....	9.1 m
Pitch resolution <sup>4</sup> .....	±0.1% at level
Battery life, 123 3V lithium .....	up to 12 hrs

<sup>1</sup> Local telemetry frequencies and power levels available at [www.DigiTrak.com](http://www.DigiTrak.com).

<sup>2</sup> Telemetry range can be increased with an optional external receiving antenna.

<sup>3</sup> Range figures are based on SAE Standard J2520. Actual ranges and battery life will vary based on environment, transmitter housing, and frequency.

<sup>4</sup> Pitch resolution decreases with increased pitch; see manual for details.

<sup>5</sup> Dimensions do not include external mounting hardware.

## Falcon Compact Display Specifications

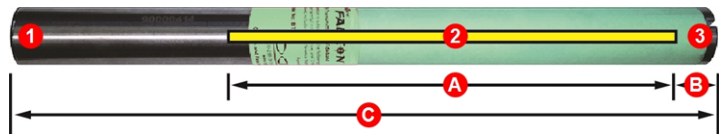
Product ID/Model number .....	FCD
Power source .....	NiMH battery pack
Battery life .....	12-24 hours
Voltage, current .....	12-30 VDC nominal, 150 mA maximum
Controls .....	Button
Graphic display .....	LCD
Audio output .....	Beeper
Telemetry range <sup>2</sup> .....	305 m
Telemetry channels <sup>1</sup> .....	4
Dimensions <sup>5</sup> .....	21.0 x 22.2 x 21.6 cm
Weight (with battery) .....	2.0 kg



**Falcon Compact Display**

## Transmitter Drill Head Requirements

For maximum transmitter range and battery life, the slots in the drill head must meet minimum length and width requirements and be correctly positioned. DCI's transmitters require a minimum of three slots equally spaced around the circumference of the drill head for optimal signal emission and maximum battery life. Measure slot lengths on the inside of the drill head; slots must be at least 1.6 mm (1/16 inch) wide. DCI transmitters fit standard housings but may require a battery cap adapter in some cases.



- 1. Battery cap      A. Slot length
- 2. Slot position    B. Distance
- 3. Front end cap    C. Transmitter length

	A Minimum	B Maximum	C
15-inch Transmitter	22.9 cm	2.5 cm	38.1 cm
8-inch Transmitter	10.2 cm	2.5 cm	20.3 cm

While a Falcon transmitter is compatible with older housing slot dimensions, optimal performance requires the A and B measurements shown above.