HDD PRODUCTS - GUIDANCE SYSTEMS



## Warnings

- Only operate your DCI guidance system in accordance with the operating instructions for your system.
- Serious injury and death, as well as property damage, can result if underground drilling equipment strikes a natural gas line, high-voltage electrical cable, or other utility.
- Work slowdowns and cost overruns can occur if you do not use your system correctly.
- You must properly calibrate your DCI guidance system in connection with each drilling project. If you fail to do so, depth readings will likely be inaccurate.
- Interference can lead to inaccurate depth readings and/or interruption of data. See **Special Notes About Interference** for more details.
- DCI guidance systems are used to locate and guide the transmitter (drill head) underground. They cannot be used to locate underground utilities.
- Failure to find the front and rear locate points can lead to inaccuracies which may result in drilling off-path and striking an underground utility.
- The locate line on a DCI receiver does not indicate the position of the drill bit. DCI receivers track the transmitter, which sits behind the drill bit. Also, when drilling steep and/or deep, the locate line may indicate a position behind or ahead of the transmitter.
- Ensure that all underground utilities have been located, exposed, and/or accurately marked prior to drilling. Follow all proper safety precautions, such as potholing.
- DCl equipment is not explosion-proof and should never be used near flammable or explosive substances.
- Wear jobsite protective/safety clothing such as dielectric boots, gloves, hard hat, highvisibility vest, and safety glasses.
- Maintain a minimum distance of 20 cm from the front of the receiver to the user's torso to ensure compliance with RF exposure requirements.
- Comply with federal, state, and local governmental regulations (such as OSHA) and all other customary or required safety precautions.

If you have any questions about the operation of your guidance system, please contact DCI Customer Service for assistance.



## **Special Notes About Interference**

While DCI guidance systems provide you with technology to combat active interference (and passive interference, with the rebar transmitter), *no guidance system is immune to all interference*. Interference can lead to inaccurate depth readings and/or interruption or loss of data. Never rely on data that does not display quickly and/or remain stable.

The Falcon frequency optimizer selects frequencies based on measured interference at a specific time and location. Interference levels change with time and with even minor changes in location. The frequency optimizer is not a substitute for prudent operator judgment. If performance drops while drilling, consider switching to the other selected band (where available) or use Max Mode.

An **A** on the screen can indicate signal Attenuation due to the presence of excessive interference, which can make depth readings inaccurate.

Interference is classified as either **active** (generating electro-magnetic signals) or **passive** (material that can conduct or block electro-magnetic signals). Sources of active and passive interference may include:

Active	Passive	
Traffic signal loops	Metal pipes	
Buried dog fences	Rebar	
Cathodic protection	<ul> <li>Trench plates</li> </ul>	
Radio communications	Chain-link fences	
Security systems	Vehicles	
Microwave towers	<ul> <li>Salt water / salt domes</li> </ul>	
<ul> <li>Power, phone, fiber-trace and cable TV lines</li> </ul>	<ul> <li>Conductive earth, such as iron ore</li> </ul>	

## **Environmental Requirements**

Device (Model Number)	Relative Humidity	Operating Temp.
DigiTrak Falcon F1 (FAR2) or Falcon F2 (FAR2) and Falcon Compact Display (FCD) with NiMH Battery Pack with Lithium-Ion Battery Pack	<90%	-10 - 65° C -20 - 60° C
DigiTrak Falcon F5 Receiver (FAR5) with Lithium-Ion Battery Pack	<90%	-20 - 60° C
DigiTrak Aurora Remote Display (AF8/AF10)	<90%	-20 - 60° C
DigiTrak Transmitter (BTW, BTP, BTPL)	<100%	-20 – 104° C
DigiTrak Transmitter (BTS)	<100%	-20 - 82° C
DigiTrak Lithium-Ion/NiMH F Series Battery Charger (FBC)	<99%, 0 – 10° C <95%, 10 – 35° C	0 - 35° C
DigiTrak F Series Lithium-Ion Battery Pack (FBP)	<99%, <10° C <95%, 10 - 35° C <75%, 35 - 60° C	-20 - 60° C
DigiTrak SE NiMH Battery Charger (SBC)	<90%	0 – 40° C
DigiTrak SE NiMH Battery Pack (SBP)	<99%, <10° C <95%, 10 - 35° C <75%, 35 - 65° C	-10 - 65° C

System working altitude: up to 2000 m. Storage and transportation temperature must remain within -40 to 65° C. Operation may be compromised if the equipment is subjected to conditions outside these specified limits. Ship in original carrying case or packaging of sufficient durability to prevent mechanical shock to equipment during transportation.

## Storage and Shipping of Batteries

Remove the batteries from all system components during shipping and prolonged storage. Failure to do so may result in battery leakage, which may lead to risk of explosion, health risks, and/or damage.

Store and transport batteries using a suitable protective case that will keep batteries safely isolated from one another. Failure to do so may result in short circuits, which may lead to hazardous conditions including fire.

Lithium-ion batteries must be packaged and shipped by trained and certified personnel only. Never ship damaged batteries.

