

# DigiTRAK® ECLIPSE®

## iGPS® (inGround Positioning System)



- ❑ Revolutionary *target-in-the-box*® locating
- ❑ Dual-frequency capability
- ❑ Real-time transmitter location display
- ❑ Increased depth range
- ❑ Left/right and up/down remote steering

The DigiTrak® Eclipse® inGround Positioning System has revolutionized tracking for the HDD industry with its ability to display the drill head location and locate points in a “real-time” bird’s-eye view.

This unique tracking system advances the state of the art of locating systems in a number of ways. First, the standard operating frequency for the system was selected because it is the optimal interference-free frequency. Second, the Eclipse® dual-frequency transmitter provides a lower frequency to allow more accurate locating in areas with passive or active interference and at increased depths. Third, the patented 3D antenna configuration enables the unit to “see” the locate points and the transmitter’s position and allows the operator to walk directly to either one.

The Eclipse® receiver provides 3D left/right and up/down remote steering data to the remote display at the drill. The large menu-driven display provides an “at-a-glance” view of all the transmitter’s orientation information. The graphic format is simple, and you’re not required to interpret bar graphs or arrows. An easily understood menu guides the operator to the desired function, such as calibration, self-testing, setting the ultrasonics, or locating.

The first thing you notice when locating with the Eclipse® system is the Intuitive® way of finding the locate points and the exact position of the drill head. In the center of the display window is a box that represents the receiver. To find a locate point, you simply maneuver the receiver so that the target icon, which represents the locate point,

moves into the center of the box. It’s that simple—*target-in-the-box*® locating. You can walk directly to the locate point from any direction—once the target is in the box, you’ll be on top of the locate point.

With the Eclipse® receiver, as with the Mark series receivers, when you’ve found the front locate point you can determine the left/right direction as well as the predicted depth of the drill head without stopping the drill. By being out in front of the drill head, you are actually driving or controlling it using *look-ahead*® locating.

The Eclipse® system makes remote steering easier and more precise because you are able to program in your target depth. During remote steering, the actual depth is displayed. A target and cross-hair display helps the operator achieve accurate depth and left/right positioning of the tool.

System upgrades include the DataLog® Mapping System and the SST® Advanced Guidance System for difficult bores with tight turns. These upgrades provide accurate real-time drilling data and also enable the collection, download, analysis, and archiving of data.



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## DigiTrak® Eclipse® iGPS® Receiver

### Features

- ◆ Because of the unique antenna configuration, the Eclipse® system provides precise steering data to enable advanced techniques such as left/right and up/down remote steering.
- ◆ The overhead depth, projected depth, and slant depth are shown in real time, which allows “on-the-fly” locating.
- ◆ The dual-frequency capability allows for increased depth range and is advantageous in passive and active interference environments.
- ◆ Advanced drilling features include off-track guidance when access over the drill head is limited due to interference or obstacles.
- ◆ Simplified remote steering function.
- ◆ Patented calibration procedure offers superb accuracy and the ability to recalibrate while drilling.



DigiTrak® Eclipse® system is ideal for high-interference areas.

- ◆ Eclipse® transmitters with the same dimensions as Mark series transmitters allow the Eclipse® system to be used without any tooling changes.
- ◆ Programmable target depth and direction feature.

### Specifications

Model number .....	EDRR
Frequency .....	1.5 kHz / 12 kHz
Power source .....	DigiTrak® NiCad battery pack
Battery life .....	4 hr (approx.)
Battery charger .....	12/28 V DC or 110/220 V AC
Depth display .....	Real time
Functions .....	Menu driven
Controls .....	Trigger switch, toggle switch
Graphic display .....	LCD
Audio output .....	Beeper
Telemetry range .....	1800 ft (550 m)
Operating temperature range .....	-4°F to 140°F -20°C to 60°C
Accuracy .....	±5% absolute
Height .....	12.2 in. (310 mm)
Width .....	7.2 in. (183 mm)
Length .....	14.5 in. (368 mm)
Weight (w/ battery) .....	9.4 lb (4.3 kg)
Sleep mode .....	After 15 min

## DigiTrak® Eclipse® iGPS® Remote Display

The DigiTrak® Eclipse® Remote Display unit features a large format graphic display with an intuitive steering indicator. The remote unit shows the same information as displayed on the receiver, and it can obtain information with the receiver as far as 1800 ft (550 m) away from the remote unit. The information viewed on the remote display includes pitch, roll, transmitter temperature, and battery status. The remote display can be powered by a DigiTrak® NiCad battery pack or by the drill rig’s 12V DC power outlet (cigarette lighter).

The Eclipse® remote unit will display a graph that shows the left/right and up/down deviation of the intended target heading. The target depth and direction can be programmed into the Eclipse® remote unit to guide the drill operator in the correct direction. This feature is great for highway, small river, and railway crossings.

### Specifications

Model number .....	EDD
Frequency .....	1.5 kHz / 12 kHz
Power source .....	DigiTrak® NiCad battery pack
Battery life .....	8–12 hr (approx.)
Battery charger .....	12/28 V DC or 110/220 V AC
Controls .....	Pressure-sensitive touch buttons
Graphic display .....	LCD
Telemetry range .....	1800 ft (550 m)
Telemetry channels .....	4 channels
Operating temperature range .....	-4°F to 140°F -20°C to 60°C
Height .....	7.8 in. (198 mm)
Width .....	9.2 in. (234 mm)
Length .....	11.5 in. (292 mm)
Weight (w/ battery) .....	6.2 lb (2.8 kg)



### DCI Headquarters

19625 62<sup>nd</sup> Ave. S., Suite B-103, Kent, WA 98032 USA  
Tel 800 288 3610 / 425 251 0559 • Fax 253 395 2800  
E-mail DCI@digital-control.com • [www.digitrak.com](http://www.digitrak.com)

**DCI Europe**, Kurmainzer Strasse 56, D-97836 Bischbrunn, Germany • T +49(0) 9394 990 990 • F +49(0) 9394 990 999 • DCI.Europe@digital-control.com  
**DCI Australia**, 2/9 Frinton Street, Southport, Queensland 4215, Australia • T +61(0) 7 5531 4283 • F +61(0) 7 5531 2617 • DCI.Australia@digital-control.com  
**DCI India**, SCO # 259, Sector 44-C, Chandigarh (UT) 160 047, Punjab, India • T +91(0) 172 464 0444 • F +91(0) 172 464 0999 • DCI.India@digital-control.com  
**DCI China**, USA Excalibre, 2803 Bldg C, 70 Cao Bao Rd, Shanghai P.R.C. 200233 • T +86(0) 21 6432 5186 • F +86(0) 21 6432 5187 • DCI.China@digital-control.com