Thunderbird DEI+ has proven itself in the field to be an extremely reliable and important tool for the driller, providing critical information to help improve drill productivity.

- Minimize or eliminate over or under drilling
- Real-time feedback directly to the operator
- Adapt operator behaviour to reduce drilling variances
- Access high – resolution, analyzed, geological and performance data
- Easy to use, fast installation, models to suit variety of drills

Thunderbird DEI+ stores data sets and conducts extensive on-board calculations. Built-in diagnostics, troubleshooting, help screens, and calibration instructions are combined with a user-friendly high definition touch screen interface for easy use and training by operators and blasting crews. Access to drilling data for the previous three holes is at your fingertips to identify material patterns and guide blasting decisions.

Upgrading is easy! Customers with older DEI models can upgrade to the new Thunderbird DEI+. Customers of the current DEI* systems can easily be upgraded to the Thunderbird 1110 Drill Optimization system. The Thunderbird 1110 provides GPS navigation, rock hardness sensing, and offboard data storage enabling analysis and improvement (A&I).

www.CRdigital.com
**Access drilling and blasting data that matters**

- **Current shift** – Total number of holes, total depth, total drill time, average depth, average ROP, and average hole drill times. Information can be copied onto Driller’s Sheet.
- **Previous shift** – Previous shifts as performance reference.
- **Production** – Accumulate data until reset including total number of holes, total depth, average depth, average ROP, and average hole drill time. Collect for a week, month or a specific pattern for a bit or drill productivity study.

**Improve safety**

- **Depth alarms to prevent over drilling and strain on assets**
- **Pipe-in-hole display** – Unique operator warning display to help prevent drill component damage caused by tramming while the drill pipe is still in the ground. Optional audible warning or a relay connection available that can lock-out the lowering or moving of the drill.

---

**Contact Your Account Manager Today or Visit www.crdigital.com for More Information**

Global Support

Seattle | Dallas | Portland | Santiago | Brisbane | Perth

CR Digital’s remote support team and field technicians can receive your enquiries around the clock.

Request support 24/7.