Diagnostic display
AC-VFD shuttle cars

The Joy shuttle car is the most prolific batch haulage vehicle in the underground mining industry. This success is a result of a tradition of quality and pride in how products are designed, engineered and built.

In keeping with that tradition of developing leading edge technologies, Joy Global now offers a color diagnostic display for all AC-Optidrive shuttle cars.

This display is MSHA-approved and can be mounted in the operator’s compartment. This system provides real time data, with text messages that simplify troubleshooting, increasing productivity and reducing downtime.

Kit part number 100776878. Field installation kit includes display, mounting bracket, cabling and glands, and complete wiring instructions.

Key features

• Two simple, easy to read, screens are automatically changed based on the status of the pump motor; there are no external buttons
• A large, six inch, 152 mm (measured dia.) LCD screen, mounted in the operator’s compartment displays information on both VFD drives:
  - Tram current
  - Thermal overload
  - Base and ambient temperatures
  - Line current
  - DC bus volts
  - Digital inputs and outputs
  - Communications status
• Speed is displayed as a percentage, helping operators better judge speeds when approaching the continuous miner or feeder-breaker
• Data logging capability to internal memory*
• Can be added to any Joy AC-Optidrive shuttle car in the field, during rebuild, or as an OE option. Field installation kit includes display, mounting bracket, cabling and glands and complete wiring instructions
• Provides fault status as text messages on the screen
• Provides diagnostics from each drive for troubleshooting
• Reduces downtime by providing fault information in a text string rather than the previous series of flashing lights

*Customer-supplied USB device
Display screens

When the pump motor is turned on, the screen displays information on both VFD drives:

- Tram current
- Thermal overload
- Base and ambient temperatures
- Line current
- DC bus volts
- Digital inputs and outputs
- Communications status

The bottom of the screen displays fault information.

Optidrive AC

The Optidrive AC variable frequency drive (VFD) system integrates electrical, software, electronic and mechanical systems to provide the following features:

- Increased tram speed
- Regenerative braking
- Better speed control
- Less maintenance