

NRE

NCORDER EVENT RECORDER

NCORDER OPERATIONS

The primary function of the NCORDER is to monitor and record analog and digital locomotive signals for future downloading and analysis. The NCORDER also provides locomotive health monitoring.

NCORDER can interface to the locomotive air system using an integrated air manifold consisting of two pressure transducers and four pressure switches.



NCORDER SPECIFICATIONS

Memory: 132MB internal

Communication Ports: Two RS-232 ports, for interfacing to laptop and/or EOT system; USB ports , for External Crash Worth Memory and downloading event logs. Ethernet communication also available.

Operating Temperature: -40°F to 140°F (-40°C to 60°C)

Internal 6-Port Air Manifold: Two pressure transducers and four pressure switches. For connection information, refer to the air manifold connection table.

Pressure Transducers

SIGNAL	INPUT RANGE
Brake Cylinder	0–100 PSI
Brake Pipe	0–100 PSI

Pressure Switches

SIGNAL	CONTACT POSITION	THRESHOLD
Bell	Normally Open	15 PSI
Horn	Normally Open	15 PSI
Emergency	Normally Open	15 PSI
Nullify	Normally Open	15 PSI

The signal list for the basic event recorder is as follows:

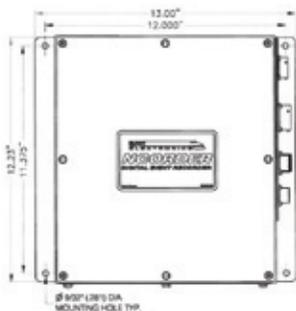
- TIME
- DISTANCE (calculated)
- THROTTLE (15T, 12T, 7T, 3T, 6T)
- REVERSER OPERATION (8T, 9T)
- DB OPERATION (17T, 21T, 24T)
- ELECTRIC/AIR HORN
- PCS
- EIE (Engineer Induced Emergency)
- MAGNET VALVE (Penalty Application)
- INDEPENDENT BRAKE (Brake Cylinder)
- AUTOMATIC BRAKE (Brake Pipe)
- LOCOMOTIVE SPEED
- TRACTION MOTOR CURRENT
- EOT (if required, interface cable not included)
- BATTERY VOLTAGE
- DB VOLTS (24T)
- 18 Spare 74VDC Digital Inputs
- 4 Spare 74VDC Digital Outputs
- 3 Spare 4-20mA Analog Input
- Two RS232 Serial Ports

INTERNAL AIR MANIFOLD CONNECTION INSTRUCTIONS

AIR MANIFOLD PIPING CONNECTION TABLE

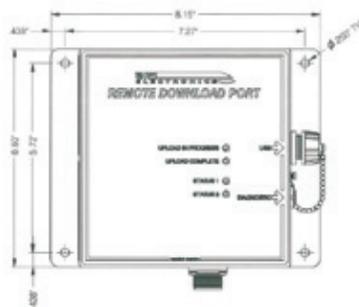
Manifold Designator	Suggested Connection Point	Connection Description
BC	Pipe 26C	Brake Cylinder
BP	Pipe #1/26C	Brake Pipe
NUL	Pipe #53/26C	Nullify
HORN	Horn Activation Air Line	Horn
LOC/EMG	Pipe 13/26C	Locomotive Emergency
AUTOMATIC BRAKE	Pipe #12/26C	Automatic Brake

MOUNTING INSTRUCTIONS



Install the Event Recorder in a suitable location using the integrated mounting flange.

REMOTE DOWNLOAD BOX (RDU)



The Remote Download Box (NRE Part No. 920-0002-000) is a device that allows data to be copied from the NCORDER at a remote location from the locomotive cab. The data can be copied to a USB stick or a laptop computer. The Remote Download Box also provides a remote port for the connection of a laptop computer to the NCORDER. The RDU also provides NCORDER health indication.