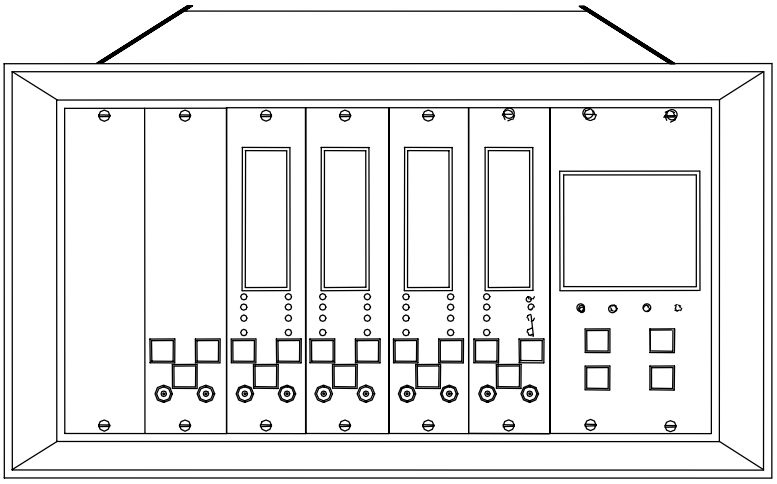
Operation Manual

Bently Nevada™ Asset Condition Monitoring



3300/25 Dual Accelerometer Input Monitor

imagination at work

Part Number 80181-01
Rev. AA (08/07)

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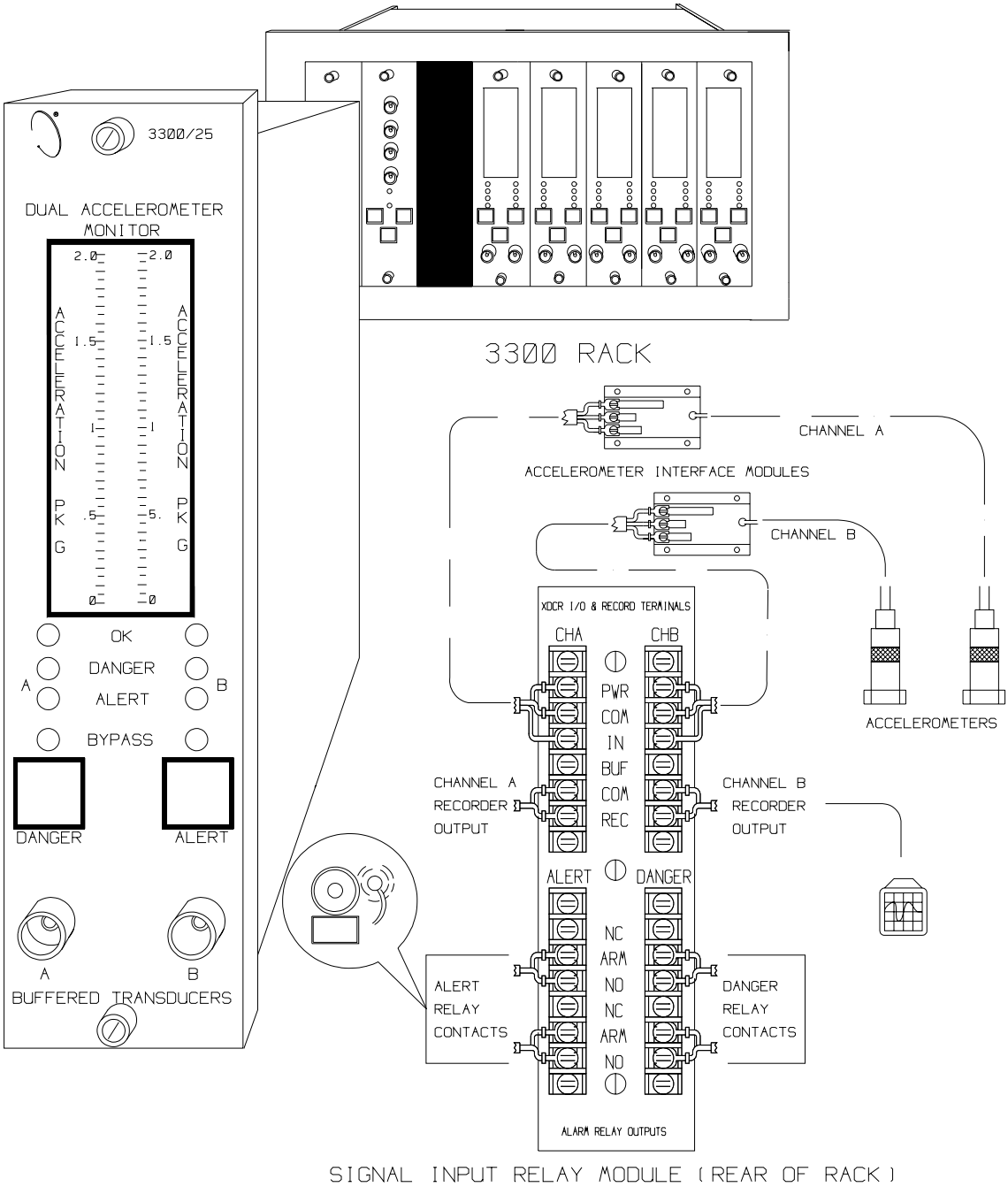
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Contact Information

The following ways of contacting Bently Nevada are provided for those times when you cannot contact your local representative:

Mailing Address	1631 Bently Parkway South Minden, Nevada USA 89423 USA
Telephone	1.775.782.3611 1.800.227.5514
Fax	1.775.215.2873
Internet	www.ge-energy.com/bently

1. Dual Accelerometer Monitor System



Do not use this figure as a wiring diagram. Refer to 3300/25 Field Wiring Packet.

2. Monitor Functions

DUAL ACCELEROMETER INPUT - The 3300/25 Dual Accelerometer Input Monitor provides two independent channels of on-line machine monitoring using accelerometers for the transducer inputs. Accelerometers are generally used for high frequency measurements on machines such as turbines, gear boxes, compressors, and pumps. The monitor has filtering capabilities (high-pass, low-pass, band pass) that are programmable for selected frequency components or ranges.

SINGLE ACCELEROMETER INPUT - The 3300/25 Dual Accelerometer Input Monitor can also be used with a single transducer input. In this mode you can use both channels to monitor the same transducer but using different signal processing on each channel. You can choose to have channel A display in acceleration units and channel B in velocity units. You can also use different filter configurations on each channel.

OK - When the transducer output voltage is within the upper and lower OK limits of the monitor, the transducer is defined as OK. The detection circuit controls the channel OK and the monitor relay drive to the System OK Relay. If the monitor has the latching OK option enabled, a system reset is required to reset the OK function.

TIMED OK/CHANNEL DEFEAT - Timed OK/Channel Defeat minimizes false alarms due to faulty transducer wiring. If the input signal level on a given channel is not within the upper and lower OK limits, the following events occur:

the **OK** LED for the channel goes off,
the **BYPASS** LED for the channel comes on,
the channel is disabled, and
the System OK Relay de-energizes.

If the channel input signal level is restored within the upper and lower OK limits for 30 seconds, the channel **OK** LED starts flashing at 1 Hz to indicate that the OK state is restored, the **BYPASS** LED goes off, and monitoring is enabled. Press the **RESET** switch on the front of the System Monitor to stop the **OK** LED from flashing (it will remain on and steady after you press the **RESET** switch).

If the channel remains not OK, you can put the channel out of service by setting a channel bypass switch on the monitor circuit board. The monitor can then be operated as a single channel monitor. Without this feature the OK Relay could not be reactivated when faulty transducer wiring causes a not OK condition. In the Timed OK/Channel Defeat and Channel Bypass modes the recorder output is clamped to bottom scale and the meter registers zero. If you select Timed OK/Channel Defeat, you must also set the OK mode to nonlatching.

8. Monitor Options

8.1 Field Programmable Options

First Out Enabled * Disabled	Alert Mode Latching * Nonlatching	Timed OK/Channel Defeat ** Enabled * Disabled
Alarm Delays 0.1 Second 1 Second 3 Seconds * 6 Seconds	Danger Mode Latching * Nonlatching	Danger Relay Voting ++ OR voting for relay drive * AND voting for relay drive
OK Mode ** Latching Nonlatching *	Recorder Outputs +4 to +20 mA * +1 to +5 Vdc 0 to -10 Vdc	Danger Bypass Enabled Disabled *
	+4 to +20 mA Recorder NOT OK output (+2 mA clamp) + Enabled Disabled*	

The following options are **independently** selected for both channel A and channel B.

High-pass Filter None* 1 of 499 possible frequencies from 3.7 to 3008 Hz (222 to 180,480 cpm)	Low-pass Filter None* 1 of 384 possible frequencies from 24 to 22,372 Hz (1440 to 1,342,320 cpm) (**79562-01** and 105521-01 filter boards) 1 of 433 possible frequencies from 23 to 22,441 Hz (1,380 to 1,346,460 cpm) (148921-01 filter board)
Buffered Transducer Filtering *** No Filtering * Filtered	Integrator/Filter Positioning Filter **before** Integrator/gain stage. Filter **after** Integrator/gain stage. High-pass filter, then integrator/gain stage, then low-pass filter.

* Denotes standard configuration.

** Nonlatching OK Mode must be selected if Timed OK/Channel Defeat is enabled.

*** If a channel is displaying velocity and you want the buffered output to be unfiltered then the filter must be **after** the integrator/gain.

\+ Only available with main PWA 105513-xx **and** Timed/OK Channel Defeat **must** be enabled.

++ With Quad Relays, AND voting logic must be done externally by wiring contacts in series.

8.2 Monitor Ordering Options

AA	BB	CC
*TRANSDUCER INPUT, CHANNEL UNITS	CHANNEL A FULL SCALE RANGE	CHANNEL B FULL SCALE RANGE
01 Dual accelerometer inputs; both channels indicate in acceleration units.	**01** 0 to 2 g pk	**01** 0 to 2 g pk
	02 0 to 5 g pk	**02** 0 to 5 g pk
02 ** Dual accelerometer inputs; channel A indicates in acceleration units, channel B indicates in velocity units.	**03** 0 to 10 g pk	**03** 0 to 10 g pk
	04 0 to 20 g pk	**04** 0 to 20 g pk
03 ** Dual accelerometer inputs; both channels indicate in velocity units.	**05** 0 to 1 in/s pk	**05** 0 to 1 in/s pk
	06 0 to 2 in/s pk	**06** 0 to 2 in/s pk
04 Single accelerometer input; both channels indicate in acceleration units.	**11** 0 to 20 m/s^2 pk	**11** 0 to 20 m/s^2 pk
	12 0 to 50 m/s^2 pk	**12** 0 to 50 m/s^2 pk
05 ** Single accelerometer input; channel A indicates in acceleration units, channel B indicates in velocity units.	**13** 0 to 100 m/s^2 pk	**13** 0 to 100 m/s^2 pk
	14 0 to 200 m/s^2 pk	**14** 0 to 200 m/s^2 pk
06 ** Single accelerometer input; both channels indicate in velocity units.	**15** 0 to 25 mm/s pk	**15** 0 to 25 mm/s pk
	16 0 to 50 mm/s pk	**16** 0 to 50 mm/s pk
	17 0 to 100 mm/s pk	**17** 0 to 100 mm/s pk

*This monitor is designed for accelerometer inputs of 100 mV/g (10mV/m/sec^2).

****** When integrated, low frequency signals can cause the monitor to saturate.

Monitor Ordering Options (Continued)

DD	EE	FF	GG
AGENCY APPROVAL	BARRIERS USED	ALARM RELAY	TRIP MULTIPLY
00 None	**00** None	**00** None	**00** None
01 CSA/NRTL/C	**01** External	**01** Dual Relays, Epoxy Sealed	**01** 2X trip multiply
02 BASEEFA	**02*** Internal	**02** Dual Relays, Hermetically Sealed	**02** 3X trip multiply
		03* Quad relays, Epoxy Sealed	

*** Quad relays are not available with internal barriers.**

22. Recommended Spare Parts

To order replacement parts see the Specifications and Ordering Information section at the end this manual. The complete part number must be specified, as indicated on the identification decal. The part number is explained on page 22.

If you have a monitor that has been modified, the modification number must be specified on the parts order. The modification number (if any) will be shown on the identification decal.

If in doubt about the part number, call your Bently Nevada representative before ordering the part.

The customer programmable options on replacement parts will be set as shown in Section 18.2.

