Bently Nevada 3300/55-01-04-12-12-00-00-05-00

01 Plan the controlled replacement

Place protection in an approved maintenance state

Identify the affected machine channel, alarm outputs and trip circuits before disconnecting the installed unit. Record the present readings and settings so that the replacement can be compared under the same stable condition.

Preparation sequence

01	Verify the complete 3300/55-01-04-12-12-00-00-05-00 marking.
02	Record the selected Channel A 0–20 mm/s pk; Channel B 0–20 mm/s pk scale and both channel readings.
03	Trace the Velomitor, 100 mV/in/s; peak velocity signal wiring and channel assignments.
04	Identify relay, barrier, recorder and bypass connections.
05	Establish the approved test and return-to-service conditions.

Configuration to retain

Item	Installed selection
Measurement range	Channel A 0–20 mm/s pk; Channel B 0–20 mm/s pk
Input / processing	Velomitor, 100 mV/in/s; peak velocity
Alarm relay option	Epoxy-sealed
Safety-barrier option	None
Approval selection	None
Range multiplier	None

Do not copy settings from a nearby monitor

Two monitors in the same rack can have different input systems, ranges and output options. Use the identified channel record and the complete order code for every transfer decision.

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02 Inspect, install and reconnect

Pre-installation checks

Check	Requirement
3300/55-01-04-12-12-00-00-05-00	Complete identity and undamaged connector interface
Velomitor, 100 mV/in/s; peak velocity	Correct transducer source, sensitivity and polarity
Epoxy-sealed	Correct relay hardware and downstream contact wiring
None	Matching rear interface and field-circuit arrangement
Channel A 0–20 mm/s pk; Channel B 0–20 mm/s pk	Correct scale for the machine protection requirement
None	Correct multiplier state before setpoint comparison

Connection controls

Channel identity
Label each conductor and prove one path at a time.

Rack interface
Inspect seating and connector condition before energizing.

Shield and common
Restore the established signal-reference arrangement.

Alarm contacts
Confirm normal state and required energization logic.

Preserve field-circuit boundaries

A barrier option changes the permissible interface and cannot be treated as a cosmetic code suffix. An unbarriered configuration likewise cannot inherit barrier assumptions from another unit.

Mechanical and electrical inspection

Check for bent contacts, contamination, loose terminations or damaged wiring. Correct these conditions before interpreting a signal discrepancy as a monitor calibration fault.

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03 Configure and verify the measurement

Response-test sequence

01	Energize under controlled conditions.
02	Confirm normal monitor status before applying a signal.
03	Apply a known change to one identified input.
04	Compare the local indication with the Channel A 0–20 mm/s pk; Channel B 0–20 mm/s pk scale.
05	Observe the assigned recorder and alarm outputs.
06	Repeat independently for the second channel or remaining inputs.

What to compare

Observation	Expected configuration
Source condition	Velomitor, 100 mV/in/s; peak velocity
Selected span	Channel A 0–20 mm/s pk; Channel B 0–20 mm/s pk
Multiplier	None
Alarm hardware	Epoxy-sealed
Barrier interface	None
Approval marking	None

Separate indication from alarm operation

A correct measurement display does not prove the relay path, and a relay transition does not prove that scaling is correct. Test each stage against the applied condition and recorded setpoints.

Avoid unsupported adjustments

If the response is inconsistent, first check input identity, polarity, sensitivity, range and multiplier. Do not compensate for a wrong transducer or configuration by changing alarm setpoints.

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04 Test alarms and abnormal states

Functional checks

Normal state Confirm expected OK, bypass and alarm indications.	**Controlled crossing** Cross each required setpoint using the approved input method.
Delay and reset Observe the configured delay, latch and reset behavior.	**Contact path** Verify the intended downstream circuit receives the transition.

Fault-response test

01	Remove or interrupt only the approved test signal.
02	Observe the monitor status and the assigned alarm behavior.
03	Restore the signal and confirm recovery or required reset.
04	Repeat without disturbing the other channel.
05	Clear temporary bypasses only after the complete path is accepted.

Relay selection matters

This model uses epoxy-sealed alarm relays. Test their actual contact logic and downstream use.

Approval and barrier are separate selections

An agency marking does not replace the wiring and functional checks. A barrier choice does not by itself establish approval for the complete installation.

Restore the normal state deliberately

Remove temporary test signals and bypasses in the approved order, then confirm the expected status before reconnecting the downstream protection function.

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05 Troubleshoot and return to service

Symptom-led checks

Observed condition	Investigation
No response	Check input source, polarity, continuity, channel identity and monitor status.
Wrong scale	Check Channel A 0–20 mm/s pk; Channel B 0–20 mm/s pk, input sensitivity and None multiplier selection.
Unexpected alarm	Compare the applied value, setpoint, delay, latch and bypass state.
Output mismatch	Separate local indication, recorder output and relay-contact testing.
Intermittent behavior	Inspect rack seating, terminals, shield/common and field-cable condition.
One channel differs	Apply the same controlled method to each channel and trace assignments.

Release evidence

Measurement Stable response across the intended part of the selected span.	**Outputs** Recorder and relay paths correspond to the identified channel.
Configuration Range, input, barrier, multiplier and alarm settings restored.	**Protection state** Required bypasses removed and downstream functions accepted.

Record the completed work

Use a controlled input condition to verify the Channel A 0–20 mm/s pk; Channel B 0–20 mm/s pk scale, Velomitor, 100 mV/in/s; peak velocity conversion, channel identity and selected output behavior. Restore the recorded alarm, delay, reset, multiplier and bypass states only after the complete path responds correctly.

Related product references

Bently Nevada 990-10-XX-01-00-283278-01

Bently Nevada 990-10-XX-01-00-MOD-165353-01