Bently Nevada 3300/03-02-01

Installation & Commissioning Guide

Purpose

This field guide supports identity checks, controlled replacement and functional acceptance for the exact 3300/03-02-01 System Monitor. Option 02 selects the internal Serial Data Interface (SDI); option 01 selects CSA approval.

PRODUCT TYPE	**System Monitor**	DATA INTERFACE	**Internal SDI**
APPROVAL	**CSA**	RACK FAMILY	**3300**

Safe-work boundary

Power down the rack before installing or removing the System Monitor. Control connected protection, alarm and shutdown circuits under the site's approved maintenance procedure. Use qualified personnel and ESD precautions.

What this monitor controls

Supply supervision	Seven internal indications cover +VRH, +VRL, +7.5 V, +5 V, REF, -7.5 V and -VT. The front SUPPLIES OK indicator summarizes their condition.
Common rack controls	System Reset can be initiated at the front panel or through the Power Input Module (PIM). Rack Inhibit and Trip Multiply use external PIM contacts.
Keyphasor signals	Four transducer inputs enter at the PIM; two are available to rack monitors. Buffered signals are available at the front-panel coaxial connectors.

Use this guide in sequence

Confirm identity and the installed configuration, perform the powered-down replacement, then verify supply status and the required rack functions. The last page defines handover evidence and related product navigation.

01 Pre-installation readiness

STEP	ACTION	ACCEPTANCE
01	Confirm the complete 3300/03-02-01 marking.	The front label and quotation retain every slash, suffix and approval code.
02	Record the installed rack power supply and -VT selection.	The System Monitor and power supply will use the same -18 V or -24 V selection.
03	Record the Power Input Module connections.	Reset, rack inhibit, OK relay, Trip Multiply and Keyphasor paths are identified.
04	Confirm the internal SDI hardware and data path.	The option matches the 02 data-interface code; DDI hardware is not substituted.
05	Review the environment.	Operating 0 to +65 deg C; storage -40 to +85 deg C; humidity 0 to 95% noncondensing.

Configuration record

Photograph jumper positions, interface boards, front-panel marking and PIM connections before removal. Preserve the installed-system record with the replacement work package.

Configuration decisions before replacement

-18 V selection	Install W2 and remove W1. The System Monitor selection and the rack power-supply selection must agree.
-24 V selection	Install W1 and remove W2. Do not infer this setting from the 3300/03-02-01 order code.
Internal interface	The internal SDI/DDI jumper group is W3C, W3D, W4A-W4H, W7, W8D and W8E. The exact 02 order option identifies internal SDI hardware.
Trip Multiply scope	Only monitors ordered with Trip Multiply respond. Their factory ordering option determines whether Alert and Danger setpoints increase by 2X or 3X.

Separate a maintenance inhibit from a machine condition

Rack Inhibit disables all alarms, zero-scales outputs and de-energizes the system OK relay. Agree the maintenance state before using this input; zero outputs while inhibited are not evidence that the machine condition is normal.

02 Replacement sequence

STEP	ACTION	ACCEPTANCE
1	Place connected alarm and shutdown circuits in the approved maintenance state.	The machine-protection consequence of a removed System Monitor is controlled.
2	Power down the 3300 rack.	No monitor is inserted or removed with rack power applied.
3	Loosen the front-panel screws and withdraw the System Monitor.	The board and backplane connectors are protected from mechanical damage.
4	If jumper access is required, remove the interface boards carefully.	The SDI board and its mating connectors remain identified and undamaged.
5	Set -VT: W2 for -18 V or W1 for -24 V.	Only one matching selection is installed, consistent with the rack power supply.
6	For the 3300/03-02 factory data path, retain the internal SDI/DDI jumper group defined by the manual.	The installed configuration matches the internal interface position.
7	Reassemble and engage the module without forcing the connectors.	Front panel seats evenly and screws secure the module.

Jumper programming boundary

The manufacturer specifies removing the data-interface option jumpers from W3A-W3D, W4A-W4H, W5A-W5H, W7 and W8A-W8E before installing the group for the required interface. W6 is marked for future use or not applicable. Perform configuration work with rack power removed.

Before power is restored

Identity and interface	Confirm the complete 3300/03-02-01 marking and the internal SDI board against the recorded configuration.
Voltage and connections	Recheck W1/W2 against the power-supply selection; check seating and the recorded PIM connections before beginning the functional checks.

Expected startup behavior

The power-up inhibit allows each monitor to inhibit its alarms while supplies stabilize. It also acts when a system supply falls below its operating level. The normally energized OK relay can change state during power-up inhibit or on a monitor not-OK signal.

03 Commissioning and acceptance

Supply stabilization

Apply rack power; SUPPLIES OK should turn on after the power-up inhibit period of 2.1 +/- 1 seconds.

Rack functions

Prove System Reset, Rack Inhibit, Trip Multiply and alarm-setpoint adjustment under controlled conditions.

OK relay

Confirm its normally energized state and response to power loss or a monitor not-OK condition.

Keyphasor paths

Verify the required inputs, buffered front-panel outputs and short-circuit-protected transducer power.

SDI path

Confirm the internal Serial Data Interface communication path without assuming DDI configuration.

CHECK	VERIFIED VALUE
+5 V rail	5.00 +/- 0.05 Vdc
Reference rail	5.00 +/- 0.009 Vdc
-7.5 V rail	-7.5 +/- 0.1 Vdc
Keyphasor power, -24 V option	-23.2 to -24.2 Vdc
Keyphasor power, -18 V option	-17.4 to -18.3 Vdc

Additional supply reference values

+VRH / +VRL	23.65 +/- 6.35 Vdc / 11.22 +/- 3.09 Vdc
+7.5 V	7.5 +/- 0.1 Vdc
Internal -VT	-24 V option: -23.75 +/- 0.45 Vdc; -18 V option: -17.9 +/- 0.4 Vdc

Supply values: no external loads, normal operation, 25 deg C. Internal -VT tolerances and Keyphasor output ranges describe different measurement points.

04 Handover and related references

Record the final jumper positions, SUPPLIES OK state, SDI communication result, OK-relay response, Keyphasor checks and any temporary bypasses. Restore the approved protection state only after every acceptance item is complete.

Handover evidence and interpretation

Supply status	Record SUPPLIES OK after startup and confirm that temporary inhibits are no longer masking a supply or monitor condition.
Relay and controls	Record the observed OK-relay response and the tested Reset, Inhibit and Trip Multiply functions. Identify the installed monitors to which each check applies.
Signal and interface	Record the required Keyphasor channels and the internal SDI communication result. Four PIM inputs do not mean four Keyphasor channels are distributed to rack monitors.

Related product links are navigation references; they do not establish interchangeability or compatibility.

Related Apter Power product pages

Bently Nevada 3300/01-01-00	View product
Bently Nevada 3300/03-01-00	View product
Bently Nevada 3300/61-03-01-01-00-00-00	View product
Bently Nevada 3300/55-01-04-18-18-00-00-05-00	View product

Discuss the exact 3300/03-02-01 requirement
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Share the complete marking, rack configuration, interface details and required date.

Technical source: 3300/03 System Monitor Operation Manual, 89604-01 Rev. F (08/07). Values and procedures in this document are limited to the verified 3300/03 System Monitor scope.