8271-467

01 / Installed system and risk controls

Woodward 8271-467 is a 2301 load sharing and speed control for a prime-mover governor system. It works with a magnetic pickup, actuator, load-sensor circuits and the installed paralleling arrangement; the site wiring drawing controls final terminal use.

Control-system boundary

The 2301 controller reads speed and load signals, drives a matched actuator and shares generator load through the installed paralleling circuit.

Before returning the system to service

Keep overspeed protection independent

An engine or turbine requires a separate overspeed shutdown device; the governor controller is not that protective device.

Follow the plant drawing

Isolate power and trace every CT, pickup, actuator and paralleling connection against the actual installation before moving conductors.

Check the charging voltage

Compare the actual 12–13 terminal legend and worst-case battery-charger voltage with the allowed 20–40 VDC newer-control range.

Switch all selector conductors

In the internal-diode high-voltage-selector scheme, disconnect terminal 25 as well as positive and negative power when isolating a control.

Record the installed configuration

Baseline

Record the installed marking, power legend, paralleling wiring, CT pairs and pickup connection before removal.

Supply review

Measure battery and charger extremes; compare them with the actual controller terminal marking.

Selector plan

Trace terminal 25 and both supply conductors through the high-voltage-selector scheme.

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02 / Commission and hand over

Why does Woodward 8271-467 appear in the internal-diode control list?

Manual 25070 Table 1 lists the exact 8271-467 code among 2301 controls with an internal diode for the high-voltage-selector scheme. Compare the installed terminal legend and figure 5 wiring before altering a paralleling circuit.

How should a high-voltage-selector circuit be isolated around 8271-467?

The Woodward guide says to switch terminal 25 together with the positive and negative power input in the internal-diode arrangement. Use the approved plant schematic and lockout sequence; opening only the supply pair may leave an unintended path.

What supply check matters before energizing 8271-467?

Read the 12–13 terminal marking and measure the supply at normal and charging extremes. Manual 25070 identifies newer internal-diode controls with a 20–40 VDC legend and warns that a 36 V battery charged to 42 V can damage such a control.

How are the 8271-467 load-sensor CT inputs pre-checked?

Woodward Manual 55011 Appendix 3 specifies resistance checks across terminal pairs 4–5, 6–7 and 8–9, each no greater than 0.30 Ω in the bench-test setup. Isolate and follow the complete procedure before measuring.

What does the 8271-467 magnetic-pickup pre-check measure?

In the cited 2301 bench procedure, terminals 18–19 should read approximately 200 Ω across the pickup isolation-transformer primary. A field fault still requires checking pickup wiring and the actual machine drawing.

Why should 8271-467 load-sharing lines be reviewed before a replacement?

Woodward explains that mixed 2301 generations, excessive contact resistance or long paralleling leads can unbalance steady-state sharing. Retain each unit’s connection and switching arrangement from the plant drawing.

Close-out evidence

Record the approved loop test, as-left governor adjustments, load-sharing response and independent overspeed-shutdown test.

Technical basis: Woodward Electronic Control Installation Guide, Manual 25070 Rev. D, pp. 4–10; Woodward Portable Speed Loop Tester, Manual 55011 Rev. J, Appendix 3, pp. 25–26.

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