

# 51401583-200

## Network Gateway Interface Assembly

Honeywell 51401583-200 is a Network Gateway Interface assembly for a TDC 3000 five/ten-slot node. It provides the gateway hardware interface and its local status indications.

### PRODUCT SNAPSHOT

**BRAND**

Honeywell

**FAMILY**

TDC 3000 five/ten-slot node

**PART**

51401583-200

**ORIGIN / HS**

USA / 8537101190

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# PRODUCT OVERVIEW

Honeywell 51401583-200 is a Network Gateway Interface assembly for a TDC 3000 five/ten-slot node. It provides the gateway hardware interface and its local status indications.

1

Interfaces a TDC 3000X Network Gateway with the Plant Information Network

2

Reports self-test, module-test, bus-transfer and transmit states

3

Works with the rear NGIO board and the installed gateway processor

4

Keeps the front TEST/NORMAL jumper in NORMAL during network operation

## SYSTEM COMPONENTS

Five/ten-slot cardfile

NGIO companion I/O board

Plant Information Network cabling

HPK2, K2LCN or K4LCN processor

### RELATED PRODUCTS ON APTER POWER

| MODEL                | SYSTEM ROLE                                  | APTER POWER PAGE                  |
|----------------------|----------------------------------------------|-----------------------------------|
| 51401583-100         | TDC 3000X Enhanced Process Network Interface | <a href="#">Open product page</a> |
| K4LCN-8 51401551-801 | TDC 3000X LCN node processor                 | <a href="#">Open product page</a> |
| 51305896-100         | TDC 3000 NIM modem paddle board              | <a href="#">Open product page</a> |

## TECHNICAL DATA

| PARAMETER             | VALUE                           |
|-----------------------|---------------------------------|
| Board type            | NGI                             |
| Assembly function     | Network Gateway Interface       |
| Honeywell part number | 51401583-200                    |
| Host module           | Five- or Ten-Slot Module        |
| TDC software release  | TDC 3000X Release 500           |
| Network interface     | Plant Information Network (PIN) |
| Companion I/O board   | NGIO                            |

### NGI OPERATING AND DIAGNOSTIC RECORD

| INDICATOR / CONTROL | SERVICE CONDITION                                |
|---------------------|--------------------------------------------------|
| SELF TST/ERR        | Red indicator out after self-test                |
| PASS MOD TEST       | Green indicator on after module test             |
| BUS TRAN ERR        | Investigate NGI / processor bus path if lit      |
| TX                  | Yellow indicator shows PIN transmit activity     |
| No TX activity      | Check PIN cables and connected interfaces        |
| TEST/NORMAL jumper  | NORMAL during network operation                  |
| NGIO check          | Companion board fully installed before diagnosis |

| PARAMETER                             | VALUE                |
|---------------------------------------|----------------------|
| Module-test indicator                 | PASS MOD TEST; green |
| Bus-error indicator                   | BUS TRAN ERR         |
| Transmit indicator                    | TX; yellow           |
| Test-jumper positions                 | TEST; NORMAL         |
| Network-operation jumper              | NORMAL               |
| Primary NGI position in upgraded NG   | Front slot 3         |
| Optional redundant-cable NGI position | Front slot 4         |

### TECHNICAL NOTE

Remove module power before board handling, verify the NGIO and processor arrangement, keep the TEST/NORMAL jumper in NORMAL, then confirm self-test, module-test and PIN transmit states after installation.

# APPLICATIONS & PRECAUTIONS

## COMMON APPLICATIONS

### Plant Information Network gateway service

Interfaces a TDC 3000X Network Gateway with the Plant Information Network

### TDC 3000X network-node restoration

Reports self-test, module-test, bus-transfer and transmit states

### NGI indicator-based fault isolation

Works with the rear NGIO board and the installed gateway processor

### Redundant-cable Network Gateway maintenance

Keeps the front TEST/NORMAL jumper in NORMAL during network operation

## PRODUCT PRECAUTIONS

- 1 Verify the complete 51401583-200 marking and its assigned TDC 3000 five/ten-slot node position before work.
- 2 Isolate the energy associated with Five/ten-slot cardfile before disconnecting 51401583-200.
- 3 Protect the 51401583-200 connectors and electronic assembly using approved ESD controls.
- 4 Record the as-found NGIO companion I/O board connections and configured assignment before replacement.
- 5 Confirm Plant Information Network cabling matches the approved installation record for 51401583-200.
- 6 Restore 51401583-200 under controlled conditions and review its model-specific diagnostics.
- 7 Complete a documented functional test for plant information network gateway service before release.

# ENGINEER FAQ

## Q1 Can 51401583-200 be moved to a different slot or duty without review?

No. Confirm keying, companion hardware and the approved configuration before assigning 51401583-200 to another position or function.

## Q3 What should be checked if 51401583-200 does not support tdc 3000x network-node restoration after installation?

Check seating, NGIO companion I/O board, Plant Information Network cabling, field energy and the model-specific diagnostics before replacing additional hardware.

## Q5 How is 51401583-200 identified before installation in a TDC 3000 five/ten-slot node cabinet?

Match the full 51401583-200 marking and part number 51401583-200 to the assigned position and installed Five/ten-slot cardfile.

## Q7 What wiring information should be recorded before removing 51401583-200?

Record terminal identifiers, polarity or phase, shields, cable tags and the as-found channel or port assignment for 51401583-200.

## Q2 Which technical value is especially important during 51401583-200 commissioning?

Verify Test-jumper positions is TEST; NORMAL and use the named manufacturer procedure for the controlled functional test.

## Q4 What evidence should be retained after 51401583-200 returns to service?

Retain the full model identity, as-left connections, configuration, diagnostic result and the final controlled test record for plant information network gateway service.

## Q6 Which companion hardware must be checked when replacing 51401583-200?

Verify Five/ten-slot cardfile, NGIO companion I/O board and Plant Information Network cabling against the approved cabinet and project record before fitting the Network Gateway Interface Assembly.

## Q8 How should engineers validate 51401583-200 after configuration?

Restore the documented TDC 3000 five/ten-slot node assignment, review diagnostics and run a controlled test of its role: interfaces a tdc 3000x network gateway with the plant information network.