FIELD ENGINEERING GUIDE / 01

Honeywell 51401286-100

Enhanced Peripheral Display Generator

Installed role	Work objective
Enhanced Peripheral Display Generator board for Universal Station display service in five- and ten-slot module configurations.	Preserve exact identity, interfaces and as-left configuration through controlled replacement.
Primary technical record	**Release decision**
Honeywell Five/Ten-Slot Module Service LC13-500, September 1995, pages 2-6, 2-7, 2-24 and 3-10	Return the equipment only after every product-specific acceptance point passes.

FUNCTIONAL POSITION

DISPLAY / STATION	EPDG I/O	51401286-100	MODULE PROCESSOR
Operator display service	Rear I/O interface	Display generation	Station coordination

PRODUCT-SPECIFIC CONTROLS

Dual operating context	Display-generator role
Works as EPDG with the matching EPDG-family I/O board or as PDG with the PDG I/O board.	Provides the Enhanced Peripheral Display Generator function in the listed module configurations.
Cartridge-disk interface	**Service diagnostics**
The EPDG configuration includes a Cartridge Disk interface.	Board and I/O-card checks are separated by SELF TST/ERR, PASS MOD TEST and BUS TRAN ERR indications.

SERVICE PACKAGE

As-found evidence	Interface record	Test evidence	As-left evidence
Identity, location, status indications and physical condition.	Mating hardware, terminal or jumper pattern, and companion item identity.	Applied condition, observed response and diagnostic result.	Final configuration, reviewer and release status.

TECHNICAL READINESS / 02

Exact-model data and pre-work controls

Use these values to prepare the work package and prevent configuration drift.

Parameter	Verified value
Board type	EPDG
Part number	51401286-100
Board function	Enhanced Peripheral Display Generator
EPDG I/O pairing	EPDG or EPDGP I/O board
EPDG monitor	Noninterlaced monitor
EPDG additional interface	Cartridge Disk interface
EPDG minimum software	210M1
PDG-mode pairing	PDG I/O board and interlaced monitor
PDG-mode minimum software	200
R500 Universal Station position	Slot 4 front

INSTALLED-USE REVIEW

Universal Station display service

Maintains the display-generator position in a documented Universal Station configuration.

Five-slot module maintenance

Supports controlled service of a five-slot module containing the EPDG position.

Ten-slot module maintenance

Supports the R500 ten-slot arrangement with the correct rear I/O board.

Display fault isolation

Guides separation of I/O-card, EPDG and processor-path faults from status indications.

PRE-WORK CHECKS

1

Remove module power before installing or removing any board.

2

Confirm the 51401286-100 marking before replacing the EPDG board.

3

Match the rear EPDG or EPDGP I/O board to the documented monitor arrangement.

4

Do not place an I/O paddle board in an incorrect slot.

SOURCE CONTROL

Honeywell Five/Ten-Slot Module Service LC13-500, September 1995, pages 2-6, 2-7, 2-24 and 3-10

INSTALLATION SEQUENCE / 03

Controlled field sequence

Stop at any identity, wiring, address, interface or safe-state conflict.

1	Confirm the Universal Station configuration, module size and slot assignment.
2	Record the EPDG, rear I/O-board and monitor identities before isolation.
3	Remove module power and apply grounded ESD handling controls.
4	Inspect the slot and mating connectors before removing the installed board.
5	Install 51401286-100 only in the documented EPDG front-board position.
6	Verify that the associated EPDG or EPDGP I/O board is fully mated in its correct rear slot.
7	Restore power and observe SELF TST/ERR, PASS MOD TEST and BUS TRAN ERR indications.
8	Exercise the required display and Cartridge Disk functions before release.

HOLD POINTS

Identity conflict The full model or part-number marking differs.	**Interface uncertainty** A terminal, jumper, slot, connector or companion board cannot be matched.
Physical defect A contact, board edge, terminal or retaining feature is damaged.	**Response mismatch** The first controlled test does not produce the expected product-specific result.

INSTALLATION PROOF

Identity 51401286-100 and EPDG marking agree with the work package	**I/O pairing** Rear board matches the documented EPDG or EPDGP arrangement
Monitor path Noninterlaced display path operates without abnormal synchronization	**Self test** SELF TST/ERR clears after startup

COMMISSIONING / 04

Acceptance matrix

Test the installed product in a deliberate sequence and retain each result.

Acceptance point	Required observation
Identity	51401286-100 and EPDG marking agree with the work package
I/O pairing	Rear board matches the documented EPDG or EPDGP arrangement
Monitor path	Noninterlaced display path operates without abnormal synchronization
Self test	SELF TST/ERR clears after startup
Module test	PASS MOD TEST reaches the expected healthy indication
Bus status	No unresolved BUS TRAN ERR or related processor timeout remains
Disk interface	Required Cartridge Disk function completes the local check
Handover	Station display functions and status record are accepted

FAULT-ISOLATION ORDER

IDENTITY	INTERFACE	CONFIGURATION	STIMULUS	RESULT
Exact product and position	Terminal, jumper or I/O path	Address, channel or operating mode	Known field condition	Status and final response

ENGINEERING DECISIONS

Can Honeywell 51401286-100 operate with a PDG I/O board?

Yes. With a PDG I/O board and interlaced monitor, the board operates as a PDG and the listed minimum software release is 200.

Where is Honeywell 51401286-100 placed in the listed R500 Universal Station configuration?

The EPDG board is shown in front slot 4 with the applicable I/O board at the rear.

What isolation step is mandatory before handling Honeywell 51401286-100?

Module power must be removed before any board or I/O paddle board is installed or removed.

Which indicators guide troubleshooting of Honeywell 51401286-100?

SELF TST/ERR, PASS MOD TEST and BUS TRAN ERR states distinguish the EPDG, its I/O card and the processor path during fault isolation.

RETEST RULE

After correcting any discrepancy, repeat the affected product test and every dependent station, network, load or channel check before release.

DIAGNOSTICS & HANDOVER / 05

Engineering decisions and closeout

Use the product-specific answers below during review and final handover.

What board type is Honeywell 51401286-100? Honeywell 51401286-100 is the EPDG Enhanced Peripheral Display Generator board.	**Which I/O boards support the EPDG mode of Honeywell 51401286-100?** EPDG mode uses an EPDG or EPDGP I/O board with a noninterlaced monitor.
What interface is included with Honeywell 51401286-100 in EPDG operation? The EPDG arrangement includes a Cartridge Disk interface.	**Which minimum software release applies to Honeywell 51401286-100 in EPDG mode?** The minimum listed software release for the EPDG configuration is 210M1.
Can Honeywell 51401286-100 operate with a PDG I/O board? Yes. With a PDG I/O board and interlaced monitor, the board operates as a PDG and the listed minimum software release is 200.	**Where is Honeywell 51401286-100 placed in the listed R500 Universal Station configuration?** The EPDG board is shown in front slot 4 with the applicable I/O board at the rear.
What isolation step is mandatory before handling Honeywell 51401286-100? Module power must be removed before any board or I/O paddle board is installed or removed.	**Which indicators guide troubleshooting of Honeywell 51401286-100?** SELF TST/ERR, PASS MOD TEST and BUS TRAN ERR states distinguish the EPDG, its I/O card and the processor path during fault isolation.

RELATED HONEYWELL PRODUCTS

Honeywell 51403698-100	Legacy Honeywell DCS circuit-board listing	View Honeywell 51403698-100
Honeywell TK-PPD011	Experion battery-extension module listing	View Honeywell TK-PPD011
Honeywell 51199942-300	Honeywell control-hardware listing	View Honeywell 51199942-300
Honeywell 621-9937	IPC 620 parallel-I/O module listing	View Honeywell 621-9937

SOURCE

Honeywell Five/Ten-Slot Module Service LC13-500, September 1995, pages 2-6, 2-7, 2-24 and 3-10

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