

SERVICE BULLETIN REVISION NOTICE

ENGINE — WASHER — REPLACE THE HIGH PRESSURE COMPRESSOR (HPC) REAR DRUM
WASHERS TO REDUCE THE POTENTIAL OF 12TH STAGE ROTOR CRACKING DUE TO
ASSEMBLY ERROR

Turbojet Engine Service Bulletin No. V2500-ENG-72-0687 Revision No. 1 dated December 14, 2018.

Revision History

Original Issue December 3, 2018

Revision 1 dated December 14, 2018

Reason for the Revision

To add Reference 9, V2500-ENG-72-0273 to the References section.

To make editorial changes that do not affect the technical content of this Service Bulletin.

Effect of Revision on Prior Compliance

None.

This is a Complete Revision (Not Applicable to the SGML version)

The contents are in accordance with the list of effective pages. All pages have the current revision number. Technical changes are marked with black bars.

MODEL APPLICATION

V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5, V2525-D5,
V2528-D5

BULLETIN ISSUE SEQUENCE

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A copy of this Revision Notice and any future revision notices must be filed as a permanent record with your copy of the subject bulletin.

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ENGINE — WASHER — REPLACE THE HIGH PRESSURE COMPRESSOR
(HPC) REAR DRUM WASHERS TO REDUCE THE POTENTIAL OF 12TH STAGE
ROTOR CRACKING DUE TO ASSEMBLY ERROR

MODEL APPLICATION

V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5,
V2533-A5, V2525-D5, V2528-D5

BULLETIN ISSUE SEQUENCE

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ATA NUMBER

72-41-00

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Compliance Category

6

P&W Distribution Code

V2500

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Summary

The purpose of this Service Bulletin is to replace the fourteen (14) HPC rear drum washers with a redesigned washer that eliminates the tab. The old tab washer design had the potential to cause stage 12 rotor cracking when incorrectly assembled.

Planning Information

Effectivity Data

Engine Models Applicable

V2522-A5, V2524-A5, V2527M-A5, V2527-A5, V2527E-A5, V2530-A5, V2533-A5

Engine Serial Nos. V10001 thru V13190

Engine Serial Nos. V15001 thru V18948

V2525-D5, V2528-D5

Engine Serial Nos. V20001 thru V20285

Concurrent Requirements

This Service Bulletin must be done at the same time or after Reference 9, Service Bulletin No. V2500-ENG-72-0273.

Reason

1. Condition: The HPC 9-12 drum may exhibit cracks in the 12th stage rotor as a result of aggressive tab washer assembly. This Service Bulletin provides a new washer design, assembly tool, and assembly process that will reduce the potential for cracks.
2. Background: During assembly of HPC 9-12 drum a drift and hammer are used to strike the washer to bend the tabs in place. During maintenance of an engine, cracks were found on the 12th stage rotor near the rear of the drum.
3. Objective: The new washer design addresses assembly and operational durability deficiencies and will provide a consistent method of assembly.
4. Substantiation: Structural analysis was done on the washer and the rotor bolted joint. Both parts fully meet all structural requirements with no impact to cycle life. The washer maintains the same material and thickness as the original bill of materials washer and, therefore, does not change the bolted joint stack configuration.
5. Effects of Bulletin on:
 - Removal/Installation: Affected.
 - Disassembly/Assembly: Affected.
 - Cleaning: Not Affected.
 - Inspection/Check: Not Affected.
 - Repair: Not Affected.
 - Testing: Not Affected.
6. Supplemental Information
 - None.

Description

Replace the fourteen (14) washers.

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Compliance

Category 6

Accomplish when the subassembly (i.e. modules, accessories, components, build groups) is disassembled sufficiently to afford access to the affected part and to all affected spare parts.

Approval Data

The part number changes and/or part modifications specified in the Accomplishment Instructions and Material Information sections of this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model(s) given.

The compliance statement and the procedures described in this Service Bulletin have been shown to comply with the applicable Federal Aviation Regulations and are FAA-APPROVED for the engine model listed.

Manpower

1. In Service

..... Not Applicable.

2. At Overhaul

Necessary to Reidentify the HPC Assembly 0.3 hours.

Total Necessary Man-hours 0.3 hours.

Weight and Balance

1. Weight Change

- 0.50 lb (- 0.27 kg)

2. Moment Arm

No Effect.

3. Datum

Engine Front Mount Centerline (Power Plant Station (PPS) 100)

Electrical Load Data

This Service Bulletin has no effect on the aircraft electrical load.

Software Accomplishment Summary

Not Applicable.

References

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

1. ATA Locator — 72-41-00.

2. Internal Reference No. — 17VG058.

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3. V2500 Standard Practices and Processes, P&W Ref. PN 2A4414, Chapter/Section 72-41-00.
4. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-41-00.
5. V2500-D5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4426, Chapter/Section 72-41-00.
6. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-41-00.
7. V2500-D5 Series Engine Manual, P&W Ref. PN 2A4416, Chapter/Section 72-41-00.
8. V2500 Service Bulletin V2500-ENG-70-0991, Engine — High Pressure (HP) Compressor Module Part Numbers.
9. V2500 Service Bulletin V2500-ENG-72-0273, Engine - HPC Discs 9-12 - Introduction Of A Revised HP Compressor Stage 9-12 Assembly.

Other Publications Affected

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, a Technical Publications conversion table is provided in the Appendix.

1. V2500-A5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4428, Chapter/Section 72-41-00.
2. V2500-D5 Series Illustrated Parts Catalog, P&W Ref. PN 2A4426, Chapter/Section 72-41-00.
3. V2500 A1/A5 Series Engine Manual, P&W Ref. PN 2A4407, Chapter/Section 72-41-00.
4. V2500-D5 Series Engine Manual, P&W Ref. PN 2A4416, Chapter/Section 72-41-00.

Interchangeability of Parts

Old and new parts are interchangeable only in complete sets.

Information in the Appendix

Alternate Accomplishment Instructions (No)

Progression Charts (No)

Added Data (Yes)

Revision to Table of Limits (No)

Inspection Procedures (No)

Material Information

Material — Price and Availability

1. Part prices were not available at the time of Service Bulletin publication. Contact IAE Spares Management & Logistics for firm quotations.
2. There is no kit provided to do this Service Bulletin.
3. Part availability information is provided in material data Instructions — Disposition.

Industry Support Program

Not Applicable.

The material data that follows is for each engine.

For V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, V2533-A5 Engines:

New PN	Qty	Estimate of Unit Price (\$)	Keyword	Old PN	Instructions — Disposition
6C6658	14	*	WASHER	6A4159 (72-41-13-01-856)	(2)(A)(N)

The material data that follows is for each engine.

For V2525-D5, V2528-D5 Engines:

New PN	Qty	Estimate of Unit Price (\$)	Keyword	Old PN	Instructions — Disposition
6C6658	14	*	WASHER	6A4159 (72-41-13-01-856)	(2)(A)(N)

Instructions/Disposition Code Statements:

Parts Modification Conditions

Estimated part prices are provided when they are available at time of publication. The Estimate of Unit Price is only for planning purposes and does not constitute a firm quotation. An asterisk (*) is shown where part pricing information was unavailable. In either case, contact IAE Spares for firm quotations.

(2) The new part is a replacement part only, and cannot be obtained by modification of the old part.

Spare Parts Availability

(A) The new part is available.

(N) The old part is not available.

Vendor Services or Special Components/Materials

Not Applicable.

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Tooling — Price and Availability

Special Tools

Tool No.	Tool Name.	Manufacturer
IAE1P18865	IMMOBILIZER TOOL	IAE

Reidentified Parts

See Reference 8, Service Bulletin No. V2500-ENG-70-0991.

Other Material Information Data

Not Applicable.

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Accomplishment Instructions

For V2500-A5 And V2500-D5 Engine Models

1. Replace the fourteen (14) Washers PN 6A4159 with PN 6C6658 and assemble the HPC assembly as specified in Reference 6, V2500 A1/A5 Engine Manual, Task 72-41-10-440-002-B00 or Reference 7, V2500 D5 Engine Manual, Task 72-41-10-440-002.
2. Reidentify the HP Compressor Module Identification Plate as follows:
 - A. Locate the HP Compressor Module data plate on the HPC front case. See Figure 2.
 - B. Remove the attaching nuts and bolts and existing HP Compressor Module data plate
 - C. Obtain a new HP Compressor Module Data Plate, PN 6A3076.
 - (1) Mark the new data plate with the existing serial number as specified in Reference 3, V2500 Standard Practices and Processes, Chapter/Section 70-09-00.
 - (a) Refer to Reference 8, Service Bulletin No. V2500-ENG-70-0991 for applicable HP Module part number.
 - D. Install the new HP Compressor module data plate into the location of the removed data plate.
 - (1) Torque the nuts and bolts to 36 - 45 lbf.in (4.1 - 5.1 N.m) as specified in Reference 3, V2500 Standard Practices and Processes, Chapter/Section 70-41-00.
3. Recording Instructions
 - A. A record of accomplishment is required.

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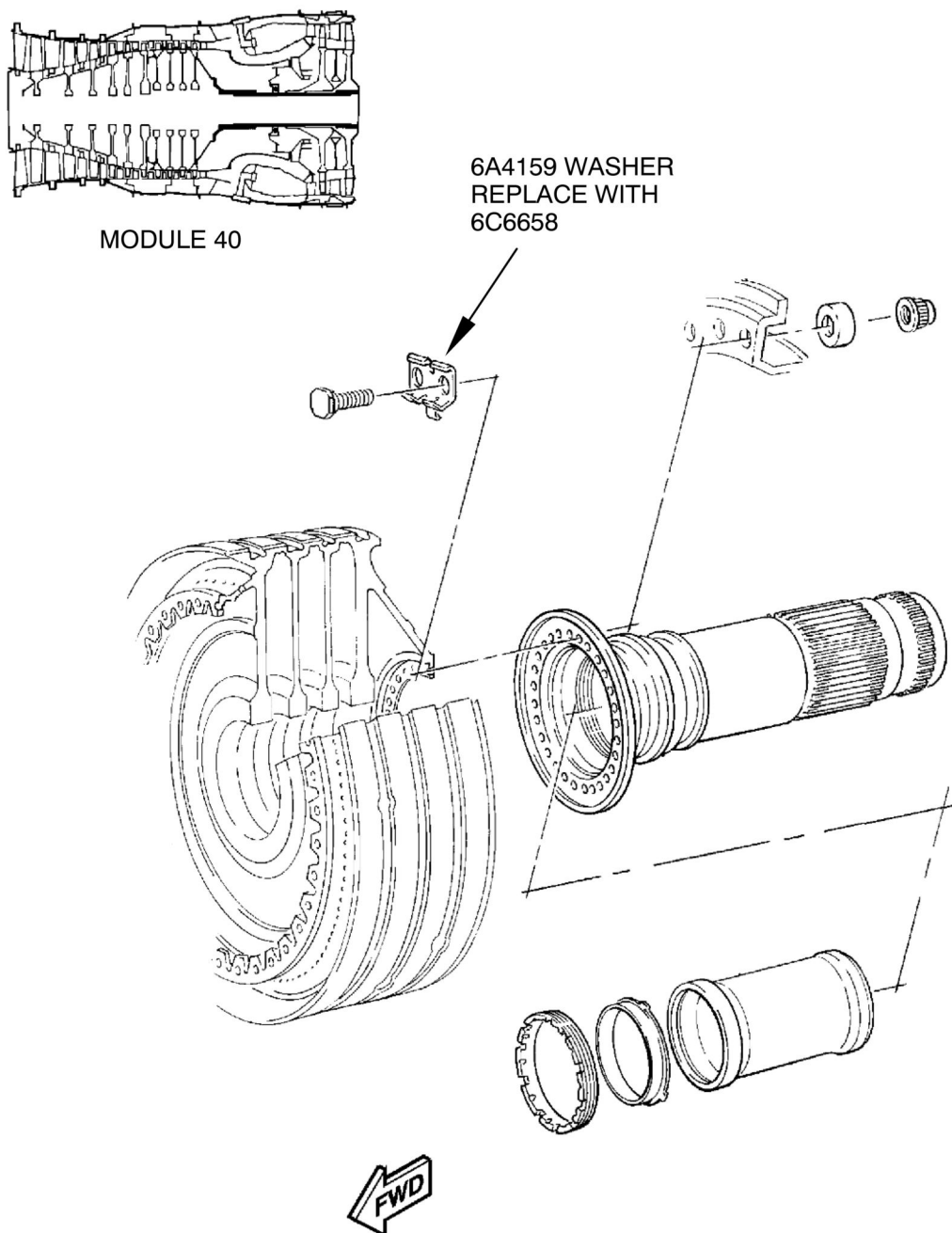
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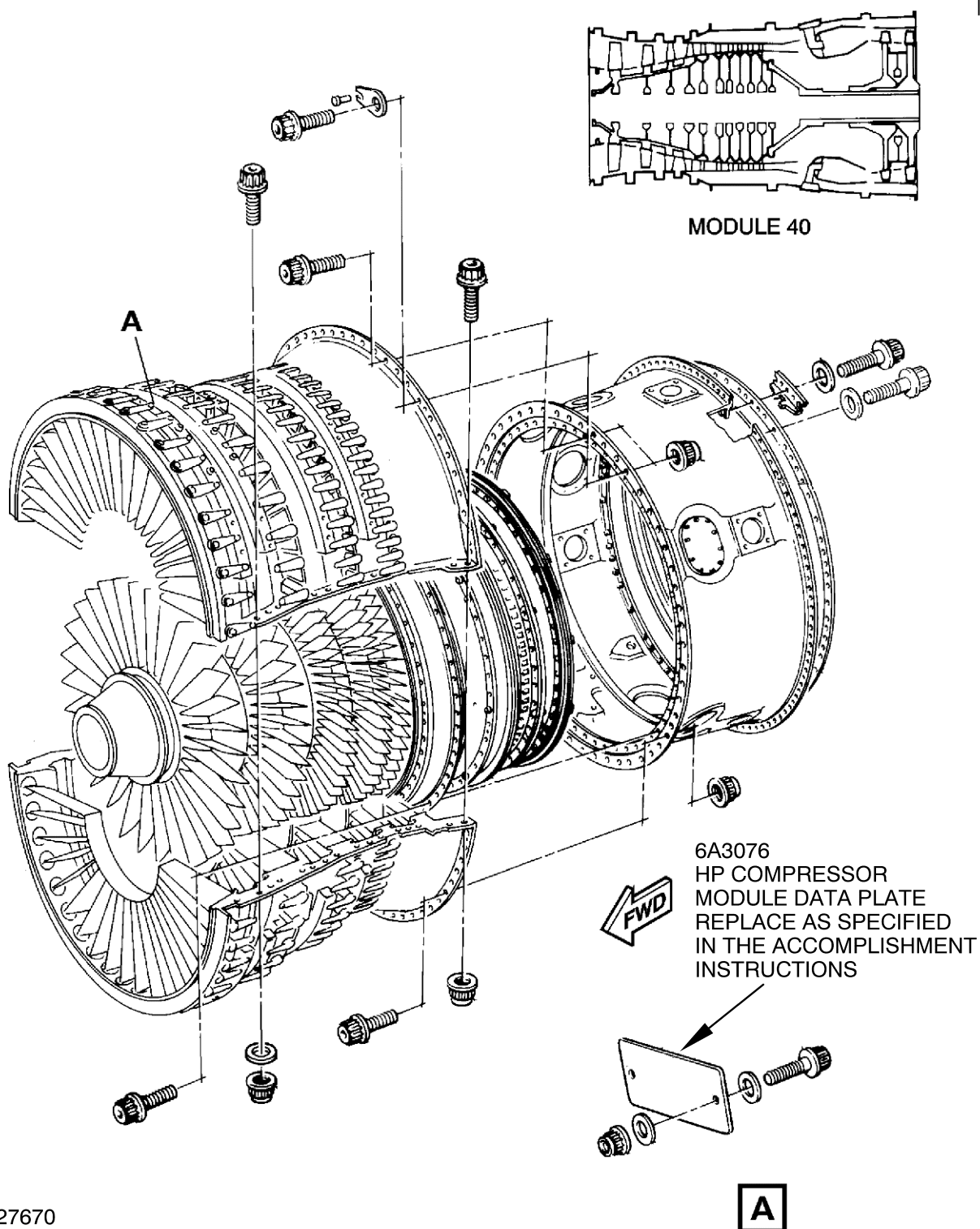
LOCATION OF WASHER
72-41-13
FIGURE 1

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LOCATION OF DATA PLATE
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FIGURE 2

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Appendix

Added Data

Internal Reference Information

Revision No.	Reference Document	Origination
Original	EC17VG058 EC17VG058A EC17VG058B	MM/RCM
1	EC17VG058 EC17VG058A EC17VG058B	MM/JAC

Number values shown in parentheses adjacent to U.S. values are International System of units (SI) equivalents.

NOTE: In 2014 IAE converted the V2500 Technical Publications to a new system. As a result of the conversion, some manuals were consolidated. All manuals received new P&W part numbers. To facilitate the use of this Service Bulletin, the following Technical Publications cross reference table is provided.

Technical Publications Cross Reference Table

Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
ENGINE MANUAL — A1, A5	All	E-V2500-1IA	2A4407
CMM-EHC — A1, A5	All	EHC-V2500-1IA	2A4409
CMM-FN — A1, A5	All	FN-V2500-1IA	2A4410
CMM-MMC — A1, A5	All	MECH-V2500-1IA	2A4411
CMM-THD — A1, A5	All	THD-V2500-1IA	2A4412
TLM — A1, A5	All	T-V2500-1IA	2A4408
ENGINE MANUAL — D5	All	E-V2500-3IA	2A4416
CMM-EHC — D5	All	EHC-V2500-3IA	2A4418
CMM-FN — D5	All	FN-V2500-3IA	2A4419
CMM-MMC — D5	All	MECH-V2500-3IA	2A4420
CMM-THD — D5	All	THD-V2500-3IA	2A4423
TLM — D5	All	T-V2500-3IA	2A4417
SPPM (SPM) — A1, A5, D5	All	SPP-V2500-1IA	2A4414
EIPC — A1	V2500-A1102Q00	S-V2500-1IA	2A4427

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Publication	Engine Model(s)	IAE IETM Pub Ref	P&W Part Number
EIPC — A5	V2522/V2524/V2527M-AQ02	S-V2500-6IA	2A4428
	V2522/V2524/V2527M-AQ03	S-V2500-6IB	
	V2522/V2524/V2527M-SQ02	S-V2500-6SA	
	V2522/V2524/V2527M-SQ03	S-V2500-6SB	
	V2522/V2524/V2527M-SQ04	S-V2500-6NA	
	V2522/V2524/V2527M-SQ05	S-V2500-6NB	
	V2527/V2527E-AQ02	S-V2500-7IA	
	V2527/V2527E-AQ03	S-V2500-7IB	
	V2527/V2527E-SQ02	S-V2500-7SA	
	V2527/V2527E-SQ03	S-V2500-7SB	
	V2527/V2527E-SQ04	S-V2500-7NA	
	V2527/V2527E-SQ05	S-V2500-7NB	
	V2530-AQ02	S-V2500-2IA	
	V2530-AQ03	S-V2500-2IB	
	V2530-SQ02	S-V2500-2SA	
	V2530-SQ03	S-V2500-2SB	
	V2530-SQ04	S-V2500-2NA	
	V2530-SQ05	S-V2500-2NB	
	V2533-AQ02	S-V2500-5IA	
	V2533-AQ03	S-V2500-5IB	
	V2533-SQ02	S-V2500-5SA	
	V2533-SQ03	S-V2500-5SB	
	V2533-SQ04	S-V2500-5NA	
	V2533-SQ05	S-V2500-5NB	
EIPC — D5	V2525/V2528-AQ02	S-V2500-3IA	2A4426
	V2525/V2528-AQ03	S-V2500-3IB	
	V2525/V2528-AQ04	S-V2500-3IC	

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