

# IBM TotalStorage SAN portfolio expands with a SAN24M-1 mid-range switch and a SAN12M-1 entry switch for infrastructure simplification

#### Overview

The TotalStorage® SAN portfolio expands with the introduction of the TotalStorage SAN m-type family of mid-range and entry switch products.

They can be architected and scaled into complex enterprise SANs using a high-availability backbone director with fabric switches at the edge to support cost-effective and high-performance solutions.

The initial offering of the TotalStorage SAN m-type family of mid-range and entry switch products includes:

- IBM TotalStorage SAN24M-1 mid-range switch (2026-224)
- IBM TotalStorage SAN12M-1 entry switch (2026-E12)

The IBM TotalStorage SAN24M-1 mid-range switch offers storage consolidation, high-availability, and high-port density in a 1-U rack mount chassis.

It supports longwave and shortwave transceivers, offers up to twenty-four non-blocking ports, in eight-port increments, with support for auto-sensing, auto-rate-negotiation 1 and 2 Gb/sec FC-AL and Fabric (FC-SW).

It helps you to purchase upgrades to connectivity when needed and integrates support for full-Fabric and FC-AL tape attachment to SAN m-type family of enterprise directors and switches.

The IBM TotalStorage SAN12M-1 entry switch addresses the needs of entry-level SAN applications, first-time SAN deployments, departmental SANs, and application-specific deployments.

It offers 4, 8, or 12 non-blocking ports, providing 1 and 2 Gbps Fibre Channel ports that use industry standards-based auto-sensing and auto-rate-negotiating operation with Fabric and Public Loop attached devices.

The optional Full-Fabric Activation feature enables support for Inter-Switch Link (ISL) and full bandwidth extended distance operation up to 10 km at 2 Gbps (when configured with longwave transceivers), to help support disaster tolerance solutions.

Support for some configurations may not be available on the initial availability date.

#### **Key prerequisites**

For a list of supported servers and storage, refer to the **Description** section.

For availability dates, configuration options, server models, operating systems levels, and attachment capabilities, refer to

http://www.ibm.com/totalstorage/ SAN/m-type

#### Planned availability date

October 15, 2004

#### At a glance

The initial TotalStorage SAN m-type family offering includes:

#### SAN24M-1 mid-range switch:

- Integrated support for Full-Fabric and Fibre Channel Arbitrated Loop (FC-AL) tape attachment to IBM SAN m-type family of enterprise director and switch products
- Up to 24 non-blocking FC ports (8-port increments) with auto-sensing and auto-rate-negotiation support for 1 and 2 Gb/sec devices
- In-band management, optional Open Systems Management Server capability and SANtegrity to lock-down key attributes of SAN infrastructure
- Longwave transceivers, field installed in the first four ports, support distances up to 10 km

#### SAN12M-1 entry-level switch:

- Fabric switch capabilities to address needs of small- to medium-sized business applications, first-time, departmental, and application-specific deployments
- 4, 8, or 12 non-blocking ports with 1 and 2 Gbps FC support for Fabric and Public Loop-attached devices
- Optional Full-Fabric Activation supports ISL and full-bandwidth, extended distance operation up to 10 km at 2 Gbps for disaster tolerance solutions
- Ease-of-use with zoning support, SANpilot Web-based management tool, and HotCAT nondisruptive microcode update

For ordering, contact:

Your IBM representative, an IBM Business Partner, or the Americas Call Centers at

800-IBM-CALL

Reference: YE001

This announcement is provided for your information only. For additional information, contact your IBM representative, call 800-IBM-4YOU, or visit the IBM home page at: http://www.ibm.com.

#### **Description**

### IBM TotalStorage SAN24M-1 mid-range switch (2026-224)

The SAN24M-1 mid-range switch supports:

- Storage consolidation
- High availability
- · High-port density in a 1-U rack mount chassis

It supports long- and short-wave transceivers, offers up to twenty-four non-blocking ports, in eight-port increments, with support for auto-sensing, auto-rate-negotiation 1 and 2 Gb/sec FC-AL and FC-SW.

The SAN24M-1 mid-range switch helps you to add connectivity when needed and provides integrated support for Full-Fabric and FC-AL tape attachment to SAN m-type family of enterprise directors and switches.

#### IBM TotalStorage SAN12M-1 entry switch (2026-E12)

The SAN12M-1 entry-level switch specifically addresses the needs of:

- · Entry-level SAN applications
- First-time SAN deployments
- Departmental SANs
- Application specific deployments

It offers 4, 8, or 12 non-blocking ports, providing 1 and 2 Gbps Fibre Channel ports utilizing industry standards-based auto-sensing and auto-rate-negotiating operation with Fabric and Public Loop attached devices. The optional Full-Fabric Activation feature enables support for ISL and full bandwidth, extended distance operation up to 10 km at 2 Gbps (when configured with longwave transceivers), to help disaster tolerance solutions.

#### Supported servers and storage systems

Each new switch supports Fibre Channel connectivity for:

- Servers
  - IBM @server zSeries® and selected S/390® servers (SAN24M-1 only)
  - IBM @server pSeries® and selected RS/6000® servers
  - IBM @server iSeries™ and selected AS/400® servers
  - IBM @server xSeries® and selected Netfinity® servers
  - Other Intel<sup>™</sup>-based servers running Linux<sup>™</sup>, Microsoft<sup>™</sup> Windows<sup>™</sup> 2000, or Windows 2003
  - Selected Sun and HP servers
- · Storage software
  - IBM TotalStorage SAN Volume Controller (SVC)
  - IBM TotalStorage SAN File System (SFS)
- Storage systems
  - IBM TotalStorage Enterprise Storage Server™
  - IBM TotalStorage FAStT Family of Storage Servers
  - IBM TotalStorage Enterprise Tape System 3590 and 3592
  - IBM TotalStorage Enterprise Tape Library 3494
  - IBM TotalStorage Enterprise Tape Controller 3592 Model J70

- IBM TotalStorage Enterprise Tape Controller 3590 Model A60
- IBM 3581, 3582, 3583, and 3584 Ultrium LTO Tape Libraries
- Other selected storage systems

**Note:** For attachment to tape devices using FC-AL, the SAN140M and SAN32M-1 require the use of the SAN24M-1. For details of the SAN24M-1, refer to Hardware Announcement 104-370, dated October 5, 2004.

#### Accessibility by people with disabilities

The following features support use by people with disabilities:

- Tactile landmarks on home keys.
- Visual or tactile and auditory indicator of each toggle key state or make the state of that toggle key available to software so that it can provide alternative indicators.
- · Industry-standard keyboard and keypad layout.
- Keys which are tactilely discernible without activating them
- Key repeat delay is adjustable to at least two seconds.
- Industry-standard ports for alternative input and output devices.
- · Industry-standard display connectors.
- Non-glare screen that allows displays to be repositioned.
- Color as an enhancement, not as the only way to distinguish keys, controls, or labels.
- Easily readable lettering and high contrast colors.
- An interface so that use of system sounds can be known to software.
- Physical volume control or an interface so that volume can be controlled with software.
- Upon request, provide documentation in an accessible format.

#### Software interface:

- · Keyboard equivalents are provided for all actions.
- The product does not interfere with keyboard accessibility features built into the operating system.
- Labels are associated with controls, objects, icons, and images.
- Text is provided through standard system function calls or API.
- Color as an enhancement, not as the only way to convey information or indicate an action.
- System settings for font, size, and color for all user interface controls.
- Avoids the use of blinking text, objects or other elements.
- Documentation in an accessible format
- Documentation on all accessibility features including keyboard access

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## IBM US Announcement Supplemental Information

October 5, 2004

#### Feature descriptions

#### Fibre Optic cables

Cable Coupler 50u SC/SC (#1800): One fiber cable coupler, multimode (50u), duplex SC/SC (female/female) that allows you to attach an existing fiber cable with SC type connectors to a port with a LC type connector.

Cable Coupler 9u SC/SC (#1801): One fiber cable coupler, singlemode (9u), duplex SC/SC (female/female) that allows you to attach an existing fiber cable with SC type connectors to a port with a LC type connector.

Fiber Cable 9u 3m LC/SC (#1805): One 3-meter, singlemode (9u) fiber cable, LC/SC, with a duplex (male) SC connector at one end, and a duplex (male) LC connector at the other end.

Fiber Cable 50u 10m LC/SC (#1810): One 10-meter, multimode (50u) fiber cable, LC/SC, with a duplex (male) LC connector at one end, and a duplex (male) SC connector at the other end.

Fiber Cable 50u 10m LC/LC (#1811): One 10-meter, multimode (50u) fiber cable, LC/LC, with duplex (male) LC connectors at both ends.

#### Other features

**SAN12M1 Full Fabric Capable (#4301):** Supports Inter-Switch Link (ISL) and full bandwidth extended distance operation up to 10 km at 2 Gbps (when configured with the optional LW SFP Transceiver #4630), to help disaster tolerance solutions.

**SAN12M1 4pt FlexPort Exp Kit (#4304):** Enables an additional 4 ports on the SAN12M1 entry switch (2026-E12) and includes four customer-installable SW SFP Transceivers and FlexPort activation key.

**SAN24M1 Open Sys Mgmt Server (#4501):** Open Systems Management activation for the SAN24M1 switch.

**SAN24M1 SANtegrity Activation (#4503):** Additional code within the SAN24M1 switch for SANtegrity security capability enabling fabric and switch binding. This feature optionally enhances the security of FCP environment, and is mandatory for FICON™ cascading configurations.

**SAN24M1 8pt FlexPort (#4508):** Enables an additional 8 ports on the SAN24M1 mid-range switch (2026-224) and includes eight customer-installable SW SFP Transceivers and FlexPort activation key.

**SAN24M1 Element Manager (#4510):** Software and license necessary for the SAN24M1 to be managed by the Enterprise Fabric Connectivity (EFC) Manager.

**SAN24M1 Open Trunking (#4520):** Open Trunking is designed to optimize the total throughput between two SAN m-type directors and/or switches automatically by redirecting traffic from high utilization links to links with available bandwidth. Open Trunking helps continuously monitor loads on all links, detect congestion, and automatically balance traffic across available ISLs without operator interaction. The receiving switch does not need to support Open Trunking capability.

**SAN24M1 Preferred Path (#4522):** Designed to allow a customer to define routes across a fabric. The Preferred Path enhancement modifies the behavior of Open Trunking by providing guidance for the balancing function. The Preferred Path configuration helps address user preference regarding exit port assignment but is subject to the standard rules regarding the FSPF protocol.

**SAN24M1 Full Volatility (#4550):** Designed to support high-security environments, which require no customer data be retained after power off. The Full Volatility feature is designed to configure a switch or director so that no frame data is stored after a power off.

**LW SFP Transceiver (#4630):** One long-wave SFP fiber optic transceiver with LC connector, supporting distances up to 10 km.

Inst SAN24M1 IN Cab (Plant) (#9235): Installation of the IBM TotalStorage® SAN24M1 in a 2032-C40 cabinet prior to being shipped from the plant.

Inst SAN24M1 IN Cab (Field) (#9236): Customer installation of the IBM TotalStorage SAN24M1 in a 2032-C40 cabinet when the switch is installed at the customer location.

#### **Publications**

The following publications are shipped with the product on a CD-ROM.

Additional copies of publications are available

#### http://www.ibm.com/totalstorage/SAN/m-type

Title	number
IBM TotalStorage SAN12M1 Fabric Switch Customer Setup and Operations Manual	GC26-7666
IBM TotalStorage SAN24M1 Fabric Switch Customer Setup and Operations Manual	GC26-7667

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Title	Order number
Enterprise Operating System Command Line Interface User Manual for IBM TotalStorage Products	GC26-7669
SANpilot User Manual for IBM TotalStorage Products	GC26-7670
McDATA Element Manager for IBM TotalStorage SAN24M1 and 12M1 Switch User Manual	GC26-7672
McDATA Fabricenter Equipment Cabinet Installation and Service for IBM Products Manual	GC26-7674
IBM Products in a SAN Environment Planning Manual	GC26-7675
IBM TotalStorage SAN 2026 Model E12 (SAN12M1) Statement of Limited Warranty	GC26-7690
IBM TotalStorage SAN 2026 Model E24 (SAN24M1) Statement of Limited Warranty	GC26-7691

#### **Services**

#### Integrated Technology Services

IBM services include business consulting, outsourcing, hosting services, applications, and other technology management.

These services help you learn about, plan, install, manage, or optimize your IT infrastructure for e-business. They can help you integrate your high-speed networks, storage systems, application servers, wireless protocols, and an array of platforms, middleware, and communications software for IBM and many non-IBM offerings. IBM is your one-stop shop for IT support needs.

For more details on available services, contact your IBM representative, or visit

#### http://www.ibm.com/services/

For details on education offerings related to specific products, visit

#### http://www.ibm.com/services/learning/index.html

Select your country, and then select the product as the category.

#### **Technical information**

#### Physical specifications

• 2026-E12

Width: 43.7 cm (17 in)
Depth: 47.3 cm (17.5 in)
Height: 4.1 cm (1.75 in)
Weight: 6.5 kg (15 lb)

• 2026 Model 224

0.40.

Width: 43.7 cm (17 in)
Depth: 47.3 cm (17.5 in)
Height: 4.1 cm (1.75 in)
Weight: 8.6 kg (20 lb)

To assure installability and serviceability in non-IBM industry standard racks, review the installation planning information for any product specific installation requirements.

#### Operating environment

• Temperature: 10° to 38°C (40° to 104°F)

• Relative humidity: 5% to 80%

• Wet bulb (caloric value): 127 BTU/Hr

Electrical power: 1.25 — 2A

Noise level: 5.5 to 6.9 Bels

#### **EMC Conformance**

ICES 003 Class A

· FCC Part 15 Class A

VCCI Class A ITE

EN55022 Class A

EN55024

AS NZS 3548 Class A

CISPR22 Class A

Product safety/country testing/certification:

CSA 60950 (Canada)

• UL Standard 60950

• IEC EN60950 (CF-Europe)

EN60950 (Germany)

TUV, NEMKO

#### Hardware requirements

Rack requirements: An industry-standard 19-inch rack, or equivalent, with adequate space available (1 EIA™ unit for the model E12 and model 224), and sufficient power and cooling is required to support the SAN m-type family of mid-range and entry switch products.

Non-rack-mounted installation is supported. You must order the required country-specific power cord.

**Software requirements:** Specific details on supported operating system releases are available on the Web at

#### http://www.ibm.com/totalstorage/SAN/m-type

**Compatibility:** Specific details on supported operating systems, servers, and devices, storage products attachability, SAN connectivity products, and configuration options are available on the Web at

#### http://www.ibm.com/totalstorage/SAN/m-type

**Limitations:** 2026-E12 cannot be managed using Enterprise Fabric Control Manager (EFCM). SANpilot (embedded GUI) product manager via Ethernet access using standard web browser may be used.

#### Planning information

#### Cable orders

**Fiber optic cable:** A fiber optic cable is required for attaching the SAN m-type family to the host system adapters, or other storage area Fibre Channel components. The cable can be customer supplied, or ordered with the 2026 E12/224 in the lengths available. The attaching fiber cable must be 50.0/125 micrometers

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for distances up to 300 meters, or 62.5/125 micrometers for distances up to 175 meters. The connection is an LC connector type.

Description	Models	Feature number
Cable Coupler 50u SC/SC	E12, 224	1800
Cable Coupler 9u SC/SC	E12, 224	1801
Fiber Cable 9u 3m LC/SC	E12, 224	1805
Fiber Cable 50u 10m LC/SC	E12, 224	1810
Fiber Cable 50u 10m LC/LC	E12, 224	1811

In many situations, the required lengths and installation of fiber optic cables will be unique to each customer's configuration and facility specifications. IBM Network Integration and Deployment Services, offered by IBM Global Services, can provide assistance for these unique cabling and installation requirements. Several features are available to accommodate simple installations where the Fibre Channel components and attaching subsystems are within the distances available.

#### Security, auditability, and control

This product uses the security and auditability features of host hardware, host software, and/or application software to which it is attached.

The customer is responsible for evaluation, selection, and implementation of security features, administrative procedures, and appropriate controls in application systems and communications facilities.

#### Terms and conditions

This product is available for purchase under the terms of the IBM Customer Agreement (ICA).

Each IBM machine is manufactured from parts that may be new or used. In some cases, a machine may not be new and may have been previously installed.

Regardless, appropriate IBM warranty terms apply.

Volume orders: Contact your IBM representative.

IBM Global Financing: YesWarranty period: One year

*Warranty service:* This machine is eligible under terms and conditions of IBM ServiceSuite™, the IBM Enterprise Service Agreement (ESA), or the IBM Maintenance Agreement. Consult your IBM Representative for details.

When a type of service involves the exchange of a machine part, the replacement may not be new, but will be in good working order

If required, IBM provides repair or exchange service depending on the type of warranty service specified for your machine. An IBM technician will attempt to resolve your problem over the telephone, you must follow IBM's problem determination and resolution procedures. Scheduling of service will depend upon the time of your call and is subject to parts availability. Service levels are response time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country- and location-specific information.

Customer replaceable unit (CRU) service: If your problem can be resolved with a CRU (keyboard, mouse, speaker, memory, HDD, and other easily replaceable parts), IBM will ship these parts to you for replacement by you. If IBM instructs you to return the replaced CRU, you are responsible for returning it to IBM in accordance with IBM's instructions. If you do not return the defective CRU, if IBM so instructs, within 30 days of your receipt of the replacement CRU, IBM may charge you for the replacement.

ServiceSuite and ServiceElect (formerly ESA) maintenance: For ServiceElect (Z125-5510) and ServiceSuite (Z125-5745) Statements of Work.

Warranty service upgrade: If required, IBM provides repair or exchange warranty service upgrades depending on the type of service specified for your machine. An IBM technician will attempt to resolve your problem over the telephone. You must follow IBM's problem determination and resolution procedures. Scheduling of service will depend upon the time of your call and is subject to parts availability. If applicable, parts that are considered CRUs will be provided as part of the machine's standard warranty service. Service levels are response time objectives and are not guaranteed. The specified level of service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for countryand location-specific information.

#### On-site service

- IBM on-site repair (IOR), 9 hours per day, Monday through Friday excluding holidays, next-business-day (NBD) response
- IOR, 9 hours per day, Monday through Friday excluding holidays, same-day response.
- IOR, 24 hours per day, 7 days a week, same-day response

IBM will repair the failing machine at your location and verify its operation.

Maintenance services: If required, IBM provides repair or exchange service depending on the type of warranty service specified for your machine. An IBM technician will attempt to resolve your problem over the telephone, you must follow IBM's problem determination and resolution procedures. Scheduling of service will depend upon the time of your call and is subject to parts availability. Service levels are response time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country- and location-specific information.

*CRU service:* If your problem can be resolved with a CRU (keyboard, mouse, speaker, memory, HDD, and other easily replaceable parts), IBM will ship these parts to you for replacement by you. If IBM instructs you to return the replaced CRU, you are responsible for returning it to IBM in accordance with IBM's instructions. If you do not return the defective CRU, if IBM so instructs, within 30 days of your receipt of the replacement CRU, IBM may charge you for the replacement.

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#### On-site service

- IOR, 9 hours per day, Monday through Friday excluding holidays, NBD response
- IOR, 24 hours per day, 7 days a week, same-day response

IBM will repair the failing machine at your location and verify its operation.

**Maintenance** service: The preferred go-to-market offerings are ServiceElect and ServiceSuite. However, ICA legacy contracts will still be available for current customers until they are withdrawn.

Alternative service (warranty service upgrades): If required, IBM provides repair or exchange service depending on the type of warranty service specified for your machine. An IBM technician will attempt to resolve your problem over the telephone, you must follow IBM's problem determination and resolution procedures. Scheduling of service will depend upon the time of your call and is subject to parts availability. Service levels are response time objectives and are not guaranteed. The specified level of warranty service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country- and location-specific information.

#### On-site service

- IOR, 9 hours per day, Monday through Friday excluding holidays, NBD response
- IOR, 24 hours per day, 7 days a week, same-day response

IBM will repair the failing machine at your location and verify its operation.

You must provide a suitable working area to allow disassembly and reassembly of the IBM machine. The area must be clean, well-lit, and suitable for the purpose.

Maintenance services: If required, IBM provides repair or exchange warranty service upgrades depending on the type of service specified for your machine. An IBM technician will attempt to resolve your problem over the telephone. You must follow IBM's problem determination and resolution procedures. Scheduling of service will depend upon the time of your call and is subject to parts availability. If applicable, parts that are considered CRUs will be provided as part of the machine's standard warranty service. Service levels are response time objectives and are not guaranteed. The specified level of service may not be available in all worldwide locations. Additional charges may apply outside IBM's normal service area. Contact your local IBM representative or your reseller for country- and location-specific information.

Standard service level: On-site service — IOR 1-year, 9 hours per day, Monday through Friday excluding holidays, NBD response. IBM will repair the failing machine at your location and verify its operation.

Alternate service level: On-site service —IOR 1-year, 24 hours per day, 7 days a week, same-day response. IBM will repair the failing machine at your location and verify its operation.

Usage plan machine: No

IBM hourly service rate classification: Two

When a type of service involves the exchange of a machine part, the replacement may not be new, but will be in good working order.

Field-installable features: Yes

Model conversions: No

**Machine installation:** Customer setup; customers are responsible for installation according to the instructions IBM provides with the machine.

**Graduated charges:** No. This product does not contain licensed internal code or licensed machine code.

#### **Prices**

Description	Machine type/ model	Feature number	Purchase price <sup>1</sup>	Plant/ field install
TotalStorage SAN12M-1	2026-E12		\$4,425	
TotalStorage SAN24M-1	2026-224		5,430	
Cable Coupler 50u SC/SC	2026-E12	1800	30	Both
•	2026-224			
Cable Coupler 9u SC/SC	2026-E12	1801	45	Both
•	2026-224			
Fiber Cable 9u 3m LC/SC	2026-E12	1805	225	Both
	2026-224			
Fiber Cable 50u 10m LC/SC	2026-E12	1810	210	Both
	2026-224			
Fiber Cable 50u 10m LC/LC	2026-E12	1811	240	Both
	2026-224			

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Description	Machine type/ model	Feature number		Plant/ field install
SAN12M1 Full Fabric Capable	2026-E12	4301	\$2,100	Both
SAN12M1 4pt FlexPort Exp Kit	2026-E12	4304	500	Both
SAN24M1 Open Sys Mgmt Server	2026-224	4501	3,440	Both
SAN24M1 SANtegrity Activation	2026-224	4503	2,030	Both
SAN24M1 8pt FlexPort	2026-224	4508	4,780	Both
SAN24M1 Element Manager	2026-224	4510	2,660	Both
SAN24M1 Open Trunking	2026-224	4520	5,240	Both
SAN24M1 Preferred Path	2026-224	4522	0,2 10	Both
SAN24M1 Full Volatility	2026-224	4550	6,520	Both
LW SFP Transceiver		4630		Both
LW SFP Hansceiver	2026-E12	4630	1,200	DUIII
OANIOANA OANII't	2026-224	4500	0.000	D - (I-
SAN24M1 SANtegrity	2026-224	4503	2,030	Both
Inst SAN24M1 in Cab (Plant)	2026-224	9235	0	Plant
Inst SAN24M1 in Cab (Field)	2026-224	9236	0	Plant
Power cords				
U.K., 2.5m 220V/10a	2026-E12 2026-224	1012	NC	Plant
European, 2.5m 220V/10a	2026-E12 2026-224	1013	NC	Plant
Australian, 2.5m 220V/10a	2026-E12 2026-224	1014	NC	Plant
U.S., 9 ft 10 in 208-240V	2026-E12 2026-224	1016	NC	Plant
Italy/Chile/Libya 220V/10a	2026-E12 2026-224	1021	NC	Plant
Israel, 2.5m 250V/10a	2026-E12 2026-224	1022	NC	Plant
Thailand/Bolivia/Peru NEMA 6-15P, 250V/10a	2026-E12 2026-224	1023	NC	Plant
Denmark 250V/10a	2026-E12 2026-224	1024	NC	Plant
Africa/Burma/Bang 250V/10a	2026-E12 2026-224	1025	NC	Plant
Switz/Liecht 250V/10a	2026-E12 2026-224	1026	NC	Plant
U.S., 1.8m 240V/15a Non-locking NEMA L6-15P	2026-E12 2026-224	1027	NC	Plant
U.S., 1.8m 240V/6a Twist-lock NEMA L6-15P	2026-E12 2026-224	1028	NC	Plant
U.S., 2.8m 240V/6a Twist-lock NEMA L6-15P	2026-E12 2026-224	1029	NC	Plant
Japan, 2.8m NEMA L6-15P	2026-E12 2026-224	1030	NC	Plant

Purchase price reflects the purchase price for a single unit acquired from IBM and is subject to change without notice. This price shall not limit, in any way, IBM resellers' ability to set their own price.

#### Alternative service (ICA warranty service upgrades)

#### Maintenance services

Machine type/ model	1-year IOR 9 x 5 NBD	1-year IOR 24 x 7 4-hour	Machine type/ model	1-year IOR 9 x 5 NBD	1-year IOR 24 x 7 4-hour
2026-E12	\$129	\$264	2026-E12	\$ 755	\$1,058
2026-224	176	360	2026-224	1,029	1,440

For ServiceElect (ESA) Maintenance Service Charges, contact IBM Global Services at 888-IBM-4343 (426-4343).

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#### http://www.ibm.com/financing

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Internet: ibm\_\_direct@vnet.ibm.com
Mail: IBM Americas Call Centers

Dept: IBM CALL, 11th Floor

105 Moatfield Drive North York, Ontario Canada M3B 3R1

Reference: YE001

The Americas Call Centers, our national direct marketing organization, can add your name to the mailing list for catalogs of IBM products.

Note: Shipments will begin after the planned availability date.

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