

Hardware Information

Managing the control panel
functions

ESCALA POWER5



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ESCALA POWER5

Hardware Information

Managing the control panel functions

Hardware

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Managing the control panel functions

The control panel functions allow you to interface with the server. Control panel functions range in complexity from functions that display status (such as IPL speed) to low-level service functions that only service representatives must access. You can perform control panel functions by using one of the following methods:

- Physical control panel
- remote control panel
- virtual control panel
- Hardware Management Console (HMC) if the system is managed by the HMC
- ESCALA PL 245T/R server and the kstation control panel

See the following sections to learn more about control panel functions and the ways that you can access and perform these functions:

- **What's new**
Learn about the new or changed documentation for this topic.
 - **Printable PDF**
Use this to view and print a PDF of this information.
 - **Control panel concepts**
Learn about the control panel functions, IPL modes and values, and other concepts.
 - **Setting up the remote control panel**
Learn how to set up the remote control panel (RCP) through an operations console configuration.
 - **Setting up the virtual control panel**
Learn how to set up the virtual control panel (VCP) through an Operations Console configuration.
 - **Accessing the control panel functions**
Learn about the different ways that you can access the control panel functions.
 - **Primary control panel functions**
Learn about the primary control panel functions that are available.
 - **Control panel functions on the ESCALA PL 245T/R models**
Learn about the control panel functions that are available on the ESCALA PL 245T/R server models.
 - **Customer-extended panel functions**
Learn about the customer-extended panel functions that are available.
 - **Troubleshooting remote and virtual control panel problems**
Learn about problems that might occur when accessing the remote control panel (RCP) or virtual control panel (VCP).
 - **Related information**
View the ESCALA Power5 Hardware Information topics that relate to this topic.
-

What's new

Learn about the new or changed documentation for this topic.

The following topic is new:

- [Virtual control panel fails to start](#)

The following topics are updated:

- [Function 07: SPCN functions](#)
- [Control panel function codes](#)
- [Control panel function codes on the HMC](#)
- [Control panel function codes on the ESCALA PL 245T/R models](#)
- [Remote control panel fails to start](#)

The following topics have been added or updated to provide control panel information for the ESCALA PL 245T/R server and the kstation:

- [Physical control panel](#)
- [Control panel function codes on the ESCALA PL 245T/R models](#)
- [Control panel functions on the ESCALA PL 245T/R models](#)
 - ◆ [Function 01: Display selected system operating mode, IPL speed, and firmware IPL mode](#)

- ◆ [Function 02: Select firmware IPL mode](#)
- ◆ [Function 04: Lamp test on the ESCALA PL 245T/R models](#)
- ◆ [Function 05: Remind mode for the ESCALA PL 245T/R models](#)
- ◆ [Function 06: Display the BMC version on the ESCALA PL 245T/R models](#)
- ◆ [Function 09: Display the BMC fan speed on the ESCALA PL 245T/R models](#)
- ◆ [Function 10: Display the temperature on the ESCALA PL 245T/R models](#)
- ◆ [Function 20: System type and model](#)
- ◆ [Function 22: Partition dump on the ESCALA PL 245T/R models](#)

Parent topic: [Managing the control panel functions](#)

Printable PDF

Use this to view and print a PDF of this information.

To view or download the PDF version of this document, select [Managing the control panel functions](#) (about 915 KB).

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Parent topic: [Managing the control panel functions](#)

Control panel concepts

Learn about the control panel functions, IPL modes and values, and other concepts.

To find information about control panel functions, see the following sections:

- [Physical control panel](#)
Learn about the physical control panel. This topic includes illustrations of the control panel.
- [Remote control panel](#)
Learn about the remote control panel (RCP) and how you can use control panel functions through a PC.
- [Virtual control panel](#)
Learn about the virtual control panel (VCP) and how to use control panel functions through a PC.

- **Differences between the virtual control panel and remote control panel**
Determine which server models work best with the different control panels.
- **Control panel function codes**
Learn about the primary and customer-extended control panel function codes.
- **Control panel function codes on the HMC**
Learn about the control panel function codes on a system that is managed by a Hardware Management Console (HMC).
- **Control panel function codes on the ESCALA PL 245T/R models**
Learn about the control panel function codes on the ESCALA PL 245T/R server and the kstation.
- **Control panel function code comparison for the RCP, VCP, and HMC**
Learn about the control panel function codes and whether the virtual control panel, remote control panel, or HMC supports them.
- **Values for IPL types, system operating modes, and speeds**
Learn about the valid initial program load (IPL) types, system operating modes, speeds, and firmware IPL modes that are used in control panel functions.

Parent topic: [Managing the control panel functions](#)

Physical control panel

Learn about the physical control panel. This topic includes illustrations of the control panel.

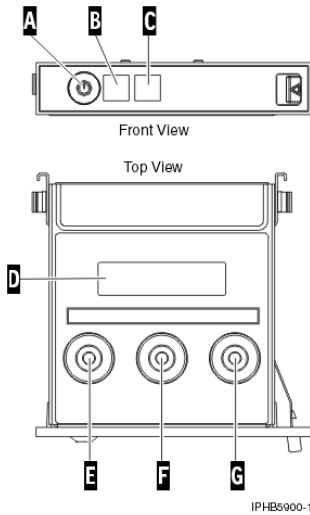
The physical control panel is your initial interface with the server or workstation. You can use the physical control panel to perform functions such as IPL, power on, and power off. Control panel functions range in complexity from functions that display status (such as IPL speed) to low-level service functions that only service representatives access.

The following table lists the control panel figures and descriptions for server and workstation models.

Table 1. Physical control panels

Title of figure	Describes the control panel for the following models
Figure 1	ESCALA PL 245T/R server model and the kstation
Figure 2	ESCALA PL 250R-VL or ESCALA PL 450R-XS server model
Figure 3	ESCALA PL 250R-L server models
<p>Figure 4 for other server models, including the following:</p> <ul style="list-style-type: none"> • ESCALA PL 250T/R • ESCALA PL 850R/PL 1650R/R+ • 7/20 	<p>Other server models, with the following exceptions:</p> <ul style="list-style-type: none"> • The system attention light does not appear on the control panel on the model ESCALA PL 850R/PL 1650R/R+. It is located to the right side of the control panel. • The ESCALA PL 3250R, ESCALA PL 6450R, server models do not have physical control panels. Instead, they use the Hardware Management Console (HMC) to perform control panel functions. For information about using the HMC to perform control panel functions, see Accessing the control panel functions using the HMC. <p>The system attention light for the ESCALA PL 3250R, ESCALA PL 6450R, models is located on the power switch assembly.</p>

Figure 1. ESCALA PL 245T/R control panel

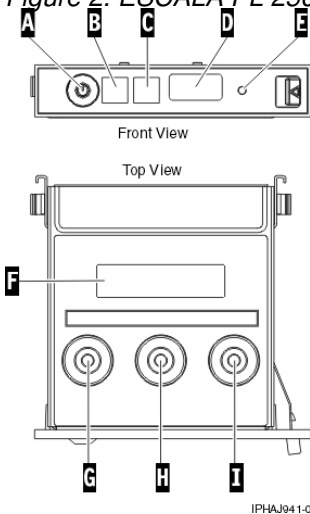


IPH5900-1

Typically, this control panel is seated inside the chassis so that only the end is showing. To read the Function/Data display, you must pull the control panel out from the front of the system. This illustration shows the control panel pulled out.

- A Power button
- B Power on light
 - ◇ A slow blinking light indicates standby power to the unit.
 - ◇ A fast blinking light indicates that the system is booting.
 - ◇ A constant light indicates full system power to the unit.
- C System attention light
- D Function/Data display (2 x 16 LCD display)
- E Decrement button
- F Enter button
- G Increment button

Figure 2. ESCALA PL 250R-VL or ESCALA PL 450R-XS control panel



IPH4J941-0

Typically, this control panel is seated inside the server chassis so that only the end is showing. To read the Function/Data display, you must pull the control panel out from the front of the server. This illustration shows the control panel pulled out.

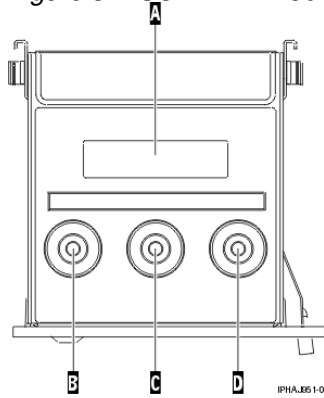
- A Power button
- B

Power on light

- ◇ A blinking light indicates standby power to the unit.
- ◇ A constant light indicates full system power to the unit.

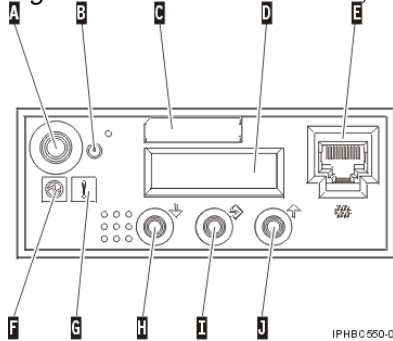
- C System attention light
- D USB port
- E Reset button
- F Function/Data display
- G Decrement button
- H Enter button
- I Increment button

Figure 3. ESCALA PL 250R-L control panel



- A LCD screen
- B Decrement button
- C Enter button
- D Increment button

Figure 4. ESCALA PL 250T/R, ESCALA PL 850R/PL 1650R/R+, control panel



- A Power button
- B On/off power symbol
- C Type and serial number label

- D Function/Data display
- E Ethernet connector
- F Power on light
 - ◇ A blinking light indicates standby power to the unit.
 - ◇ A constant light indicates full system power to the unit.
- G System attention light
- H Decrement button
- I Enter button
- J Increment button

Parent topic: [Control panel concepts](#)

Remote control panel

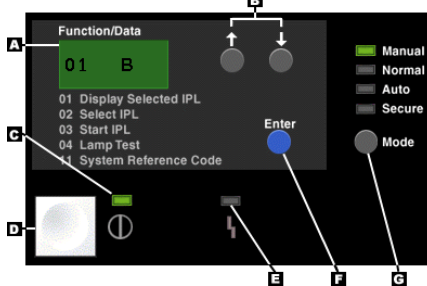
Learn about the remote control panel (RCP) and how you can use control panel functions through a PC.

The remote control panel lets you use control panel functions through a PC. The graphical user interface of the remote control panel looks similar to the physical control panel. The remote control panel has the following characteristics:

- The remote control panel installs through the Operations Console.
- You can use the interface for the remote control panel to restart and power off the server. It cannot power up the server. You can use the remote control panel to perform most of the same functions as the physical control panel.
- POWER5 server models do not support a directly connected remote control panel. Remote control panel connectivity is supported through a local console on a local area network (LAN-connected RCP) or using the virtual control panel (VCP).

For information about deciding whether the remote control panel or the virtual control panel will best meet your needs, see [Differences between the virtual control panel and remote control panel](#).

Figure 1. Remote control panel



- A Function/Data display
- B Increment and Decrement buttons
- C Power on indicator
- D Power button
- E System Attention light
- F Enter button

G

Mode button

- **Planning for the remote control panel**

Determine which remote control panel (RCP) configuration is best for your environment.

Parent topic: [Control panel concepts](#)

Planning for the remote control panel

Determine which remote control panel (RCP) configuration is best for your environment.

The following information can help you determine which remote control panel (RCP) configuration is best for your environment:

- The local console on a network (LAN) selects the RCP by default. If you do not want to use the RCP, use Properties to deselect the function.
- For server hardware, you must use a Hardware Management Console (HMC) to manage logical partitions. This means that you cannot use the RCP to activate a logical partition, and you cannot directly connect an RCP cable to 5xx servers. To work with logical partitions remotely, you can use the [Web-based System Manager Remote Client](#) or the [Advanced System Management Interface \(ASMI\)](#).
- Any configuration where the device ID is not authorized after the first connection will be unavailable or missing.
 - ◆ An unavailable configuration was selected but not authorized.
 - ◆ A missing configuration was not selected and was not authorized.

After the configuration is authorized, it reappears in Properties the next time you connect.
- You must be granted access to a logical partition's RCP and functions to use the RCP. If a local console on a network (LAN) is being used, then the service tools device ID must also be granted access to that logical partition's RCP to use this feature. Users and service tools device IDs default values will automatically grant access to the RCP for the logical partition but can be revoked by an administrator for the user ID, device ID, or both. The user that authenticates a connection must also have authority to the respective logical partition's keylock to change the mode.

Parent topic: [Remote control panel](#)

Virtual control panel

Learn about the virtual control panel (VCP) and how to use control panel functions through a PC.

The virtual control panel is an alternative to the remote control panel on servers that do not support a directly connected remote control panel and do not have a network adapter. Like the remote control panel, the virtual control panel is a way to use control panel functions through a PC. The graphical user interface for the virtual control panel is identical to the remote control panel. Also, the virtual control panel can perform most of the same functions as the remote control panel.

For information about deciding whether the remote control panel or the virtual control panel best meets your needs, see [Differences between the virtual control panel and remote control panel](#).

Considerations for the virtual control panel

The following table lists requirements and restrictions for the virtual control panel.

Table 1. Virtual control panel requirements and restrictions

Requirements	Restrictions

<ul style="list-style-type: none"> • The virtual control panel must have a direct connection to the server from the Operations Console using the serial console cable. • A unique service tools device profile must exist for each virtual control panel connection. • If you want to use the mode function provided by the virtual control panel, the service tools user profile used to authenticate the connection must have the Partition remote panel key privilege. To verify that your service tools user ID has this privilege, see Setting user ID permissions for the VCP. • A VCP requires the console to be directly connected over a serial cable, and the console must be connected to use the control panel functions. However, the VCP cannot power on the server. The VCP also requires a service tools device ID on the server. • You must be granted access to a logical partition's RCP and functions to use the RCP or VCP. Because the VCP setup uses the Operations Console on a network configuration path and characteristics, the service tools device ID must also be granted access to that logical partition's RCP to use this feature. Users and service tools device IDs default values automatically grant access to the RCP for the logical partition but can be revoked by an administrator for the user ID, device ID, or both. The user that authenticates a connection must also have authority to the respective logical partition's keylock to change the mode. 	<ul style="list-style-type: none"> • The virtual control panel is available only while the Operations Console is connected. • You cannot use the virtual control panel remotely through a dial-up connection. • You cannot use an existing network name or duplicate a name that is already configured on the PC. You might need to verify if a name is used by looking in the hosts file on the PC. The hosts file can be viewed by any standard text editor. • More than one LAN-connected remote control panel can be active at the same time. In addition, LAN-connected remote control panels can coexist with a virtual control panel.
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Connectivity and usage considerations

Ensure that you understand the following connectivity and usage requirements and restrictions before you install the Operations Console virtual control panel (VCP). For information about installing the VCP, see [Setting up the virtual control panel](#).

Table 2. Connectivity requirements and restrictions

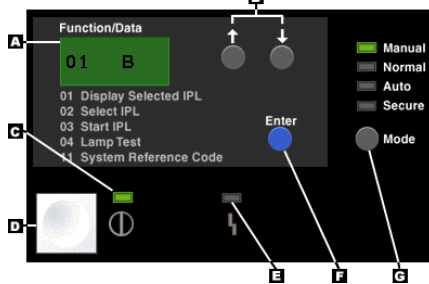
Requirements	Restrictions
<ul style="list-style-type: none"> • The VCP requires the serial cable and connection of a local console (directly attached). • The VCP requires a unique service tools device ID for connection authentication. If no local console on a local area network (LAN) configuration exists, then you can use the QCONSOLE service tools device ID. 	<ul style="list-style-type: none"> • You cannot use a name that already exists on the network or duplicate a name that is already configured on the PC. • VCP functions are not supported at a remote console. • The hosts file on the PC might need manual cleanup. Each time you create a network configuration on the PC, data is saved in a file named hosts. This file may be used each time the PC attempts to connect to the network, and each entry is unique to any others by the connection name. Be aware that if you delete a VCP configuration, then the corresponding hosts entry is not deleted. You must manually delete the appropriate line from this text-based file using any text editor.

Table 3. Usage requirements and restrictions

Requirements	Restrictions
<ul style="list-style-type: none"> • To control power, you must use the Hardware Management Console (HMC) or the Advanced System Management 	<ul style="list-style-type: none"> • The VCP is available only while the console is connected.

<p>Interface (ASMI).</p>	<ul style="list-style-type: none"> • All VCPs and RCPs are active at the same time. Use care when working with control panel functions when multiple PCs have access to the functions.
--------------------------	---

Figure 1. Virtual control panel



- A Function/Data display
- B Increment and Decrement buttons
- C Power on indicator
- D Power button
- E System Attention light
- F Enter button
- G Mode button

Parent topic: [Control panel concepts](#)

Differences between the virtual control panel and remote control panel

Determine which server models work best with the different control panels.

The biggest functional difference between the directly connected remote control panel (RCP) and the virtual control panel (VCP) is that the virtual control panel cannot power on the server. However, if you need to power on the system at a later time, you can use the IPL scheduling function in Operational Assistant by pressing the Attention key. You can also use the **GO POWER** command, and select option 2 (Change power on and off schedule). You can also use the Hardware Management Console (HMC), if installed, or the Advanced System Management interface (ASMI) to control power on a partition.

The following POWER5 server models work with the virtual control panel (VCP) and the LAN-connected remote control panel (RCP):

- ESCALA PL 250R-VL or ESCALA PL 450R-XS
- ESCALA PL 250T/R
- ESCALA PL 450T/R
- ESCALA PL 850R/PL 1650R/R+
- ESCALA PL 6450R

Parent topic: [Control panel concepts](#)

Control panel function codes

Learn about the primary and customer-extended control panel function codes.

To display all functions, put the control panel in manual mode. See [Putting the physical control panel in manual operating mode](#).

The following table includes descriptions of the primary and customer-extended control panel function codes.

Table 1. Primary and customer-extended control panel (32-character) function codes

Function code	Function selected
01	<ol style="list-style-type: none"> 1. Displays the current IPL parameters. 2. Displays an HMC-managed indicator. <p>This function is available in both normal and manual operating mode.</p>
02	Used to select the IPL type, system operating mode, IPL speed, and firmware IPL mode. This function is available in both normal and manual operating mode.
03	Starts an IPL to load the system. The IPL uses the selected IPL options. This function is available only in manual operating mode and when the system power is on.
04	Performs a lamp test; all displays and indicators are lit. This function is available in both normal and manual operating mode.
05 through 06	Reserved.
07	Allows you to perform SPCN service functions. This function is available only in the manual operating mode and from power on standby.
08	<p>Causes a fast power off. This function is available only when the system is in manual operating mode and the system power is on. For more information, see the following:</p> <ul style="list-style-type: none"> • Powering off the system. • Powering off the partition.
09 through 10	Reserved.
11 through 19	Displays a system reference code (SRC) on the control panel. These functions are available in both normal and manual operating mode when an SRC is available.
20	Displays the machine type, model, processor feature code, and IPL types. This function is available in both normal and manual operating mode.
21	Causes the Use Dedicated Service Tool (DST) display to appear on the system console. To exit the DST, select the Resume operating system display option. This function is available only in the manual operating mode and when activated by the operating system.
22	Forces a partition dump. First, see Function 34: Retry partition dump . To perform a system main storage dump, see Performing dumps . This function is available only in the manual operating mode and when activated by the operating system.

23 through 24	Reserved.
25 through 26	Use service switches 1 and 2 to enable or disable functions 50 through 99. These functions are available only in the manual operating mode and when activated by the FSP.
27 through 29	Reserved.
30	Displays CEC FSP IP address and location. This function is available only in the manual operating mode and from power on standby.
31 through 33	Reserved.
34	Retries the partition dump. This function is available only in the manual operating mode and when activated by the operating system.
35 through 41	Reserved.
42	Performs a platform dump. This function is available only in the manual operating mode and when activated by the operating system or the FSP.
43	Performs a service processor dump. This function is available only in the manual operating mode and when activated by the FSP.
44 through 49	Reserved.

If you cannot find the function code in this chart, added features or devices might not have been available when this information was produced. Look on the control panel for supplemental unit function code information for the function code that you displayed.

Parent topic: [Control panel concepts](#)

Control panel function codes on the HMC

Learn about the control panel function codes on a system that is managed by a Hardware Management Console (HMC).

If you are managing the system with the Hardware Management Console (HMC), use the HMC to perform control panel functions. Servers without physical panels (for example, 9406-595, ESCALA PL 3250R, ESCALA PL 3250R, /75) require the HMC to perform the equivalent panel functions. The HMC affects the physical control panel in the following ways:

- Except for some limited auto-platform override function, such as Auto Power On Restart and Timed Power On, the system operating mode value no longer has meaning.
- The operating system IPL-type value is disabled in functions 01 and 02.
- Functions 11-19 do not display partition system reference codes (SRCs). They continue to display SRCs from the platform Licensed Internal Code (LIC).
- Functions 21, 22, 34, and 65-70 are not selectable on the physical control panel.

The following table lists the control panel functions that you can perform on the HMC.

Function	Description
01	<ol style="list-style-type: none"> 1. Displays the currently selected IPL type (and logical key mode on some system types). 2. Displays the currently selected IPL speed override for the next IPL.

	This function is available in both normal and manual operating mode.
02	Performs a slow boot. This function is available in both normal and manual operating mode.
03	Performs a re-IPL. The IPL uses the selected IPL options. This function is available only in manual operating mode and when the system power is on.
04	Performs a lamp test; all displays and indicators are switched on. This function is available in both normal and manual operating mode.
05-06	Reserved.
07	Allows you to set SPCN configuration IDs. This function is available only in manual operating mode when the system is in standby.
08	Causes a fast power off. This function is available only when the system is in manual operating mode and the system power is on.
09-10	Reserved.
11-19	Displays a system reference code (SRC) on the control panel. These functions are available in both normal and manual operating mode when an SRC is available.
20	Displays the machine type, model, processor feature code, processor class indicator, and IPL path description. This function is available in both normal and manual operating mode.
21	Causes the Use Dedicated Service Tool (DST) display to appear on the system console. This function is available only in the manual operating mode and when activated by the operating system.
22	Forces a partition dump. This function is available only in the manual operating mode and when activated by the operating system.
23-24	Reserved.
25-26	Not applicable.
27-29	Reserved.
30	Displays CEC FSP IP address and location. This function is available only in the manual operating mode and when activated by the FSP.
31-33	Reserved.
34	Retries the partition dump. This function is available only in the manual operating mode and when activated by the operating system.
35-41	Reserved.
42-43	Not applicable.
44-49	Reserved.
50-52	Reserved.
53	Unconfigures an intermittently failing processor (repeat GARD function). This function is available only in the manual operating mode.
54	Reserved.
55	Platform dump override. This function is available only in the manual operating mode when activated by the FSP and when CE scroll ranges are enabled.
56-62	Reserved.
63	Progress indicator history. This function is available only in the manual operating mode.
64	Diagnostic status SRC trace. This function is available only in the manual operating mode.
65	Deactivates remote service. This function is available only in the manual operating mode when activated by the operating system and when CE scroll ranges are enabled.
66	Activates remote service. This function is available only in the manual operating mode when activated by the operating system and when CE scroll ranges are enabled.
67	Disk unit I/O processor (IOP) reset/reload is enabled only by specific disk unit SRCs. This function is available only in the manual operating mode when activated by the operating system and when CE scroll ranges are enabled.
68	Turns off power domains during concurrent maintenance of IOPs and IOAs. This function is available only in the manual operating mode when activated by the operating system and when CE scroll ranges are enabled.
69	Turns on power domains during concurrent maintenance of IOPs and IOAs. This function is available only in the manual operating mode when activated by the operating system and when CE scroll ranges are enabled.

70	Dump service processor control storage. Initiates an I/O processor (IOP) dump; enabled by specific error conditions. This function is available only in the manual operating mode when activated by the operating system and when CE scroll ranges are enabled.
----	---

Parent topic: [Control panel concepts](#)

Related reference

[Accessing the control panel functions using the HMC](#)

Control panel function codes on the ESCALA PL 245T/R models

Learn about the control panel function codes on the ESCALA PL 245T/R server and the kstation.

The following table includes descriptions of the control panel function codes.

Table 1. Control panel (32-character) function codes

Function code	Function selected
01	Displays the current IPL parameters. This function is available in both normal and manual operating mode.
02	Used to select the IPL type, system operating mode, IPL speed, and firmware IPL mode. Selects temp or perm only. This function is available in both normal and manual operating mode.
03	Not applicable.
04	Lamp test; all displays and indicators are lit. This function is available in both normal and manual operating mode.
05	Used for Remind mode. This function is available in both normal and manual operating mode.
06	Displays the base motherboard controller (BMC) version. This function is available in both normal and manual operating mode.
07 through 08	Not applicable.
09	Displays the base motherboard controller (BMC) fan speed. This function is available in both normal and manual operating mode.
10	Displays the temperature. This function is available in both normal and manual operating mode.
11 through 19	Not applicable.
20	Displays the machine type and model. This function is available in both normal and manual operating mode.
21	Not supported.
22	Forces a partition dump. To perform a system main storage dump, see Performing dumps .
23 through 49	Not applicable.

If you cannot find the function code in this chart, added features or devices might not have been available when this information was produced. Look on the control panel for supplemental unit function code information for the function code that you displayed.

Parent topic: [Control panel concepts](#)

Control panel function code comparison for the RCP, VCP, and HMC

Learn about the control panel function codes and whether the virtual control panel, remote control panel, or HMC supports them.

There are few functional differences among the remote control panel (RCP), virtual control panel (VCP), and physical control panel. The main difference is in how they can or cannot be used to power up the server. For example, consider the following:

- The physical control panel can be used to power up the server.
- The virtual control panel and the LAN-connected remote control panel cannot be used to power up the server.

If you are managing the system with the Hardware Management Console (HMC), use the HMC to perform control panel functions. The HMC affects the physical control panel in the following ways:

- Except for some limited auto-platform override function, such as Auto Power On Restart and Timed Power On, the system operating mode value no longer has meaning.
- The OS IPL type value is disabled in functions 01 and 02.
- Functions 11-19 do not display partition system reference codes (SRCs). They continue to display SRCs from the platform LIC.
- Functions 21, 22, 34, and 65-70 are not selectable on the physical control panel.

The following table describes the control panel function codes and whether the virtual control panel, remote control panel, and HMC support them.

Notes:

1. Some control panel functions might not be available on all system types.
2. The *x* can be any number 0 through 9, any letter A through F, or a blank.
3. If you cannot change the Function/Data display or complete the selected function, see [Beginning problem analysis](#).

Table 1. Control panel function code comparison for the RCP, VCP, and HMC

Function code	Virtual control panel function and LAN-connected remote control panel	HMC	Function description
01	Yes	Yes	1. Displays the current IPL parameters.

			2. Displays an HMC-managed indicator.
02	Yes	Yes. Initiates a slow boot.	Used to select the IPL type, system operating mode, IPL speed, and firmware IPL mode.
03	Yes	Yes	Starts an IPL to load the system. The IPL uses the selected IPL options.
04	Yes	Yes	Lamp test; all displays and indicators are lit.
05 through 06	No	Not applicable	Reserved.
07	Not applicable	Yes	Allows you to perform SPCN service functions.
08	Yes	Yes	Fast power off. For more information, see the following: <ul style="list-style-type: none"> • Powering off the system.
09 through 10	Not applicable	Reserved	Reserved.
11 through 19	Yes	Yes	Displays a system reference code (SRC) on the control panel.
20	Yes	Yes	Displays the machine type, model, processor feature code, processor class indicator, and IPL path description.
21	Yes	Yes	Causes the Use Dedicated Service Tool (DST) display to appear on the system console. To exit the DST, select the <i>Resume operating system display</i> option.
22	Yes	Yes	Forces a partition dump. First, see Function 34: Retry partition dump . To perform a system main storage dump, see Performing dumps .
23	Not applicable	Reserved	Reserved.
24	Not applicable	Reserved	Reserved.
25	Yes	Yes	Uses service switches 1 and 2 to enable or disable functions 50 through 70.
26	Yes	Not applicable	Uses service switches 1 and 2 to enable or disable functions 50 through 70.
27 through 29	Not applicable	Reserved	Reserved.
30	Not applicable	No. This function is intended to be used from the physical control panel when no HMC is available.	Displays CEC FSP IP address and location.
31 through 33	Not applicable	Reserved	Reserved.
34	Yes	Yes	Retries the partition dump.
35 through 41	Not applicable	Reserved	Reserved.
42	Not applicable	No	Performs a platform dump.
43	Not applicable	No	Performs a service processor dump.
44 through 49	Not applicable	Reserved	Reserved.
50 through 53	Not applicable	Reserved	Reserved.
54	Not applicable	Reserved	Reserved.
55	Not applicable	Not applicable	Platform dump override.
56 through 62	Not applicable	Reserved	Reserved.
63	Not applicable	Yes	System status SRC trace.
64	Not applicable	Yes	Service processor diagnostic status SRC trace.

65	Yes	Yes	Deactivates remote service.
66	Yes	Yes	Activates remote service.
67	Yes	Yes	Disk unit I/O processor (IOP) reset/reload is enabled only by specific disk unit SRCs.
68	Yes	Yes	Concurrent maintenance power domain power off.
69	Yes	Yes	Concurrent maintenance power domain power on.
70	No	Initiated by specific error conditions.	IOP dump.
Power button	Power button in graphical interface for powering off the server only.	For information about using the HMC to power on the server, see Powering on the managed system .	OFF = Delayed power off ON = Immediate power on (can be timed power on)
Attention light	Yes	Not applicable	Attention state LED.
Power indicator	Power indicator in graphical interface.	Not applicable	Lit when power is fully operational.

Parent topic: [Control panel concepts](#)

Values for IPL types, system operating modes, and speeds

Learn about the valid initial program load (IPL) types, system operating modes, speeds, and firmware IPL modes that are used in control panel functions.

The following tables describe the valid initial program load (IPL) types, system operating modes, speeds, and firmware IPL modes that are used in control panel functions 01 and 02:

- [Table 1](#)
- [Table 2](#)
- [Table 3](#)
- [Table 4](#)

[Table 5](#) describes whether the Hardware Management Console (HMC) is active for HMC-managed systems.

Notes:

- Systems managed by the HMC can use the HMC to perform control panel functions. For information about performing control panel functions using the HMC, see [Accessing the control panel functions using the HMC](#).
- OS IPL types are displayed only when the OS IPL mode has been enabled from the operating system.

Table 1. Operating system IPL types

Initial program load (IPL) type	Action or description
A	IPL from disk using copy A of the system Licensed Internal Code.
B	IPL from disk using copy B of the system Licensed Internal Code.
C	Reserved for hardware service use only. Attention: Severe data loss can occur with improper use of this function.
D	IPL from media other than load-source disk. Alternate IPL for code installation support.

Table 2. System operating mode values

System operating mode	Action or description
Manual (M)	Allows you to access the Dedicated Service Tool (DST) and perform an attended IPL.
Normal (N)	Allows you to access the operating system and perform an unattended IPL.

Table 3. IPL speeds

IPL speed	Action or description	Details
F	Fast override for one IPL.	Fast IPL run. Some hardware diagnostics are skipped.
S	Slow override for one IPL.	Full hardware diagnostics run. Use this speed whenever hardware is changed, for intermittent hardware failure, or on the first installation IPL. The following diagnostics are run: <ul style="list-style-type: none"> • Main storage tests. • CEC Inter-chip interface tests (wire test). • Extended Logical Built-in Self Tests.
V=F	Use system-defined speed.	Fast IPL set by the system value (displayed at function 01).
V=S	Use system-defined speed.	Slow IPL set by the system value (displayed at function 01).
V	Fast IPL or slow IPL set by the system value (selected at function 02).	Function 02 selection, or the system default at each IPL.

Table 4. Firmware IPL types

IPL type	Action or description
P	IPL from disk using copy P of the system Licensed Internal Code.
T	IPL from disk using copy T of the system Licensed Internal Code.

Table 5. HMC indicators

HMC indicator	Action or description
HMC=1	The HMC is connected.
HMC=0	The HMC is disconnected.

Parent topic: [Control panel concepts](#)

Setting up the remote control panel

Learn how to set up the remote control panel (RCP) through an operations console configuration.

The remote control panel (RCP) is set up through an Operations Console configuration. To receive control panel functions, you must install the [Operations Console](#) and configure a remote control panel.

Parent topic: [Managing the control panel functions](#)

Related information

[Troubleshooting Operations Console connections](#)

Setting up the virtual control panel

Learn how to set up the virtual control panel (VCP) through an Operations Console configuration.

The virtual control panel (VCP) is set up through an operations console configuration. To receive control panel functions, you must install the [operations console](#) and configure a virtual control panel. The configuration path to create the VCP connection uses the Operations Console on a network path but does not require a network or network adapter.

You must have a local console directly attached to the server configured in order for the virtual control panel to function. To set up a local console directly attached to the server configuration, follow the setup instructions in the [Operations Console](#). The virtual control panel functions have some limitations and restrictions.

To install the virtual control panel (VCP), do the following:

1. Ensure that you understand and meet the [VCP requirements](#).
2. [Install the latest service pack](#) for Client Access for Windows.
3. Review [Changing the console mode](#), and then complete one of the following steps, depending on the current console value:
 - a. If the console value is Operations Console (LAN), then [create a service tools device ID](#), and [set user ID permissions](#).
 - b. If the console value is not Operations Console (LAN), then you can use the existing service tools device ID of QCONSOLE for the VCP. You do not need to create a service tools device ID. If you are uncertain about whether the Operations Console (LAN) console option was ever used, perform a reset of the QCONSOLE service tools device ID before using the VCP. See the [create a service tools device ID](#) topic to access the service tools device ID and perform the Reset password task for QCONSOLE.
4. Create a new configuration for the VCP:

- a. From the Connection menu, click New Connection.
- b. Click Next. (If the window asking about prerequisites is displayed, click Yes.)
- c. Leave the option Local Area Network (LAN) selected, and click Next.
- d. Enter a name to refer to the VCP connection. If the PC that you are working with is connected to a network, do not use a name that can be found on that network or defined on the PC.
- e. Select the correct logical partition, and click Next. POWER5 server models 5/xx begin counting logical partitions at 1, while all other server models start counting at 0.
- f. In the Service TCP/IP Address field, type `192.168.0.2`.

Note: In some cases, the address `192.168.0.n` might have been previously used for something other than the Operations Console. In those cases, you might have had to use a different base address for the operations console, such as `192.168.1.n`. If so, use the base address currently assigned to the Operations Console, but make the last value 2. For example, use `192.168.1.2`.

- i. To check the current base address, use the **regedit** or another registry editing program. Navigate to the following: `HKEY_LOCAL_MACHINE > Software > IBM > Client Access > CurrentVersion > AS400 Operations Console > LCS`.
 - ii. Expand LCS, and select the appropriate configuration.
 - iii. Check the key IP Address. Use the IP address reported on your PC to validate the VCP address. You might also need to check the entries in the **hosts** file on your PC for a matching name or address.
 - g. In the Service gateway address 1 field, enter `0.0.0.0`.
 - h. In the serial number field, enter a serial number, and click Next. This number does not have to be the real system serial number.
 - i. Enter the service tools device ID and password that you are going to use for the VCP connection authentication, and click Next. If you are using the default service tools device ID QCONSOLE, then enter its name and password. If you created a device ID, then enter its name and password. Beginning with Access for Windows, Version 5 Release 4 (V5R4), you are not prompted for the service tools device ID password. Instead, you are prompted for the service tools device ID name only.
 - j. Enter the password that you want to use to connect this console configuration. This password is only used by the PC for the VCP connection and is not known at the server. For example, if you entered **access** as the password, then use **access** later to sign on.
 - k. Enter the password for confirmation and, click Next.
 - l. Click Finish.
 - m. Select the configured connection you just created, and then select Properties.
 - n. Click the Configuration tab.
 - o. Unselect the Use console with this connection option, and click OK.
5. You can now connect the console, if needed, and the VCP configuration to [access the control panel functions](#). To find out how to make the connection, see [Connecting a local console directly attached without remote access allowed](#).
- **[Creating a service tools device ID for the console VCP](#)**
Learn how to create a service tools device ID for the Operations Console virtual control panel (VCP).
 - **[Setting user ID permissions for the VCP](#)**
Learn how to set service tools user ID permissions for the Operations Console virtual control panel (VCP).

Parent topic: [Managing the control panel functions](#)

Creating a service tools device ID for the console VCP

Learn how to create a service tools device ID for the Operations Console virtual control panel (VCP).

The Operations Console virtual control panel (VCP) requires an available, unused service tools device ID. If the console value is not set for Operations Console (LAN attachment), you can use the existing service tools device ID of QCONSOLE for the VCP.

1. [Access Dedicated Service Tools \(DST\) or System Service Tools \(SST\).](#)
2. Did you access DST or SST?

Option	Description
DST	<ol style="list-style-type: none"> a. Select Work with DST environment (option 5). b. Select Service tools device IDs (option 5).
SST	<ol style="list-style-type: none"> a. Select Work with service tools user IDs and devices (option 8). b. Select Service tools device IDs (option 2). You may need to unlock the Service Tools Device IDs menu option.

3. Enter 1 next to the empty device ID field.
4. Enter the name you want for the device ID, and press Enter.
5. Enter a password into both password fields.
6. **Optional:** Enter a description.
7. Press Enter.
8. Select Change attributes (option 7) to set the service tools device ID attributes for the logical partition remote panel key.
9. Press F3 to return to the DST or SST main menu.

Parent topic: [Setting up the virtual control panel](#)

Setting user ID permissions for the VCP

Learn how to set service tools user ID permissions for the Operations Console virtual control panel (VCP).

If you are using a service tools user ID other than QSECOFR, QSRV, 22222222, or 11111111 for use with the Operations Console virtual control panel (VCP), you must set the service tools user privileges for the partition remote panel key to allow access to the mode function. To verify or set this service tools user privilege, do the following:

1. [Access Dedicated Service Tools \(DST\).](#)
2. Did you access DST or SST?

Option	Description
DST	<ol style="list-style-type: none"> a. Select Work with DST environment (option 5). b. Select Service tools user IDs (option 3).
SST	<ol style="list-style-type: none"> a. Select Work with service tools user IDs and devices (option 8). b. Select Service tools user IDs (option 1).

3. Move the cursor to the user for whom you want to verify or set the privileges, enter 7 on the same line, and press Enter.
4. Enter 2 on the line for the partition, and press Enter to grant permission to the mode functions. You only need to verify or set the privilege for the Partition remote panel key entry, which is the partition currently being used.
5. Exit DST or SST.

Parent topic: [Setting up the virtual control panel](#)

Accessing the control panel functions

Learn about the different ways that you can access the control panel functions.

You can access control panel functions by using one of the following methods:

- Physical control panel
- remote control panel

- virtual control panel
- Hardware Management Console (HMC)

If you are not using the HMC to manage your system, you can use a physical, virtual, or remote control panel to access the control panel functions. Systems managed by the HMC should use the HMC to perform the control panel functions.

To learn more about accessing control panel functions from the different methods, see the following sections:

- **Accessing the control panel functions using the physical control panel**
Use the physical control panel to select and activate control panel functions.
- **Accessing the control panel functions using the remote control panel**
Use the remote control panel (RCP) to select and activate functions on the control panel.
- **Accessing the control panel functions using the virtual control panel**
Use the virtual control panel (VCP) to select and activate functions on the control panel.
- **Accessing the control panel functions using the HMC**
Use the Hardware Management Console (HMC) to select and activate control panel functions.

Parent topic: [Managing the control panel functions](#)

Accessing the control panel functions using the physical control panel

Use the physical control panel to select and activate control panel functions.

1. To select a function number, press the Increment () or Decrement () button on the control panel.
2. To activate the function, press Enter on the control panel while the function number that you want to select is displayed.

The function that is displayed is not activated until you press Enter on the control panel.

- **Using the control panel power button to power off**
Learn how to power off the system by using the control panel power button.
- **Putting the physical control panel in manual operating mode**
Learn how to put the physical control panel in manual operating mode.

Parent topic: [Accessing the control panel functions](#)

Using the control panel power button to power off

Learn how to power off the system by using the control panel power button.

Attention: Using the control panel power button to power off the system might cause unpredictable results in the data files, and the next IPL will take longer to complete.

Note: Some servers do not respond to the power off sequence unless the system is in manual operating mode. If necessary, set the system operating mode to **manual** mode. See [Putting the physical control panel in manual operating mode](#).

To use the control panel power button to power off the system, see the following topics:

- **Initiating a delayed power off (DPO)**
Use the control panel power button to initiate a delayed power off (DPO).
- **Initiating a fast power off (FPO)**
Use the control panel power button to initiate a fast power off (FPO).

Parent topic: [Accessing the control panel functions using the physical control panel](#)

Initiating a delayed power off (DPO)

Use the control panel power button to initiate a delayed power off (DPO).

Some servers do not respond to the power off sequence unless the system is in manual operating mode. If necessary, set the system operating mode to manual mode. See [Putting the physical control panel in manual operating mode](#).

To initiate a delayed power off (DPO), do the following:

1. Press and hold the power button on the control panel for four seconds. After one second, a countdown time is displayed. The default countdown time is four seconds.
2. Continue to press and hold the power button until the countdown time reaches zero, and then release the power button. The DPO is initiated.

To cancel the DPO before it starts, release the power button before the countdown reaches zero. If the power button is depressed for less than one second, no countdown time is displayed, and the power off function is not initiated.

Parent topic: [Using the control panel power button to power off](#)

Initiating a fast power off (FPO)

Use the control panel power button to initiate a fast power off (FPO).

Some servers do not respond to the power off sequence unless the system is in manual operating mode. If necessary, set the system to manual operating mode. See [Putting the physical control panel in manual operating mode](#).

To initiate a fast power off (FPO), do the following:

1. Press and hold the power button on the control panel for four seconds. After one second a countdown time is displayed. The default countdown time is four seconds.
2. Continue to press and hold the power button until the countdown time reaches zero and until after the delayed power off (DPO) is initiated. A new DPO-FPO separation count of 10 seconds is started. The separation count is used to separate a DPO from a FPO. During this interval, `D10E0FF0 SCR` is displayed, followed by the countdown time.
3. Continue to press and hold the power button for 10 seconds until the DPO-FPO separation count reaches zero, and then release the power button. When the FPO count expires, `D10E0FF1 SCR` is displayed, and the FPO is initiated.

If you release the power button during the DPO-FPO separation count, the FPO is canceled, and the DPO continues.

If you continue to press the power button after the DPO-FPO separation interval has expired, or if you press and hold the power button while a DPO is in progress, the FPO countdown begins again with a `D10E0FF0 SRC` displayed.

Parent topic: [Using the control panel power button to power off](#)

Putting the physical control panel in manual operating mode

Learn how to put the physical control panel in manual operating mode.

To put the physical control panel in manual operating mode, do the following:

1. Use the Increment button to scroll to function 02.

```
0 2 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
```

2. Press Enter to start function 02.
3. Press Enter again to move to the second character on the function 02 menu. The current system operating mode is displayed with a pointer, as shown in the following example:

```
0 2 _ _ B _ _ N < _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _ P _ _ _ _ _
```

4. Use the Increment button to scroll through the system operating modes, and select **M** for manual, as shown in the following example:

```
0 2 _ _ B _ _ M < _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _
_ _ _ _ _ _ _ _ _ _ P _ _ _ _ _
```

5. Press Enter to select the operating system mode.
6. Press Enter again to exit function 02.

The control panel is in manual operating mode. For information about other options in function 02, see [Function 02: Select IPL type, IPL speed override, system operating mode, and firmware mode](#).

Parent topic: [Accessing the control panel functions using the physical control panel](#)

Accessing the control panel functions using the remote control panel

Use the remote control panel (RCP) to select and activate functions on the control panel.

To use a remote control panel (RCP), you must have the Operations Console configured to use a remote control panel, and you must establish a connection to the remote control panel. If you do not have the Operations Console configured to use a remote control panel, see [Setting up the remote control panel](#).

To connect to the remote control panel (RCP), do the following:

1. Start a connection to the console.
2. Sign in, and wait for the emulator window to be displayed, except with a remote control panel-only configured connection.

If the console configuration includes the remote control panel, the remote control panel automatically starts. If the console configuration does not include the remote control panel, you can add it by clicking Properties > Configuration and selecting the appropriate settings.

Parent topic: [Accessing the control panel functions](#)

Accessing the control panel functions using the virtual control panel

Use the virtual control panel (VCP) to select and activate functions on the control panel.

To use a virtual control panel (VCP), you must install and establish a connection between the virtual control panel configuration and the server. If you have not installed a virtual control panel, see [Setting up the virtual control panel](#).

To connect to the virtual control panel (VCP), do the following steps:

1. Start a connection to the console.
2. Sign in, and wait for the emulator window to be displayed.
3. Start a connection for the VCP.
4. In the Service Device Sign-on window, enter your password in the Access password field. This password is the same password used in step 4.j of the procedure to set up the virtual control panel.
5. Enter any service tools user ID and password.

Parent topic: [Accessing the control panel functions](#)

Accessing the control panel functions using the HMC

Use the Hardware Management Console (HMC) to select and activate control panel functions.

You can use the Hardware Management Console (HMC) to perform control panel functions that were previously done on other control panels. For details about which control panel functions are available on the HMC, see [Control panel function codes on the HMC](#). For information about how to perform control panel actions on the HMC, see the following table:

Function	HMC action
01	<p>To view the power-on parameters or settings on the HMC, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Server and Partition folder. 2. Select Server Management. 3. In the contents area, open the server on which the logical partition is located. 4. Choose from the following options: <ul style="list-style-type: none"> ◆ To view a server's power-on parameters, right-click the server, and select Properties. Select the Power-on Parameters tab. The parameters are displayed. ◆ To view a logical partition's power-on parameters, right-click the partition, and select Properties. Click the Settings tab.
02	<p>To perform a slow boot on the HMC, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, click Server and Partition > Server Management 2. In the contents area, select the server on which you want to perform a slow boot. 3. Click Selected > Properties. 4. Click the Power-On Parameters tab. 5. In the Advanced Options section of the screen click show details. 6. Click slow in the Power-on speed override drop-down list. 7. Click OK.
03	<p>To re-IPL using the HMC, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Server and Partition folder. 2. Select Server Management. 3. In the contents area, open the server on which the logical partition is located. 4. Open Partitions. 5. Right-click the logical partition profile, and select Restart Partition. 6. In the Restart Partition window, click the Immediate restart option.
04	<p>To perform the lamp test using the Service Utilities in Service Focal Point, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, click Service Utilities. 4. In the Service Utilities window, select the system. 5. Click Selected > Lamp test.
05-06	<p>View the serviceable event log. For more information about viewing serviceable events, see Viewing serviceable events.</p>
07	<p>Use the Advanced System Management interface (ASMI) to configure I/O enclosures. To access the ASMI, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, open the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, click Service Utilities. 4. In the Service Utilities window, select the system. 5. In the Selected menu, click Launch ASM Menu.... The ASMI interface opens. <p>For more information about configuring I/O enclosures, see Configuring I/O Enclosures.</p>
08	<p>Power off the logical partition.</p> <p>To power off a logical partition, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Server and Partition folder. 2. Select Server Management. 3. In the contents area, open the server on which the logical partition is located. 4. Open Partitions. 5. Right-click the logical partition, and click Shut Down Partition. 6. Click a shutdown option, and click OK.

	The immediate option is equivalent to the fast power off. The delayed option is equivalent to the white button power off.
09-10	Reserved.
11-19	<p>To view reference code information on the HMC, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Server and Partition folder. 2. Select Server Management. 3. Choose from the following options: <ul style="list-style-type: none"> ◆ To view reference code (function 11), in the right pane, select the system or partition, and view the associated value in the Operator Panel Value column. ◆ To view reference codes (function 12-19), do the following: <ol style="list-style-type: none"> a. In the right pane, expand the system. b. Select the system or partition. c. Right-click the system or partition, and select Properties. d. Click the Reference Code tab. e. Select the entry that corresponds to the time stamp you want to view. f. Click Details. g. View the values that correspond to words 2-9 and FRU Callout. These numbers correspond to functions 12-19 on the control panel. h. When finished, click OK twice.
20	<p>To display the machine type, model, and processor feature code on the HMC, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. Click Selected > Operator Panel Service Functions. 6. Choose from the following options: <ul style="list-style-type: none"> ◆ To view function 20 for the selected system, click System Function > System Type, Model, and Feature Code (20). ◆ To view function 20 for a logical partition, select the logical partition from the list, and click System Function > System Type, Model, and Feature Code (20).
21	<p>Use the Service Utilities in Service Focal Point. To use the Service Utilities, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, open the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. Click Selected > Operator Panel Service Functions. 6. Select the logical partition, and then select Partition Functions. 7. Click DST.
22	<p>Dump the logical partition. To dump a partition, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Server and Partition folder. 2. Select Server Management. 3. In the contents area, open the server on which the logical partition is located. 4. Open Partitions. 5. Right-click the logical partition profile, and click Restart Partition. 6. In the Restart Partition window, click the Dump restart option.
23-24	Reserved.
25-26	No longer needed to access functions equivalent to 50-70.
27-32	Reserved.
33	This function is no longer needed.
34	<p>Retry partition dump. To retry a partition dump, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Server and Partition folder. 2. Select Server Management.

	<ol style="list-style-type: none"> 3. In the contents area, open the server on which the logical partition is located. 4. Open Partitions. 5. Right-click the logical partition profile, and click Restart Partition. 6. In the Restart Partition window, click the Dump Retry restart option.
35-41	Reserved.
42-43	<p>These functions are performed on the physical operator panel on the managed system. Use the following procedure to work with dump information.</p> <p>Use the Service Utilities in Service Focal Point. To use the Service Utilities, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. Click Selected > Manage Dumps.... The Service Utilities... Manage Dumps window is displayed. 6. Use the Selected and Menu options to perform your task.
44-49	Reserved.
50	No longer used.
51	No longer used.
52	No longer used.
53	<p>Use the Advanced System Management interface (ASMI). To access the ASMI, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. In the Selected menu, select Launch ASM Menu.... The ASMI interface opens. <p>For more information about deconfiguring a processor using the ASMI interface, see Changing processor configuration.</p>
54	Reserved.
55	<p>Use the Advanced System Management interface (ASMI) to initiate a platform dump. To access the ASMI interface, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. In the Selected menu, select Launch ASM Menu.... The ASMI interface opens. <p>For more information about initiating a platform dump using ASMI, see Initiating a platform dump.</p>
56-62	Reserved .
63	<p>View either your managed system's properties or the logical partition properties.</p> <p>To view your managed system's properties, see Viewing information about a managed system. On the managed system properties window, click the Reference Code tab, and then click DETAILS.</p> <p>To view logical partition properties, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Server and Partition folder. 2. Select Server Management. 3. In the contents area, open the server on which the logical partition is located. 4. Open Partitions. 5. Right-click the logical partition, and click Properties.
64	<p>Use the Advanced System Management interface (ASMI). To access the ASMI, do the following:</p>

	<ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. In the Selected menu, select Launch ASM Menu.... The ASMI interface opens.
65	<p>Use the Service Utilities in Service Focal Point. To use the Service Utilities, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. Click Selected > Operator Panel Service Functions. 6. Select the logical partition, and then select Partition Functions. 7. Choose the associated control panel function.
66	<p>Use the Service Utilities in Service Focal Point. To use the Service Utilities, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. Click Selected > Operator Panel Service Functions. 6. Select the logical partition, and then select Partition Functions. 7. Choose the associated control panel function.
67	<p>Use the Service Utilities in Service Focal Point, and . To use the Service Utilities, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. Click Selected > Operator Panel Service Functions. 6. Select the logical partition, and then click Partition Functions. 7. Choose the associated control panel function.
68	<p>Use the Service Utilities in Service Focal Point. To use the Service Utilities, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. Click Selected > Operator Panel Service Functions. 6. Select the logical partition, and then click Partition Functions. 7. Choose the associated control panel function.
69	<p>Use the Service Utilities in Service Focal Point. To use the Service Utilities, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. Click Selected > Operator Panel Service Functions. 6. Select the logical partition, and then click Partition Functions. 7. Choose the associated control panel function.
70	<p>Use the Service Utilities in Service Focal Point. To use the Service Utilities, do the following:</p> <ol style="list-style-type: none"> 1. In the navigation area, expand the Service Applications folder. 2. Select Service Focal Point. 3. In the contents area, select Service Utilities. 4. In the Service Utilities window, select the system. 5. Click Selected > Operator Panel Service Functions. 6. Select the logical partition, and then Click Partition Functions.

Parent topic: [Accessing the control panel functions](#)

Primary control panel functions

Learn about the primary control panel functions that are available.

- **Function 01: Display selected IPL type, system operating mode, and IPL speed**
This function is available in both normal and manual operating mode.
- **Function 02: Select IPL type, IPL speed override, system operating mode, and firmware mode**
This function is available in both normal and manual operating mode.
- **Function 03: Start IPL**
This function is available only in manual operating mode and when the system power is on.
- **Function 04: Lamp test**
This function is available in both normal and manual operating mode.
- **Function 05: Reserved**
This function is reserved.
- **Function 06: Reserved**
This function is reserved.
- **Function 07: SPCN functions**
This function is available only in the manual operating mode and from power on standby.
- **Function 08: Fast power off**
This function is available only when the system is in manual operating mode and the system power is on.
- **Functions 09 to 10: Reserved**
These functions are reserved.
- **Functions 11 to 19: System reference code (SRC)**
These functions are available in both normal and manual operating mode when a system reference code (SRC) is available.
- **Function 20: System type, model, feature code, and IPL type**
This function is available in both normal and manual operating mode.

Parent topic: [Managing the control panel functions](#)

Function 01: Display selected IPL type, system operating mode, and IPL speed

This function is available in both normal and manual operating mode.

This function allows you to display the selected IPL type, system operating mode, speed, and firmware mode for the next IPL whether or not the system is managed by the Hardware Management Console (HMC). It also indicates the status of systems managed by the HMC. This function displays the following information:

- The operating system (OS) IPL types (A, B, C, or D).
- The valid logical key modes (M or N).
- The IPL speed (F, S, V=F, or V=S).
- The firmware mode (P or T).
- The status of HMC-managed system:
 - ◆ HMC=1
 - ◆ HMC=0

Table 1. Function 01 on systems not managed with an HMC without OS IPL enabled

Function/Data	Action or description
0 1 _	Use the Increment or Decrement buttons to scroll to function 01.
0 1 _ _ _ _ M _ _ V = F _ _ _ _ _ _ _ _ _ _ _ _ P _ _ _	Valid system operating modes are M and N. Valid IPL speed displays are F, S, V=F, or V=S. Valid firmware IPL modes are P and T.
0 1 _	Use the Increment or Decrement buttons to scroll through the control panel functions.

Table 2. Function 01 on HMC-managed systems with OS IPL enabled

Function/data	Action or description
0 1 _	Use the Increment or Decrement buttons to scroll to function 01.
0 1 _ _ A _ _ M _ _ V = F _ _ _ HMC=1 _ _ _ _ _ _ _ _ P _ _ _	Valid OS IPL types are A, B, C, and D. Valid system operating modes are M and N. Valid IPL speed displays are F, S, V=F, or V=S. Valid firmware IPL modes are P and T. HMC indicators are 1, 0, or HMC.
0 1 _	Use the Increment or Decrement buttons to scroll through the control panel functions.

Parent topic: [Primary control panel functions](#)

Function 02: Select IPL type, IPL speed override, system operating mode, and firmware mode

This function is available in both normal and manual operating mode.

When the system is either powered on or off, this function allows you to select the IPL type and logical key mode. Before you can select the IPL speed override, the system must be powered off.

For powered-on systems, function 02 is used to select the IPL type and system operating mode. The following table shows an example of the function 02 IPL type and system operating mode selection sequence for a powered-on system.

Table 1. Function 02: Select IPL type, system operating mode, and firmware IPL mode on powered-on systems

Function/Data	Action or description
0 2 _	Use the Increment or Decrement buttons to scroll to function 02.
0 2 _ _ A < _ M _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ P _ _ _ _	Press Enter to start function 02. <ul style="list-style-type: none"> • The current OS IPL type is displayed with a pointer. • The current system operating mode is displayed. • The current firmware mode is displayed.
0 2 _ _ B < _ M _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ P _ _ _ _	Use the Increment or Decrement buttons to scroll through the OS IPL types.
0 2 _ _ B _ _ M < _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ P _ _ _ _	Press Enter to select the OS IPL type. <ul style="list-style-type: none"> • The current OS IPL type is displayed. • The current system operating mode is displayed with a pointer. • The current firmware mode is displayed.
0 2 _ _ B _ _ N < _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ P _ _ _ _	Use the Increment or Decrement buttons to scroll through the system operating modes.
0 2 _ _ B _ _ N _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ P < _ _ _	Press Enter to select the system operating mode. <ul style="list-style-type: none"> • The current OS IPL type is displayed. • The current system operating mode is displayed. • The current firmware mode is displayed with a pointer.
0 2 _ _ B _ _ N _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ T < _ _ _	Use the Increment or Decrement buttons to scroll through the firmware IPL modes.
0 2 _	Press Enter to select the firmware IPL mode and exit function 02.
0 1 _	Use the Increment or Decrement buttons to scroll through the control panel functions.

For powered-off systems, function 02 is used to select the OS IPL type, system operating mode, system IPL speed, and firmware IPL mode. The following table shows an example of the function 02 OS IPL type, system operating mode, system IPL speed, and firmware IPL mode selection sequence for a powered-off system.

Table 2. Function 02: Select IPL type, system operating mode, system IPL speed, and firmware IPL mode on powered-off systems

Function/Data	Action or description
0 2 _	Use the Increment or Decrement buttons to scroll to function 02.
0 2 _ _ A < _ M _ _ _ _ _ V _ _ _ _ _ _ _ _ _ _ _ _ _ _ T _ _ _ _	Press Enter to start function 02. <ul style="list-style-type: none"> • The current OS IPL type is displayed with a pointer. • The current system operating mode is displayed. • The current IPL speed is displayed. • The current firmware IPL mode is displayed.
0 2 _ _ B < _ M _ _ _ _ _ V _ _ _ _ _ _ _ _ _ _ _ _ _ _ T _ _ _ _	Use the Increment or Decrement buttons to scroll

	through the OS IPL types.
0 2 _ _ B _ _ M < _ _ _ V _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ T _ _ _	Press Enter to select the IPL type. <ul style="list-style-type: none"> • The current IPL type is displayed. • The current system operating mode is displayed with a pointer. • The current IPL speed is displayed. • The current firmware IPL mode is displayed.
0 2 _ _ B _ _ N < _ _ _ V _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ T _ _ _	Use the Increment or Decrement buttons to scroll through the system operating modes.
0 2 _ _ B _ _ N _ _ _ V < _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ T _ _ _	Press Enter to select the system operating mode. <ul style="list-style-type: none"> • The current IPL type is displayed. • The current system operation mode is displayed. • The current IPL speed is displayed with a pointer. • The current firmware IPL mode is displayed.
0 2 _ _ B _ _ N _ _ _ S < _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ T _ _ _	Use the Increment or Decrement buttons to scroll through the IPL speeds.
0 2 _ _ B _ _ N _ _ _ S _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ T < _ _ _	Press Enter to select the IPL speed. <ul style="list-style-type: none"> • The current IPL type is displayed. • The current system operation mode is displayed. • The current IPL speed is displayed. • The current firmware IPL mode is displayed with a pointer.
0 2 _ _ B _ _ N _ _ _ S _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ P < _ _ _	Use the Increment or Decrement buttons to scroll through the firmware IPL modes.
0 2 _	Press Enter to select the firmware IPL mode and exit function 02.
0 1 _	Use the Increment or Decrement buttons to scroll through the control panel functions.

Parent topic: [Primary control panel functions](#)

Function 03: Start IPL

This function is available only in manual operating mode and when the system power is on.

This function starts an IPL of the selected IPL type when you press the Enter button. All the Licensed Internal Code is loaded.

Attention: Do not perform a system shutdown before the IPL. Using this function can cause loss of data.

Parent topic: [Primary control panel functions](#)

Function 04: Lamp test

This function is available in both normal and manual operating mode.

This function shows whether any control panel indicators are burned out and whether characters that are displayed on the control panel's Function/Data display are valid. When you activate this test, all the control panel lights and indicators are lit.

The lamp test continues on the system control panel for four minutes.

Use this procedure to verify that the lights on the system control panel are working correctly. If you cannot complete these steps, see "Starting Point for All Problems" in the Problem Analysis information for your system to start problem analysis.

1. Power on the system.
2. Press the Increment () or Decrement () buttons on the control panel to display Function 04.

Press Enter on the control panel.

3. Do all of the lights and indicators on the system control panel come on?

Yes	No
	Exchange the control panel or the replaceable unit that contains the control panel function system unit backplane (MB1) or tower card (CB1). See "Removal and Installation Procedures" in the Problem Analysis information for your system.

4. Do the expansion unit control panel lights all come on?

Yes	No
	Exchange the control panel on the expansion unit.

The lights on the system control panel are working correctly.

This ends the procedure.

Parent topic: [Primary control panel functions](#)

Function 05: Reserved

This function is reserved.

Parent topic: [Primary control panel functions](#)

Function 06: Reserved

This function is reserved.

Function 07: SPCN functions

This function is available only in the manual operating mode and from power on standby.

Notes:

- The system that will display the ID must be powered off with ac power applied.
- If you have just restored power to the system, the service processor must come back up to standby before the control panel functions will work properly. Bringing the service processor back up to standby takes a few minutes *after* the panel appears to be operational.
- The control panel must be in manual operating mode to access function 7 options.

To perform an SPCN operation that is controlled by function 07, do the following:

1. Select function 07, and then press Enter. 07** is displayed.
2. Select the function that you want to perform (see [Table 1](#)). Use the Increment or Decrement buttons () to scroll to the appropriate function. Press Enter to display 07nn, where nn is the function that you selected.

Table 1. SPCN functions in function 07

Function	Description	For more information
A1	Broadcasts a power-on command.	Go to step 5 .
A6	Displays frame address on all towers.	Go to step 5 .
A8	Displays the SPCN configuration ID number for a selected frame.	07A8 is displayed. Go to step 3 .
A9	Sets the SPCN configuration ID for a selected frame.	07A9 is displayed. Go to step 4 .

3. If you selected function A8 in [step 2](#), do the following:
 - a. To display the configuration of the tower, do the following:
 - i. Use the Increment () or Decrement () buttons to select the first two characters of the frame address of the tower, and then press Enter. 07nn is displayed, where nn is the first byte of the frame address.
 - ii. Use the Increment () or Decrement () buttons to select the second two characters of the frame address of the tower, and then press Enter. 07nn is displayed on the selected tower, where nn is the second byte of the frame address.

Note: The display on an addressed I/O expansion is blinking on and off while displaying the processing unit ID as the last two characters of the bottom line.

- b. To display the configuration of the processing unit, do the following:
 - i. Use the () or Decrement () buttons to select the first two characters of the frame address of the processing unit, and then press Enter. 07** is displayed.
 - ii. Use the Increment () or Decrement () buttons to select the second two characters of the frame address of the processing unit, and then press Enter. The configuration ID is displayed on the processing unit. 07nn is displayed, where nn is the processing unit ID). For example, for a model ESCALA PL 250R-VL or ESCALA PL 450R-XS, 07C0 is displayed.

- c. Use the [table](#) at the end of these procedures to check the processing unit ID.
- 4. If you selected function A9 in [step 2](#), do the following:
 - a. To set the configuration of the selected tower, do the following:
 - i. Ensure that the system power of the selected tower is in standby mode. If the system power of the selected tower is not in standby mode, complete the procedure in [Powering off an expansion unit](#). Then return to [step 1](#).
 - ii. Use the () or Decrement () buttons to select the first two characters of the frame address of the tower to configure, and then press Enter. $07nn$ is displayed, where nn is the first byte of the unit address.

Note: For nonsystem unit frames only, the display on the addressed frame is blinking on and off.

- iii. Use the Increment () or Decrement () buttons to select the second two characters of the frame address of the tower, and then press Enter. $07nn$ is displayed, where nn is the second byte of the frame address.

Note: The display on the addressed I/O expansion unit is blinking on and off.

- iv. Use the () or Decrement () buttons to select the correct processing unit ID, and then press Enter. Use the [table](#) at the end of these procedures to check the processing unit ID. $07nn$ is displayed, where nn is the processing unit ID). The processing unit ID is accepted and displayed on the tower.
- b. To set the configuration of the selected processing unit, do the following:
 - i. Ensure that the system power is in standby mode. If the system power of the selected processing unit is not in standby mode, complete the procedure in [Stop the system](#). Then return to [step 1](#).
 - ii. Use the Increment () or Decrement () buttons to select the frame address of the processing unit to configure.
 - iii. Use the () or Decrement () buttons to select the correct processing unit ID, and then press Enter. Use the [table](#) at the end of these procedures to check the processing unit ID. $07nn$ is displayed, where nn is the processing unit ID.

The processing unit ID is accepted and displayed on the processing unit.

After 20 to 30 seconds, the display on the addressed I/O expansion unit stops blinking and returns to the normal display format. On a system unit, the display shows the series of bring-up reference codes and then displays function 01.

- 5. Press Enter again to display $07nn00$. Scroll to $07**$ using the Increment () or Decrement () buttons, and then press Enter. This returns the control panel to the normal display.

Table 2. Configuration IDs

Model or expansion unit	Processing unit identifier
7/10	BA
112/85	B4
7/20	BB
ESCALA PL 250R-VL or ESCALA PL 450R-XS	C0
ESCALA PL 250R-L and ESCALA PL 250R-L+ or ESCALA PL 450R-VL+	BA
ESCALA PL 250T/R and ESCALA PL 250T/R+ or ESCALA PL 450T/R-L+	B4
ESCALA PL 450T/R and ESCALA PL 450T/R+ or ESCALA PL 850T/R-L+	B5
ESCALA PL 1650R-L+	B2
ESCALA PL 850R/PL 1650R/R+	B2
ESCALA PL 850R/PL 1650R/R+ (with one or more secondary units)	B3

5/75	B9
ESCALA PL 3250R and ESCALA PL 6450R	B1
50/74 and 50/79	81
50/88 and 05/88	89
50/94 and 52/94	8A
05/95 and 50/95	8B
57/90	88
11D/10	88
11D/11	88
11D/20	8C

Note: Processing unit IDs are not applicable for the 471/85, ESCALA PL 245T/R, and the D24 and T24 enclosure models.

Parent topic: [Primary control panel functions](#)

Related tasks

[PWR1917: Displaying and setting the SPCN configuration ID](#)

[Changing the processing unit identifier using the Advanced System Management Interface \(ASMI\)](#)

Function 08: Fast power off

This function is available only when the system is in manual operating mode and the system power is on.

Use this function when the system is suspended and you cannot perform a power off.

The first time that you select function 08 and press Enter, the system displays an attention system reference code (SRC), 11 A1xx 8008. This SRC indicates that you selected function 08. The second time that you select function 08 and press Enter, you confirm the request to power off.

Attention:

1. Do not perform a system shutdown before the IPL. Using this function can cause loss of data.
2. If you changed the system password at the most recent IPL, performing a fast power off might cause that new password information to be lost.

Parent topic: [Primary control panel functions](#)

Functions 09 to 10: Reserved

These functions are reserved.

Parent topic: [Primary control panel functions](#)

Functions 11 to 19: System reference code (SRC)

These functions are available in both normal and manual operating mode when a system reference code (SRC) is available.

Functions 11 through 19, if enabled, represent the words of the system reference code (SRC).

Record SRC information for error reporting. For more information, see [Collecting reference codes and system information](#).

For more information about interpreting SRCs, go to [Reference code list for customers](#).

To use an SRC for problem analysis, see [Beginning problem analysis](#).

Parent topic: [Primary control panel functions](#)

Function 20: System type, model, feature code, and IPL type

This function is available in both normal and manual operating mode.

This function displays the machine type, model, processor feature code, and IPL type in the following format:

p	p	p	p	-	m	m	m	_	_	_	_	c	c	c	c
T	T	T	T	T	T	T	T	t	t	t	t	t	t	t	t

The values are indicated as follows:

- Values for p indicate the machine type.
- Values for m indicate the machine model.
- Values for c indicate the system processor feature code.
- Values for T indicate the CEC IPL type.
- Values for t indicate the FSP IPL type.

Record this information with the system reference code (SRC).

If you select this function and it has not been activated, the command is rejected.

Parent topic: [Primary control panel functions](#)

Control panel functions on the ESCALA PL 245T/R models

Learn about the control panel functions that are available on the ESCALA PL 245T/R server models.

- **Function 01: Display selected system operating mode, IPL speed, and firmware IPL mode**
This function is available in both normal and manual operating mode.
- **Function 02: Select firmware IPL mode**
This function is available in both normal and manual operating mode.
- **Function 04: Lamp test on the ESCALA PL 245T/R models**
This function is available in both normal and manual operating mode.
- **Function 05: Remind mode for the ESCALA PL 245T/R models**
This function is available in both normal and manual operating mode.
- **Function 06: Display the BMC version on the ESCALA PL 245T/R models**
This function is available in both normal and manual operating mode.
- **Function 09: Display the BMC fan speed on the ESCALA PL 245T/R models**
This function is available in both normal and manual operating mode.
- **Function 10: Display the temperature on the ESCALA PL 245T/R models**
This function is available in both normal and manual operating mode.
- **Function 20: System type and model**
This function is available in both normal and manual operating mode.
- **Function 22: Partition dump on the ESCALA PL 245T/R models**
This function is available in both normal and manual operating mode.

Parent topic: [Managing the control panel functions](#)

Function 01: Display selected system operating mode, IPL speed, and firmware IPL mode

This function is available in both normal and manual operating mode.

This function displays the selected system operating mode, speed, and firmware mode for the next IPL on the ESCALA PL 245T/R server and the kstation.

This function displays the following information:

- The valid logical key modes (N).
- The IPL speed (F).
- The firmware mode (P or T).

Table 1. Function 01 on systems without OS IPL enabled

Function/Data	Action or description
0 1 _	Use the Increment or Decrement buttons to scroll to function 01.
0 1 _ _ _ _ _ N _ _ _ _ F _ _ _ _ _ _ _ _ _ _ _ _ _ P _ _ _	Valid system operating mode is N. Valid IPL speed display is F.

	Valid firmware IPL modes are P and T. <ul style="list-style-type: none"> • P = permanent side boot • T = temporary side boot
0 1 _	Use the Increment or Decrement buttons to scroll through the control panel functions.

Parent topic: [Control panel functions on the ESCALA PL 245T/R models](#)

Function 02: Select firmware IPL mode

This function is available in both normal and manual operating mode.

Find out how to select the firmware IPL mode on the ESCALA PL 245T/R server and the kstation.

Table 1. Function 02: Select the firmware IPL mode

Function/Data	Action or description
0 2 _	Use the Increment or Decrement buttons to scroll to function 02.
0 2 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ P _ _ _ _	Press Enter to start function 02. The current firmware mode is displayed.
0 2 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ T < _ _ _ _	Use the Increment or Decrement buttons to scroll through the firmware IPL modes. Valid firmware IPL modes are P and T. <ul style="list-style-type: none"> • P = permanent side boot • T = temporary side boot
0 2 _	Press Enter to select the firmware IPL mode and exit function 02.
0 2 _	Use the Increment or Decrement buttons to scroll through the control panel functions.

Parent topic: [Control panel functions on the ESCALA PL 245T/R models](#)

Function 04: Lamp test on the ESCALA PL 245T/R models

This function is available in both normal and manual operating mode.

This function performs a lamp test on the ESCALA PL 245T/R server and the kstation.

This function shows whether any control panel indicators are burned out and whether characters that are displayed on the control panel's Function/Data display are valid. When you activate this test, all the control panel lights and indicators are lit.

The lamp test continues on the system control panel for four minutes.

Use this procedure to verify that the lights on the system control panel are working correctly. If you cannot complete these steps, see "Starting Point for All Problems" in the Problem Analysis information for your system to start problem analysis.

1. Power on the system.
2. Press the Increment () or Decrement () buttons on the control panel to display Function 04.

Press Enter on the control panel.

3. Do all of the lights and indicators on the system control panel come on?

Yes	No
<input type="checkbox"/>	Exchange the control panel or the replaceable unit that contains the control panel function system unit backplane (MB1) or tower card (CB1). See "Removal and Installation Procedures" in the Problem Analysis information for your system.

4. Do the expansion unit control panel lights all come on?

Yes	No
<input type="checkbox"/>	Exchange the control panel on the expansion unit.

The lights on the system control panel are working correctly.

This ends the procedure.

Parent topic: [Control panel functions on the ESCALA PL 245T/R models](#)

Function 05: Remind mode for the ESCALA PL 245T/R models

This function is available in both normal and manual operating mode.

This function allows you to place the system fault-indicator LED in remind mode on the ESCALA PL 245T/R server and the kstation.

When the system fault-indicator LED is on solid, an error condition exists on the system. If you want to defer the repair of the error, you can place the system fault-indicator LED in remind mode. Placing the system in remind mode causes the system fault-indicator LED to flash instead of being on solid. The remind mode lets you know that a system fault that you have deferred still exists on the system. If any other serviceable event occurs on the system, the remind mode is changed back to system fault mode, where the LED is on solid.

Table 1. Function 05 on the ESCALA PL 245T/R models

Function/Data	Action or description
0 5 _	Use the Increment or Decrement buttons to scroll to function 05.
R E M I N D M O D E O N _ _ _ _ _ _ _ _ _ _ _	Press Enter to start function 05. Valid options are: <ul style="list-style-type: none"> • Remind mode ON • Remind mode OFF
R E M I N D M O D E O F F _ _ _ _ _ _ _ _ _ _ _	Press Enter to toggle the option on or off.
0 5 _	Use the Increment or Decrement buttons to scroll through the control panel functions.

Figure 1. Light path diagnostic card indicator LED layout for the ESCALA PL 245T/R models

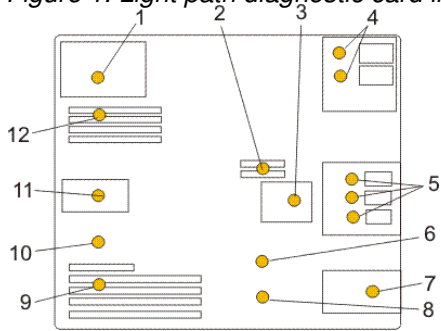


Table 2. ESCALA PL 245T/R fault-indicator LEDs

- | | |
|--|-----------------------------------|
| 1 Power supply fault-indicator LED | 7 Front fan fault-indicator LED |
| 2 Voltage-regulator module fault-indicator LED | 8 Battery fault-indicator LED |
| 3 Disk-drive bay fan fault-indicator LED | 9 PCI adapter fault-indicator LED |
| 4 Optical-media bay fault-indicator LEDs | 10 Thermal fault-indicator LED |
| 5 Disk-drive bay fault-indicator LEDs | 11 Rear fan fault-indicator LED |
| 6 System backplane fault-indicator LED | 12 Memory fault-indicator LED |

Parent topic: [Control panel functions on the ESCALA PL 245T/R models](#)

Function 06: Display the BMC version on the ESCALA PL 245T/R models

This function is available in both normal and manual operating mode.

This function displays the base motherboard controller (BMC) version on the ESCALA PL 245T/R server and the kstation.

The following table provides details about this function.

Table 1. Function 06 on the ESCALA PL 245T/R models

Function/Data	Action or description
0 6 _	Use the Increment or Decrement buttons to scroll to function 06.
B M C : A W 8 T x x A _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start function 06. An example of the BMC version is AW8T23A.
0 6 _	Use the Increment or Decrement buttons to scroll through the control panel functions.

Parent topic: [Control panel functions on the ESCALA PL 245T/R models](#)

Function 09: Display the BMC fan speed on the ESCALA PL 245T/R models

This function is available in both normal and manual operating mode.

This function displays the base motherboard controller (BMC) fan speed on the ESCALA PL 245T/R server and the kstation.

The display alternates every two seconds between MAIN, DASD, and PCI fan speed.

The following table provides details about this function.

Table 1. Function 09 on the ESCALA PL 245T/R models

Function/Data	Action or description
0 9 _	Use the Increment or Decrement buttons to scroll to function 09.
M A I N : 7 b 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start function 09. The main fan speed is listed in hexadecimal (rpm).
D A S D : 7 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start function 09. The DASD fan speed is listed in hexadecimal (rpm).
P C I : 7 b 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start function 09. The PCI (I/O) fan speed is listed in hexadecimal (rpm).
0 9 _	Use the Increment or Decrement buttons to scroll through the control panel functions.

Parent topic: [Control panel functions on the ESCALA PL 245T/R models](#)

Function 10: Display the temperature on the ESCALA PL 245T/R models

This function is available in both normal and manual operating mode.

This function displays the temperature on the ESCALA PL 245T/R server and the kstation.

The display alternates every two seconds between ambient, CPU1, and CPU2 temperature.

The following table provides details about this function.

Table 1. Function 10 on the ESCALA PL 245T/R models

Function/Data	Action or description
1 0 _	Use the Increment or Decrement buttons to scroll to function 10.
A m b i e n t : 3 e , 3 e _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start function 10. The ambient temperature is listed in hexadecimal (degrees Celsius). <ul style="list-style-type: none"> • The first value is the average temperature over a time span. • The last value is the most recent temperature reading.
C P U 1 : 5 0 , 6 f _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start function 10. The CPU1 temperature is listed in hexadecimal (degrees Celsius). <ul style="list-style-type: none"> • The first value is the average temperature over a time span. • The last value is the most recent temperature reading.
C P U 2 : 0 , 0 _	Press Enter to start function 10. The CPU2 temperature is listed in hexadecimal (degrees Celsius). <ul style="list-style-type: none"> • The first value is the average temperature over a time span. • The last value is the most recent temperature reading. • The reading is 0 if the system is one-way.
1 0 _	Use the Increment or Decrement buttons to scroll through the control panel functions.

Parent topic: [Control panel functions on the ESCALA PL 245T/R models](#)

Function 20: System type and model

This function is available in both normal and manual operating mode.

This function displays the machine type and model on the ESCALA PL 245T/R server and the kstation.

The machine type and model is displayed in the following format:

```
p p p p - m m m _ _ _ _ _
```

The values are indicated as follows:

- Values for p indicate the machine type.
- Values for m indicate the machine model.

Parent topic: [Control panel functions on the ESCALA PL 245T/R models](#)

Function 22: Partition dump on the ESCALA PL 245T/R models

This function is available in both normal and manual operating mode.

This function initiates a dump of a partition's operating system data on the ESCALA PL 245T/R server and the kstation.

You must perform two consecutive function 22 selections to initiate a partition dump. The following table shows an example of function 22.

Table 1. Function 22: Initiate a partition dump

Function/Data	Action or description
2 2 _	Use the Increment or Decrement buttons to scroll to function 22.
2 2 _ _ _ _ 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start function 22.
A 1 0 0 3 0 2 2 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Displays the partition dump verification system reference code (SRC).
2 2 _	Use the Increment or Decrement buttons to scroll to function 22.
2 2 _ _ _ _ 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start function 22.

Parent topic: [Control panel functions on the ESCALA PL 245T/R models](#)

Customer-extended panel functions

Learn about the customer-extended panel functions that are available.

- **Function 21: Service tool initiation**
This function is available only in the manual operating mode and when activated by the operating system.

- **Function 22: Partition dump**
This function is available only in the manual operating mode and when activated by the operating system.
- **Functions 23 to 24: Reserved**
These functions are reserved.
- **Functions 25 and 26: Service switches 1 and 2**
These functions are available only in the manual operating mode and when activated by the FSP.
- **Functions 27 to 29: Reserved**
These functions are reserved.
- **Function 30: CEC FSP IP address and location**
This function is available only in the manual operating mode and from power on standby.
- **Functions 31 to 33: Reserved**
These functions are reserved.
- **Function 34: Retry partition dump**
This function is available only in the manual operating mode and when activated by the operating system.
- **Functions 35 to 41: Reserved**
These functions are reserved.
- **Function 42: Platform dump**
This function is available only in the manual operating mode and when activated by the operating system or the FSP.
- **Function 43: Service processor dump**
This function is available only in the manual operating mode and when activated by the FSP.
- **Functions 44 to 49: Reserved**
These functions are reserved.

Parent topic: [Managing the control panel functions](#)

Function 21: Service tool initiation

This function is available only in the manual operating mode and when activated by the operating system.

This function makes Dedicated Service Tools (DST) available on the system console display. The Use Dedicated Service Tools (DST) display is available on the primary or alternative console.

To exit the DST and return to the operating system, select the Resume operating system display option on the Use Dedicated Service Tools (DST) display.

For more information, see [Overview of service and support](#).

Parent topic: [Customer-extended panel functions](#)

Function 22: Partition dump

This function is available only in the manual operating mode and when activated by the operating system.

Function 22 initiates a dump of a partition's operating system data. You must perform two consecutive function 22 selections to initiate a partition dump. The following table shows an example of function 22.

Table 1. Function 22: Initiate a partition dump

Function/Data	Action or description
2 2 _	Use the Increment or Decrement buttons to scroll to function 22.
2 2 _ _ _ _ 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start function 22.
A 1 0 0 3 0 2 2 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Displays the partition dump verification system reference code (SRC).
2 2 _	Use the Increment or Decrement buttons to scroll to function 22.
2 2 _ _ _ _ 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start function 22.

Parent topic: [Customer-extended panel functions](#)

Functions 23 to 24: Reserved

These functions are reserved.

Parent topic: [Customer-extended panel functions](#)

Functions 25 and 26: Service switches 1 and 2

These functions are available only in the manual operating mode and when activated by the FSP.

In function 25, the service representative switch 1 is set. Function 25 is the first step necessary to set the service function range (50 to 99).

In function 26, the service representative switch 2 is set. Function 26 is the second step necessary to set the service function range (50 to 99).

Parent topic: [Customer-extended panel functions](#)

Functions 27 to 29: Reserved

These functions are reserved.

Parent topic: [Customer-extended panel functions](#)

Function 30: CEC FSP IP address and location

This function is available only in the manual operating mode and from power on standby.

Function 30 displays the central electronics complex (CEC) FSP IP address and location segment. The following table shows an example of function 30.

Table 1. Function 30: CEC FSP IP address and location

Function/Data	Action or description
3 0 _	Use the Increment or Decrement buttons to scroll to function 30.
3 0 * * _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to enter sub-function mode.
3 0 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Use the Increment or Decrement buttons to select an IP address <ul style="list-style-type: none"> • 00 = SP A: ETH0 • 01 = SP A: ETH1 • 02 = SP B: ETH0 • 03 = SP B: ETH1
S P _ A : _ E T H O : _ _ _ T 5 9 . 5 . 1 0 5 . 2 4 3 _ _ _ _ _	Press Enter to display the selected IP address.
3 0 * * _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Use the Increment or Decrement buttons to select sub-function exit.
3 0 _	Press Enter to exist sub-function mode.

Parent topic: [Customer-extended panel functions](#)

Functions 31 to 33: Reserved

These functions are reserved.

Parent topic: [Customer-extended panel functions](#)

Function 34: Retry partition dump

This function is available only in the manual operating mode and when activated by the operating system.

Function 34 is enabled only for partition dump IPLs. You can use it when the system is stopped during the partition IPL to retry the IPL without losing the original dump information.

Parent topic: [Customer-extended panel functions](#)

Functions 35 to 41: Reserved

These functions are reserved.

Parent topic: [Customer-extended panel functions](#)

Function 42: Platform dump

This function is available only in the manual operating mode and when activated by the operating system or the FSP.

Function 42 initiates a platform dump. You can use it to dump POWER hypervisor main storage and hardware data. You must perform two consecutive function 42 selections to initiate a platform dump. The following table shows an example of function 42:

Table 1. Function 42: Initiate a platform dump

Function/Data	Action or description
4 2 _	Use the Increment or Decrement buttons to scroll to function 42.
4 2 _ _ _ _ 0 0 _	Press Enter to start function 42.
A 1 0 0 3 0 4 2 _	Displays the confirmation SRC.
4 2 _	Use the Increment or Decrement buttons to scroll to function 42.
4 2 _ _ _ _ 0 0 _	Press Enter to start function 42.

Parent topic: [Customer-extended panel functions](#)

Function 43: Service processor dump

This function is available only in the manual operating mode and when activated by the FSP.

Function 43 initiates a service processor dump. Use sub-functions to select from among redundant FSPs. You must perform two consecutive function 43 selections to initiate a platform dump. The following table shows an

example of function 43.

Table 1. Function 43: Initiate a service processor dump

Function/Data	Action or description
4 3 _	Use the Increment or Decrement buttons to scroll to function 43.
4 3 * * _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start sub-function mode.
4 3 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Use the Increment or Decrement buttons to scroll to the service processor dump. <ul style="list-style-type: none"> • 00=Master • 01=Slave • 02=FSP A • 03=FSP B
4 3 0 0 _ _ 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to confirm.
A 1 0 0 3 0 4 3 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Displays the confirmation system reference code (SRC).
4 3 _	Use the Increment or Decrement buttons to scroll to function 43.
4 3 * * _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to start sub-function mode.
4 3 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Use the Increment or Decrement buttons to scroll to the service processor dump. <ul style="list-style-type: none"> • 00=Master • 01=Slave • 02=FSP A • 03=FSP B
4 3 0 0 _ _ 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to confirm.

Parent topic: [Customer-extended panel functions](#)

Functions 44 to 49: Reserved

These functions are reserved.

Parent topic: [Customer-extended panel functions](#)

Troubleshooting remote and virtual control panel problems

Learn about problems that might occur when accessing the remote control panel (RCP) or virtual control panel (VCP).

When setting up your initial connection, you might encounter problems accessing your remote control panel (RCP) or virtual control panel (VCP). The following sections describe some of the control panel problems that

might occur:

- **Remote control panel fails to start**
Learn why the remote control panel (RCP) might fail to start.
- **Virtual control panel fails to start**
Learn why the virtual control panel (VCP) might fail to start.
- **Unable to use the mode function**
Learn about why you might be unable to use the mode function on a remote control panel (RCP) or virtual control panel (VCP).
- **Virtual control panel authentication errors**
Learn about virtual control panel (VCP) authentication errors and solutions.

Parent topic: [Managing the control panel functions](#)

Remote control panel fails to start

Learn why the remote control panel (RCP) might fail to start.

If you are connecting over a network, the RCP might fail to start when either the user ID or service tools device ID being used does not have permission to use the RCP.

Parent topic: [Troubleshooting remote and virtual control panel problems](#)

Virtual control panel fails to start

Learn why the virtual control panel (VCP) might fail to start.

If the virtual control panel (VCP) fails to start, do the following:

1. Verify that the cables are properly connected. For more information, see [Installing a console cable](#).
2. Verify that the resources of the PC are free of address or interrupt request (IRQ) conflicts. The Operations Console uses addresses in the range of 192.168.0.0 to 192.168.0.255. If you run any software that makes your PC SOCKS-enabled, check your SOCKS configuration, and make sure that the entry is as follows:

```
Direct 192.168.0.0 255.255.255.0
```

A SOCKS-enabled PC accesses the Internet through a firewall, such as Microsoft Proxy Client, Hummingbird SOCKS Client, or others.

Parent topic: [Troubleshooting remote and virtual control panel problems](#)

Unable to use the mode function

Learn about why you might be unable to use the mode function on a remote control panel (RCP) or virtual control panel (VCP).

If you are unable to use the mode function on a remote control panel (RCP) or virtual control panel (VCP), check that the user that authenticated the connection (Service Device Sign-on) has the Partition remote panel

key privilege for the logical partition to which they are connected. To verify the privilege setting, do the following:

1. Access [Dedicated Service Tools \(DST\)](#).
2. Did you access DST or SST?

Option	Description
DST	a. Select Work with DST environment (option 5). b. Select Service tools user IDs (option 3).
SST	a. Select Work with service tools user IDs and devices (option 8). b. Select Service tools user IDs (option 1).

3. Select Change privileges (option 7).

That user must be granted this privilege, by logical partition, in order to use the mode function. Also, if the system supports the keystick, the keystick must be inserted before the mode function is active.

Parent topic: [Troubleshooting remote and virtual control panel problems](#)

Virtual control panel authentication errors

Learn about virtual control panel (VCP) authentication errors and solutions.

See the following table for Operations Console virtual control panel (VCP) authentication errors and solutions.

Table 1. VCP authentication errors and solutions

Error message	Solution
The current access password entered is not valid. Please enter the valid access password.	This message typically means that the access password that you entered in the Service Device Sign-on window is not the same as the password that you entered in the Specify Access Password window during the configuration wizard. Ensure that the Caps Lock key is not active, and then re-enter the access password using the password that you assigned. Passwords are case sensitive.
The PC service tools device password and the service tools device password do not match. Either the service tools device ID <name> is already in use or the passwords must be RESET on this PC and the server.	This is an indication that the Service Tools Device ID password might be incorrect. If this is the case, then the Service Device ID password stored on the PC no longer matches the value stored on the server. The password assigned to the Service Device ID during the configuration wizard on the PC must match the password assigned to the service device ID on server. If you used the QCONSOLE device ID, then both the PC and server must have the password set to QCONSOLE. Each time that you authenticate successfully, this password is re-encrypted to a new value and stored on both sides of the connection. In rare situations, this password does not synchronize, so you need to reset the value back to the original default values on both the PC and the server. For instructions, see Resynchronize the PC's and the server's service tools device ID passwords .

Parent topic: [Troubleshooting remote and virtual control panel problems](#)

Related information

View the ESCALA Power5 Hardware Information topics that relate to this topic.

- [Managing the Hardware Management Console \(HMC\)](#)
- [Managing the Advanced System Management Interface \(ASMI\)](#)
- [Managing your server using the Hardware Management Console \(HMC\)](#)
- [Managing your server using the Advanced System Management Interface \(ASMI\)](#)
- [Managing Operations Console](#)
- [Troubleshooting Operations Console connections](#)

Parent topic: [Managing the control panel functions](#)

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