ESCALA

Managing the Control Panel Functions

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Managing the Control Panel Functions

Hardware

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(C026)

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The following comments apply to the IBM servers that have been designated as conforming to NEBS (Network Equipment-Building System) GR-1089-CORE:

The equipment is suitable for installation in the following:

- Network telecommunications facilities
- Locations where the NEC (National Electrical Code) applies

The intrabuilding ports of this equipment are suitable for connection to intrabuilding or unexposed wiring or cabling only. The intrabuilding ports of this equipment *must not* be metallically connected to the interfaces that connect to the OSP (outside plant) or its wiring. These interfaces are designed for use as intrabuilding interfaces only (Type 2 or Type 4 ports as described in GR-1089-CORE) and require isolation from the exposed OSP cabling. The addition of primary protectors is not sufficient protection to connect these interfaces metallically to OSP wiring.

Note: All Ethernet cables must be shielded and grounded at both ends.

The ac-powered system does not require the use of an external surge protection device (SPD).

The dc-powered system employs an isolated DC return (DC-I) design. The DC battery return terminal *shall not* be connected to the chassis or frame ground.

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 service functions that only service representatives must access.

Control panel concepts

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

Physical control panel

The physical control panel is your initial interface with the server. You can use the physical control panel to perform functions such as IPL, power on, and power off.

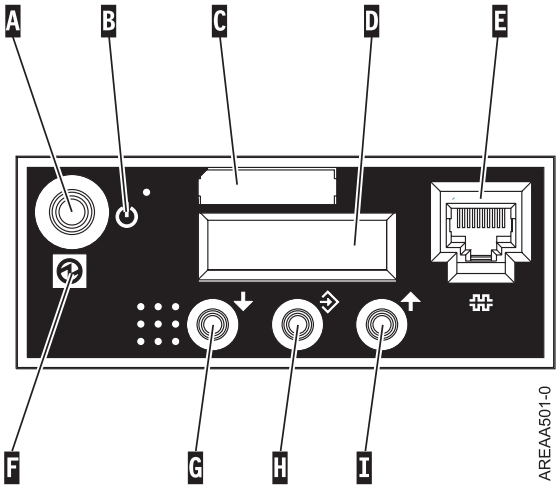

Figure 1. 570 control panel

- **A**: Power-on button
- **B**: On/off power symbol
- **C**: Serial number label
- **D**: Function/Data display
- **E**: System port (S1)
- **F**: Power LED
  - A blinking light indicates standby power to the unit.
  - A constant light indicates full system power to the unit.

  Note: There is approximately a 30-second transition period from the time the power-on button is pressed to when the power LED goes from blinking to solid. During the transition period, you might observe the blinking intervals speed up.
- **G**: Decrement button
- **H**: Enter button
- **I**: Increment button

The system attention light is located along the upper right edge of the first drawer.

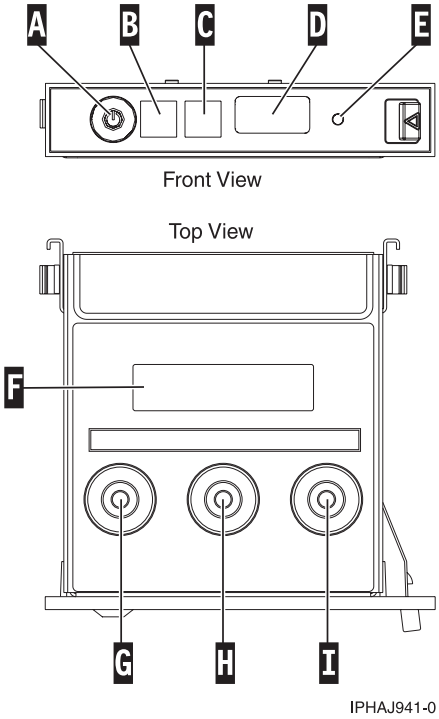

Figure 2. Control panel for the 8203-E4A, 8204-E8A, 9407-M15,9408-M25, and 9409-M50.

- **A**: Power-on button
- **B**: Power LED
  - A blinking light indicates standby power to the unit.
  - A constant light indicates full system power to the unit.

  Note: There is approximately a 30-second transition period from the time the power-on button is pressed to when the power LED goes from blinking to solid. During the transition period, you might observe the blinking intervals speed up.
- **C**: Attention light
- **D**: USB port
- **E**: Pinhole reset button
- **F**: Function/Data display
- **G**: Decrement button
- **H**: Enter button
- **I**: Increment button

Accessing the control panel functions using the physical control panel

The control panel functions correspond to function numbers on the control panel.

To activate a control panel function, do the following:

1. Select a function number by pressing the Increment (↑) or Decrement (↓) button on the control panel.
2. To activate the function, press Enter on the control panel.

Putting the physical control panel in manual operating mode

You must first put the physical control panel in manual operating mode before you can select or activate certain functions.

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

The control panel is in manual operating mode.

Related reference

"Function 02: Select IPL type, IPL speed override, system operating mode, and firmware mode" on page 6

This function allows you to select the IPL type and logical key mode when the system is either powered on or off.

Control panel function codes

Learn about function codes that are displayed on the control panel to indicate status and function options.

To display all functions, put the control panel in manual operating mode. For details, 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	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. This function is available in both normal and manual operating mode.
03	Restarts an IPL of the system using the selected IPL parameters. 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 - 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.

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

Function code	Function selected
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	Displays a system reference code (SRC) on the control panel using up to 32 ASCII characters, including non-hexadecimal characters. This function is available in both normal and manual operating mode when an SRC is available.
12	Displays an SRC on the control panel using up to four extended SRC data words. This function is available in both normal and manual operating mode when an SRC is available.
13	Displays an SRC on the control panel using up to eight extended SRC data words. This function is available in both normal and manual operating mode when an SRC is available.
14 - 19	Displays an SRC on the control panel using callout data. These functions are available in both normal and manual operating mode when an SRC is available.
20	Displays the machine type and model, VPD card CCIN, and IPL types. This function is available in both normal and manual operating mode.
21	For System i® models, it 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 IBM i operating system.Not applicable for System p® servers.
22	Forces a partition dump. For more information on dumps, see Performing dumps. This function is available only in the manual operating mode and when activated by the operating system.
23 - 24	Reserved.
25 - 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.
27 - 29	Reserved.
30	Displays the service processor IP address and port location. This function is available only in the manual operating mode and in standby. **Note:** If `IPv6` is displayed, then the service processor's network ports are configured with IPv6 IP addresses. There are not enough characters on the control panel to display the entire address.
31 - 33	Reserved.
34	For System i models, it retries the partition dump. This function is available only in the manual operating mode and when activated by the IBM i operating system.Not applicable for System p servers.
35 - 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 service processor.
43	Performs a service processor dump. This function is available only in the manual operating mode.
44 - 54	Reserved.
55	Displays or changes the platform dump collection policy, platform dump hardware content, and platform dump firmware content settings. This function is available only in the manual operating mode.
56 - 62	Reserved.

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

Function code	Function selected
63	Displays up to the last 25 system status SRCs. This function is available only in the manual operation mode.
64	Displays up to the last 25 diagnostic status SRCs. This function is available only in the manual operation mode.
65 - 70	Not applicable.
71 - 99	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.

Related tasks

"Putting the physical control panel in manual operating mode" on page 3
You must first put the physical control panel in manual operating mode before you can select or activate certain functions.

Primary control panel functions

The primary control panel functions, include displaying the selected IPL type, selecting the firmware mode, or restarting an IPL.

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

This function allows you to display the current system operating mode, the IPL speed for the next IPL, the firmware mode for the next IPL, and the operating system IPL mode (when enabled).

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

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, V=F, S, V=S, H, V=H, X, or V=X).
- The firmware mode (P or T).

Table 2. 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 _ _ A _ _ M _ _ V = F _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ 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, V=F, S, V=S, H, and V=H. Valid firmware IPL modes are P and T.
0 1 _	Use the Increment or Decrement buttons to scroll through the control panel functions.

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

This function allows you to select the IPL type and logical key mode when the system is either powered on or off.

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

Before you can select the IPL speed, the system must be at power on standby.

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

Table 3. 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. • 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. • 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. • 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 4. 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. • 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. • 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. • 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. • 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.

Function 03: Restart IPL

This function restarts an IPL of the system using the selected IPL parameters.

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

When you select function 03 and press Enter, a confirm action SRC (A1008003) is displayed. If you want to perform a restart IPL operation, select function 03 and press Enter again.

Notifications are not required prior to restarting the IPL.

Function 04: Lamp test

This function shows whether any of the control panel indicators are not working correctly, and whether characters that are displayed in the Function/Data display on the control panel are valid.

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

When you activate the lamp test, all of the control panel lights and indicators are lit. The lamp test continues on the system control panel for four minutes.

Use the following procedure to verify that the lights on the system control panel are working correctly.

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)].

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

   Note: The expansion unit control panel lights will be lit for only about 25 seconds after function 04 is entered.

Yes	No
The lights on the system control panel are working correctly.	Exchange the control panel on the expansion unit.

Functions 05 - 06: Reserved

This function is reserved.

Function 07: SPCN functions

This function allows you to perform a system power control network (SPCN) operation.

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 return to standby mode before the control panel functions will work correctly. Returning the service processor to standby mode takes a few minutes *after* the panel appears to be operational.
- The control panel must be in manual operating mode to access function 07 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 5 on page 9). Use the Increment or Decrement buttons (↑↓) to scroll to the appropriate function. Press Enter to display `07`*`nn`*`00`, where *nn* is the function that you selected.

Table 5. 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 I/O enclosures.	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, complete the following steps to display the configuration of the I/O enclosure:
   a. Use the Increment (↑) or Decrement (↓) buttons to select the first two characters of the frame address of the I/O enclosure, and then press Enter. 07*nn*00 is displayed, where *nn* is the first byte of the frame address.
   b. Use the Increment (↑) or Decrement (↓) buttons to select the second two characters of the frame address of the I/O enclosure, and then press Enter. 07*nn*00 is displayed on the selected I/O enclosure, where *nn* is the second byte of the frame address.

      Notes:
      - The display on the addressed I/O enclosure is blinking on and off.
      - The configuration ID is the last two characters of the bottom line.
4. If you selected function A9 in step 2, complete the following steps to set the configuration of the selected I/O enclosure:
   a. Ensure that the system power of the selected I/O enclosure is in standby mode. If the system power of the selected I/O enclosure is not in standby mode, power it off. Then return to step 1.
   b. Use the (↑) or Decrement (↓) buttons to select the first two characters of the frame address of the I/O enclosure to configure, and then press Enter. 07*nn*00 is displayed, where *nn* is the first byte of the unit address.
   c. Use the Increment (↑) or Decrement (↓) buttons to select the second two characters of the frame address of the I/O enclosure, and then press Enter. 07*nn*00 is displayed, where *nn* is the second byte of the frame address.

      Note: The display on the addressed I/O enclosure is blinking on and off.
   d. Use the Increment (↑) or Decrement (↓) buttons to select the correct configuration ID. 07*nn* is displayed, where *nn* is the configuration ID.
   e. Press Enter. 07*nn*00 is displayed. After 20 to 30 seconds, the display on the addressed I/O enclosure stops blinking and returns to the normal display format.
5. Scroll to 07** using the Increment (↑) or Decrement (↓) buttons, and then press Enter. This returns the control panel to the normal display.

Function 08: Fast power off

This function allows you to power off the system when it is suspended. This function is available only when the system is in manual operating mode and the system power is on.

When you select function 08 and press Enter, a confirm action SRC (A1008008) is displayed. If you want to perform a fast power off (FPO) operation, select function 08 and press Enter again. After the fast power off, the system returns to its default display.

Attention: Because of the potential for causing a loss of data, do not use this function if you can shut down the system from the operating system.

Note: 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.

Functions 09 - 10: Reserved

These functions are reserved.

Function 11: SRC display (ASCII string)

This function displays a system reference code (SRC) on the control panel using up to 32 ASCII characters, including nonhexadecimal characters, and can be displayed in all display positions. This function serves as a diagnostic aid that helps you determine the source of a hardware or operating system problem.

This function is the default SRC display and is available in both normal and manual operating mode when an SRC is available.

Function 11, if enabled, represents the words of the SRC.

Record SRC information for error reporting. For more information, see Using the control panel to collect reference codes and system information.

Related information

Using the control panel to collect reference codes and system information

Function 12: SRC display (hex words 2 - 5)

This function displays a system reference code (SRC) on the control panel to serve as a diagnostic aid that helps you determine the source of a hardware or operating system problem.

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

The extended SRC data words are displayed depending on the number in the SRC. Extended SRC data words are displayed four words at a time. If any extended SRC data words exist, function 12 is scrollable. Unused words are presented as blanks in the required display.

Record SRC information for error reporting. For more information, see Using the control panel to collect reference codes and system information.

Function 13: SRC display (hex words 6 - 9)

This function displays a system reference code (SRC) on the control panel to serve as a diagnostic aid that helps you determine the source of a hardware or operating system problem.

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

The extended SRC data words are displayed depending on the number in the SRC. Extended SRC data words are displayed four words at a time. If there are only one to four extended SRC data words, function 13 is not scrollable. If there are five to eight extended SRC data words, function 13 is scrollable. Unused words are presented as blanks in the required display.

Record SRC information for error reporting. For more information, see Using the control panel to collect reference codes and system information..

Related information

Using the control panel to collect reference codes and system information

Functions 14 - 19: SRC display (callouts)

These functions display a system reference code (SRC) on the control panel to serve as a diagnostic aid to help you determine the source of a hardware or operating system problem.

These functions are available in both normal and manual operating mode when an SRC is available.

Functions 14 - 19, if enabled, display field replaceable unit (FRU) and procedure callout data. This data is displayed following any present extended SRC data words. Multiple FRU and procedure callout data entries can be included with each SRC. One FRU or procedure callout data entry is displayed for each function number. Up to six different FRU or procedure callout data entries can be presented at the control panel using functions 14 - 19.

The following table shows an example of a function 14 FRU callout display selection sequence.

Table 6. Function 14: FRU callout display selection sequence

Function/Data	Action or description
1 4 _	Use the Increment or Decrement buttons to scroll to function 14.
H_ -PARTNUM_ CCIN_ _ U970305010ABCDE-_ _ _	Press Enter to select function 14. The FRU callout data is displayed.
1 4 _	Pressing Enter toggles between function and data display.

The following table shows an example of a function 15 procedure callout display selection sequence.

Table 7. Function 15: Procedure callout display selection sequence

Function/Data	Action or description
1 5 _	Use the Increment or Decrement buttons to scroll to function 15.
M_ -FSPSP04_ _	Press Enter to select function 15. The procedure callout data is displayed.
1 5 _	Pressing Enter toggles between function and data display.

Record SRC information for error reporting.

Related information

Using the control panel to collect reference codes and system information

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

This function displays the machine type and model, the custom card identification number (CCIN) for the vital product data (VPD) card, and IPL types. This function is available in both normal and manual operating mode.

The machine type, model, CCIN for the VPD card, and IPL type are displayed 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
```

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 CCIN for the VPD card.
- 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.

Customer-extended panel functions

The customer-extended panel functions include partition dumps, service processor IP address and port location.

Function 21: Service tool initiation

For System i models, this function makes dedicated service tools (DST) available on the system console display.For System p servers, it is not applicable.

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

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.

Function 22: Partition dump

This function initiates a dump of the operating system data in a logical partition.

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

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

Table 8. 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.

Functions 23 - 24: Reserved

These functions are reserved.

Functions 25 - 26: Service switches 1 and 2

These functions are used to set the service function range (50 to 99). These functions are available only in the manual operating mode.

To set the service function range (50 to 99), use function 25 to set the service representative switch 1, and then use function 26 to set the service representative switch 2.

Functions 27 - 29: Reserved

These functions are reserved.

Function 30: Service processor IP address and port location

This function displays the service processor IP address and port location. This function is available only in the manual operating mode and from power on standby.

Note: If `IPv6` is displayed on the control panel, then the service processor's network ports are configured with IPv6 IP addresses. There are not enough characters on the control panel to display the entire address.

The following table shows an example of function 30.

Table 9. Function 30: Service processor IP address and port 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 subfunction mode.
`3 0 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _`	Use the Increment or Decrement buttons to select an IP address `00` = SP A: ETH0 (primary enclosure) `01` = SP A: ETH1 (primary enclosure) `02` = SP B: ETH0 (secondary enclosure) `03` = SP B: ETH1 (secondary enclosure)
`S P _ A : _ E T H 0 : _ _ _ 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 subfunction exit.
`3 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _`	Press Enter to exit subfunction mode.

Functions 31 - 33: Reserved

These functions are reserved.

Function 34: Retry partition dump

Not applicable.

Functions 35 - 41: Reserved

These functions are reserved.

Function 42: Platform dump

This function initiates a platform dump. This function is available only in the manual operating mode and when activated by the operating system or the service processor.

You can use function 42 to dump IBM 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 10. 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.

Function 43: Service processor dump

This function initiates a service processor dump. This function is available only in the manual operating mode.

You must perform two consecutive function 43 selections to initiate a service processor dump. The following table shows an example of function 43.

Table 11. 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 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 0 0 _	Press Enter to confirm.

Functions 44 - 54: Reserved

These functions are reserved.

Function 55: View and change platform dump data

This function allows you to view and change the platform dump data. This function is available only in the manual operating mode.

When you select function 55 and press Enter, you can view and change the platform dump collection policy, platform dump hardware content, and platform dump firmware content settings.

The following table shows an example of how to view the platform dump data.

Table 12. Function 55: View the platform dump data

Function/Data	Action or description
5 5 _	Use the Increment or Decrement buttons to scroll to function 55.
5 5 * * _	Press Enter to enter subfunction mode.
5 5 0 0 _	Use the Increment or Decrement buttons to view the platform dump variables.
5 5 0 0 _ xxyyzz_ _	Press Enter to process the selected subfunction. xx = Collection policy yy = Hardware content zz = Firmware content
5 5 * * _	Use the Increment or Decrement buttons to select subfunction exit.
5 5 _	Press Enter to exit subfunction mode.

The following table shows an example of how to change the platform dump data.

Table 13. Function 55: Change the platform dump data

Function/Data	Action or description
5 5 _	Use the Increment or Decrement buttons to scroll to function 55.
5 5 * * _	Press Enter to enter subfunction mode.
5 5 0 2 _	Use the Increment or Decrement buttons to select to change the platform dump variable. 01 = Set platform dump collection policy to *disable* 02 = Set platform dump collection policy to *enable* 03 = N/A - will always display FF in Line 1 when selected 04 = Set platform dump hardware content to *maximum* 05 = Set platform dump hardware content to *automatic* 06 = N/A - will always display FF in Line 1 when selected 07 = N/A - will always display FF in Line 1 when selected 08 = Set platform dump firmware content to *minimum* 09 = Set platform dump firmware content to *maximum* 0A = Set platform dump firmware content to *physical I/O* 0B = Set platform dump firmware content to *virtual I/O* 0C = Set platform dump firmware content to *HPS cluster* 0D = Set platform dump firmware content to *InfiniBand I/O*

Table 13. Function 55: Change the platform dump data (continued)

Function/Data	Action or description
5 5 0 2 _ 0 0 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to process the selected subfunction. 00 = Accept FF = Reject
5 5 * * _	Use the Increment or Decrement buttons to select subfunction exit.
5 5 _	Press Enter to exit subfunction mode.

Functions 56 - 62: Reserved

These functions are reserved.

Function 63: Display system status SRCs

When you select function 63 and press Enter, you can display up to the last 25 system status SRCs. This function is available only in the manual operating mode.

The following table shows an example of how to display the last 25 system status SRCs.

Table 14. Function 63: Display system status SRCs

Function/Data	Action or description
6 3 _	Use the Increment or Decrement buttons to scroll to function 63.
6 3 * * _	Press Enter to enter subfunction mode.
6 3 1 8 _	Use the Increment or Decrement buttons to select the address offset. **Note:** Enter a subfunction between 00 and 18 to view the SRCs in sequential order. The most recent SRC displays at the highest possible subfunction number (18). If no system status SRCs exist, then only subfunction 00 is available and it will not display an SRC when selected.
C 1 0 0 1 0 3 4 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to read the SRC data.
6 3 * * _	Use the Increment or Decrement buttons to select subfunction exit.
6 3 _	Press Enter to exit subfunction mode.

Function 64: Display diagnostic status SRCs

When you select function 64 and press Enter, you can display up to the last 25 diagnostic status SRCs. This function is available only in the manual operating mode.

The following table shows an example of how to display the diagnostic status SRCs.

Table 15. Function 63: Display diagnostic status SRCs

Function/Data	Action or description
6 4 _	Use the Increment or Decrement buttons to scroll to function 64.

Table 15. Function 63: Display diagnostic status SRCs (continued)

Function/Data	Action or description
6 4 * * _	Press Enter to enter subfunction mode.
6 4 0 2 _	Use the Increment or Decrement buttons to select the address offset. **Note:** Enter a subfunction between 00 and 18 to view the SRCs in sequential order. The most recent SRC displays at the highest possible subfunction number (18). If no diagnostic status SRCs exist, then only subfunction 00 is available and it will not display an SRC when selected.
D 1 2 3 4 5 6 7 _ _ _ _ _ _ _ _ _ _ _ _ _ _ _ _	Press Enter to read the SRC data.
6 4 * * _	Use the Increment or Decrement buttons to select subfunction exit.
6 4 _	Press Enter to exit subfunction mode.

Functions 65 - 70: Not applicable

These functions are not applicable.

Functions 71 - 99: Reserved

These functions are reserved.

Values for IPL types, system operating modes, and speeds

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

The following table shows examples of the IPL types and descriptions.

Note: Operating system IPL types are displayed only when the operating system IPL mode has been enabled from the operating system.

Table 16. 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:** Incorrect use of this function can cause severe data loss.
D	IPL from media other than load-source disk. Alternate IPL for code installation support.

The following table shows examples of the operating mode values.

Table 17. System operating mode values

System operating mode	Action or description
Manual (M)	Allows you to perform an attended IPL and provides access to restricted control panel functions.

Table 17. System operating mode values (continued)

System operating mode	Action or description
Normal (N)	Allows you to perform an unattended IPL.

The following table shows examples of the IPL speeds.

Table 18. IPL speeds

IPL speed	Action or description	Details
F	Fast override for one IPL.	Fast IPL runs. Some hardware diagnostics are passed over.
S	Slow override for one IPL.	Full hardware diagnostics runs. Use this speed whenever hardware is changed, for intermittent hardware failure, or on the first installation IPL. The following diagnostics are run: • Main storage tests. • Service processor 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.
H	Hyperboot override for one IPL.	Hyperboot IPL runs. Most hardware diagnostics are skipped and the system's cached data is used unless new VPD is discovered.
V=H	Use system-defined speed.	Hyperboot IPL is set by the system value (displayed at function 01).

The following table shows examples of firmware IPL types.

Table 19. 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.

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