Note on System Setting

Actual operation may be different from the operation described in this manual by the software upgrade.
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Appendix A  Functions and Menu Items

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Purpose of this manual

This manual is the system setup manual of Integrated Routing System ISX-6600/IXS-6700. It contains information on the initial settings and confirmation of function of the software when installing the IXS-6600/IXS-6700. This manual is intended for system and service engineers. But operators can also refer to it when setting and changing the system. Refer to installation manual supplied with IXS-6600/IXS-6700 for information on installing the hardware.

Related manuals

Besides this System Setup Manual, the following manuals are prepared for IXS-6600/IXS-6700.

- **Operation Manual (Supplied with IXS-6600/IXS-6700)**
  This manual describes the application and operation of IXS-6600/IXS-6700.

- **Installation Manual (Supplied with IXS-6600/IXS-6700)**
  This manual describes information on IXS-6600/IXS-6700 installing.

- **Maintenance Manual (Available on request)**
  This manual describes the information that premises the parts level service (adjustment, parts list, diagrams, etc.).
  If this manual is required, please contact your local Sony Sales Office/Service Center.

- **Protocol Manual (Available on request)**
  This manual describes the protocol for controlling this unit.
  The manual below is provided for the protocol that this unit can support.
  If this manual is required, please contact your local Sony Sales Office/Service Center.

  **S-BUS PROTOCOL AND COMMAND SPECIFICATIONS**
  (S-BUS remote terminal control protocol)
  Part No.: 9-977-477-1X

Trademarks

Trademarks and registered trademarks used in this manual are follows.

- Ethernet is a registered trademark of Xerox Corporation.
- IBM and AT are registered trademarks of International Business Machines Corporation.
- Microsoft and Windows are registered trademarks of Microsoft Corporation.
- Pentium is a registered trademark of Intel Corporation.
Terminology

- Routing Switcher
  Indicates the name of the product category.
- Integrated Routing Switcher (IXS-6600/IXS-6700)
  This is the product name of IXS-6600/IXS-6700. The product category of the Integrated Routing Switcher belongs to Routing Switcher.
- Routing Switcher System
  Indicates the configuration where multiple devices are connected to the Routing Switcher. (Refer to “1-6. System Connection Example”.)

Contents

The following is a summary of all the sections of this manual.

Section 1  Overview
This section outlines the basic structure of the routing switcher system and control mechanism using the S-BUS.

Section 2  Setup
This section explains the setting menus of the primary station and the secondary station and how to set each item in the menus, in detail. Also it explains how to backup the table data.

Section 3  Confirmation of Function
This section explains the error messages and how to check the operations of the system after completing setting.

Section 4  Technical Information
This section explains the following contents:
- Switching sequence of the cross-points
- Concept of a new system enabled by introducing the optional BZR-IF830 software
- Control of the RS-422 ROUTER

Appendix A  Functions and Menu Items
Describes the functions and menu items list.

Appendix B  Glossary
Describes the terminology that is used in this manual.
Section 1
Overview

1-1. What is the Integrated Routing System?

Integrated routing system is the system that has the functions of switching and control of signals using routing switchers. The main devices that constitute the integrated routing system are the routing switchers that switch the signals in accordance with the commands given by the host control equipment (host computer, etc.,) or the commands from the remote control panel (routing switcher control unit), a personal computer that realizes the various setups that are required for configuring and operating the integrated routing system, and the remote control panel to perform the signal switching operations and to display the names of the selected signals.

1-2. Functions of the IXS-6600/IXS-6700 Integrated Routing System

The IXS-6600/IXS-6700 integrated routing system has the following functions.

**Secret function**
It hides all of the input systems from the remote control panel so that the set cross-points cannot be switched.

**Protect function**
Each output signal can be protected so that it will not be switched by other remote control panels.

**Cross-point disable setting function**
The input channels that can be selected by operator, can be limited for each output system so that the specific input channels can be output to the specified output system only.

**Password function**
Password can be set so that the accessible operators can be limited by the password.

**Naming function**
Names can be given to the input and output terminals so that the connection signals can be identified. Names can be given by either one of the following two methods: One method is “Type name (equipment name such as VTR or camera) + number” (example: VTR1). The other method is to give a “Description name” having arbitrary 16 characters. The given name can be displayed on the optional display unit and the remote control panel.

**Virtual mapping function**
Cross-point matrix can be mapped on a virtual matrix.

**Free assignment function**
To each connector name, a different connector number can be assigned on each level.

**Tie line function**
You can enable the system to automatically select the signal lines up to three routing switchers.

**Phantom function**
You can switch several cross-points at the same time.
Self-diagnosis function
Presence or absence of input/output signals and occurrence of error can be sent to a personal computer that is connected to the primary station and display them.

Other functions
- IXS-6600/IXS-6700 has the built-in system controller (primary station function). Therefore, there is no need to prepare a controller to control the routing system.
- Up to 8 levels can be assigned.
- When the optional Subnet Interface (BZR-IF810) are used, a maximum of 60,000 devices can be controlled by a single routing switcher system.

Note
The IXS-6600/IXS-6700 does not have the control function for the monitoring S-BUS system.

1-3. Compatibility between the S-BUS P1 (S-P1) Type and S-BUS P2 (S-P2) Type

There are two types of Sony Routing Switcher. One is the “S-BUS P1” type (abbreviated as S-P1 hereafter) that supports the virtual matrix size 512, and the other is the “S-BUS P2” type (abbreviated as S-P2 hereafter) that supports the virtual matrix size 1024. The IXS-6600/IXS-6700 is the S-P2 type.

The S-P2 type has the upward compatibility with the S-P1 type but has the several limitations. The S-P2 type is realized by extending the type number of the terminal names from 16 to 32, and by changing the data structure of the terminal names. The 16 types of the terminal number data that are used in the S-P1 type, do not have compatibility with the 32 types of terminal number data that are used in the S-P2 type. Therefore, the S-P2 type has two types of data i.e., both the 16 type data and the 32 type data for each terminal of terminal number 1 to 512.

The 16 type data must be used for the terminal number of 1 to 512 when the S-P1 type display unit (BKS-R3280/R3281) and the remote control panel (routing switcher control unit) are used in the system. The 32 type data must be used for the terminal numbers of 513 to 1024. When all of the display units and the remote control panels within the system are of the S-P2 type, the terminal numbers of 1 to 512 must be set to the 32 type data.

When use of the remote control panels of the S-P1 and S-P2 types are mixed, use of the S-P1 type remote control panel is limited within the range of terminal number from 1 to 512. In such a case, the S-P2 type remote control panel can handle the 32 type data with the terminal number of 513 to 1024.

This manual describes information of only IXS-6600/IXS-6700 that is the S-P2 type machine. For the information on the S-P1 type machines, refer to the following manual.
- Installation Manual (Software) : 3-194-351-xx
  It is supplied with the routing switcher of the S-P1 type machine.

Notes
All of the following models currently available belong to the S-P2 device.
- Routing switcher: IXS-6600/IXS-6700/HDS-X5800
- Remote control panel: BKS-R1617/BKS-R168/BKS-R3216/BKS-R3219/BKS-R3220
1-4. Constituent Devices of Routing Switcher System

The routing switcher system consists of the following four types of equipment.

- **Routing switcher controller (HKSP-R80)**
  It controls the signal switching of the routing switcher in accordance with the commands from the host controller (such as host computer) and remote control panel.

- **Routing switcher (IXS, HDS, DVS, BVS series)**
  It switches signals according to the command from the controller (such as host computer) and the remote control panel.
  Varied switchers are available for different types of signals such as serial digital video, digital audio, time code, RS-422A, etc.

- **Remote control panel (routing switcher control unit) (BKS-R series)**
  It switches signals and displays the name of the selected signal. It is sometimes simply called as “remote control panel”.

- **Personal computer**
  A personal computer is required in order to establish the various setups that are necessary for configuring and running the routing switcher system using a terminal emulator. The setup data are backed up and uploaded with the BZR-20 that is supplied with the IXS-6600/IXS-6700.
  A personal computer having the following specifications is recommended for use with the routing switcher system.
  - IBM PC/AT compatible personal computer
  - Windows XP (English version or Japanese version)
  - CPU Intel Pentium Processor equivalent or higher
  - Clock 233 MHz or higher
  - RS-232C port or Ethernet is installed.
  - Terminal emulator (VT100 or higher) is installed.
  - The codes of F1 to F5 are already set.

  **Note**
  For the code setting procedure, refer to Section 2-2.

  - BZR-20 (V2.11 or higher) is installed.

  **Note**
  For the BZR-20 installation procedure, refer to the Installation Manual in the CD-ROM supplied with the IXS-6600/IXS-6700.

  - Microsoft Excel is installed.
1-5. Controls by Routing Switcher System

1-5-1. Specifications and Functions of Control Port

The IXS-6600/IXS-6700 integrated routing system is equipped with four kinds of remote ports REMOTE 1 (standard S-BUS), REMOTE 2 (RS-422A), REMOTE 3 (RS-232C), and NETWORK (Ethernet).

The specifications and functions of the control ports are as follows.

REMOTE 1 BNC 75 Ω
Protocol : S-BUS control

<table>
<thead>
<tr>
<th>Protocol</th>
<th>Controllable size</th>
</tr>
</thead>
<tbody>
<tr>
<td>CART</td>
<td>16 × 16</td>
</tr>
<tr>
<td>CART+</td>
<td>256 × 256</td>
</tr>
<tr>
<td>CART+++</td>
<td>4093 × 4093</td>
</tr>
</tbody>
</table>

Function : Control of the equipment is executed by the S-BUS data link. The various types of equipment related to the control, such as remote control panel, routing switcher, and display unit are connected to this data link.

Note
REMOTE 1 is the remote control terminal that is always installed in the machines that are to be controlled by the S-BUS control. REMOTE1 is sometimes simply called “REMOTE” for units having this remote port only.

REMOTE 2 D-sub 9-pin
Protocol : RS-422A (Transfer speed: 38.4 kbps, data bit: 8 bits, parity: EVEN)

Function : With this, the one-to-one port communication between two units is performed. It is used when a Sony routing switcher is used as a simple matrix switcher when receiving controls from the controller of other manufacturers via RS-422A.
REMOTE 3  D-sub 9-pin
Protocol: RS-232C (Transfer speed: 38.4 kbps, Data bit: 8 bits, No Parity, No check)

Function: When connected with a personal computer, it performs the system setups, program downloading, setup data downloading/uploading, and signal switching.
In order to perform system setup and program downloading, the optional terminal emulator program must be installed in a personal computer. In order to perform the setup data uploading/download and the signal switching, install the BZR-20 and the BZR-21 that are supplied with the IXS-6600/IXS-6700 and use them.

NETWORK RJ-45  8-pin modular jack
Protocol: TCP/IP transfer (100BASE-TX)

Function: Set the IP address and control the routing switcher system from remote location.
This function is not suited to the real-time operation because communication may take some time depending on the network environment.
Functions other than that, remain the same as those of REMOTE 3.

1-5-2. S-BUS Control

The IXS-6600/IXS-6700 uses the Sony unique remote control protocol called S-BUS (Sony serial bus) for controlling the switcher system.

In the S-BUS control, the multiple routing switchers and remote control panels are connected to a single bus line to form a control network called the S-BUS data link.

The devices on the S-BUS data link are designated to a primary station which controls the whole system (only one unit is set as this) and secondary stations. The primary station not only controls the communication between the secondary stations, it converts the output request signals from the secondary station after converting them in accordance with the internally set conditions.

Note
Be sure to attach the 75 Ω terminator to all of the un-used S-BUS line connector regardless of the primary/secondary stations.
Features of S-BUS Control System

The main features of the S-BUS control are as follows.
• LAN type control signal communication using one 75 Ω coaxial cable (S-BUS line)
• The primary station can control up to 253 units of routing switchers and remote control panels using multiple S-BUS lines.
• The coaxial cable can be extended to 500 m. (BELDEN 8281 cable or equivalent)
• Up to 128 units of routing switchers and remote control panels can be connected to one S-BUS line.
• Without stopping the system, the switchers and remote control panels can be added to the S-BUS line or removed from it.

Basic Configuration of S-BUS Control System

S-BUS control is configured as follows.

<table>
<thead>
<tr>
<th>Name</th>
<th>Equipment</th>
<th>Quantity</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary station</td>
<td>Routing switcher controller</td>
<td>1</td>
<td>Communication control in data link</td>
</tr>
<tr>
<td></td>
<td>Routing switcher (P)(^1)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Routing switcher (S)(^2)</td>
<td>253 (max.)</td>
<td>Implements communication control of individual equipment.</td>
</tr>
<tr>
<td>Secondary station</td>
<td>Remote control panel and routing switcher (S)(^2)</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Terminal emulator BZR-20</td>
<td>1</td>
<td>Implement the various system setup and download/upload of the setting data.</td>
</tr>
</tbody>
</table>

\(^1\): It means a switcher whose P/S switch\(^\text{on CPU board}\) is set to the P position.
\(^2\): It means a switcher whose P/S switch\(^\text{on CPU board}\) is set to the S position.

1-5-3. RS-422A Control

The IXS-6600/IXS-6700 can be controlled from an external control equipment that is connected to the REMOTE2 (D-sub 9-pin) connector with the RS-422A interface. In addition to it, the protocol can be extended so that up to 4093 inputs × 4093 outputs × 8 levels can be controlled by the remote control. The extended protocol is the CART++ that has the control size of 256 or less and is compatible with the existing protocol (CART, CART+).

When the IXS-6600/IXS-6700 is assigned to the primary station, the protocol is fixed to the “S-BUS conversion mode” that converts the received RS-422A command to the S-BUS protocol. When the IXS-6600/IXS-6700 is assigned to the secondary station, the protocol is fixed to the “Direct mode” in which the received RS-422A commands are used to control the receiving station only.

Notes

• In the direct mode, the protect and secret functions set on the S-BUS protocol are not available.
• In the S-BUS conversion mode, the protect and secret functions set on S-BUS protocol are available. However, these functions cannot be set from the 9-pin remote control and the contents of the setting cannot be checked from the 9-pin remote control.

Note: In IXS-6600/IXS-6700, “P/S switch on CPU board” means S1203-3 on the CA-65 board.
1-6. System Connection Example

1-6-1. S-BUS Control System Connection Example

The connection example of the S-BUS data link using the IXS-6600/IXS-6700 as the primary station is shown.

**Note**
The IXS-6600/IXS-6700 does not have the control function of the monitoring S-BUS system.

Either one of the REMOTE 1 connectors of the secondary station routing switchers can be used.

- (S) indicates the secondary station. For the secondary stations, set the station ID in the range of ID = 2 to 254 in the manner that the same ID must not be duplicated.
- Install the 75 Ω terminators to the T type bridge of the last device on the S-BUS data link and to the unused REMOTE 1 connector.
1-6-2. REMOTE2 (RS-422A) Control System Connection Example

The connection example of the REMOTE 2 (RS-422A) control system is shown.

S-BUS conversion mode connection example

Direct mode connection example

: S-BUS  : 75 Ω terminator
: RS-422A  : T tridge

: Standard units making up Sony routing system

(P) (S) : The setting of P/S switch on the CPU board.
2-1. Introduction

2-1-1. Flow Chart of Setup Procedure

Flow chart of the setup procedure is shown.

Initial setting

Refer to Section 2-2.

Set the P/S switch on the CPU board to the [P] position.

Set the codes F1 to F5.

Connect a personal computer.

Turn on the main power.

Refer to the Installation Manual.

Set the IP address.

Refer to Section 2-5.

Initialize the setting

K: RESET TO DEFAULT TABLE

Refer to Section 2-4.

Set the respective items of the primary station.

P: CHANGE PASSWORD

T: SET CLOCK

A: SET CONTROL AREA

B: SET SOURCE/DEST TYPE

J: NAME STYLE

C: SET DESTINATION NAME

D: SET SOURCE NAME

E: SET LEVEL TABLE

S: SET SOURCE ASSIGNMENT

L: SET PHYSICAL ASSIGNMENT

I: SET INDEX NUMBER

H: SET GLOBAL PHANTOM

M: SET INHIBIT TABLE

F: SET ACTIVE UNIT NUMBER

When Description Name is selected

N: SET DESCRIPTION NAME GROUP

O: SET TIE LINES

R: CALL SECONDARY STATION

Modification

* : Menu item “A” and “I” do not need to be set when BZR-IF830 is not used.

Set the respective items of the secondary station.

A: SET UNIT LOCATION

Z: SET SIGNAL

W: SAVE CURRENT TABLE

Restart up the primary station equipment.

Refer to the Installation Manual.

Back up the table data.

End
2-2 IXS-6600/6700

2-1-2. Symbols Used in This Manual

The symbols used for the control terminal emulator keys in this manual are as follows.

- All keys are enclosed in boxes. (Ex. \[Ctrl\], \[Enter\])
- The numerical keys in the text mean keys \([0]\) to \([9]\).
- The alphabet keys in the text mean keys \([A]\) to \([Z]\).
- The cursor key in the text mean the \([\uparrow]\), \([\downarrow]\), \([\leftarrow]\), and \([\rightarrow]\) keys.
- When two keys are to be pressed together, they are joined by the “—”. (Ex. \[Ctrl\] — \[X\])
- In IXS-6600/IXS-6700, “P/S switch on CPU board” means S1203-3 on the CA-65 board.

2-2. Preparation

When the IXS-6600/IXS-6700 is Used as the Primary Station

1. Setting the primary station
   Switch the P/S switch on CPU board of IXS-6600/IXS-6700 to the “P” side.

   **Note**
   When setting the primary station, only a single primary station can be set on a single S-BUS remote line. If two or more primary stations are set on a single S-BUS remote line, the routing switcher system will not work properly.

2. Setting the secondary station
   Set the station ID (2 to 254).
   (Refer to manual of the secondary station.)

3. Connect the IXS-6600/IXS-6700 to the secondary station. (Refer to Section 1-6-1.)

4. Set a personal computer. (Setting the F1 to F5 codes.)
   Set the codes of F1 to F5 in accordance with the following table referring to the document of terminal emulator.

<table>
<thead>
<tr>
<th>Key Name</th>
<th>Command</th>
<th>HEX Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>F1</td>
<td>ESC [ 17 - ] 1B, 5B, 31, 37, 7E</td>
</tr>
<tr>
<td>F2</td>
<td>F2</td>
<td>ESC [ 18 - ] 1B, 5B, 31, 38, 7E</td>
</tr>
<tr>
<td>F3</td>
<td>F3</td>
<td>ESC [ 19 - ] 1B, 5B, 31, 39, 7E</td>
</tr>
<tr>
<td>F4</td>
<td>F4</td>
<td>ESC [ 20 - ] 1B, 5B, 32, 30, 7E</td>
</tr>
<tr>
<td>F5</td>
<td>F5</td>
<td>ESC [ 21 - ] 1B, 5B, 32, 31, 7E</td>
</tr>
</tbody>
</table>

   *ESC = 16 hexadecimal number 1B
   10 decimal number 27

5. Connecting the IXS-6600/IXS-6700 to the personal computer
   In the case of RS-232C : Use the RS-232C cable and connect the personal computer to the REMOTE3 connector.
   In the case of Ethernet : Use the dedicated cable and connect the LAN hub to the DATA connector.

6. Setting the communication conditions of the personal computer
   In the case of RS-232C : Transfer speed : 38.4 kbps, Data bit : 8 bits, No parity, No check.
   In the case of Ethernet : Set the IP address of the terminal emulator to the same IP address of the IXS-6600/IXS-6700. Set the port No.1001.
7. Turning on the power.
   Turn on the power of all the equipment on the S-BUS data link.
   The system status screen appears on the personal computer monitor. (Refer to Section 2-3.)
   **Note**
   Wait for about one minute or more after turning on the power, before starting the setting.
   Operation of the equipment may be unstable immediately after the power is turned on.

8. Let the primary station menu screen appear on the display. (Refer to Section 2-3.)
   When the \[\text{Ctrl} \] – \[X\] are pressed on the system status screen, the display shows the primary station menu screen.
   Perform the respective settings that are shown in Section 2-4 from the primary station menu screen.

   When the system is connected using Ethernet, a maximum of 16 people can work to set up at the same time. However, the same item cannot be worked by multiple people at the same time.
   If you want to disconnect the Ethernet LAN cable, you should terminate all of the terminal emulator that you have started up. Then, disconnect the Ethernet LAN cable.

   **Note**
   When all setups are completed, return to the system status screen. Turn the power of the primary station off and then on again.
   Note that if IXS-6600/IXS-6700 is the primary station, when the power turns on or off, the cross-point signal is cut for an instant. The signal is not cut if the primary station is HKSP-R80.

**When the IXS-6600/IXS-6700 is Used as the Secondary Station**

1. Setting the IXS-6600/IXS-6700 as the secondary station
   Set the P/S switch \(^{\text{Note}}\) on the CPU board of the IXS-6600/IXS-6700. (Refer to the Installation Manual.)

2. Setting the station ID
   Set the switch to the desired station ID in the range of 2 to 254 so that it is not duplicated with the station IDs of other secondary equipment.

3. Setting the primary station equipment
   Set the P/S switch \(^{\text{Note}}\) on the CPU board of the primary station equipment to the [P] position.

4. Connecting the primary station equipment to the other secondary station equipment
   Connect the REMOTE 1 connectors each other using the BNC coaxial cables.

5. Set a personal computer (Setting the F1 to F5 code)
   Set the codes of F1 to F5 in accordance with the following table referring to the document of terminal emulator.

<table>
<thead>
<tr>
<th>Key Name</th>
<th>Command</th>
<th>HEX Data</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1</td>
<td>F1</td>
<td>ESC [ 17 ~ 1B, 5B, 31, 37, 7E</td>
</tr>
<tr>
<td>F2</td>
<td>F2</td>
<td>ESC [ 18 ~ 1B, 5B, 31, 38, 7E</td>
</tr>
<tr>
<td>F3</td>
<td>F3</td>
<td>ESC [ 19 ~ 1B, 5B, 31, 39, 7E</td>
</tr>
<tr>
<td>F4</td>
<td>F4</td>
<td>ESC [ 20 ~ 1B, 5B, 32, 30, 7E</td>
</tr>
<tr>
<td>F5</td>
<td>F5</td>
<td>ESC [ 21 ~ 1B, 5B, 32, 31, 7E</td>
</tr>
</tbody>
</table>

\(^{\text{Note}}\) ESC = 16 hexadecimal number 1B
10 decimal number 27

6. Connecting the personal computer to the primary station equipment
   Connect the personal computer to the REMOTE 3 connector using the RS-232C cable.

7. Set the communication conditions of the personal computer
   Transfer speed : 38.4 kbps, Data bit : 8 bits, No parity, No check.

8. Turning on the power
   Turn on the power of all the equipment on the S-BUS data link.
   The system status screen appears on the personal computer monitor. (Refer to Section 2-3.)
   **Note**
   Wait for about one minute or more after turning on the power, before starting the setting.
   Operation of the equipment may be unstable immediately after the power is turned on.

9. Let the secondary station menu screen appear on display. (Refer to Section 2-3.)
   When the \[\text{Ctrl} \] – \[X\] are pressed on the system status screen, the display shows the primary station menu screen.
   When you want to call the menu screen of the IXS-6600/IXS-6700 that is the secondary station, select the [R: CALL SECONDARY STATION] from the primary station menu screen. Then enter the station ID of the IXS-6600/IXS-6700.
   Perform the respective setups of Section 2-5 from the secondary station menu screen.

   **Note**
   When all setups are completed, return to the system status screen. Turn the power of the primary station off and then on again.

---

*Note* In IXS-6600/IXS-6700, “P/S switch on CPU board” means S1203-3 on the CA-65 board.
2-3. Display Screens, and Moving between the Display Screens

The setup display consists of the following three types of screen.
- **System status screen**: Displays the status in which the routing system is operating.
- **Menu screen**: Displays the menu for setting the router system.
- **Setting screen**: Displays the setting items of each menu.

*1: The menu items can be selected in the following two ways. See the “Menu screen” on the next page.
*2: See the “Menu screen/Secondary station” on page 2-6.
System Status Screen

The system status screen appears when the main power of the primary station is turned on.

When Ctrl – X are pressed, the menu screen appears. When Ctrl – X or Ctrl – B are pressed on the menu screen, the display returns to the system status screen.

Note

When password is set, a message appears prompting you to enter password when Ctrl – X are pressed to enter the menu screen. Enter the correct password.

On the system status screen, result of the self-diagnostics that is performed at the power-on is displayed. The status messages are displayed while the system is operating. Refer to “3-2. Function Check”.

Menu Screen

The menu screen appears when Ctrl – X are pressed on the system status screen. (Primary station menu screen)

All of the menu items that are used for system setup are displayed on the primary station menu screen.

When a menu item is selected by any of the following methods, the display changes to the setting screen.

- Select the desired menu item with the cursor key and press Enter. (There are some terminal emulators that cannot execute this method.)
- Press the alphabet keys that are assigned to the respective menu items.

Perform the respective settings that are shown in Section 2-4 on the primary station menu screen.

When Ctrl – X or Ctrl – B are pressed on the primary station menu screen, the display returns to the system status screen.
Menu screen/secondary station

When you want to call the secondary station menu screen, select the [R: CALL SECONDARY STATION] from the menu of the primary station and enter the station ID of the secondary station.

When you want to set the secondary station function into the primary station routing switcher, enter “1” as the station ID of the secondary station.

Perform the respective settings that are shown in Section 2-5 on the secondary station menu screen.

When [Ctrl] – [D] are pressed on the secondary station menu screen, the display returns to the primary station menu screen.

**Note**

Response of the routing switcher system becomes slower while the menu screen or the setup screen is being displayed when compared with the response on the system status screen. For avoiding this trouble, return the display to the system status screen when the setting up is completed.

Setting Screen

The setting screen appears when any of the setup item is selected from the primary station or the secondary station menu screen.

The actual setting is performed on this screen.

Because the screens are different depending upon the setting items, the screen examples are shown in the respective setting items (Sections 2-4 and 2-5.)

When [Ctrl] – [E] are pressed on the secondary station setting screen, the display returns to the secondary station menu screen. When [Ctrl] – [D] are pressed, the display returns to the primary station menu screen.

When [Ctrl] – [E] are pressed on the primary station setting screen, the display returns to the primary station menu screen.

**Note**

Response of the routing switcher system becomes slower while the menu screen or the setup screen is being displayed when compared with the response on the system status screen. For avoiding this trouble, return the display to the system status screen when the setting up is completed.
2-4. Setting Items of the Primary Station

A : SET CONTROL AREA

Purpose
Sets the sources range and the destinations range of the whole routing switcher system to be controlled by the primary station.
An arbitrary name of primary station for this controller can also be set on this screen.

Setting procedure
1. Select [A] from the menu screen.
2. Select the desired setting item using the cursor.
3. Press [Enter]. Range of sources, range of destinations, and name (item [NAME]) for the primary station become ready to be set.
4. Enter the range of sources and the range of destinations using the numeric keys. Input the desired name for primary station using alphanumeric keys (four characters at a maximum). The maximum values that can be set for the range of sources and for the range of destinations are shown below.

<table>
<thead>
<tr>
<th>Source</th>
<th>Destination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Maximum value that can be set</td>
<td>4093</td>
</tr>
<tr>
<td>Maximum size (range) that can be set</td>
<td>1024</td>
</tr>
</tbody>
</table>

Example : “1025-2048” (Setup size 1024): OK
“0001-2048” (Setup size 2048): NG

5. Press [Enter]. The setup values are registered.
If [Ctrl] – [F] are pressed before pressing the [Enter], the values return to the original value before entering the data.

Operating function keys

[F1] : MODIFY
Press [F1]. The source value and the destination value that are assigned to the index number (INDEX) indicated by the menu item “I: SET INDEX NUMBER” are changed. The top values of the source and destination ranges that are set by this menu are added respectively to the values set as the source and destination by the menu item “I”. For example, assume that case that you set the source to “SOURCE No. 0001-1025”. If the top value of the source changed from 0001 to 1024, the difference between the top values becomes 1024 (1025 - 1 = 1024). When the original indication of SRC in the menu item “I” starts with 0001, 0002, 1001, 1002, and so on, the indication is changed to 1025, 1026, 2025, 2026, and so on after [F1] is executed. This occurs because the difference between the top values (i.e., 1024 in this example) is added to every source number.

Note
The control area of the menu item [A] means the control area of the whole routing system, and not the input/output areas of the primary station routing switcher.
To set the location of the input/output terminal of the primary station routing switcher, call the secondary station menu screen by selecting [R : CALL SECONDARY STATION] from the menu screen and type the station number [1], and then select [A : SET UNIT LOCATION].

To return to the menu screen
Setting procedure of number of types

1. Press [F1]. [Do you change the type number? Y or N] appears.
2. Press [Y]. Number of types is changed to 16.
   If you want to return the number of types to 32, repeat steps 1 and 2.

   **Note**
   If number of types is changed from 32 to 16, names of the terminals to which the type number of 17 to 32 are given, cannot be returned to the original names.

   The terminal name from No. 1 to No. 512
   - **TYPE : 16** The names up to 16 types can be used.
     When the S-P1 type remote control panel or the display unit is used in the system, select the TYPE 16.
   - **TYPE : 32** The names up to 32 types can be used.
     When the S-P1 type remote control panel or the display unit is used in the system, the correct display or correct operation cannot be performed.

   Name of the terminals from No.513 to No.1024 are fixed to type 32 without affected by this setting.

To return to the menu screen
C : SET DESTINATION NAME

**Purpose**
Sets the destination name and protect function of each output. (For details about the protect function, refer to Appendix B “Protect”.)
A number between 001 to 999 and a type name set at the menu item [B : SET SOURCE/DEST TYPE] can be set to each destination as the destination name. Description name can be set by changing the name mode at the menu item [J : NAME STYLE]. For details of setting the name, refer to [J] in the menu. (For details about the Description name, refer to Appendix B “Description name mode”.)

**Setting procedure of destination name**
1. Select [C] from the menu screen.
2. Press the cursor keys or the function keys to select the desired destination number.
3. Press [Ctrl] – [P]. The set destination name will be deleted and “...” will be displayed.
4. Press [Enter]. The destination name can be typed.
   **Note**
   If [Enter] is pressed again before entering a name, the entry will be canceled and the cursor moves to the next terminal number.
5. Select a type name that you want to set, from the corresponding code (0 to 9, A to V) in the bottom of screen and type the code. Then type a number (0 to 999) that you want to set using numeric keyboard.
   **Note**
   “000” cannot be added to the name of the type number “0”.
   For example, in the case of 0=IN (the name of the type number “0” is IN), “IN000” cannot be set.
6. Press [Enter]. The destination name will be set and the cursor moves to the next terminal number.
   **Note**
   The same destination name cannot be set at more than two destinations. If this is done, an error message will be displayed at the bottom of the screen.
   Display example : “* * * * * is used already; Ignored”

**Setting procedure of protect function**
1. Select the destination name using the cursor, and then press [P]. “P” is displayed after the selected destination name and the protect function is set.
   Protect function cannot be set for a number whose destination name has not been assigned.
2. To release the protect function, select the destination name and press [P] once again.

**Notes**
- If a destination name is high-lighted, it indicates that the protect function is set from control terminal. If the protect is set from a remote control panel, the destination name is not high-lighted.
- To change the protected destination name, release the protection first before beginning the modification process.

---

**Example of setting screen**

---

**Setting procedure of protect function**
1. Select the destination name using the cursor, and then press [P]. “P” is displayed after the selected destination name and the protect function is set.
   Protect function cannot be set for a number whose destination name has not been assigned.
2. To release the protect function, select the destination name and press [P] once again.

**Notes**
- If a destination name is high-lighted, it indicates that the protect function is set from control terminal. If the protect is set from a remote control panel, the destination name is not high-lighted.
- To change the protected destination name, release the protection first before beginning the modification process.

---

**Example of setting screen**

---

**Setting procedure of protect function**
1. Select the destination name using the cursor, and then press [P]. “P” is displayed after the selected destination name and the protect function is set.
   Protect function cannot be set for a number whose destination name has not been assigned.
2. To release the protect function, select the destination name and press [P] once again.

**Notes**
- If a destination name is high-lighted, it indicates that the protect function is set from control terminal. If the protect is set from a remote control panel, the destination name is not high-lighted.
- To change the protected destination name, release the protection first before beginning the modification process.

---

**Example of setting screen**

---

**Setting procedure of protect function**
1. Select the destination name using the cursor, and then press [P]. “P” is displayed after the selected destination name and the protect function is set.
   Protect function cannot be set for a number whose destination name has not been assigned.
2. To release the protect function, select the destination name and press [P] once again.

**Notes**
- If a destination name is high-lighted, it indicates that the protect function is set from control terminal. If the protect is set from a remote control panel, the destination name is not high-lighted.
- To change the protected destination name, release the protection first before beginning the modification process.

---

**Example of setting screen**

---

**Setting procedure of protect function**
1. Select the destination name using the cursor, and then press [P]. “P” is displayed after the selected destination name and the protect function is set.
   Protect function cannot be set for a number whose destination name has not been assigned.
2. To release the protect function, select the destination name and press [P] once again.

**Notes**
- If a destination name is high-lighted, it indicates that the protect function is set from control terminal. If the protect is set from a remote control panel, the destination name is not high-lighted.
- To change the protected destination name, release the protection first before beginning the modification process.

---

**Example of setting screen**

---

**Setting procedure of protect function**
1. Select the destination name using the cursor, and then press [P]. “P” is displayed after the selected destination name and the protect function is set.
   Protect function cannot be set for a number whose destination name has not been assigned.
2. To release the protect function, select the destination name and press [P] once again.

**Notes**
- If a destination name is high-lighted, it indicates that the protect function is set from control terminal. If the protect is set from a remote control panel, the destination name is not high-lighted.
- To change the protected destination name, release the protection first before beginning the modification process.

---

**Example of setting screen**
Operating function keys

**F1**: SEARCH (To move the cursor to the desired destination name.)

1. Press [F1]. “Please Input DEST NAME =” will be displayed.
2. Input the destination name ([Code number in the bottom of the screen] + [numeral (0 to 999)]) to be retrieved.
3. Press [Enter]. The cursor will move to the desired destination name.

*Note*

When menu item [J] is set to the Description name mode, [F1] (SEARCH) will have the following functions.

1. Press [F1]. “Please Input DEST NAME =” will be displayed.
2. Enter the Description name (within seven characters) from the head.
3. Press [Enter]. The Description name entered will be searched and the page including the name appears on the screen.
4. If the desired name does not exist in the screen, press [F1] again. Then the cursor moves to the next description name containing the character string that you want to retrieve.

**F2**: JUMP (To move the cursor to the destination number.)

1. Press [F2]. “Please Input DEST NUMBER =” will be displayed.
2. Input the destination number to be retrieved.
3. Press [Enter]. The cursor will move to the desired number.

**F3**: PgUp

When [F3] is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

**F4**: PgDn

When [F4] is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

To return to the menu screen


---

**D : SET SOURCE NAME**

**Purpose**

Sets the source name and secret function. (For details about the secret function, refer to Appendix B “Secret”.)

A number between 001 to 999 and a type name set at the [B : SET SOURCE/DEST TYPE] can be set to each source name. Description name can be set by changing the name mode at [J : NAME STYLE] in the menu. For details of setting the name, refer to [J] in the menu. (For details about the Description name, refer to Appendix B “Description name mode”.)

**Setting procedure of source name**

1. Select [D] from the menu screen.
2. Select a terminal number of source you want to set using the cursor key or function key.
3. Press [Ctrl] – [P]. The set source name will be deleted, and “. . . .” will be displayed.
4. Press [Enter]. The entry mode of source name is set.

*Note*

If [Enter] is pressed before inputting the source name, the entry mode is cancelled and the indication changes to “. . . .”, and the cursor moves to the next terminal number.

5. Select a type name that you want to select from the corresponding code (0 to 9, A to V) in the bottom of screen and type the code. Then type a number (0 to 999) that you want to set using numeric keyboard.

*Note*

“000” cannot be added to the name of the type number “0”.

For example, in the case of 0=IN (the name of the type number “0” is IN), “IN000” cannot be set.

6. Press [Enter]. The input source name is set and the cursor moves to the next terminal number.

*Note*

The same name cannot be given to assigned to two or more sources. If this is done, an error message will be displayed at the bottom of the screen.

Display example : “* * * * * is used already: Ignored”

Source name
Setting procedure of secret function

1. Select the source name using the cursor, and press [S]. “S” is displayed after the source name, and the secret is set. Secret cannot be set for a number whose source name has not been assigned.

2. To release the secret function, select the source name and press [S] once again.

<table>
<thead>
<tr>
<th>SOURCE NUMBER</th>
<th>TRANSCODE</th>
<th>IXS-6700</th>
<th>V1.00</th>
<th>STATION NUMBER</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001=IN001</td>
<td>0002=IN002</td>
<td>0003=IN003</td>
<td>S</td>
<td>0004=IN004</td>
</tr>
<tr>
<td>0005=IN005</td>
<td>0006=IN006</td>
<td>0007=IN007</td>
<td>S</td>
<td>0008=IN008</td>
</tr>
<tr>
<td>0009=IN009</td>
<td>010=IN10</td>
<td>011=IN11</td>
<td>S</td>
<td>012=IN12</td>
</tr>
<tr>
<td>013=IN13</td>
<td>014=IN14</td>
<td>015=IN15</td>
<td>S</td>
<td>016=IN16</td>
</tr>
<tr>
<td>017=IN17</td>
<td>018=IN18</td>
<td>019=IN19</td>
<td>S</td>
<td>020=IN20</td>
</tr>
<tr>
<td>021=IN21</td>
<td>022=IN22</td>
<td>023=IN23</td>
<td>S</td>
<td>024=IN24</td>
</tr>
<tr>
<td>025=IN25</td>
<td>026=IN26</td>
<td>027=IN27</td>
<td>S</td>
<td>028=IN28</td>
</tr>
<tr>
<td>029=IN29</td>
<td>030=IN30</td>
<td>031=IN31</td>
<td>S</td>
<td>032=IN32</td>
</tr>
<tr>
<td>033=IN33</td>
<td>034=IN34</td>
<td>035=IN35</td>
<td>S</td>
<td>036=IN36</td>
</tr>
<tr>
<td>037=IN37</td>
<td>038=IN38</td>
<td>039=IN39</td>
<td>S</td>
<td>040=IN40</td>
</tr>
<tr>
<td>041=IN41</td>
<td>042=IN42</td>
<td>043=IN43</td>
<td>S</td>
<td>044=IN44</td>
</tr>
<tr>
<td>045=IN45</td>
<td>046=IN46</td>
<td>047=IN47</td>
<td>S</td>
<td>048=IN48</td>
</tr>
<tr>
<td>049=IN49</td>
<td>050=IN50</td>
<td>051=IN51</td>
<td>S</td>
<td>052=IN52</td>
</tr>
<tr>
<td>053=IN53</td>
<td>054=IN54</td>
<td>055=IN55</td>
<td>S</td>
<td>056=IN56</td>
</tr>
<tr>
<td>057=IN57</td>
<td>058=IN58</td>
<td>059=IN59</td>
<td>S</td>
<td>060=IN60</td>
</tr>
<tr>
<td>061=IN61</td>
<td>062=IN62</td>
<td>063=IN63</td>
<td>S</td>
<td>064=IN64</td>
</tr>
</tbody>
</table>

Example of setting screen

Operating function keys

[F1] : SEARCH (To move the cursor to the desired source name.)

1. Press [F1]. “Please Input SOURCE NAME=” will be displayed.

2. Input the source name ([Code number in the bottom of the screen] + [numeral (0 to 999)]) to be retrieved.

3. Press [Enter]. The cursor will move to the desired source name.

Note

When menu item [J] is set to the Description name mode, [F1] (SEARCH) will have the following functions.

1. Press [F1]. “Please Input SOURCE NAME=” will be displayed.

2. Enter the Description name (within seven characters) from the head.

3. Press [Enter]. The corresponding Description name will be searched in the range of the entered characters and the page including the name appears on the screen.

4. If the desired name does not exist in the screen, press [F1] again. Then the cursor moves to the next description name containing the character string that you want to retrieve.

[F2] : JUMP (To move the cursor to the source number.)

1. Press [F2]. “Please Input SOURCE NUMBER=” will be displayed.

2. Input the source number to be retrieved.

3. Press [Enter]. The cursor will move to the desired number.

[F3] : PgUp

When [F3] is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

[F4] : PgDn

When [F4] is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

To return to the menu screen

Press [Ctrl] – [E]
**E : SET LEVEL TABLE**

**Purpose**
Sets level name, sets whether the levels that are set for the respective terminals are made valid or invalid, and sets number of levels.

**Level name setting procedure**
1. Select [E] from the menu screen.
2. Press the cursor keys to select the level number.
3. Press [Enter] to enter the level name entry mode.
4. Enter the level name using the alphabet and numerical keys (within four characters).
5. Press [Enter]. The level name will be set.
   - If [Ctrl] - [F] are pressed before the setting, the original level name will be returned.

**Procedure to make the levels valid or invalid**
When level names are set, these names appear automatically in the level column of the respective output terminals. In this status, all the levels are set to be valid at each output terminal.

If you want to make the level invalid, move the cursor to the level name that you want to make invalid and press [Enter]. The level name changed to “...” and the setting of the level is made invalid.

If you want to return the invalidated level to valid, move the cursor to “...” and press [Enter]. The original level will be restored.

**Note**
If the destination name is not set, the number of the destination will not be displayed.

**Setting number of levels**
Every pressing of [F3] toggles between the LEVEL: 1-8 display and the LEVEL : 1-16 display on the 2nd line.

About LEVEL: 1-16
When the system is used with the LEVEL 1-16, the remote control panel that supports the LEVEL 1-16 becomes necessary.
The LEVEL 9-16 is realized by switching the Destination to which 512 is added, at the same time. (For example, when switching terminal number 1 of the destination of LEVEL 9-16, terminal number 513 of the destination is also switched.)

**Operating function keys**

[F1] : SEARCH (To move the cursor to the desired destination name.)
1. Press [F1]. “Please Input DEST NAME =” will be displayed.
2. Input the destination name ([Code number in the bottom of the screen] + [numeral (0 to 999)]) to be retrieved.
3. Press [Enter]. The cursor will move to the desired destination name.

**Note**
When menu item [J] is set to the Description name mode, [F1] (SEARCH) will have the following functions.
1. Press [F1]. “Please Input DEST NAME =” will be displayed.
2. Enter the Description name (within seven characters) from the head.
3. Press [Enter]. The corresponding Description name will be searched in the range of the entered characters and the page including the name appears on the screen.
4. If the desired name does not exist in the screen, press [F1] again. Then the cursor moves to the next description name containing the character string that you want to retrieve.

[F2] : JUMP (To move the cursor to the number of the desired destination.)
1. Press [F2]. “Please Input DEST NUMBER =”, will be displayed.
2. Input the destination number to be retrieved.
3. Press [Enter]. The cursor will move to the desired destination number.
**F3**: LEVEL (Display is switched between LEVEL : 1-8 and LEVEL : 1-16.)
Each time [F3] is pressed, the screen display toggles between LEVEL : 1-8 and LEVEL : 1-16 on the 2nd line.

**F4:ENA** (ENABLE/DISABLE)
On the terminal menu Q: CHANGE CROSSPOINT screen (to be abbreviated simply as Q screen hereunder), the cross-points can be switched in the same way as from remote control panel. When the F4 display is DISABLE, the terminal menu E: SET LEVEL TABLE setup (specifying which level is used for switching the respective outputs) is reflected on the operations on the Q screen. For example, when the output No. 57 is set to level 3 only from the E screen, only the level 3 command is output when the output No. 57 is switched from the All Level Selector screen of the Q screen. When the F4 display is ENABLE, the setup of the E screen will not affect operations of the Q screen. Whenever [F4] is pressed, the display is toggled between [F4:ENA] and [F4:DIS].

To return to the menu screen
Press [Ctrl] — [E].

---

**F : SET ACTIVE UNIT NUMBER**

**Purpose**
Enables the units that are connected to the S-BUS data link for mutual communication with S-BUS protocol. (For details, refer to Appendix B “Active: Decide remote control panels that can be active on the S-BUS”.)

**Setting procedure**
1. Select [F] from the menu screen.
2. Select the station ID of the secondary station that you want to make the communication valid using the cursor key.
   For example, if you want to set the station ID21, select the line “1” from the lines “021 - 040”.
3. Every time the [Enter] button is pressed, it toggles between “E” and blank. Select “E” to make the communication valid. The display “M” means the primary station. 255 and later, which are outside of the connection range, is displayed as “*”. When [A] is pressed, all communications are made valid. When [C] is pressed, all communication are made invalid.

**Note**
The response will become slower if there are many secondary stations.

![Example of setting screen](image-url)
**G : UPDATE BACKUP CONTROLLER**

**Purpose**
Use this menu to copy the table data stored in the main CPU (CA-65) board of the primary station to the backup CPU (CA-65) board.

**Setting procedure**
1. Select [G] from the menu screen. The message “This process requires about * minutes. Execute? (y/n)” will be displayed at the bottom of the screen. The value “*” in the message “* minutes” is different depending on the version number or the type.
2. Press [Y]. Table data copying is performed. To cancel copying, press [Ctrl] – [D].

**Note**
The ROM version of the main CPU (CA-65) board and that of the backup CPU (CA-65) board must be the same. The versions can be checked by the “V: DISPLAY UNIT STATUS” menu item of the secondary station. If different versions are used, the unit may hang up due to copying. Remove the backup CPU board when this occurs.

The data will be copied in one hour approximately by the auto backup function even if the copying operation is not executed.

To return to the menu screen

---

**H : SET GLOBAL PHANTOM**

**Purpose**
Sets the phantom data in the primary station as the global phantom. A maximum of 2800 cross-points can be registered in the phantom data. The maximum of 124 phantom data can be set. (For details about phantom, refer to Appendix B “Phantom”.)

**Setting procedure**
1. Select [H] from the menu screen. The global phantom list will be displayed.

Example of Global Phantom List Screen
2. Select any global phantom number with the cursor or function key and press [Enter]. The edit screen will be displayed.

The cursor moves where the global phantom name is typed.
① : Global phantom number
② : Global phantom name

---

Example of Global Phantom Edit Screen
3. Press \[Enter\] to enter the global phantom name entry mode.

4. Select a type name that you want to select from the corresponding code (0 to 9, A to V) in the bottom of screen and type the code. Then type a number (0 to 999) that you want to set using numeric keyboard. Press \[Enter\] to set it. Press \[Ctrl\] – \[P\] to delete the phantom name.

5. Move the cursor to the place (OUTxxx column on the edit screen example) to input the destination and press \[Enter\]. The entry mode is established.

6. Input the destination name in the same way as setting the destination name and press \[Enter\] to set it.

7. Input the source name in the same way as setting the destination name and press \[Enter\].

8. Move the cursor to the cross-point level entry position. The cross-points where the level names are shown, are in the status that the cross-point level is already set (made valid). If you want to make it invalid, press \[Enter\]. The message “...” appears and the level is made invalid. Press \[Ctrl\] – \[E\] to return the menu to the initial screen [H].

**Operating function keys**

**Global phantom list screen**

**F1**: SEARCH (To move the cursor to the desired global phantom name.)

1. Press \[F1\]. “Please Input PHANTOM NAME =” will be displayed.
2. Input the global phantom name (\{Code number in the bottom of the screen\} + \{numeral (0 to 999)\}) to be retrieved.
3. Press \[Enter\]. The cursor will move to the desired name.

**Note**

When the menu item [J] is set to the description name mode, \[F1\] (SEARCH) will have the following function.

1. Press \[F1\]. “Please Input DEST NAME =” is displayed on the screen.
2. Enter the description name that you want to retrieve within 7 characters from the top.
3. Press \[Enter\]. The corresponding description name within the range of the entered character will be retrieved, and the pages containing the name will be displayed on the screen.
4. If the desired name cannot be found on the displayed page, press \[F1\] again. Then the cursor moves to the next description name containing the character string that you want to retrieve.

**F2**: JUMP (To move the cursor to the desired global phantom number.)

1. Press \[F2\]. “Please Input PHANTOM NUMBER =” will be displayed.
2. Input the global phantom to be retrieved.
3. Press \[Enter\]. The cursor will move to the desired number.

**F3**: PgUp

When \[F3\] is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

**F4**: PgDn

When \[F4\] is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

**Operating function keys**

**Edit screen of global phantom**

**F1**: SEARCH (To move the cursor to any source name or destination name.)

All of the operating procedures remains the same as those of other \[F1\] operations.

**F2**: ADD (To add the row of cross-points to be registered as the global phantom.)

**F3**: DELETE (To delete the cross-points)

1. Select the destination name to be deleted using the cursor.
2. Press \[F3\].

**F4**: DstLvl (To return the level of the cross-point where the cursor is located, to the level of the destination, that is set by the menu item [E : SET LEVEL TABLE].)

1. Select the destination name to be returned to the initial level using the cursor.
2. Press \[F4\].

**Note**

When the name mode of menu item [J] is switched, the destination and source names displayed on the global phantom edit screen will change.

**To return to the menu screen**

Press \[Ctrl\] – \[E\].
I : SET INDEX NUMBER

Purpose
Assigns the virtual terminal numbers of the virtual space in the S-BUS space (i.e., the S-BUS space of the maximum 4093 × 4093 controlled by the 4093 × 4093 controller) to the source index numbers and destination index numbers of the index space (maximum 1024 × 1024) that is the space to which the remote control panel refers.

(Refer to “4. Technical Information”.)

Setting procedure
1. Select [I] from the menu screen.
2. Every time [F1] is pressed, the screen toggles between the source index number setting screen ↔ the destination index number setting screen.

Source index number setting procedure
3. Select the source index number setting screen.
4. Select the desired index terminal number using the cursor key. Press [Enter] to enter the entry mode.
5. Input the virtual terminal number (1 to 4093) using the numeric keys.
6. Press [Enter] again to set the entry.
If [Ctrl] – [F] are pressed before pressing the [Enter], the index number returns to the original number before entry.

Example of source index number setting screen

Destination index number setting procedure
7. Press [F1] to select the destination index number setting screen.
8. Select the desired destination index number using the cursor key. Press [Enter] to enter the entry mode.
9. Input the virtual terminal number (1 to 4093) using the numeric keys.
10. Press [Enter] again to set the entry.
If [Ctrl] – [F] are pressed before pressing the [Enter], the index number returns to the original number before entry.

Example of destination index number setting screen

Operating function keys
[F1] : SRC (DEST)
Every time [F1] is pressed, the screen toggles between the source index number setting screen and the destination index number setting screen.

[F2] : JUMP (To move the cursor to the desired destination or to the desired source number)
1. Press [F2]. “Please Input DEST (SOURCE) NUMBER-” is displayed.
2. Input the destination (source) number to be retrieved.
3. Press [Enter]. The cursor moves to the desired number.

[F3] : PgUp
When [F3] is pressed, the screen will display the 20 lines previous to the 20 lines displayed currently.

[F4] : PgDn
When [F4] is pressed, the screen will display the 20 lines next to the 20 lines displayed currently.

[F5] : INIT
1. Press [F5]. “RESET TO DEFAULT OK? y/n” is displayed.
2. Press [Y]. The value of the SRC (DEST) is changed in accordance with the value set by the menu item “A” (A: SET CONTROL AREA). The SRC value and the DEST value are initialized using the top value of the range of source and destination that is set by the menu item “A”. For example, if you set “SOURCE No. 1025-2048”, and when the original indication of SRC starts with 0001, 0002, 1001, 1002,..., and so on, the indication is changed to 1025, 1026, 1027, 1028... and so on after [F5] is executed.

To return to the menu screen
Press [Ctrl] – [E]
J : NAME STYLE

**Purpose**
Switches the name styles of the destination and source. The “Type + Number” name (Type + Num) or “Description” name (DESCRIP. NAME) can be set. (For details about the “Type + Number” name and the Description name, refer to Appendix B “Type + Number” name mode and Description name mode respectively.)

Names on the setting screen of menu items [C], [D], [E], [H], [L], [M], [Q] and [S] are switched according to this menu.

**Setting procedure**
1. Select [J] from the menu screen.
2. Every time [Enter] or [J] is pressed, the message on the screen will toggle between “Type + Num” ↔ “DESCRIP. NAME”.

**Destination name setting procedure using the Description name**
3. Set menu item [J] to the Description name mode.
   Ex. [J : NAME STYLE (DESCRIP. NAME)]
4. Select the menu item [C].
5. Select the desired destination number with the cursor key.
6. Press [Enter] to enter the entry mode. If the Description name is set already, delete it by [BS].
7. Enter the Description name using the alphabet keys or the numerical keys. When [Enter] is pressed, the Description name will be set.

**Note**
The maximum number of 16 characters can be entered. Some remote control panel and other devices cannot display the 16 characters. In such models, the maximum number of characters that can be displayed, are displayed starting from the top of the characters.

**Operating function keys**

- **[F1]**: SEARCH (To move the cursor to the desired destination name.)
  1. Press [F1]. “Please Input DEST NAME =” will be displayed.
  2. Input the destination name to be retrieved.
  3. Press [Enter]. The cursor will move to the desired destination name.

- **[F2]**: JUMP (To move the cursor to the desired destination number.)
  1. Press [F2]. “Please Input DEST NUMBER =” will be displayed.
  2. Input the destination number to be retrieved.
  3. Press [Enter]. The cursor will move to the desired number.

- **[F3]**: PgUp
  When [F3] is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

- **[F4]**: PgDn
  When [F4] is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

- **[F5]**: PASTE (To copy the Description name)
  1. Move the cursor to the destination number to be copied.
  2. Press [Space].
  3. Move the cursor to the destination number to be pasted, and press [F5].

**Source name setting procedure using Description name**
3. Set menu item [J] to the Description name mode.
4. Select the menu item [D]. The following operations must be performed in the same manner as those of the destination.

**To return to the menu screen**

---

Example of Destination Name setting screen
**L : SET PHYSICAL ASSIGNMENT**

**Purpose**
Assigns the physical terminal numbers of the switcher to the destination terminal numbers, source terminal numbers and the virtual levels of the virtual matrix.
Do not assign the same number.

**Setting procedure**
1. Select [L] from the menu screen.
2. Each time [F6] is pressed, the setting screen will change as follows.
   - Source terminal number setting screen → destination terminal number setting screen → source terminal number setting screen.

**Source terminal number setting procedure**
3. Select the source terminal number setting screen.
4. Select the physical terminal number and the physical level that are assigned to the terminal number row of the virtual matrix using the cursor. Press [Enter] to enter the entry mode.
5. Enter the physical terminal number using numerical keys, and press [Enter].
6. Next, enter the physical level, and press [Enter] to set it.
   - If [Ctrl] + [F] are pressed before setting, the physical number and level will be returned to the previous values.
   - If the physical number and physical level to be set have been already used, cancel their settings first before setting new ones.
   - To cancel, move the cursor to the terminal number and level that you want to cancel, and press [Ctrl] + [P]. The selected physical terminal number and level will be deleted.

**Notes**
- The physical number is the input/output number specified at [A : SET UNIT LOCATION] menu screen of the secondary station.
- The virtual input/output name and the virtual level name are assigned to the buttons on the remote control panel.
- If the un-used physical terminal numbers are kept set as they are, the system response will be slow.

---

**Destination number setting procedure**
Press [F5] to set the destination number setting screen.
Then, perform the same procedure as for source.

**Operating function keys**
- **F1 : SEARCH** (To move the cursor to the desired destination name)
  1. Press [F1]. “Please Input ******* NAME =” will be displayed.
  2. Input the destination or source name ([Code number in the bottom of the screen] + [numeral (0 to 999)]) to be retrieved.
  3. Press [Enter]. The cursor will move to the desired name.

**Note**
When menu item [J] is set to the Description name mode, [F1] (SEARCH) will have the following functions.
1. Press [F1]. “Please Input ******* NAME =” will be displayed.
2. Enter the description name (within seven characters) from the head.
3. Press [Enter]. The corresponding Description name will be searched in the range of the entered characters and the page including the name appears on the screen.
4. If the desired name does not exist in the screen, press [F1] again. Then the cursor moves to the next description name containing the character string that you want to retrieve.
**F2**: JUMP (To move the cursor to the desired destination number or the desired source number.)

1. Press [F2]. “Please Input DEST (SOURCE) NUMBER=” will be displayed.
2. Input the destination or source number to be retrieved.
3. Press [Enter]. The cursor will move to the desired number.

**F3**: PgUp

When [F3] is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

**F4**: PgDn

When [F4] is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

**F5**: SOURCE (DEST)

When [F5] is pressed, the terminal number setting screen toggles between the destination terminal number setting screen and source terminal number setting screen.

**To return to the menu screen**


---

**M : SET INHIBIT TABLE**

**Purpose**

Protects source numbers not to be connected for each destination.

When the secret function is used, because the secret is set for the respective source name, all of the source signals to which the secret function is set cannot be output to all destinations. However, if this menu function is used, the terminal number of the source to which connection is not possible, can be set for each destination respectively. (For details, refer to Appendix B “Cross-point disable setting”.)

**Setting procedure**

1. Select [M] from the menu screen.
2. Select the source number for each destination name using the cursor. When [Enter] is pressed, the setting will be switched.
   “X” : Connectable cross-point
   “—” : Unconnectable cross-point

---

**Example of setting screen**

![Example of setting screen](image-url)
Operating function keys

[F1]: SEARCH (To move the cursor to the desired destination name.)
1. Press [F1]. “Please Input DEST NAME =” will be displayed.
2. Input the destination name ([Code number in the bottom of the screen] + [numeral (0 to 999)]) to be retrieved.
3. Press [Enter]. The cursor will move to the desired destination name.

[Note]
When menu item [J] is set to the Description name mode, [F1] (SEARCH) will have the following functions.
1. Press [F1]. “Please Input DEST NAME =” will be displayed.
2. Enter the Description name (within seven characters) from the head.
3. Press [Enter]. The corresponding Description name will be searched in the range of the entered characters and the page including the name appears on the screen.
4. If the desired name does not exist in the screen, press [F1] again. Then the cursor moves to the next description name containing the character string that you want to retrieve.

[F2]: JUMP (To move the cursor to the desired destination number.)
1. Press [F2]. “Please Input DEST NUMBER =” will be displayed.
2. Input the destination number to be retrieved.
3. Press [Enter]. The cursor will move to the desired number.

[F3]: LEFT
When [F3] is pressed, to scroll to the next 64 sources on the left.

[F4]: RIGHT
When [F4] is pressed, to scroll to the next 64 sources on the right.

To return to the menu screen

N: SET DESCRIPTION NAME GROUP

Purpose
To assign the Description names for each remote control panel, set the group of Description names to the destination and the source individually.
Total of 160 names for the destination and the source can be registered as one group, and up to eight groups of data can be registered in the primary station.
The top half of the screen is for setting the group and the bottom half displays the list of Description names. (For details about the Description name, refer to Appendix B “Description name mode”.)

Setting procedure
1. Select [N] from the menu screen.
2. Press [B] to move the cursor to the group number.
3. Enter the group number using the numerical keys, and press [Enter] to set it.
4. Press [F1] (MOVE) to move the cursor to the lower side of screen.
5. Select desired terminal number and press [Enter]. The Description name will be copied to the space of the lowest terminal number on the group setting screen.
Select names from the Description name list displayed in the lower half of the screen, and register each of them to the upper half of the screen in proper order.
To delete the Description names on the group setting screen, move the cursor to the number and press [BS], [DEL] or [Ctrl] – [P].

Example of setting screen

 Notes

• In the remote control panel, the transferred data are all controlled and displayed as input/output terminal numbers. This is because data are transferred using input/output terminal numbers instead of input/output terminal names.
• Contents of the group data of the primary and secondary stations’ must be always the same.
If the primary station data are changed after the transfer, be sure to transfer the new data to the secondary station.
Operating function keys

**F1**: MOVE (To move the cursor up and down between the group setting screen in the upper half and description name list in the lower half.)

**F2**: JUMP (To move the cursor to the desired element number.)
1. Press **F2**. “Please Input ELEMENT NUMBER =” will be displayed.
2. Input the element number to be retrieved.
3. Press **Enter**. The cursor will move to the desired number.

**F3**: SOURCE (DEST)
When **F3** is pressed, the description name list will toggle between destination and source.

**B**: GROUP
Press **B** to move the cursor to the group number on the group setting screen.

**L**: COPY (To copy all data in the Description name group to other groups.)
1. Press **L**. The message “Please Input Original Group Number =” will be displayed to ask for the group number to be copied.
2. Input the group number to be copied with the numerical keys and press **Enter**.
3. All data are copied from the specified group to the group that is in the process of setting.

**S**: SEND (Transfers all data on the group setting screen currently displayed to a secondary station.)
1. Press **S**. A message “Please Input Station Number =” will be displayed to ask for the number of a secondary station to which the data is to be transferred.
2. Input the station number of desired the second ary station using the numerical keys and press **Enter**.
3. All data are copied from the specified group to the group that is in the process of setting.

Transferring data to all secondary stations
- If **A** is input into the message box at step 2, the group data are transferred to all of the secondary station.
- If the subnet controller is used in the routing switcher system, the group data that are transferred to the subnet controller only, are transferred to all of the devices that are connected under it. (For details about the subnet controller, refer to Section 4 “Technical Information.”)

O: SET TIE LINES

**Purpose**
Change/addition/deletion/status display of the TIE LINE data are performed here. (For details about the tie line, refer to Appendix B “Tie line.”)

### Example of setting screen

```
 SET TIE LINES  IXS-6700  V1.00  STATION NUMBER 1

--PATHS 1------------------------------------------------------------------
L.     .... - ....  .... - ....          L.     .... - ....  .... - ....
L1     0001 - 0002  0003 - 0004          L1     0001 - 0002  0003 - 0004
--PATHS 2------------------------------------------------------------------
L.     .... - ....  .... - ....          L.     .... - ....  .... - ....
L1     0001 - 0002  0003 - 0004          L1     0001 - 0002  0003 - 0004
--PATHS 3------------------------------------------------------------------
L.     .... - ....  .... - ....          L.     .... - ....  .... - ....
L1     0001 - 0002  0003 - 0004          L1     0001 - 0002  0003 - 0004
--PATHS 4------------------------------------------------------------------
L.     .... - ....  .... - ....          L.     .... - ....  .... - ....
L1     0001 - 0002  0003 - 0004          L1     0001 - 0002  0003 - 0004
```

**Setting procedure**
1. Select [O] from the menu screen.
2. Move the cursor to the item that you want to set.
3. Press **Enter** to enter the number entry mode.
4. Type a number (1 to 1024) and press **Enter**. The entered value is set.

If duplication of the number with other setting is found, the entered number becomes invalid so that the former number remains as it is. Also, if **Enter** is pressed without inputting a number, the former number remains as it is. To delete the previous setting, move the cursor to the position of the number you want to delete, and press **Ctrl – P**. The number is deleted and the cursor moves to the next entry item.

The maximum number of the signals that can be set is shown below.

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>TRUNK</th>
<th>DESTINATION</th>
<th>PATHS</th>
</tr>
</thead>
<tbody>
<tr>
<td>1024</td>
<td>256</td>
<td>256</td>
<td>16</td>
</tr>
</tbody>
</table>

(For details about the trunk, refer to Appendix B “Trunk.”)

To return to the menu screen
Press **Ctrl – E**.

To return to the menu screen
Press **Ctrl – E**.

IXS-6600/6700

2-21
Operating function keys

**F1**: PgUp
- When **F1** is pressed, the previous four paths before the path number that is being displayed at present, are displayed.

**F2**: PgDn
- When **F2** is pressed, the next four paths after the path number that is being displayed at present, are displayed.

**F3**: Status
- When **F3** is pressed, status of the signal-connection that are being connected by the TIE LINE, are displayed.

Status display

```
<table>
<thead>
<tr>
<th>PATH</th>
<th>SOURCE (L:S-D)</th>
<th>ROUTE (L:S-D)</th>
<th>DEST (L:S-D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>01</td>
<td>1:0012-0067</td>
<td>2:0056-0104</td>
</tr>
<tr>
<td>0002</td>
<td>01</td>
<td>1:0018-0068</td>
<td>...</td>
</tr>
<tr>
<td>0003</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0004</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0005</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0006</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0007</td>
<td>02</td>
<td>1:0023-0073</td>
<td>1:0037-0105</td>
</tr>
<tr>
<td>0008</td>
<td>02</td>
<td>1:0024-0074</td>
<td>1:0038-0106</td>
</tr>
<tr>
<td>0009</td>
<td>02</td>
<td>1:0025-0075</td>
<td>1:0039-0107</td>
</tr>
<tr>
<td>0010</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0011</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0012</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0013</td>
<td>...</td>
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<td>0014</td>
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<tr>
<td>0015</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0016</td>
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<td>...</td>
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<tr>
<td>0017</td>
<td>...</td>
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</tr>
<tr>
<td>0018</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0019</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0020</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>
```

Purpose

Displays details of the signal path that are connected by the TIE LINE.

This menu enables display only. You cannot enter any setting from this screen. The terminal numbers on the screen are the virtual terminal numbers.

Operating function keys

When the number of the crosspoints that are used as the TIE LINE reaches 20 or more, the **F1** and **F2** keys become valid.

**F1**: PgUp
- When **F1** is pressed, the screen will display the 20 lines previous to the 20 lines display currently.

**F2**: PgDn
- When **F2** is pressed, the screen will display the 20 lines next to the 20 lines display currently.

To return to the TIE LINE setting menu

Press **Ctrl – E**.

Description of displayed contents

**<Display example-1>**

In the case that a signal passes through the three crosspoints

```
<table>
<thead>
<tr>
<th>PATH</th>
<th>SOURCE (L:S-D)</th>
<th>ROUTE (L:S-D)</th>
<th>DEST (L:S-D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>01</td>
<td>1:0012-0067</td>
<td>2:0056-0104</td>
</tr>
<tr>
<td>0002</td>
<td>01</td>
<td>1:0018-0068</td>
<td>...</td>
</tr>
<tr>
<td>0003</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0004</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0005</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0006</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0007</td>
<td>02</td>
<td>1:0023-0073</td>
<td>1:0037-0105</td>
</tr>
<tr>
<td>0008</td>
<td>02</td>
<td>1:0024-0074</td>
<td>1:0038-0106</td>
</tr>
<tr>
<td>0009</td>
<td>02</td>
<td>1:0025-0075</td>
<td>1:0039-0107</td>
</tr>
<tr>
<td>0010</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0011</td>
<td>...</td>
<td>...</td>
<td>...</td>
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<tr>
<td>0012</td>
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<tr>
<td>0013</td>
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<td>0014</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0015</td>
<td>...</td>
<td>...</td>
<td>...</td>
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<tr>
<td>0016</td>
<td>...</td>
<td>...</td>
<td>...</td>
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<tr>
<td>0017</td>
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<tr>
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</tr>
<tr>
<td>0019</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0020</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>
```

The remote control panel display shows the message [IN012 – OUT201].

This message indicates that the signal input to IN012 is output from OUT201 after passing through the three crosspoints shown below.

**Crosspoint 1 : [IN012 – OUT067]**

The signal input to IN012 is sent to OUT067.

**Crosspoint 2 : [IN056 – OUT104]**

OUT067 is connected to IN056 with an external cable.

The signal output from OUT067 is sent to OUT104 via IN056.

**Crosspoint 3 : [IN917 – OUT201]**

OUT104 is connected to IN917 with an external cable.

The signal output from OUT104 is sent to OUT201 via IN917 and the signal is output from OUT201.

**<Display example-2>**

In the case that a signal passes through the two crosspoints

```
<table>
<thead>
<tr>
<th>PATH</th>
<th>SOURCE (L:S-D)</th>
<th>ROUTE (L:S-D)</th>
<th>DEST (L:S-D)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0001</td>
<td>01</td>
<td>1:0012-0067</td>
<td>2:0056-0104</td>
</tr>
<tr>
<td>0002</td>
<td>01</td>
<td>1:0018-0068</td>
<td>...</td>
</tr>
<tr>
<td>0003</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0004</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0005</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0006</td>
<td>01</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0007</td>
<td>02</td>
<td>1:0023-0073</td>
<td>1:0037-0105</td>
</tr>
<tr>
<td>0008</td>
<td>02</td>
<td>1:0024-0074</td>
<td>1:0038-0106</td>
</tr>
<tr>
<td>0009</td>
<td>02</td>
<td>1:0025-0075</td>
<td>1:0039-0107</td>
</tr>
<tr>
<td>0010</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0011</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0012</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0013</td>
<td>...</td>
<td>...</td>
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</tr>
<tr>
<td>0014</td>
<td>...</td>
<td>...</td>
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<tr>
<td>0015</td>
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<td>0016</td>
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<tr>
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<tr>
<td>0019</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
<tr>
<td>0020</td>
<td>...</td>
<td>...</td>
<td>...</td>
</tr>
</tbody>
</table>
```

The remote control panel display shows the message [IN018 – OUT202].

This message indicates that the signal input to IN018 is output from OUT202 after passing through the two crosspoints shown below.

**Crosspoint 1 : [IN018 – OUT068]**

The signal input to IN018 is sent to OUT068.

**Crosspoint 2 : [IN918 – OUT202]**

OUT068 is connected to IN918 with an external cable.

The signal output from OUT068 is sent to OUT202 via IN918 and the signal is output from OUT202.

Notes

- The number before each crosspoint indicates the level number.
- Example) 2:0056-0104 indicates level 2.
- There are several versions of the TIE LINE function because the TIE LINE has the different functions depending on usage.
- For the IXS-6000 series, they cannot recognize whether the level is matched at SOURCE, ROUTE or DEST in one PATHS. Therefore, Source numbers cannot be set duplicated.
Q : CHANGE CROSSPOINT

Purpose
Displays the present status of cross-points and also change the cross-points.

Note
Moreover, names set with the protect function cannot be changed either.

Setting procedure
1. Select [Q] from the menu screen.
2. Select the source name using the cursor. Changing only the source name is possible.
3. Press [Enter]. The source name entry mode will be set. When [Enter] key is pressed before entering the source name, the mode will be canceled and the previous display will be returned.
4. Enter the source name using the alphabet keys and numerical keys.
5. When [Enter] is pressed, the entered source name will be set. If [Ctrl] – [F] are pressed before the setting, the source name returns to the original setting before entry.

Examples of setting screen

<table>
<thead>
<tr>
<th>DEST</th>
<th>SOURCE</th>
<th>DEST</th>
<th>SOURCE</th>
<th>DEST</th>
<th>SOURCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>OUT01</td>
<td>IN005</td>
<td>OUT02</td>
<td>IN005</td>
<td>OUT03</td>
<td>IN005</td>
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<td>OUT04</td>
<td>IN005</td>
<td>OUT05</td>
<td>IN005</td>
<td>OUT06</td>
<td>IN005</td>
</tr>
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<td>OUT07</td>
<td>IN005</td>
<td>OUT08</td>
<td>IN005</td>
<td>OUT09</td>
<td>IN005</td>
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<td>IN005</td>
<td>OUT65</td>
<td>IN005</td>
<td>OUT66</td>
<td>IN005</td>
</tr>
</tbody>
</table>

Example of setting screen

Note
Password of the subnet controller is the same as that of the primary station to which the connection is made.

To return to the menu screen
Operating function keys

**F1**: SEARCH
1. Press [F1]. “Please Input DEST NAME =” is displayed on the screen.
2. Enter the destination name (Code number in the bottom of the screen + numeral (0 to 999)) of DEST that you want to retrieve.
3. Press [Enter]. The cursor moves to the desired Destination name.

**Notes**
When the menu item [J] is set to the description name mode, [F1] (SEARCH) will have the following function.
1. Press [F1]. “Please Input DEST NAME =” is displayed on the screen.
2. Enter the description name that you want to retrieve within 7 characters from the top.
3. Press [Enter]. The corresponding description name within the range of the entered character will be retrieved, and the pages containing the name will be displayed on the screen.
4. If the desired name cannot be found on the displayed page, press [F1] again. Then the cursor moves to the next description name containing the character string that you want to retrieve.

**F2**: JUMP (To move the cursor to the desired destination number.)
1. Press [F2]. “Please Input DEST NUMBER =” will be displayed.
2. Input the destination number to be retrieved.
3. Press [Enter]. The cursor will move to the desired destination number.

**F3**: PgUp
When [F3] is pressed, the screen will display the 16 lines previous to the 16 lines displayed currently.

**F4**: PgDn
When [F4] is pressed, the screen will display the 16 lines next to the 16 lines displayed currently.

**F5**: Level
When [F5] is pressed, a level can be selected. Input the level number using the numerical key and press [Enter]. If [A] is pressed instead of the numerical key and press [Enter] here, the screen will display a list of all levels. The function keys [F1], [F2], and [F5] on the ALL screen have the same functions as those of the initial screen menu item [Q].
**R : CALL SECONDARY STATION**

**Purpose**
Calls the menu screen of the secondary station connected to the S-BUS of the primary station.

**Operating procedure**
1. Select [R] from the menu screen.
   A message will be displayed on the screen.
2. Enter the station number of the secondary station that you want to set, and press [Enter]. The screen will be changed to the menu screen of the secondary station.

**Example setting screen**

**Notes**
- If the specified secondary station does not exist on the S-BUS data link, the following message will be displayed. Display: “Station dose not exist”
- If the specified secondary station is not available for communication, the following message will be displayed. Check at the menu item [F : SET ACTIVE UNIT NUMBER]. Display: “Disable Station”

**To return to the menu screen**

**S : SET SOURCE ASSIGNMENT**

**Purpose**
Change/addition/deletion of the multiple source name are performed here. When the signal name that has been set as level 1 from the remote control, is selected by entering [T] (TAKE), the signals whose source numbers are set here, can be selected in the level 2 and later.

The source name of level 1 is fixed in the same way as the source name setting. The source names of the level 2 to 8 are set using this screen. (For details, refer to Appendix B “Free assignment/multi source assignment”.

**Example setting screen**

**Setting procedure**
1. Select [S] from the menu screen.
2. Move the cursor to the item that you want to set and press [Enter]. The name entry mode is selected.
3. Select a type name that you want to set from the corresponding code (0 to 9, A to V). Then type the number (0 to 999) that you want to set, using numeric keys.
4. Press [Enter].
   If an invalid name is set, the message “The name is not defined” appears and the screen returns to the original name. If you want to delete a name, press [Ctrl] – [P]. If [Enter] is pressed without inputting any name, the setting is deleted and “...” appears.

**To return to the menu screen**
**T : SET CLOCK**

**Purpose**
Sets of the time. The time set at this menu will be used for recording the time of log occurrence.

**Setting procedure**
1. Select [T] from the menu screen.
2. Enter the time using the numerical keys, and press **Enter** to set it.
   The screen will be changed to the menu screen automatically.

**Notes**
- If **Ctrl** - **E** are pressed without pressing **Enter**, the screen will return to the menu screen and the setting modification becomes invalid.
- When battery is replaced or when low voltage occurs, the clock time must be set using this menu.

**Example of setting screen**

---

**U: DISPLAY ETHERNET SECONDARY STATION**

**Purpose**
Displays the connection state of the secondary station device connected via Ethernet.

**Setting procedure**
1. Select [U] from the menu screen.
   The DISPLAY ETHERNET SECONDARY STATION screen is displayed.

**Example of setting screen**

**Description of the displayed contents**
- **SBUS-ID** : Displays the station IDs (2 to 254) of the secondary station device.
- **IP-ADDRESS** : Displays the IP addresses of the secondary station device.
- **DEVICE** : Displays the device code of the secondary station device connected via Ethernet.

**Operating function keys**
- **F1:PgUp**
  When **F1** is pressed, the next page of the device code list is displayed.
- **F2:PgDn**
  When **F2** is pressed, the previous page of the device code list is displayed.

**To return to the menu screen**
Press **Ctrl** - **E**.
W : SYSTEM STATUS LOG

Purpose
Displays the log each station with the day, hour, minute information.

Example of screen

Operating procedure
1. Select [W] from the menu screen.
2. When all status cannot be displayed on the screen, “— more —” will be displayed at the bottom of the screen. Press [Space] key to display the next status. When all status have been displayed, “— end —” will be displayed.

Refer to “Section 3. Confirmation of Function” for detail of the system status screen.

To return to the menu screen
Press [Ctrl] + [E].

X : DISPLAY S-BUS COMMUNICATION

Purpose
Displays the S-BUS data received at the primary station.

Setting procedure
1. Select [X] from the menu screen.
2. To stop the scroll, press [Ctrl] + [E]. (“TRACE OFF” will be displayed at the bottom of the screen.)

Example of screen

Note
For details on the displayed contents, refer to the S-BUS Protocol Manual.

To return to the menu screen
Press [Ctrl] + [E].
Z : SET UNIT DETECTABLE

Purpose
Checks the possibility of communication of secondary stations connected to the S-BUS data link.

Setting procedure
1. Select [Z] from the menu screen.
2. Select a secondary station you want to check using the cursor.
3. Press [Enter], and “?” appears.
   To cancel “?” press [Enter] again.
4. Press [Ctrl] – [E], and the display is changed.
5. After about ten seconds, select the menu item [Z]. If the secondary station is ready for communication, “?” changes to a device code number.
   If the secondary station does not communicate for a given period, the message below appears.
   “STATION FAILURE (DISCONNECT OR POWER DOWN)” Station number
6. When checking is complete, press [Ctrl] – [E]. The screen returns to the menu display.
7. Move the cursor to the secondary station (on which “?” is displayed), and press [Enter], “?” is canceled.

Note
A secondary station to be checked should be set available for communication in advance at menu item [F : SET ACTIVE UNIT NUMBER]

Table of slot No. and the corresponding displays
The following table shows the relationship between the slot Nos. (SLOT1 to SLOT16) displayed on the menu screen and the actual rear/front panel displays on IXS-6600/IXS-6700.

IXS-6600

<table>
<thead>
<tr>
<th>Slot</th>
<th>Display of Rear panel</th>
<th>Display of Front panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLOT 1</td>
<td>OUT 1</td>
<td></td>
</tr>
<tr>
<td>SLOT 2</td>
<td>OUT 2</td>
<td>1</td>
</tr>
<tr>
<td>SLOT 3</td>
<td>IN 1</td>
<td>2</td>
</tr>
<tr>
<td>SLOT 4</td>
<td>IN 2</td>
<td>3</td>
</tr>
<tr>
<td>SLOT 5</td>
<td>OUT 3</td>
<td>4</td>
</tr>
<tr>
<td>SLOT 6</td>
<td>OUT 4</td>
<td>5</td>
</tr>
<tr>
<td>SLOT 7</td>
<td>IN 5</td>
<td>6</td>
</tr>
<tr>
<td>SLOT 8</td>
<td>IN 6</td>
<td>7</td>
</tr>
<tr>
<td>SLOT 9</td>
<td>OUT 7</td>
<td>8</td>
</tr>
<tr>
<td>SLOT 10</td>
<td>OUT 8</td>
<td></td>
</tr>
<tr>
<td>SLOT 11</td>
<td>IN 7</td>
<td></td>
</tr>
<tr>
<td>SLOT 12</td>
<td>IN 8</td>
<td></td>
</tr>
<tr>
<td>SLOT 13</td>
<td>OUT 9</td>
<td></td>
</tr>
<tr>
<td>SLOT 14</td>
<td>OUT 10</td>
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<tr>
<td>SLOT 15</td>
<td>IN 11</td>
<td></td>
</tr>
<tr>
<td>SLOT 16</td>
<td>IN 12</td>
<td></td>
</tr>
<tr>
<td>SLOT 17</td>
<td>Standard connector board</td>
<td>9</td>
</tr>
</tbody>
</table>

Example of setting screen

<table>
<thead>
<tr>
<th>Menu screen display</th>
<th>Display of Rear panel</th>
<th>Display of Front panel</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLOT 1</td>
<td>OUT 1</td>
<td></td>
</tr>
<tr>
<td>SLOT 2</td>
<td>OUT 2</td>
<td>1</td>
</tr>
<tr>
<td>SLOT 3</td>
<td>IN 1</td>
<td>2</td>
</tr>
<tr>
<td>SLOT 4</td>
<td>IN 2</td>
<td>3</td>
</tr>
<tr>
<td>SLOT 5</td>
<td>OUT 3</td>
<td>4</td>
</tr>
<tr>
<td>SLOT 6</td>
<td>OUT 4</td>
<td>5</td>
</tr>
<tr>
<td>SLOT 7</td>
<td>IN 5</td>
<td>6</td>
</tr>
<tr>
<td>SLOT 8</td>
<td>IN 6</td>
<td></td>
</tr>
</tbody>
</table>

To return to the menu screen
**A: SET UNIT LOCATION**

**Purpose**
Sets router level and the location of the input terminals. The size of the matrix and the types of signals that can be handled are different depending on the optional mounting status. Set each type of signal.

**Setting procedure**
1. Select [A] from the menu screen.
2. Select the desired setup item using the cursor key and press [Enter].
   - The virtual matrix size of the sources (input terminals) and the destinations (output terminals) and level become ready to be set.
3. Enter the top value of the unit location using the numeric keys.
   - Only the top value of the location is set to source and destination. The end value of the location is calculated automatically and displayed on the screen.

**Note**
If the end value of the location automatically calculated from the specified top value exceeds the range of 1024, the top value is automatically adjusted so that the end value is 1024.

4. Enter the level with the numeric keys.
   - The values 1 to 8 can be set.
5. Press [Enter]. The setup values are registered. (If [Enter] is pressed before entering values, the values return to the ones entered beforehand.)
   - If [Ctrl] – [F] is pressed, the values return to the set values before entering the data.

**K : RESET TO DEFAULT TABLE**

**Purpose**
Initializes all the setup values.

**Note**
Be careful that all of the cross-points that have been set, the internal status and the contents of the error messages that are stored in memory, will be erased if the menu item [K] is executed.

**Setting procedure**
1. Select [K] from the menu screen. The message “Reset to Default table? (y/n)” will be displayed at the bottom of the screen.
2. Initialization is performed when [Y] is pressed.
   - When initialization is complete, the message “Reset to Default table? (y/n) y” disappears.

**To return to the menu screen of the secondary station**

---

**Example of setting screen**

To return to the menu screen of the secondary station
V: DISPLAY UNIT STATUS

Purpose
Displays the status of each unit inside the integrated routing system.

BOARD DETECT screen
Setting procedure
1. Select [V] from the menu screen.
The BOARD DETECT screen appears.

Purpose
Displays the status of the optional boards in real time.

<table>
<thead>
<tr>
<th>SLOT</th>
<th>REAR</th>
<th>TYPE</th>
<th>REV</th>
<th>REF</th>
<th>SRC</th>
<th>FRONT</th>
<th>Type</th>
<th>REV</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CNO</td>
<td>-------</td>
<td>---</td>
<td>A</td>
<td>PROC</td>
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<td>A</td>
</tr>
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<td>CNO</td>
<td>M-SDI</td>
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<td>A</td>
<td>PROC</td>
<td>M-SDI</td>
<td>1.0</td>
<td>A</td>
</tr>
<tr>
<td>3</td>
<td>CNI</td>
<td>SD-SDI</td>
<td>1.0</td>
<td>A</td>
<td>PROC</td>
<td>MTX</td>
<td>1.0</td>
<td>A</td>
</tr>
<tr>
<td>4</td>
<td>CNI</td>
<td>AES-DSUB</td>
<td>1.0</td>
<td>SRC</td>
<td>MTX</td>
<td>M-SDI</td>
<td>1.0</td>
<td>A</td>
</tr>
<tr>
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<td>B</td>
<td>Proc</td>
<td>SD-SDI</td>
<td>1.0</td>
<td>B</td>
</tr>
<tr>
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<td>SLOTERR</td>
<td>---</td>
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<td>Proc</td>
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<td>SD-SDI</td>
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<td>A</td>
<td>Proc</td>
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<td>A</td>
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<td>M-SDI</td>
<td>1.0</td>
<td>A</td>
<td>Proc</td>
<td>SD-SDI</td>
<td>1.0</td>
<td>A</td>
</tr>
<tr>
<td>9</td>
<td>CNO</td>
<td>PSFAIL</td>
<td>---</td>
<td>B</td>
<td>Proc</td>
<td>M-SDI</td>
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<td>A</td>
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<tr>
<td>10</td>
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<td>A</td>
<td>Proc</td>
<td>SD-SDI</td>
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<td>A</td>
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<tr>
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<td>1.0</td>
<td>SRC</td>
<td>SD-SDI</td>
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<td>A</td>
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</tr>
<tr>
<td>13</td>
<td>CNO</td>
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<td>---</td>
<td>B</td>
<td>Proc</td>
<td>SD-SDI</td>
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<td>Proc</td>
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<td>1.0</td>
<td>A</td>
</tr>
<tr>
<td>15</td>
<td>CNI</td>
<td>SD-SDI</td>
<td>1.0</td>
<td>A</td>
<td>Proc</td>
<td>SD-SDI</td>
<td>1.0</td>
<td>A</td>
</tr>
<tr>
<td>16</td>
<td>CNI</td>
<td>M-SDI</td>
<td>1.0</td>
<td>A</td>
<td>Proc</td>
<td>SD-SDI</td>
<td>1.0</td>
<td>A</td>
</tr>
</tbody>
</table>

Example of setting screen

Operating function keys

F1:PgUp
When [F1] is pressed, the next screen is displayed.

F2:PgDn
When [F2] is pressed, the previous screen is displayed.

To return to the menu screen of the secondary station
Press [Ctrl] + [E].

Description of the displayed contents

SLOT1 to SLOT16: Shows the slot numbers for boards on the rear panel.

Note
IXS-6600 only displays up to SLOT 8.

REAR BOARD

REAR: Shows the types of slots for boards on the rear panel.

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNO</td>
<td>Slot for output board</td>
</tr>
<tr>
<td>CNI</td>
<td>Slot for input board</td>
</tr>
</tbody>
</table>

TYPE: Displays whether there is a board inserted in the rear. Also displays the type of board and board status.

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>------</td>
<td>--------------------</td>
</tr>
<tr>
<td>PSFAIL</td>
<td>There is an error in the power circuitry of the board, regardless of the type of board input.</td>
</tr>
<tr>
<td>TEMP</td>
<td>The board temperature is unusually high.</td>
</tr>
<tr>
<td>SLOTERR</td>
<td>The board inserted is one that should not have been inserted.</td>
</tr>
<tr>
<td>M-SDI</td>
<td>HD/SD video board is inserted.</td>
</tr>
<tr>
<td>SD-SDI</td>
<td>SD video board is inserted.</td>
</tr>
<tr>
<td>AES-DSUB</td>
<td>AES/EBU audio (D-SUB) board is inserted.</td>
</tr>
<tr>
<td>RS-422</td>
<td>RS-422 (DATA) board is inserted.</td>
</tr>
</tbody>
</table>

REV: Displays the revision of the circuit rear board.

Notes

- When the board inserted is not one that should be inserted into the front board, or when there is an error in the front board, the board revision is not displayed.
- When a front board corresponding to the slot for rear output boards is not inserted, the board revision is not displayed.

REF: Indicates which of the two types of reference signals (A/B) is selected.

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Uses the system A reference signal.</td>
</tr>
<tr>
<td>B</td>
<td>Uses the system B reference signal.</td>
</tr>
<tr>
<td>-</td>
<td>Does not use either the system A or B reference signal.</td>
</tr>
</tbody>
</table>

SRC: Displays whether the sampling rate converter board is present or not.

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>SRC</td>
<td>Sampling rate converter board is installed.</td>
</tr>
<tr>
<td>-</td>
<td>Sampling rate converter board is not installed.</td>
</tr>
</tbody>
</table>
FRONT BOARD
FRONT: Displays the types of the Front board.

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROC</td>
<td>Processor board is inserted.</td>
</tr>
<tr>
<td>MTX</td>
<td>Matrix board is inserted.</td>
</tr>
</tbody>
</table>

TYPE: Displays whether there is a board inserted in the front slot. Also displays the type of board and board status.

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>-------</td>
<td>Board is not inserted.</td>
</tr>
<tr>
<td>PSFAIL</td>
<td>There is an error in the power circuitry of the board, regardless of the type of board input.</td>
</tr>
<tr>
<td>TEMP</td>
<td>The board temperature is unusually high.</td>
</tr>
<tr>
<td>SLOTERR</td>
<td>The board inserted is one that should not have been inserted.</td>
</tr>
<tr>
<td>MTX</td>
<td>Matrix board is inserted.</td>
</tr>
<tr>
<td>M-SDI</td>
<td>HD/SD video processor board is inserted.</td>
</tr>
<tr>
<td>SD-SDI</td>
<td>SD video processor board is inserted.</td>
</tr>
<tr>
<td>AUDIO</td>
<td>Audio processor board is inserted.</td>
</tr>
</tbody>
</table>

REV: Displays the revision of the circuit board.

DISPLAY UNIT STATUS screen

Purpose
This screen displays the status of each unit in the system.

Setting procedure
1. Select [V] from the menu screen.
2. Press [F1].

The DISPLAY UNIT STATUS screen appears.

<table>
<thead>
<tr>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>CONTROL BOARD</td>
</tr>
<tr>
<td>MAIN</td>
</tr>
<tr>
<td>BACKUP</td>
</tr>
<tr>
<td>SUB CPU</td>
</tr>
<tr>
<td>M-SDI</td>
</tr>
<tr>
<td>M-SDI</td>
</tr>
<tr>
<td>REMOTE1 STATUS</td>
</tr>
<tr>
<td>ID  BAUDRATE MODE</td>
</tr>
<tr>
<td>A  1 1250kbs async</td>
</tr>
<tr>
<td>B  1 1250kbs sync</td>
</tr>
<tr>
<td>C  1 312kbs async</td>
</tr>
<tr>
<td>REFERENCE SIGNAL</td>
</tr>
<tr>
<td>Vref-A Vref-B Vref-B</td>
</tr>
<tr>
<td>ADSL</td>
</tr>
</tbody>
</table>

Operating function keys

[F1:PgUp]
When [F1] is pressed, the next screen is displayed.

[F2:PgDn]
When [F2] is pressed, the previous screen is displayed.

To return to the menu screen of the secondary station
Description of the displayed contents

**CONTROL BOARD (MAIN/BACKUP)**
Displays the status of the main board and backup board for the control board (CPU board).

**Notes**
When a backup board is not inserted, “------” is displayed in the BACKUP side BOOT version position and nothing else is displayed to the right.

<table>
<thead>
<tr>
<th>BOOT</th>
<th>Displays the software version for the system boot. Displays FAIL if an error is detected.</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYS</td>
<td>Displays the software version of the main application. Displays FAIL if an error is detected.</td>
</tr>
<tr>
<td>S-BUSA/</td>
<td>Displays the software version of the S-BUS control module (S-BUS A/S-BUS B/S-BUS C).</td>
</tr>
<tr>
<td>S-BUSB/</td>
<td>Displays FAIL if an error is detected.</td>
</tr>
<tr>
<td>S-BUSC</td>
<td></td>
</tr>
<tr>
<td>IP-ADDRESS</td>
<td>Displays the IP address for network communication. Displays FAIL if an error is detected.</td>
</tr>
</tbody>
</table>

**SUB CPU**
Displays the matrix slot and processor slot board types and the software version of the CPU.

<table>
<thead>
<tr>
<th>SUB CPU</th>
<th>Displays the type of board. MTX: Matrix board M-SDI: HD/SD video processor board SD-SDI: SD video processor board AUDIO: Audio processor board</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOOT</td>
<td>Displays the software version for system boot. Displays FAIL if an error is detected.</td>
</tr>
<tr>
<td>SYS</td>
<td>Displays the software version for the application system. Displays FAIL if an error is detected.</td>
</tr>
</tbody>
</table>

**REMOTE 1 STATUS**
Indicates the setup status of each channel (A/B/C) of REMOTE 1.

<table>
<thead>
<tr>
<th>ID</th>
<th>Displays the specified station ID (1 to 254).</th>
</tr>
</thead>
<tbody>
<tr>
<td>Note</td>
<td>When operating as the primary station, the station ID is “1” regardless of the switch setting on the CA-65 board.</td>
</tr>
<tr>
<td>BAUDRATE</td>
<td>Displays the communication speed (1250 kbps/312 kbps) of each channel of REMOTE 1.</td>
</tr>
<tr>
<td>MODE</td>
<td>Displays whether each channel of REMOTE 1 is set to enable synchronized communication with REFERENCE when the IXS-6000 series is set as the primary station. Nothing is displayed when the channel is set to the secondary station.</td>
</tr>
<tr>
<td>ASYNC</td>
<td>Communicates asynchronously with the reference signal.</td>
</tr>
<tr>
<td>SYNC</td>
<td>Communicates synchronously with the reference signal.</td>
</tr>
</tbody>
</table>

**FAN STATUS**
Displays locations of the cooling fans.

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>L</td>
<td>Top left Center left Bottom left</td>
<td></td>
<td></td>
</tr>
<tr>
<td>R</td>
<td>Top right Center right Bottom right</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Note**
IXS-6600 is not equipped with L2/R2/L3/R3.

**BOARD STATUS**
Displays the status of each board. Also displays the revision of the circuit board when operating normally. Displays “FAIL” if there are any problems. Displays “------” if a board is not inserted.

**SG-A** Status of the SG-281 board inserted in slot A for SG
**SG-B** Status of the SG-281 board inserted in slot B for SG
**HUB** State of the IF-20 board inserted in SLOT8 (IXS-6700) or SLOT3 (IXS-6600)
**REFERENCE SIGNAL**
Indicates which of the two types of reference signals (A/B) is selected.

- **Vref-A/Vref-B** Displays the type of video reference signal.
  - --------: Reference input board is not input.
  - NO-SIG: A reference is not input.
  - 525i: NTSC interlace is input.
  - 525p: NTSC progressive is input.
  - 625i: PAL (interface) is input.
  - 750p: HD progressive (750 horizontal scanning lines) is input.
  - 1125i: HD interface (1125 horizontal scanning lines) is input.
  - 1125p: HD progressive (1125 horizontal scanning lines) is input.
  - UNKNOWN: A reference other than one listed above is input.

Displays the switch-over timing set for the reference of each channel.
- ASYNC: Set to asynchronous switching.
- ODD: Switch-over timing is set to ODD.
- EVEN: Switch-over timing is set to EVEN.
- FILED: Switch-over timing is set to FILED.

**POWER SUPPLY UNIT**

- **NO-SIG**: Word sync is not input.
- **48KHz**: 48 KHz is input.
- **96KHz**: 96 KHz is input.
- **192KHz**: 192 KHz is input.
- **UNKNOWN**: A signal other than one listed above is input.
- **UNLOCK**: Word sync is not locked.

**AVAILABLE CHANNEL screen**

**Purpose**
Displays the attachment status of the connector boards of rear.

**Setting procedure**
1. Select [V] from the menu screen.

The AVAILABLE CHANNEL screen appears.

**Example of setting screen**

**Operating function keys**

[F1:PgUp] When [F1] is pressed, the next screen is displayed.

[F2:PgDn] When [F2] is pressed, the previous screen is displayed.

**To return to the menu screen of the secondary station**

---

**Display** | **Displayed contents**
---|---
-------- | Power supply unit is not attached.
FAIL | There is an error in the power display unit.
OK | Unit is operating correctly.
Displayed contents
Divides each type of attachment status of the connector boards into source and destination, and displays them. Refer to the diagram below the screen for the slot numbers. Source consists of slot 3 to slot 16. Destination consists of slot 1 to slot 14. The following table corresponds to the actual rear panel display.

<table>
<thead>
<tr>
<th>SRC</th>
<th>Rear panel display</th>
<th>DEST</th>
<th>Rear panel display</th>
</tr>
</thead>
<tbody>
<tr>
<td>SLOT3</td>
<td>OUT 1</td>
<td>SLOT1</td>
<td>IN 1</td>
</tr>
<tr>
<td>SLOT4</td>
<td>OUT 2</td>
<td>SLOT2</td>
<td>IN 2</td>
</tr>
<tr>
<td>SLOT7</td>
<td>OUT 3</td>
<td>SLOT5</td>
<td>IN 3</td>
</tr>
<tr>
<td>SLOT8</td>
<td>OUT 4</td>
<td>SLOT6</td>
<td>IN 4</td>
</tr>
<tr>
<td>SLOT11</td>
<td>OUT 5</td>
<td>SLOT9</td>
<td>IN 5</td>
</tr>
<tr>
<td>SLOT12</td>
<td>OUT 6</td>
<td>SLOT10</td>
<td>IN 6</td>
</tr>
<tr>
<td>SLOT15</td>
<td>OUT 7</td>
<td>SLOT13</td>
<td>IN 7</td>
</tr>
<tr>
<td>SLOT16</td>
<td>OUT 8</td>
<td>SLOT14</td>
<td>IN 8</td>
</tr>
</tbody>
</table>

Note
IXS-6600 is not equipped with slot 9 to slot 16.

W : SAVE CURRENT TABLE

Purpose
Writes the present setup data in the flash memory.

Operating procedure
1. Select [W] from the menu screen. The message “Save Current Table? (y/n)” appears in the bottom right of screen.
2. Press [Y]. All of the setup data except for the cross-point information of the matrix that is set in the IXS-6600/IXS-6700, are written in the flash memory. When writing is complete, the message “Save current table? (y/n) y” disappears.

Notes
• While writing data in flash memory is in progress, the S-BUS control is interrupted.
• It does not give any effects on the setups of the backup boards.

Note
When the DIP switch S1202-8 on the CA-65 board is set to ON, the setup written in the flash memory becomes valid at the next startup and later.

To return to the menu screen of the secondary station
Y: DISPLAY TABLE DATA

Purpose
Displays the internally set table data.

Operating procedure
1. Select [Y] from the menu item. The following message will be displayed at the bottom of the screen.
   Display: DISPLAY TABLE DATA?

Example of display screen

2. Type the top address of the display in the hexadecimal number and press the [Enter] key. Then the internally set data is displayed.
   If [Space] is pressed during the display, the display will be interrupted. When [Space] is pressed once again, the display will resume.

Example of setting screen

Note
For the contents of the table data, refer to the S-BUS Protocol Manual.

To return to the menu screen of the secondary station
Press [Ctrl] - [E].

Z: SET SIGNAL

Purpose
Displays the internal settings and status of the equipment.

SELECT SWITCHING FIELD screen

Purpose
Sets the cross point switch-over timing.

Setting procedure
1. Select [Z] from the menu screen.
   The SELECT SWITCHING FIELD screen from the menu appears.

Example of display screen

Operating function keys
(SELECT SWITCHING FIELD)

F1:PgUp
When [F1] is pressed, the next screen is displayed.

F2:PgDn
When [F2] is pressed, the previous screen is displayed.

F3:REFERENCE
In this mode, the reference for the switch-over timing of the cross points can be selected in units of the 17 output channels.
1. When [F3] is pressed, the cursor moves to the "REF" item on the screen.
2. Select the desired item to set and press [Enter]. Then the setup item changes as follows: A → B → A...
3. Press [S] to confirm the setting.
F4: FIELD

In this mode, the cross point switch-over timing can be set.
1. When [F4] is pressed, the cursor moves to the “REFERENCE SIGNAL” item on the screen.
2. Then move the cursor to the “TIMING” (cross point switch-over field) row and press [Enter]. The setup status changes as follows every time [Enter] is pressed:
   ODD → EVEN → FIELD → ASYNC → ODD...
3. Then move the cursor to the “SWITCHING LINE” (setting the cross point switch-over line number) row and press [Enter]. The setup status changes as follows every time [Enter] is pressed: AUTO → MANU

 AUTO  Automatically detects an input reference signal and automatically sets the proper settings for cross point switch-over timing. (Recommended setting)

 MANU  Can manually set the cross-point switch-over timing. Setting “MANU” displays new “LINE:” and “DELAY:”.

4. Press [S] to confirm the setting.

For Manual Settings
1. Move with cursor into the column left of “LINE:” with the right cursor key and press [Enter]. Input enters numerical input mode. Set the cross point switch-over line (1 to 1125) and press [Enter] to confirm the settings.
   If [Ctrl] → [F] is pressed, the values return to the set values before entering the data.
2. Move the cursor into the column right of “DELAY:” with the right cursor key and press [Enter]. The switch-over point can be finely adjusted. The setup status changes as follows every time [Enter] is pressed:
   AUTO → 30uSec → 15uSec → 10uSec → AUTO...
3. Press [S] to confirm the setting.

Note
Noise may appear if MANU is selected and subsequent settings are implemented. Do not execute the subsequent steps unless otherwise required.

REFERENCE SIGNAL

<table>
<thead>
<tr>
<th>REF</th>
<th>TIMING</th>
<th>LINE</th>
<th>DELAY</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>FIELD</td>
<td>ODD</td>
<td>MANU</td>
</tr>
<tr>
<td>B</td>
<td></td>
<td>ASYNC</td>
<td></td>
</tr>
</tbody>
</table>

Setup pattern table

REV
Displays the revision of the circuit board.

S
 Writes all of the set contents to the S-BUS table.

To return to the menu screen of the secondary station
Press [Ctrl] → [E].

Displayed contents
DESTINATION UNIT/SOURCE UNIT
Displays the types of signals of the connector board of rear.

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-SDI</td>
<td>HD/SD video board is inserted.</td>
</tr>
<tr>
<td>SD-SDI</td>
<td>SD video board is inserted.</td>
</tr>
<tr>
<td>AES-DSUB</td>
<td>AES/EBU audio (D-sub) board is inserted.</td>
</tr>
<tr>
<td>RS-422</td>
<td>RS-422 board is inserted.</td>
</tr>
</tbody>
</table>

Note
Displays “-------” when the status of the front board (matrix board) is as follows.

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSFAIL</td>
<td>Board is not inserted.</td>
</tr>
<tr>
<td>SLOTERR</td>
<td>There is an error in the power circuitry of the board, regardless of the type of board input.</td>
</tr>
</tbody>
</table>

Displays “-------” when the status of the connector board is as follows.

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>PSFAIL</td>
<td>For slots for input boards Board is not inserted. Or, there is an error on the front board.</td>
</tr>
<tr>
<td>TEMP</td>
<td>For slots for output boards Front board is not inserted.</td>
</tr>
<tr>
<td>SLOTERR</td>
<td>There is an error in the power circuitry of the board, regardless of the type of board input.</td>
</tr>
<tr>
<td></td>
<td>The board temperature is unusually high.</td>
</tr>
</tbody>
</table>

When a video processor board is the processor board, the settings for the destination even slots 2, 6, 10, and 14 become ineffective and comply with the settings for the odd slots.
SELECT ALARM screen
Set the conditions for alarm contact.
For IXS-6700, there are six alarm channels in the ALARM connector on the rear panel. For IXS-6600, there are four alarm channels in the REMOTE2/ALARM connector on the rear panel.

Setting procedure
1. Select [Z] from the menu screen.
2. Press [F1]. The SELECT ALARM screen appears.
3. Move the cursor to the item that you want to set and press Enter. The item changes from – to O or x to – every time Enter is pressed.

Notes
• In IXS-6600, the rows numbered 5 and 6 in the screen below are inactive.
• In this menu, the Enter key is used for two types of modes. In one of the two modes, pressing Enter toggles between – and O. In the other mode, pressing Enter toggles between – and x. Press F3 (INVERT) to change the mode.
– : The selected item is exempted from the conditions to issue an alarm contactor output.
O : If any of the set conditions (to issue any of the errors listed in ERROR CONTENTS) are detected, the alarm contact is opened.
x : If any of the set conditions are detected, the alarm contact is closed.

Note
If no conditions including INVERT are set, the alarm contact stays closed.

Operating function keys (SELECT ALARM)
[F1:PgUp] When [F1] is pressed, the next screen is displayed.
[F2:PgDn] When [F2] is pressed, the previous screen is displayed.
[F3:INVERT] Changes the mode. ( – ↔ O or x ↔ – )
1. When [F3] is pressed, the “ALARM NUMBER” item is highlighted on the screen.
2. Select the desired setup item and press Enter. The setup status changes as follows every time Enter is pressed: – ↔ O or x ↔ –.

To return to the menu screen of the secondary station
Press Ctrl – E.

Description of displayed content

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>SYNC SIGNAL</td>
<td>The reference signal is not input even though the item REFERENCE is selected.</td>
</tr>
<tr>
<td>CONTROL</td>
<td>Either the main CPU board or the backup CPU board is not working.</td>
</tr>
<tr>
<td>POWER SUPPLY A</td>
<td>One or more system-A power supply units are defective.</td>
</tr>
<tr>
<td>POWER SUPPLY B</td>
<td>One or more system-B power supply units are defective.</td>
</tr>
<tr>
<td>BATTERY BACKUP</td>
<td>The backup batter for the settings has run out.</td>
</tr>
<tr>
<td>CROSSPOINT</td>
<td>Signals at the input terminal do not match with the signals at the output terminal.</td>
</tr>
<tr>
<td>FAN FAIL</td>
<td>One or more fans inside the main unit is defective among the fans.</td>
</tr>
<tr>
<td>BOARD FAIL</td>
<td>The fuse has blown in one of the circuit boards that are inserted in the main unit.</td>
</tr>
<tr>
<td>ROM CHECK SUM</td>
<td>An abnormality is detected during the ROM checksum and RAM write test at startup.</td>
</tr>
<tr>
<td>TEMPERATURE RISE</td>
<td>Temperature inside the main unit has exceeded the rated temperature.</td>
</tr>
<tr>
<td>REMOTE1 COMMUNICATION</td>
<td>S-BUS REMOTE1 has stopped for 10 seconds or longer. (Valid at the primary station.)</td>
</tr>
<tr>
<td>REOMTE1 TERMINATION</td>
<td>S-BUS remote cable has a short circuit. (Valid at the primary station.)</td>
</tr>
</tbody>
</table>
SELECT VIDEO MODE screen

**Purpose**
Sets whether to equalize the input signal or bypass without equalizing on the multi-bit rate compatible input connector board. Sets whether to perform reclocking on the output signal or bypass without reclocking on the multi-bit rate compatible video processing board. Sets the reclocking mode (SMPTE/DVB-ASI) for the output signal.

**Setting Procedure**
1. Select [Z] from the menu screen.

**Equalize Settings**
1. Press [F3].
2. Move the cursor to the item that you want to set (EQUALIZE) and press [Enter]. The setting switches between AUTO and BYPASS every time [Enter] is pressed.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO</td>
<td>Automatic equalize circuit operates. Sets the item to equalize automatically detected input signals.</td>
</tr>
<tr>
<td>BYPASS</td>
<td>Sets to bypass the equalize circuit.</td>
</tr>
</tbody>
</table>

3. Press [S] to confirm the settings.

**Format Settings**
1. Press [F4].
2. Move the cursor to the item that you want to set (FORMAT) and press [Enter]. The setting switches between DVB-ASI and SMPTE every time [Enter] is pressed.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMPTE</td>
<td>Sets the SMPTE standard SDI signal as the locked condition of the reclocker.</td>
</tr>
<tr>
<td>DVB-ASI</td>
<td>Sets the DVB-ASI signal as the locked condition of the reclocker.</td>
</tr>
</tbody>
</table>

3. Press [S] to confirm the settings.

**Relocking Settings**
1. Press [F4].
2. Move the cursor to the item that you want to set (RECLOCK) and press [Enter]. The setting switches between AUTO and BYPASS every time [Enter] is pressed.

<table>
<thead>
<tr>
<th>Setting</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>AUTO</td>
<td>Reclocks the input signal and then outputs it.</td>
</tr>
<tr>
<td>BYPASS</td>
<td>Bypasses the signal without reclocking.</td>
</tr>
</tbody>
</table>

3. Press [S] to confirm the settings.

**Notes**
- If the item that you want to set is surrounded by parentheses (), it means that the setting cannot be enabled in the specified item because the dip switch setting on each board has priority.
- When the symbol “---” is displayed, it indicates that the circuit board is not installed in the slot, or any circuit board that can handle the signal format that is different (for example, AUDIO) from the digital video is inserted.

**Example of display screen**

<table>
<thead>
<tr>
<th>SELECT VIDEO MODE</th>
<th>IXS-6700 V1.00 STATION NUMBER 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>SOURCE</td>
<td>EQUALIZE</td>
</tr>
<tr>
<td>001-008 M-SDI</td>
<td>AUTO 006-072 M-SDI BYPASS</td>
</tr>
<tr>
<td>009-016 M-SDI</td>
<td>AUTO 073-080 M-SDI AUTO</td>
</tr>
<tr>
<td>017-024 SD-SDI</td>
<td>AUTO 081-088 SD-SDI BYPASS</td>
</tr>
<tr>
<td>025-032 SD-SDI</td>
<td>AUTO 089-096 SD-SDI BYPASS</td>
</tr>
<tr>
<td>033-040 ---------</td>
<td>AUTO 097-104 M-SDI AUTO</td>
</tr>
<tr>
<td>041-048 ---------</td>
<td>AUTO 105-112 M-SDI AUTO</td>
</tr>
<tr>
<td>049-056 M-SDI</td>
<td>AUTO 113-120 SD-SDI BYPASS</td>
</tr>
<tr>
<td>057-064 M-SDI</td>
<td>AUTO 121-128 SD-SDI BYPASS</td>
</tr>
<tr>
<td>060-068 SD-SDI</td>
<td>AUTO 128-136 AES-DSUB ------</td>
</tr>
<tr>
<td>069-076 SD-SDI</td>
<td>(SMPTE) (BYPASS)</td>
</tr>
<tr>
<td>077-085 SD-SDI</td>
<td>(SMPTE) (BYPASS)</td>
</tr>
<tr>
<td>086-093 M-SDI</td>
<td>(SMPTE) (AUTO)</td>
</tr>
<tr>
<td>094-102 M-SDI</td>
<td>(SMPTE) (AUTO)</td>
</tr>
<tr>
<td>103-110 AES-DSUB</td>
<td>------</td>
</tr>
<tr>
<td>111-119 AES-DSUB</td>
<td>------</td>
</tr>
<tr>
<td>120-127 AES-DSUB</td>
<td>------</td>
</tr>
</tbody>
</table>

**Operating function keys**

**SELECT VIDEO MODE**

**F1:PgUp**
When [F1] is pressed, the next screen is displayed.

**F2:PgDn**
When [F2] is pressed, the previous screen is displayed.

**F3:EQU**
Press [F3] to enable setting of Equalizer.

**F4:ReClK**

**S**
Writes all of the set contents to the S-BUS table.

**To return to the menu screen of the secondary station**
Displayed contents

SOURCE
Displays the types of signal format (types for input connect board) corresponding to each slot.

<table>
<thead>
<tr>
<th>M-SDI</th>
<th>HD/SD video board</th>
</tr>
</thead>
<tbody>
<tr>
<td>SD-SDI</td>
<td>SD video board</td>
</tr>
</tbody>
</table>

Note
Displays “------” when the status of the connector board is as follows.

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>------</td>
<td>Board is not inserted.</td>
</tr>
<tr>
<td>PSFAIL</td>
<td>There is an error in the power circuitry of the board, regardless of the type of board input.</td>
</tr>
<tr>
<td>SLOTERR</td>
<td>The board inserted is one that should not have been inserted.</td>
</tr>
</tbody>
</table>

EQUALIZE
Displays the set conditions of the equalizer mode for the source signal.

DESTINATION
Displays the types of signal format (types for the corresponding matrix board).
Displays “------” when the status of the front board (matrix board) is as follows.

<table>
<thead>
<tr>
<th>Display</th>
<th>Displayed contents</th>
</tr>
</thead>
<tbody>
<tr>
<td>------</td>
<td>Board is not inserted.</td>
</tr>
<tr>
<td>PSFAIL</td>
<td>There is an error in the power circuitry of the board, regardless of the type of board input.</td>
</tr>
<tr>
<td>SLOTERR</td>
<td>The board inserted is one that should not have been inserted.</td>
</tr>
</tbody>
</table>

FORMAT
Sets the lock condition of the reclocker.

RECLKOK
Sets whether the output signal is reclocked or whether it bypasses the reclocking circuit.

ENABLE SAMPLE RATE CONVERTOR screen

Purpose
This setting turns the SRC (sampling rate converter) on and off, sets Matched-Phase Mode.

Setting procedure
1. Select [Z] from the menu screen.
2. Press [F1] three times.
3. The ENABLE SAMPLE RATE CONVERTOR screen appears.

Sampling Rate Converter On/Off Settings
1. Press [F3].
2. Move to the item that you want to set with the cursor keys and press [Enter]. The * in the setting appears and disappears every time [Enter] is pressed. Perform the settings for each input channel.
3. Press [S] to confirm the settings.

Matched-Phase Mode Settings
1. Press [F3].
2. Move to the item that you want to set with the cursor keys and press [S]. The == in the setting appears and disappears every time [S] is pressed. Perform the settings for each input channel.
   
   Note
   The settings cannot be set for input channels where the phases are synchronized across boards.
3. Press [S] to confirm the settings.

Example of display screen
**Operating function keys**

**ENABLE SAMPLE RATE CONVERTOR**

<table>
<thead>
<tr>
<th>Key</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>F1:PgUp</td>
<td>When [F1] is pressed, the next screen is displayed.</td>
</tr>
<tr>
<td>F2:PgDn</td>
<td>When [F2] is pressed, the previous screen is displayed.</td>
</tr>
<tr>
<td>F3:SRC</td>
<td>Pressing [F3] toggles between enabled and disabled of the sampling rate converter.</td>
</tr>
<tr>
<td>F4:Freq</td>
<td>Use with 48 kHz fixed.</td>
</tr>
<tr>
<td>F5:GND</td>
<td>(GROUND/NO SIGNAL) This key enables to output the ground potential from the output terminal of the audio output board, or AES/EBU format signal when no input is connected. When [F5] is set to “GND”, the ground potential is output from the audio output board. When [F5] is set to “NOSIG”, the AES/EBU format signal with data 0 is output from the audio output board. Pressing [F5] toggles between [F5:GND] display and [F5:NOSIG] display.</td>
</tr>
</tbody>
</table>

**Description of the displayed contents**

**INPUT**

Enables or disables the sampling rate converter function to each input signal on the input board.

* : Turns the sampling rate converter function on.

No display: Turns the sampling rate converter function off.

Sets the Matched-Phase Mode.

==: The Matched-Phase Mode function is enabled between the channels shown in the left side and the right side of the equal symbol (= =).

No display: Turns the Matched-Phase Mode function off.

**Matched-Phase Mode**

This function retains the phase difference between the adjacent channels of the audio signal that is input to the sampling rate converter.

**Notes**

- Valid in the identical board. This does not function between the signals that go to multiple inputs.
- Valid only for the input of the synchronized, identical frequency.

---

**SELCT RS-422 MODE screen**

**Purpose**

This is the setup menu for RS-422 Router.

**Setting procedure**

1. Select [Z] from the menu screen.
   The SELECT RS-422 MODE screen appears.

**Master/Subordinate Settings**

1. Press [F3].
2. Move to the item that you want to set with the cursor keys and press [Enter]. The setting changes from M to S every time [Enter] is pressed.
3. Press [S] to confirm the settings.

**RS-422 Router Control Function Settings**

1. Press [F4].
2. Move to the item that you want to set with the cursor keys and press [Enter]. The setting changes from ON to OFF every time [Enter] is pressed. For details of the respective functions, refer to section “4. Technical Information: 4-3. RS-422 Router Control”.
3. Press [S] to confirm the settings.

---

**Example of display screen**

```
SELCT RS-422 MODE                     IXS-6700  V1.00  STATION NUMBER 1

OUTPUT (INPUT)                        INPUT
Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir
01 : S 17 : S 33 : S 49 : S | 01 : M 17 : M 33 : M 49 : M
02 : S 18 : S 34 : S 50 : S | 02 : M 18 : M 34 : M 50 : M
03 : S 19 : S 35 : S 51 : S | 03 : M 19 : M 35 : M 51 : M

SOURCE PROTECT   ON
I/O MIX          ON
F1:PgUp   F2:PgDn   F3:Dir   F4:MODE   S:Table Set   Ctrl-E:RETURN TO MENU

Example of display screen
```

---

**Example of display screen**

```
SELCT RS-422 MODE                     IXS-6700  V1.00  STATION NUMBER 1

OUTPUT (INPUT)                        INPUT
Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir Ne : Dir
01 : S 17 : S 33 : S 49 : S | 01 : M 17 : M 33 : M 49 : M
02 : S 18 : S 34 : S 50 : S | 02 : M 18 : M 34 : M 50 : M
03 : S 19 : S 35 : S 51 : S | 03 : M 19 : M 35 : M 51 : M

SOURCE PROTECT   ON
I/O MIX          ON
F1:PgUp   F2:PgDn   F3:Dir   F4:MODE   S:Table Set   Ctrl-E:RETURN TO MENU

Example of display screen
```
Operating function keys
(SELECT SWITCHING FIELD)

[F1:PgUp]
When [F1] is pressed, the next screen is displayed.

[F2:PgDn]
When [F2] is pressed, the previous screen is displayed.

[F3:Dir]
Pressing [F3] enables setting of Master/Subordinate.

[F4:MODE]

To return to the menu screen of the secondary station

Description of the displayed contents

INPUT/OUTPUT
Indicates the number of the 9-pin connector on the RS-422 input board or RS-422 output board.

Direction
This menu must be used to set whether the output location of each 9-pin connector of terminal Nos. 1 to 63 controls (M) the unit, or is controlled (S) by the unit. If the connected unit is M, set the output location to S. If the connected unit is S, set the output location to M.

M: Control side (Master)
S: Controlled side (Subordinate)

SOURCE PROTECT
This is the function to set protection on the SOURCE so that a SOURCE that has already been assigned to a specific DESTINATION should not be selected by any other DESTINATION.
Operating function keys
(BOARD SOFTWARE UPDATE)

F1:PgUp
When [F1] is pressed, the next screen is displayed.

F2:PgDn
When [F2] is pressed, the previous screen is displayed.

F3:BKUp
A flash memory consists of the two memory areas of the normal area and the back area. When [Y] is pressed, memory contents of the normal area are backed up in the backup area.
The backup area can be started up as the normal area when the on-board switch of the desired board is changed, the memory contents can be recovered from the backup area even when the normal area becomes faulty.
(For the on-board switch of the respective boards, refer to the Installation Manual.)
1. Press [F3]. The message “Copy Program to Backup? (y/n)” appears on the screen.
2. Press [Y]. The memory contents of the normal area are copied into the backup area. When copying is complete, the message “Copy Program to Backup? (y/n) y” disappears.

To return to the menu screen of the secondary station

Setting Contents
CONTROL BOARD
Displays the boards loaded on the sub CPU. Displays the versions for BOOT and SYS, the IP ADDRESS, and the type of board.

BOARD-STATUS

<table>
<thead>
<tr>
<th>SLOT-ID</th>
<th>BOOT</th>
<th>SYS</th>
<th>IP-ADDRESS</th>
<th>BOARD-STATUS</th>
<th>UPDATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>----</td>
<td>----</td>
<td>---</td>
<td>M-SDI</td>
<td>----</td>
</tr>
<tr>
<td>2</td>
<td>V1.00</td>
<td>V1.00</td>
<td>192.168.0.2</td>
<td>M-SDI</td>
<td>DISABLE</td>
</tr>
<tr>
<td>3</td>
<td>----</td>
<td>----</td>
<td>---</td>
<td>SO-SDI</td>
<td>----</td>
</tr>
<tr>
<td>4</td>
<td>----</td>
<td>----</td>
<td>---</td>
<td>---</td>
<td>----</td>
</tr>
<tr>
<td>5</td>
<td>----</td>
<td>----</td>
<td>---</td>
<td>M-SDI</td>
<td>----</td>
</tr>
<tr>
<td>6</td>
<td>V1.00</td>
<td>V1.00</td>
<td>192.168.0.6</td>
<td>M-SDI</td>
<td>----</td>
</tr>
<tr>
<td>7</td>
<td>V1.00</td>
<td>V1.00</td>
<td>192.168.0.7</td>
<td>AUDIO</td>
<td>ENABLE</td>
</tr>
<tr>
<td>8</td>
<td>V1.00</td>
<td>V1.00</td>
<td>192.168.0.8</td>
<td>MAIN-CPU</td>
<td>ENABLE</td>
</tr>
<tr>
<td>9</td>
<td>V1.00</td>
<td>V1.00</td>
<td>192.168.0.9</td>
<td>MAIN-CPU</td>
<td>ENABLE</td>
</tr>
</tbody>
</table>

Example of display screen

I/O MIX
This function enables the following connections.
1. SOURCE → SOURCE
2. DESTINATION → DESTINATION

When the I/O MIX is set to ON, the Master/Subordinate that is set using this menu becomes invalid.

BOARD SOFTWARE UPDATE STATUS screen
Purpose
This screen checks the status of the loaded sub CPU and turns on and off the software upgrades for the sub CPU port.

Setting procedure
1. Select [Z] from the menu screen.
3. Move the cursor to the item that you want to set (UPDATE) and press [Enter]. Pressing [Enter] toggles between ENABLE display and DISABLE display.

UPDATE
When software version of the Sub CPU is going to be upgraded, version upgrade is going to be executed or not can be set for each circuit board as follows.

<table>
<thead>
<tr>
<th>ENABLE</th>
<th>Upgrades the board.</th>
</tr>
</thead>
<tbody>
<tr>
<td>DISABLE</td>
<td>Does not upgrade the board.</td>
</tr>
</tbody>
</table>
HOURS METER STATUS screen

Purpose
The accumulated hours meters of the fan unit and the power supply unit of the console can be reset.

Setting procedure
1. Select [Z] from the menu screen.
2. When [F2] is pressed, the HOURS METER STATUS screen of the menu appears.
3. Select the fan unit and the power supply unit that you want to reset, using the cursor key.
4. When [R] is pressed, the message “Reset this time? (y/n)” appears.
5. When [Y] is pressed, the accumulated hours reading is reset.

Description of the displayed contents

FAN STATUS
Displays locations (L: Left, R: Right) of the cooling fans.

POWER SUPPLY UNIT
Displays locations of the power supply units.
IXS-6700 : A1, A2, B1, B2
IXS-6600 : A1, B1

Note
The power supply units A and B of IXS-6600 are displayed as A1 and B1 respectively on the menu screen.

Example of display screen

Operating function keys
(HOURS METER STATUS screen)

[F1:PgUp]
When [F1] is pressed, the next screen is displayed.

[F2:PgDn]
When [F2] is pressed, the previous screen is displayed.

To return to the menu screen of the secondary station
3-1. Outline

When all of the setups of the routing switcher are complete, check if the system is working properly.

Each routing switcher is equipped with the self-diagnosis function to check the system connection and status of each unit. As soon as the power of the unit is supplied or the system is reset, this function begins operations which check internal conditions and connections automatically. If a fault is detected, this is immediately displayed via the following three methods.

For the error code indication on the CA-65 board, refer to the Installation Manual supplied with the IXS-6600/IXS-6700.

- Front panel status indication
- Error code indication on the CA-65 board
- Internal status screen (secondary station menu: V: DISPLAY UNIT STATUS)
- System status log

3-2. Function Check

There are two types of display modes for operation check from personal computer, which can be selected depending upon the purpose. The first type of display mode is provided by the system status screen and the other is provided by the [W] menu on the menu display of the primary station.

The system status screen shows result of self-diagnosis that is performed automatically by the primary station when the power of the system is turned on. It also shows the logs that are issued by the respective stations on the S-BUS data link in real time, enabling to use the system status display as the monitor of system operation during system run.

To check the old system status, open the menu screen and call the menu item [W: SYSTEM STATUS LOG].

This menu takes out only the system status from the memory, and displays the status, corresponding station and time of occurrence. Therefore, the [W] menu is used to check the status and to find the station issuing the error and the time of error occurrence.
3-2-1. Function Check after Power On

When the power of the primary station is turned on, results of the self-diagnosis of the primary station and
the ROM checksum value, will be displayed as shown below.
If the result of the self-diagnosis is normal, “OK” will be displayed for the item. If errors have been
detected, the corresponding item will be the high-lighted on screen.

Example of the system status screen after power on

Display contents
① ROM checksum value on the CPU board of the primary station.
② Condition of the reading/writing operations of the RAM in the primary station.
③ The result of detecting the reference signal (REF IN A) in the primary station.
④ Presence of the 75 Ω termination in the S-BUS data link.
⑤ Detection that oscillation of REAL TIME CLOCK IN has stopped.

3-2-2. Function Check with Menu Item [V : DISPLAY UNIT STATUS]

The internal settings can be checked if they contain an error or not, using the secondary station menu [V : DISPLAY UNIT STATUS] by referring to Section 2-5.

3-2-3. Function Check with Menu Item [W : SYSTEM STATUS LOG]

When you want to check details of the log content and time of error occurrence, select the menu item [W : SYSTEM STATUS LOG]. The log information that is stored in the memory of the primary station can be displayed.
3-2-4. System Status Log

When a message is output to the S-BUS data link, the system status screen will display the message with the date and time of occurrence. When any change takes place during the operation of the system, the error message will be displayed.

Example of system status screen during system operation

The personal computer will display 12 types of the system status log according to the error content. Standard error messages and their remedies are as follows.

OK

| X-POINT RECOVERED IN STATION xx |

NG

| X-POINT ERROR IN STATION xx |

Content: Faulty cross-point hardware
As a result of comparing the presence/absence of the cross-point signal connected to the station being displayed, this message will be displayed if the input signal was found to be present without the output signal, and vice versa, or if the input/output board has not been inserted correctly.
When the input/output boards are inserted securely, the OK screen appears.

Countermeasure: The cross-point of station xx is faulty. Check the input/output board has been properly installed.

OK

| TEMPERATURE RECOVERED IN STATION xx |

NG

| TEMPERATURE RISE IN STATION xx |

Content: This message is displayed when the temperature inside of the station being displayed has risen.

Countermeasure: Promptly turn off the power supply of station xx, and check for short-circuits, power leakage, faults of the mechanical parts surrounding the fan, etc.

OK

| REFERENCE SIGNAL x CORRECTLY FED TO STATION xx |

NG

| MISSING REFERENCE SIGNAL x IN STATION xx |

Content: This message is displayed when the SYNC/ASYNC select switch on the CPU board of the switcher has been set to the sync switching mode (SYNC), and the reference video signal has not been input to the REF IN connector.

Countermeasure: Supply the sync signal to the REF IN connector of station xx.
Content: This message is displayed when the power supply output voltage during operations has lowered and it is changed over to the backup power supply.

Countermeasure: Remove the main power supply unit of station xx, and repair or replace it with a new one.

Content: This message is displayed when an error has been detected as the result of ROM checksum test performed after resetting the unit.

Note
This error message will be displayed only once after the software version is upgraded. This is normal.

Content: This message is displayed when the S-BUS data link has been disconnected somewhere.

Countermeasure: Check the connections between the S-BUS line and each station, and check that unused S-BUS ports or the ends of S-BUS lines have been terminated in 75 Ω. One method to search for the disconnected sections is using the menu item [R : CALL SECONDARY STATION] and checking for responses.

Note
Be sure to terminate unused S-BUS ports in 75 Ω. When a disconnection has been detected, the primary station automatically performs 75 Ω termination and restarts communication with the stations just before the disconnection. In this case, some stations may not be able to communicate even though they are connected.

Content: This message is displayed when an error has occurred in the CPU board during operations, and it is changed over to the sub CPU board.

Countermeasure: Remove the main CPU board, and repair or replace it with a new one.

Content: This message is displayed when the switcher is restarted due to instantaneous power failure, etc., or when the power is turned ON.

Content: This message is displayed when communication with the station set at the menu item [F] is stopped.

Countermeasure: Check the status indicator of station xx, and perform the remedies corresponding to the symptom.
Content: This message is displayed when the input/output board has been inserted to and removed from the station xx.

Content: This message is displayed when the power supply unit is removed or inserted.

Content: This message is displayed when the fan stops or rotates.
4-1. Cross-point Switching Sequence

This section describes the flow of the S-BUS commands within the S-BUS data link.

Flow of S-BUS command
Sequence when remote control unit (remote control panel) outputs a command

Whether Phantom is set to the button just pressed

- Phantom Table?
  - Y
    - If Phantom, Global or Local
      - Global Phantom?
        - Y
          - CMD : 01
            (Global Phantom is meant for Destination=4094.)
          - Phantom Process
        - N
          - If Local Phantom, the Phantom is processed
            - Check Secret or Protect
              - Y
                - Secret / Protect?
                  - Y
                    - Next
                  - N
                    - Next
            - N
              - Next
    - N
      - Next

Check level table

- Level Table enable?
  - Y
    - CMD : 01
      (Switching command is output.)
  - N
    - Next

Sequence when primary station executes physical assignment conversion (IXS-6600/IXS-6700)

Control Panel

- CMD : 01
  - Request switch command from remote control panel
    - Change cross-point from terminal menu
      - Q: Change Xpt
    - Level Table Process
      - Check level table
        - N
          - Next
        - Y
          - Next
- DEST=FFE?
  - Y
    - Global Phantom or not
      - Process Global Phantom
        - Global phantom Process
      - Y
        - Secret Process
        - N
          - Protect Process
          - Y
            - Check Protect
              - Y
                - “…”
              - N
                - Inhibit Process
                  - “X”
        - N
          - Inhibit Process
            - “X”
- N
  - Next

Process Source Assignment

- Source Group Process

Process tie line

- TIE LINE PROCESS

Process Physical assignment

- PHYSICAL ASSIGNMENT PROCESS

CMD : 81
(Cross-points switching request (command) to a routing switcher is output)
Routing switcher cross-point switch sequence

1. Receive command from primary station
2. Level Match?
   - Y: Does level match?
   - N: Dest in Range?
     - Y: Is destination within range?
     - N: Src in Range?
       - Y: Is source within range?
         - Y: Change Matrix
         - N: Cascade?
           - Y: Select Cascade
           - N: Return current source that corresponds the destination
3. CMD: 09
   (Result of cross-points switching is output.)
4. Process the next command

Primary station counter physical assignment conversion sequence

1. Response from router
2. Included in tie line status or not
3. Add new tie line status
4. Tie Line Process
5. Update cross-point table
   (Result of cross-points switching is output to a remote control panel.)
6. CMD: 09
7. Process the next command

Remote control panel lamp illumination

1. Remote control panel lamp illumination
   (Result of cross-points switching is output to a remote control panel.)
4-2. Concept of a New System Enabled by the Introduction of the BZR-IR830

This section describes the new concept that enables construction of the system containing the multiple primary stations to control the S-BUS space by introducing the 4093 × 4093 controller and the primary station (HKSP-R80) supporting the 4093 × 4093 controller.

Systems connection
Conceptual drawing of the system that is connected to the 4093 × 4093 controller and the primary station supporting the 4093 × 4093 controller (to be called simply “primary station” hereafter) is shown below. The S-BUS space of maximum 1024 × 1024 controlled by a single primary station is called “Primary station S-BUS space”. The S-BUS data link and the Ethernet that are connected to the 4093 × 4093 controller and the multiple primary stations is called “Network between primary stations”.

![Diagram showing the system connection](image-url)
Connection with the respective primary stations

The primary station S-BUS spaces (maximum 1024 × 1024) that are connected to the 4093 × 4093 controller implement mapping on the S-BUS space of 4093 × 4093 that is controlled by the 4093 × 4093 controller. (Refer to primary station menu item “A: SET CONTROL AREA” of Section 2-4.) Each primary station judges whether a various incoming command is targeted for its own primary station S-BUS area or for other S-BUS area.
When each of primary station receives the control command that is targeted outside the own control area whereas the control command is issued from secondary station or from third-level station equipment (such as remote control panel) that are under the primary station’s own control, the primary station sends the command to the S-BUS and Ethernet connected to the 4093 × 4093 controller. The 4093 × 4093 controller relays this command to the targeted primary station. The primary station that has received this command accepts the command only when the command is targeted at the control area of its own, and implements the corresponding control over the primary station S-BUS space of its own as requested by the command.

This illustration shows the concept of controls. It is different from the actual operation of the system.

When a command that the 4093 × 4093 controller is going to relay, is targeted to the “Tie line connecting the different primary stations”, the 4093 × 4093 controller converts the commands to the appropriate commands based on the tie line information that is set within the 4093 × 4093 controller. The 4093 × 4093 controller then sends the converted command to each primary station. All the time, each primary station returns the result of control within its own primary station S-BUS space to the S-BUS and Ethernet to which the 4093 × 4093 controller is connected. The 4093 × 4093 controller transfers this information to all other primary stations.

If the information that is the 4093 × 4093 controller is going to relay, is the result of execution of the “Tie line connecting the different primary stations”, the 4093 × 4093 controller converts the information based on the tie line information that is set within the 4093 × 4093 controller, and sends the information to each primary station. Thus the whole system that is controlled by the 4093 × 4093 controller can share the information of all cross-points each other.

This illustration shows the concept of controls. It is different from the actual operation of the system.
Index space in the S-BUS space

After the 4093 × 4093 controller is introduced, a new index space is created as the constituent element of the S-BUS space.

In the conventional concept, the S-BUS space controlled by primary station contains the physical matrix space and the virtual matrix space. The physical matrix space means the space that is used to assign the routing switcher actually. The virtual matrix space is the space on which almost all of the setup information of primary station are reflected. At the same time, the virtual matrix space is the space to which the routing switcher control unit refers when it issues the switching command. By the introduction of 4093 × 4093 controller, the virtual matrix space is separated into the two spaces. One is the space on which the primary station setup information are reflected. The other is the space to which the routing switcher control unit refers when it issues the switching command. The former space (the space on which the primary station setup information are reflected) is called virtual matrix space. The latter space (the space to which the routing switcher control unit refers when it issues the switching command) is called index space.

In the system that has introduced 4093 × 4093 controller, the S-BUS space consequently indicates an integrated space in which the spaces of the physical matrix space, the virtual matrix space and the index space are multiplexed.
Assigning the virtual matrix space to the index space

This column explains the principle that a routing switcher control unit issues the cross-point switching command to the S-BUS space controlled by other primary station.

In the ordinary control range that will be used by primary station without introducing $4093 \times 4093$ controller, the virtual matrix space and the index space are exactly identical (overlapped each other) in the S-BUS space.

In the other words, a routing switcher control unit can control the S-BUS space only controlled by the primary station to which the control unit is connected.

Now, the S-BUS space is separated into the virtual matrix space and the index space when the $4093 \times 4093$ controller is introduced. The virtual matrix space and the index space are assigned separately to the S-BUS space of $4093 \times 4093$ that is controlled by the $4093 \times 4093$ controller.

In order to assign the virtual matrix space of primary station to the S-BUS space of $4093 \times 4093$ that is controlled by the $4093 \times 4093$ controller, use the primary station menu “A: SET CONTROL AREA.” (Refer to Section 2-4 for the procedure of using menu.)

To assign the index space of primary station to the S-BUS space of $4093 \times 4093$ that is controlled by the $4093 \times 4093$ controller, use the primary station menu “I: SET INDEX NUMBER.” (Refer to Section 2-4 for the procedure of using menu.)

For the above-described assignment, an arbitrary area of the $4093 \times 4093$ S-BUS space controlled by the $4093 \times 4093$ controller can be trimmed out and so that the trimmed area is assigned to the index space of primary station as shown.
S-BUS command control outside the primary station control area

The routing switcher control unit issues the cross-point switching command based on the information of the index space.

When an arbitrary area of the 4093 × 4093 S-BUS space controlled by the 4093 × 4093 controller is trimmed out and is assigned to the index space of primary station, the routing switcher control unit issues the cross-point switching command based on the information of this index space. As the result, the S-BUS space that is being controlled by another primary station can be controlled outside the control area of the primary station to which the routing switcher control unit is connected.

Limitations

Information of the index space is memorized by each primary station. Therefore, if an arbitrary area of the S-BUS space controlled by another primary station is trimmed and assigned to an index space outside the S-BUS space controlled by the primary station of itself, the following limitation will occur.

When an arbitrary area of the S-BUS space controlled by another primary station is trimmed and assigned to an index space, it means that the S-BUS space controlled by a particular primary station is divided and the S-BUS space controlled by other primary station is forcibly assigned to the divided area. As the result, the remaining area that is provided to control the area being controlled by the original primary station becomes an uncontrollable area. Therefore, the routing switcher can no longer be assigned to such an area.

To solve this problem, the control area of the primary station should be reduced to the minimal effective size (to be set by the primary station menu “A : SET CONTROL AREA”), and the routing switcher that goes outside the control area should be assigned to the inside of the control area of the primary station using the physical assignment.

The physical assignment is implemented using the primary station menu “L: SET PHYSICAL ASSIGNMENT”. (Refer to Section 2-4 for the procedure of using the menu.)
This section describes the terms that are used in this section.

**4093 × 4093 controller**
The HKSP-R80 in which the 4093 × 4093 control software BZR-IF830 is installed is called 4093 × 4093 controller.
It can control multiple primary stations integrally.

**S-BUS space**
This is the generic name of the spaces that configure the Sony Routing Switcher System in which multiple spaces (physical matrix space, index space and virtual matrix space) are multiplexed. In some case, a primary station or remote control panel (routing switcher control unit) or the space in which routing switchers are connected each other is also called S-BUS space.

**Primary station**
The S-BUS space has actually the multiple spaces that are multiplexed. Routing switcher control unit and routing switcher can recognize only one space among the multiple spaces. Primary station sets the relationship between the multiplexed spaces each other, and controls the S-BUS equipment such as the routing switcher control unit and routing switcher.

**Primary name**
This is the unique name that is given to each primary station in order to identify the respective primary stations in the system in which multiple primary stations are connected.

**Primary S-BUS space**
This is the S-BUS space of maximum 1024 × 1024 that is controlled by a single primary station (HKSP-R80).

**Primary network**
This is the generic name of the S-BUS data link and Ethernet that connect 4093 × 4093 controller to the multiple primary stations in the system using the 4093 × 4093 controller.
S-BUS for the secondary stations
This is the S-BUS data link that connects between primary station and the respective secondary stations.

Subnet controller
Subnet controller is connected to S-BUS for the secondary station to expand the S-BUS connection. The S-BUS space that is expanded as described above is called S-BUS subnet space.

S-BUS subnet space
It indicates the S-BUS data link that is expanded by the BZR-IF810 or the BZR-IF820 (subnet controller). The S-BUS device that is connected in the S-BUS subnet space is called third-level station.

Third-level station
This is the S-BUS equipment that is connected within an S-BUS subnet.

S-BUS for the third-level stations
This is the S-BUS data link that connects between the subnet controller and each third-level station.
Virtual matrix space
This is the space that is controlled by the primary station (routing switcher controller). Various control functions of routing switcher are executed by referring to this space. Display of the terminal name is also done by referring to this space. The physical terminal space is assigned by the physical assign.

Virtual terminal number
This is the terminal number within the virtual matrix space. The physical terminal numbers are assigned by physical assign.

Physical matrix space
This is the space in which routing switcher is laid out. Routing switcher refers to this space.

Physical terminal number
This is the terminal number within the physical matrix space.

Index space
This is the space that is controlled by the routing switcher control unit. Routing switcher control unit issues the cross-point switching command to the routing switcher by referring to this space.

Index number
This is the terminal number within the index space. The virtual terminal numbers are assigned by the primary station menu “I : SET INDEX NUMBER.”

Source index number
This is the number indicating the source within the index space.

Destination index number
This is the number indicating the destination within the index space.
4-3. RS-244 Router Controls

1. SOURCE PROTECT
On a normal video router, one source can be divided into multiple destinations. The RS-422 Communication, however, has bidirectional communication with a one-to-one connection for output and input. Therefore, when connecting a new destination to a source that is already connected to a destination, the previous destination must be cut off and the new destination connected. This is known as “backend priority”. This leads to undesirable operations such as the case where the VTR source that you are using is connected to another destination and cut off against your intension.

The function that protects against this problem is SOURCE PROTECT. With SOURCE PROTECT, a destination cannot select a source that is connected to a protected destination. This function prevents a destination from being cut off.

For example, say that PROTECT is set to Destination 1. If Source 2 is connected to Destination 1, it cannot be connected to Destination 2.

The user can use this function by protecting the user’s Destination so that nobody else can connect to that Source.

To activate this function, set SOURCE PROTECT in SELECT RS-422 MODE to ON. (See the SELECT RS-422 MODE screen in 2-5. Setting Items of the Secondary Station “Z: SET SIGNAL/ALARM SETUP”.)

*: If the Source that was used by a certain Destination was taken by another Destination, the previous Destination is disconnected and “- - - -” is displayed.
2. I/O MIX

On video routers, the source could only send information one way to the destination. With the RS-422 ROUTER, the following combinations have also been made possible. (See Fig. 1).

1. Source → Source
2. Destination → Destination

Fig. 1

**Concept behind I/O MIX**

Assuming the matrix in which the input and output are expanded into 128 × 128 as shown in Fig. 2, to implement I/O MIX, the conventional concept of a one-way video router connection, Source → Destination, is applied. By using this concept, you can connect combinations other than Source → Destination (See Fig. 2).

To implement these connections, set I/O MIX in SELECT RS-422 MODE to ON. (See the SELECT RS-422 MODE screen in 2-5. Setting Items of the Secondary Station “Z: SET SIGNAL/ALARM SETUP”).

Fig. 2
Turning on the I/O MIX Function on the Remote Control Panel

When choosing an output terminal for the Source and input terminal for the Destination, the set terminal number must be the number that you want to set plus 64.

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Fig 2

Ex.)
1. Source: Input physical terminal 10 → Dest: Input physical terminal 20
   Set Source to 10 and Destination to 80 (20 + 64).
2. Source: Output physical terminal 10 → Dest: Output physical terminal 30
   Set Source to 74 (10 + 64) and Destination to 30.
3. Source: Output physical terminal 30 → Dest: Input physical terminal 50
   Set Source to 94 (30 + 64) and Destination to 114 (50 + 64).

Reference
I and I', O and O' in the figure represent areas that are physically identical.
3. **M/S AUTO**

The placement of the pins on the RS-422 connector (D-Sub 9-pin) is different depending on whether it is the controlling side (Master : CONTROL DEVICE) or the controlled side (Subordinate : CONTROL DEVICE). On the RS-422 Router, internal processing can switch the position of the pins, meaning that the relationship between the input and output (M/S) RS-422 connectors can also change.

To make the changes manually, set the connection target to M (Master) or S (Subordinate) in the SELECT RS-422 MODE screen in the secondary terminal menu under “Z: SET SIGNAL/ALARM SETUP”.

To make the changes automatically, set the I/O MIX function to ON in the SELECT RS-422 MODE screen in the secondary terminal menu under “Z: SET SIGNAL/ALARM SETUP”. I/O MIX automatically sets the RS-422 Router connector to Master or Subordinate with the control method of the remote controlled panel (what to choose for Destination and Source) every time cross point is switched. (See the SELECT RS-422 MODE screen in 2-5. Setting Items of the Secondary Station “Z: SET SIGNAL/ALARM SETUP”.)

M: Control side (Master)

S: Controlled side (Subordinate)

**Notes**

- In order to set this menu valid, I/O MIX must be set to ON.
- M/S AUTO does not function for the range of Source terminal Nos. 1 and 63, and Destination terminal Nos. 1 and 63, but the settings follow the ones in the SELECT RS-422 MODE screen in the terminal menu “Z: SET SIGNAL/ALARM SETUP” of the secondary station.
# Appendix A

## Functions and menu items

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Appendix B
Glossary

“Active” : Decide remote control panels can be active on the S-BUS

1. Select the station that you want to use. (Menu Item [F] of primary station)
Enter the menu item [F : SET ACTIVE UNIT NUMBER] and set “E” mark on secondary stations that you want to use. It sets the secondary station active.

```
ENABLE ACTIVE UNIT FOR STATION NUMBER IXS-6700 V1.00 STATION NUMBER 1
001-020 M E E E E E E E
021-040
```

**Note**
Before implementing this setup, it is necessary to set the ID number of the secondary station of the remote control panel. The primary station has ID=1, secondary stations should have ID=2 to 254. For your reference, ID=00 is the test number, and ID=255 is the global number. Be noted that both of them cannot be used.

2. Inspect the communication status if it is active or not. (Menu Item [Z] of primary station)
If you set “?” to a ID location in the menu item [Z], the primary station will display the corresponding model code of that location and display a warning if communication is interrupted.

```
SET UNIT DETECTABLE IXS-6700 V1.00 STATION NUMBER 1
001-020 M 03 ? 15 04 ? ? ?
021-040
01: DVS-V1616 02: DVS-V3232 03: DVS-A3232 04: BK5-R1601 05: BK5-R3202
06: BK5-R3203 07: BK5-R3281 08: DVS-V6464 09: BK5-R5000 10: DVS-R1611
```

**Notes**
- The menu item [Z] is used with BZR-20 to select the secondary stations for saving the data. BZR-20 uploads the data of the secondary stations only selected with the “?” mark.
- Once a “?” is entered you must return to the menu screen, and re-enter this menu to see the communications result.

  The model code No. is displayed instead of “?”.
- If the system is operated with the setting in which “?” is set, the system may stop. This error occurs if any model that does not support this command is connected on the S-BUS or LAN. After confirming operations, be sure to delete “?”.
**Cross-point disable setting**

Function that limits the input channels can be selected for each output channels. It can also be used to fix the area of cross-points selected so that only certain input channels can be selected for certain output channels.

Be careful that destination cannot select a source which makes up a loop in which the destination becomes the signal generating source in order to avoid potential operation mistake.

This function can be set in the menu item [M: SET INHIBIT TABLE] of primary station.

**Free assignment/multi source assignment**

The same terminal number can be assigned, for each terminal name, through levels 1 to 8. The different physical number can also be assigned on each level.

The following illustration shows that the video signal is used for level 1, the audio signal is used for levels 2 and 3. The physical number 5 can be assigned on level 1, physical number 2 on level 2, and physical number 18 on level 3 for the input terminal name IN002.

IN003 assigns the physical terminal number 6 to level 1, and assigns the same numbers as those of IN002 to the levels 2 and 3.

Similarly, to destination OUT004, physical number 32 can be assigned on level 1, physical number 32 on level 2, and physical number 4 on level 3.

At the same time, the same input signal can be assigned to the two or more input terminal names using the multi source assignment function.

This free assignment function can be set in the primary station menu item [L : SET PHYSICAL ASSIGNMENT].

The multi source assignment function is set using the primary station menu item [S : SET SOURCE ASSIGNMENT].

---

**“Level”: How to set levels**

The routing switcher system has the capability to control the different types of signal at the same time. This is enabled by the level setting.

Level can be set in the primary station menu item [E : SET LEVEL TABLE].
**Number of panels**
Up to 128 remote control panels and switchers can be connected to one S-BUS line. When the system is combined with the supplied BZR-IF810, as many as 60,000 equipment can be controlled with a single system.

**Password**
A personal computer is controlling all of the routing switcher system and its constituent devices. It therefore has a password function which allows only certain users to operate it. The password can be set in the primary station menu item [P : CHANGE PASSWORD].

**Phantom**
Several cross-points can be switched simultaneously with just one push of a button of the remote control panel. This is called the phantom function.
The phantom function is set from a personal computer that is connected to the primary station. Selections are performed from the remote control panel.
The group of cross-points switched together is called the phantom group. There are two types of phantom. One is the “Local phantom” that is set for each remote control panel. The other is the “Global phantom” that is set to the primary station and can be used from anywhere.

**Protect**
This is the function which protects the cross-point set so that it cannot be released from other remote control panels. While the protect function is on, the destination of the cross-point to be protected will be fixed. Once the protect is set, it will not be released by any command, except those from the personal computer and the remote control panel used to set it. However, protect can be freely set and released from a personal computer that is connected to the primary station.
In addition, the signal switching is possible while ignoring the protect, depending on the setting of the remote control panel.
The protect function can be set in the primary station menu item [C : SET DESTINATION NAME].

**“Remote control panel” : How to set the remote control panel**
When you want to call the respective remote control panels and to implement the necessary setups select the menu item [R] and type the station address (2 to 254) of the desired remote control panel.
If the specified remote control panel is enabled in the menu item [Z : SET PANEL DETECTABLE], this might help you identify the station address in question. If the station address of the desired remote control panel needs further search from multiple panels, select the menu item [X : DISPLAY S-BUS COMMUNICATIONS], and command a cross-point change from the remote control panel in question, and observe the address indicated by the S-BUS communication.
Refer to the Manuals that are supplied with the respective remote control panels for the setting procedure.

**Secret**
This is the function which hides certain input channels from all remote control panels to protect the cross-point so that it cannot be switched.
Unlike the protect function that limits the output channels, the secret function limits the input channels to protect them from being selected by other remote control panels.
The secret function can be set and released in the menu item [D: SET SOURCE NAME] of the primary station.
Self-diagnosis
Self-diagnostics is performed on the following items. Result of the self-diagnostics is displayed on a personal computer that is connected to the primary station, on the status indicator of the front panel.

- Presence of backup power supply and backup CPU board
- Detection of fan rotation
- Display of reference signal
- Cross-point hardware defect
- Display of high-temperature
- Display of S-BUS disconnection
- Display of required secondary station’s disconnection or fault
- Remaining power of the data backup battery
- Normal/abnormal of the connector board

Terminal name
In the routing switcher system, names are given to all of the input and output terminals and are controlled in order to improve operating efficiency.

The following two types of terminal name are used.

- “Type + Number” name
- “Description” name

“Type + Number” name mode (Type + Num)
A destination name or a source name can be displayed by “Type name + Number”.

The name of the “Type + Number” system, consists of the 4 digit alphabetical letters and the 3 digital numerical numbers. The virtual terminal numbers are assigned to them. For the alphabetical letter segment, as many as 32 kinds of type name can be set. In the default setting, “IN” is given to the input system and “OUT” is given to the output system.

Example: CG, VT, VTR, CAM, NET, SAT, BARS, TONE, etc.

If you set 1 for the fourth digit of the type name, a four-digit numerical value can be expressed.

Example: VTR1001

After the type name, a 3-digit numerical number can be added. For the numerical value segment, a number in the range of 0 to 999 can be set. By this combination, a maximum of 1000 terminal names can be created from a single type name.

Example: VTR000, VTR001, VTR002, .......VTR999

Note
The numerals 000 cannot be added to the name that has the type number 0. (Refer to the primary station menu item [B: SET SOURCE/DEST TYPE].)

The same “Type + Number” (such as VTR001) can be assigned to both input and output of the routing switcher. But, a unique name can only be used once per input, and output. It is important that you consider carefully your naming convention now, as it will be carried throughout the rest of the setup, and will be the name displayed on remote control panels, and other displays.

In order to determine the [Type + Number] name, select the primary station menu item [J: NAME STYLE] and select “Type + Num”.

To register the type name, use the primary station menu item [B: SET SOURCE/DEST TYPE].
To set a name to a terminal, use the primary station menu item [C: DESTINATION NAME] and [D: SET SOURCE NAME].

In this Manual, a setup example screen for each [Type + Number] name mode is shown unless otherwise specified.
Description name mode (DESCRIPT.NAME)
A destination name or a source name can be displayed by a “Description” name. The description name is an arbitrary name of 16 digits. It can be created by using arbitrary alphanumeric characters and numeric numbers such as “Tokyo”, “Market”. As many as 2048 names can be registered. However, they are sent to the remote control panel in units of 160 names among the 2048 names, and are used for setting the buttons and displays. The 160 names can be registered as one group. Data of 8 groups can be registered at the primary station.

In order to determine the Description name, select the primary station menu item [J : NAME STYLE] and select “DESCRIPT.NAME”.
After the selection, set the description name in the primary station menu item [C : SET DESTINATION NAME] or [D : SET SOURCE NAME].

After [J] has been selected for the first time, go back to menu items [C] and [D] and enter the description names, if desired.

<table>
<thead>
<tr>
<th>SOURCE NUMBER</th>
<th>TRANSCODE</th>
<th>IXS-6700 V1.00</th>
<th>STATION NUMBER</th>
<th>1</th>
</tr>
</thead>
<tbody>
<tr>
<td>001=VTR001</td>
<td>ProgVTR</td>
<td>002=VTR002</td>
<td>SpotVTR</td>
<td></td>
</tr>
<tr>
<td>003=VTR003</td>
<td>BkupVTR</td>
<td>004=VTR004</td>
<td>Net-Dly</td>
<td></td>
</tr>
<tr>
<td>017=CAM001</td>
<td>Pete</td>
<td>018=CAM002</td>
<td>Mary</td>
<td></td>
</tr>
<tr>
<td>019=CAM003</td>
<td>Tom</td>
<td>019=CAM004</td>
<td>John</td>
<td></td>
</tr>
</tbody>
</table>

**Note**
The description name can be used repeatedly for the sources and destinations. However, assignment of the description names to the virtual terminal numbers must be controlled separately. For the signal switching, [Type + Number] is converted to a virtual terminal number first, then the signal switching is operated by the virtual terminal number.
**Terminal number**
There are three types of terminal number that can be set to the terminal name as shown below.

- Connector number
- Physical terminal number
- Virtual terminal number

**Connector number**
The connector numbers mean the numbers that are given to the connectors of each switcher machine itself. The connector numbers are the fixed numbers that are unique to each switcher.

**Physical terminal number**
The physical terminal numbers mean the serial numbers that are given serially when the entire matrix system is regarded as a single switcher. The physical terminal number is the serial numbering system that is different from the connector number as described above in which each connector has the unique number.

**Virtual terminal number**
The virtual terminal numbering system consists of the first virtual matrix and the second virtual matrix. In the ordinary operation, the input and output channels are arranged first on the first virtual matrix in a manner that the inputs and outputs must not be overlapped. Then they are re-arranged again the second virtual matrix in accordance with the value that is set in the primary station menu item [L: SET PHYSICAL ASSIGMENT]. Various setups are executed on the second virtual matrix. The virtual terminal numbers are the numbers that are assigned when they are re-arranged on the second virtual matrix. The terminal numbers in this Manual mean the virtual terminal numbers (on the second virtual matrix) unless otherwise specified.

<table>
<thead>
<tr>
<th>Setup items</th>
<th>First virtual matrix</th>
<th>Physical assignment</th>
<th>Second virtual matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>Primary station</td>
<td>–</td>
<td>L</td>
<td>A, B, C, D, E, H, I, J, M, N, O, Q, S, X</td>
</tr>
<tr>
<td>Secondary station</td>
<td>A, Z, V</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

![Diagram](image-url)
**Tie line**

Tie line is used to effectively share the minimum number of signal converters (SDTV to HDTV, HDTV to SDTV) by the multiple input terminals and output terminals.

For example, when the SDTV video switcher and the HDTV video switcher are used at the same time, their respective input and output numbers can be shared by the converter using the tie line function so that all input and output numbers can be handled by the limited number of signal converters.

Tie line can be set in the menu item [O : SET TIE LINES] of the primary station.

**Example 1**

Refer to “Trunk” of “Appendix B Glossary” for “Trunk”.

The setting example: Tie line can be set in the menu item [O : SET TIE LINES] of the primary station.

---

**Setup display example**
Example 2

Multi-bit Router with both 143 Mbps to 1.48 Gbps

Setup example

<table>
<thead>
<tr>
<th>Source</th>
<th>Dest</th>
<th>Source</th>
<th>Dest</th>
<th>Source</th>
<th>Dest</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 to 128</td>
<td>257 to 260</td>
<td>–</td>
<td>–</td>
<td>261 to 264</td>
<td>129 to 256</td>
</tr>
<tr>
<td>129 to 256</td>
<td>261 to 264</td>
<td>–</td>
<td>–</td>
<td>257 to 260</td>
<td>1 to 128</td>
</tr>
</tbody>
</table>

The following setup can be made by the above setting.
- The HDTV signal of the inputs 129 to 256 can be output to the SDTV signal outputs of Output 1 to 128.
- The SDTV signal inputs of Inputs 1 to 128 can be output to the HDTV signal Outputs 129 to 256.
Tie Line Full display function

The Tie Line Full display function notifies that the trunk set by the tie line is being fully utilized. For example, three trunks are set by the tie line. If fourth tie line is attempted while all of the three trunks are being used, the notification is issued indicating that the trunk is full and that no more tie line can be used. This function displays message on the control panel, indicating that tie line is full.

<Procedure>

1. Set the Tie Line Full display function switch S1202-3 (TL-FUL) on the CA-65 board to OPEN (ON).
2. On the menu screen “D: SET SOURCE NAME”, set the name for the source terminal number 1024. If the source terminal number 1024 is named as “FULL”, for example, the remote controller displays “FULL”, indicating that the tie line is already full.

The Tie Line Full can be set using either “TYPE+number” name or “Description” name.

<table>
<thead>
<tr>
<th>SOURCE NUMBER</th>
<th>TRANSCODE</th>
<th>1X5-6700</th>
<th>V1.00</th>
<th>STATION NUMBER 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>0993=IN993</td>
<td>IN993</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0995=IN995</td>
<td>IN995</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0997=IN997</td>
<td>IN997</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>0999=IN999</td>
<td>IN999</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1001=IN1001</td>
<td>IN1001</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1003=IN1003</td>
<td>IN1003</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1005=IN1005</td>
<td>IN1005</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1007=IN1007</td>
<td>IN1007</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1009=IN1009</td>
<td>IN1009</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1011=IN1011</td>
<td>IN1011</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1013=IN1013</td>
<td>IN1013</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1015=IN1015</td>
<td>IN1015</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1017=IN1017</td>
<td>IN1017</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1019=IN1019</td>
<td>IN1019</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1021=IN1021</td>
<td>IN1021</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1023=IN1023</td>
<td>IN1023</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1024=IN1024</td>
<td>FULL</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Example of setting screen

Trunk

Connecting between an output and the next input with a cable is called trunk. It is used by the TIE LINE function. Similarly, there are cases that signal processing device is added to the line equivalent to a trunk to output the processed signal. A signal path is constructed as follows:

Input signal → routing switcher → trunk → routing switcher → trunk → routing switcher → output signal.
**Virtual mapping**

Several routing switchers can be mapped on a virtual matrix with 1024 inputs and 1024 outputs in router system. The matrix of one switcher can be also divided into several virtual levels and mapped. In the figure below, the $12 \times 12$ areas where the level 2 and level 3 are overlapping are set to the 4-channel mode while the others are set to the 2-channel mode in the $20 \times 20$ areas.

It is called “Virtual mapping” that you can freely assign cross-points using the virtual matrixes and virtual levels in this way. This virtual mapping function can be set in the primary station menu item [L : SET PHYSICAL ASSIGNMENT].
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