SONY®

AUX BUS REMOTE PANEL
MKS-8080/8082

OPERATION MANUAL   English
1st Edition

WARNING

This unit has no power switch.
When installing the unit, incorporate a readily accessible disconnect device in the fixed wiring, or connect the power cord to socket-outlet which must be provided near the unit and easily accessible.
If a fault should occur during operation of the unit, operate the disconnect device to switch the power supply off, or disconnect the power cord.

WARNUNG

Dieses Gerät hat keinen Netzschalter.
Beim Einbau des Geräts ist daher im Festkabel ein leicht zugänglicher Unterbrecher einzufügen, oder das Netzkabel muß mit in der Nähe des Geräts befindlichen, leicht zugänglichen Wandsteckdose verbunden werden.
Wenn während des Betriebs eine Funktionsstörung auftritt, ist der Unterbrecher zu betätigen bzw. das Netzkabel abzuziehen, damit die Stromversorgung zum Gerät unterbrochen wird.

AVERTISSEMENT

Cet appareil n'a pas d'interrupteur d'alimentation.
Quand vous installez l'appareil, branchez un interrupteur d'alimentation facile d'accès sur le câble fixe ou raccordez le cordon d'alimentation à une prise proche de l'appareil et facile d'accès.
En cas de problème en cours d'utilisation, déconnectez l'appareil par l'interrupteur d'alimentation ou débranchez le cordon d'alimentation.

WARNING
THIS APPARATUS MUST BE EARTHED.

WARNUNG
DIESES GERÄT MUSS GEERDET WERDEN.

AVERTISSEMENT
CET APPAREIL DOIT ÊTRE RELIÉ À LA TERRE.

Table of Contents

Overview

The MKS-8080/8082 AUX Bus Remote Panel switches AUX input/output signals to/from an MVS-8000 Multi Format Switcher System connected to the primary station of the S-BUS data link.

The MKS-8080 occupies 1 unit in height in a standard 19-inch rack, and has 32 source select buttons and four reentry buttons.

The MKS-8082 occupies 3 units in height in a standard 19-inch rack. The unit has 16 destination select buttons in addition to the buttons of the MKS-8080. The signal name can be labeled on each source select button and destination select buttons.

Features

AUX signal assignment linking with the MVS-8000

Settings of the select buttons made on the MVS-8000 are automatically set to the MKS-8080/8082, which enables control of operations of the linked MVS-8000. On the MKS-8082, the signal names are indicated on the buttons, and the arrangement of the signals set on the buttons can be changed.

Routing switcher controllable (MKS-8082 only)

While the RTR button is lit (RTR mode), you can control the routing switcher. Using this function, you can switch signals in an emergency, with MVS-8000 switching disabled.

Routing function (MKS-8082 only)

When you use the routing function, you can expand the number of sources without using the cascade connection. If you select expanded input as a source, the name of the actually selected source will appear.

Compatibility with P1 and P2 S-BUS protocols

Both the P1 (matrix size of 512×512 with 8 levels [1]) and P2 (matrix size of 1024×512 with 16 levels and matrix size of 1024×1024 with 8 levels) S-BUS protocols are supported.

1) Levels
To handle different kinds of signals simultaneously, it is necessary to use a routing switcher for each type of signal. The types are called "levels". For example, a recording to be made on a VTR requires the use of five signal levels: video, audio 1, audio 2, time code, and remote-control signals.

Large select buttons whose functions can be distinguished by color (MKS-8082 only)

Large select buttons on the front panel are employed for easy operation. They light in green, red, or amber, giving status information or showing the available choices to the operator.

Custom-configuring the unit with the select buttons

Using the select buttons in combination, you can set your own configuration for this unit, including source selection, signal assignment to the select buttons, and level breakaways.

Preset display window

The preset display window indicates the current status and entry/preset information. The operation mode can be set separately from a connected computer with the terminal software installed (hereinafter called the terminal).

Displaying a source or destination name on the buttons (MKS-8082 only)

Each source or destination name defined with the terminal can be shown on a key label on its button. You can easily replace any key label so that an updated indication can reflect any setting change on the terminal.

Different sources for levels selectable (breakaway function) (MKS-8082 only)

You can select and display different sources for levels. This is called the breakaway function.

Chop function for automatic toggling between two sources (MKS-8082 only)

Two sources are switched alternately at a specified interval automatically.

Several crosspoints switchable with the touch of a button (phantom function or sarvo function) (MKS-8082 RTR mode only)

When multiple crosspoints have been set as a phantom on the terminal, all the crosspoints defined with a phantom name can be switched by pressing one button.

Connectable with a single cable

The unit can be connected to the S-BUS data link of a digital routing switcher using a single 75-ohm coaxial cable, and can control the switcher.

Self-diagnostic functions

When the power is turned on, the ROM, RAM, and S-BUS data link, are automatically checked as to whether they function correctly. The buttons on the front panel light one after another to show that there is no problem in internal connections.

Operation on 100 V to 240 V AC without voltage selection

The unit can operate on voltages between 100 and 240 V AC without voltage adaptation.

System Connection Example

MVS-8000
Multi Format Switcher
Processor

PFV-SP3300
Signal Processing Unit

Control LAN
(100Base-TX)

S-BUS (BNC)

Computer with the
terminal software installed
(for setup)

RS-232C
(D-sub 9-pin)

PFV-D10 + BKPF-R70A
S-BUS primary station

HDS-X5800
Router Processor

PFV-SP3300
Signal Processing Unit

MKS-8010
System Control Unit

CCP-8000 series
Center Control Panel

MKS-8080
AUX Bus Remote Panel

MKS-8082
AUX Bus Remote Panel

BKPF-R70A + BZR-IF310
S-BUS sub-net controller

BKS-R-series
Remote Control Panel

BKS-R-series
Remote Control Panel

BKS-R-series
Remote Control Panel

BKS-R-series
Remote Control Panel

BKS-R-series
Remote Control Panel

BKS-R-series
Remote Control Panel

75Ω terminator

75Ω terminator

Location and Function of Parts

MKS-8080 Parts

Front panel

② KEY button
③ X-HOLD button
④ DEST button
⑤ Preset display window
① Tally lamps
⑥ Selector knob
⑦ ASSIGN button
⑧ Reentry buttons

⑨ Source select buttons

Rear panel

⑤ REMOTE 2 connector
④ RS-232C connector
③ REMOTE 1 connector
② Ground terminal
① ~ AC IN connector
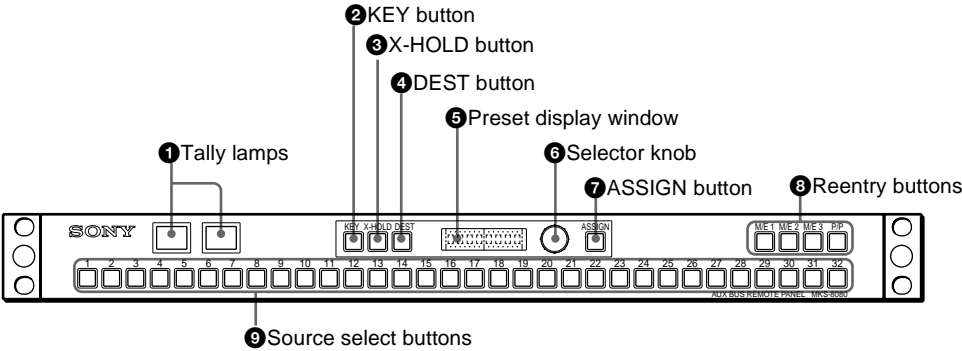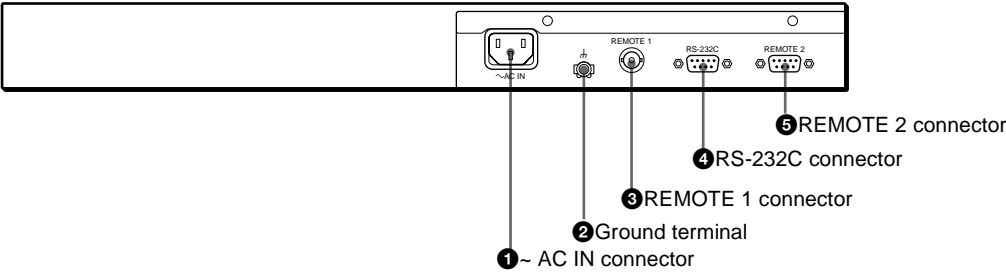
MKS-8082 Parts

Front panel

❺ Preset display window

❻ SELECTOR knob

SONY   AUX BUS REMOTE PANEL MKS-8082

❼ ASGN button

❹ DEST button

❷ LEVEL button

❸ RTR button

❹ CLEAR button

❺ LOCK (CHOP) button

❸ XPT HOLD button

❷ KEY button

❶ Source display windows

❽ Reentry buttons

❿ Destination select buttons

❾ Source select buttons

Rear panel

❺REMOTE 2 connector

❹RS-232C connector

❸REMOTE 1 connector

❷Ground terminal

❶~ AC IN connector
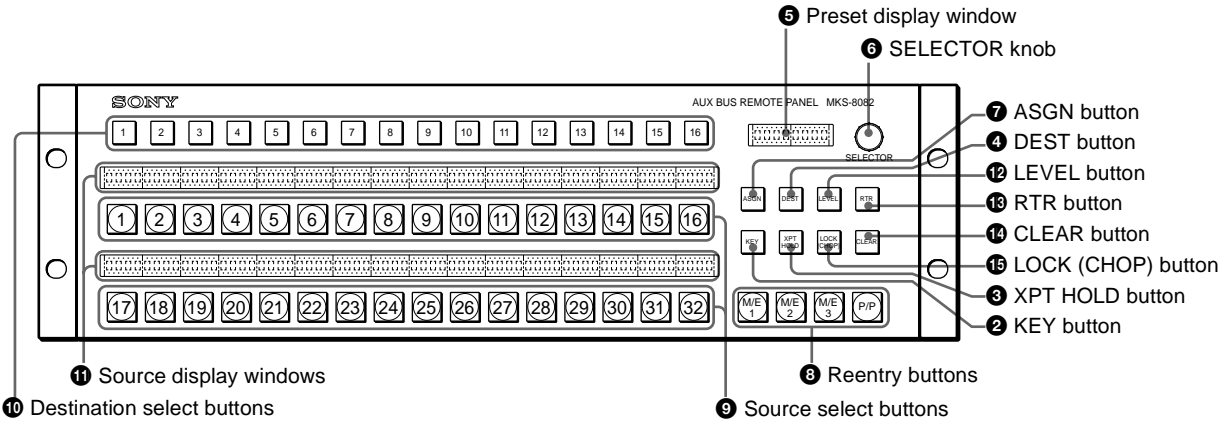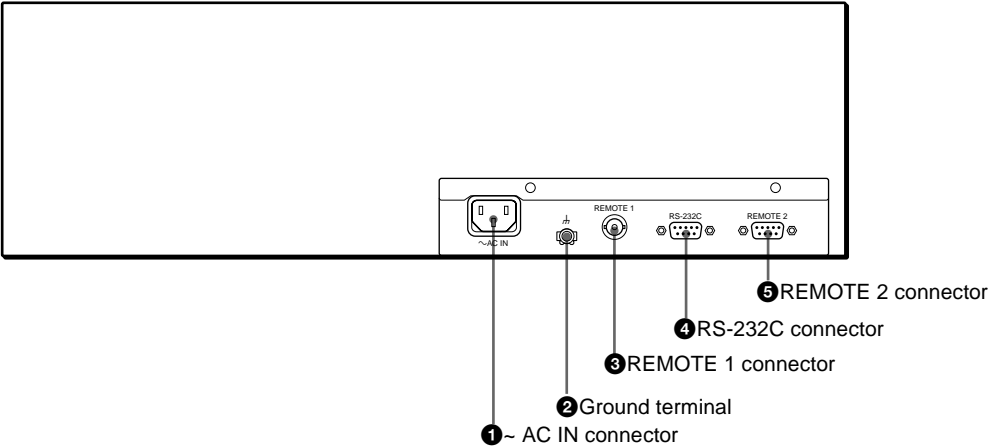
Functions of the Parts on the Front Panel

❶ TALLY lamps (MKS-8080)
When the tally function is activated for one or more tally groups, the tally status of the source selected for the destination to be controlled is indicated.

For details on the tally setting, see "Menu Item Y: SET DISPLAY MODES" on page 29.

❷ KEY button
Selects a source signal in AUX mode: VIDEO or KEY. When the button is not lit, VIDEO is selected, and when the button is lit, KEY is selected.

❸ X-HOLD (crosspoint hold) button (MKS-8080), XPT HOLD (crosspoint hold) button (MKS-8082)

In AUX mode (RTR button not lit)
Press to light the button in green, and the crosspoint hold function is enabled. Even if snapshot is performed on the MVS-8000, the button assignment will not change linked with the snapshot operation.

In RTR mode (RTR button lit) (MKS-8082 only)
Press to light the button in green, and the destination is protected. You cannot switch the input signals with the source select buttons. In a system using multiple control units, the XPT HOLD buttons on all the units that select the same destination will be lit, and the source select buttons on those units will be disabled.
If the selected destination is protected on another station, the button lights in red. If you press this button, the ID of the station will be displayed.

To release the crosspoint hold/protect setting
You can release it by either of the following methods:
• Pressing the X-HOLD/XPT HOLD button on the control unit which has set the crosspoint hold/protect to make the button go dark.
• Release from the terminal connected to the primary station.

Note
You can set how the crosspoint hold/protect function operates when the X-HOLD/XPT HOLD button is pressed, by using PROTECT MODE in Menu Z.

For details, see "Menu Item Z: SET PANEL STATUS" on page 30.

❹ DEST (destination) button
Sets the displayed item on the preset display window when you turn the SELECTOR knob. When the button is not lit, the source name is displayed, and when the button is lit, the destination name is displayed.

❺ Preset display window
Shows the destination to be controlled in normal operations. When an error is generated, an error message appears. When you turn the SELECTOR knob, the name selected with the knob is displayed for about 30 seconds. This shows the status in up to eight characters according to the operation mode and display format.

The display format can be set independently from the terminal. For setting from the terminal, see "Menu Item Y: SET DISPLAY MODES" on page 29.

In AUX mode
When you turn the SELECTOR knob, the source name appears in the left half of the window, and the button number in the right half.

In RTR mode
The displayed contents vary depending on the display format, as shown below.

1:NORMAL
There are two display formats according to the setting of primary station menu item "J: NAME STYLE."
TYPE+NUM (type name + number): The type name and a number (total of seven characters) of the destination and that of the source are displayed.
DESCRIP. NAME: All eight characters in the window are used to show a description of a signal. For a signal for which no description has been specified, the Type + Number name is displayed.

2:2+2CHAR
The destination and source to be controlled are displayed using four characters among the descriptions of the corresponding signals. The abbreviation of a description is obtained according to the format of Sony-made production switchers, which uses the first two and last two characters of a description.

3:4CHAR
The destination and source to be controlled are displayed using the first four characters among the descriptions of the corresponding signals. In the left half of the window, the source name is displayed in source mode, and the destination name in destination mode.

If you have assigned the TAKE function to a button on Menu N, normally the current input operation is displayed, and when you press the button, the source selected last for the destination currently controlled appears.

For details, see "Menu Item N: SET PANEL TABLE (for Router mode)" on page 23.

❻ SELECTOR knob

Turning the knob shows the destination name in the preset display window when the DEST button is lit, and the source name when the button is not lit.

When you turn the knob while holding the ASSIGN/ASGN button pressed, type names appear in the preset display window one by one. If you release the ASSIGN/ASGN button and turn the knob, the names classified under the type name appear one by one in the preset window.

You can limit the selectable range of names from the terminal, as described below.

• A source on which secret has been set will be skipped.
• The selectable range is limited according to the available source/destination table.

❼ ASSIGN button (MKS-8080), ASGN (assign) button (MKS-8082)

The ASSIGN/ASGN button has the following two functions:

To change the settings for the source select buttons and reentry buttons

In RTR mode pressing a source select button or reentry button while holding the ASSIGN/ASGN button pressed assigns the source name displayed in the preset display window to the pressed button.

In AUX mode, pressing a source select button or reentry button while holding the ASSIGN/ASGN button pressed assigns the source name displayed in the preset display window to the pressed button, replacing the original name. Normally, buttons 1 to 32 are set as source select buttons, and buttons 121 to 124 are as reentry buttons. When the SHIFT function is used, buttons 33 to 64 are set as source select buttons, and the buttons 125 to 128 as reentry buttons.

To select by type

When you turn the SELECTOR knob while holding the ASSIGN/ASGN button pressed, type name (TYPE) appears in the preset display window. When the name you wish to select appears, release the ASSIGN/ASGN button and turn the SELECTOR knob. The source or destination of the selected type will appear. You can easily select a signal by classifying them using the type name.

❽ Reentry button

Selects a reentry input signal.

❾ Source select buttons

Select the source assigned to a button.

In AUX mode, source selection is linked with the MVS-8000, but while the X-HOLD/XPT HOLD button is lit, the current status is retained.

Signals are assigned to the buttons with the assign operation or from the terminal. Once the signals are assigned, the settings are held even if the power is turned off, and each button functions according what you have assigned it to do.

Level-select mode (LEVEL button lit) (MKS-8082 only)

The buttons indicate the levels that can be controlled from this unit. The levels to be controlled can be set from the terminal.

The button for the level being selected lights in bright green. Buttons for controllable but unselected levels light in amber if the levels have been specified on the primary station. Buttons for the levels that have not been specified on the primary station do not light.

The default level is displayed when the power is turned on, when the destination is changed, or when the current level is cleared. (If the default is "0," the display is achieved using the level table of the primary station.)

❿ Destination select buttons (MKS-8082 only)

Select the destination assigned to a button.

⓫ Source display windows (MKS-8082 only)

Show the source name assigned to the corresponding source select button. The expanded input appears in the window corresponding to the button for which expansion input has been assigned by the routing function.

⓬ LEVEL button (MKS-8082 only)

Press to light the button, and the unit enters the level-selection mode. In level-selection mode, eight source select buttons show the levels selectable on this unit.

⓭ RTR button (MKS-8082 only)

Selects the operation mode, AUX or RTR. When the button is not lit, the unit is in AUX mode, and when the button is lit, the unit is in RTR mode.

⓮ CLEAR button (MKS-8082 only)

Press this button in the following cases:

• To cancel the operation being performed
• To return to the status set from the terminal after setting the levels using the level select button on this unit
• To clear an error message displayed in the preset display window

⓯ LOCK (CHOP) button (MKS-8082 only)

This button has two functions: lock function and chop function.

Lock function

Press to light this button in red, and the buttons on the front panel other than this button will be disabled. This prevents switching by touching the select buttons accidentally.

If you press a select button while the LOCK (CHOP) button is lit in red, the following message appears in the preset display window.

<<<<LOCK mode>>>>CSUMxxxxID=xxxVer.1.00

"CSUM" means the ROM checksum, and "xxx" is the station number of this unit.

If you press the button while it is lit in red, the button goes dark, and the lock is released.

CHOP function
When you hold the button pressed for about 3 seconds, the button lights in green, and the chop mode is obtained. In chop mode, the source before the chop mode and a source selected in chop mode are switched alternately at a specified interval.
In chop mode, CHOP appears in the preset display window, and turning the SELECTOR knob changes the interval for toggling between the two signals.

Functions of the Parts on the Rear Panel

❶ ∿**AC IN (AC power input) connector**
Connect to an AC power source using the designated AC power cord.

❷ **Ground terminal**
For signal grounding.

❸ **REMOTE 1 connector (BNC type)**
Connect to the S-BUS line using the T-bridge (supplied) and a 75-ohm coaxial cable (BELDEN 8281 or equivalent).

❹ **RS-232C connector (D-sub 9-pin)**
For servicing. Connect via an RS-232C cable to a computer for downloading software and monitoring communication status.

❺ **REMOTE 2 connector (D-sub 9-pin)**
For RS-422A remote control.

Preparations

Settings on the Control Terminal

Before switching signals with this unit, the following preparations should be made on the terminal connected to the primary station of the S-BUS data link.

1 Set the type names of sources, such as VTR, FLM, AUX, etc.

Up to 32 type names may be set.

2 Set the source names using a type name and number, such as FLM34.

The list of registered source names is called the source table.

3 Set the destination names using a type name and number, such as VTR089.

The list of registered destination names is called the destination table.

4 Set the level to be controlled for each destination.

5 Set the station number of this unit (see "Setting the station number").

6 Set the specified station to an active unit.

Note
If the station is not activated even when it is connected to an active S-BUS data link, switching of crosspoints cannot be made, while destination selection and crosspoint display are enabled.

7 Setup the global phantom, etc. as required.

Preparations for the MKS-8080/8082

You may use up to 253 control units, including this unit, in combination to expand the number of sources and destinations, or use this unit alone.

Setting the station number

Set the station number using the source/destination select buttons ① to ⑧. The station number is obtained by adding the binary place values of the buttons that are lit.

Button No.	Input value	
	Unlit	Lit
Button ①	0	1
Button ②	0	2
Button ③	0	4
Button ④	0	8
Button ⑤	0	16
Button ⑥	0	32
Button ⑦	0	64
Button ⑧	0	128

Example:
If buttons ①, ② and ④ are lit, the station number is 11 (1 + 2 + 8).

For the button numbers, see "Making the Settings With Buttons (Setup Function)" on page 15.

Note
Do not assign the same number to more than one unit connected to a routing switcher.

1 Press and hold the X-HOLD/XPT HOLD button and LOCK (CHOP) or KEY button together for about 5 seconds until "Reset" appears in the preset display window to restart the unit (software reset).

2 During restarting (lighting statuses of the buttons are being checked), press and hold source select buttons ①, ②, ③, and ④ to enter station number setting mode.

Note
When the power is turned ON for the first time, station number setting mode is automatically set, and steps **1** and **2** are not required.

3 Press the appropriate source select buttons.

The ID number will appear in the Preset display window in the format ID = xxx.

4 Press the ASSIGN/ASGN button.

The set station number is registered.

The registered station number is held even if the power is turned off.

Key label indications (MKS-8082 only)

It is recommended to write the source or destination name on the labels (these are called key labels), and attach them on the source and destination select buttons. Then you can see at a glance what functions you have assigned to each button.

To make a key label

1 Copy the key label guide shown on the next page onto a sheet of OHP sheet.

2 Write the name on the copied sheet.

3 Cut the sheet to the button size as shown below.
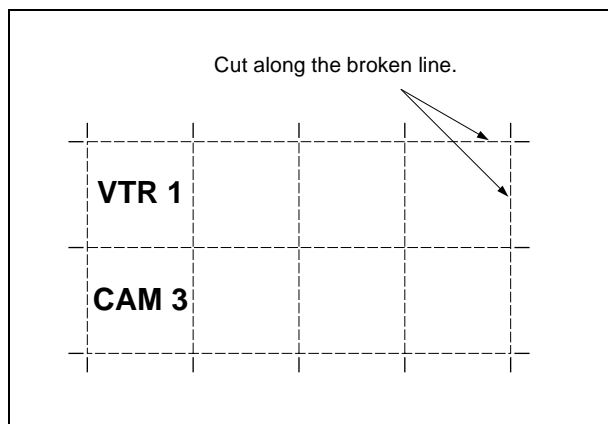
To attach a key label

Attach the key labels to the buttons with the following procedure:

For details on a key label, refer to the Installation Manual.
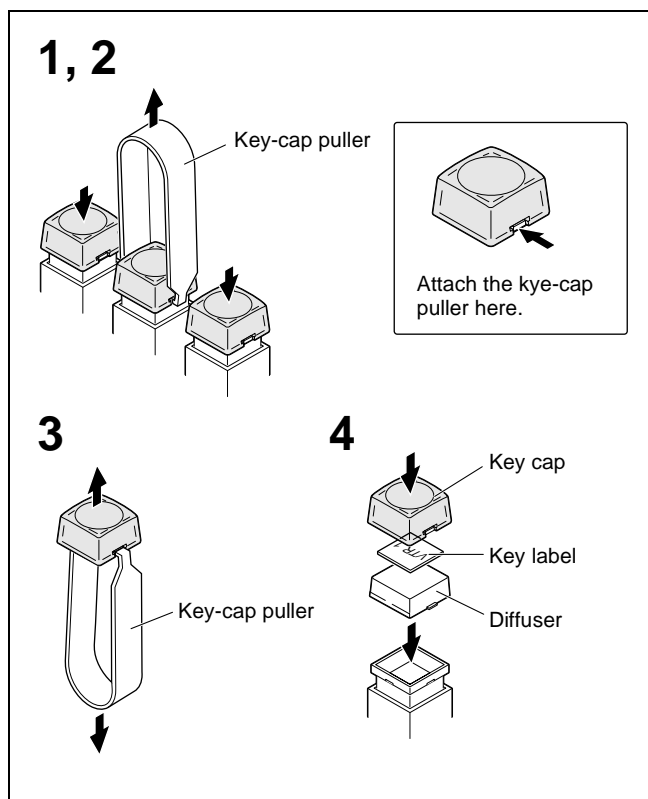
1 Attach the key-cap puller to the indentations on the sides of the key cap.

You can easily attach the puller if you press the buttons on both sides.

2 Remove the key cap by pulling with the key-cap puller.

3 Rotate the key-cap puller downward while pinching the key cap, and pull it down to separate the key cap, key label, and diffuser.

4 Put the key cap, key label with the name written on it, and diffuser on the button and reinstall the cap.

To obtain a key-cap puller (part number: 3-179-054-01), consult your Sony representative.

Key label guide

For a large button (13 × 13 mm)

13 mm

13 mm
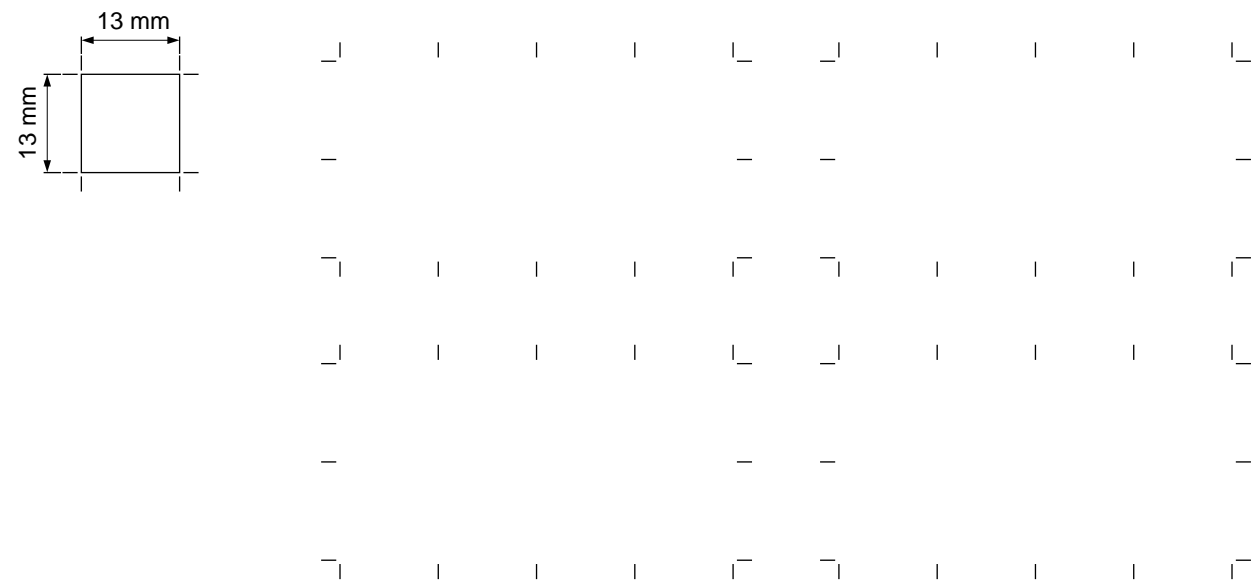
For a small button (9.5 × 9.5 mm)

9.5 mm

9.5 mm
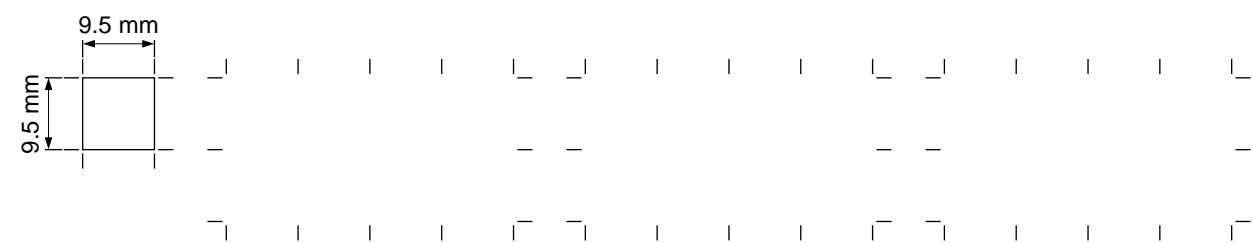
Making the Settings With Buttons (Setup Function)

With the S-BUS system, the necessary items are normally set at the terminal connected to the primary station. However, the following items may be set on this unit alone.
Turn the power on while holding down two or more source select buttons, or press the buttons during restarting (button-illumination test) after software reset.

Note
An operation by turning the power on while holding down some buttons and an operation by pressing the buttons during restarting triggered by pressing the X-HOLD/XPT HOLD button and LOCK (CHOP) or KEY button (software reset) lead to the same result.
You may perform setup by either method.

Numbers of the source-select buttons
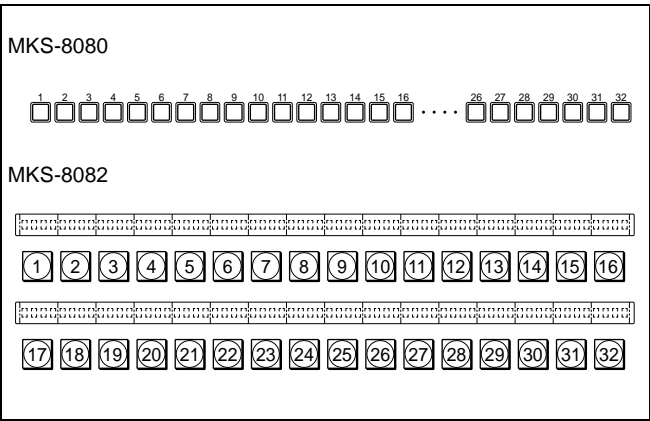
Initialization

To initialize the settings
While holding down buttons 1 and 2, turn the power on. The unit is set to the following factory-set conditions:
- Type + Number selection system
- In AUX mode: Source select buttons 1 through 32 correspond to sources 1 through 32, reentry buttons correspond to sources 121 through 124, and destination select buttons 1 through 16 correspond to destinations 1 to 16.
- In RTR mode: Source select buttons 1 through 32 correspond to sources 1 through 32, reentry buttons correspond to sources 121 through 124, and destination select buttons 1 through 16 correspond to destinations 17 to 32.
- Single-Use (Standalone) mode
- Single-Level mode

Selecting the operation modes

To enter Station Number Setting mode
While holding down buttons 1, 2, 3 and 4, turn the power on.
The station number can be set using buttons 1 through 8.

To set the level select buttons to Multi-Level mode
While holding down buttons 1 and 6, turn the power on.

To set the level-select buttons to Single-Level mode
While holding down buttons 1 and 7, turn the power on.

To change the numbers of the source select buttons (MKS-8082 only)
The numbers of the source select buttons on the MKS-8082 can be changed; i.e. source select buttons 1 through 16 will be source select buttons 17 through 32, and vice versa.
While holding down buttons 4 and 5, turn the power on.
To return to the factory-set button numbers, perform the same operation.

List of setup operations

Settings	Buttons to be pressed
To initialize the settings	1, 2
To enter Station Number Setting mode	1, 2, 3, 4
To set the level select buttons to Multi-Level mode	1, 6
To set the level select buttons to Single-Level mode	1, 7
To change the button number (MKS-8082)	4, 5

Note
Setup with the buttons should be performed with the factory-setting button number.

Operations

Signal Selection

First select the destination, then the source. The level selection depends on the setting at the terminal. Before starting operations, turn on this unit and other system equipment, and check that the X-HOLD/XPT HOLD button is not lit.

Selecting a destination (MKS-8082 only)

Press a destination-select button to which the desired destination has been assigned. The selected destination will appear in the preset display window. If the selected destination is an invalid one, an error message "NotFound" will appear in the preset display window.

Selecting a source

Press a source select button to which the desired source has been assigned. If your selection is not valid, an error message "NotFound" will appear in the preset display window.

Assignment (Setting the Name for a Source Select Button)

```
        ╱───────────────────────╲   No
       ╱    Use the type name?    ╲──────────┐
       ╲                          ╱          │
        ╲───────────────────────╱           │
                  │ Yes                      │
                  ▼                          │
   ┌─────────────────────────────────┐       │
   │ Turn the SELECTOR knob while     │       │
   │ holding the ASSIGN/ASGN button   │       │
   │ pressed.                         │       │
   └─────────────────────────────────┘       │
                  │                          │
                  ▼                          │
   ┌─────────────────────────────────┐       │
   │ Release the ASSIGN/ASGN button.  │       │
   └─────────────────────────────────┘       │
                  │◄─────────────────────────┘
                  ▼
   ┌─────────────────────────────────┐
   │ Turn the SELECTOR knob until the │
   │ desired source name appears.     │
   └─────────────────────────────────┘
                  │
                  ▼
   ┌─────────────────────────────────┐
   │ Press the source select button to│
   │ register the selected source name│
   │ while holding the ASSIN/ASGN     │
   │ button pressed.                  │
   └─────────────────────────────────┘
                  │
                  ▼
            ╭───────────╮
            │    End    │
            ╰───────────╯
```
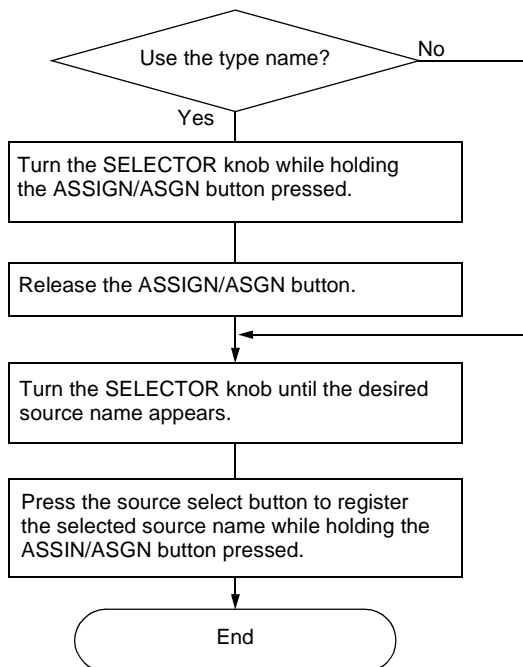
Breakaway (MKS-8082 Only)

Different sources can be used with multiple levels.

Selecting Breakaway

1 Press the LEVEL button.

2 Using source select buttons $\boxed{1}$ to $\boxed{8}$, select the desired breakaway levels.

3 Press the LEVEL button.

4 Select the source.

Canceling Breakaway

Press the CLEAR button.

Menu Operations

You can set various operational parameters of this unit using the secondary station menu on the terminal connected to the primary station.
The following settings are described on the assumption that the necessary settings, such as the name setting, on the primary station are completed.

For the settings of the primary station, refer to the instructions for the primary station.

Descriptions in this manual

The key operations on the control terminal are described as follows in this manual:
(1) A box indicates a key on the keyboard for the terminal (ex. Ctrl, Enter).
(2) Keys 0 to 9 are generically called "numeric keys."
(3) Keys A to Z are generically called "alphabetic keys."
(4) Keys ↑, ↓, ←, and → are generically called "cursor keys."
(5) A simultaneous press of two keys is indicated by connecting the names of keys with a hyphen (ex. Ctrl-X).

Key functions in settings

Character keys: To insert the corresponding characters at the cursor position.
BS: To delete the character before the cursor
DEL: To delete the character at the cursor position
Ctrl-F: To cancel an entered character string and restore the previous condition.
Enter (or Return on some keyboards): To execute the entered command or register the entered data

Calling the Setting Displays

The settings are made on the corresponding setting displays.
To call a setting display, follow the procedures below.

If this unit is connected to the S-BUS under the BZR-IF310 or equivalent, first call the main menu of that device, and then follow the procedures below.

1 Press Ctrl-X on the system status display (display after power-on) to display the primary station menu.

2 Press R to select "R: CALL SECONDARY STATION" from the primary station menu.

   You can also select it by moving the cursor to it with the cursor keys and pressing Enter.

3 Enter the station ID (in decimal) of this unit at the prompt "CALL STATION NUMBER?" then press Enter.

   The selection display of the secondary station menu appears.

   Selection display of the Setup Menu

```
SONY ROUTING SYSTEM SETUP MENU        MKS-8082 V1.00   STATION NUMBER 6
                    MODIFICATION COMMAND

        C : SET SWITCHER ID (for AUX mode)
        D : SET AUX DESTINATION/SOURCE (for AUX mode)
        H : SET PHANTOM TABLE (for Router mode)
        N : SET SOURCE KEY (for Router mode)
        R : SET ROUTE
        O : SET AVAILABLE SOURCE/DESTINATION
        L : COPY TABLE DATA FROM
        Y : SET DISPLAY MODES
        Z : SET PANEL STATUS
        S : DISPLAY DESCRIPTION NAME
     Ctrl-D : RETURN
```

   The menu item "S: DISPLAY DESCRIPTION NAME" appears only when the primary station menu item "J: NAME STYLE" has been set to DESCRIP.NAME (Description mode).
   Pressing Ctrl-D resumes the primary station menu display.

4 Enter the letter (C, D, H, N, R, O, L, Y, Z, or S) of the menu item to be set.

   The corresponding setting display appears.

To return to the selection display of the Setup Menu
Press Ctrl-E on each setting display.

Display and Entry Method for Names

The display mode for names of sources and destinations is automatically set depending on whether the primary station menu item "J: NAME STYLE" is set to Type + Num or DESCRIP.NAME.
When DESRIP.NAME is set, you can confirm the description name using menu item S: DISPLAY DESCRIPTION NAME.

In Type + Num (type and number) mode

• The name of a source or destination is composed of a type name and a number.
• To set or change the name, select a type name from the list in the lower portion of the display, then enter a number using the numeric keys.

In DESCRIP.NAME (description name) mode

• The name of a source or destination is displayed with a description name.
• You can set or change the name in the same manner as in Type + Num mode (default). Pressing Ctrl-N enables you to directly enter the description name using the alphabetic and numeric keys.

When not specially mentioned, the setting displays in Type + Num mode are shown as examples in this manual.

Note

To use the descriptions, the unit must receive the description data from the terminal in advance. The received description data can be checked using menu item S.

Menu Item C: SET SWITCHER ID (for AUX mode)

Purposes

Menu item C sets the unit whose source assignment is to be read and set to the source select buttons in AUX mode using the ID. The same settings of the CCP-8000 Center Control Panel, which is selected on this menu, will be assigned to the select buttons automatically.

Setting procedure

1 Press C on the selection display to select menu item C.

The setting display of menu item C appears.

Setting display (example)

```
SONY ROUTING SYSTEM SETUP MENU        MKS-8082 V1.00   STATION NUMBER 6
  SET SWITCHER ID

     SWITCHER ID = 002







  Ctrl-E : MENU    Ctrl-D : RETURN
```

2 Press Enter.

3 Enter the ID number (1 through 254) in decimal with the numeric keys.

4 Press Enter.

The setting is fixed.

To return to the selection display of the Setup Menu
Press Ctrl-E on each setting display.

To return to the primary station menu
Press Ctrl-D.

Menu Item D: SET AUX DESTINATION/SOURCE (for AUX mode)

Purposes

Menu item D enables you to set source/destination names for each source/destination select button in AUX mode.

Calling the setting display of menu item D

Press $\boxed{D}$ on the selection display to select menu item D. The setting display of menu item D appears.

Setting display (example)

```
SONY ROUTING SYSTEM SETUP MENU      MKS-8082 V1.00   STATION NUMBER 6
    SET AUX DESTINATION          CONTROL DESTINATION = OUT001
01 KEY=OUT001    02 KEY=OUT002    03 KEY=OUT003    04 KEY=OUT004
05 KEY=OUT005    06 KEY=OUT006    07 KEY=OUT007    08 KEY=OUT008
09 KEY=OUT009    10 KEY=OUT010    11 KEY=OUT011    12 KEY=OUT012
13 KEY=OUT013    14 KEY=OUT014    15 KEY=OUT015    16 KEY=OUT016
======================================================================
   SET SOURCE TABLE      +-------------+-----------+
 DISPLAY BUS = Main       | VIDEO   | KEY     |
 PANEL = MVS KEYS         +-------------+-----------+
 001 = 001                | IN001   | IN128   |
 002 = 002                | IN002   | IN127   |
 003 = 003                | IN003   | IN126   |
 004 = 004                | IN004   | IN125   |
 005 = 005                | IN005   | IN124   |
 006 = 006                | IN006   | IN123   |
 007 = 007                | IN007   | IN122   |
 008 = 008                | IN008   | IN121   |
 009 = 009                | IN009   | IN120   |
 010 = 010                | IN010   | IN119   |
 011 = 011                | IN011   | IN118   |
 012 = 012                | IN012   | IN117   |
 013 = 013                | IN013   | IN116   |
 F1 : MOVE     Ctrl-E : MENU   Ctrl-D : RETURN   Ctrl-N : DESCRIP. NAME
```

Setting procedure

To set SET AUX DESTINATION

1 Select a button number using the cursor keys.

2 Press $\boxed{\text{Enter}}$.

The unit enters Name Input mode.
If you press $\boxed{\text{Enter}}$ again before entering a name, Name Input mode is canceled.

3 **a) When the setting of primary station menu item "J: NAME STYLE" is "Type + Num":**
To set the source name and destination name, select the type name from the list in the lower portion of the display using $\boxed{0}$ to $\boxed{F}$, then enter a number.

b) When the setting of primary station menu item "J: NAME STYLE" is "DESCRIP.NAME":
Two input modes are available. Each time you press $\boxed{\text{Ctrl}}$-$\boxed{N}$, Description Input mode and Type + Num Input mode are toggled.

Description Input mode: Directly enter the first 7 characters of the description name using the alphabetic and numeric keys.
Type + Number Input mode: Enter in the same manner as in a) above.

Note

When a description name has been specified for the connector, the description name takes priority for displaying the name even if you enter a type and number name.

4 Press $\boxed{\text{Enter}}$.

The entered name is registered.

To set SET SOURCE TABLE

1 Press $\boxed{F1}$.

The cursor moves to the SET SOURCE TABLE block, and the DISPLAY BUS number set for the destination where the cursor was placed before pressing $\boxed{F1}$ appears at DISPLAY BUS. Settings for VIDEO and KEY depend on the DISPLAY BUS number.
PANEL 001 through 032 and 121 through 124 are the source names normally displayed. PANEL 033 through 064 and 125 through 128 are enabled when the SHIFT function is set for a select button in menu item N. PANEL 065 through 120 are not used in normal operation.
In the SET SOURCE TABLE block, you may assign any MVS KEYS to a select button on the panel only one time.

2 Place the cursor to MVS KEYS to be changed using the cursor keys.

If you press $\boxed{\downarrow}$ at the bottom of the display, the next page appears, and if you press $\boxed{\uparrow}$ at the top of the display, the previous page will appear.

3 Press $\boxed{\text{Enter}}$.

The unit enters MVS KEYS Number Input mode. If you press $\boxed{\text{Enter}}$ again, this mode will be canceled.

4 Enter the number to be changed (1 through 128), then press $\boxed{\text{Enter}}$.

When the number change is finished, the names of VIDEO and KEY are for the set number.

Keys assigned number 121 through 128 can be used as the reentry buttons. When the SHIFT function is not used, Keys 121 through 124 are used, and when the SHIFT function is used, Keys 125 through 128 are used.

To return to the selection display of the Setup Menu
Pressing Ctrl - E on each setting display.

To return to the primary station menu
Press Ctrl - D .

TAKE function and SHIFT function

The TAKE function and SHIFT function are available in AUX mode as well. The settings are performed in menu item N.

For details, see "Menu Item N: SET PANEL TABLE (for Router mode)" on page 23.

Menu Item H: SET PHANTOM TABLE (for Router mode)

Purposes

Menu item H enables you to specify a phantom function to switch multiple crosspoints at a time using a source select button in RTR mode on the remote control unit.

Types and functions of phantom

This control unit can use three phantom functions: "global phantom" registered in the primary station, "local phantom" registered in each control unit, and "destination-offset local phantom" to use a substitute for destination selection.

Global phantom
The global phantom allows you to switch up to 2,800 crosspoints by pressing a single button. This function may be used to switch crosspoints defined for a common phantom with two or more control units.

Note
The global phantom is set on the primary station, so the routing function does not work in synchronization with it. To activate the route display function in conjunction with the global phantom function, all crosspoints to be switched must be set as phantoms.

Local phantom
The local phantom allows you to switch multiple crosspoints by pressing a single button, or to switch crosspoints independently from destinations controlled on the unit. Up to 64 crosspoints can be set on the unit.

Destination-offset local phantom
The destination-offset local phantom sets the destination of the local phantom to a substitute parameter such as "(DST + n)," where "n" is a value for an offset from the connector number of the destination. "DST" is automatically substituted with the connector number of the destination selected for phantom switching. For example, if the destination is OUT005, the connector number of the destination is 015, and the offset value is 2 (n = 2), destination 017 is switched.
To execute the destination offset local phantom, first select and check the destination.

Examples of use of this phantom function are given on page 23.

Setting procedure for a phantom

1 Press $\boxed{H}$ on the selection display to select menu item H.

The setting display of menu item H appears.

Setting display (example)

```
SONY ROUTING SYSTEM SETUP MENU        MKS-8082 V1.00    STATION NUMBER 6
SET PHANTOM TABLE (PHANTOM:DESTINATION<SOURCE-LEVEL) (G.PHANTOM NAME:NUMBER)
PHANTOM | DEST   | SOURCE | LEVEL1-8 | PHANTOM | DEST   | SOURCE | LEVEL1-8
IN001   : OUT001 < IN001  - 11111111 | IN002   :  0001
IN003   : DST+005 < IN005  - 11110000 | ........:  ...... < ....... - 00000000
........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
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........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
........ : ....... < ...... - 00000000 | ........:  ...... < ....... - 00000000
0=IN     1=OUT    2=SONY    3=VTR    4=SUP    5=CB     6=AIR    7=ME
8=PGM    9=CL     A=SL      B=L      C=RET    D=MIX    E=JEEP   F=OSC
G=L/A    H=REM    I=CAM     J=STDO   K=AUX    L=COV    M=BS     N=CS
O=SAT    P=CG     Q=WETH    R=TEST   S=HD     T=D1-    U=D2-    V=SEG
 Ctrl-E : MENU  Ctrl-D : RETURN  Ctrl-N : DESCRIP.NAME  G : GLOBAL PHANTOM + : DST+
```

2 Move the cursor to the item to be set (PHANTOM, DEST, SOURCE, or LEVEL 1-8) using the cursor keys.

3 Press $\boxed{\text{Enter}}$.

Pressing $\boxed{\text{Enter}}$ again before entering data clears the current setting.
For LEVEL 1-8, each press of $\boxed{\text{Enter}}$ cyclically switches between "0" and "1."

4 Enter data in the phantom table.

The setting method depends on the type of phantom.

Setting a global phantom:
1) Enter the phantom name in the order of type name and number.
2) Press $\boxed{G}$ with the cursor in the DEST column.
3) Enter the 4-digit global phantom number specified on the primary station.

Setting a local phantom:
a) When the primary station menu item "J: NAME STYLE" is set to "Type + Num":
Specify the phantom name, destination name, and source name by selecting the type name from the list in the lower portion of the display using $\boxed{0}$ to $\boxed{V}$, and entering a number. Then specify the level.
(When you press the button on the remote control unit,

all the crosspoints of the same phantom name are simultaneously switched.)
b)When the primary station menu item "J: NAME STYLE" is set to "DESCRIP.NAME":
Specify the phantom name and the level in the same manner as in a) above. The destination and source names can be entered with either the description name or the Type + Number name.
Each time you press $\boxed{\text{Ctrl}}$-$\boxed{N}$, Description Input mode and Type + Num Input mode are toggled.

Setting a destination-offset local phantom:
1) In the same manner as with a local phantom, specify the phantom name, source name, and level.
2) Move the cursor to the DEST (destination) column and press $\boxed{+}$ to switch to Substitute Parameter (DST + n) Input mode.
3) Enter an offset value "n."

With " n = 0," the currently controlled destination number is substituted for the phantom destination when switching is executed. With a value other than 0, the specified offset value is added to the destination for the substitution.

Note
When a description name has been specified for the connector, the description name takes priority for displaying the name even if you enter a Type + Number name.

5 Press $\boxed{\text{Enter}}$.

The phantom table settings are registered.

Note
If you want a source select button specified for a phantom to light when you press it, it is necessary to specify the same name for that phantom as that of the source to be actually switched.
The system will search for a source that has the same name as that of the crosspoint selected for the destination being controlled then light the button corresponding to the source as the status of this unit.

To return to the selection display of the Setup Menu
Press $\boxed{\text{Ctrl}}$-$\boxed{E}$ on each setting display.

To return to the primary station menu
Press $\boxed{\text{Ctrl}}$-$\boxed{D}$.

Executing a phantom

When a phantom is executed from a remote control panel, operation is performed according to the phantom table set on this menu.

You can specify a certain level for switching, or turn each level ON (1)/OFF (0) independently.

When all the levels are set to "0," the level value will follow the level setting for the destination name set in the phantom table. (This setting is made with the primary station menu item "E: SET LEVEL TABLE."

The display windows show the following:

Phantom name: Output connector name < Input connector name -Level 1-8

If there is a protected destination in the phantom, the operation may vary depending on the setting of "PHANTOM PROTECT (MKS-8082 only)" (page 31) of "Menu Item Z: SET PANEL STATUS".

When set to PART PROT: Switching of the protected destination in the phantom data is not executed. The concept of the protect function is directly applied to the phantom switching.

When set to FULL PROT: None of the crosspoints are switched if any destination in the phantom is protected.

This mode regards the phantom as a single switching operation and does not execute if any part cannot be switched.

When set to BUTTON LINK: When the XPT HOLD button on the unit is lit, none of the crosspoints are switched.

This mode regards the protect function as panel protection, and no switching can be executed from the panel if its XPT HOLD button is lit.

Processing when the TAKE button is pressed

When you select a source then press the button on which the TAKE function has been set (TAKE button), the unit carries out the following processing:

```
┌─────────────────────────────────────┐
│   The TAKE button is pressed.        │
└─────────────────────────────────────┘
                  │
                  ▼
┌─────────────────────────────────────┐   No
│   The unit is in RTR mode.           │──────┐
└─────────────────────────────────────┘      │
                  │ Yes                       │
                  ▼                           │
┌─────────────────────────────────────┐      │
│ The unit checks whether the selected │      │
│ source name is listed in the         │      │
│ phantom table.                       │      │
└─────────────────────────────────────┘      │
     │                                        │
 When the source name        When the source name
 is listed in the table      is not listed in the table
     │                                        │
     ▼                                        │
┌──────────────────────────┐                  │
│ Checks whether the       │                  │
│ phantom data are for a   │                  │
│ global phantom.          │                  │
└──────────────────────────┘                  │
   │ Yes          │ No                         │
   ▼                                           │
┌──────────────────────┐                       │
│ Output the GLOBAL    │                       │
│ PHANTOM number.      │                       │
└──────────────────────┘                       │
   │              │                            │
   ▼              ▼                            │
┌──────────────────────────┐                   │
│ Selects the sources and  │                   │
│ destinations listed in   │                   │
│ the phantom table.       │                   │
└──────────────────────────┘                   │
              │                                 │
              ▼                                 ▼
┌───────────────────────────────────────────────┐
│ Checks whether secret or protect is set for    │
│ the selected sources and destinations.         │
└───────────────────────────────────────────────┘
        │                          │
 When secret or protected    When secret or protect
 has not been set            has been set
        ▼                          │
┌──────────────────────────┐       │
│ Excludes sources and     │       │
│ destinations for which   │       │
│ secret or protect have   │       │
│ been set from the        │       │
│ selection.               │       │
└──────────────────────────┘       │
        │                          │
        ▼                          │
┌──────────────────────────┐       │
│ Checks the level setting │       │
│ of each of the remaining │       │
│ sources and destinations │       │
│ for each name. When the  │       │
│ level setting is off, the│       │
│ setting in the           │       │
│ destination table is     │       │
│ selected.                │       │
└──────────────────────────┘       │
        │                          │
        ▼                          ▼
┌──────────────────────────┐  ┌──────────────────┐
│ Outputs a request for    │  │ Executes nothing.│
│ signal switching to the  │  │                  │
│ S-BUS.                   │  │                  │
└──────────────────────────┘  └──────────────────┘
```

Examples of a destination offset local phantom

Use this type of phantom when there are multiple destination select buttons, or when you want to always select a specific source in the same pattern even if the destination is changed from an X-Y control panel.

Example 1

A source (audio source AUD007 for example) of a level is to be assigned to multiple sources of another level (video source IN001 and IN004 for example).

Source name for each level			Setting of destination- offset local phantom
Source name	LEVEL 1	LEVEL 2	
IN001	IN001	AUD007	IN001: DST+000<IN001-10000000
			IN001: DST+000<AUD007-01000000
IN004	IN004	AUD007	IN004: DST+000<IN004-10000000
			IN004: DST+000<AUD007-01000000

Example 2

A pair of crosspoints (multiple audio channels, video key signals for example) is to be set.

Setting of Destination Offset Phantom
IN001: DST+000<IN001-10000000 IN001: DST+001<IN002-10000000
IN003: DST+000<IN003-10000000 IN003: DST+001<IN004-10000000

Menu Item N: SET PANEL TABLE (for Router mode)

Purposes

Menu item N enables you to set which source or destination is to be selected with which source/destination select button in RTR mode.
For a button to be used for the phantom, enter the phantom name on the source side.
You may also assign the monitor function, VTR control function, or level select function on the source side.
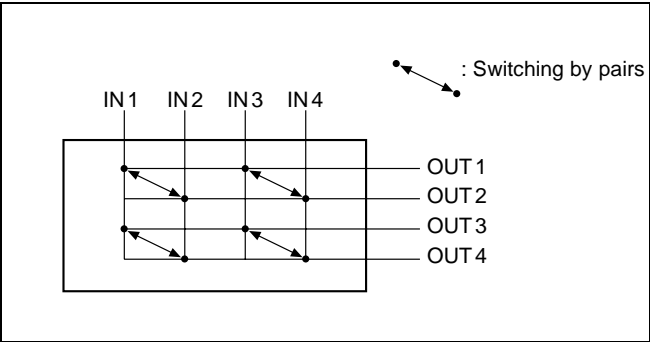
Notes
- The functions other than select buttons can be used only in Source mode.
- The monitor function is enabled in RTR mode only.

Calling the setting display of menu item N

Press [N] on the selection display to select menu item N. The setting display of menu item N appears.

Setting display (example)

```
SONY ROUTING SYSTEM SETUP MENU        MKS-8082 V1.00   STATION NUMBER 6
  SET PANEL TABLE (SOURCE)   CONTROL DESTINATION = OUT017
01 KEY=IN001      02 KEY=IN002      03 KEY=IN003      04 KEY=IN004
05 KEY=IN005      06 KEY=IN006      07 KEY=IN007      08 KEY=IN008
09 KEY=IN009      10 KEY=IN010      11 KEY=IN011      12 KEY=IN012
13 KEY=IN013      14 KEY=IN014      15 KEY=IN015      16 KEY=IN016
17 KEY=IN017      18 KEY=IN018      19 KEY=IN019      20 KEY=IN020
21 KEY=IN021      22 KEY=IN022      23 KEY=IN023      24 KEY=IN024
25 KEY=IN025      26 KEY=IN026      27 KEY=IN027      28 KEY=IN028
29 KEY=IN029      30 KEY=IN030      31 KEY=IN031      32 KEY=IN032
  SET RE-ENTRY BUTTON (multi effect key)
  M/E1=IN121      M/E2=IN122      M/E3=IN123       P/P1=IN124

  SET PANEL TABLE (DESTINATION)
01 KEY=OUT017     02 KEY=OUT018     03 KEY=OUT019     04 KEY=OUT020
05 KEY=OUT021     06 KEY=OUT022     07 KEY=OUT023     08 KEY=OUT024
09 KEY=OUT025     10 KEY=OUT026     11 KEY=OUT027     12 KEY=OUT028
13 KEY=OUT029     14 KEY=OUT030     15 KEY=OUT031     16 KEY=OUT032

0=IN      1=OUT     2=SONY    3=VTR     4=SUP     5=CB      6=AIR     7=ME
8=PGM     9=CL      A=SL      B=L       C=RET     D=MIX     E=JEEP    F=OSC
G=L/A     H=REM     I=CAM     J=STDO    K=AUX     L=COV     M=BS      N=CS
O=SAT     P=CG      Q=WETH    R=TEST    S=HD      T=D1-     U=D2-     V=SEG
 F1 : MOVE  F2 : PgDn  Ctrl-E : MENU  Ctrl-N : DESCRIP.NAME  T : TAKE  M : MONI  F : SHIFT
```

The subsequent operation depends on the function to be set.

To return to the selection display of the Setup Menu
Press [Ctrl]-[E] on each setting display.

To return to the primary station menu
Press [Ctrl]-[D].

Settings for select buttons (assigning sources/destinations to be selected)

For a button to be used as a select button, assign a source and/or a destination to be selected when you press the button.
To use a button as a phantom, set the phantom name on the source side.

1 Select the number of the button to be set as a select button using the cursor keys,.

You can switch source settings and destination settings with F1.
Normally you may select sources 1 through 32 and reentry M/E1 through M/E3, and P/P1. If you press F2, you can select sources 33 through 64 and reentry M/E4 through M/E6, and P/P2. To use source 33 through 64 or reentry M/E4 through M/E6, and P/P2, use the button on which the SHIFT function has been assigned.

2 Press Enter.

The unit enters Name Input mode.
If you press Enter again before entering a name, the current setting is erased.
Pressing Ctrl-F cancels an entry and restores the original function of the button.

3 **a) When the primary station menu item "J: NAME STYLE" is set to "Type + Num":**

Specify the source name and destination name by selecting the type name from the list in the lower portion of the display using 0 to V, and entering a number.

b) When the primary station menu item "J: NAME STYLE" is set to "DESCRIP.NAME":
Two input modes (Description Input mode and Type + Number Input mode) are available. Each time you press Ctrl-N, the input modes are toggled.
Description Input mode: Directly enter the first 7 characters of the description name using the alphabetic and numeric keys.
Type + Number Input mode: Enter in the same manner as in a) above.

4 Press Enter.

The entered name is registered.

Note

When a description name has been specified for the connector, the description name takes priority for displaying the name even if you enter a Type + Number name.

Notes

- Set the destination to be used as default when the power is turned on in CONTROL DESTINATION. To use this unit as a single-destination panel, enter the name of the destination to be used here.
- If you want the button on which the phantom has been set to light when executing the phantom, enter the same name as that of the source selected for the destination set for that phantom that corresponds to a destination that can be controlled from this unit.

Setting a monitor function

You can specify the monitor function for a select button.

What is the monitor function?
This is a function to observe the status of a destination specified with "MONITOR DESTINATION" of menu item Z, and always selects the same source as that for the destination.

For details on specifying the destination, see "MONITOR DESTINATION (MKS-8082 only)" on page 32 of "Menu item Z: SET PANEL STATUS."

Setting procedure

1 Select the number of the button to be set as the monitor button using the cursor keys.

2 Press M.

"MONI" appears, and the monitor function is assigned to the button selected in step **1** (hereinafter called the Monitor button).

Setting the TAKE function

What is the TAKE function?
The name selected with the SELECTOR knob on the front panel is taken.

In AUX mode
Maximum of 128 inputs and 128 outputs

In RTR mode
Maximum of 1024 inputs and 1024 outputs

Setting procedure

1 Select the number of the button to which the TAKE function is to be set using the cursor keys.

2 Press T.

"TAKE" appears, and the TAKE function is assigned to the button selected in step **1** (hereinafter called the TAKE button).

- The button for which the TAKE function has been set cannot be used as a source select button.
- The TAKE button set in Menu item N will be enabled in AUX mode as well.

Setting the SHIFT function

What is the SHIFT function?

Normally you can use sources 1 through 32 and reentry M/E1 through M/E3, and P/P1. When you use the SHIFT function, you can use sources 33 through 64 and reentry M/E4 through M/E6, and P/P2.

Setting procedure

1 Select the number of the button to which the SHIFT function is to be set using the cursor keys,.

2 Press F.

"SHIFT" appears, and the SHIFT function is assigned to the button selected in step **1** (hereinafter called the SHIFT button).

- The button for which the SHIFT function has been set cannot be used as a source select button.
- The SHIFT button set in Menu item N will be enabled in AUX mode as well.

Menu Item R: SET ROUTE

Purposes

Menu item R enables you to set the routing function.

What is the routing function?

If you cannot expand the number of inputs using cascade connections, you may connect sources of a switcher to the destinations of another switcher to achieve expansion. In such condition, you may set a function to display the source selected for the destination connected to an extended input when you select an input to the extended device, and support the required switching operation. Such a function that enables input expansion with a device without cascading capability is called a "routing function." By using the routing function, you can simply operate sources used for multiple destinations as if switching sources for a single destination.
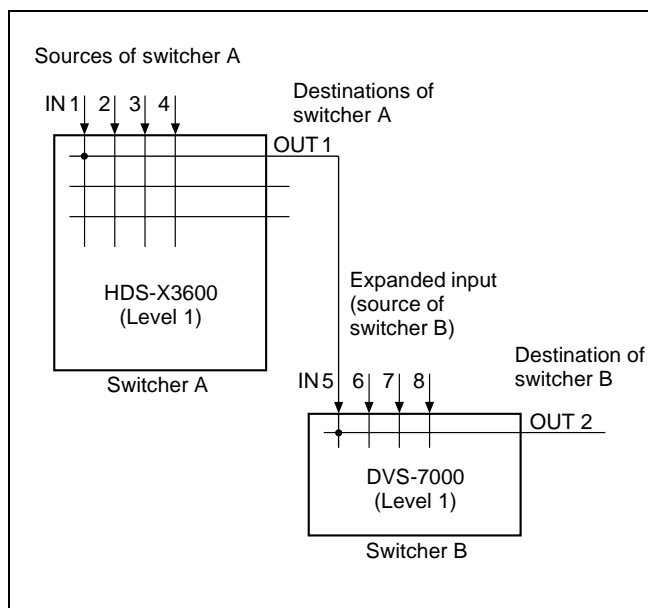
Even when such input expansion is repeated 4 times at maximum, the routing function enables you to search for destinations tracing back via the expanded inputs and to obtain a display of the appropriate source.
To display the actually selected source name, you must set the routing function with the terminal.
Then when you select a crosspoint set for the routing function, the source on switcher A is searched for, and the name is displayed.
For example, when a crosspoint is switched on switcher A in the figure, normally IN5 appears as the source name. If the routing function has been set, the source name selected on switcher A appears.
To activate the routing function, set the destination of switcher A, the destination and source of switcher B, and the level, in that order.

In the case of the figure above, set "OUT1:OUT2 <IN5 10000000."

When you use the routing function, switching is possible with simple settings. For example, if you select a source (IN1) for a destination (OUT1) on switcher A, the crosspoint on switcher B (IN5-OUT2) is automatically switched.
However, when you select a source (IN1) for a destination (OUT2) on switcher A, you have to set a phantom including IN1-OUT1 and IN5-OUT2 in advance. If the route has been set with a phantom, IN1-OUT2 is displayed.

Setting procedure

1 Press ⌐R⌐ on the selection display to select menu item R.

The setting display of menu item R appears.

Setting display (example)

```
SONY ROUTING SYSTEM SETUP MENU       MKS-8082 V1.00   STATION NUMBER 6
 SET ROUTE (ROUTE DESTINATION : DESTINATION < SOURCE-LEVEL)
ROUTE  |  DEST   | SOURCE | LEVEL1-8 |   ROUTE   |  DEST  | SOURCE | LEVEL1-8
OUT001 :  OUT002 < IN001 - 11111111 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
.......: ........<...... - 00000000 | ......... : ......<...... - 00000000
0=IN     1=OUT     2=SONY    3=VTR     4=SUP    5=CB      6=AIR    7=ME
8=PGM    9=CL      A=SL      B=L       C=RET    D=MIX     E=JEEP   F=OSC
G=L/A    H=REM     I=CAM     J=STDO    K=AUX    L=COV     M=BS     N=CS
O=SAT    P=CG      Q=WETH    R=TEST    S=HD     T=D1-     U=D2-    V=SEG
 Ctrl-E : MENU   Ctrl-D : RETURN   Ctrl-N : DESCRIP.NAME   + : DST+
```

2 Select an item, ROUTE, DEST, SOURCE, or LEVEL 1-8 using the cursor keys.

3 Press ⌐Enter⌐.

The unit enters Route setting mode.
Pressing ⌐Enter⌐ before entering data clears the current settings.
For LEVEL 1-8, each pressing of ⌐Enter⌐ cyclically switches between "0" and "1."

4 Enter a Type + Number name or description name in the ROUTE, DEST and SOURCE columns.

You can enter "1"(ON)/"0"(OFF) independently for each level in the LEVEL column.

(The setting method is the same as for the Phantom table. Note however that the destination name for switcher A to which the sources of switcher B are connected must be entered in place of the phantom name.)

For details on setting method, see "Menu Item H: SET PHANTOM TABLE (for Router mode)" on page 20.

5 Press ⌐Enter⌐.

The setting is registered.

To return to the selection display of the Setup Menu
Press ⌐Ctrl⌐-⌐E⌐ on each setting display.

To return to the primary station menu
Press ⌐Ctrl⌐-⌐D⌐.

Note
The same as with the phantom data, the routing function can be set using a destination offset. The destination-offset route is in effect when you use the same route for multiple destinations (there are multiple units as switcher B) from a single panel. When setting a phantom for expanded input switching, both switching at the extension device (switcher A) and phantom of expanded inputs (switcher B) must be set, and the destination offset must also be used for phantom.
In this case, both the route and phantom are "DST + 000."
With the previous example, "DST + 000" must be always set for OUT002.
Normally, the offset value for a route is "0." If another signal is being controlled in parallel and you want to display the name of that signal, use an offset.
To add an offset to the selected destination, follow the procedure below.

1 Enter ⌐+⌐ before pressing ⌐Enter⌐ at the DEST column.

"DST+" appears.

2 Enter the offset value (0 to 1023).

3 Press ⌐Enter⌐ to register the setting.

Menu Item O: SET AVAILABLE DESTINATION

Purposes

Menu item O enables you to specify the selectable range of destinations and selectable sources for the destinations.

Calling the setting display of menu item O

Press $\boxed{O}$ on the selection display to select menu item O. The setting display of menu item O appears.

Setting for the selectable destinations display (example)

```
SONY ROUTING SYSTEM SETUP MENU        MKS-8082 V1.00   STATION NUMBER 6
  SELECT DESTINATION NAME
0001=OUT001      0002=OUT002      0003=OUT003      0004=OUT004
0005=OUT005      0006=OUT006      0007=OUT007      0008=OUT008
0009=OUT009      0010=OUT010      0011=OUT011      0012=OUT012
0013=OUT013      0014=OUT014      0015=OUT015      0016=OUT016
0017=OUT017      0018=OUT018      0019=OUT019      0020=OUT020
0021=OUT021      0022=OUT022      0023=OUT023      0024=OUT024
0025=OUT025      0026=OUT026      0027=OUT027      0028=OUT028
0029=OUT029      0030=OUT030      0031=OUT031      0032=OUT032
0033=OUT033      0034=OUT034      0035=OUT035      0036=OUT036
0037=OUT037      0038=OUT038      0039=OUT039      0040=OUT040
0041=OUT041      0042=OUT042      0043=OUT043      0044=OUT044
0045=OUT045      0046=OUT046      0047=OUT047      0048=OUT048
0049=OUT049      0050=OUT050      0051=OUT051      0052=OUT052
0053=OUT053      0054=OUT054      0055=OUT055      0056=OUT056
0057=OUT057      0058=OUT058      0059=OUT059      0060=OUT060
0061=OUT061      0062=OUT062      0063=OUT063      0064=OUT064




Ctrl-E : MENU   Ctrl-D : RETURN              Ctrl-F : SELECT SOURCE
```

Setting procedure

To set a destination (SELECT DESTINATION NAME)

1 Select a destination to be set using the cursor keys.

When the cursor is placed at the top or bottom of the display, pressing $\boxed{\uparrow}$ or $\boxed{\downarrow}$ moves the display to the previous or next page. The output connector numbers are from 0001 through 1024.

2 Press $\boxed{\text{Enter}}$.

The status of the destination indicated with the cursor (selected or not selected) changes.

Notes
- Destinations whose names are displayed are selectable on this unit.
- "…" means that the name is not registered in the destination table.
- You cannot select a blank destination from this panel.

To return to the selection display of the Setup Menu
Press $\boxed{\text{Ctrl}}$-$\boxed{E}$ on each setting display.

To return to the primary station menu
Press $\boxed{\text{Ctrl}}$-$\boxed{D}$.

To set a source (SELECT SOURCE NAME)

1 Press $\boxed{\text{Ctrl}}$-$\boxed{F}$ on the SELECT DESTINATION NAME display.

The setting for selectable sources display appears.

Setting for selectable sources (example)

```
SONY ROUTING SYSTEM SETUP MENU        MKS-8082 V1.00   STATION NUMBER 6
  SELECT SOURCE NAME
     SRC TOP - SRC END  = DST TOP - DST END
001  IN033   - IN065    = OUT001  - OUT002
002  IN099   - IN128    = OUT002  - OUT003
003  ........ - ........  = ........ - ........
004  ........ - ........  = ........ - ........
005  ........ - ........  = ........ - ........
006  ........ - ........  = ........ - ........
007  ........ - ........  = ........ - ........
008  ........ - ........  = ........ - ........




0=IN      1=OUT     2=SONY    3=VTR     4=SUP    5=CB     6=AIR    7=ME
8=PGM     9=CL      A=SL      B=L       C=RET    D=MIX    E=JEEP   F=OSC
G=L/A     H=REM     I=CAM     J=STDO    K=AUX    L=COV    M=BS     N=CS
O=SAT     P=CG      Q=WETH    R=TEST    S=HD     T=D1-    U=D2-    V=SEG
Ctrl-E : MENU  Ctrl-D : RETURN  Ctrl-N : DESCRIP.NAME  Ctrl-F : SELECT DESTINATION
```

2 Using the cursor keys, select an item to be set.

3 Press $\boxed{\text{Enter}}$.

The unit enters Source Name Input mode.

4 Enter the Type + Number name or description name.

5 Press $\boxed{\text{Enter}}$.

Your input data is registered.

Setting example

Block (used area)	Source (input range)		Destination (output range)	
	TOP	**END**	**TOP**	**END**
1	1	64	1	64
2	101	64	1	64
3	101	164	101	164

If you limit the selectable range for input and output as shown above, the setting display and virtual matrix are as shown below.

Setting display and virtual matrix (example)

```
SONY ROUTING SYSTEM SETUP MENU        MKS-8082 V1.00   STATION NUMBER 6
  SELECT SOURCE NAME
     SRC TOP - SRC END =DST TOP - DST END
001  IN001   - IN064    = OUT001 - OUT064
002  IN101   - IN164    = OUT001 - OUT064
003  IN101   - IN164    = OUT001 - OUT064
004  .......-........  =.......- .......
005  .......-........  =.......- .......
006  .......-........  =.......- .......
007  .......-........  =.......- .......
008  .......-........  =.......- .......




0=IN      1=OUT    2=SONY    3=VTR     4=SUP    5=CB      6=AIR     7=ME
8=PGM     9=CL     A=SL      B=L       C=RET    D=MIX     E=JEEP    F=OSC
G=L/A     H=REM    I=CAM     J=STDO    K=AUX    L=COV     M=BS      N=CS
O=SAT     P=CG     Q=WETH    R=TEST    S=HD     T=D1-     U=D2-     V=SEG
 Ctrl-E : MENU  Ctrl-D : RETURN  Ctrl-N : DESCRIP.NAME  Ctrl-F : SELECT DESTINATION
```
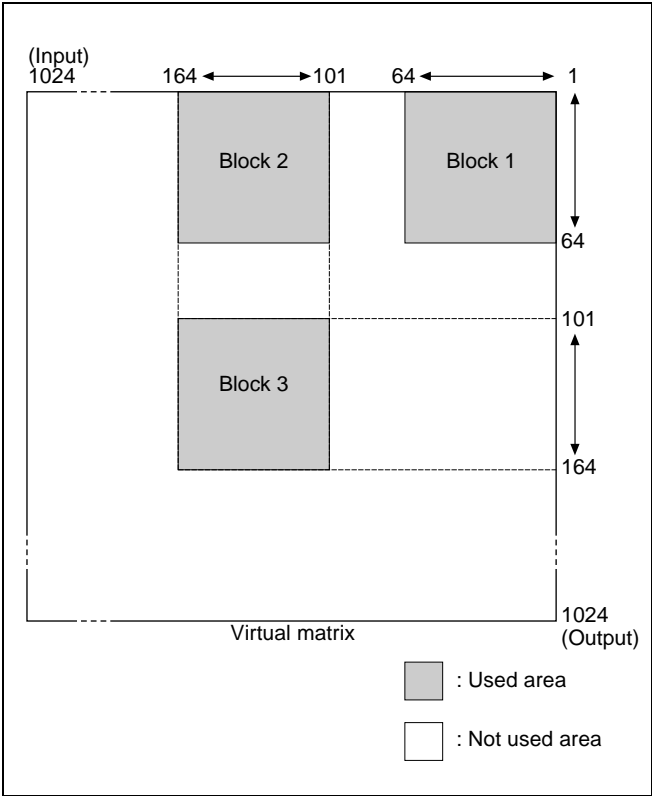
Note

Even if the destination offset phantom has been set in Menu item H, the switching signal will be disabled if outside the range set in SELECT SOURCE NAME. It is recommended to set the range so that the values added to or deleted from the offset value to the destination are within the range of 8 blocks of SELECT SOURCE NAME. If the offset value is "0" (DST + 0), it is executable.

Virtual matrix

☐ : Used area

☐ : Not used area

Notes

- If you select the destination which has no limitation on selectable range, selectable sources are from 001 to 1024.
- All sources, including the selected destination, will be enabled. If you select as shown above, both IN001 through IN064 and IN101 through IN164 will be enabled for OUT001.
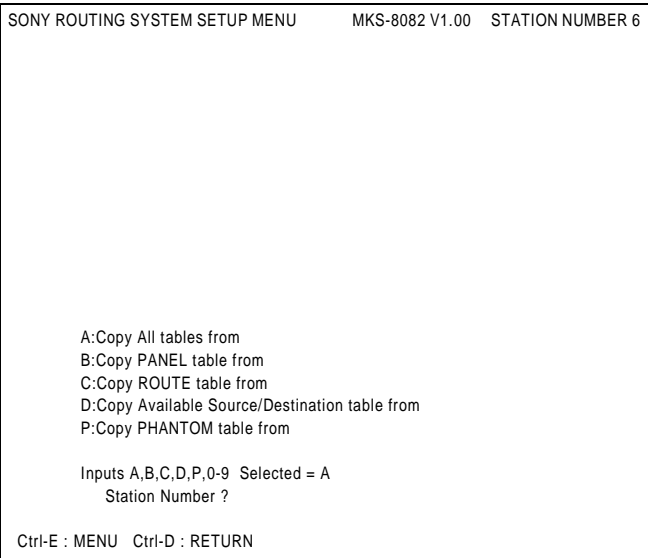
Menu Item L: COPY TABLE DATA FROM

Purposes

Menu item L is used to copy the table data from another remote control unit.
Menu item L can be called not only from the menu selection display but also from some setting displays by pressing L.

Setting procedure

1 Press L on the selection display to select menu item L.

The display of menu item L appears.

```
SONY ROUTING SYSTEM SETUP MENU        MKS-8082 V1.00   STATION NUMBER 6




            A:Copy All tables from
            B:Copy PANEL table from
            C:Copy ROUTE table from
            D:Copy Available Source/Destination table from
            P:Copy PHANTOM table from

            Inputs A,B,C,D,P,0-9  Selected = A
               Station Number ?

Ctrl-E : MENU   Ctrl-D : RETURN
```

2 Enter the station ID of the source remote control unit.

3 Select the table to be copied using the alphabetic keys.

A: To copy all the setting data
B: To copy the data set in "SET PANEL TABLE"
C: To copy the data set in "SET ROUTE"
D: To copy the data set in "SET AVAILABLE SOURCE/DESTINATION"
P: To copy the data set in "SET PHANTOM TABLE"

4 Press Enter.

Copying is executed, and the previous display is restored.

To return to the selection display of the Setup Menu
Press Ctrl-E on each setting display.

To return to the primary station menu
Press Ctrl-D.
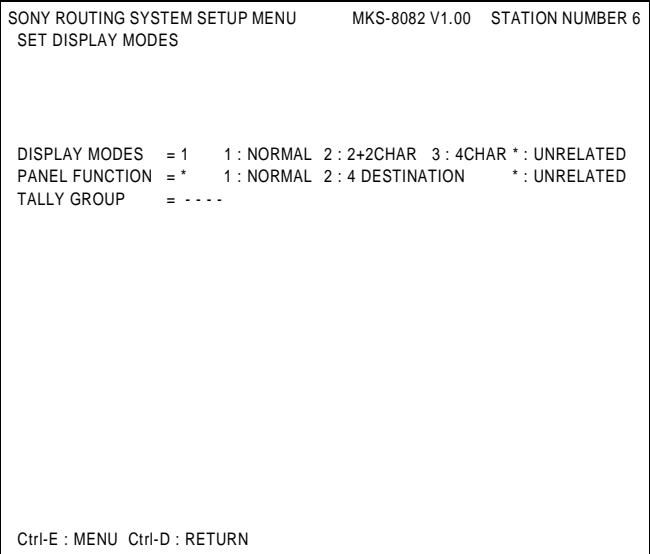
Menu Item Y: SET DISPLAY MODES

Purposes

Menu item Y enables you to set panel display conditions.

Setting procedure

1 Press Y on the selection display to select menu item Y.

The setting display of menu item Y appears, and the cursor is placed at "DISPLAY MODES = 1."

Setting display (example)

```
SONY ROUTING SYSTEM SETUP MENU        MKS-8082 V1.00   STATION NUMBER 6
  SET DISPLAY MODES




  DISPLAY MODES   = 1      1 : NORMAL  2 : 2+2CHAR  3 : 4CHAR * : UNRELATED
  PANEL FUNCTION  = *      1 : NORMAL  2 : 4 DESTINATION      * : UNRELATED
  TALLY GROUP     = - - - -









Ctrl-E : MENU   Ctrl-D : RETURN
```

2 Select an item to be set using the alphabetic keys then press Enter.

3 Select an item from the selections on the right, or enter the corresponding number.

For details, see the explanations of each item.

4 Press Enter to register the settings.

If you use the default settings, press Enter without setting anything.

To return to the selection display of the Setup Menu
Press Ctrl-E on each setting display.

To return to the primary station menu
Press Ctrl-D.

DISPLAY MODES

Select the format to display the name.
If "J: NAME STYLE" is set to DESCRIP.NAME on the primary station, select one of them.
1: NORMAL: normal display
2: 2+2CHAR: the first and last two characters of the name
3: 4CHAR: the first four characters of the name

Note

If "J:NAME STYLE" is set to "Type + Num," two characters of the type name and two characters of the number appear even if 2: 2+2CHAR or 3: 4CHAR is selected.

PANEL FUNCTION

Specify the operation mode of the panel.
NORMAL: Normal selection mode.
4 DESTINATION: You can specify destinations for each block when the source select buttons are classified to four blocks. The settings are made in "Menu item N: SET PANEL TABLE."

TALLY GROUP

You can select a tally group from among four groups according to the system to be used.
Selecting multiple tally groups is enabled. If multiple groups are selected, a tally lamp will light when one of the tally groups receives a tally signal.

1 Move the cursor to the tally group to be set (if you set tally 2, move to the second "-" from the left).

2 Press Enter.

The number appears.
Each time you press Enter, ON (number)/OFF (-) is toggled.

Menu Item Z: SET PANEL STATUS

Purposes

Menu item Z enables you to set various modes for the panel, such as the display format and serial input/output.

Setting procedure

1 Press Z on the Setup menu selection display to select menu item Z.

The setting display of menu item Z appears.

Setting display (example)

```
SONY ROUTING SYSTEM SETUP MENU      MKS-8082 V1.00   STATION NUMBER 6
 SET PANEL STATUS


 DISPLAY MODE        = 1   1 : STATUS       2 : PROMPT
 PROTECT MODE        = 4   1 : ON AIR   2 : NORMAL  3 : FLEXIBLE  4 : FLEX & OA
 PHANTOM PROTECT     = 1   1 : PART PROT    2 : FULL PROT   3 : BUTTON LINK
 PANEL MODE          = 1   1 : STAND ALONE 2 : MOTHER      3 : DAUGHTER
 PANEL LAYOUT        = *   1 : TYPE + NUM.  2 : BPS        * : UNRELATED
 LEVEL MODE          = 1   1 : SINGLE       2 : MULTI      * : UNRELATED
 DEST SELECTION      = 2   1 : DISABLE      2 : ENABLE     * : UNRELATED
 ILLUMINATION LEVEL  = 8   1-8 : MIN-MAX
 MONITOR DESTINATION = - - - - - - -
 SOURCE OFFSET       = 0000
 CONTROL LEVELS      = - - - - - - -



    BLOCK & MOTHER STATION LIST
    BLOCK 1 = STATION 016  | BLOCK 6  = - - - - - - - -
    BLOCK 2 = STATION 019  | BLOCK 7  = - - - - - - - -
    BLOCK 3 = - - - - - - - -  | BLOCK 8  = - - - - - - - -
    BLOCK 4 = - - - - - - - -  | BLOCK 9  = STATION 040
    BLOCK 5 = - - - - - - - -  | BLOCK10 = - - - - - - - -
Ctrl-E : MENU   Ctrl-D : RETURN
```

2 Select the item to be set using the alphabetic keys, and press Enter.

The unit enters the setting mode for the selected item.

3 Enter the corresponding number, selecting from among the available choices listed on the right, or directly enter a value.

For details, see the paragraph for each item.

4 Press Enter to register the setting.

To return to the selection display of the Setup Menu
Press Ctrl-E on each setting display.

To return to the primary station menu
Press Ctrl-D.

DISPLAY MODE

Set the mode for the panel display.
Normally use STATUS mode.

1: STATUS

Checking the latest crosspoint information, the unit turns on the button that corresponds to the currently selected source. In this mode, the current status can be displayed by button illumination even if switching is made from another panel. Normally use this mode.

2: PROMPT

A button lights when you press it.
Use this mode, for example, when you want buttons set for phantom to be lit when active regardless of crosspoint information.

PROTECT MODE

Specify the operation in Protect mode for each panel. Normally use NORMAL mode.
The mode selected here has no affect on the X-HOLD/ XPT HOLD button illuminating condition.
The default setting is 4: FLEX & OA

1: ON AIR

Switching can be executed even in Protect mode.
When the panel to be used as a selector during on-the-air status is set to ON AIR mode, and other panels are set to NORMAL mode, you can execute switching at will from the panel in ON AIR mode while eliminating inadvertent switching from other panels by setting the panels to Protect mode during on-the-air status.
Using the LOCK (CHOP) button on the MKS-8082 in combination, you may disable switching also from the panel in ON AIR mode when required.

2: NORMAL

Switching cannot be executed even in Protect mode.
Normally use this mode.

3: FLEXIBLE

Protection of other stations can be canceled.
Normally, protection that was activated from another station can only be canceled from the primary station.
By setting a panel to this mode, you can cancel protection activated on another panel.
If you forgot to cancel protection or protection was unintentionally activated, you must first find the panel where protection was activated. However, if there is a panel in FLEXIBLE mode, you can cancel such protection using this panel as a master panel.

4: FLEX & OA

A mode combining FLEXIBLE mode and ON AIR mode.

PHANTOM PROTECT (MKS-8082 only)

Specify one of these operation modes for phantom switching when there is a protected destination.
Normally use PART PROT mode.

1: PART PROT

Only unprotected signals are switched. Switching to the protected destination is not executed.
Normally use this mode.

2: FULL PROT

No switching operations are executed if any destination in the phantom is protected.
Use this mode when there is no meaning if any one signal remains unswitched.

3: BUTTON LINK

When the XPT HOLD button on the panel is lit, no switching operations can be executed.
Regarding phantom switching the same as normal source switching, you can know whether all switching operations specified for the phantom are possible or not by checking whether the XPT HOLD button is lit (protect on).

PANEL MODE

Set whether this unit is to be used alone or as the mother unit among multiple units. The setting is fixed to 1: STAND ALONE.

1: STAND ALONE

To use as a stand-alone unit.

LEVEL MODE

Select the operation methods of the level-control buttons.

1: SINGLE

The single-level mode is selected. In this mode, signals on the level(s) of the last pressed button are searched for.
To restore the previous level setting, press the CLEAR button or select another destination.

2: MULTI

The multiple-level mode is selected. In this mode, each time you press a level-control button it cyclically turns on (selected) or off (unselected) independently. Use this mode when you want to search for signals of levels of multiple buttons.
If you set all the levels to the unselected status, the previous level is automatically restored. This is the same result as that when you press the CLEAR button or select another destination.

DEST SELECTION

Enable/disable destination change from the unit.

1: DISABLE

Destination changing is disabled. When the unit is mainly used for source selection, and the destination need not be changed, select "DISABLE." This prevents the destination from being erroneously changed.

2: ENABLE

Destination changing is enabled.

ILLUMINATION LEVEL

The brightness of button illumination can be changed in 8 levels (1 to 8). Select an appropriate setting for the ambient conditions.
The higher the value, the brighter the illumination.

MONITOR DESTINATION (MKS-8082 only)

When the destination to be monitored has been specified at the terminal, the monitor display panel automatically selects the source for that destination when the monitor function is ON.
With the conventional monitor system, the output to be monitored is divided to return to an input (reentry), as shown below.
The monitor function of this unit enables monitoring on a software basis without using any physical crosspoints.

Conventional monitor system
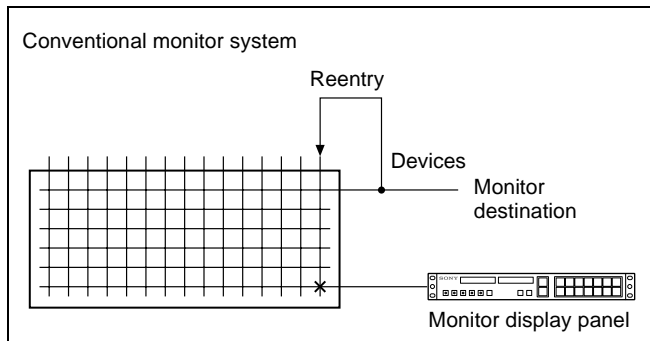
To use the monitor function, it is necessary to set a Monitor button using menu item N.

Setting method:

Enter the destination name to be monitored.
In the same manner as with menu item N, entry can be made either with its Type + Number name or description name.

SOURCE OFFSET (MKS-8082 only)

When the monitor function is on, monitoring is possible while adding an offset specified in this item for the number of the source to be monitored.
Normally use "0."

Example of use: Monitoring an HD source on a standard system

To monitor an HD source on a standard system, it is necessary to down-convert HD signals. Adding a certain offset can monitor these down-converted signals.

Example of source offset system
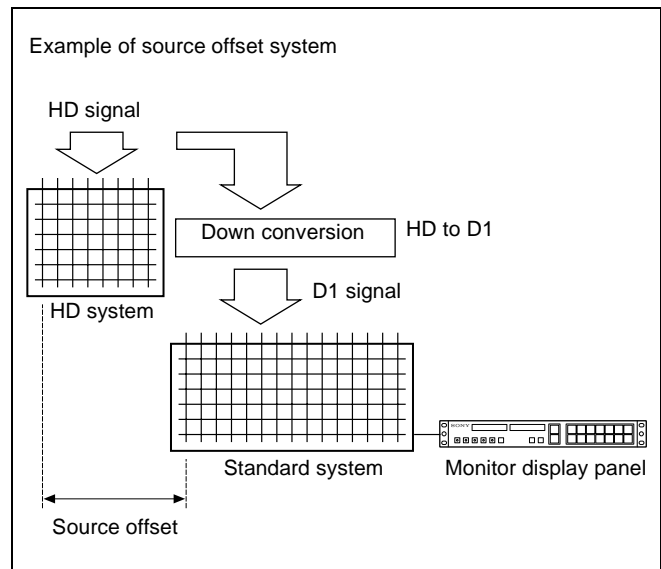
Setting method

Using the numeric keys, enter an offset value.
0: To take the same source as that for the destination to be monitored
1 to 1023: To take a source by adding the specified offset

CONTROL LEVELS

Normally use all in the "-" state.
In this condition, the levels activated on the primary station are used for each destination.
To use the unit for example as an audio-only panel, set only the required levels to ON.

Setting method

To use a certain level from the remote control unit, set the cursor to the position of the level (e.g. the third "-" from the left for level 3) and press ⌊Enter⌋.
Its number indicates the activated level.
Each time you press ⌊Enter⌋, ON (the level number indicated) and OFF ("-" indicated) are toggled.
When all levels are set to "-," switching is achieved according to the levels set on the primary station.
The levels specified here can be selected regardless of the LEVEL MODE setting (previous page).

Menu Item S: DISPLAY DESCRIPTION NAME

Purposes

Menu item S is available only when "J: NAME STYLE" is set to DESCRIP.NAME, and shows the description name list.

Calling the Menu item S display

Press $\boxed{S}$ on the selection display to select menu item S.

Source list (example)

```
SONY ROUTING SYSTEM SETUP MENU       MKS-8082 V1.00   STATION NUMBER 6
  SOURCE
        name   Description           name   Description
0001 IN001    CAM001       0002 IN002    CAM002
0003 IN003    CAM003       0004 IN004    CAM004
0005 IN005    VTR005       0006 IN006    VTR006
0007 IN007    VTR007       0008 IN008    VTR008
0009 IN009    ONAIR01      0010 IN010    ONAIR02
0011 IN011    ONAIR03      0012 IN012    ONAIR04
0013 IN013    STADIO1      0014 IN014    STDIO2
0015 IN015    STADIO3      0016 IN016    STDIO4
0017 IN017    MONI001      0018 IN018    MONI002
0019 IN019    IN019        0020 IN020    IN020
0021 IN021    IN021        0022 IN022    IN022
0023 IN023    IN023        0024 IN024    IN024
0025 IN025    IN025        0026 IN026    IN026
0027 IN027    IN027        0028 IN028    IN028
0029 IN029    IN029        0030 IN030    IN030
0031 IN031    IN031        0032 IN032    IN032




  Ctrl-E : MENU   Ctrl-D : RETURN   Right : DESTINATION   Left : SOURCE
```

Destination list (example)

```
SONY ROUTING SYSTEM SETUP MENU       MKS-8082 V1.00   STATION NUMBER 6
  DESTINATION
        name   Description           name   Description
0001 OUT001   DST001       0002 OUT002   DST002
0003 OUT003   DST003       0004 OUT004   DST004
0005 OUT005   DST005       0006 OUT006   DST006
0007 OUT007   DST007       0008 OUT008   DST008
0009 OUT009   OUT009       0010 OUT010   OUT010
0011 OUT011   OUT011       0012 OUT012   OUT012
0013 OUT013   OUT013       0014 OUT014   OUT014
0015 OUT015   OUT015       0016 OUT016   OUT016
0017 OUT017   OUT017       0018 OUT018   OUT018
0019 OUT019   OUT019       0020 OUT020   OUT020
0021 OUT021   OUT021       0022 OUT022   OUT022
0023 OUT023   OUT023       0024 OUT024   OUT024
0025 OUT025   OUT025       0026 OUT026   OUT026
0027 OUT027   OUT027       0028 OUT028   OUT028
0029 OUT029   OUT029       0030 OUT030   OUT030
0031 OUT031   OUT031       0032 OUT032   OUT032




  Ctrl-E : MENU   Ctrl-D : RETURN   Right : DESTINATION   Left : SOURCE
```

To return to the selection display of the Setup Menu
Press $\boxed{Ctrl}$-$\boxed{E}$ on each setting display.

To return to the primary station menu
Press $\boxed{Ctrl}$-$\boxed{D}$.

Error Messages

When trouble occurs with this unit, the following error messages appear in the display window. The displayed message will automatically disappear after a few seconds. Pressing the CLEAR button also makes the displayed message disappear on the MKS-8082.

Error messages	Contents	Remarks
Reset-P	The primary station has been reset.	This occurs when the primary station is turned on, or when some trouble occurs in the S-BUS data link
Com Err	Communication error of the S-BUS data link	This may occur when the communication period is too long. The primary station may be turned off, or the remote cable may be disconnected.
Protect	The destination is protected.	The protected destination cannot be switched. In the preset display window, the ID of the station, which has set the protection for the destination, is displayed. (RTR mode)
Not Found	The name cannot be found.	The designated type name for Type+Number selection does not exist in the table.
Pac Err	Reception error on the S-BUS data link	If this occurs only once every several minutes, it is not a problem. Power source noise or an S-BUS remote cable longer than 500 m using BELDEN cable or equivalent may be the cause. If the same errors still occurs on this unit when used under conditions without the above causes, the trouble may be in this unit.
Secret	A source set as secret is to be selected.	A source set as secret cannot be selected on a unit other than the primary station.
Lvl Err	All levels are not controllable.	All levels are set not to be controlled.
No Dest	The destination has not been set.	The designated destination has not been set. Change the selection or setting.
Not Avail	The source is outside the available sources.	The source to be switched is not found within the range of the available sources. The source cannot be changed.
	The KEY button is disabled. (RTR mode)	In RTR mode, the KEY button is disabled.

Specifications

Power requirements
           100 to 240 V AC
           50/60 Hz
Current consumption
           MKS-8080: 0.1 A
           MKS-8082: 0.25 A
Peak inrush current
  (1) Power ON, current probe method:
           50 A (240 V), 20 A (100 V)
  (2) Hot switching inrush current, measured in
     accordance with European standard EN55103-1:
           10 A (230 V)
Operating temperature
           5°C to 40°C (41°F to 104°F)
REMOTE 1   BNC type × 1, S-BUS
           Data transfer method: BI-PHASE
            SPACE
           Data transfer rate: 312.5 kbps/1250
            kbps
REMOTE 2   D-sub 9-pin × 1, RS-422
           Data transfer method: conforming to
            the EIA RS-422A
           Data transfer rate: 38.4 kbps
RS-232C   D-sub 9-pin × 1
           Data transfer method: 8 bits, No parity,
            No check
           Data transfer rate: 38.4 kbps
Signal transfer distance
           500 m (1,640 feet)
            (75-ohm coaxial cable,
            BELDEN 8281 or equivalent)
Dimensions (w/h/d)
           MKS-8080: 440 × 44 × 116.5 mm
           $(17\,^3/_8 \times 1\,^3/_4 \times 4\,^5/_8$ inches)
           MKS-8082: 440 × 132 × 120 mm
           $(17\,^3/_8 \times 5\,^1/_4 \times 4\,^3/_4$ inches)
Mass   MKS-8080: Approx. 1.4 kg (3 lb)
           MKS-8082: Approx. 2.6 kg
            (5 lb 12 oz)
Accessories supplied
           Operation Guide (1)
           T bridge (1)

Design and specifications are subject to change without
notice.

Sony Corporation
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