SONY

TALLY INTERFACE UNIT

BKDS-7700

BKDS-7701

BKDS-7790

BZS-7710

BZS-7720

SYSTEM SETUP MANUAL

1st Edition

Table of Contents

6. Setup Data

7. Setup Menu

8. Details of Connected Equipment

9. Setup Example

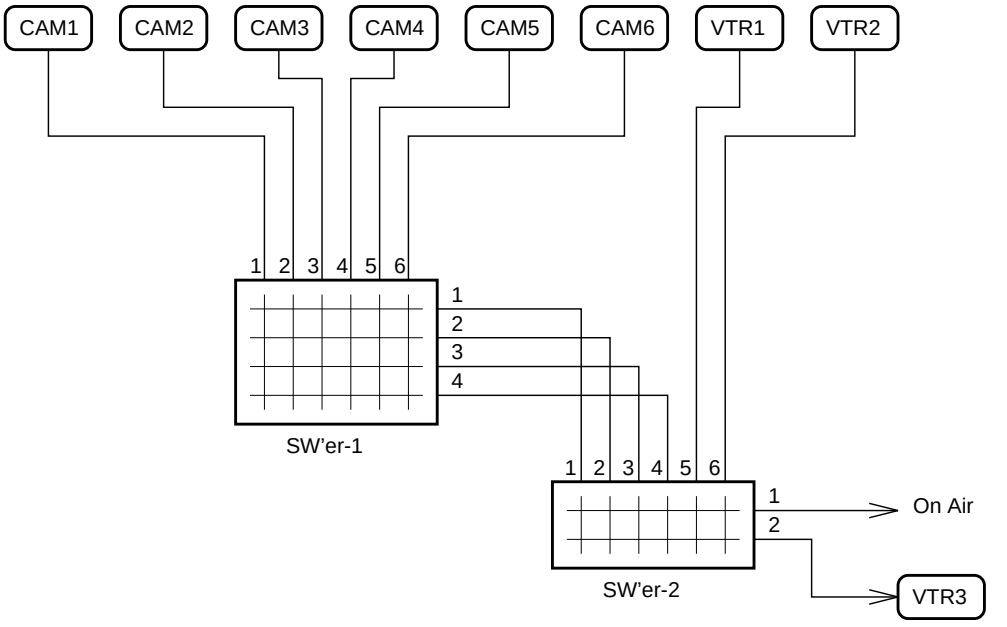
A. Setup Example (S-Bus Application)

Section 1
Outline

In the live operation such as a studio, outdoor broadcasting (OB) van, and master, the tally provides a “Caution” display for the user who operates the current source (e.g., camera or switcher) used in the last output stage of the system. This unit receives the input numbers of video signals output from a switcher, DME, and router constituting the system and generates a tally signal according to the connection information between the equipment preset in this unit .

Section 2
Theory of Tally Generation

The tally is used to display the current source used in the last output stage.
Therefore, the source is retrieved from the last output stage to each equipment in the reverse order. The theory is descried below.

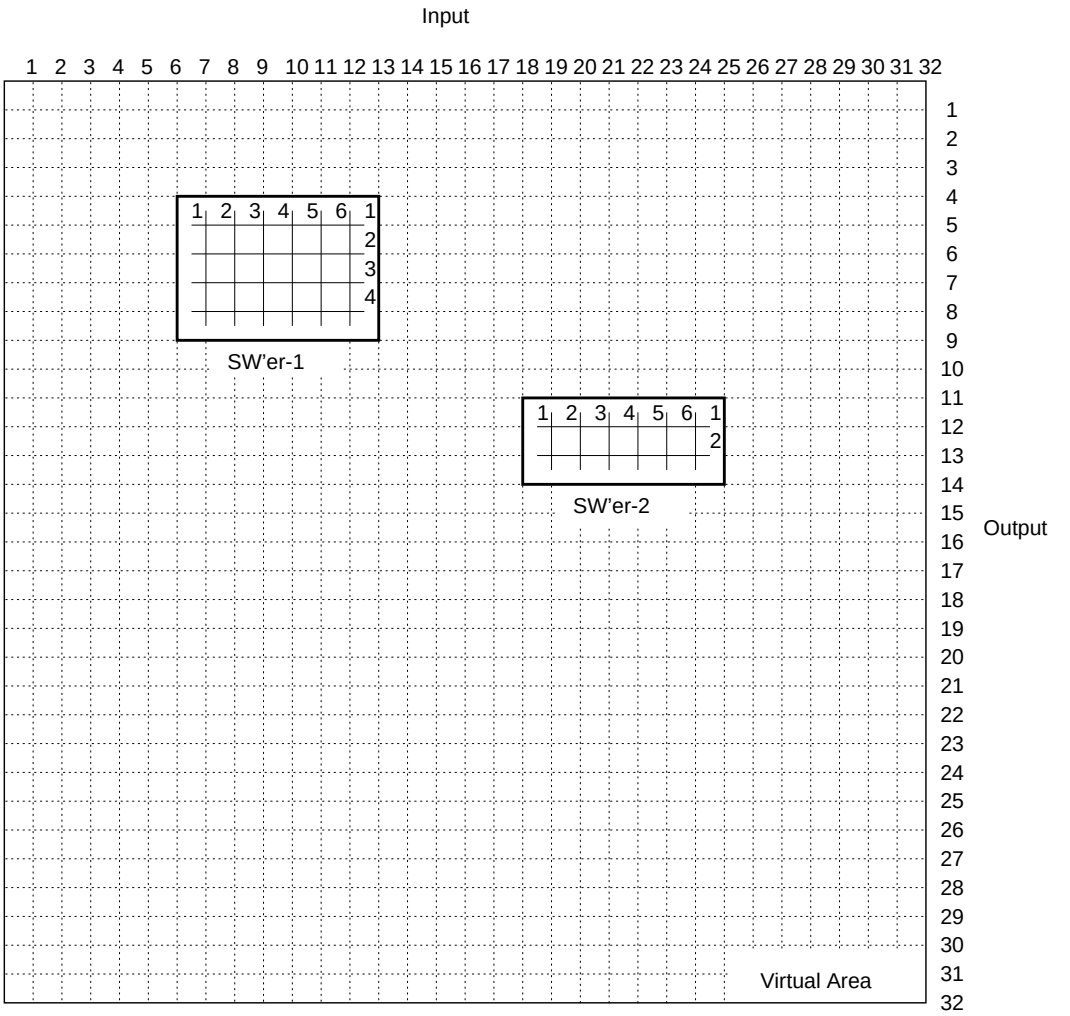


Wiring Data

Source	Destination
CAM1	SW'er-1 - In 1
CAM2	SW'er-1 - In 2
CAM3	SW'er-1 - In 3
CAM4	SW'er-1 - In 4
CAM5	SW'er-1 - In 5
CAM6	SW'er-1 - In 6
SW'er-1 - Out 1	SW'er-2 - In 1
SW'er-1 - Out 2	SW'er-2 - In 2
SW'er-1 - Out 3	SW'er-2 - In 3
SW'er-1 - Out 4	SW'er-2 - In 4
VTR1	SW'er-2 - In 5
VTR2	SW'er-2 - In 6
SW'er-2 - Out 1	On Air
SW'er-2 - Out 2	VTR3

2-1. Mapping of Each Equipment

A virtual matrix space is provided to synthetically treat the input/output signals of each equipment. Each equipment is put in the virtual space, and virtual terminal numbers are assigned to each input/output terminal. After that, the input/output terminals are controlled by these virtual terminal numbers.

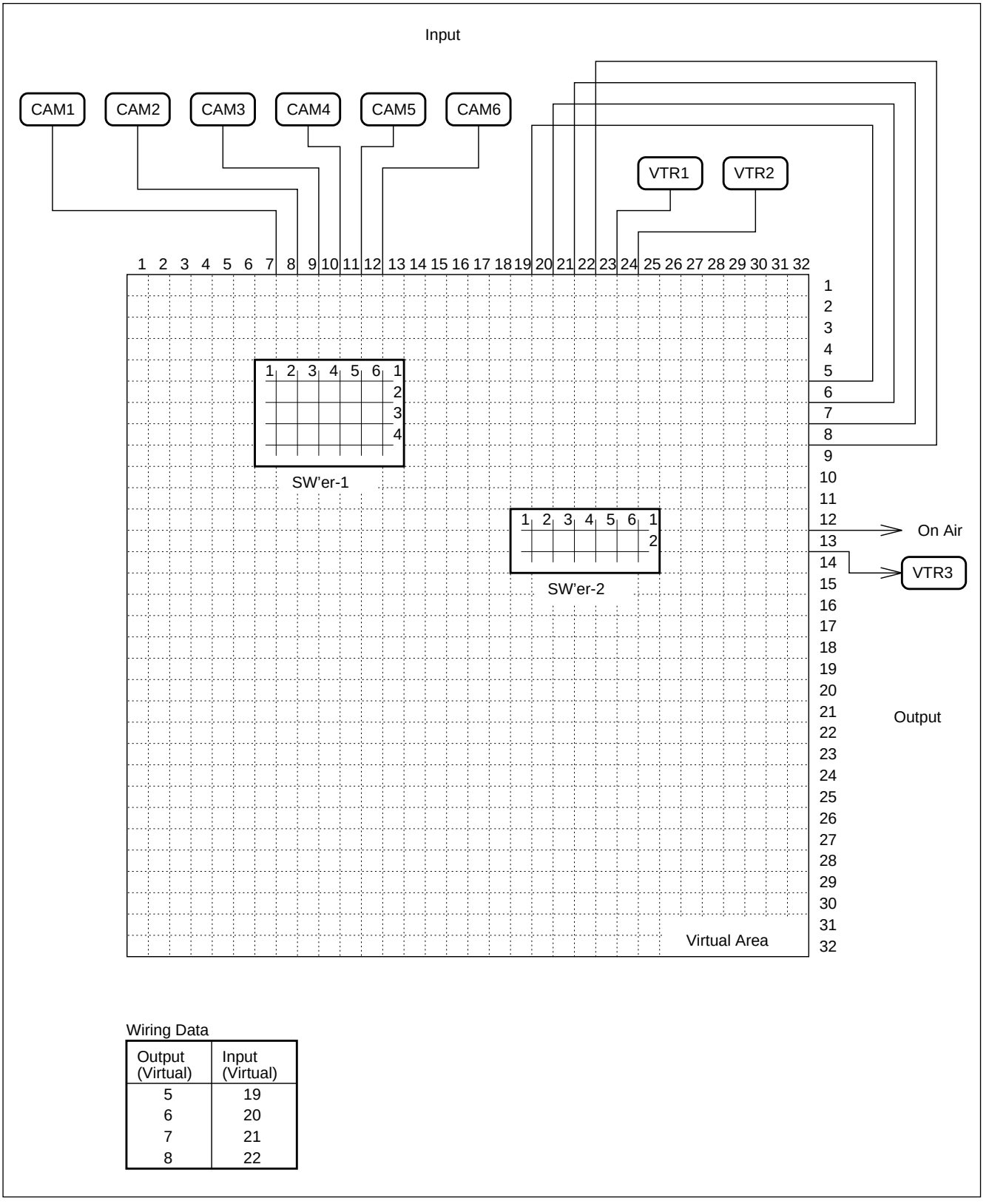


	Input	
	Physycal →	Virtual
SW'er-1	1	7
	2	8
	3	9
	4	10
	5	11
	6	12
SW'er-2	1	19
	2	20
	3	21
	4	22
	5	23
	6	24

	Output	
	Physycal →	Virtual
SW'er-1	1	5
	2	6
	3	7
	4	8
SW'er-2	1	12
	2	13

2-2. Setting the Connection Information between Equipment

The connection between equipment is read from the system connection diagram and assigned through the combination of virtual terminal numbers.

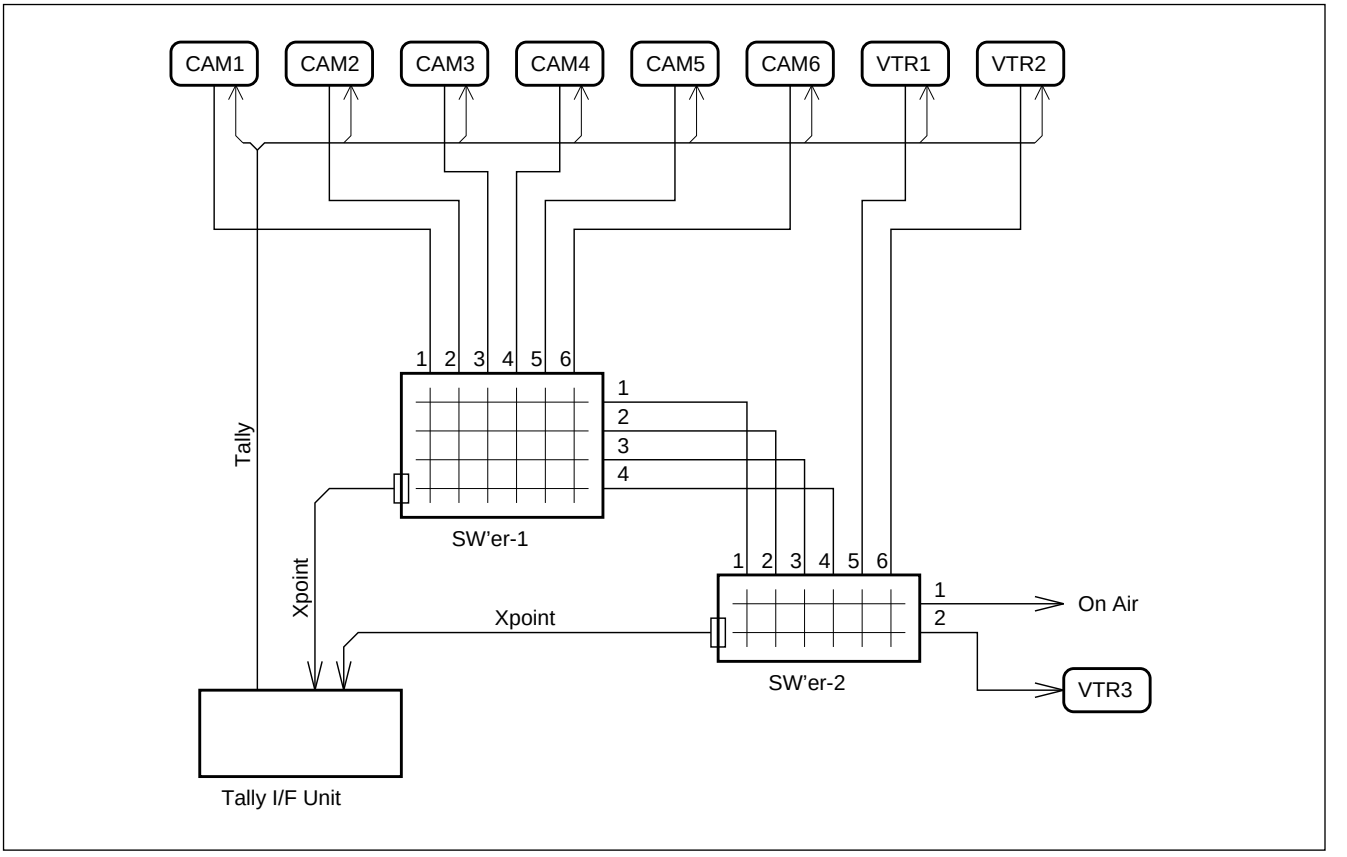


Wiring Data

Output (Virtual)	Input (Virtual)
5	19
6	20
7	21
8	22

2-3. Receiving the Crosspoint Information of Each Equipment

The crosspoint state output from each equipment is received in real time. This method (serial, parallel, or S-bus) varies depending on the equipment used.



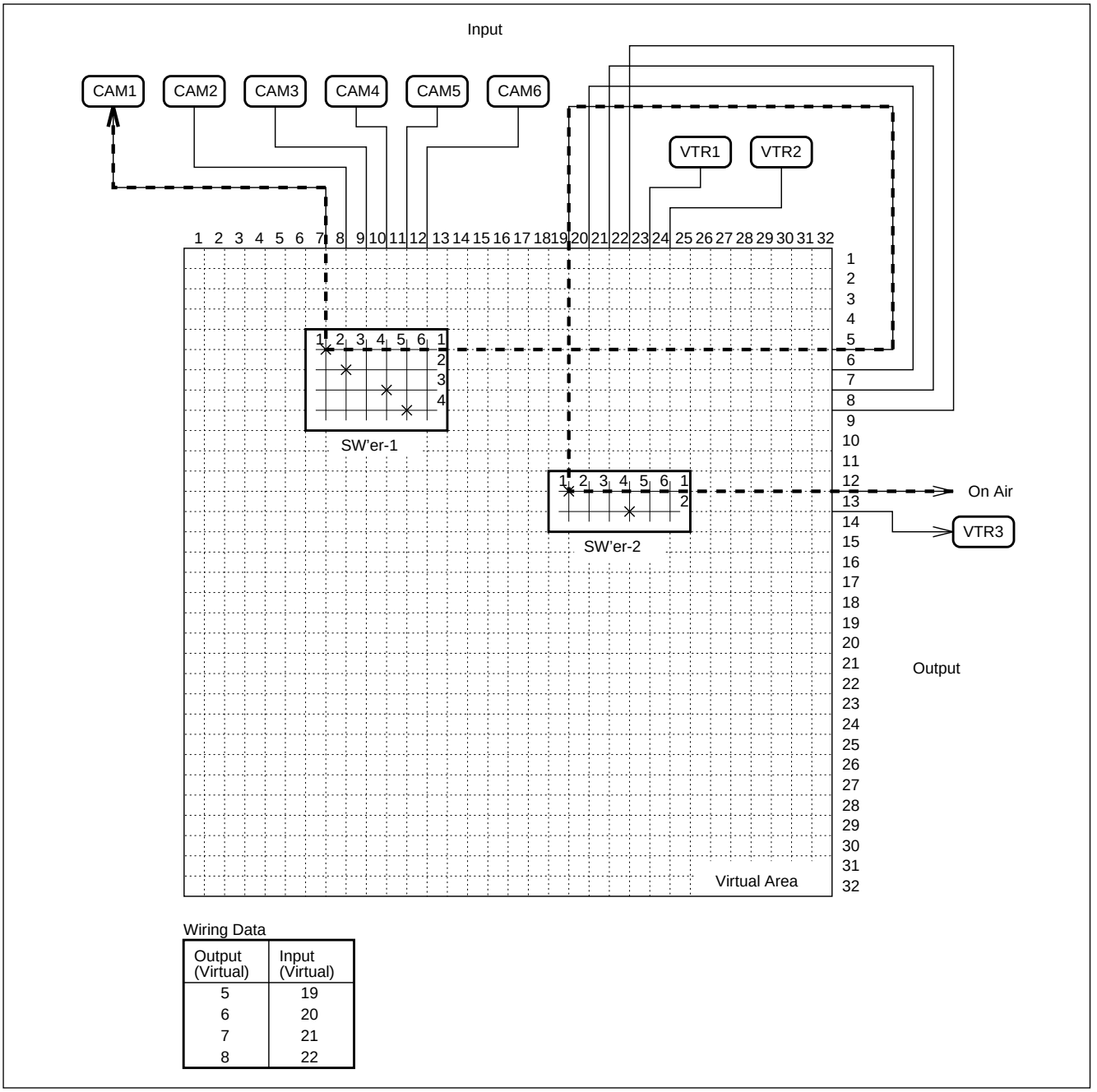
2-4. Setting the Starting Point of Source Retrieval

The terminal at the last output stage of a system is set. This terminal is used as the stating point during source retrieval.

2-5. Retracing the Tally

Retracing is carried out as described below to retrieve the source.

Last output → Equipment A output → XPT information of equipment A → Equipment A output → Connection information → Equipment B input → XPT information of equipment B → • • • → Equipment X output → Source

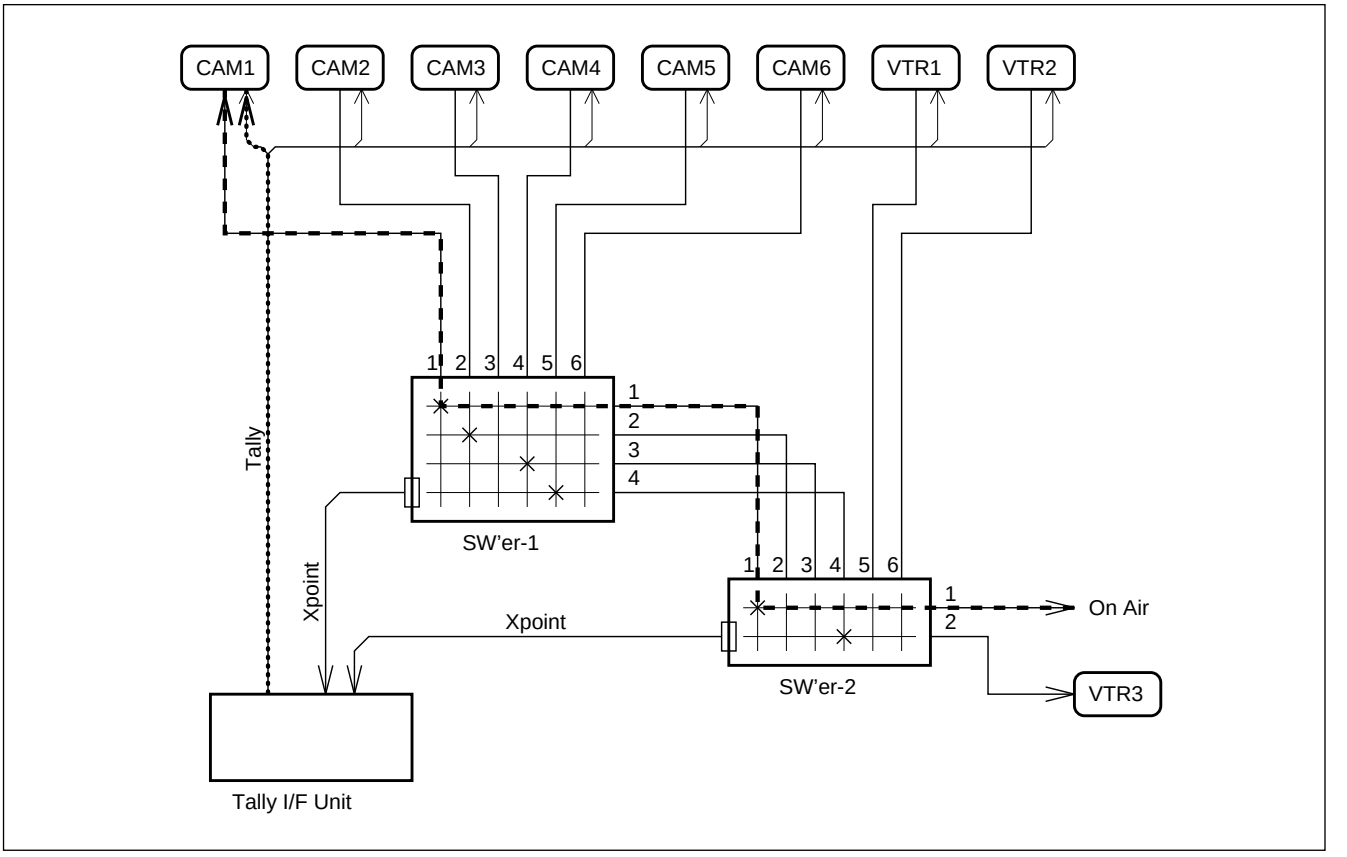


Wiring Data

Output (Virtual)	Input (Virtual)
5	19
6	20
7	21
8	22

2-6. Tally Information Output

The virtual input terminal number in the retracing route of the tally is output as tally information. Since the input terminal and source is at a ratio of 1 to 1, this information can be directly used for display.



Section 3
Tally System

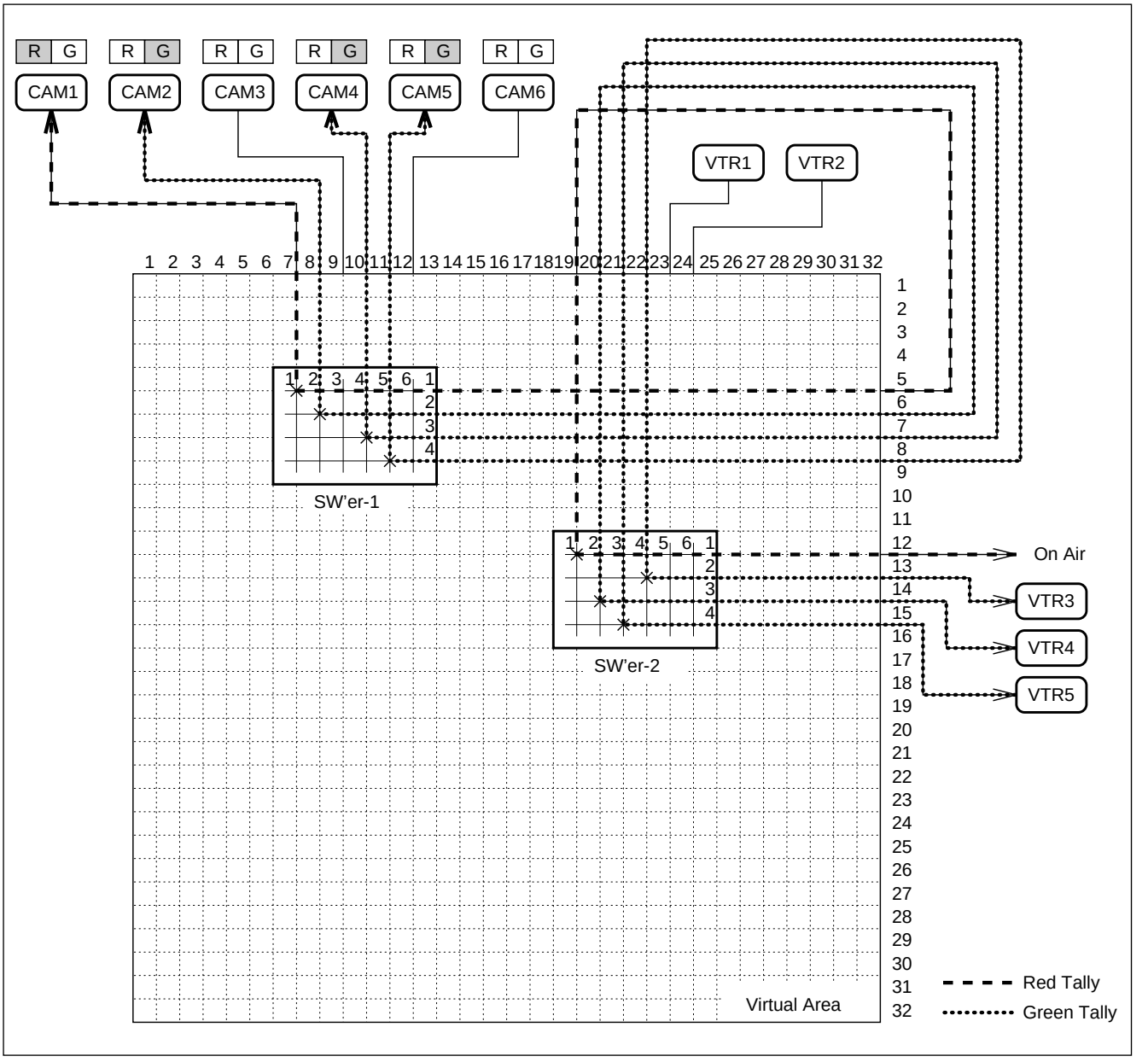
In the system, the tally is used in various ways. Some tallies used in the actual system are described below.

3-1. System Tally (Red/Green Tally)

In the actual system, multiple independent operations may be carried out in the same system (e.g., face-down feeding or slow motion VTR recording). In this case, multiple system tallies are required. To prevent the confusion of the operator, however, one system tally is used by the logical OR operation of multiple group tallies. It is roughly classified into two systems and frequently displayed by red and green.

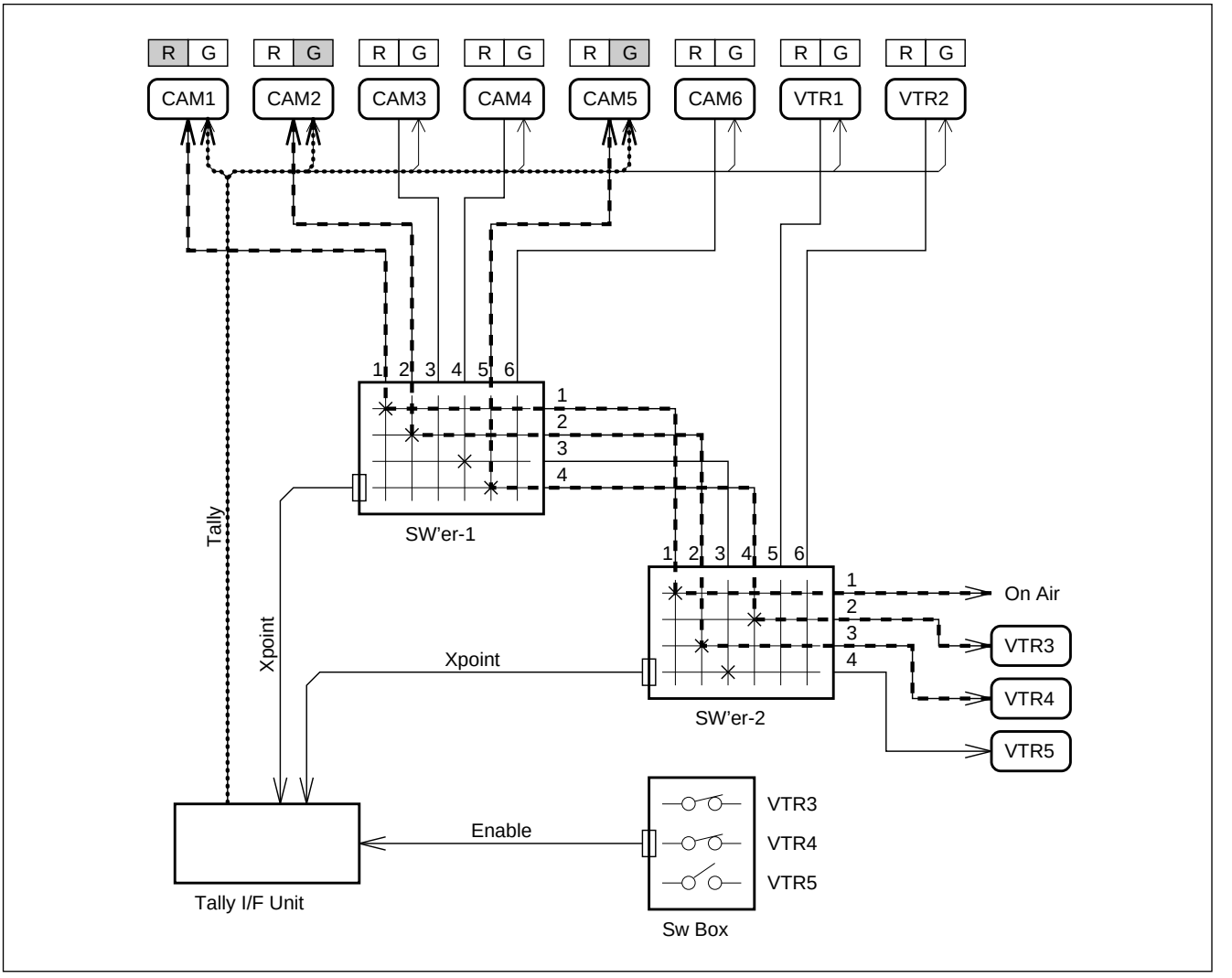
∗ Group tally

The group tally is retraced and created for one output signal.



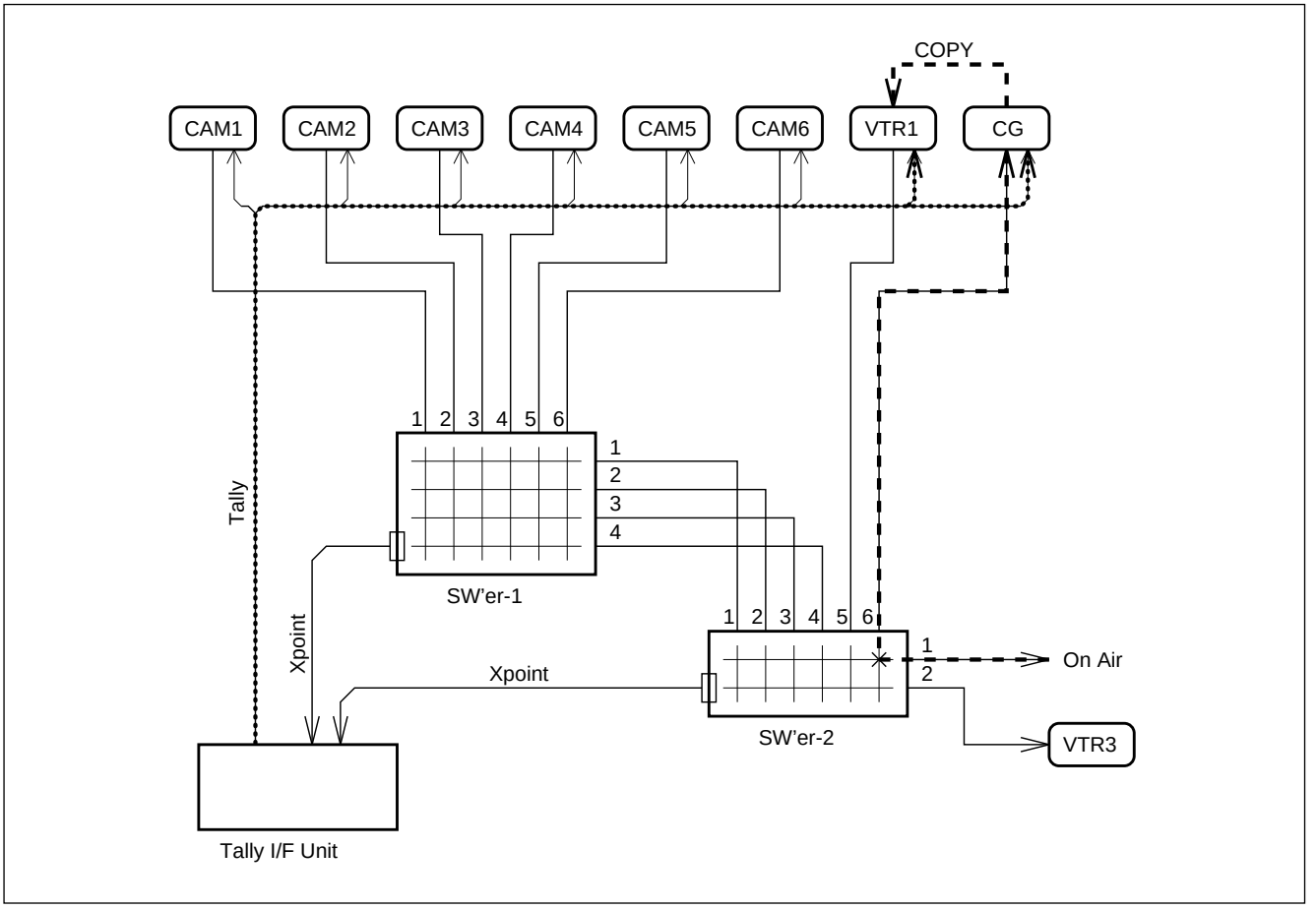
3-2. Group Tally Enable and Disable

The system tally is created by the logical OR operation of multiple group tallies. Therefore, the group tally is enabled and disabled according to application.



3-3. Integrated Tally Information

Usually, the input terminal and source is at a ratio of 1 to 1. However, the same source may be connected to multiple input terminals (e.g., normal VTR out put and TC output terminals). In this case, different tally information items are created for the same source, so they are integrated by the logical OR operation of the tally information on multiple terminals.



Section 4
Tally Interface Specification

This unit is prescribed as explained below in consideration of the performance of each equipment.

4-1. Virtual Matrix Size

The virtual matrix space is 512 × 512. This space is the same as the range in which an S-bus manages.

4-2. Connected Equipment

The equipment that can be connected is as follows:

Name	Quantity	Matrix size	XPT output
Switcher	1	128 × 128	RS-422
DMK	1	12 × 9	Parallel
DME (in V + K mode)	6	12 × 12	Parallel
DME (in V + E + C mode)	4	12 × 12	Parallel
Router		128 × 128	S-bus
DVS/BVS-V1201			
Output selector	3	12 × 3	Parallel
DSK source selector	4	12 × 4	Parallel
CRK source selector	1	12 × 1	Parallel
External box	3	16 × 1 × 3	Parallel

The switcher is divided and treated for tally creation and router interface. Each size is 128 × 64. The size for a router interface is called a switcher crosspoint so as to distinguish from the size for tally creation.

DME has two modes according to the treatment of the tally, that is, V + K (Video + Key) and V + E + C (Video + EXT Video + Combine) modes. Since the whole matrix size is the same, the number of DMEs that can be used differs in each mode.

The size of the external box is 16 × 1. Up to three external boxes can be connected. The parallel input signal is selected from parallel tally equipment (DMK or DME). Therefore, all parallel tally equipment cannot be used at the same time.

4-3. Starting Point of Source Retrieval

The terminals that can be set as the starting point of source retrieval are as follows:

- Switcher : M/E-1 through 3, P/P, and ALL
- Output selector : 1 through 3
- Slow VTR : 1 through 16

The slow VTR in this case corresponds to a recording VTR. Since VTR has no crosspoint as in a switcher, it is not treated in a matrix. Therefore, it is necessary to declare the connected terminal.

4-4. System Tally

The system tally has two modes, the R/G/Y mode and the four-group mode. The R/G/Y mode corresponds to the three systems (red, green, and yellow). The four-group mode corresponds to the eight systems of four pairs (red and green).

4-5. Enable and Disable

Each system of the system tally can be controlled. The pins of an ENABLE connector are assigned for each starting point by the setup operation.

4-6. Tally Output

The output method of the tally is as follows:

- Parallel tally
- S-bus tally
- Serial tally

4-6-1. Parallel tally

The parallel tally output is based on relay contacts. It is used when the tally lamp is directly turned on and off. Input terminal numbers are assigned to each pin of an output connector by the setup operation. The system tally is set in units of connectors. The connector used is a 50-pin D-Sub (female) type. Twenty-four contacts are provided in one connector. Up to 216 contacts can be expanded in nine connectors.

4-6-2. S-bus tally

A tally can be displayed on the S-bus status display (BKS-R3280/R3281) using an S-bus. For the setting of an S-bus function, refer to the manual of a router.
In the four-group mode, the system tally is used in all of the four groups. In the R/G/Y mode, it is used in only red and green tallies because of an S-bus protocol.
The connector used is a BNC type.

4-6-3. Serial tally

A tally is output according to the switcher protocol using RS-422. One hundred twenty-eight bits corresponding to 128 protocols are provided for the protocol of the serial tally. Input terminal numbers are assigned to each bit by the setup operation. The system tally is set in units of connectors. The two connectors used are a 9-pin D-Sub (female) type.

Section 5
Router Interface Functon

A switcher is connected to the S-bus through this unit. The functions below are executed as a router interface.

5-1. Source Name Interface

The description name set in the source and destination of an S-bus can be sent to the switcher. As a result, the signal name of the S-bus can be reflected on the control panel of the switcher.

5-2. Switcher Crosspoint Control

The crosspoint state of a switcher can be transferred to an S-bus. This enables the switcher crosspoint to be switched from an S-bus remote control unit. A part from the matrix for a tally, the matrix of a switcher crosspoint is provided. The destination in the matrix is set to the S-bus remote control unit.

5-3. Router Crosspoint Control

The crosspoint switching request from a switcher can be output to the S-bus. This enables the router crosspoint to be switched from the control panel of the switcher.

Section 6
Setup Data

The operation and storage of setup data in this unit are described below.

6-1. RAM

This memory is an ordinary working area. This unit operates based on the setup data in this memory. The setup data is expanded from flash memory to RAM when the power is turned on or after the system is reset. Therefore, this data is deleted when the power is turned off or when the system is reset.

6-2. Flash Memory

This is nonvolatile memory in which data can be stored even if the power is turned off. The flash memory is used as the storage area of setup data. The flash memory is divided into four so that it can store four setup data items.

6-3. PC

Setup data is edited in a personal computer. The edited setup data is written in the RAM of this unit or the disk of a personal computer.

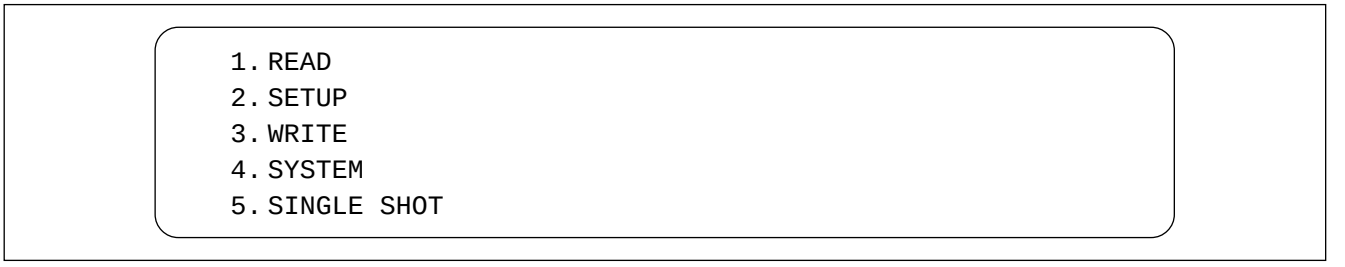
6-4. Disk

The disk is used to permanently store setup data or transfer setup data into other systems.

Section 7
Setup Menu

The setup software menu of this unit is described below.

7-1. Main Menu



1. READ
This menu item reads setup data from a floppy disk or this unit.

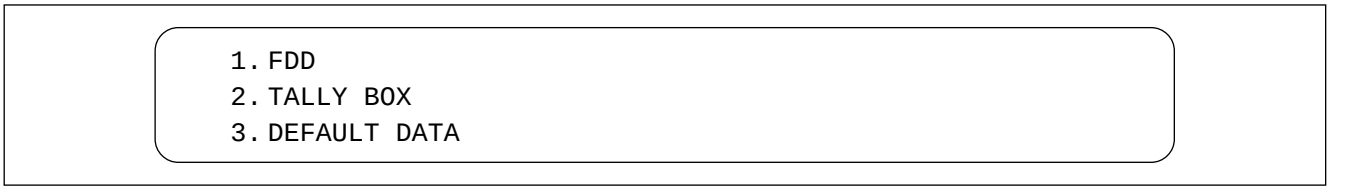
2. SETUP
This menu item sets each setup data.

3. WRITE
This menu item writes setup data in a floppy disk or this unit.

4. SYSTEM
Setting on the execution of this unit
- Selects the execution register from four registers.
- Stores the contents of a register in flash memory.

5. SINGLE SHOT
This menu item is used for system debugging. It transmits the changed setup data to this unit in real time.

7-2. “1. READ” Menu

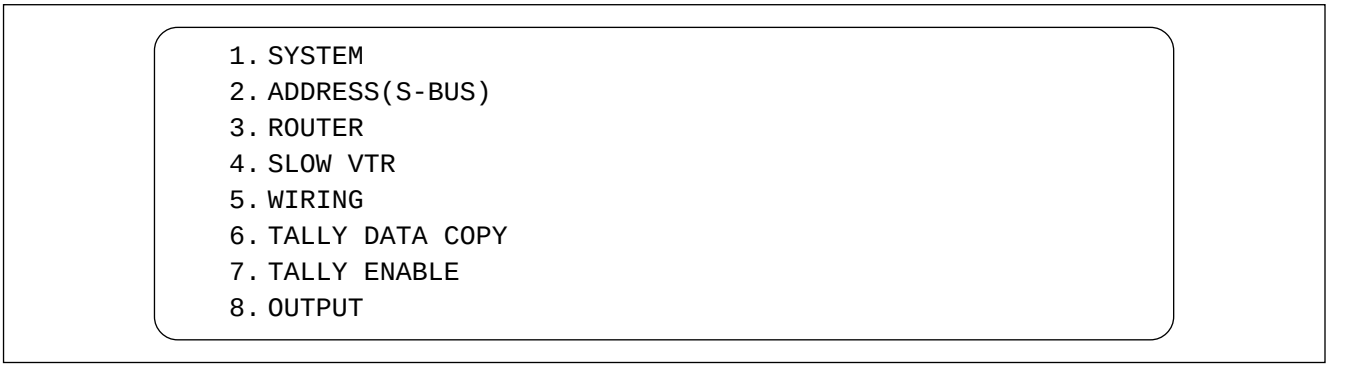


1. FDD
This menu item reads setup data from a floppy disk.

2. TALLY BOX
This menu item reads setup data from this unit using RS-232C.

3. DEFAULT DATA
This menu item returns the setup data in PC memory to the initial state.

7-3. “2. SETUP” Menu



1. SYSTEM

This menu item sets the existence of the S-bus used and the system outline.

2. ADDRESS (S-BUS)

This menu item sets the equipment configuration and maps each equipment to the virtual matrix space.

3. ROUTER

This menu item sets the physical terminal numbers of router source and destination and the corresponding virtual terminal numbers.

4. SLOW VTR

This menu item sets the destination to which the equipment is connected when the equipment (slow VTR) assigned out of the range of a matrix is used as the s tarting point of source retrieval.

5. WIRING

This menu item sets the connection information between equipment.

6. TALLY DATA COPY

Data is copied to other terminal numbers for superimposition (logical OR operation) to integrate multiple tally information with same meaning. This menu item sets the terminal numbers of copy destination.

7. TALLY ENABLE

This menu item sets the pin number of an ENABLE connector that systematizes a system tally and that enables and disables a group tally.

8. OUTPUT

This menu item sets the pin assignment of a parallel tally output connector and the bit assignment of a serial tally output.

7-3-1. “1. SYSTEM” Menu

1.	ROUTER(S-BUS)	ON/OFF
2.	ROUTER LEVEL	1 to 8
3.	SW’er	ON/OFF
4.	SW’er LEVEL	1 to 8
5.	SW’er TYPE	3.5ME/3.0ME
6.	DSK CONFIG	Cascade/Parallel/Independent/Dual cascade
7.	DME TYPE	V+K/V+E+C
8.	TALLY IN/GPI TYPE	NORMAL/EXT BOX 1 to 3
9.	TALLY TYPE(SEL S-BUS GP)	R/G/Y/4GP(1-4) to (4)
10.	TALLY BOX(1st/2nd)	1st/2nd
11.	ROUTER INTERFACE	ON/OFF
12.	SW’er DESTINATION WIDTH	64/32

1. ROUTER (S-BUS)
This menu item sets the existence of the router used.

2. ROUTER LEVEL
This menu item sets the crosspoint S-bus level of the router when a router is used.

3. SW’er
This menu item sets the existence of the switcher used.

4. SW’er LEVEL
This menu item sets the crosspoint S-bus level of the switcher when a switcher is connected to the S-bus.

5. SW’er TYPE
This menu item sets the M/E type of a switcher. This setting is related when the PGM output signal of a switcher is connected to DMK-7000 for use.

6. DSK CONFIG
This menu item sets the operating mode of DMK-7000.

7. DME TYPE
This menu item sets the mode of a DME tally.

8. TALLY IN/GPI TYPE
This menu item sets the pin assignment of the TALLY IN/GPI CONNECTOR. This setting is required when an external box is used.

9. TALLY TYPE (SEL S-SUB GP)
This menu item sets the mode of the use dtally. In the four-group tally mode, it sets the used group.

10. TALLY BOX (1st/2nd)
This menu item sets the first tally box or ones other that the first tally box when this unit is connected in cascade. It also sets that only the first tally box communicates with a switcher or S-bus.

11. ROUTER INTERFACE
This menu item sets whether to switch them when a source name interface and crosspoint are connected with the S-bus.

12. SW’er DESTINATION WIDTH
This menu item sets the matrix size of a switcher.

7-3-2. “2. ADDRESS (S-BUS)” Menu

• When “TALLY IN/GPI TYPE” is “NORMAL”

```
                                    SOURCE   DESTINATION
1. SW'er           <128 x 64>        1-128         1- 64
2. SW'er XPT       <128 x 64>        1-128       256-319
3. DSK             < 12 x  9>      ...-...       ...-...
4. DME             < 12 x 12>      ...-...       ...-...
5. OUTPUT SEL      < 12 x  3>      ...-...       ...-...
6. CHR SOURCE SEL  < 12 x  1>      ...-...       ...-...
7. DSK SOURCE SEL  < 12 x  4>      ...-...       ...-...
```

1. SW’er

This menu item sets the address of a switcher.

2. SW’er XPT

This menu item sets the address of a switcher crosspoint (for a router interface).

3. DSK

This menu item sets the address when DMK-7000 is used.

4. DME

This menu item sets the address when DME is used.

5. OUTPUT SEL

This menu item sets the address when an output selector is used.

6. CRK SOURCE SEL

This menu item sets the address when a CRK source selector is used.

7. DSK SOURCE SEL

This menu item sets the address when a DSK source selector is used.

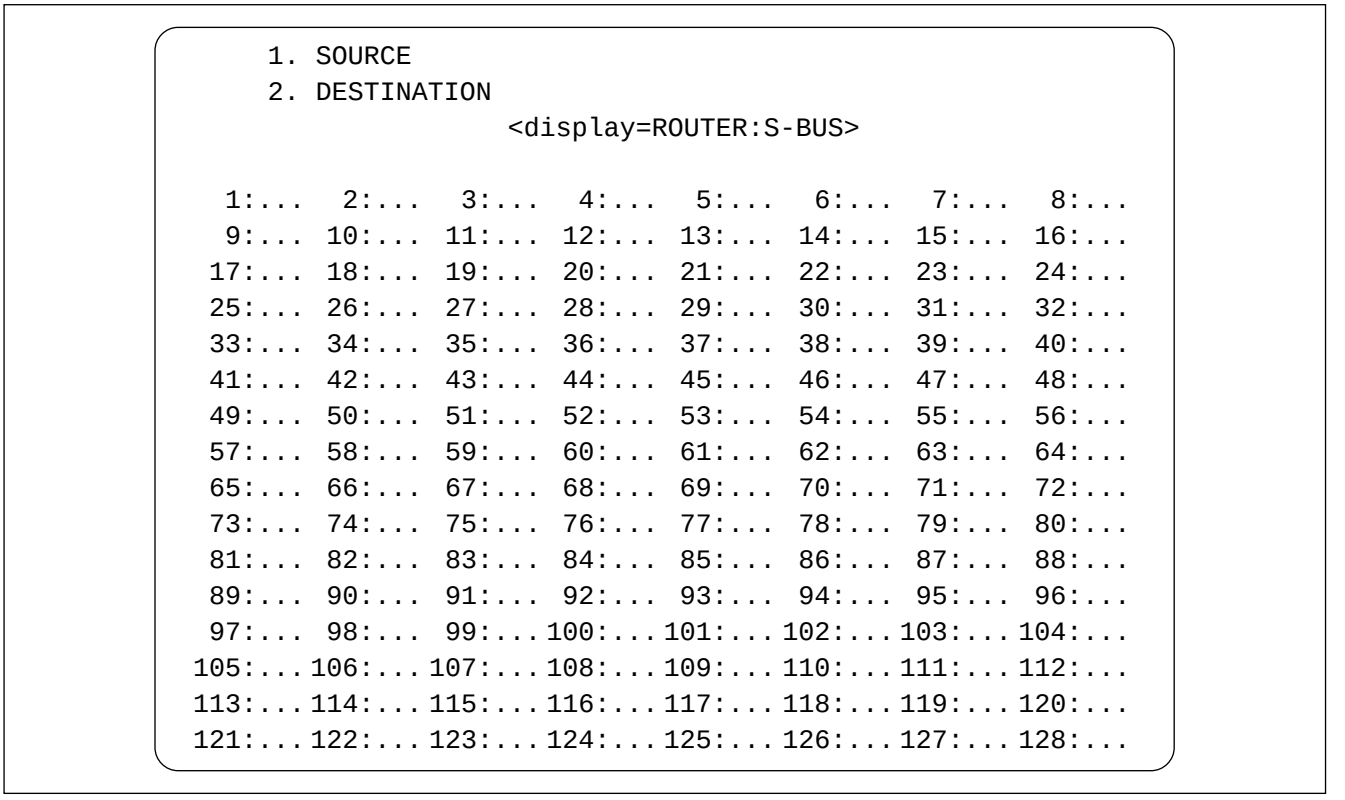
• When “TALLY IN/GPI TYPE” is “EXT BOX3”

```
                                    SOURCE   DESTINATION
1. SW'er           <128 x 64>        1-128         1- 64
2. SW'er XPT       <128 x 64>        1-128       256-319
3. EXT BOX 1       < 16 x  1>      ...-...       ...-...
4. EXT BOX 2       < 16 x  1>      ...-...       ...-...
5. EXT BOX 3       < 16 x  1>      ...-...       ...-...
```

EXT BOX 1 through 3

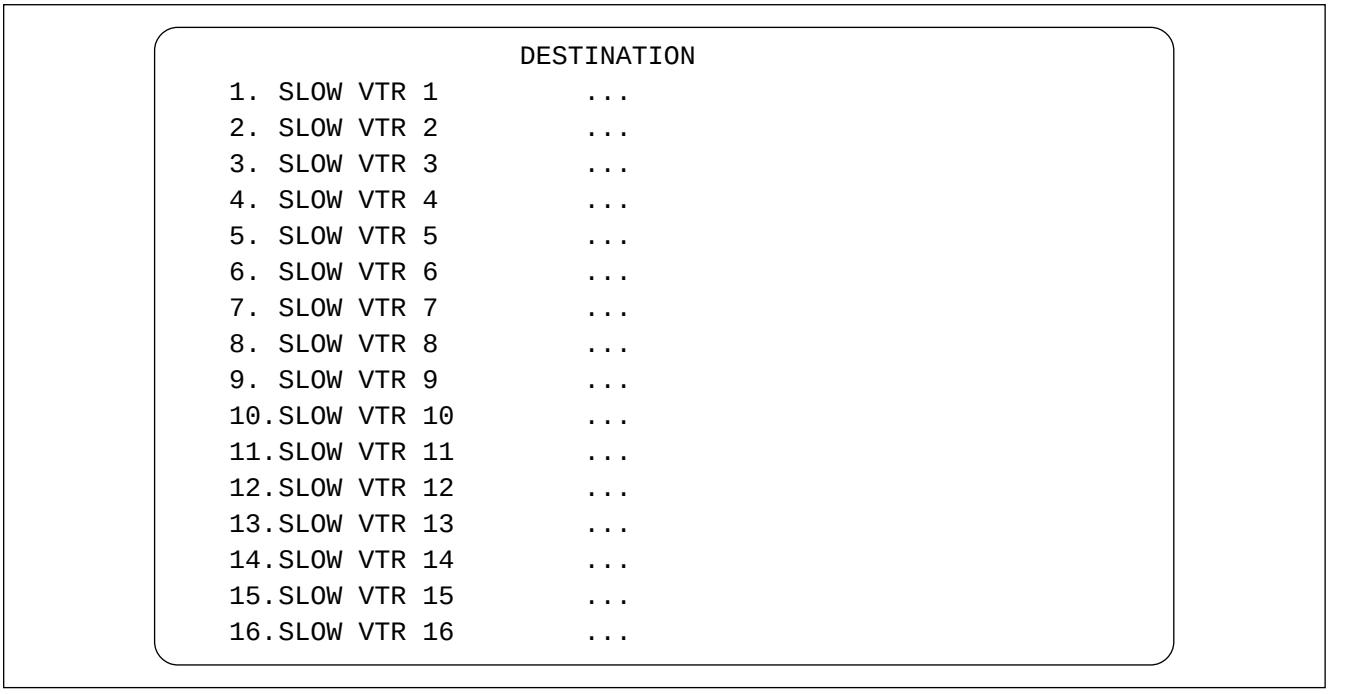
These items are displayed instead of items 3 through 7 above when “EXT BOX” is set in “TALLY IN/GPI TYPE” in a “SETUP” menu. The address of an external box is set.

7-3-3. “3. ROUTER” Menu



The physical terminal of a router can be freely assigned to the virtual terminal of S-bus space. The information is managed by a primary station. This unit cannot recognize the contents of the information. Therefore, it is necessary to set the virtual terminal numbers to which the router is assigned. This menu item sets the virtual terminal numbers on both the source and destination.

7-3-4. “4. SLOW VTR” Menu



This menu item sets the destination to which the equipment is connected when the equipment (slow VTR) assigned out of the range of a matrix is used as the starting point of source retrieval.

7-3-5. “5. WIRING” Menu

```
    1. WIRING
                <display=SOURCE:DESTINATION>

 1:...  2:...  3:...  4:...  5:...  6:...  7:...  8:...
 9:... 10:... 11:... 12:... 13:... 14:... 15:... 16:...
17:... 18:... 19:... 20:... 21:... 22:... 23:... 24:...
25:... 26:... 27:... 28:... 29:... 30:... 31:... 32:...
33:... 34:... 35:... 36:... 37:... 38:... 39:... 40:...
41:... 42:... 43:... 44:... 45:... 46:... 47:... 48:...
49:... 50:... 51:... 52:... 53:... 54:... 55:... 56:...
57:... 58:... 59:... 60:... 61:... 62:... 63:... 64:...
65:... 66:... 67:... 68:... 69:... 70:... 71:... 72:...
73:... 74:... 75:... 76:... 77:... 78:... 79:... 80:...
81:... 82:... 83:... 84:... 85:... 86:... 87:... 88:...
89:... 90:... 91:... 92:... 93:... 94:... 95:... 96:...
97:... 98:... 99:...100:...101:...102:...103:...104:...
105:...106:...107:...108:...109:...110:...111:...112:...
113:...114:...115:...116:...117:...118:...119:...120:...
121:...122:...123:...124:...125:...126:...127:...128:...
```

This menu item sets the connection information between equipment. It sets the pin number of the virtual output terminal (destination) connected to the virtual input terminal (source).

7-3-6. “6.TALLY DATA COPY” Menu

```
    1. TALLY DATA COPY
          <display=FROM TALLY NO.:TO TALLY NO.>

 1:...  2:...  3:...  4:...  5:...  6:...  7:...  8:...
 9:... 10:... 11:... 12:... 13:... 14:... 15:... 16:...
17:... 18:... 19:... 20:... 21:... 22:... 23:... 24:...
25:... 26:... 27:... 28:... 29:... 30:... 31:... 32:...
33:... 34:... 35:... 36:... 37:... 38:... 39:... 40:...
41:... 42:... 43:... 44:... 45:... 46:... 47:... 48:...
49:... 50:... 51:... 52:... 53:... 54:... 55:... 56:...
57:... 58:... 59:... 60:... 61:... 62:... 63:... 64:...
65:... 66:... 67:... 68:... 69:... 70:... 71:... 72:...
73:... 74:... 75:... 76:... 77:... 78:... 79:... 80:...
81:... 82:... 83:... 84:... 85:... 86:... 87:... 88:...
89:... 90:... 91:... 92:... 93:... 94:... 95:... 96:...
97:... 98:... 99:...100:...101:...102:...103:...104:...
105:...106:...107:...108:...109:...110:...111:...112:...
113:...114:...115:...116:...117:...118:...119:...120:...
121:...122:...123:...124:...125:...126:...127:...128:...
```

Data is copied to other terminal numbers for superimposition (logical OR operation) to integrate multiple tally information with same meaning. This menu item sets the terminal number (TO TALLY NO.) of the copy destination to the terminal number (FROM TALL NO.) of the copy source.

7-3-7. “7. TALLY ENABLE” Menu

• For R/G/Y mode

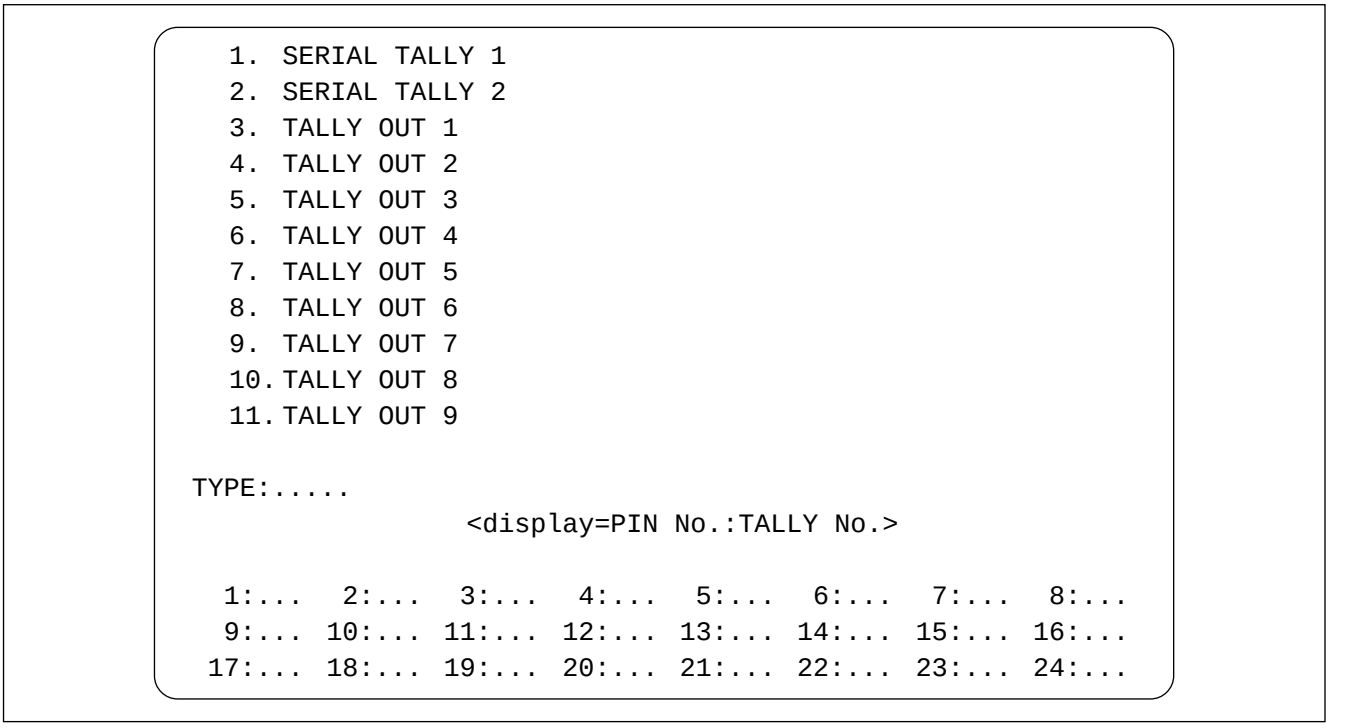
```
       1. RED TALLY
       2. GREEN TALLY
       3. YELLOW TALLY

RED TALLY   <1>   <2>   <3>   <4>   <5>   <6>   <7>   <8>
TYPE        ..... ..... ..... ..... ....  ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL   EBL
            <9>   <10>  <11>  <12>  <13>  <14>  <15>  <16>
TYPE        ..... ..... ..... ..... ....  ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL   EBL
            <17>  <18>  <19>  <20>  <21>  <22>  <23>
TYPE        ..... ..... ..... ..... ....  ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL
```

• For four-group mode

```
       1. R-1 TALLY
       2. G-1 TALLY
       3. R-2 TALLY
       4. G-2 TALLY
       5. R-3 TALLY
       6. G-3 TALLY
       7. R-4 TALLY
       8. G-4 TALLY

R-1 TALLY   <1>   <2>   <3>   <4>   <5>   <6>   <7>   <8>
TYPE        ..... ..... ..... ..... ....  ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL   EBL
            <9>   <10>  <11>  <12>  <13>  <14>  <15>  <16>
TYPE        ..... ..... ..... ..... ....  ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL   EBL
            <17>  <18>  <19>  <20>  <21>  <22>  <23>
TYPE        ..... ..... ..... ..... ....  ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL
```

The group tally is entered in the system tally when the starting point of source retrieval is set to “TYPE” for each system tally (RED, GREEN, and YELLOW, or R-1 through G-4). The pin numbers of an ENABLE connector that enables an disables the group tally are to “ENABLE NO.”

7-3-8. “8. OUTPUT” Menu



1, 2. SERIAL TALLY 1/2
These menu items set the bit assignment of serial tally outputs 1/2.

3 through 11. TALLY OUT 1 to 9
These menu items set the pin assignment of parallel tally output 1 through 9 connectors.

1. “1, 2. SERIAL TALLY 1/2” Menu

```
    1. SERIAL TALLY 1
  TYPE:.....
               <display=TALLY No.:SOURCE No.>

  1:...  2:...  3:...  4:...  5:...  6:...  7:...  8:...
  9:... 10:... 11:... 12:... 13:... 14:... 15:... 16:...
 17:... 18:... 19:... 20:... 21:... 22:... 23:... 24:...
 25:... 26:... 27:... 28:... 29:... 30:... 31:... 32:...
 33:... 34:... 35:... 36:... 37:... 38:... 39:... 40:...
 41:... 42:... 43:... 44:... 45:... 46:... 47:... 48:...
 49:... 50:... 51:... 52:... 53:... 54:... 55:... 56:...
 57:... 58:... 59:... 60:... 61:... 62:... 63:... 64:...
 65:... 66:... 67:... 68:... 69:... 70:... 71:... 72:...
 73:... 74:... 75:... 76:... 77:... 78:... 79:... 80:...
 81:... 82:... 83:... 84:... 85:... 86:... 87:... 88:...
 89:... 90:... 91:... 92:... 93:... 94:... 95:... 96:...
 97:... 98:... 99:...100:...101:...102:...103:...104:...
105:...106:...107:...108:...109:...110:...111:...112:...
113:...114:...115:...116:...117:...118:...119:...120:...
121:...122:...123:...124:...125:...126:...127:...128:...
```

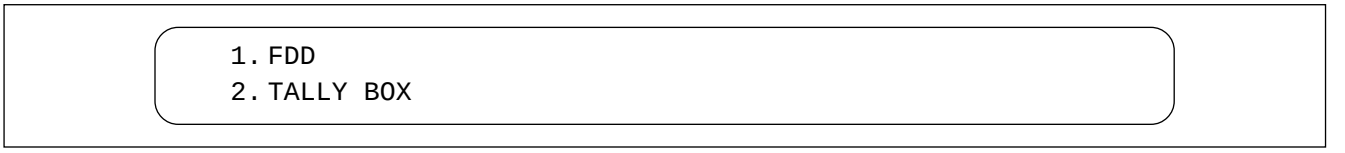
The serial tally is transmitted with tally ON/OFF replaced by bit ON/OFF. In a protocol, 128 bits are provided as a tally area, but each bit can be designated by the user. Therefore, the bit numbers and their corresponding tally list are created. Virtual terminal numbers (source Nos.) are set for the bit numbers (tally Nos.). A correct tally is displayed when the corresponding list is created on both the send and receive sides. System tallies (RED, GREEN, and YELLOW or R-1 through G-4) are set for “TYPE.”

2. “3 through 11. TALLY OUT 1 to 9” Menu

```
  1. SERIAL TALLY 1
  2. SERIAL TALLY 2
  3. TALLY OUT 1
  4. TALLY OUT 2
  5. TALLY OUT 3
  6. TALLY OUT 4
  7. TALLY OUT 5
  8. TALLY OUT 6
  9. TALLY OUT 7
  10. TALLY OUT 8
  11. TALLY OUT 9

TYPE:.....
                <display=PIN No.:TALLY No.>

  1:...  2:...  3:...  4:...  5:...  6:...  7:...  8:...
  9:... 10:... 11:... 12:... 13:... 14:... 15:... 16:...
 17:... 18:... 19:... 20:... 21:... 22:... 23:... 24:...
```

Virtual input terminal numbers (tally Nos.) are set to each pin (pin No.) of a TALLY OUT connector. The pin No. differs from the physical pin number. For the pin No. corresponding to the physical pin number, refer to the installation manual of this unit.
In addition to system tallies (RED, GREEN, and YELLOW or R-1 through G-4), group tallies (LINE 1 through 3, ME 1 through 3, PP, AUX 1 through 16, SLOW 1 through 16) can be set for “TYPE.”

7-4. “3. WRITE” Menu



1. FDD

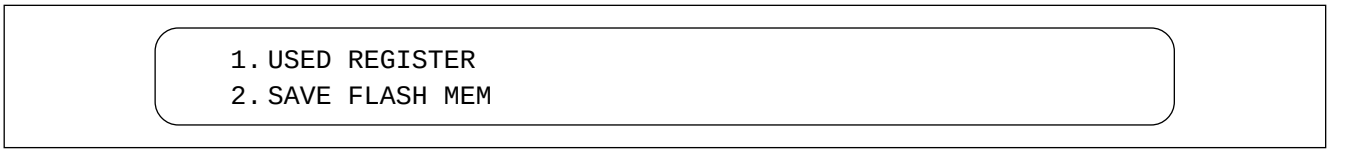
This menu item writes setup data in a floppy disk.

2. TALLY BOX

This menu item writes setup data in this unit using RS-232C.

Since, in this WRITE menu, data is written in RAM for this unit, it is deleted when the power is turned off. To store the data, select “4. SYSTEM” in the main menu and execute “WRITE FLASH MEM”.

7-5. “4. SYSTEM” Menu



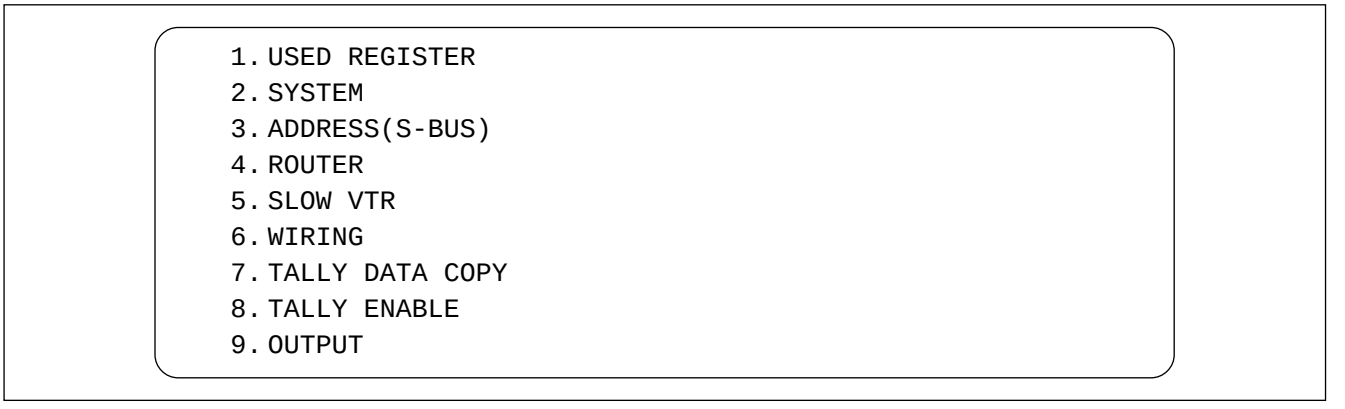
1. USED REGISTER

This menu item selects an execution register from four registers.

2. SAVE FLASH MEM

This menu item stores the contents of a register in flash memory.

7-6. “5. SINGLE SHOT” Menu



1. USED REGISTER

This menu item selects the register to be edited first. When the register in execution is selected, the data is reflected on the operation of this unit after it is transmitted.

2. SYSTEM through 9. OUTPUT

The same as “2. Setup” menu. Refer to 7-3. “2. SETUP” Menu.

Section 8
Details of Connected Equipment

8-1. Switcher

8-1-1. Matrix Size

Switcher : 128 × 64 or 32
Switcher crosspoint : 128 × 64

The standard matrix size of a switcher is 128 × 64. For DVS-7000, destination 33 or later is not used. Therefore, the matrix size can be changed to 128 × 32 by the setup operation.

The switcher crosspoint is used when it is controlled from an S-bus.

8-1-2. Switcher Type

Switcher type: 3.5 M/E or 3.0 M/E

This setting is required when the PGM OUT terminal of DVS-7000 is connected to DMK-7000. For 3.5 M/E, DVS-7000 outputs a tally in consideration of the PGM OUT state of DMK-7000. Therefore, the tally differs in treatment from for the normal state.

8-1-3. Connection

Crosspoint output: RS-422

The “SERIAL TALLY” connector of a switcher is connected to the “SWITCHER” connector of this unit using a 9-pin cable (straight).

8-1-4. Switcher Matrix

The switcher matrix is assigned as shown below.

[Source]

No.	Function
1	PRIMARY 1
2	PRIMARY 2
3	PRIMARY 3
4	PRIMARY 4
5	PRIMARY 5
6	PRIMARY 6
7	PRIMARY 7
8	PRIMARY 8
9	PRIMARY 9
10	PRIMARY 10
11	PRIMARY 11
12	PRIMARY 12
13	PRIMARY 13
14	PRIMARY 14
15	PRIMARY 15
16	PRIMARY 16
17	PRIMARY 17
18	PRIMARY 18
19	PRIMARY 19
20	PRIMARY 20
21	PRIMARY 21
22	PRIMARY 22
23	PRIMARY 23
24	PRIMARY 24
25	PRIMARY 25
26	PRIMARY 26
27	PRIMARY 27
28	PRIMARY 28
29	PRIMARY 29
30	PRIMARY 30
31	PRIMARY 31
32	PRIMARY 32
33	PRIMARY 33
34	PRIMARY 34
35	PRIMARY 35
36	PRIMARY 36

No.	Function
37	CHROMAKEY 1
38	CHROMAKEY 2
39	CHROMAKEY 3
40	CHROMAKEY 4
41-64	(Reserved)
65	BLACK
66	BKGD COLOR 1
67	BKGD COLOR 2
68	BKGD COLOR 3
69	BKGD COLOR 4
70	(Reserved)
71	PROGRAM
72	CLEAN
73	M/E-1 PGM
74	M/E-2 PGM
75	M/E-3 PGM
76-128	(Reserved)

[Destination]

No.	Function
1	M/E-1 PGM
2	(Reserved)
3	M/E-2 PGM
4	(Reserved)
5	M/E-3 PGM
6	(Reserved)
7	PROGRAM
8-16	(Reserved)
17	AUX BUS 1
18	AUX BUS 2
19	AUX BUS 3
20	AUX BUS 4
21	AUX BUS 5
22	AUX BUS 6
23	AUX BUS 7
24	AUX BUS 8
25	AUX BUS 9
26	AUX BUS 10
27	AUX BUS 11
28	AUX BUS 12
29	AUX BUS 13
30	AUX BUS 14
31	AUX BUS 15
32	AUX BUS 16 (EDIT PVW)
33-64	(Reserved)

8-1-5. Source Name Interface

The source name interface operation during connection with an S-bus is simply described below. For details of the S-bus setting, refer to the manual of a router.

1. Set the source name of a switcher from the terminal of a primary station. The location for setting is the address in which “SW’er” was assigned by the “ADDRESS(S-BUS)” menu during setup operation.
2. Enter the “N: SET DESCRIPTION NAME GROUP” menu.
3. Set the source name of a switcher to “DESCRIPTION NAME GROUP.”
4. Press the “S” key and specify the ID number of this unit for transmission.

Notice that the source name is not automatically transmitted even if it is changed.
To control the router crosspoint, set the source/destination name of a router matrix to “DESCRIPTION NAME GROUP” for transmission.

8-1-6. Source name backup

The description name transmitted from the primary station is sent to the switcher via this unit. However, data is not stored in the switcher and this unit by only this operation. The data is erased when the power is turned off or after the system is reset. Back up the switcher. In this case, data is stored in both the switcher and this unit.

Note

It takes approximately 30 seconds to execute the backup operation of this unit for flash memory. The back up operation of this unit is not completed even if a backup completion message is displayed on the switcher panel. Do not perform the backup operation continuously. This may destroy the application as well as data. Wait that the “FLASH WRITE” blinking on the LCD display of this unit’s front panel is completed or perform the backup operation at intervals of sufficient time.

8-1-7. Switcher Source Name Setting

To perform the source name interface operation during connection with an S-bus , set the source name of a switcher in the S-bus according to the list shown below.

No.	Source
1	PRIMARY 1
2	PRIMARY 2
3	PRIMARY 3
4	PRIMARY 4
5	PRIMARY 5
6	PRIMARY 6
7	PRIMARY 7
8	PRIMARY 8
9	PRIMARY 9
10	PRIMARY 10
11	PRIMARY 11
12	PRIMARY 12
13	PRIMARY 13
14	PRIMARY 14
15	PRIMARY 15
16	PRIMARY 16
17	PRIMARY 17
18	PRIMARY 18
19	PRIMARY 19
20	PRIMARY 20
21	PRIMARY 21
22	PRIMARY 22
23	PRIMARY 23
24	PRIMARY 24
25	PRIMARY 25
26	PRIMARY 26
27	PRIMARY 27
28	PRIMARY 28
29	PRIMARY 29
30	PRIMARY 30
31	PRIMARY 31
32	PRIMARY 32
33	PRIMARY 33
34	PRIMARY 34
35	PRIMARY 35
36	PRIMARY 36
37-49	INHIBIT
50	M/E-2 CHR KEY KEY
51-53	INHIBIT
54	M/E-3 CHR KEY KEY
55	INHIBIT
56	M/E-2 KEY1 PROC VIDEO

No.	Source
57	M/E-2 KEY1 PROC KEY
58	M/E-2 KEY2 PROC VIDEO
59	M/E-2 KEY2 PROC KEY
60	M/E-3 KEY1 PROC VIDEO
61	M/E-3 KEY1 PROC KEY
62	M/E-3 KEY2 PROC VIDEO
63	M/E-3 KEY2 PROC KEY
64	(Reserved)
65	BLACK
66	M/E-1 COLOR BKGD
67	M/E-2 COLOR BKGD
68	M/E-3 COLOR BKGD
69	(Reserved)
70	SELF COLOR BKGD
71	PROGRAM
72	CLEAN
73	M/E-1 PGM
74	M/E-2 PGM
75	M/E-3 PGM
76-81	(Reserved)
82	PRESET
83	M/E-1 PVW
84	M/E-2 PVW
85	M/E-3 PVW
86-89	(Reserved)
90	FRAME MEMORY 1
91	FRAME MEMORY 2
92-93	(Reserved)
94	M/E-1 CHR KEY KEY
95	(Reserved)
96	M/E-1 CHR KEY FRGD
97	M/E-2 CHR KEY FRGD
98	M/E-3 CHR KEY FRGD
99-119	(Reserved)
120	M/E-1 KEY1 PROC VIDEO
121	M/E-1 KEY1 PROC KEY
122	M/E-1 KEY2 PROC VIDEO
123	M/E-1 KEY2 PROC KEY
124	(Reserved)
125	DIRECT IN
126-127	(Reserved)

8-1-8. Switcher Crosspoint Assignment

To perform the source name interface operation during connection with an S-bus , set the “SERIAL TALLY” port in multi-XPT assignment according to the list shown below. For more details of the setting, refer to the User Guide of a switcher.

Button No.	Source
0	INHIBIT
1	PRIMARY 1
2	PRIMARY 2
3	PRIMARY 3
4	PRIMARY 4
5	PRIMARY 5
6	PRIMARY 6
7	PRIMARY 7
8	PRIMARY 8
9	PRIMARY 9
10	PRIMARY 10
11	PRIMARY 11
12	PRIMARY 12
13	PRIMARY 13
14	PRIMARY 14
15	PRIMARY 15
16	PRIMARY 16
17	PRIMARY 17
18	PRIMARY 18
19	PRIMARY 19
20	PRIMARY 20
21	PRIMARY 21
22	PRIMARY 22
23	PRIMARY 23
24	PRIMARY 24
25	PRIMARY 25
26	PRIMARY 26
27	PRIMARY 27
28	PRIMARY 28
29	PRIMARY 29
30	PRIMARY 30
31	PRIMARY 31

Button No.	Source
32	PRIMARY 32
33	PRIMARY 33
34	PRIMARY 34
35	PRIMARY 35
36	PRIMARY 36
37	INHIBIT
38	INHIBIT
39	INHIBIT
40	INHIBIT
41	INHIBIT
42	INHIBIT
43	INHIBIT
44	INHIBIT
45	INHIBIT
46	INHIBIT
47	INHIBIT
48	INHIBIT
49	INHIBIT
50	M/E-2 CHR KEY KEY
51	INHIBIT
52	INHIBIT
53	INHIBIT
54	M/E-3 CHR KEY KEY
55	INHIBIT
56	M/E-2 KEY1 PROC VIDEO
57	M/E-2 KEY1 PROC KEY
58	M/E-2 KEY2 PROC VIDEO
59	M/E-2 KEY2 PROC KEY
60	M/E-3 KEY1 PROC VIDEO
61	M/E-3 KEY1 PROC KEY
62	M/E-3 KEY2 PROC VIDEO
63	M/E-3 KEY2 PROC KEY

8-1-9. Switcher Crosspoint Control

To control the switcher crosspoint during connection with an S-bus, specify the destination according to the list shown below.

Note

No AUX bus is assigned in the list below. To control the AUX bus from an S-bus, specify the destination in a switcher matrix.

[Destination]

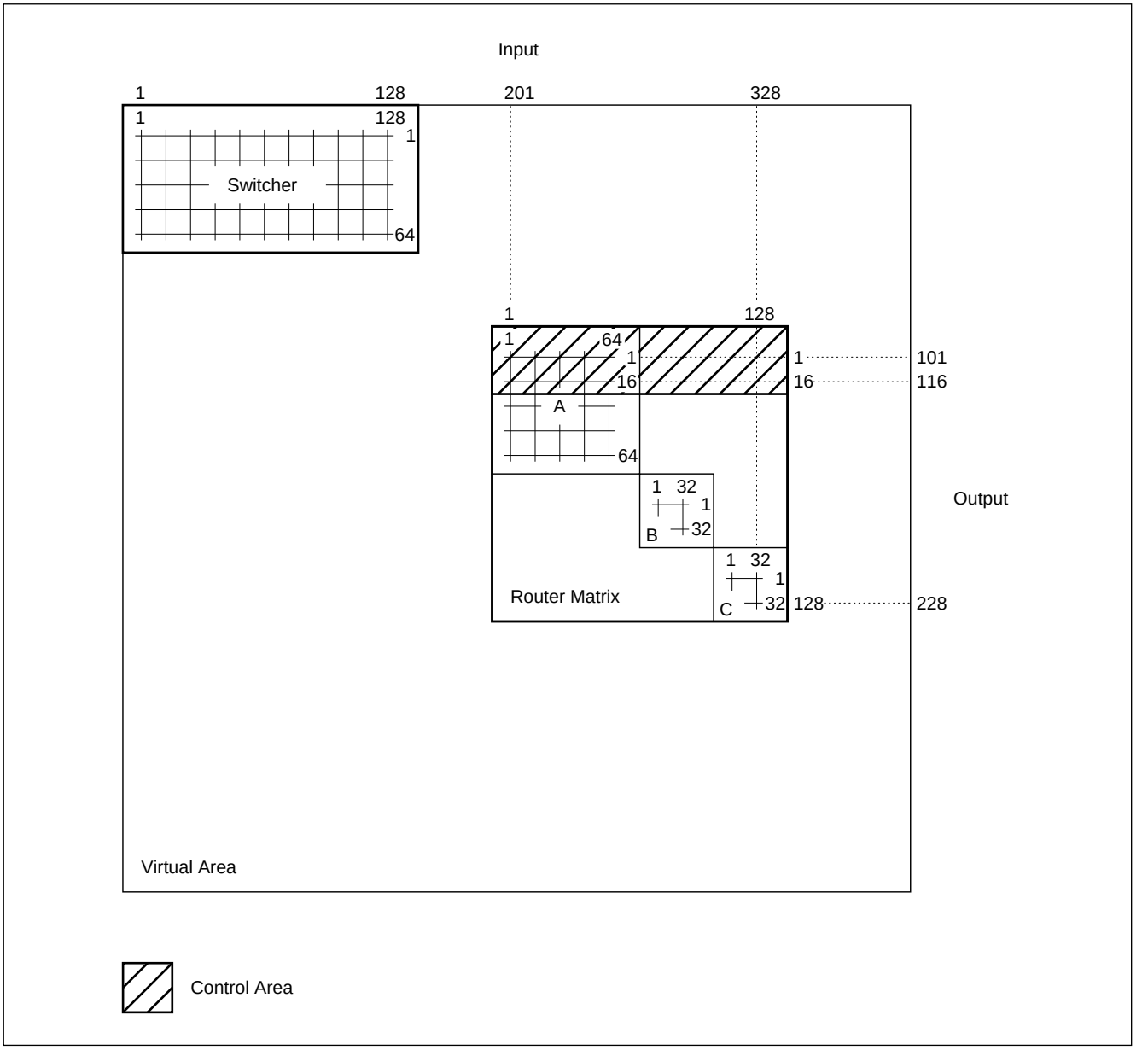
No.	Function
1	M/E-1 KEY1 FILL
2	(Reserved)
3	M/E-1 KEY2 FILL
4	(Reserved)
5	M/E-1 BKGD A
6	M/E-1 BKGD B
7	(Reserved)
8	(Reserved)
9	M/E-2 KEY1 FILL
10	(Reserved)
11	M/E-2 KEY2 FILL
12	(Reserved)
13	M/E-2 BKGD A
14	M/E-2 BKGD B
15	(Reserved)
16	(Reserved)
17	M/E-3 KEY1 FILL
18	(Reserved)
19	M/E-3 KEY2 FILL
20	(Reserved)
21	M/E-3 BKGD A
22	M/E-3 BKGD B
23	(Reserved)
24	(Reserved)
25	P/P KEY1 FILL
26	(Reserved)
27	P/P KEY2 FILL
28	(Reserved)
29	P/P BKGD A
30	P/P BKGD B
31-64	(Reserved)

8-1-10. Router Crosspoint Control

The range that can be controlled by DVS-7000 (BZS-7010 version 3.20) is as described below when the router crosspoint is controlled during connection with an S-bus. For more details of the operation, refer to the User Guide of a switcher.

- Source : Router matrix 1 through 128
- Destination : Router matrix 1 through 16

Destination 1 through 16 are the virtual terminal numbers that are set to Nos. 1 through 16 on the “DESTINATION” set screen in a “ROUTER” menu. In this range, enter the destination number to be controlled from a switcher.



8-2. Router

8-2-1. Matrix Size

Matrix size: 128 × 128

The matrix size of a router is 128 × 128. The starting point setting of source retrieval or the router crosspoint control from a switcher is performed in only this range. A matrix exceeding this size can also be treated as a video system. In this case, the required virtual terminal is extracted for setting.

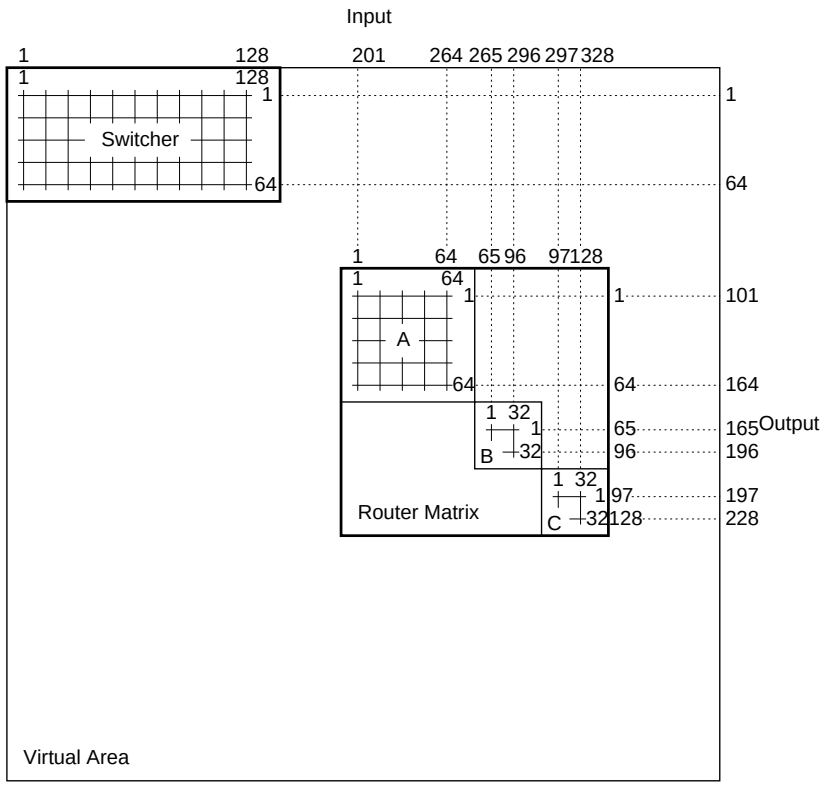
8-2-2. Connection

Crosspoint output: S-bus

The “REMOTE” connector of a router is connected to the “REMOTE” connector of this unit using a BNC cable.

8-2-3. “ROUTER” Menu Setting

In an S-bus, the physical terminal numbers of a router can be freely assigned to the virtual terminal numbers. The information is managed by the primary station. This unit cannot recognize the contents of the information. Therefore, it is necessary to set the virtual terminal numbers to which the router is assigned. The pin numbers of the virtual terminals on both the source and destination to be assigned are set.



	Input		
	CN No. →	Physycal →	Virtual
Router-A	1	1	201
	2	2	202
	3	3	203
	⋮	⋮	⋮
	64	64	264
Router-B	1	65	265
	2	66	266
	3	67	267
	⋮	⋮	⋮
	32	96	296
Router-C	1	97	297
	2	98	298
	3	99	299
	⋮	⋮	⋮
	32	128	328

	Output		
	CN No. →	Physycal →	Virtual
Router-A	1	1	101
	2	2	102
	3	3	103
	⋮	⋮	⋮
	64	64	164
Router-B	1	65	165
	2	66	166
	3	67	167
	⋮	⋮	⋮
	32	96	196
Router-C	1	97	197
	2	98	198
	3	99	199
	⋮	⋮	⋮
	32	128	228

8-3. DSK

8-3-1. Matrix Size

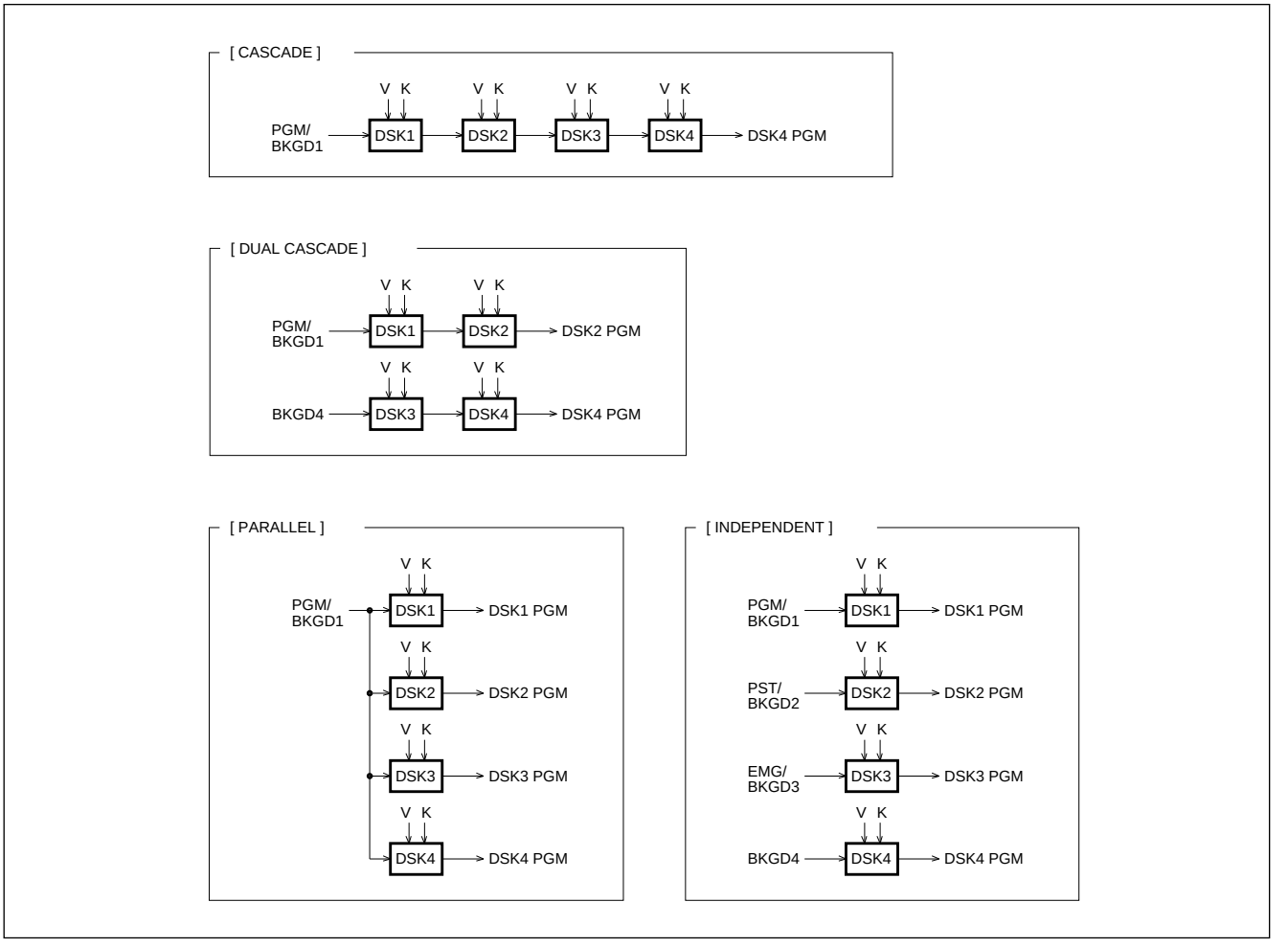
Matrix size: 12 × 9

DMK-7000 is assumed as a disk.

8-3-2. “DSK CONFIG” Menu Setting

DSK CONFIG: Cascade/Parallel/Independent/Dual Cascade

In DMK-7000, the relation between input and output signals varies depending on the mode used. This setting is thus required. Adjust this setting to the setting in DMK-7000.



8-3-3. Connection

Crosspoint output: Parallel

The “GPI” connector of DMK-7000 is connected to the “TALLY IN/GPI” connector of this unit. Since the wring varies depending on the GPI OUT setting of DSK, connect according to the setting. The pin assignment of each connector is shown below.

[GPI connector (DMK-7000: 25-pin, D-Sub)]

Pin	Function
1	GND
2	GND
7	GPI OUT 1B
8	GPI OUT 2B
9	GPI OUT 3B
10	GPI OUT 4B
11	GPI OUT 6
12	GPI OUT 8
13	GPI OUT COM
14	GND
19	GPI OUT 1A
20	GPI OUT 2A
21	GPI OUT 3A
22	GPI OUT 4A
23	GPI OUT 5
24	GPI OUT 7
25	GPI OUT COM

[TALLY IN/GPI connector (BKDS-7700: 50-pin, D-Sub)]

Pin	Function
1	DSK 1
2	DSK 2
3	DSK 3
4	DSK 4
49	GND
50	GND

8-3-4. DSK GPI OUT Setting

Set “TRIGGER” and “ACTION” of the GPI OUT terminal in DMK-7000 as shown below.
Wire the connection cable between DMK-7000 and this unit according to this setting.

- TRIGGER : TALLY
- ACTION : DSKX ON

[Example 1]

PORT	TRIGGER	PULSE WIDTH	ACTION
1	TALLY	60	DSK1 ON
2	TALLY	60	DSK2 ON
3	TALLY	60	DSK3 ON
4	TALLY	60	DSK4 ON
5	.....	.....	.....
6	.....	.....	.....
7	.....	.....	.....
8	.....	.....	.....

TALLY IN/GPI (BKDS-7700) — GPI (DMK-7000)

Pin No.	Function	Pin No.	Function
1	DSK1	19	GPI OUT 1A
2	DSK2	20	GPI OUT 2A
3	DSK3	21	GPI OUT 3A
4	DSK4	22	GPI OUT 4A
49	GND	7	GPI OUT 1B
50	GND	8	GPI OUT 2B
		9	GPI OUT 3B
		10	GPI OUT 4B

[Example 2]

PORT	TRIGGER	PULSE WIDTH	ACTION
1	.....	.....	.....
2	.....	.....	.....
3	.....	.....	.....
4	.....	.....	.....
5	TALLY	60	DSK1 ON
6	TALLY	60	DSK2 ON
7	TALLY	60	DSK3 ON
8	TALLY	60	DSK4 ON

TALLY IN/GPI (BKDS-7700) — GPI (DMK-7000)

Pin No.	Function	Pin No.	Function
1	DSK1	23	GPI OUT 5
2	DSK2	11	GPI OUT 6
3	DSK3	24	GPI OUT 7
4	DSK4	12	GPI OUT 8
49	GND	13	GPI OUT COM
50	GND	25	GPI OUT COM

8-3-5. DSK Matrix

The DSK matrix is assigned as shown below.

[Source]

No.	Function
1	BKGD 1
2	BKGD 2
3	BKGD 3
4	BKGD 4
5	DSK 1V
6	DSK 1K
7	DSK 2V
8	DSK 2K
9	DSK 3V
10	DSK 3K
11	DSK 4V
12	DSK 4K

[Destination]

No.	Function
1	PROGRAM 1
2	(Reserved)
3	PROGRAM 2
4	(Reserved)
5	PROGRAM 3
6	(Reserved)
7	PROGRAM 4
8	(Reserved)
9	(Reserved)

8-3-6. DSK Tally

The crosspoint information of DMK-7000 can be received only during the DSK ON/ OFF sequence by a GPI output signal. Therefore, video and key signals are turned on and off together according to the DSK ON/OFF sequence.

8-4. DME

8-4-1. Matrix Size

Matrix size: 12 × 12

In the V + K mode, six channels of six pairs (VIDEO and KEY signals) are provided. In the V + E + C mode, four channels of four pairs (EXT VIDEO and COMBINE) are provided. In the V + E + C mode, DME-7000 is assumed.

8-4-2. “DME TYPE” Menu Setting

DME TYPE: V + K/V + E + C

Set the operating mode to V + E + C when the GPI tally of DME-7000 is used.

8-4-3. Connection

During DME link operation, areentry is set in advance from the control panel of a switcher. Therefore, the serial tally of a switcher is output with the DME tally information included. The connection between DME and this unit is not required.
Connect in parallel when the GPI tally of DME-7000 is used.

Crosspoint output: Parallel

The “GPI” connector of DME-7000 is connected to the “TALLY IN/GPI” connector of this unit. The pin assignment of each connector is shown below.

[GPI] connector (DME-7000: 15-pin, D-Sub)

Pin No.	Function
1	FG
2	GPI OUT 1 (VIDEO)
3	GPI OUT 2 (EXT VIDEO)
4	GPI OUT 3 (COMBINE)
5	GPI OUT 4 (No use)
9	GPI OUT 1G
10	GPI OUT 2G
11	GPI OUT 3G
12	GPI OUT 4G

[TALLY IN/GPI] connector (BKDS-7700: 50-pin, D-sub) <V + K mode>

Pin No.	Function
5	DME 1V
6	DME 1K
7	DME 2V
8	DME 2K
9	DME 3V
10	DME 3K
11	DME 4V
12	DME 4K
13	DME 5V
14	DME 5K
15	DME 6V
16	DME 6K
49	GND
50	GND

<V + E + C mode>

Pin No.	Function
5	DME 1V
6	DME 1E
7	DME 1C
8	DME 2V
9	DME 2E
10	DME 2C
11	DME 3V
12	DME 3E
13	DME 3C
14	DME 4V
15	DME 4E
16	DME 4C
49	GND
50	GND

8-4-4. Switcher DME Interface Setting

The DME tally sent from a switcher by reentry setting is not required when the GPI tally of DME-7000 is used. Set “ON AIR TALLY” of a DME interface to “OFF .” For more details of the setting, refer to the User Guide of a switcher.

8-4-5. GPI Out Setting of DME-7000

Set the GPI OUT terminal to “ACTIVE” when the GPI tally of DME-7000 is used. For more details of the setting, refer to User Guide of DME-7000.

8-4-6. DME Matrix

The DME matrix is assigned as shown below.

[Source]

<V + K mode>

No.	Function
1	DME 1V
2	DME 1K
3	DME 2V
4	DME 2K
5	DME 3V
6	DME 3K
7	DME 4V
8	DME 4K
9	DME 5V
10	DME 5K
11	DME 6V
12	DME 6K

<V + E + C mode>

No.	Function
1	DME 1V
2	DME 1E
3	DME 1C
4	DME 2V
5	DME 2E
6	DME 2C
7	DME 3V
8	DME 3E
9	DME 3C
10	DME 4V
11	DME 4E
12	DME 4C

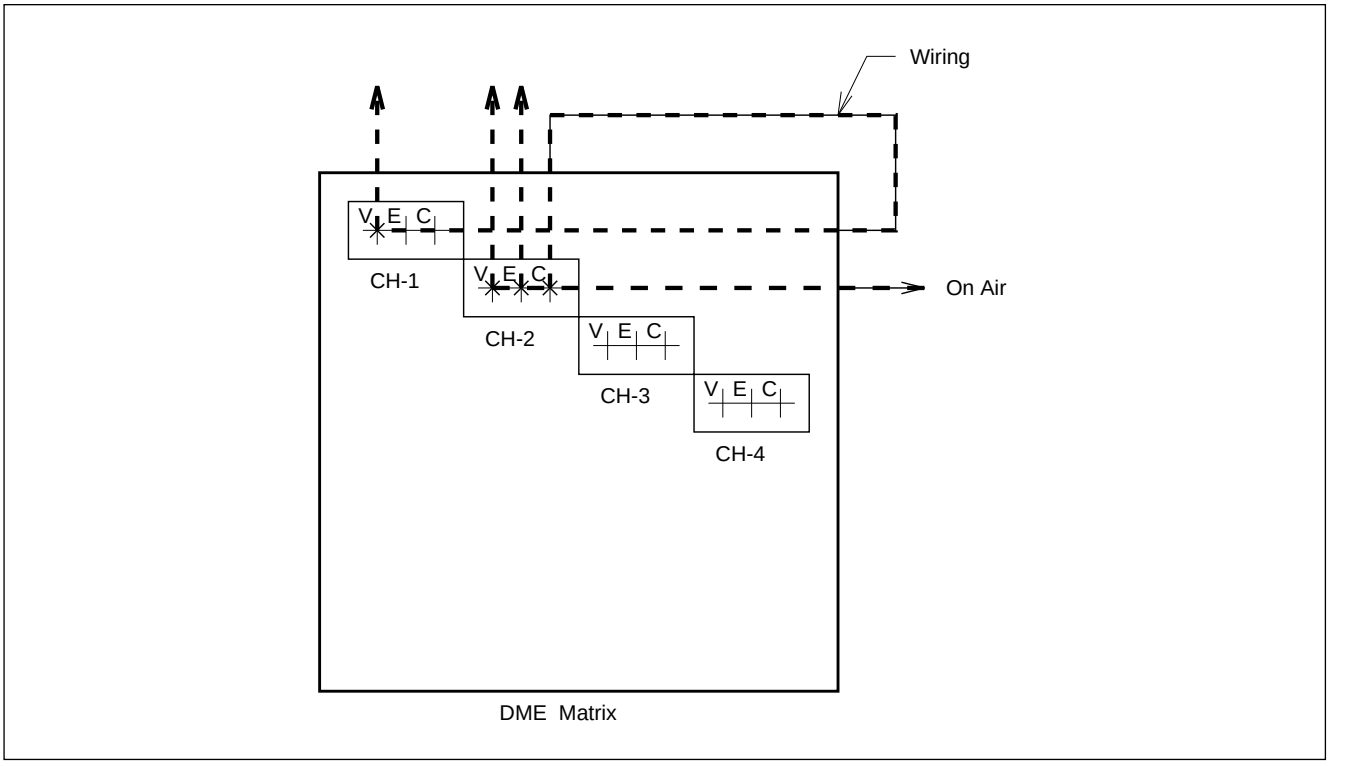
[Destination]

No.	Function
1	DME 1V
2	DME 1K
3	DME 2V
4	DME 2K
5	DME 3V
6	DME 3K
7	DME 4V
8	DME 4K
9	DME 5V
10	DME 5K
11	DME 6V
12	DME 6K

No.	Function
1	DME 1V
2	DME 2V
3	DME 3V
4	DME 4V
5-12	(no use)

8-4-7. Setting of COMBINE Connection Information

The connection information must be set as in tally retracing when DME in other channels is combined. In the “WIRING” menu during setup operation, the DME CH C terminal to be combined is connected to the DME CH output terminal to be combined.



8-5. Output Selector, DSK Source Selector, and CRK Source Selector

8-5-1. Matrix Size

- Output Selector : 12 × 3
- DSK Source Selector : 12 × 4
- CRK Source Selector : 12 × 1

BVS/DVS-V1201 is assumed as a selector. For an output selector, up to three selectors can be used in parallel. For a DSK source selector, up to four selectors can be used in parallel. Therefore, the matrix size above is provided.

8-5-2. Connection

Crosspoint output: 4-bit parallel

The relation between each bit and crosspoint is shown below.

A	B	C	D	CH
H	H	H	H	1
L	H	H	H	2
H	L	H	H	3
L	L	H	H	4
H	H	L	H	5
L	H	L	H	6
H	L	L	H	7
L	L	L	H	8
H	H	H	L	9
L	H	H	L	10
H	L	H	L	11
L	L	H	L	12
x	x	L	L	(No Select)

The “REMOTE” connector of BVS/DVS-V1201 is connected to the “TALLY IN/GPI” connector of this unit. The pin assignment of each connector is shown below.

[REMOTE] connector (BVS/DVS-V1201: 25-pin, D-Sub)

Pin	Function
13	VA (LSB)
25	VB
24	VC
23	VD (MSB)
18	GND

[TALLY IN/GPI] connector (BKDS-7700: 50-pin, D-Sub)

Pin	Function
17	OUT SEL-1 bit0
18	OUT SEL-1 bit1
19	OUT SEL-1 bit2
20	OUT SEL-1 bit3
21	OUT SEL-2 bit0
22	OUT SEL-2 bit1
23	OUT SEL-2 bit2
24	OUT SEL-2 bit3
25	OUT SEL-3 bit0
26	OUT SEL-3 bit1
27	OUT SEL-3 bit2
28	OUT SEL-3 bit3
29	CRK SEL bit0
30	CRK SEL bit1
31	CRK SEL bit2
32	CRK SEL bit3
33	DSK SEL-1 bit0
34	DSK SEL-1 bit1
35	DSK SEL-1 bit2
36	DSK SEL-1 bit3
37	DSK SEL-2 bit0
38	DSK SEL-2 bit1
39	DSK SEL-2 bit2
40	DSK SEL-2 bit3
41	DSK SEL-3 bit0
42	DSK SEL-3 bit1
43	DSK SEL-3 bit2
44	DSK SEL-3 bit3
45	DSK SEL-4 bit0
46	DSK SEL-4 bit1
47	DSK SEL-4 bit2
48	DSK SEL-4 bit3
49	GND
50	GND

8-5-3. Output selector

The output selector is assumed to be used at the last output stage of the system. Therefore, the output terminals are used as the starting point of source retrieval called “LINE 1 through 3.”

8-6. External Box

8-6-1. Matrix Size

Matrix size: 16 × 1

There is no equipment that is especially assumed as an external box. The equipment with parallel tally output is used for assumption. Up to three external boxes can be used in consideration of other equipment. These external boxes can be treated on at a time or can be treated as a matrix of 48 × 1 with the destination of three external boxes used in common.

8-6-2. “TALLY IN/GPI TYPE” Menu Setting

TALLY IN/GPI TYPE: NORMAL/EXT BOX 1/EXT BOX 2/EXT BOX 3

DSK, DME, or an output selector is assigned to the TALLY IN/GPI connector. There is no blank pin in this case. Therefore, the connector is switched 16 pins at a time for use. The mode and the corresponding equipment that can be used are described below.

- NORMAL : DSK, DME, Output selector, CRK source selector, DSK source selector
- EXT BOX 1: DSK, DME, Output selector, CRK source selector, EXT box 1
- EXT BOX 2: DSK, DME, EXT box 2, EXT box 1
- EXT BOX 3: EXT box 3, EXT box 2, EXT box 1

8-6-3. Connection

Crosspoint output: Parallel

The parallel tally output connector of an external box is connected to the “TALLY IN/GPI” connector of this unit. The pin assignment of each connector is shown below.

[TALLY IN/GPI] connector (BKDS-7700: Dsub-50p)

<EXT BOX 3>

Pin No.	Function
1	EXT BOX 3-1
2	EXT BOX 3-2
3	EXT BOX 3-3
4	EXT BOX 3-4
5	EXT BOX 3-5
6	EXT BOX 3-6
7	EXT BOX 3-7
8	EXT BOX 3-8
9	EXT BOX 3-9
10	EXT BOX 3-10
11	EXT BOX 3-11
12	EXT BOX 3-12
13	EXT BOX 3-13
14	EXT BOX 3-14
15	EXT BOX 3-15
16	EXT BOX 3-16

<EXT BOX 2>

Pin No.	Function
17	EXT BOX 2-1
18	EXT BOX 2-2
19	EXT BOX 2-3
20	EXT BOX 2-4
21	EXT BOX 2-5
22	EXT BOX 2-6
23	EXT BOX 2-7
24	EXT BOX 2-8
25	EXT BOX 2-9
26	EXT BOX 2-10
27	EXT BOX 2-11
28	EXT BOX 2-12
29	EXT BOX 2-13
30	EXT BOX 2-14
31	EXT BOX 2-15
32	EXT BOX 2-16

<EXT BOX 1>

Pin No.	Function
33	EXT BOX 1-1
34	EXT BOX 1-2
35	EXT BOX 1-3
36	EXT BOX 1-4
37	EXT BOX 1-5
38	EXT BOX 1-6
39	EXT BOX 1-7
40	EXT BOX 1-8
41	EXT BOX 1-9
42	EXT BOX 1-10
43	EXT BOX 1-11
44	EXT BOX 1-12
45	EXT BOX 1-13
46	EXT BOX 1-14
47	EXT BOX 1-15
48	EXT BOX 1-16
49	GND
50	GND

8-6-4. EXT Box Matrix

The external box matrix is assigned as shown below.

[Source]

Pin No.	Function
1	INPUT 1
2	INPUT 2
3	INPUT 3
4	INPUT 4
5	INPUT 5
6	INPUT 6
7	INPUT 7
8	INPUT 8
9	INPUT 9
10	INPUT 10
11	INPUT 11
12	INPUT 12
13	INPUT 13
14	INPUT 14
15	INPUT 15
16	INPUT 16

[Destination]

Pin No.	Function
1	OUTPUT 1

8-7. Connection with DVS-M1000C

DVS-M1000C can also be connected to this unit. However, DVS-M1000C differs in treatment from other switchers because the characteristics of products are different. The difference is described below.

8-7-1. Control Signal

DVS-M1000C diverts a serial tally protocol and outputs a control signal (e.g., preroll trigger). The control signal can be used in the same manner as the GPI OUT signal of DVS-M1000C by setting “ALL” to the tally type and by assigning an input terminal number to the TALLY OUT connector.

8-7-2. Matrix

The matrix is exclusively assigned as shown below. The destination is the same as for other switchers.

[Source]

No.	DVS-7000	DVS-M1000C
1	PRIMARY 1	PRIMARY 1
2	PRIMARY 2	PRIMARY 2
3	PRIMARY 3	PRIMARY 3
4	PRIMARY 4	PRIMARY 4
5	PRIMARY 5	PRIMARY 5
6	PRIMARY 6	PRIMARY 6
7	PRIMARY 7	PRIMARY 7
8	PRIMARY 8	PRIMARY 8
9	PRIMARY 9	PRIMARY 9
10	PRIMARY 10	PRIMARY 10
11	PRIMARY 11	PRIMARY 11
12	PRIMARY 12	PRIMARY 12
13	PRIMARY 13	DSK 1
14	PRIMARY 14	DSK 2
15	PRIMARY 15	DSK 3
16	PRIMARY 16	DSK 4
17	PRIMARY 17	AUDIO INPUT 1
18	PRIMARY 18	AUDIO INPUT 2
19	PRIMARY 19	AUDIO INPUT 3
20	PRIMARY 20	AUDIO INPUT 4
21	PRIMARY 21	VIDEO MODE TRIGGER 1
22	PRIMARY 22	VIDEO MODE TRIGGER 2
23	PRIMARY 23	VIDEO MODE TRIGGER 3
24	PRIMARY 24	VIDEO MODE TRIGGER 4
25	PRIMARY 25	VIDEO MODE TRIGGER 5
26	PRIMARY 26	VIDEO MODE TRIGGER 6
27	PRIMARY 27	VIDEO MODE TRIGGER 7
28	PRIMARY 28	AUDIO MODE TRIGGER 1
29	PRIMARY 29	AUDIO MODE TRIGGER 2
30	PRIMARY 30	AUDIO MODE TRIGGER 3
31	PRIMARY 31	AUDIO MODE TRIGGER 4
32	PRIMARY 32	AUDIO MODE TRIGGER 5
33	PRIMARY 33	AUDIO MODE TRIGGER 6
34	PRIMARY 34	AUDIO MODE TRIGGER 7
35	PRIMARY 35	PREROLL TRIGGER 1
36	PRIMARY 36	PREROLL TRIGGER 2
37	CHROMAKEY 1	PREROLL TRIGGER 3
38	CHROMAKEY 2	PREROLL TRIGGER 4
39	CHROMAKEY 3	PREROLL TRIGGER 5
40	CHROMAKEY 4	PREROLL TRIGGER 6
41	(Reserved)	PREROLL TRIGGER 7
42	(Reserved)	PREROLL TRIGGER 8
43	(Reserved)	PREROLL TRIGGER 9
44	(Reserved)	PREROLL TRIGGER 10
45	(Reserved)	PREROLL TRIGGER 11
46	(Reserved)	PREROLL TRIGGER 12
47	(Reserved)	(Not used)
48	(Reserved)	(Not used)
49	(Reserved)	AUDIO PRIMARY 1
50	(Reserved)	AUDIO PRIMARY 2
51	(Reserved)	AUDIO PRIMARY 3
52	(Reserved)	AUDIO PRIMARY 4
53	(Reserved)	AUDIO PRIMARY 5
54	(Reserved)	AUDIO PRIMARY 6
55	(Reserved)	AUDIO PRIMARY 7
56	(Reserved)	AUDIO PRIMARY 8
57	(Reserved)	AUDIO PRIMARY 9
58	(Reserved)	AUDIO PRIMARY 10
59	(Reserved)	AUDIO PRIMARY 11
60	(Reserved)	AUDIO PRIMARY 12
61	(Reserved)	PST PRIMARY 1
62	(Reserved)	PST PRIMARY 2
63	(Reserved)	PST PRIMARY 3
64	(Reserved)	PST PRIMARY 4
65	BLACK	PST PRIMARY 5
66	BKGD COLOR 1	PST PRIMARY 6
67	BKGD COLOR 2	PST PRIMARY 7
68	BKGD COLOR 3	PST PRIMARY 8
69	BKGD COLOR 4	PST PRIMARY 9
70	(Reserved)	PST PRIMARY 10
71	PROGRAM	PST PRIMARY 11
72	CLEAN	PST PRIMARY 12
73	M/E-1 PGM	AUDIO MODE TRIGGER 6
74	M/E-2 PGM	AUDIO MODE TRIGGER 7
75	M/E-3 PGM	(Not used)
76-113	(Reserved)	(Not used)
114	(Reserved)	PREROLL TRIGGER 5
115	(Reserved)	PREROLL TRIGGER 6
116-128	(Reserved)	(Not used)

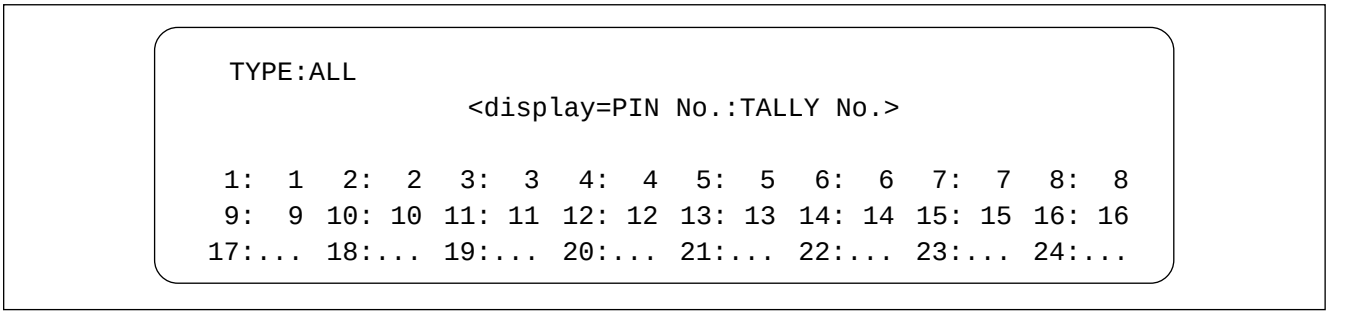
8-7-3. Setting Example

When the setting is performed as described below

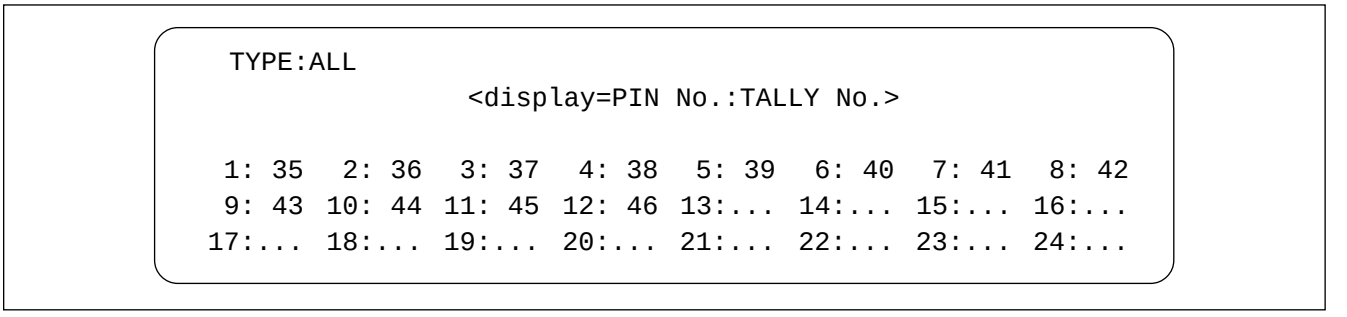
- TALLY OUT 1: PRIMARY 1 through 12, DSK 1 through 4
- TALLY OUT 2: PREROLL TRIGGER 1 through 12

(The switcher address is prescribed as source: 1 through 128 and destination: 1 through 64 .)

TALLY OUT 1



TALLY OUT 2



8-8. Connection with BKDS-6080

BKDS-6080 can be connected to the SERIAL TALLY terminal of this unit. BDKS-6080 is designed so that it can be connected to DVS-6000. The primary function can be used for PRIMARY 1 to PRIMARY 32, and the M/E function for only M/E-1 and ME-2. Since this unit can freely set the arrangement of a serial tally by the setup operation, it can widen the application range of BKDS-6080.

8-8-1. Pin Assignment and Tally Number

The pin assignment and tally number of an output connector in BKDS-6080 are shown below. The source number to be output to this tally number is assigned during setup operation.

Pin No.	Function	TALLY No.
1	PRIMARY 1	1
2	PRIMARY 2	2
3	PRIMARY 3	3
4	PRIMARY 4	4
5	PRIMARY 5	5
6	PRIMARY 6	6
7	PRIMARY 7	7
8	PRIMARY 8	8
9	PRIMARY 9	9
10	PRIMARY 10	10
11	PRIMARY 11	11
12	PRIMARY 12	12
13	PRIMARY 13	13
14	PRIMARY 14	14
15	PRIMARY 15	15
16	PRIMARY 16	16
17	PRIMARY 17	17
18	PRIMARY 18	18

Pin No.	Function	TALLY No.
19	PRIMARY 19	19
20	PRIMARY 20	20
21	PRIMARY 21	21
22	PRIMARY 22	22
23	PRIMARY 23	23
24	PRIMARY 24	24
25	PRIMARY 25	25
26	PRIMARY 26	26
27	PRIMARY 27	27
28	PRIMARY 28	28
29	PRIMARY 29	29
30	PRIMARY 30	30
31	PRIMARY 31	31
32	PRIMARY 32	32
33	M/E-1 PGM	74
34	M/E-2 PGM	75
35	D2 CRK CH1	115
36	D2 CRK CH2	116

8-8-2. Tally Type

The tally that can be output by BKDS-6080 is only a red tally (R-1 tally for four-group mode). Be sure to specify the red (R-1) tally.

8-8-3. Setting Example

When the setting is performed as described below.

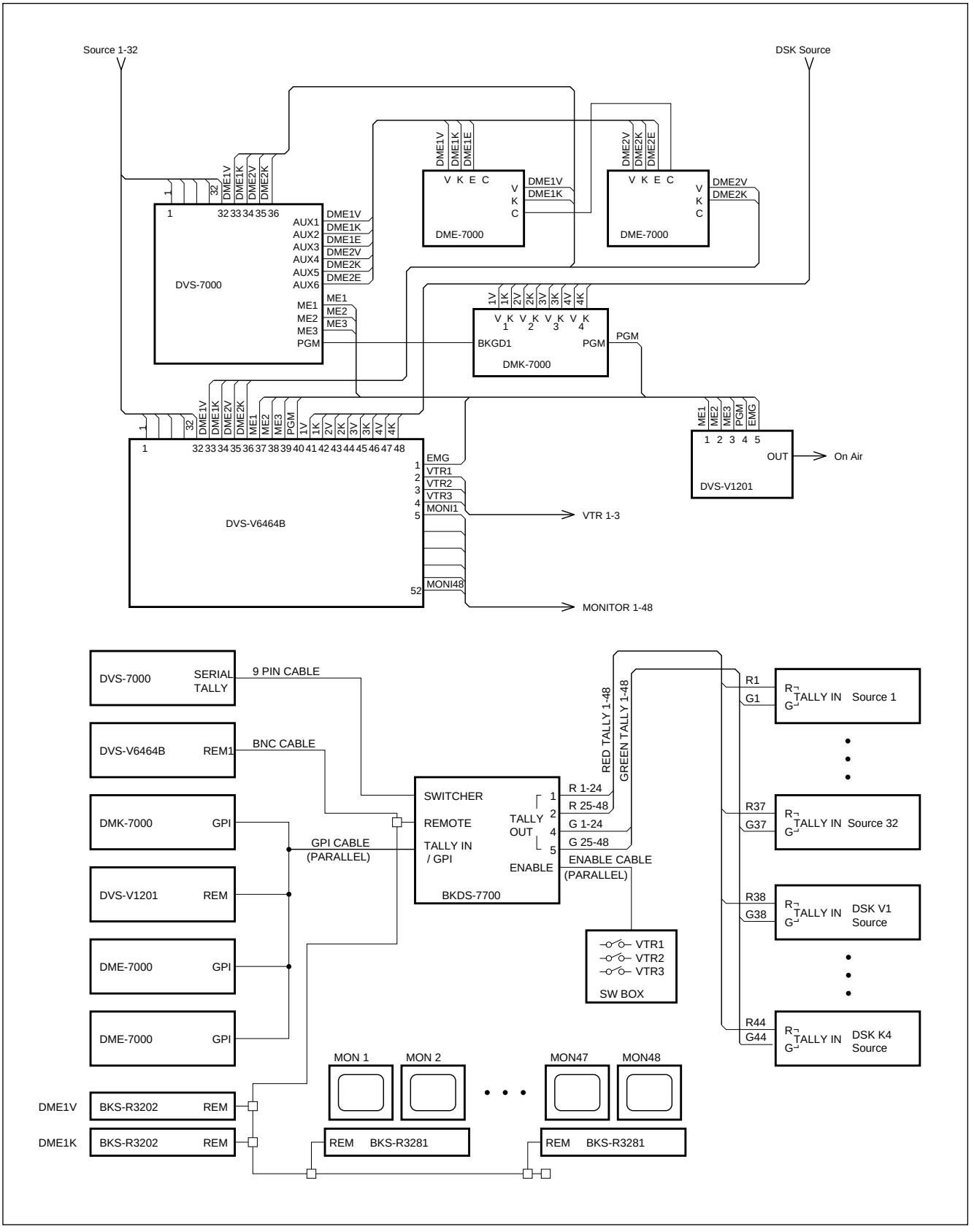
- Pins 1 through 28 : PRIMARY 1 through 28
- Pins 29 through 32 : CHROMAKEY 1 through 4
- Pins 33 through 35 : M/E-1 through 3

(The switcher address is prescribed as source: 1 through 128 and destination: 1 through 64 . The group tally required for a red tally must be set in an ENABLE menu.)

```
 TYPE:RED
              <display=TALLY No.:SOURCE No.>

  1:  1  2:  2  3:  3  4:  4  5:  5  6:  6  7:  7  8:  8
  9:  9 10: 10 11: 11 12: 12 13: 13 14: 14 15: 15 16: 16
 17: 17 18: 18 19: 19 20: 20 21: 21 22: 22 23: 23 24: 24
 25: 25 26: 26 27: 27 28: 28 29: 37 30: 38 31: 39 32: 40
 33:... 34:... 35:... 36:... 37:... 38:... 39:... 40:...
 41:... 42:... 43:... 44:... 45:... 46:... 47:... 48:...
 49:... 50:... 51:... 52:... 53:... 54:... 55:... 56:...
 57:... 58:... 59:... 60:... 61:... 62:... 63:... 64:...
 65:... 66:... 67:... 68:... 69:... 70:... 71:... 72:...
 73:... 74: 73 75: 74 76:... 77:... 78:... 79:... 80:...
 81:... 82:... 83:... 84:... 85:... 86:... 87:... 88:...
 89:... 90:... 91:... 92:... 93:... 94:... 95:... 96:...
 97:... 98:... 99:...100:...101:...102:...103:...104:...
105:...106:...107:...108:...109:...110:...111:...112:...
113:...114:...115:...116:...117:...118:...119:...120:...
121:...122:...123:...124:...125:...126:...127:...128:...
```

Section 9
Setup Example

The setup procedure based on setting examples is described below.



[GPI CABLE]

DMK-7000
GPI connector

Pin No.	Function
19	GPI OUT 1A
20	GPI OUT 2A
21	GPI OUT 3A
22	GPI OUT 4A
7	GPI OUT 1B
8	GPI OUT 2B
9	GPI OUT 3B
10	GPI OUT 4B

DME-7000
GPI connector

Pin No.	Function
2	GPI OUT 1
3	GPI OUT 2
4	GPI OUT 3
9	GPI OUT 1G
10	GPI OUT 2G
11	GPI OUT 3G

DME-7000
GPI connector

Pin No.	Function
2	GPI OUT 1
3	GPI OUT 2
4	GPI OUT 3
9	GPI OUT 1G
10	GPI OUT 2G
11	GPI OUT 3G

DVS-V1201
REMOTE connector

Pin No.	Function
13	VA
25	VB
24	VC
23	VD
18	GND

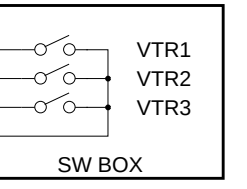
BKDS-7700
TALLY IN/ GPI connector

Pin No.	Function
1	DSK 1
2	DSK 2
3	DSK 3
4	DSK 4
5	DME 1V
6	DME 1E
7	DME 1C
8	DME 2V
9	DME 2E
10	DME 2C
17	OUT SEL-1 bit0
18	OUT SEL-1 bit1
19	OUT SEL-1 bit2
20	OUT SEL-1 bit3
49	GND
50	GND

[ENABLE CABLE]

BKDS-7700
ENABLE connector

Pin No.	Function
1	ENABLE 1
2	ENABLE 2
3	ENABLE 3
49	GND
50	GND



[Tally Out Pin Assign]

<BKDS-7700>

TALLY OUT 1 : RED TALLY
TALLY OUT 4 : GREEN TALLY

Pin No.	Signal Name	Function
1	TALLY OUT 1A	Surce 1-A
2	TALLY OUT 1B	Surce 1-B
18	TALLY OUT 2A	Surce 2-A
19	TALLY OUT 2B	Surce 2-B
34	TALLY OUT 3A	Surce 3-A
35	TALLY OUT 3B	Surce 3-B
3	TALLY OUT 4A	Surce 4-A
4	TALLY OUT 4B	Surce 4-B
↓	↓	↓
15	TALLY OUT 22A	Surce 22-A
16	TALLY OUT 22B	Surce 22-B
32	TALLY OUT 23A	Surce 23-A
33	TALLY OUT 23B	Surce 23-B
48	TALLY OUT 24A	Surce 24-A
49	TALLY OUT 24B	Surce 24-B
17	GND	–
50	GND	–

<BKDS-7700>

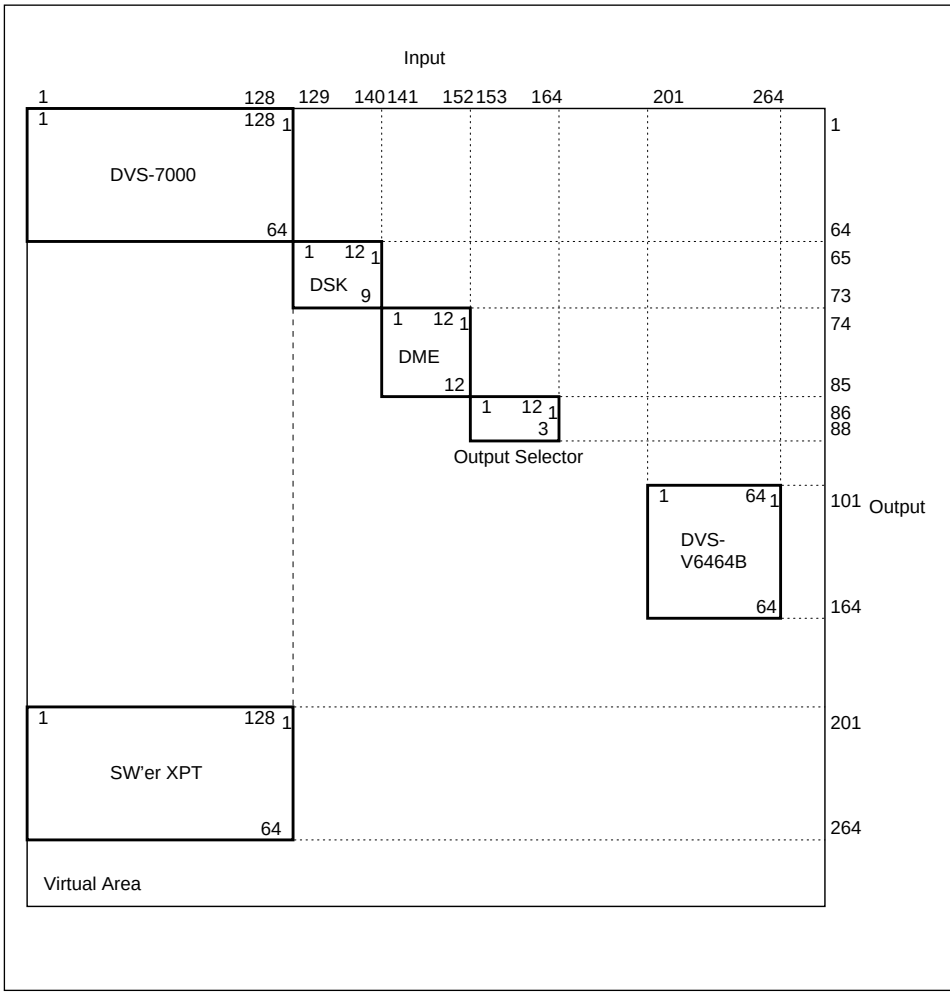
TALLY OUT 2 : RED TALLY
TALLY OUT 5 : GREEN TALLY

Pin No.	Signal Name	Function
1	TALLY OUT 1A	Surce 25-A
2	TALLY OUT 1B	Surce 25-B
↓	↓	↓
22	TALLY OUT 8A	Surce 32-A
23	TALLY OUT 8B	Surce 32-B
38	TALLY OUT 9A	No Assign
39	TALLY OUT 9B	No Assign
↓	↓	↓
40	TALLY OUT 12A	No Assign
41	TALLY OUT 12B	No Assign
9	TALLY OUT 13A	DSK Source V1-A
10	TALLY OUT 13B	DSK Source V1-B
↓	↓	↓
30	TALLY OUT 20A	DSK Source K4-A
31	TALLY OUT 20B	DSK Source K4-B
46	TALLY OUT 21A	No Assign
47	TALLY OUT 21B	No Assign
↓	↓	↓
48	TALLY OUT 24A	No Assign
49	TALLY OUT 24B	No Assign
17	GND	–
50	GND	–

9-1. Mapping of Each Equipment

The equipment used is listed up and mapped into the virtual space.

- SW'er <128 × 64> : DVS-7000(3.5M/E)
- SW'er XPT <128 × 64> : DVS-7000(3.5M/E)
- DSK < 12 × 9> : DMK-7000(Cascade)
- DME < 12 × 12> : DME-7000
- OUTPUT SEL < 12 × 3> : DVS-V1201
- ROUTER <128 × 128> : DVS-V6464B(ID:1)



	Input	
	Physycal	→ Virtual
DVS-7000	1 ↓ 128	1 ↓ 128
DSK	1 ↓ 12	129 ↓ 140
DME	1 ↓ 12	141 ↓ 152
OUTPUT SELECTOR	1 ↓ 12	153 ↓ 164
DVS-V6464B	1 ↓ 64	201 ↓ 264

	Output	
	Physycal	→ Virtual
DVS-7000	1 ↓ 64	1 ↓ 64
DSK	1 ↓ 9	65 ↓ 73
DME	1 ↓ 12	74 ↓ 85
OUTPUT SELECTOR	1 ↓ 3	86 ↓ 88
DVS-V6464B	1 ↓ 64	101 ↓ 164
SW'er XPT	1 ↓ 64	201 ↓ 264

9-2. S-Bus Setting

The S-bus is set according to the mapping result.

9-2-1. Unit Location Setting

The unit location is set for mapping into the physical S-bus space of DVS-V6464B. Recall the secondary station from the S-bus terminal, select A: SET UNIT LOCATION, and set the source, destination, and level.

(Exampl)

```
STATION ID:1
SOURCE No.0201-0264 DESTINATION No.0101-0164 LEVEL No.1
```

9-2-2. Expansion Into Logical S-Bus Space

The input/output terminals of each equipment are expanded into the logical S-bus space according to the mapping result. Select L: SET PHYSICAL ASSIGNMENT from the S-bus terminal and set the source and destination.

(Exampl)

```
SOURCE
No.  NAME  LEVEL
           1     2     3     4     5     6     7     8
001  IN001 001-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
002  IN002 002-1 ...-. ...-. ...-. ...-. ...-. ...-. ...-.
:    :     :     :     :     :     :     :     :     :
163  IN163 163-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
164  IN164 164-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.

201  IN201 201-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
202  IN202 202-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
:    :     :     :     :     :     :     :     :     :
263  IN263 263-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
264  IN264 264-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
```

```
DESTINATION
No.  NAME  LEVEL
           1     2     3     4     5     6     7     8
001  OUT001001-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
002  OUT002002-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
:    :     :     :     :     :     :     :     :     :
063  OUT063063-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
064  OUT064064-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.

101  OUT101101-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
102  OUT102102-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
:    :     :     :     :     :     :     :     :     :
163  OUT163163-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
164  OUT164164-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.

201  OUT201201-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
202  OUT202202-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
:    :     :     :     :     :     :     :     :     :
263  OUT263263-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
264  OUT264264-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
```

9-2-3. Signal Name Setting

Signal names are set to the input/output terminals expanded into the logical S-bus space. Select J: NAME STYLE from the S-bus terminal and switch it into (DESCRIP. NAME). After that, select C: SET DESTINATION NAME and D: SET SOURCE NAME and set the source and destination.

(Exampl)

[Source]

No.	NAME	No.	NAME	No.	NAME	No.	NAME	No.	NAME
001	IN01	025	IN25	129	BKGD1	201	IN-01	225	IN-25
002	IN02	026	IN26	130	BKGD2	202	IN-02	226	IN-26
003	IN03	027	IN27	131	BKGD3	203	IN-03	227	IN-27
004	IN04	028	IN28	132	BKGD4	204	IN-04	228	IN-28
005	IN05	029	IN29	133	DSK1V	205	IN-05	229	IN-29
006	IN06	030	IN30	134	DSK1K	206	IN-06	230	IN-30
007	IN07	031	IN31	135	DSK2V	207	IN-07	231	IN-31
008	IN08	032	IN32	136	DSK2K	208	IN-08	232	IN-32
009	IN09	033	DME1V	137	DSK3V	209	IN-09	233	DME-1V
010	IN10	034	DME1K	138	DSK3K	210	IN-10	234	DME-1K
011	IN11	035	DME2V	139	DSK4V	211	IN-11	235	DME-2V
012	IN12	036	DME2K	140	DSK4K	212	IN-12	236	DME-2K
013	IN13	065	BLK	141	dme1v	213	IN-13	237	M/E-1
014	IN14	066	COL1	142	dme1e	214	IN-14	238	M/E-2
015	IN15	067	COL2	143	dme1c	215	IN-15	239	M/E-3
016	IN16	068	COL3	144	dme2v	216	IN-16	240	PGM
017	IN17	073	ME1	145	dme2e	217	IN-17	241	DSK-1V
018	IN18	074	ME2	146	dme2c	218	IN-18	242	DSK-1K
019	IN19	075	ME3	153	me1	219	IN-19	243	DSK-2V
020	IN20	090	FM1	154	me2	220	IN-20	244	DSK-2K
021	IN21	091	FM2	155	me3	221	IN-21	245	DSK-3V
022	IN22			156	pgm	222	IN-22	246	DSK-3K
023	IN23			157	emg	223	IN-23	247	DSK-4V
024	IN24			158	in06	224	IN-24	248	DSK-4K
				159	in07				
				160	in08				
				161	in09				
				162	in10				
				163	in11				
				164	in12				

(Exampl)

[Destination]

No.	NAME	No.	NAME	No.	NAME	No.	NAME	No.	NAME
001	ME-1	065	DSK1	113	MON09	133	MON29	201	ME1K1
003	ME-2	067	DSK2	114	MON10	134	MON30	203	ME1K2
005	ME-3	069	DSK3	115	MON11	135	MON31	205	ME1A
007	PGM	071	DSK4	116	MON12	136	MON32	206	ME1B
017	AUX1	074	DME1V	117	MON13	137	MON33	209	ME2K1
018	AUX2	075	DME2V	118	MON14	138	MON34	211	ME2K2
019	AUX3	086	LINE1	119	MON15	139	MON35	213	ME2A
020	AUX4			120	MON16	140	MON36	214	ME2B
021	AUX5	101	EMG	121	MON17	141	MON37	217	ME3K1
022	AUX6	102	VTR1	122	MON18	142	MON38	219	ME3K2
023	AUX7	103	VTR2	123	MON19	143	MON39	221	ME3A
024	AUX8	104	VTR3	124	MON20	144	MON40	222	ME3B
025	AUX9	105	MON01	125	MON21	145	MON41	225	PPK1
026	AUX10	106	MON02	126	MON22	146	MON42	227	PPK2
027	AUX11	107	MON03	127	MON23	147	MON43	229	PPA
028	AUX12	108	MON04	128	MON24	148	MON44	230	PPB
029	AUX13	109	MON05	129	MON25	149	MON45		
030	AUX14	110	MON06	130	MON26	150	MON46		
032	PVW	111	MON07	131	MON27	151	MON47		
		112	MON08	132	MON28	152	MON48		

9-3. Setup of BKDS-7700

The setup operation for tally creation is performed according to the mapping result and “9-2. S-Bus Setting”.

9-3-1. System Menu

The system outline is set as described below.

(Exampl)

```
1. ROUTER(S-BUS)              ON
2. ROUTER LEVEL               1
3. SW’er                      ON
4. SW’er LEVEL                1
5. SW’er TYPE                 3.5 ME
6. DSK CONFIG                 CASCADE
7. DME TYPE                   V+E+C
8. TALLY IN/GPI TYPE          NORMAL
9.  TALLY TYPE(SEL S-BUS GP)  R/G/Y
10. TALLY BOX(1st/2st)        1st
11. ROUTER INTERFACE          ON
12. SW’er DESTINATION WIDTH   64
```

1. ROUTER (S-BUS)
Set to “ON” because a router is used.

2. ROUTER LEVEL
The set value of a router in “9-2-2. Expansion into Logical S-Bus Space” Set to “1.”

3. SW’er
Set to “ON” because a switcher is used.

4. SW’er LEVEL
The set value of a switcher in “9-2-2. Expansion into Logical S-Bus Space” Set to “1.”

5. SW’er TYPE
The M/E type of the switcher used is “3.5 M/E.”

6. DSK CONFIG
The operating mode of DMK-7000 is “CASCADE.”

7. DME TYPE
Set to “V + E + C” because a parallel tally is used.

8. TALLY IN/GPI TYPE
Set to “NORMAL” because an external box is not used.

9. TALLY TYPE (SEL S-BUS GP)
The system tally mode is “R/G/Y.”

10. TALLY BOX (1st/2st)
Set to “1st” because one tally box is used.

11. ROUTER INTERFACE
Set “ON” because the router interface operation is performed.

12. SW’er DESTINATION WIDTH
Set to “64” as the default value.

9-3-2. ADDRESS (S-BUS) menu

The address of equipment is set according to the result in “9-1. Mapping of Each Equipment”.

(Exampl)

	SOURCE	DESTINATION
1. SW’er <128 x 64>	1-128	1- 64
2. SW’er XPT <128 x 64>	1-128	201-264
3. DSK <12 x 9>	129-140	65- 73
4. DME <12 x 12>	141-152	74- 85
5. OUTPUT SEL <12 x 3>	153-164	86- 88
6. DSK SOURCE SEL <12 x 4>	...-...	...-...
7. CHR SOURCE SEL <12 x 1>	...-...	...-...

9-3-3. Router Menu

The ROUTER menu sets the virtual terminal numbers on both the source and destination to which the router set in “9-2-2. Expansion into Logical S-Bus Space” is assigned.

(Exampl)

[Source]

```
                    <display=ROUTER:S-BUS>

  1:201  2:202  3:203  4:204  5:205  6:206  7:207  8:208
  9:209 10:210 11:211 12:212 13:213 14:214 15:215 16:216
 17:217 18:218 19:219 20:220 21:221 22:222 23:223 24:224
 25:225 26:226 27:227 28:228 29:229 30:230 31:231 32:232
 33:233 34:234 35:235 36:236 37:237 38:238 39:239 40:240
 41:241 42:242 43:243 44:244 45:245 46:246 47:247 48:248
 49:249 50:250 51:251 52:252 53:253 54:254 55:255 56:256
 57:257 58:258 59:259 60:260 61:261 62:262 63:263 64:264
 65:...  66:...  67:...  68:...  69:...  70:...  71:...  72:...
 73:...  74:...  75:...  76:...  77:...  78:...  79:...  80:...
 81:...  82:...  83:...  84:...  85:...  86:...  87:...  88:...
 89:...  90:...  91:...  92:...  93:...  94:...  95:...  96:...
 97:...  98:...  99:... 100:... 101:... 102:... 103:... 104:...
105:... 106:... 107:... 108:... 109:... 110:... 111:... 112:...
113:... 114:... 115:... 116:... 117:... 118:... 119:... 120:...
121:... 122:... 123:... 124:... 125:... 126:... 127:... 128:...
```

[Destination]

```
                    <display=ROUTER:S-BUS>

  1:101  2:102  3:103  4:104  5:105  6:106  7:107  8:108
  9:109 10:110 11:111 12:112 13:113 14:114 15:115 16:116
 17:117 18:118 19:119 20:120 21:121 22:122 23:123 24:124
 25:125 26:126 27:127 28:128 29:137 30:130 31:131 32:132
 33:133 34:134 35:135 36:136 37:137 38:138 39:139 40:140
 41:141 42:142 43:143 44:144 45:145 46:146 47:147 48:148
 49:149 50:150 51:151 52:152 53:153 54:154 55:155 56:156
 57:157 58:158 59:159 60:160 61:161 62:162 63:163 64:164
 65:...  66:...  67:...  68:...  69:...  70:...  71:...  72:...
 73:...  74:...  75:...  76:...  77:...  78:...  79:...  80:...
 81:...  82:...  83:...  84:...  85:...  86:...  87:...  88:...
 89:...  90:...  91:...  92:...  93:...  94:...  95:...  96:...
 97:...  98:...  99:... 100:... 101:... 102:... 103:... 104:...
105:... 106:... 107:... 108:... 109:... 110:... 111:... 112:...
113:... 114:... 115:... 116:... 117:... 118:... 119:... 120:...
121:... 122:... 123:... 124:... 125:... 126:... 127:... 128:...
```

9-3-4. Slow VTR Menu

The SLOW VTR menu sets the destination when ones other than switcher outputs (PGM, M/E, and AUX) and an OUTPUT SELECTOR output are used as the starting point of source retrieval.

[Example]

```
                          DESTINATION
   1. SLOW VTR 1          102
   2. SLOW VTR 2          103
   3. SLOW VTR 3          104
   4. SLOW VTR 4          ...
   5. SLOW VTR 5          ...
   6. SLOW VTR 6          ...
   7. SLOW VTR 7          ...
   8. SLOW VTR 8          ...
   9. SLOW VTR 9          ...
   10.SLOW VTR 10         ...
   11.SLOW VTR 11         ...
   12.SLOW VTR 12         ...
   13.SLOW VTR 13         ...
   14.SLOW VTR 14         ...
   15.SLOW VTR 15         ...
   16.SLOW VTR 16         ...
```

9-3-5. Wiring Menu

The WIRING menu sets the connection information between equipment.

<Source> <Destination>
Virtual input terminal number : Virtual output terminal number

[Example]

SOURCE	No.	DESTINATION	No.
SW'er PRIMARY 33	33	DME 1V	74
SW'er PRIMARY 35	35	DME 2V	75
DSK BKGD1	129	SW'er PGM	7
DME 1V	141	SW'er AUX1	17
DME 1E	142	SW'er AUX3	19
DME 2V	144	SW'er AUX4	20
DME 2E	145	SW'er AUX6	22
DME 2C	146	DME 1V	74
OUTPUT SEL IN-1	153	SW'er M/E-1	1
OUTPUT SEL IN-2	154	SW'er M/E-2	3
OUTPUT SEL IN-3	155	SW'er M/E-3	5
OUTPUT SEL IN-4	156	DSK DSK4	71
OUTPUT SEL IN-5	157	ROUTER OUT-1	101
ROUTER IN-33	233	DME 1V	74
ROUTER IN-35	235	DME 2V	75
ROUTER IN-37	237	SW'er M/E-1	1
ROUTER IN-38	238	SW'er M/E-2	3
ROUTER IN-39	239	SW'er M/E-3	5
ROUTER IN-40	240	DSK DSK4	71

<display=SOURCE:DESTINATION>

1:...	2:...	3:...	4:...	5:...	6:...	7:...	8:...
9:...	10:...	11:...	12:...	13:...	14:...	15:...	16:...
17:...	18:...	19:...	20:...	21:...	22:...	23:...	24:...
25:...	26:...	27:...	28:...	29:...	30:...	31:...	32:...
33: 74	34:...	35: 75	36:...	37:...	38:...	39:...	40:...
41:...	42:...	43:...	44:...	45:...	46:...	47:...	48:...
49:...	50:...	51:...	52:...	53:...	54:...	55:...	56:...
57:...	58:...	59:...	60:...	61:...	62:...	63:...	64:...
65:...	66:...	67:...	68:...	69:...	70:...	71:...	72:...
73:...	74:...	75:...	76:...	77:...	78:...	79:...	80:...
81:...	82:...	83:...	84:...	85:...	86:...	87:...	88:...
89:...	90:...	91:...	92:...	93:...	94:...	95:...	96:...
97:...	98:...	99:...	100:...	101:...	102:...	103:...	104:...
105:...	106:...	107:...	108:...	109:...	110:...	111:...	112:...
113:...	114:...	115:...	116:...	117:...	118:...	119:...	120:...
121:...	122:...	123:...	124:...	125:...	126:...	127:...	128:...

```
129:  7 130:... 131:... 132:... 133:... 134:... 135:... 136:...
137:... 138:... 139:... 140:... 141: 17 142: 19 143:... 144: 20
145: 22 146: 74 147:... 148:... 149:... 150:... 151:... 152:...
153:  1 154:  3 155:  5 156: 71 157:101 158:... 159:... 160:...
161:... 162:... 163:... 164:... 165:... 166:... 167:... 168:...
169:... 170:... 171:... 172:... 173:... 174:... 175:... 176:...
177:... 178:... 179:... 180:... 181:... 182:... 183:... 184:...
185:... 186:... 187:... 188:... 189:... 190:... 191:... 192:...
193:... 194:... 195:... 196:... 197:... 198:... 199:... 200:...
201:... 202:... 203:... 204:... 205:... 206:... 207:... 208:...
209:... 210:... 211:... 212:... 213:... 214:... 215:... 216:...
217:... 218:... 219:... 220:... 221:... 222:... 223:... 224:...
225:... 226:... 227:... 228:... 229:... 230:... 231:... 232:...
233: 74 234:... 235: 75 236:... 237:  1 238:  3 239:  5 240: 71
241:... 242:... 243:... 244:... 245:... 246:... 247:... 248:...
249:... 250:... 251:... 252:... 253:... 254:... 255:... 256:...
```

9-3-6. Tally Data Copy Menu

Data is superimposed on other terminal numbers (logical OR operation) to integrate multiple tally information with same meaning. The TALLY DATA COPY menu sets the terminal number of the copy destination.

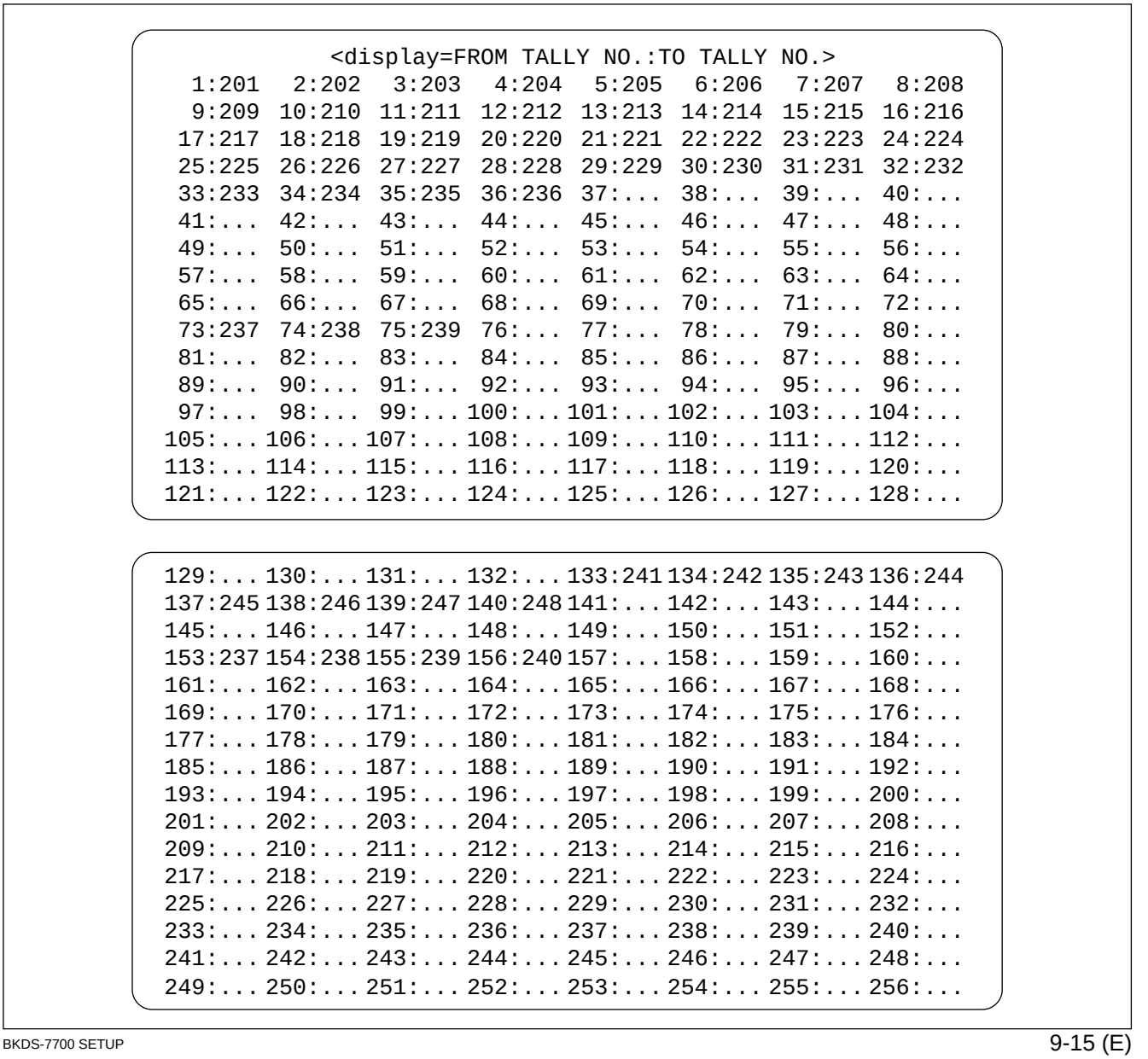
<FROM TALLY NO.> <TO TALLY NO.>

Virtual terminal number of copy source : Virtual terminal number of copy destination

(Example)

A router is used for the monitor display. Monitor tallies are integrated because they must be output to the router block.

- PRIMARY 1 through 36 (1 through 36) of a switcher are output to IN-1 through 36 (201 through 236) of a router.
- M/E-1 through 3 (73 through 75) of a switcher are output to IN-37 through 39 (237 through 239) o f router.
- 1V through 4K (133 through 140) of DMK-7000 are output to IN-41 through 48 (241 through 248) of a router.
- IN-1 through 4 of (153 through 156) of an output selector are output to IN-37 through 40 (237 through 240) of a router.



9-3-7. Tally Enable Menu

The TALLY ENABLE menu sets the pin number of an ENABLE connector that systematizes a system tally and that enables and disables a group tally.

(Example)
The pin number is set as described below.

- LINE 1 is a red tally. It lights at all times.
- VTR 1 through 3 are a green tally. They can be enabled and disabled at pins 1 through 3 of an ENABLE connector.

[RED TALLY]

```
RED TALLY   <1>   <2>   <3>   <4>   <5>   <6>   <7>   <8>
TYPE        LINE1 ..... ..... ..... ....  ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL   EBL
            <9>   <10>  <11>  <12>  <13>  <14>  <15>  <16>
TYPE        ..... ..... ..... ..... ....  ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL   EBL
            <17>  <18>  <19>  <20>  <21>  <22>  <23>
TYPE        ..... ..... ..... ..... ....  ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL
```

[GREEN TALLY]

```
RED TALLY   <1>   <2>   <3>   <4>   <5>   <6>   <7>   <8>
TYPE        SLOW1 SLOW2 SLOW3 ..... ....  ..... ..... .....
ENABLE No.  1     2     3     EBL   EBL   EBL   EBL   EBL
            <9>   <10>  <11>  <12>  <13>  <14>  <15>  <16>
TYPE        ..... ..... ..... ..... ....  ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL   EBL
            <17>  <18>  <19>  <20>  <21>  <22>  <23>
TYPE        ..... ..... ..... ..... ....  ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL
```

9-3-8. Output Menu

The OUTPUT menu sets the tally type and pin assignment of a parallel tally output connector.

(Example)

[TALLY OUT 1]

```
TYPE:RED
                <display=PIN No.:TALLY No.>
  1:201   2:202   3:203   4:204   5:205   6:206   7:207   8:208
  9:209  10:210  11:211  12:212  13:213  14:214  15:215  16:216
 17:217  18:218  19:219  20:220  21:221  22:222  23:223  24:224
```

[TALLY OUT 2]

```
TYPE:RED
                <display=PIN No.:TALLY No.>
  1:225   2:226   3:227   4:228   5:229   6:230   7:231   8:232
  9:233  10:234  11:235  12:236  13:241  14:242  15:243  16:244
 17:245  18:246  19:247  20:248  21:...  22:...  23:...  24:...
```

[TALLY OUT 4]

```
TYPE:GREEN
                <display=PIN No.:TALLY No.>
  1:201   2:202   3:203   4:204   5:205   6:206   7:207   8:208
  9:209  10:210  11:211  12:212  13:213  14:214  15:215  16:216
 17:217  18:218  19:219  20:220  21:221  22:222  23:223  24:224
```

[TALLY OUT 5]

```
TYPE:GREEN
                <display=PIN No.:TALLY No.>
  1:225   2:226   3:227   4:228   5:229   6:230   7:231   8:232
  9:233  10:234  11:235  12:236  13:241  14:242  15:243  16:244
 17:245  18:246  19:247  20:248  21:...  22:...  23:...  24:...
```

9-4. Setting of S-Bus Remote Control Unit

The setting is carried out when the crosspoint of a switcher is switched from the S-bus remote control unit of BKS-R3202. An “SW’er XPT” matrix is provided except for tally use. The destination in the “SW’er XPT” matrix is thus specified. (only an AUS bus exists in the “SW’er” matrix.)

(Example)
Specify the destination below so as to switch the AUX 1 and 2 terminals of a DME 1V/1K input signal from BKS-R3202.
- AUX 1: OUT017 - LEVEL 1
- AUX 2: OUT018 - LEVEL 1

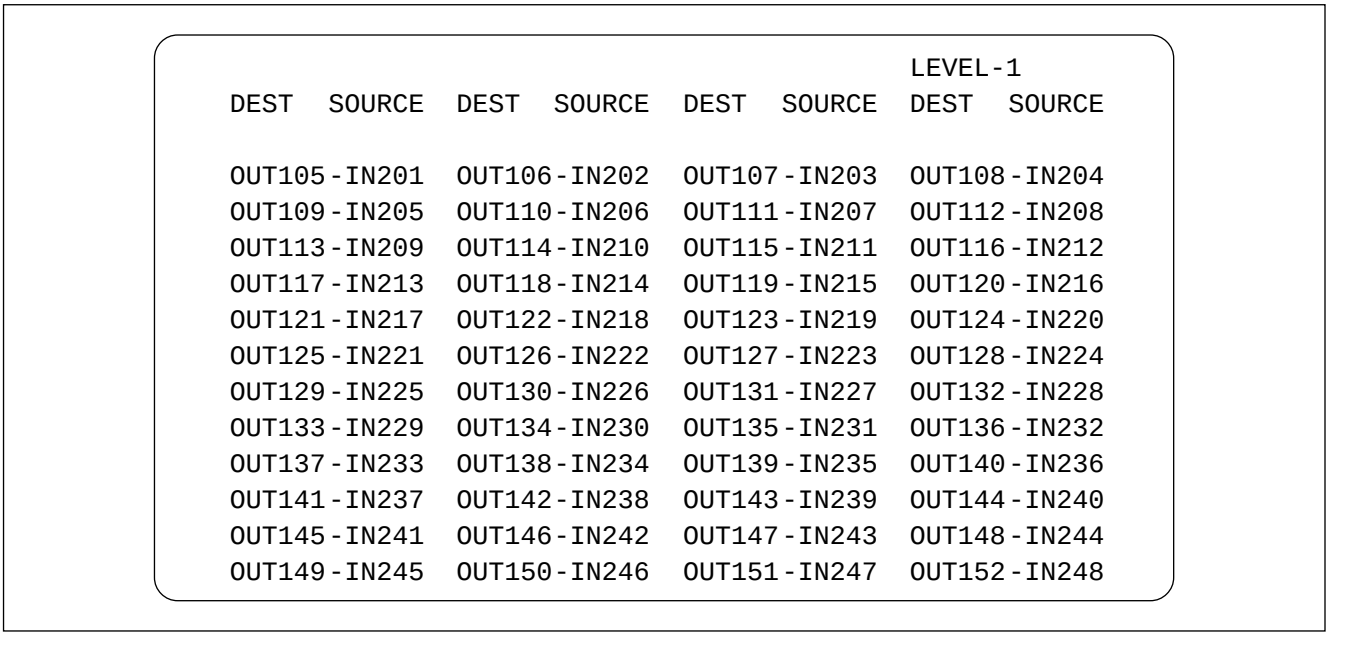
To switch the PGM bus in a P/P row, specify “OUT229” in which an “SW’er XPT” matrix exists. (Do not specify “OUT007.”)

9-5. Setting of S-Bus Status Display

The setting is carried out to display the source name or tally by using the S- bus status display of BKS-R3281. The name of the source where the destination treats is displayed by specifying the destination during setting.

(Example)
Set the mode and destination as described below so as to display the source name of source 1 on the left of BKS-R3281 for source 1 and 2 monitoring and that of source 2 on the right of it.
- Mode : Source/source
- Left : OUT105/level 1
- Right : OUT106/level 1

The display shown in Fig. 1 appears when the crosspoint of a router is set as shown below.



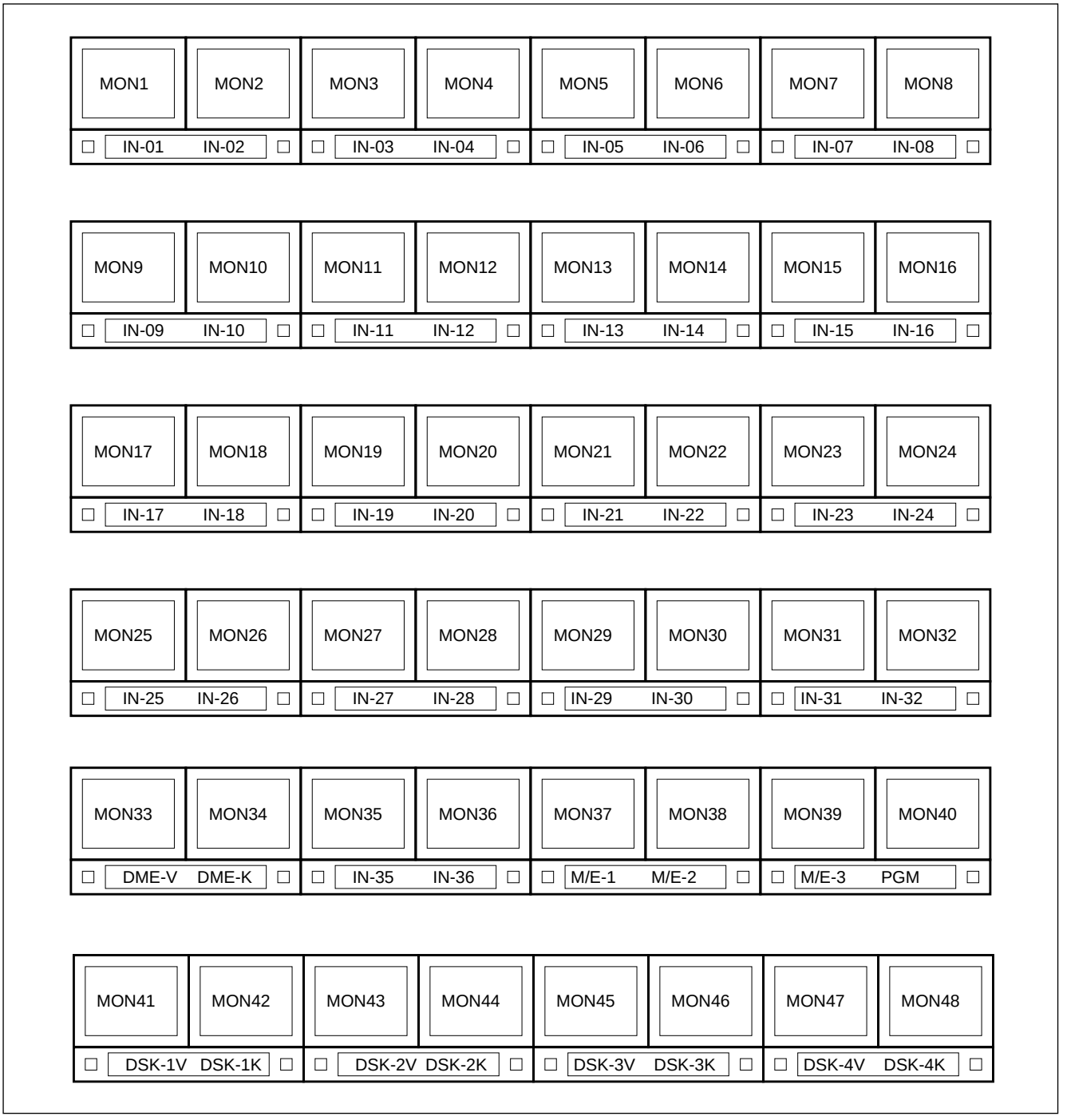

MON1 MON2 MON3 MON4 MON5 MON6 MON7 MON8
IN-01 IN-02 IN-03 IN-04 IN-05 IN-06 IN-07 IN-08
MON9 MON10 MON11 MON12 MON13 MON14 MON15 MON16
IN-09 IN-10 IN-11 IN-12 IN-13 IN-14 IN-15 IN-16
MON17 MON18 MON19 MON20 MON21 MON22 MON23 MON24
IN-17 IN-18 IN-19 IN-20 IN-21 IN-22 IN-23 IN-24
MON25 MON26 MON27 MON28 MON29 MON30 MON31 MON32
IN-25 IN-26 IN-27 IN-28 IN-29 IN-30 IN-31 IN-32
MON33 MON34 MON35 MON36 MON37 MON38 MON39 MON40
DME-V DME-K IN-35 IN-36 M/E-1 M/E-2 M/E-3 PGM
MON41 MON42 MON43 MON44 MON45 MON46 MON47 MON48
DSK-1V DSK-1K DSK-2V DSK-2K DSK-3V DSK-3K DSK-4V DSK-4K

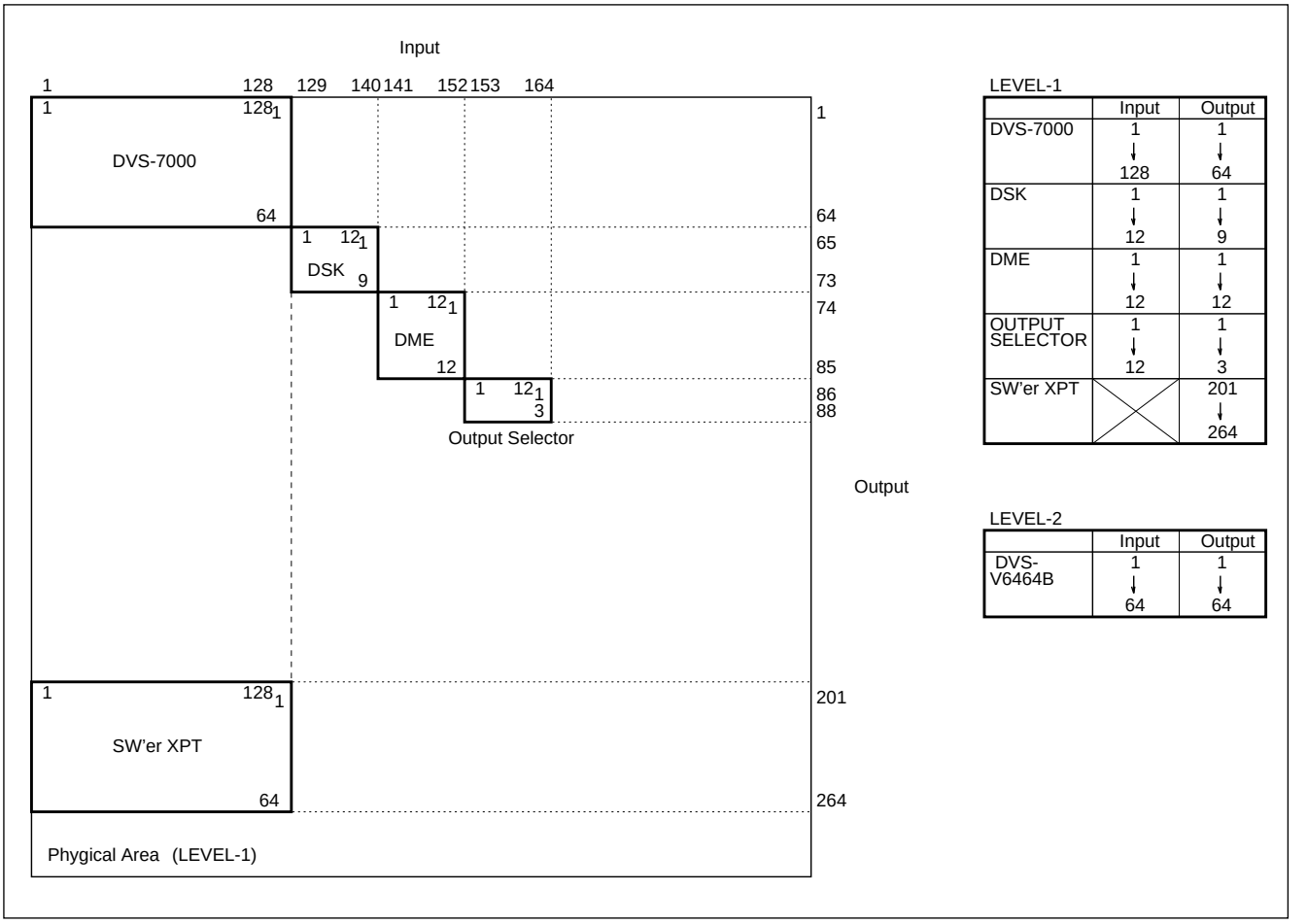
Fig. 1

Appendix
Setup Example (S-Bus Application)

The setting of an S-bus that was changed for the system in “Section 9 Setup Example” is described below.

A-1. Mapping of Each Equipment

The terminal of a same input signal is made the same as a switcher when the physical terminal of a router is assigned to the virtual terminal. In such a way, the limited matrix space can be used effectively. Moreover, each tally of a switcher and router can be used in common, and no copy is required for an S-bus tally.



LEVEL-1

	Input	Output
DVS-7000	1 ↓ 128	1 ↓ 64
DSK	1 ↓ 12	1 ↓ 9
DME	1 ↓ 12	1 ↓ 12
OUTPUT SELECTOR	1 ↓ 12	1 ↓ 3
SW'er XPT		201 ↓ 264

LEVEL-2

	Input	Output
DVS-V6464B	1 ↓ 64	1 ↓ 64

A-2. S-Bus Setting

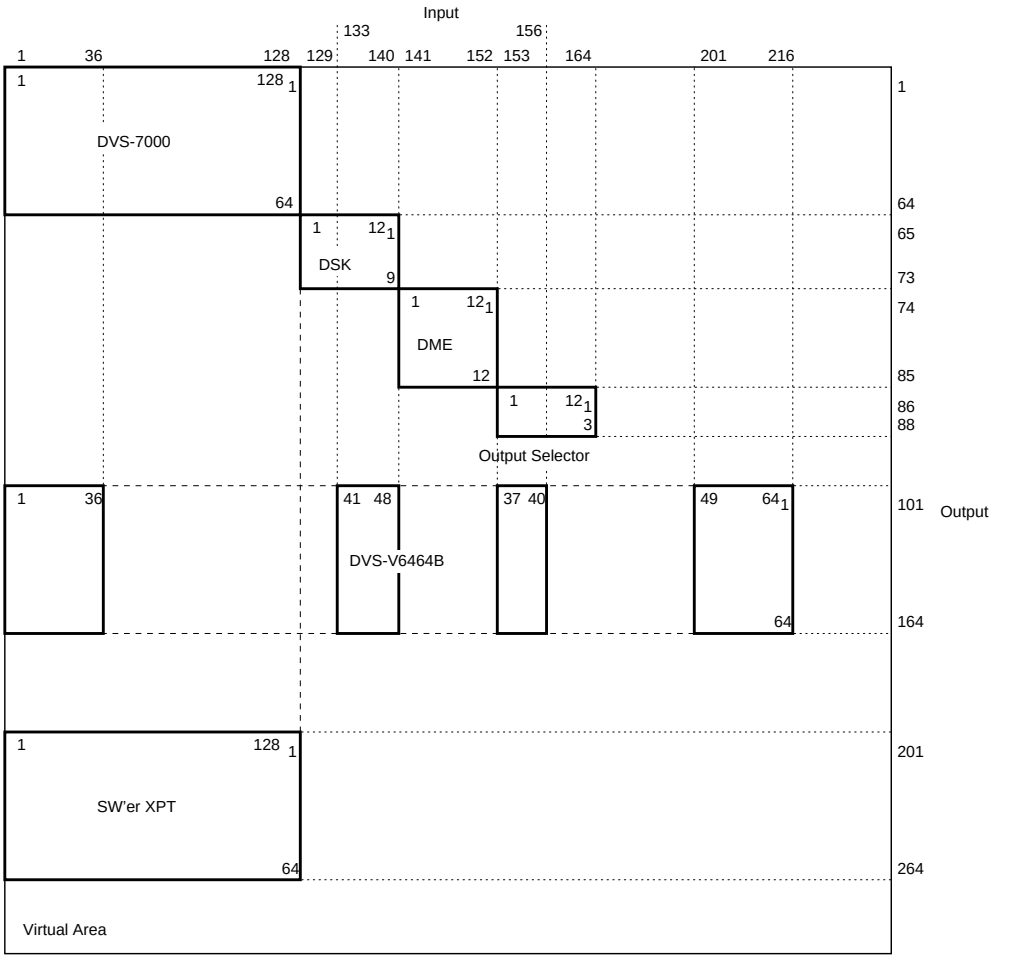
A-2-1. Unit location setting

A switcher is changed in level because a router is divided.

```
STATION ID:1
SOURCE No.0001-0064 DESTINATION No.0001-0064 LEVEL No.2
```

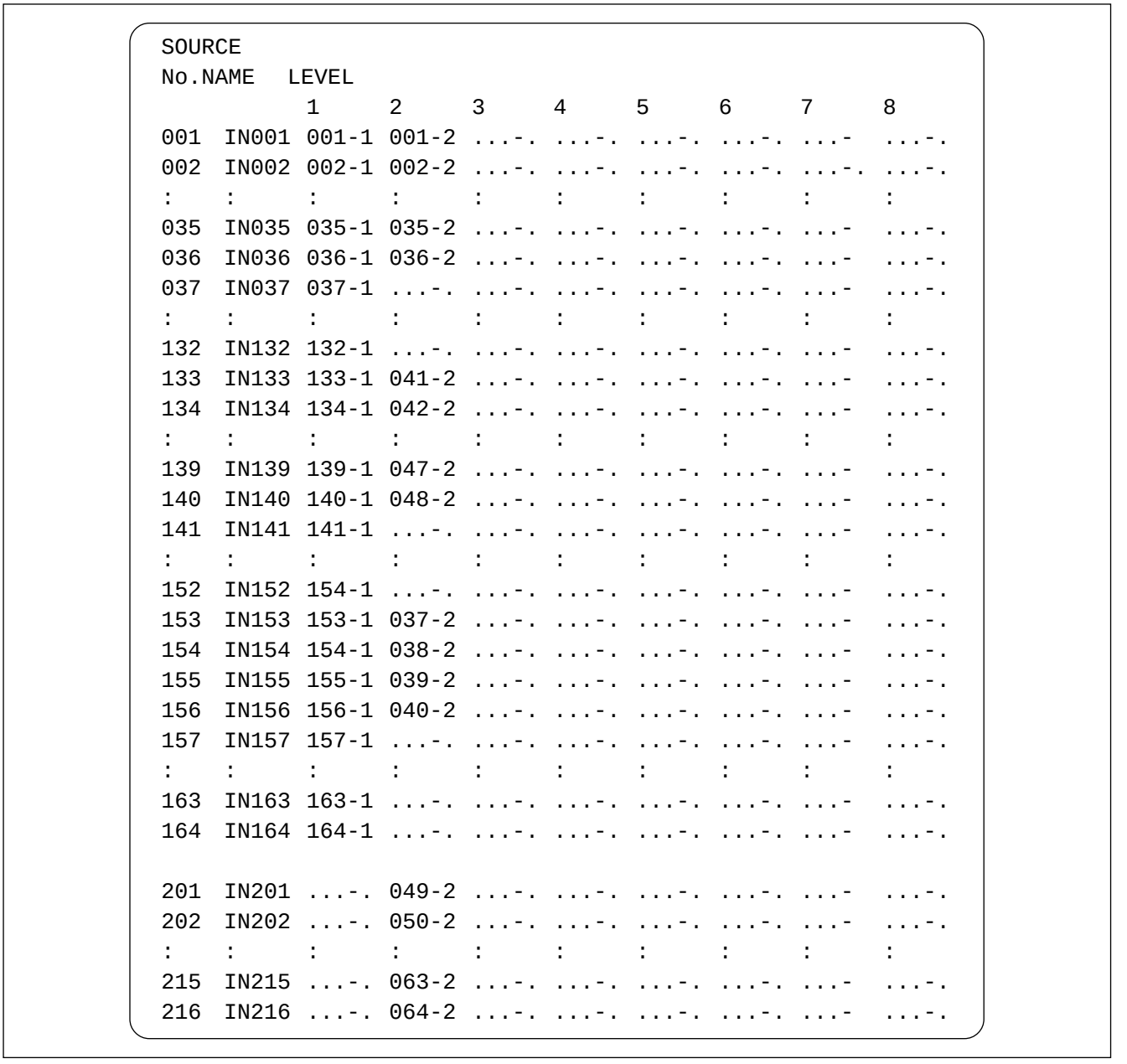
A-2-2. Expansion Into Logical S-Bus Space

A router is divided into level 2 for setting.



	Input	
	Physycal →	Virtual
DVS-7000	1 ↓ 128	1 ↓ 128
DSK	1 ↓ 12	129 ↓ 140
DME	1 ↓ 12	141 ↓ 152
OUTPUT SELECTOR	1 ↓ 12	153 ↓ 164
DVS-V6464B (1)	1 ↓ 36	1 ↓ 36
DVS-V6464B (2)	41 ↓ 48	133 ↓ 140
DVS-V6464B (3)	37 ↓ 40	153 ↓ 156
DVS-V6464B (4)	49 ↓ 64	201 ↓ 216

	Output	
	Physycal →	Virtual
DVS-7000	1 ↓ 64	1 ↓ 64
DSK	1 ↓ 9	65 ↓ 73
DME	1 ↓ 12	74 ↓ 85
OUTPUT SELECTOR	1 ↓ 3	86 ↓ 88
DVS-V6464B	1 ↓ 64	101 ↓ 164
SW'er XPT	1 ↓ 64	201 ↓ 264



```
SOURCE
No.NAME   LEVEL
           1     2     3     4     5     6     7     8
001  IN001 001-1 001-2 ...-. ...-. ...-. ...-. ...-  ...-.
002  IN002 002-1 002-2 ...-. ...-. ...-. ...-. ...-. ...-.
:    :     :     :     :     :     :     :     :     :
035  IN035 035-1 035-2 ...-. ...-. ...-. ...-. ...-  ...-.
036  IN036 036-1 036-2 ...-. ...-. ...-. ...-. ...-  ...-.
037  IN037 037-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
:    :     :     :     :     :     :     :     :     :
132  IN132 132-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
133  IN133 133-1 041-2 ...-. ...-. ...-. ...-. ...-  ...-.
134  IN134 134-1 042-2 ...-. ...-. ...-. ...-. ...-  ...-.
:    :     :     :     :     :     :     :     :     :
139  IN139 139-1 047-2 ...-. ...-. ...-. ...-. ...-  ...-.
140  IN140 140-1 048-2 ...-. ...-. ...-. ...-. ...-  ...-.
141  IN141 141-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
:    :     :     :     :     :     :     :     :     :
152  IN152 154-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
153  IN153 153-1 037-2 ...-. ...-. ...-. ...-. ...-  ...-.
154  IN154 154-1 038-2 ...-. ...-. ...-. ...-. ...-  ...-.
155  IN155 155-1 039-2 ...-. ...-. ...-. ...-. ...-  ...-.
156  IN156 156-1 040-2 ...-. ...-. ...-. ...-. ...-  ...-.
157  IN157 157-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
:    :     :     :     :     :     :     :     :     :
163  IN163 163-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.
164  IN164 164-1 ...-. ...-. ...-. ...-. ...-. ...-  ...-.

201  IN201 ...-. 049-2 ...-. ...-. ...-. ...-. ...-  ...-.
202  IN202 ...-. 050-2 ...-. ...-. ...-. ...-. ...-  ...-.
:    :     :     :     :     :     :     :     :     :
215  IN215 ...-. 063-2 ...-. ...-. ...-. ...-. ...-  ...-.
216  IN216 ...-. 064-2 ...-. ...-. ...-. ...-. ...-  ...-.
```

```
DESTINATION
No.NAME   LEVEL
            1     2     3     4     5     6     7     8
001 OUT001  001-1 ...-. ...-. ...-. ...-. ...-. ...-. ...-.
002 OUT002  002-1 ...-. ...-. ...-. ...-. ...-. ...-. ...-.
:   :       :     :     :     :     :     :     :     :
063 OUT063  063-1 ...-. ...-. ...-. ...-. ...-. ...-. ...-.
064 OUT064  064-1 ...-. ...-. ...-. ...-. ...-. ...-. ...-.

101 OUT101  ...-. 001-2 ...-. ...-. ...-. ...-. ...-. ...-.
102 OUT102  ...-. 002-2 ...-. ...-. ...-. ...-. ...-. ...-.
:   :       :     :     :     :     :     :     :     :
163 OUT163  ...-. 063-2 ...-. ...-. ...-. ...-. ...-. ...-.
164 OUT164  ...-. 064-2 ...-. ...-. ...-. ...-. ...-. ...-.

201 OUT201  201-1 ...-. ...-. ...-. ...-. ...-. ...-. ...-.
202 OUT202  202-1 ...-. ...-. ...-. ...-. ...-. ...-. ...-.
:   :       :     :     :     :     :     :     :     :
263 OUT263  263-1 ...-. ...-. ...-. ...-. ...-. ...-. ...-.
264 OUT264  264-1 ...-. ...-. ...-. ...-. ...-. ...-. ...-.
```

A-2-3. Setting of Signal Name

The source decreases because routers overlaps with switchers. The destination does not change.

[Source]

No.	NAME	No.	NAME	No.	NAME	No.	NAME
001	IN01	025	IN25	129	BKGD1	201	in49
002	IN02	026	IN26	130	BKGD2	202	in50
003	IN03	027	IN27	131	BKGD3	203	in51
004	IN04	028	IN28	132	BKGD4	204	in52
005	IN05	029	IN29	133	DSK1V	205	in53
006	IN06	030	IN30	134	DSK1K	206	in54
007	IN07	031	IN31	135	DSK2V	207	in55
008	IN08	032	IN32	136	DSK2K	208	in56
009	IN09	033	DME1V	137	DSK3V	209	in57
010	IN10	034	DME1K	138	DSK3K	210	in58
011	IN11	035	DME2V	139	DSK4V	211	in59
012	IN12	036	DME2K	140	DSK4K	212	in60
013	IN13	065	BLK	141	DME-1V	213	in61
014	IN14	066	COL1	142	DME-1E	214	in62
015	IN15	067	COL2	143	DME-1C	215	in63
016	IN16	068	COL3	144	DME-2V	216	in64
017	IN17	073	ME1	145	DME-2E		
018	IN18	074	ME2	146	DME-2C		
019	IN19	075	ME3	153	ME-1		
020	IN20	090	FM1	154	ME-2		
021	IN21	091	FM2	155	ME-3		
022	IN22			156	PGM		
023	IN23			157	EMG		
024	IN24			158	IN-06		
				159	IN-07		
				160	IN-08		
				161	IN-09		
				162	IN-10		
				163	IN-11		
				164	IN-12		

[Destination]

No.	NAME	No.	NAME	No.	NAME	No.	NAME	No.	NAME
001	ME-1	065	DSK1	101	EMG	121	MON17	201	ME1K1
003	ME-2	067	DSK2	102	VTR1	122	MON18	203	ME1K2
005	ME-3	069	DSK3	103	VTR2	123	MON19	205	ME1A
007	PGM	071	DSK4	104	VTR3	124	MON20	206	ME1B
017	AUX1	074	DME1V	105	MON01	125	MON21	209	ME2K1
018	AUX2	075	DME2V	106	MON02	126	MON22	211	ME2K2
019	AUX3	086	LINE1	107	MON03	127	MON23	213	ME2A
020	AUX4			108	MON04	128	MON24	214	ME2B
021	AUX5			109	MON05	129	MON25	217	ME3K1
022	AUX6			110	MON06	130	MON26	219	ME3K2
023	AUX7			111	MON07	131	MON27	221	ME3A
024	AUX8			112	MON08	132	MON28	222	ME3B
025	AUX9			113	MON09	133	MON29	225	PPK1
026	AUX10			114	MON10	134	MON30	227	PPK2
027	AUX11			115	MON11	135	MON31	229	PPA
028	AUX12			116	MON12	136	MON32	230	PPB
029	AUX13			117	MON13	137	MON33		
030	AUX14			118	MON14	138	MON34		
032	PVW			119	MON15	139	MON35		
				120	MON16	140	MON36		

A-3. Setup of BKDS-7700

A-3-1. System Menu

The SYSTEM menu changes the router level to “2.”

```
1.  ROUTER(S-BUS)              ON
2.  ROUTER LEVEL               2
3.  SW’er                      ON
4.  SW’er LEVEL                1
5.  SW’er TYPE                 3.5ME
6.  DSK CONFIG                 Cascade
7.  DME TYPE                   V+E+C
8.  TALLY IN/GPI TYPE          NORMAL
9.  TALLY TYPE(SEL S-BUS GP)   R/G/Y
10. TALLY BOX(1st/2nd)         1st
11. ROUTER INTERFACE           ON
12. SW’er DESTINATION WIDTH    64
```

A-3-2. Address (S-Bus) Menu

(No change)

```
                              SOURCE    DESTINATION
1. SW’er <128 x 64>             1-128     1- 64
2. SW’er XPT  <128 x 64>        1-128   201-264
3. DSK < 12 x 9>              129-140    65- 73
4. DME < 12 x 12>             141-152    74- 85
5. OUTPUT SEL < 12 x 3>       153-164    86- 88
6. DSK SOURCE SEL < 12 x 4>    ...-...   ...-...
7. CHR SOURCE SEL < 12 x 1>    ...-...   ...-...
```

A-3-3. Router Menu

The source changes according to the division of a router. The destination does not change.

[Source]

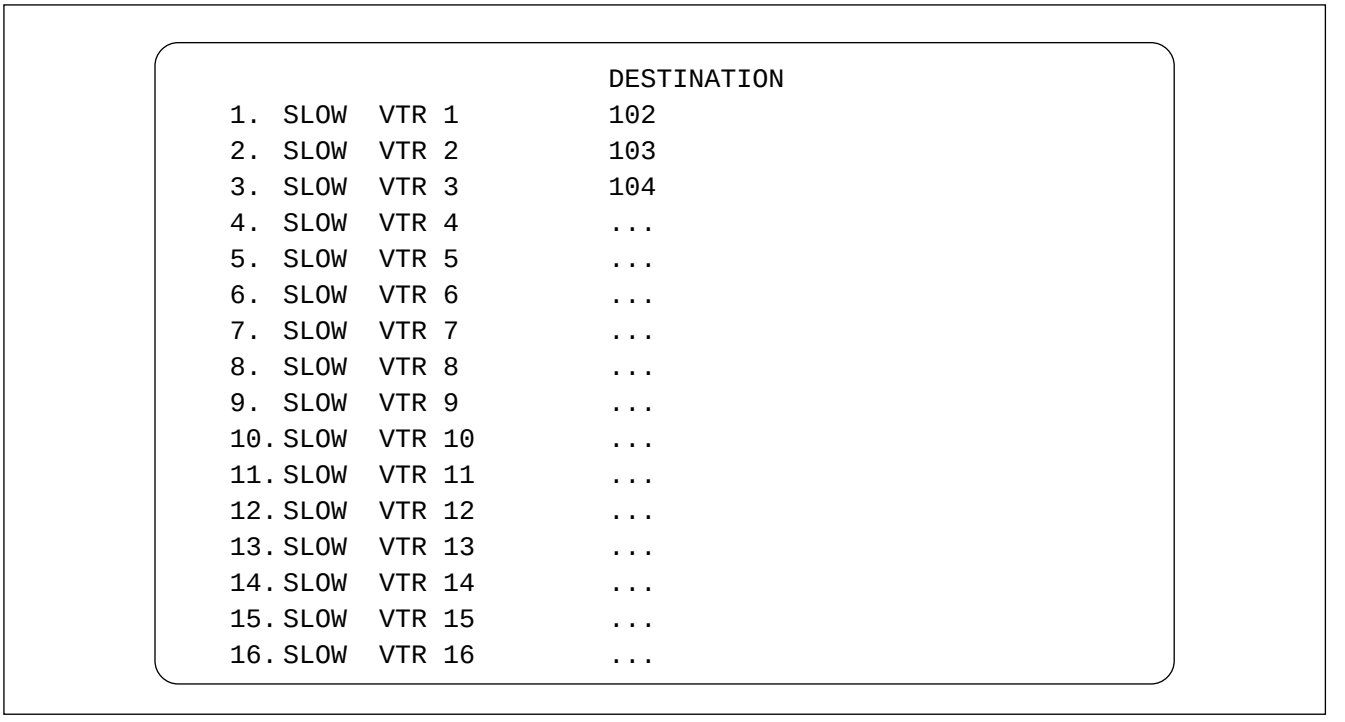
```
                    <display=ROUTER:S-BUS>

  1:  1  2:  2  3:  3  4:  4  5:  5  6:  6  7:  7  8:  8
  9:  9 10: 10 11: 11 12: 12 13: 13 14: 14 15: 15 16: 16
 17: 17 18: 18 19: 19 20: 20 21: 21 22: 22 23: 23 24: 24
 25: 25 26: 26 27: 27 28: 28 29: 29 30: 30 31: 31 32: 32
 33: 33 34: 34 35: 35 36: 36 37:153 38:154 39:155 40:156
 41:133 42:134 43:135 44:136 45:137 46:138 47:139 48:140
 49:201 50:202 51:203 52:204 53:205 54:206 55:207 56:208
 57:209 58:210 59:211 60:212 61:213 62:214 63:215 64:216
 65:... 66:... 67:... 68:... 69:... 70:... 71:... 72:...
 73:... 74:... 75:... 76:... 77:... 78:... 79:... 80:...
 81:... 82:... 83:... 84:... 85:... 86:... 87:... 88:...
 89:... 90:... 91:... 92:... 93:... 94:... 95:... 96:...
 97:... 98:... 99:...100:...101:...102:...103:...104:...
105:...106:...107:...108:...109:...110:...111:...112:...
113:...114:...115:...116:...117:...118:...119:...120:...
121:...122:...123:...124:...125:...126:...127:...128:...
```

[Destination]

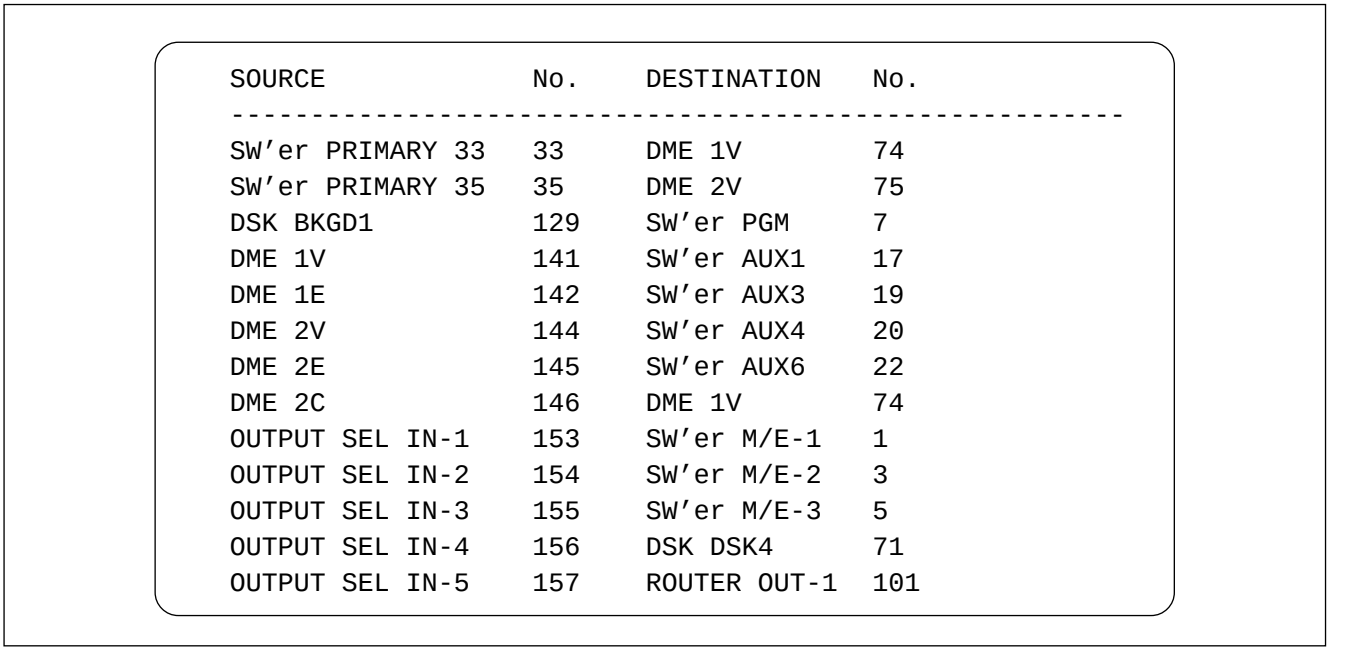
```
                    <display=ROUTER:S-BUS>

  1:101  2:102  3:103  4:104  5:105  6:106  7:107  8:108
  9:109 10:110 11:111 12:112 13:113 14:114 15:115 16:116
 17:117 18:118 19:119 20:120 21:121 22:122 23:123 24:124
 25:125 26:126 27:127 28:128 29:137 30:130 31:131 32:132
 33:133 34:134 35:135 36:136 37:137 38:138 39:139 40:140
 41:141 42:142 43:143 44:144 45:145 46:146 47:147 48:148
 49:149 50:150 51:151 52:152 53:153 54:154 55:155 56:156
 57:157 58:158 59:159 60:160 61:161 62:162 63:163 64:164
 65:... 66:... 67:... 68:... 69:... 70:... 71:... 72:...
 73:... 74:... 75:... 76:... 77:... 78:... 79:... 80:...
 81:... 82:... 83:... 84:... 85:... 86:... 87:... 88:...
 89:... 90:... 91:... 92:... 93:... 94:... 95:... 96:...
 97:... 98:... 99:...100:...101:...102:...103:...104:...
105:...106:...107:...108:...109:...110:...111:...112:...
113:...114:...115:...116:...117:...118:...119:...120:...
121:...122:...123:...124:...125:...126:...127:...128:...
```

A-3-4. Slow VTR Menu

(No change)



A-3-5. Wiring Menu



```
                <display=SOURCE:DESTINATION>
  1:...   2:...   3:...   4:...   5:...   6:...   7:...   8:...
  9:...  10:...  11:...  12:...  13:...  14:...  15:...  16:...
 17:...  18:...  19:...  20:...  21:...  22:...  23:...  24:...
 25:...  26:...  27:...  28:...  29:...  30:...  31:...  32:...
 33: 74  34:...  35: 75  36:...  37:...  38:...  39:...  40:...
 41:...  42:...  43:...  44:...  45:...  46:...  47:...  48:...
 49:...  50:...  51:...  52:...  53:...  54:...  55:...  56:...
 57:...  58:...  59:...  60:...  61:...  62:...  63:...  64:...
 65:...  66:...  67:...  68:...  69:...  70:...  71:...  72:...
 73:...  74:...  75:...  76:...  77:...  78:...  79:...  80:...
 81:...  82:...  83:...  84:...  85:...  86:...  87:...  88:...
 89:...  90:...  91:...  92:...  93:...  94:...  95:...  96:...
 97:...  98:...  99:... 100:... 101:... 102:... 103:... 104:...
105:... 106:... 107:... 108:... 109:... 110:... 111:... 112:...
113:... 114:... 115:... 116:... 117:... 118:... 119:... 120:...
121:... 122:... 123:... 124:... 125:... 126:... 127:... 128:...
```

```
129:   7 130:... 131:... 132:... 133:... 134:... 135:... 136:...
137:... 138:... 139:... 140:... 141:  17 142:  19 143:... 144:  20
145:  22 146:  74 147:... 148:... 149:... 150:... 151:... 152:...
153:   1 154:   3 155:   5 156:  71 157: 101 158:... 159:... 160:...
161:... 162:... 163:... 164:... 165:... 166:... 167:... 168:...
169:... 170:... 171:... 172:... 173:... 174:... 175:... 176:...
177:... 178:... 179:... 180:... 181:... 182:... 183:... 184:...
185:... 186:... 187:... 188:... 189:... 190:... 191:... 192:...
193:... 194:... 195:... 196:... 197:... 198:... 199:... 200:...
201:... 202:... 203:... 204:... 205:... 206:... 207:... 208:...
209:... 210:... 211:... 212:... 213:... 214:... 215:... 216:...
217:... 218:... 219:... 220:... 221:... 222:... 223:... 224:...
225:... 226:... 227:... 228:... 229:... 230:... 231:... 232:...
233:... 234:... 235:... 236:... 237:... 238:... 239:... 240:...
241:... 242:... 243:... 244:... 245:... 246:... 247:... 248:...
249:... 250:... 251:... 252:... 253:... 254:... 255:... 256:...
```

A-3-6. Tally Data Copy Menu

There is no copy to a router.

- M/E-1 through 3 (73 through 75) of a switcher are copied to IN-1 through 3 (153 through 155) of an output selector.

```
            <display=FROM TALLY NO.:TO TALLY NO.>
  1:...  2:...  3:...  4:...  5:...  6:...  7:...  8:...
  9:... 10:... 11:... 12:... 13:... 14:... 15:... 16:...
 17:... 18:... 19:... 20:... 21:... 22:... 23:... 24:...
 25:... 26:... 27:... 28:... 29:... 30:... 31:... 32:...
 33:... 34:... 35:... 36:... 37:... 38:... 39:... 40:...
 41:... 42:... 43:... 44:... 45:... 46:... 47:... 48:...
 49:... 50:... 51:... 52:... 53:... 54:... 55:... 56:...
 57:... 58:... 59:... 60:... 61:... 62:... 63:... 64:...
 65:... 66:... 67:... 68:... 69:... 70:... 71:... 72:...
 73:153 74:154 75:155 76:... 77:... 78:... 79:... 80:...
 81:... 82:... 83:... 84:... 85:... 86:... 87:... 88:...
 89:... 90:... 91:... 92:... 93:... 94:... 95:... 96:...
 97:... 98:... 99:...100:...101:...102:...103:...104:...
105:...106:...107:...108:...109:...110:...111:...112:...
113:...114:...115:...116:...117:...118:...119:...120:...
121:...122:...123:...124:...125:...126:...127:...128:...
```

A-3-7. Tally Enable Menu

(No change)

- LINE 1 is a red tally. It lights at all times.
- VTR 1 through 3 are a green tally. They can be enabled and disabled at pins 1 through 3 of an ENABLE connector.

[RED TALLY]

```
RED TALLY   <1>   <2>   <3>   <4>   <5>   <6>   <7>   <8>
TYPE        LINE1 ..... ..... ..... ..... ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL   EBL
            <9>   <10>  <11>  <12>  <13>  <14>  <15>  <16>
TYPE        ..... ..... ..... ..... ..... ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL   EBL
            <17>  <18>  <19>  <20>  <21>  <22>  <23>
TYPE        ..... ..... ..... ..... ..... ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL
```

[GREEN TALLY]

```
RED TALLY   <1>   <2>   <3>   <4>   <5>   <6>   <7>   <8>
TYPE        SLOW1 SLOW2 SLOW3 ..... ..... ..... ..... .....
ENABLE No.  1     2     3     EBL   EBL   EBL   EBL   EBL
            <9>   <10>  <11>  <12>  <13>  <14>  <15>  <16>
TYPE        ..... ..... ..... ..... .....  ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL   EBL
            <17>  <18>  <19>  <20>  <21>  <22>  <23>
TYPE        ..... ..... ..... ..... .....  ..... ..... .....
ENABLE No.  EBL   EBL   EBL   EBL   EBL   EBL   EBL
```

A-3-8. Outpu Menu

The OUTPUT menu sets the input terminal number (= router input number) of a switcher.

(Example)

[TALLY OUT 1]

```
TYPE:RED
                <display=PIN No.:TALLY No.>
  1:  1   2:  2   3:  3   4:  4   5:  5   6:  6   7:  7   8:  8
  9:  9  10: 10  11: 11  12: 12  13: 13  14: 14  15: 15  16: 16
 17: 17  18: 18  19: 19  20: 20  21: 21  22: 22  23: 23  24: 24
```

[TALLY OUT 2]

```
TYPE:RED
                <display=PIN No.:TALLY No.>
  1: 25   2: 26   3: 27   4: 28   5: 29   6: 30   7: 31   8: 32
  9: 33  10: 34  11: 35  12: 36  13:133  14:134  15:135  16:136
 17:137  18:138  19:139  20:140  21:...  22:...  23:...  24:...
```

[TALLY OUT 4]

```
TYPE:GREEN
                <display=PIN No.:TALLY No.>
  1:  1   2:  2   3:  3   4:  4   5:  5   6:  6   7:  7   8:  8
  9:  9  10: 10  11: 11  12: 12  13: 13  14: 14  15: 15  16: 16
 17: 17  18: 18  19: 19  20: 20  21: 21  22: 22  23: 23  24: 24
```

[TALLY OUT 5]

```
TYPE:GREEN
                <display=PIN No.:TALLY No.>
  1: 25   2: 26   3: 27   4: 28   5: 29   6: 30   7: 31   8: 32
  9: 33  10: 34  11: 35  12: 36  13:133  14:134  15:135  16:136
 17:137  18:138  19:139  20:140  21:...  22:...  23:...  24:...
```

A-4. Setting of S-Bus Remote Control Unit

(No change)

Specify the destination below so as to switch the AUX 1 and 2 terminals of a DME 1V/1K input signal from BKS-R3202.

- AUX 1: OUT017 - LEVEL 1
- AUX 2: OUT018 - LEVEL 1

To switch the PGM bus in a P/P row, specify “OUT229” in which an “SW’er XPT” matrix exists. (Do not specify “OUT007.”)

To switch the crosspoint of a router, specify “LEVEL 2” according to the router.

A-5. Setting of S-Bus Status Display

Set to “LEVEL 2” according to the router.

Set the mode and destination as described below so as to display the source name of source 1 on the left of BKS-R3281 for source 1 and 2 monitoring and that of source 2 on the right of it.

- Mode : Source/source
- Left : OUT105/level 2
- Right : OUT106/level 2

The display shown in Figure. 2 appears when the crosspoint of a router is set as shown below.

						LEVEL-2	
DEST	SOURCE	DEST	SOURCE	DEST	SOURCE	DEST	SOURCE
OUT105	IN001	OUT106	IN002	OUT107	IN003	OUT108	IN004
OUT109	IN005	OUT110	IN006	OUT111	IN007	OUT112	IN008
OUT113	IN009	OUT114	IN010	OUT115	IN011	OUT116	IN012
OUT117	IN013	OUT118	IN014	OUT119	IN015	OUT120	IN016
OUT121	IN017	OUT122	IN018	OUT123	IN019	OUT124	IN020
OUT125	IN021	OUT126	IN022	OUT127	IN023	OUT128	IN024
OUT129	IN025	OUT130	IN026	OUT131	IN027	OUT132	IN028
OUT133	IN029	OUT134	IN030	OUT135	IN031	OUT136	IN032
OUT137	IN033	OUT138	IN034	OUT139	IN035	OUT140	IN036
OUT141	IN153	OUT142	IN154	OUT143	IN155	OUT144	IN156
OUT145	IN133	OUT146	IN134	OUT147	IN135	OUT148	IN136
OUT149	IN137	OUT150	IN138	OUT151	IN139	OUT152	IN140

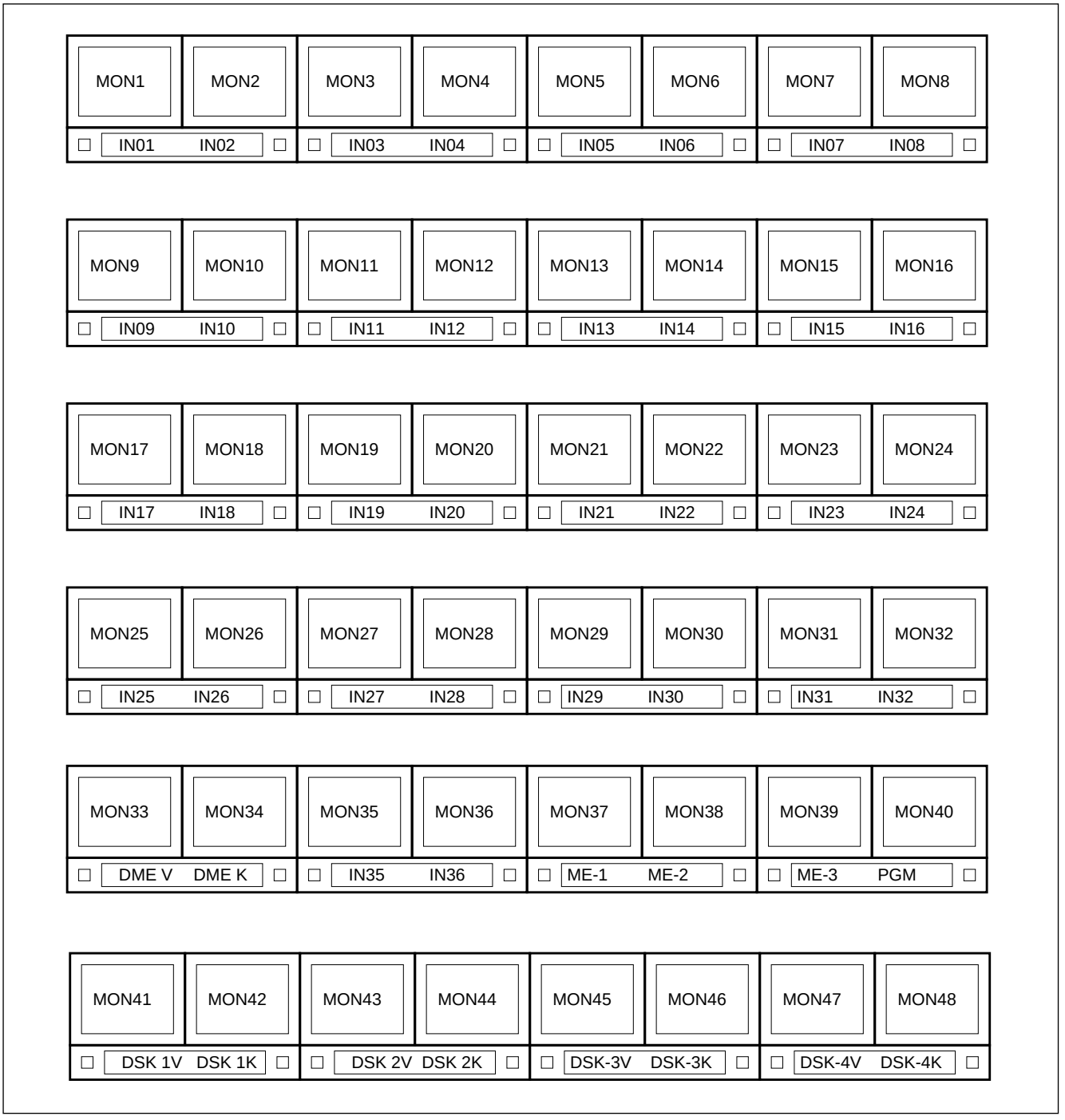

MON1
MON2
MON3
MON4
MON5
MON6
MON7
MON8
IN01 IN02
IN03 IN04
IN05 IN06
IN07 IN08
MON9
MON10
MON11
MON12
MON13
MON14
MON15
MON16
IN09 IN10
IN11 IN12
IN13 IN14
IN15 IN16
MON17
MON18
MON19
MON20
MON21
MON22
MON23
MON24
IN17 IN18
IN19 IN20
IN21 IN22
IN23 IN24
MON25
MON26
MON27
MON28
MON29
MON30
MON31
MON32
IN25 IN26
IN27 IN28
IN29 IN30
IN31 IN32
MON33
MON34
MON35
MON36
MON37
MON38
MON39
MON40
DME V DME K
IN35 IN36
ME-1 ME-2
ME-3 PGM
MON41
MON42
MON43
MON44
MON45
MON46
MON47
MON48
DSK 1V DSK 1K
DSK 2V DSK 2K
DSK-3V DSK-3K
DSK-4V DSK-4K

Fig. 2

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