

**SONY®**

S-BUS/ETHERNET SOFTWARE

**BZR-IF820**

INSTALLATION MANUAL  
1st Edition (Revised 1)



3776948020

## 警告

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お客様が、このマニュアルに記載された設置や保守、点検、修理などを行うと感電や火災、人身事故につながる可能性があります。

危険をさけるため、サービストレーニングを受けた技術者のみご使用ください。

## **WARNING**

This manual is intended for qualified service personnel only.

To reduce the risk of electric shock, fire or injury, do not perform any servicing other than that contained in the operating instructions unless you are qualified to do so. Refer all servicing to qualified service personnel.

## **WARNUNG**

Die Anleitung ist nur für qualifiziertes Fachpersonal bestimmt.

Alle Wartungsarbeiten dürfen nur von qualifiziertem Fachpersonal ausgeführt werden. Um die Gefahr eines elektrischen Schlages, Feuergefahr und Verletzungen zu vermeiden, sind bei Wartungsarbeiten strikt die Angaben in der Anleitung zu befolgen. Andere als die angegeben Wartungsarbeiten dürfen nur von Personen ausgeführt werden, die eine spezielle Befähigung dazu besitzen.

## **AVERTISSEMENT**

Ce manuel est destiné uniquement aux personnes compétentes en charge de l'entretien. Afin de réduire les risques de décharge électrique, d'incendie ou de blessure n'effectuer que les réparations indiquées dans le mode d'emploi à moins d'être qualifié pour en effectuer d'autres. Pour toute réparation faire appel à une personne compétente uniquement.

# Table of Contents

## Manual Structure

Purpose of this manual .....	3
Contents .....	3
Trademark .....	3

## 1. Installation

1-1. Outline .....	1-1
1-1-1. File List .....	1-1
1-1-2. Features .....	1-1
1-1-3. System Configuration .....	1-2
1-2. HKSP-R80 Function Changes .....	1-3
1-2-1. Functions of Entire System .....	1-3
1-2-2. Functions of Connectors .....	1-4
1-2-3. Functions of the On-Board Switches .....	1-5
1-3. Installation Procedure .....	1-5
1-4. Names and Functions of Switches and Indicators .....	1-6
1-5. Installation of BZR-IF820 .....	1-13
1-6. Install Key Entry .....	1-15
1-7. Setting Network Connection (IP Address) .....	1-16
1-8. Example of the Connection and the Settings .....	1-17

## 2. Setup

2-1. Introduction .....	2-1
2-1-1. Flow Chart of Setup Procedure .....	2-1
2-1-2. Symbols Used in This Manual .....	2-1
2-2. Preparation .....	2-2
2-3. Display Screens, and Moving between the Display Screens .....	2-3

## 3. Troubleshooting



# Manual Structure

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## Purpose of this manual

This manual is the installation manual of S-BUS/Ethernet Software BZR-IF820.  
This manual is intended for system and service engineers, it contains information on installation and the initial settings of the BZR-IF820.

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## Contents

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

### **Section 1 Installation**

This section describes information on the system configuration, installation procedure and settings of network connections.

### **Section 2 Setup**

For details of setup, refer to the system setup manual supplied with the HKSP-R80.  
This section describes only the differences (mainly on the preparation procedure) of the setup procedure between the HKSP-R80 and BZR-IF820.

### **Section 3 Troubleshooting**

This section describes countermeasures when an error occurs.

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## Trademark

Trademarks and registered trademarks used in this manual are follows.

- Ethernet is a registered trademark of Xerox Corporation.



# Section 1

## Installation

### 1-1. Outline

The BZR-IF820 S-BUS/Ethernet Software converts the S-BUS protocol and the Ethernet protocol bi-directionally. When this software is installed in the Routing Switcher Controller HKSP-R80, equipment from the primary station to the third-level station (S-BUS subnet) can be connected with Ethernet.

#### S-BUS/Ethernet converter

In this manual, the HKSP-R80 in which BZR-IF820 is installed, is called S-BUS/Ethernet converter.

#### S-BUS Subnet

The S-BUS data link that is expanded by BZR-IF820 is called S-BUS subnet. Also, the S-BUS equipment connected within the S-BUS subnet are called third-level stations.

##### Note

When a primary station and a third-level station are to be connected by Ethernet, two units of S-BUS/Ethernet converter in total are required i.e., each unit, one on the primary station side and the other on the third-level station side. For details, refer to “1-1-3. System Configuration”.

#### 1-1-1. File List

BZR-IF820 consists of the following files.

File name	Contents
3790049**e.pdf	Software license agreement (English) Read me before installing the software.
3779978**j.pdf	Software license agreement (Japanese) Read me before installing the software.
3776948010-00e.pdf	Installation Manual (English) This manual.
3776947010-00j.pdf	Installation Manual (Japanese) This manual.
Readme.txt	(English) Provides the software version information, etc. Read me first.
Readmej.txt	(Japanese) Provides the software version information, etc. Read me first.
l82V***.hex	This is the main program data. Install it in the Routing Switcher Controller HKSP-R80 by referring to Section 1-5.
SBUSV***.hex	This is the main program data. Install it in the Routing Switcher Controller HKSP-R80 by referring to Section 1-5.

### 1-1-2. Features

BZR-IF820 enables the primary station and S-BUS subnet equipment to be connected by Ethernet LAN at a distance of 1 km apart, thus broadening the range of equipment installation. (When the S-BUS equipment is connected using a 75 Ω coaxial cable, the maximum installation range is up to 1 km.)

#### Increasing the K4number of units controllable in an S-BUS network

An S-BUS network can include up to 253 subnets, each of which up to 253 units can be connected to.

##### Note

If all stations, ID number 2 to 254, are extended, some 60,000 units can be controlled at a time. The time for setting up a system increases as the number of units to be controlled increases.

#### Flexible and reliable distributed processing environment

The BZR-20 enables you to back up and restore setting data for each subnet. It is also possible to have the bus protection of the primary station and subnets in common. When two S-BUS/Ethernet converters are used, tandem operations are available.

#### Integrated setting and data management for a whole system

The BZR-2000 (optional) allows you to make settings for all the units and back up the setting data at a time. Distributed processing and integrated processing are used as follows:

- Setting of the units in a subnet from the S-BUS/Ethernet converter terminal
- Setting of the whole network from the system terminal

##### Note

If system setup is performed with the BZR-2000 of version earlier than V1.40, only the remote panel and the UMD (Under Monitor Display) can be used for extension.

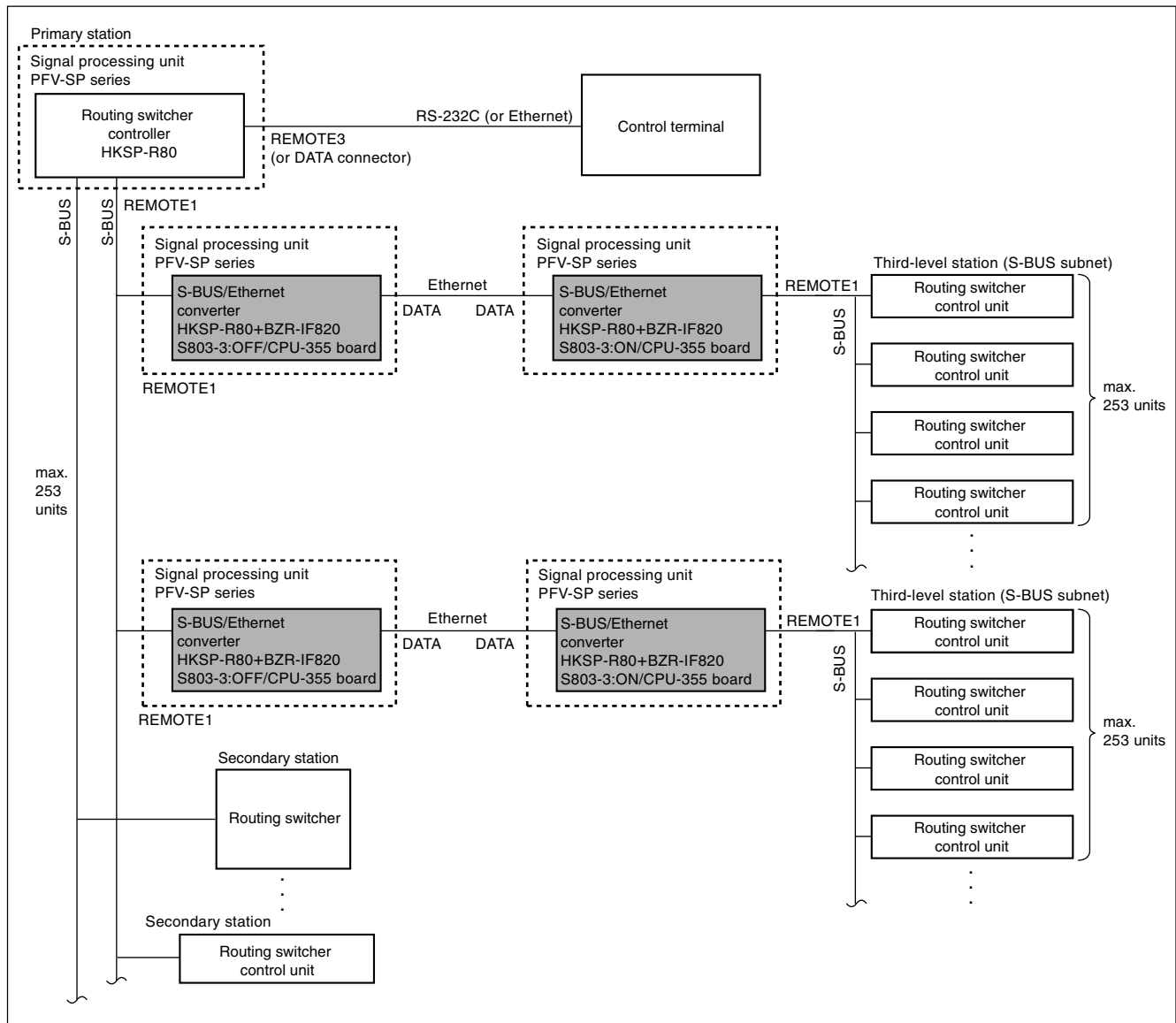
### 1-1-3. System Configuration

The following is the typical S-BUS network system by using the BZR-IF820. The primary station and S-BUS subnet (third-level station) are connected with Ethernet.

In this system, one S-BUS data link requires the two units of HKSP-R80 with BZR-IF820 installed.

Switch S803-3 on the CPU-355 board of the S-BUS/ Ethernet converter connected to the primary station, should be set to the OFF position.

Switch S803-3 on the CPU-355 board of the S-BUS/ Ethernet converter connected to S-BUS subnet (third-level station), should be set to the ON position.





## 1-2. HKSP-R80 Function Changes

When the BZR-IF820 is installed, the HKSP-R80 becomes an S-BUS/Ethernet converter and its functions change as follows.

### 1-2-1. Functions of Entire System

#### Note

Operations of the S-BUS/Ethernet converter are different when it is connected to a primary station and when it is connected to a third-level station.

The S-BUS/Ethernet converter connected to a primary station (called S-BUS/Ethernet converter (S) hereafter), receives the S-BUS command from the primary station, and sends the received S-BUS command to the other S-BUS/Ethernet converter connected to a third-level station (called S-BUS/Ethernet converter (P) hereafter), via Ethernet.

The S-BUS/Ethernet converter (P) sends the received command from Ethernet, to a third-level station as the S-BUS command. It also receives the S-BUS command that

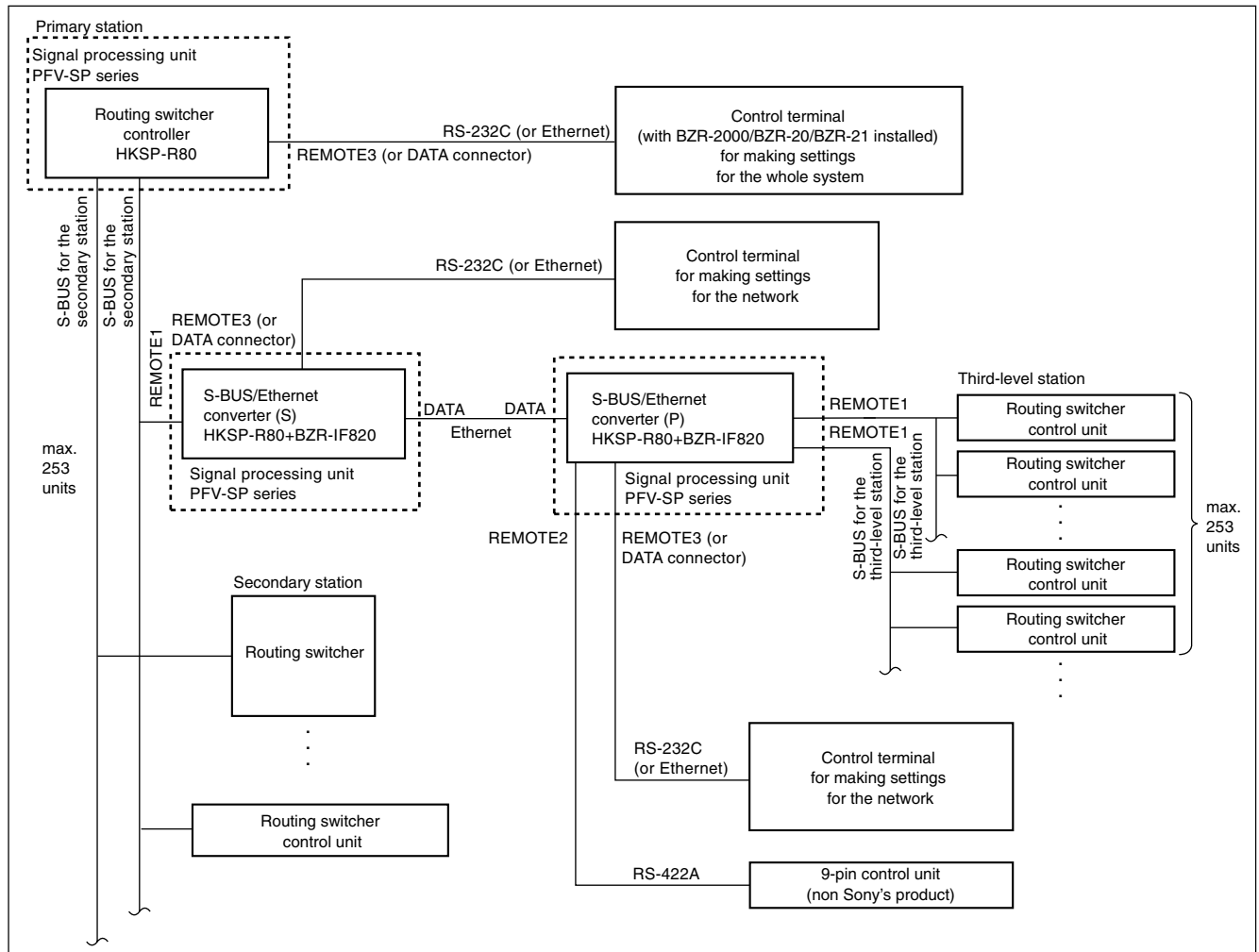
is supplied from the third-level station, and sends it to the S-BUS/Ethernet (S) via Ethernet. The S-BUS/Ethernet converter (S) sends it to the primary station as the S-BUS command.

The REMOTE1 connector is used for connecting the primary station to the S-BUS/Ethernet converter (S), and is used for connecting the third-level station to the S-BUS/Ethernet converter (P).

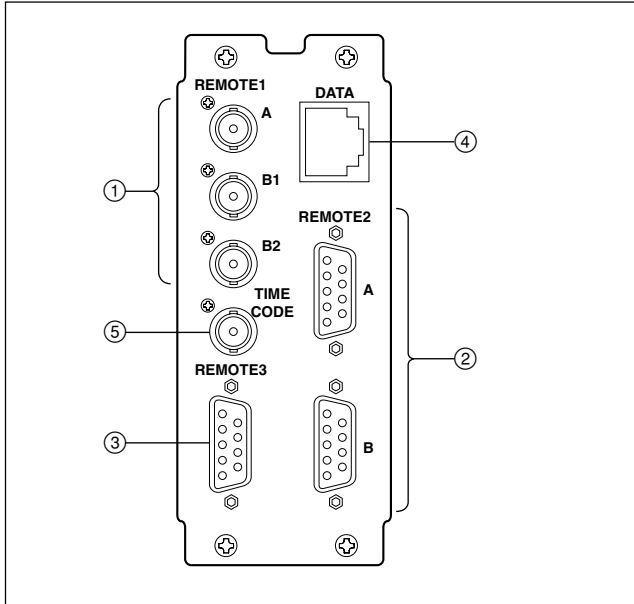
The REMOTE2 connector is valid only at the S-BUS/Ethernet converter (P). It receives the 9-pin REMOTE (CART++ protocol) from external equipment, converts it to the S-BUS command and outputs it to the REMOTE1 connector.

Both of the S-BUS/Ethernet converter (S) and the S-BUS/Ethernet converter (P) perform network setting using the REMOTE3 connector.

The S-BUS/Ethernet converter (P) performs the settings inside the S-BUS subnet using the REMOTE3 connector or using the control terminal of a PC connected to the DATA connector. The S-BUS/Ethernet converter (P) is able to back up and restore the setup data from the PC connected to the REMOTE3 connector or DATA connector using the BZR-20 supplied with HKSP-R80.



## 1-2-2. Functions of Connectors



### S-BUS/Ethernet Converter (S) (When switch S803-3 is OFF)

#### ① REMOTE1 connectors (S-BUS)

These connectors are used for connecting to the primary station in the S-BUS data link. The REMOTE1 connectors have two channels, A and B (B1/B2). Use either one of the channels to connect to the primary station.

##### Note

Connect the 75  $\Omega$  terminator supplied with the HKSP-R80 to the unused connectors.

#### ② REMOTE2 connectors (RS-422A)

Cannot be used.

#### ③ REMOTE3 connector (RS-232C)

This connector is connected to the RS-232C port of a PC and is used for network setting.

#### ④ DATA connector (Ethernet)

This connector is connected to the S-BUS/Ethernet converter (P) via an Ethernet switch. It can also be connected to the Ethernet connector of a PC via an Ethernet switch for the following purposes:

- Downloading a program
- Acquiring logs of the S-BUS data link

#### ⑤ TIME CODE IN connector

Input the time code signal to this connector. The time code signal is used to add the date of event generation to the logs of the S-BUS data link.

### S-BUS/Ethernet converter (P) (When switch S803-3 is ON)

#### ① REMOTE1 connectors (S-BUS)

These connectors are used for connecting to third-level stations in the S-BUS data link.

The REMOTE1 connectors have two channels, A and B (B1/B2). All channels can be used at the same time to connect to third-level stations.

##### Note

Connect the 75  $\Omega$  terminator supplied with the HKSP-R80 to the unused connectors.

#### ② REMOTE2 connectors (RS-422A)

These connectors are used when connecting external equipment. The control command (Cart++ protocol) that is input to this connector is converted to the S-BUS protocol and controls the equipment within the S-BUS subnet.

The REMOTE2 connectors have two channels, A and B. All channels can be used at the same time to connect to the external equipment.

#### ③ REMOTE3 connector (RS-232C)

This connector is connected to the RS-232C port of a PC and used to perform the following.

- Setting for connecting to network
- Setting the third-level stations
- Backing up and restoring the third-station setup data using BZR-20
- Downloading a program

#### ④ DATA connector (Ethernet)

This connector is connected to the S-BUS/Ethernet converter (S) via an Ethernet switch. It can be also connected to the Ethernet connector of a PC via an Ethernet switch for the following purposes:

- Acquiring logs of the S-BUS data link
- Setting the third-level stations
- Backing up and restoring the third-station setup data using BZR-20
- Downloading a program

#### ⑤ TIME CODE IN connector

Input the time code signal to this connector. The time code signal is used to add the date of event generation to the logs of the S-BUS data link.

### 1-2-3. Functions of the On-Board Switches

The functions of the following switches on the CPU-355 board are changed. For details of the respective switches, refer to “1-4. Names and Functions of Switches and Indicators”.

#### S802 (A-2)

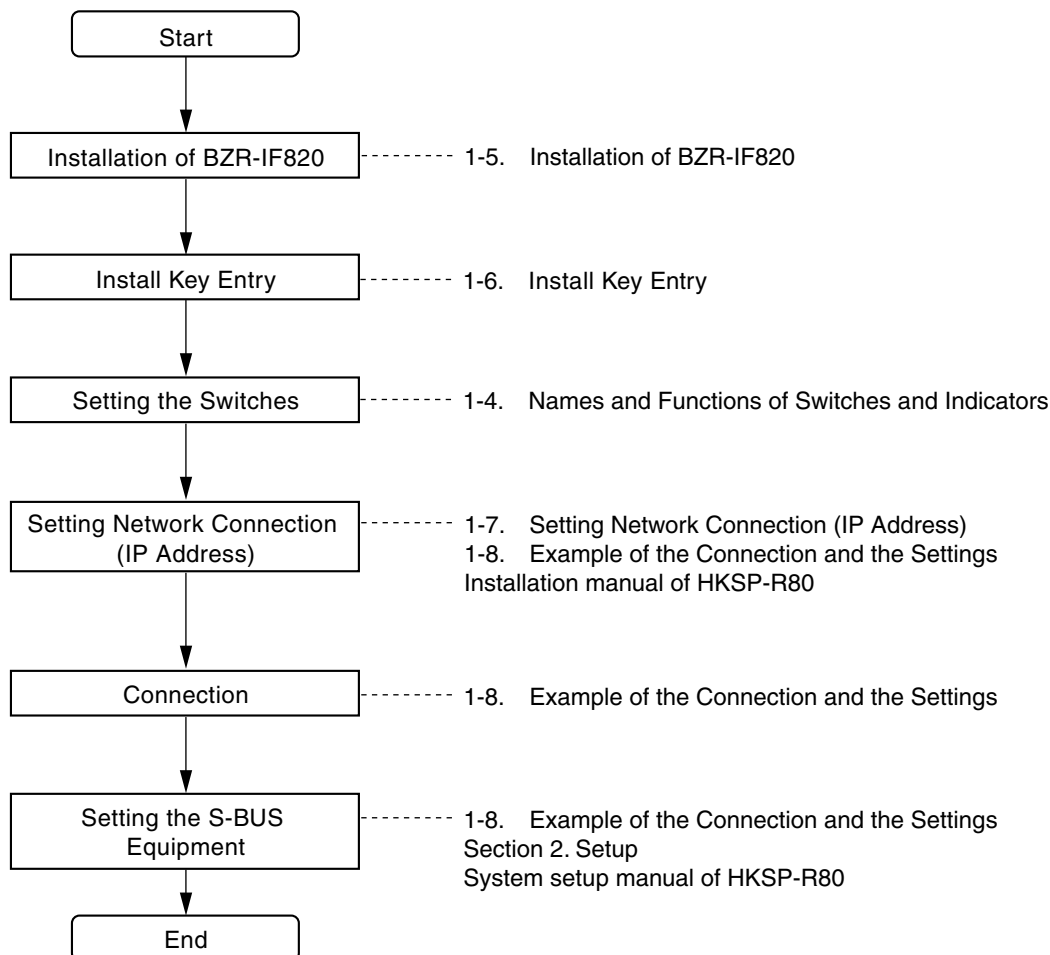
- BIT1 to 3 : Not used
- BIT5 : Not used
- BIT6 : Not used (fixed to OFF)
- BIT8 : USER-DEF switch

#### S803 (A-2)

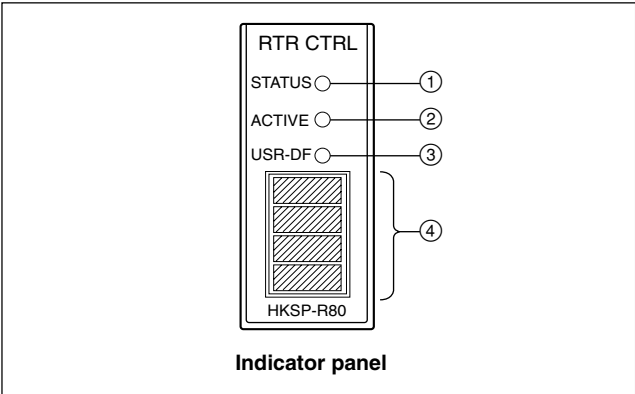
- BIT2 : Not used
- BIT3 : S-BUS B P/S selector switch
- BIT7 : Polling system selector switch

### 1-3. Installation Procedure

The following chart shows the procedure for installing and setting the S-BUS/Ethernet converter. For details of the following chart, refer to the relevant section or related manual.



1-4. Names and Functions of Switches and Indicators



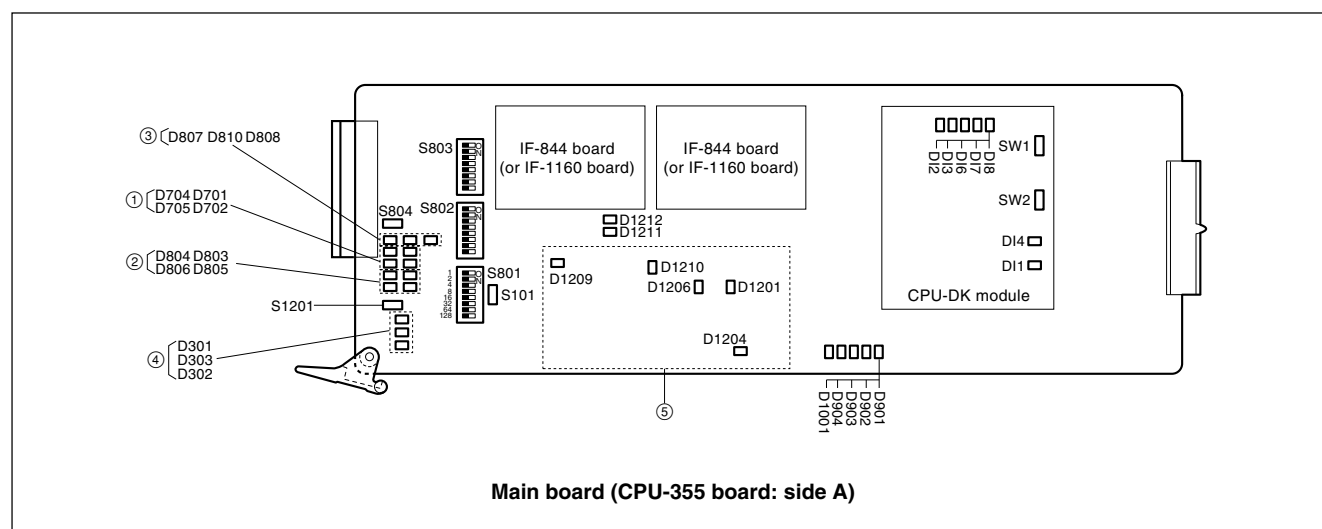
Indicator panel

No.	Name	Function
①	STATUS	Lights in green: Under normal operation Blinks in green: A warning occurs. Blinks in red: An error occurs. <b>Note</b> For details on error, refer to Section 6 in the installation manual of HKSP-R80.
②	ACTIVE	Lights in green: The CPU-355 board operates as a main CPU. Off: The CPU-355 board operates as a backup CPU. (Not operating as a main CPU.)
③	USR-DF	Turns off all the time.

Display

No.	Name	Function
④	Status indicator	Indicates errors and various information. The displayed information is switched depending on the setting of rotary switch S804. (Refer to “S804”.) <b>Notes</b> <ul style="list-style-type: none"><li>When the board operates as a backup CPU, the display is slightly darker than when the board operates as a main CPU.</li><li>If there is no error during normal operation, and when S803-3 is ON, “820P” is displayed, or when S803-3 is OFF, “820S” is displayed.</li></ul>

## Main Board (CPU-355 board)



### Indicators

#### ① Status of REMOTE1 connector (Data transmission/reception with S-BUS data link)

Ref. No. (Address)	LED name	Function (Lights on for 0.015 sec.)
D701 (A-3)	REMOTE1 A RX	Lights in green: When data is received from the data link of REMOTE1 A or A2 connector
D704 (A-3)	REMOTE1 A TX	Lights in green: When data is transmitted to the data link of REMOTE1 A or A2 connector
D702 (A-3)	REMOTE1 B RX	Lights in green: When data is received from the data link of REMOTE1 B1 or B2 connector
D705 (A-3)	REMOTE1 B TX	Lights in green: When data is transmitted to the data link of REMOTE1 B1 or B2 connector

#### ② Status of REMOTE2 connector (Data transmission/reception with RS-422A data line)

Ref. No. (Address)	LED name	Function (Lights on for 0.015 sec.)
D803 (A-3)	REMOTE2 A RX	Lights in green: When data is received from the line of REMOTE2 A connector
D804 (A-3)	REMOTE2 A TX	Lights in green: When data is transmitted to the line of REMOTE2 A connector
D805 (A-3)	REMOTE2 B RX	Lights in green: When data is received from the line of REMOTE2 B connector
D806 (A-3)	REMOTE2 B TX	Lights in green: When data is transmitted to the line of REMOTE2 B connector

#### ③ Status of this unit (S-BUS/Ethernet converter)

Ref. No. (Address)	LED name	Function
D807 (A-3)	PRIM-A	Lights in green: When S-BUS A channel is set to the primary station
D810 (A-3)	PRIM-B	Lights in green: When S-BUS B channel is set to the primary station
D808 (A-3)	REF-IN	Lights in green: When valid signal is input to the reference connector selected by S802-7

#### ④ Status of data link connected to DATA LAN (DATA connector)

Ref. No. (Address)	LED name	Function
D301 (A-3)	100/10	Lights in green: When device in data link operates in 100BASE-TX
D303 (A-3)	LINK	Lights in green: When devices are normally linked in data link
D302 (A-3)	ACT	Lights in green: When data is transmitted/received between data links

## ⑤ Status of power supply block

Ref. No. (Address)	LED name	Function
D1201 (D-3)	2.5 V	Lights in green: Power supply of +2.5 V is normal
D1204 (D-3)	12 V	Lights in green: Power supply of +12 V is normal.
D1206 (C-3)	5 V-1	Lights in green: Power supply of +3.3 V and +5 V are normal.
D1209 (B-3)	3.3 V	Lights in green: Power supply of +3.3 V is normal.
D1210 (C-3)	5 V	Lights in green: Power supply of +5 V is normal.

## Others

Ref. No. (Address)	LED name	Function
D901 (E-3)	—	Factory use only
D902 (E-3)	—	Factory use only
D903 (E-3)	—	Factory use only
D904 (E-3)	—	Factory use only
D1001 (E-3)	—	Factory use only
D1211 (B-2)	—	Factory use only
D1212 (B-2)	—	Factory use only

## Switches

### Note

If the two CPU-355 boards are installed, both CPU-355 boards must have the exactly same setting.

## S101 (A-3): MON

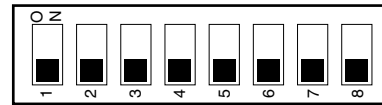
This switch is used for test. (Factory use only)

## S1201 (A-3): RESET

This switch resets the operation of the CPU-355 board.

## S801 (A-3): Station ID/ Unit ID setting switch

8-pin DIP switch



Factory setting (■ indicates the switch lever position.)

Sets the station ID of this unit when this unit is connected to the S-BUS data link as follows.

When this unit is connected to a third-level station (S803-3: ON), this unit is handled as a primary station, and the station ID is set to “1” regardless of setting of this switch.

When this unit is connected to a primary station (S803-3: OFF), this unit is handled as a secondary station, set the station ID to any number other than “0”, “1” and “255”.

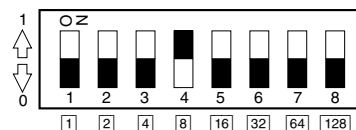
Be careful not to duplicate the same number of the other equipment in the secondary station when setting the station ID.

Sets the unit ID that is the 4th byte of the IP address using the DIP switch (S802-4 is set to OFF) when this unit is connected to DATA LAN (Ethernet). For details, refer to Section 1-7.

Even if the setting is changed while the power is on, the station/unit ID is not updated.

In order to change the station/unit ID, change the setting. Then either turn off the main power and back on, or press the reset switch (S1201) on the CPU-355 board.

## Setup example



When the setting value is 8

<Setting value>

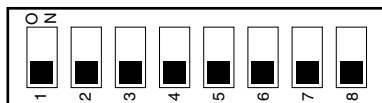
8 : 0 0 0 1 0 0 0 0 1 ; ON

30 : 0 1 1 1 1 0 0 0 0 ; OFF  
→ (16 + 8 + 4 + 2)

254 : 0 1 1 1 1 1 1 1  
→ (128 + 64 + 32 + 16 + 8 + 4 + 2)

## S802 (A-2)

8-pin DIP switch



Factory setting (■ indicates the switch lever position.)

### BIT1 to BIT3: Not used

Do not change the factory setting (OFF).

### BIT4: Unit ID/IP setting method selector switch

Used to select the method of setting the IP address in the data link that is connected to the DATA connector.

Even if the setting is changed while the power is on, the operation mode is not updated. In order to change the operation mode, change the setting. Then either turn off the power and back on, or press the reset switch (S1201) on the CPU-355 board.

ON : A value that is set from a PC connected to REMOTE3 becomes valid.

OFF : The IP address is "10.129\*1.6. [value of S801]".

\*1: Can be changed between 129 and 191. For details, refer to Section 1-7.

### Note

For the details of the IP address setting, refer to Section 1-7.

### BIT5 and BIT6 : Not used

Do not change the factory setting (OFF).

### BIT7: REF A/B switch

Used to select which connector to be used as the reference signal between REF IN A connector of the PFV-SP series and REF IN B connector.

Even when a setting is changed while the power is on, the setting is reflected on the operation of the board.

ON : REF IN B connector

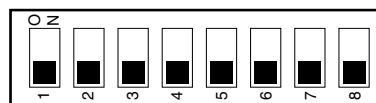
OFF : REF IN A connector

### BIT 8: USER-DEF switch

Do not change the factory setting (OFF).

## S803 (A-2)

8-pin DIP switch



Factory setting (■ indicates the switch lever position.)

### BIT1: SYNC/ASync selector switch

Used to select whether the communication on the REMOTE1 data link is carried out in synchronization with the input reference signal that is connected to the REF IN A or REF IN B connector selected by S802-7, or is communicated asynchronously with the input reference signal.

However, the routing switcher system will operate in the asynchronous mode if the reference video signal is not input to the PFV-SP series connector (REF IN A or REF IN B) even if this switch is set to the SYNC position. Even when a setting is changed while the power is on, the setting is reflected on the operation of this unit.

ON : ASync (asynchronous mode)

OFF : SYNC (synchronous mode)

### BIT2: Not used

Do not change the factory setting (OFF).

### BIT3: S-BUS B P/S selector switch

Used to select that this unit is connected to the primary station or third-level station in the S-BUS data link.

Even if the setting is changed while the power is on, the operation mode is not updated.

In order to change the operation mode, change the setting. Then either turn off the main power and back on, or press the reset switch (S1201) on the CPU-355 board.

ON: When connecting this unit to third-level station (S-BUS/Ethernet converter (P))

OFF: When connecting this unit to primary station (S-BUS/Ethernet converter (S))

### BIT4: Table data size selector switch

Used to select the S-BUS table data size that is output when the unit operates as the primary station (S803-3 : ON) in the S-BUS data link of REMOTE1.

ON : 32 bytes

OFF : 128 bytes

### BIT5 and BIT6 : Baud rate selector switch

- **BIT5 : REMOTE1 A connector**
- **BIT6 : REMOTE1 B connector**

Sets the baud rate when this unit is connected to the S-BUS data link using the above connectors.

All of the equipment that are connected to the same S-BUS data link must have the same setting for the baud rate speed. Set BIT5 and BIT6 in accordance with the connectors used. Even when a setting is changed while the power is on, the setting is reflected on the operation of the unit. If there is any possibility to disconnect the cables between the equipment while they are operating, set the switch to the OFF position.

ON : 1250 kbps  
OFF : 312 kbps

### BIT7: Polling system selector switch

Valid only when S803-3 is set to ON.

ON: Independent communication with a third-level station irrespective of the primary station.  
OFF: Interrupt communication with third-level station when communication with a primary station stops.

### BIT8: A2 channel valid/invalid switch

Sets whether the S-BUS communications by REMOTE connector of the PFV-SP series is enabled.

Even when a setting is changed while the power is on, the setting is reflected on the operation of the HKSP-R80.

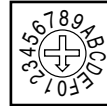
ON: Enabled (This unit is recognized as REMOTE1 A2 channel)  
OFF: Disabled

### S804 (A-3) : Test rotary switch

Run the system with 0 (default) position of this switch.

#### Note

Be aware that if S804 is set to 8 or 9, the information stored in the board may be damaged. In case of setting S804 to 8, all the information set in this unit may be erased affecting the operation of this unit. In case of setting S804 to 9, the information in the ROM I<sup>2</sup>C EEPROM (CPU-355: IC807, CN-2334: IC102, CN-2335: IC102) will be erased.



Factory setting

#### Notes

- When this switch is set to any position of 1 to 5 while the power is on, the setting is reflected on the operation of this unit. Set this switch to 0 to return to the normal operation.
- Even the setting is changed to A to F while the power is on, the operation mode is not updated. In order to change the operation mode to A to F, change the setting. Then re-start the CPU-355 board (either turn off the power and back on, or press the reset switch (S1201) on the CPU-355 board). Set this switch to 0 and re-start the CPU-355 board to return to the normal operation.

- 0 : Normal operation  
The error that is detected first by self-diagnosis is indicated on the status indicator as an error code. The error code that is displayed first, is kept stored until the CPU-355 board is re-started or until this switch is set to the position 5.
- 1 : Displays the station ID (valid during operation).  
The station ID of this unit is displayed on the status indicator.
- 2 : Displays the total count of the errors that are detected by self-diagnosis (decimal number) on the status indicator.  
When the reset switch (S1201) on the CPU-355 board is pressed or this switch is set to "5", the total count is re-set to "0000".
- 3 : Displays the IP address (valid during operation).  
The IP address set to this unit is displayed on the status indicator.
- 4 : Displays the setting state of the switch (valid during operation).  
The contents of the switches S802 and S803 on the CPU-355 board are displayed on the status indicator in hexadecimal.



- 5 : Resets the error indication of status indicator (valid during operation).  
When returning the rotary switch from 5 to 0, the error code displayed on the status indicator is reset.  
When S803-3 is ON, "820P" is displayed. When S803-3 is OFF, "820S" is displayed.  
The total count of error detected by self-diagnosis is also reset.
- 6, 7 : Not used
- 8 : Factory use only (valid only during startup)  
Used for adjustment in the factory.  
If this mode is executed, all of the setting data are deleted. Before executing this mode, implement the backup of the setup data using the BZR-20 software supplied with HKSP-R80. After execution of the this mode, return the setup data.
- 9 : Factory use only  
I<sup>2</sup>C EEPROM (serial ROM) data edit mode (valid only during startup)  
When this mode is executed, the critical information on the service stored in the board may be damaged. When this unit is accidentally activated in this mode, immediately set this switch to 0 and restart this unit.
- A, B : Not used
- C : Clears the system status log.  
(Valid only during startup)  
Clears the system status log.
- D : Initialization of setting (valid only during startup)  
Returns all of the setup items to the default setup when shipped from the factory. However, the IP address is not initialized.
- E : Network setting mode (valid only during startup)  
Used for the setting, such as the IP address setting to connect this unit to the network.  
For details, refer to Section 1-7.
- F : Forced program download mode (valid during startup)  
Used for service maintenance.

## IF-844 board

### Indicator

#### D1 (B-1): SRX

Lights about 0.015 second when it receives the data from the S-BUS link.

### Switch

#### S1 (B-3) : RESET

Reset switch of MPU on the IF-844 board.

## IF-1160 Board

### Indicators

#### D201 (B-3): STAT1

Indicates completion of initialization of the CPU software.

Not lit during startup.

Lights when the CPU software has been initialized.

#### D202 (B-3): STAT2

Indicates operation of the CPU.

Blinks at intervals of one second while the CPU is running normally.

#### D203 (B-3): STAT3

Indicates that the IF-1160 board version upgrade is in progress.

Lights during upgrade of the IF-1160 board version and goes out when the upgrade has been completed.

#### D204 (B-3): STAT4

Indicates operation of the primary station and secondary station.

Lights while the primary station is working.

Not lit while the secondary station is working.

#### D205 (A-3): DONE

Indicates configuration status of the FPGA.

Lights when the FPGA configuration has been completed.

### Switch

#### S201 (A-2): CONF

FPGA reconfiguration switch

This switch performs FPGA reconfiguration to totally reboot the hardware and the CPU software.

#### S202 (A-2): RST

CPU software reboot switch

Reboots only the CPU software.

This switch does not perform FPGA reconfiguration.

CPU-DK module

Indicators

**D11 (green) : CD (Card Detect) status LED**

Lights on when the CPU-DK module is inserted correctly to the CPU-355 board.

**D14 (green) : +3.3 V**

Indicates the status of the power supplied to the CPU-DK module.

Lights on while the power is on.

**D18 (green) : STATUS1 status indicator**

Used for maintenance purpose. Lights in normal operation.

**D17 (green) : STATUS2 status indicator**

Used for maintenance purpose. Lights off in normal operation.

**D16 (green) : STATUS3 status indicator**

Used for maintenance purpose. Lights off in normal operation.

**D13 (green) : STATUS4 status indicator**

Used for maintenance purpose. Lights off in normal operation.

**D12 (green) : RUN status indicator**

Lights on when the CPU-DK module starts operating.

Switches

**SW1 : RESET switch**

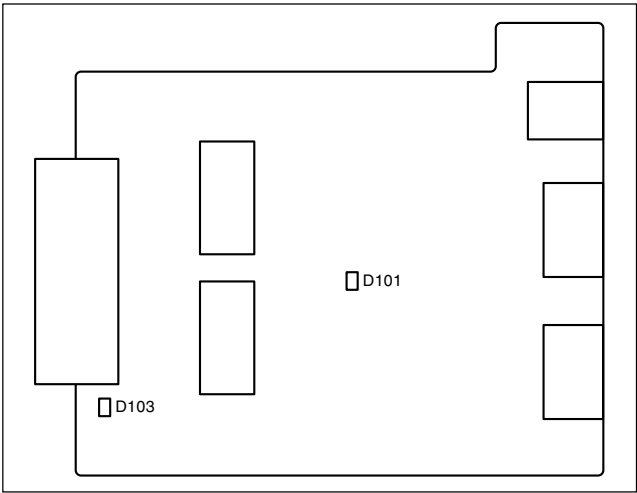
Resets the CPU-DK module.

**SW2 : MODE switch**

**8-pin DIP switch**

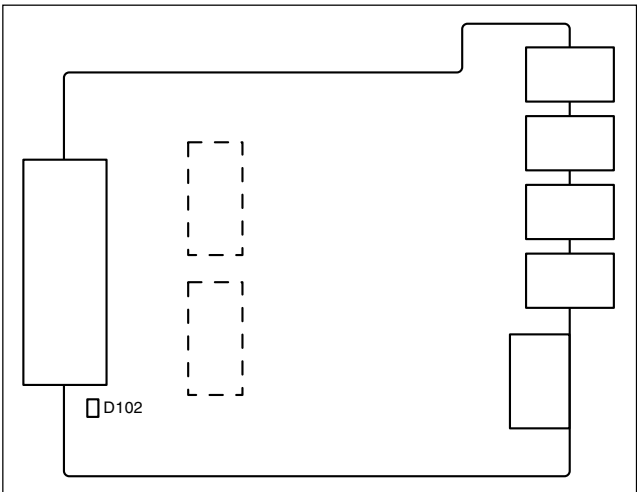
This switch is factory use only. Do not change this setting. The default setting is all OFF.

CN-2334 board



Ref. No. (Address)	LED name	Status during ON
D101 (B-3)	12 V	Lights in green: Power supply of +12 V is normal.
D103 (A-1)	3.3 V	Lights in green: Power supply of +3.3 V is normal.

CN-2335 board



Ref. No. (Address)	LED name	Status during ON
D102 (A-1)	5 V	Lights in green: Power supply of +5 V is normal.

## 1-5. Installation of BZR-IF820

### Notes

- Before starting installation/upgrade, be sure to open the Readme files in the same site and read it with care.
- Be sure to install the program into the board in the main slot. When this unit is used in the redundant configuration, remove the board from the backup slot.

### Software installation time

Connection method	Transfer time	Writing time between flash memories	Total time
Ethernet (DATA connector)	Approx. 30 sec.	Approx. 80 sec.	Approx. 110 sec.
RS-232C (REMOTE3 connector)	Approx. 2300 sec. (38 min.)	Approx. 80 sec.	Approx. 2380 sec.

### Preparations

#### About Terminal Emulator

For downloading a program or setting up the system, a terminal emulator is necessary.

A terminal is a device to display the character codes sent, and a terminal emulator is software to perform the operations of a terminal device on a computer, controlling the RS-232C and Ethernet (TCP/IP) communication function. For emulation function, VT100 or higher is required.

The terminal emulator program can be downloaded from the on-line network.

After activating the terminal emulator, assignment of the function keys may be changed, and the functions of the keys differ from those displayed on the System Setup menu. Reassign the keys so that the same functions are obtained. For key assignment, refer to the operation manual for the downloaded program. For details, refer to “2-2. Preparations” in this manual.

1. Turn off the power of the PFV-SP series and disconnect all the cables connected to other devices from the rear connector of this unit.
2. Set S803-3 to ON.

#### Note

Switches other than S803-3 are not reflected on the setting.

3. Connect this unit with the PC.

#### When connecting using Ethernet:

Connect the hub for LAN with the DATA connector using a specified cable.

#### When connecting using RS-232C:

Connect the PC with REMOTE3 connector using the RS-232C cable.

### Installation

1. Turn on the power of the PC.
2. Copy all of the program data to the PC.
3. When this unit is used in the redundant configuration, remove the backup CPU.
4. Turn on the power of the PFV-SP series.
5. Start the terminal software of the PC.
6. Set the communication conditions of the PC.

#### When DATA connector is used for connection:

Set the TCP/IP for the terminal software the same as the IP address of this unit and set the port number to 1001.

#### Note

When connecting the PC with this unit using Ethernet, set the 1st byte to 3rd byte of the IP address of the PC to the address same as the IP address of this unit.

#### When REMOTE3 connector is used for connection:

Baud rate	38400 bps
Data bit	8 bits
Parity	None
Stop bit	1 bit
Flow control	None

7. Send the program data to this unit from the terminal software.

#### Note

Check that the codes in hexadecimal are displayed in sequence on the status indicator of the indicator panel of the CPU-355 board during data transmission.

8. After completion of transmission, the data is written in the flash memory and the CPU-355 board is automatically reset.

#### Note

If the hardware reset is activated or the power is shutdown while data is being written to flash memory, the program downloading is ended in failure. If the CPU-355 board fails to start up for this reason, contact your local Sony Sales Office/Service Center.

9. Terminate the terminal software.

10. When connecting with the DATA connector, initialize the information on the PC network.

**Note**

When connecting with REMOTE3 connector, initialization is not required.

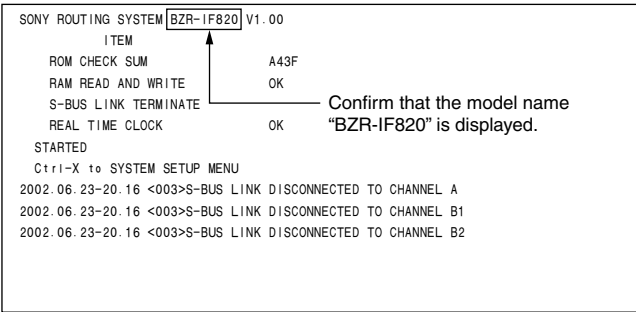
**Initialization procedure**

- (1) Display the MS-DOS prompt or command prompt screen.
  - (2) Enter the following command from the command line.  
“arp -d -d XXX.XXX.X.XXX”  
(Enter the IP address set to this unit to the XXX.XXX.X.XXX portion. “-d” indicates a space.)
  - (3) Press the **Enter** key.
11. Repeat the steps from 5 to 9 and send all of the program data to this unit.
12. Enter the Install Key. (Refer to Section 1-6.)
- Proceed to step 13 and the subsequent steps when this system is used in the redundant configuration.
- 13. Turn off the power of the PFV-SP series.
  - 14. Remove the main CPU and install the backup CPU in the main slot.
  - 15. Turn on the power of the PFV-SP series.
  - 16. Repeat steps 5 to 12 and install the BZR-IF820 in the backup CPU.
  - 17. Turn off the power of the PFV-SP series.
  - 18. Remove the backup CPU from the main slot and install it in the backup slot.
  - 19. Install the main CPU in the main slot.

**Confirmation after Installation**

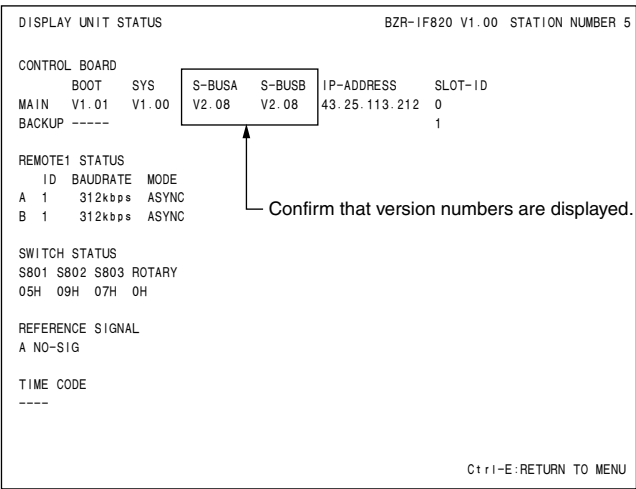
The following procedure assumes that this unit is connected to a PC using the RS-232C.

- 1. Set the switch S803-3 on the CPU-355 board to the ON position.
  - 2. Connect a PC to the REMOTE3 connector using the RS-232C cable.
  - 3. Make sure that the communication conditions of the PC as follows:  
38.4 kbps, 8 bits, no parity, no check
  - 4. Turn the power off and back on. Check that the system status screen appears on the display.
- Check also that “BZR-IF820” is displayed in the top line as the model name.



Example of system status screen

- 5. Check that the version numbers are displayed at the following portion on the V: DISPLAY UNIT STATUS menu of the system setup menu.



Example of menu screen

**Note**

If “BZR-IF820” is not displayed or the version number is not displayed, refer to “3. Troubleshooting” of this manual and take appropriate action.

# 1-6. Install Key Entry

The BZR-IF820 software supports the Install Key license. The Install Key is the code that is issued when you register for downloading the BZR-IF820 application. This software will start up correctly only after the correct Install Key has been entered.

## Procedure

### Note

Confirm that the codes of F1 to F5 in the terminal emulator of the PC. If they are not set yet, set the codes referring to “2-2. Preparation”.

1. Connect a PC and the REMOTE3 connector using the RS-232C cable.
2. Set the rotary switch S804 on the CPU-355 board to “9”.
3. Turn on the power of the PC.
4. Restart the CPU-355 board (by activating reset or turning off the power once and back on).

The following display appears on the PC screen.

I2C EDIT MODE

CPU-355 I2C EEPROM DATA

Vendor Name	16Byte	(Sony Corporation)
Product Name	40Byte	(ROUTING SWITCHER CONTROLLER )
Function	16Byte	(ROUTER CTRL )
Model Name	16Byte	(HKSP-R80 )
Model Spec	8Byte	(SYM )
Board Name	8Byte	(CPU-355)
Board Spec	16Byte	(1-685-750-12 )
Serial No.	8Byte	(10005 )
Original Version	8Byte	(1.00 )
Revised Version	8Byte	(1.00 )
Frame max current	8Byte	( )
Service No.	4Byte	( )
Service Comment	20Byte	( )
Licence Key	16Byte	(0A8E5313BA1196F8)

F1:CPU-355

F2:CN-2334

F3:Read

F4:Write

Example of PC screen

5. Move the cursor to the “Licence Key” item.
6. Type the Install Key (16 characters).

### Note

The Install Key varies depending on the model. Type the letter as it is. The uppercase letter should be typed in uppercase.

7. Press **F4**. The data is saved.
8. Return the rotary switch S804 on the CPU-355 board to “0” and restart the CPU-355 board.

### Note

Do not change any items other than the specified item. If any other item is changed by mistake, press **F3** to read the original setup unless **F4** has been pressed already. If **F4** is pressed while any incorrect data is set in an item, enter the correct data in the item by referring to “1-6-3. EEPROM” in the maintenance manual of HKSP-R80.

# 1-7. Setting Network Connection (IP Address)

Note

When the following related to a network is set in a main CPU, the same value is automatically set in the backup CPU.

This unit has the following two types of IP address.

- Arbitrary IP address
- 10. [group ID] .6. [unit ID] (the 1st byte and 3rd byte are fixed.)  
The group ID can be set in the range from 129 to 191.

The IP address can be selected with the switch S802-4.

S802-4	IP address
ON	Arbitrary IP address
OFF	10. [group ID] .6. [unit ID] (Factory setting: "10.129.6.1") <ul style="list-style-type: none"><li>• Set the group ID in the following procedure.</li><li>• Set the unit ID with S801.</li></ul>

The group ID and arbitrary IP address can be set on the same screen of the PC.

Setting Procedure

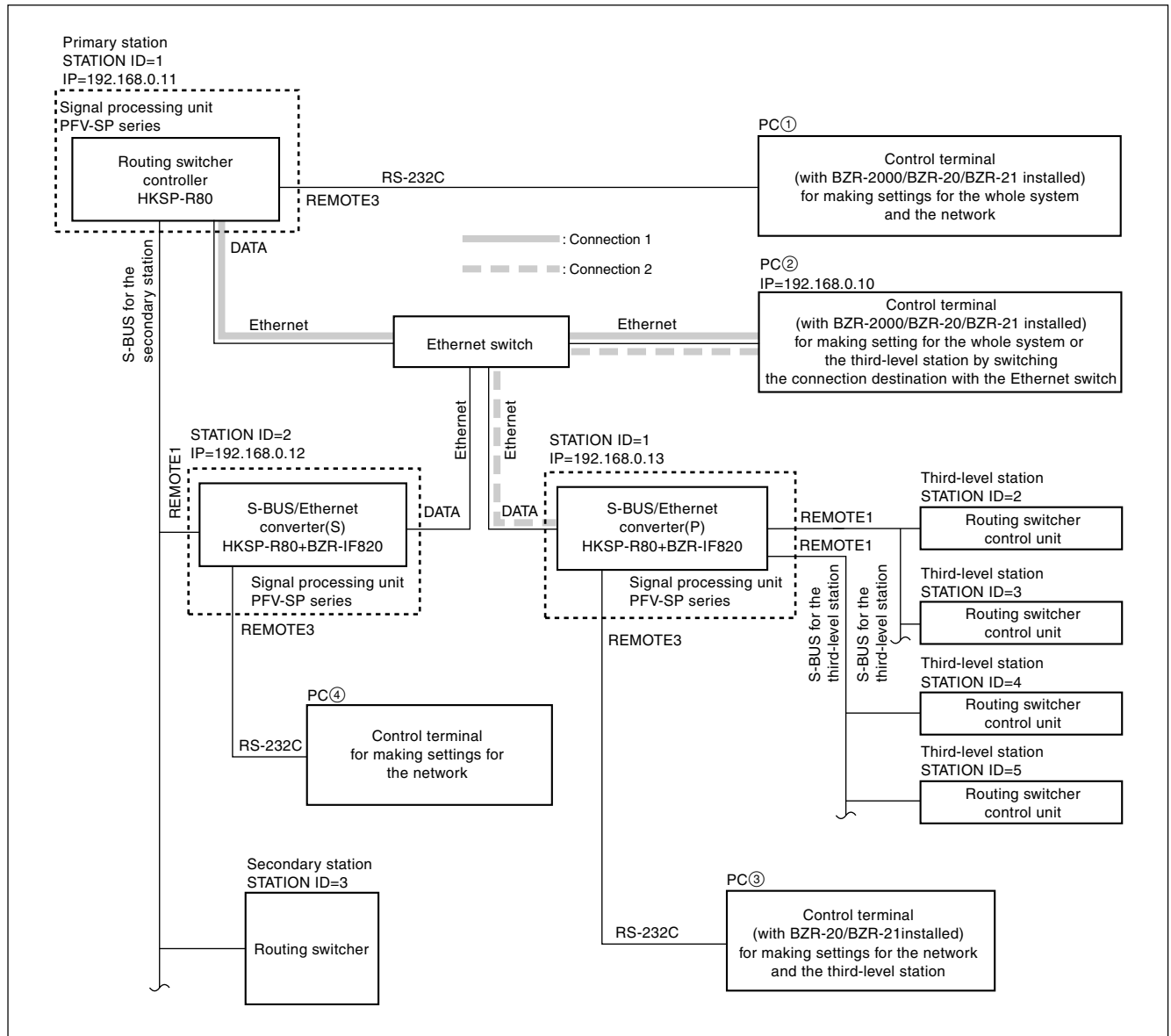
1. Turn off the power of the PFV-SP series.
2. Connect a PC to the REMOTE3 connector.
3. Set the switch S804 on the CPU-355 board to "E".
4. Turn on the power of the PFV-SP series.
5. The following display appears on the PC screen.

IP ADDRESS = 192.168.0.135	———— IP address that is enabled when S802-4 is set to ON	
GROUP ID = 129	———— Group ID that is enabled when S802-4 is set to OFF	
TERM PORT = 1001	———— Terminal port No.	} Do not change the settings
LOG PORT = 8001	———— Log port No.	
DEF GWAY =	———— Default gateway value	
SNET MASK =	———— Subnet mask value	
OPT IP =	———— IP address of the counterpart BZR-IF820 connected by Ethernet	
OPT1 PORT = 0	———— TCP/IP port of the counterpart BZR-IF820 connected by Ethernet	
OPT2 PORT = 0	———— Not used	
TERM T OUT = 10	———— Time-out time when terminal is connected via Ethernet 0 to 999 (units: minute). When 0 is input, there is no time-out	
SNMP TRAP1 = 192.168. 0. 1		} Do not change the settings
SNMP TRAP2 = 192.168. 0. 2		
GMT (+) = 09		
Contact =		
Name =		
Location =		

6. Move the cursor to the item to be set. Press the **Enter**. The entry becomes possible.
7. Input data in the required entry items.
8. Press the **Enter** to terminate the setting.
9. Turn off the power and then back on of the PFV-SP series.
10. Check to see that the set IP address and group ID are displayed on the PC screen.
11. Set the switch S804 on the CPU-355 board to "0" and turn off the power and then back on or press the reset switch (S1201) on the CPU-355 board to return to the normal operation mode.
12. Check that the backup CPU is activated. After waiting for about 5 seconds, turn off the power and back on again or press the reset switch of the CPU-355 board to restart the main CPU.

## 1-8. Example of the Connection and the Settings

This section describes what should be set up in which order, taking the following equipment configuration as an example.



### Index

1. Installing the BZR-IF820
2. Entering the Install Key
3. Setting the switches
5. Setting the network connection (IP address)
6. Connection
7. Turning on the equipment
8. Setting up the S-BUS equipment

## Installing the BZR-IF820

1. Install all of the program data by referring to “1-5. Installation of BZR-IF820”.

## Entering the Install Key

1. Type the Install Key by referring to “1-6. Install Key Entry”.

## Setting the switches

1. Set the switches S802 and S803 of the Routing Switcher Controller (HKSP-R80) of the primary station as follows:  
S802-4 : ON  
S803-2 : ON  
S803-3 : ON  
Set other switches in accordance with the environment by referring to Section “3. Names and Functions of Switches and Indicators” in the installation manual of HKSP-R80.
2. Set the switches S801, S802 and S803 of the S-BUS/Ethernet converter (S) as follows:  
S801-1, 3 to 8 : OFF  
S801-2 : ON  
S802-4 : ON  
S803-3 : OFF  
Set other switches in accordance with the environment by referring to “1-2-3. Functions of the On-Board Switches” and “1-4. Names and Functions of Switches and Indicators”.
3. Set the switches S802 and S803 of the S-BUS/Ethernet converter (P) as follows:  
S802-4 : ON  
S803-3 : ON  
Set other switches in accordance with the environment by referring to “1-2-3. Functions of the On-Board Switches” and “1-4. Names and Functions of Switches and Indicators”.

## Setting the network connection (IP address)

### Note

The following procedure assumes that Ethernet is set as described below :

- Subnet mask is set to “192.168.0.X”.
- The LAN is dedicated for this system and no equipment other than that shown in the figure is connected to the LAN.

1. Set up the PC② as follows:  
IP address: “192.168.0.10”  
Subnet mask: “255.255.255.0”  
For details of how to make these settings, refer to the manuals supplied with the PC or network card.
2. Set up the routing switcher controller (HKSP-R80) as follows using the PC①.  
For details of how to make these settings, refer to Section “4. IP Address Setting” in the installation manual of HKSP-R80.  
IP ADDRESS setting : 192.168.0.11  
TERM PORT setting : 1001  
LOG PORT setting : 8001  
SNET MASK setting : 255.255.255.0  
TERM T OUT setting : 10
3. Set up the S-BUS/Ethernet converter (S) as follows using the PC④.  
For details of how to make these settings, refer to “1-7. Setting Network Connection (IP Address).”  
IP ADDRESS setting : 192.168.0.12  
TERM PORT setting : 1001  
LOG PORT setting : 8001  
SNET MASK setting : 255.255.255.0  
OPT IP setting : 192.168.0.13  
OPT 1 PORT setting : 8201  
TERM T OUT setting : 10
4. Set up the S-BUS/Ethernet converter (P) as follows using the PC③.  
For details of how to make these settings, refer to “1-7. Setting Network Connection (IP Address).”  
IP ADDRESS setting : 192.168.0.13  
TERM PORT setting : 1001  
LOG PORT setting : 8001  
SNET MASK setting : 255.255.255.0  
OPT IP setting : 192.168.0.12  
OPT 1 PORT setting : 8201  
TERM T OUT setting : 10



## Connection

### Note

Turn off the power of all equipment before starting to connect the equipment.

1. Connect the respective DATA connectors of the routing switcher controller (HKSP-R80), S-BUS/Ethernet converter (S) and S-BUS/Ethernet converter (P) to the Ethernet switch using (straight) Ethernet cables.
2. Connect the network connector of the PC② to the Ethernet switch using a (straight) Ethernet cable.
3. Connect the S-BUS equipment using a coaxial cable. For details of the connections, refer to “5. System Connection” in the installation manual of HKSP-R80.

## Turning on the equipment

1. Turn on the power of all equipment.  
Communication between the S-BUS/Ethernet converter (S) and the S-BUS/Ethernet converter (P) starts, thus enabling control of the routing switcher of the secondary station from the remote control panel of the third-level station.

## Setting the S-BUS equipment

< Ethernet Connection between PC② and routing switcher controller HKSP-R80 (Connection 1)>

1. Start up the terminal emulator on PC② .
2. Select the network connection (Ethernet LAN) for the connection method.
3. Before starting connection, set the destination IP address (or target IP address or host IP address) and the connection port (TCP/IP port) as follows. Then start connection.  
IP address : “192.168.0.11”  
Connection port : “1001”  
The PC is connected to the routing switcher controller HKSP-R80 and the initial screen of the terminal appears.
4. Set the respective items by referring to the system setup manual of HKSP-R80.

< Ethernet Connection between PC② and S-BUS/Ethernet converter (P) (Connection 2)>

1. Start up the terminal emulator on PC②.
2. Select network connection (Ethernet LAN) for the connection method.
3. Before starting connection, set the destination IP address (or target IP address or host IP address) and the connection port (TCP/IP port) as follows. Then start connection.  
IP address: “192.168.0.13”  
TCP/IP port: “1001”  
The PC is connected to the S-BUS/Ethernet converter (P) and the initial screen of the terminal appears.
4. Set the respective items by referring to Section “2. Setup”.



## Section 2 Setup

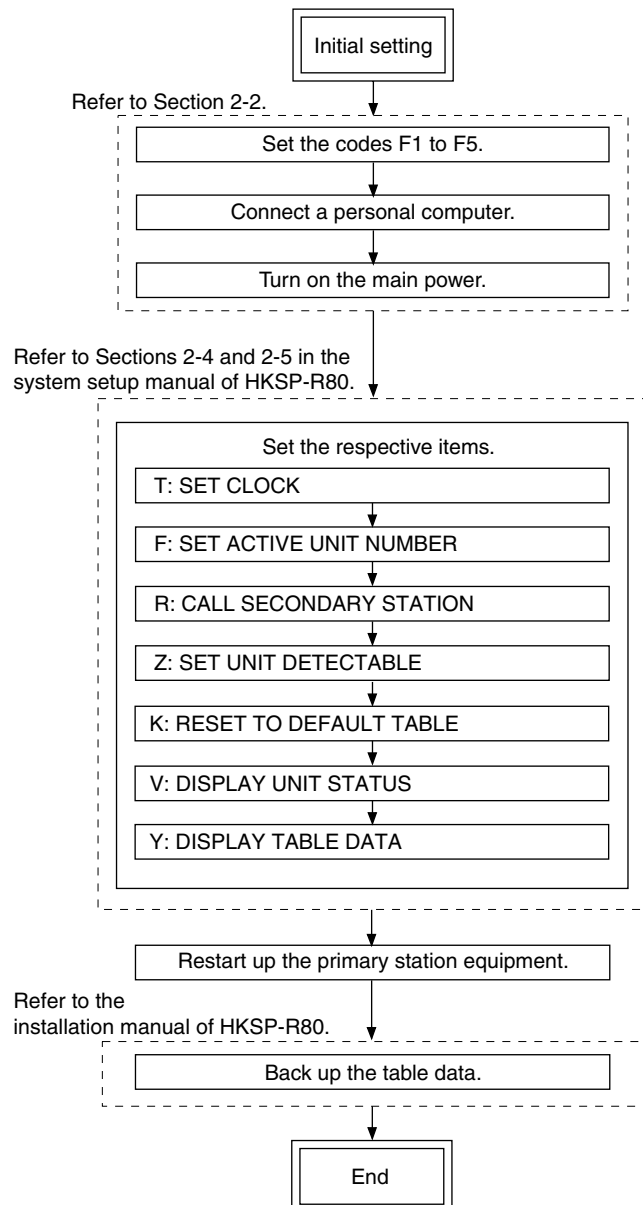
### 2-1. Introduction

The S-BUS subnet (third-level station) is set up from the S-BUS/Ethernet converter (P).

This section describes only the differences of the setup procedure between the HKSP-R80 and BZR-IF820. Read the system setup manual of HKSP-R80 at the same time.

#### 2-1-1. Flow Chart of Setup Procedure

Flow chart of the setup procedure is shown.



#### 2-1-2. Symbols Used in This Manual

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

- All keys are enclosed in boxes. (Ex. **Ctrl**, **Enter**)
- The numerical keys in the text mean keys **0** to **9**.
- The alphabet keys in the text mean keys **A** to **Z**.
- The cursor key in the text mean the **↑**, **↓**, **←**, and **→** keys.
- When two keys are to be pressed together, they are joined by the “-”. (Ex. **Ctrl** - **X**)

## 2-2. Preparation

1. Setting the secondary station  
Set the station ID (2 to 254).  
(Refer to manual of the secondary station.)
2. Connect this unit to the secondary station.  
(Refer to Section 1-1-3.)
3. Set a PC. (Setting the F1 to F5 codes.)  
Set the codes of F1 to F5 in accordance with the following table referring to the document of terminal emulator program.

	Key name	Command
F1	F1	^[ [ 17 ~
F2	F2	^[ [ 18 ~
F3	F3	^[ [ 19 ~
F4	F4	^[ [ 20 ~
F5	F5	^[ [ 21 ~

4. Connecting this unit to the PC  
In the case of RS-232C : Use the RS-232C cable and connect the PC to the REMOTE3 connector.  
In the case of Ethernet : Use the dedicated cable and connect the LAN hub to the DATA connector.
5. Setting the communication conditions of the PC  
In the case of RS-232C : Transfer speed : 38.4 kbps,  
Data bit : 8 bits, No parity,  
No check.  
In the case of Ethernet : Set the IP address of the terminal emulator program to the same IP address of this unit.  
Set the port No.1001.  
**Note**  
This port No. is the value that is set in the entry item “TERM PORT” of “1-7. Setting Network Connection (IP Address)”.

6. Turning on the power.  
Turn on the power of all the equipment on the S-BUS data link.  
The system status screen appears on the PC monitor.  
(Refer to Section 2-3.)

### Note

Wait for about one minute or more after turning on the power, before starting the setting.  
Operation of the equipment may be unstable immediately after the power is turned on.

7. Let the primary station menu screen appear on the display. (Refer to Section 2-3.)  
When the **Ctrl** – **X** are pressed on the system status screen, the display shows the primary station menu screen. Perform the respective settings that are shown in Section 2-4 of the system setup manual of HKSP-R80 from the primary station menu screen.

When the system is connected using Ethernet, a maximum of 16 people can work to set up at the same time. However, the same item cannot be worked by multiple people at the same time.

If you want to disconnect the Ethernet LAN cable, you should terminate all of the terminal software and BZR-2000 that you have started up. Then, disconnect the Ethernet LAN cable.

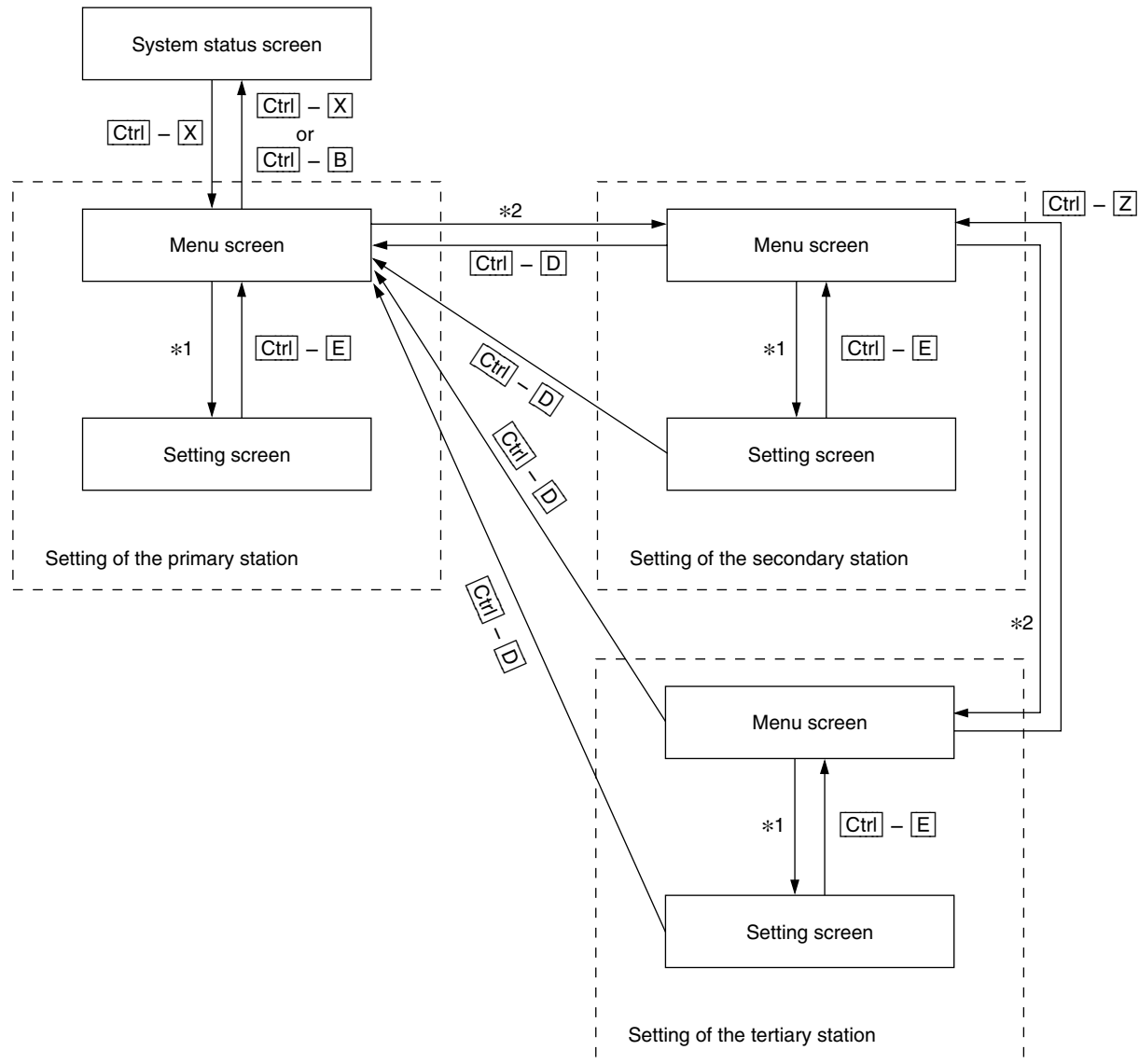
### Note

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

## 2-3. Display Screens, and Moving between the Display Screens

The setup display consists of the following three types of screen.

- System status screen : Displays the status in which the routing system is operating.
- Menu screen : Displays the menu for setting the router system.
- Setting screen : Displays the setting items of each menu.



\*1 : The menu items can be selected in the following two ways. See the “Menu screen” on the next page.

\*2 : See the “Menu screen/secondary station” on page 2-5.

## System Status Screen

The system status screen appears when the main power of the primary station (S-BUS/Ethernet converter (P)) is turned on.

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

### Note

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

On the system status screen, result of the self-diagnostics that is performed at the power-on is displayed. The status messages are displayed while the system is operating. Refer to “3-2. Function Check” in the system setup manual of HKSP-R80.

## Menu Screen

The menu screen appears when **Ctrl** – **X** are pressed on the system status screen. (Primary station menu screen)  
All of the menu items that are used for system setup are displayed on the primary station menu screen.

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

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

Perform the respective settings from the primary station menu screen by referring to Section 2-4 in the system setup manual of HKSP-R80.

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

```
SONY ROUTING SYSTEM BZR-IF820 V1.00
ITEM
ROM CHECK SUM          A43F
RAM READ AND WRITE     OK
S-BUS LINK TERMINATE    OK
REAL TIME CLOCK        OK
STARTED
Ctrl-X to SYSTEM SETUP MENU
2002.06.23-20.16 <003>S-BUS LINK DISCONNECTED TO CHANNEL A
2002.06.23-20.16 <003>S-BUS LINK DISCONNECTED TO CHANNEL B1
2002.06.23-20.16 <003>S-BUS LINK DISCONNECTED TO CHANNEL B2
```

Example of system status screen when the main power is turned on

```
SONY ROUTING SYSTEM SETUP MENU      BZR-IF820 V1.00      STATION NUMBER 3

MODIFICATION COMMAND

F: SET ACTIVE UNIT NUMBER           Q: CHANGE CROSSPOINT
R: CALL SECONDARY STATION           Z: SET UNIT DETECTABLE

MAINTENANCE COMMAND

K: RESET TO DEFAULT TABLE          T: SET CLOCK
V: DISPLAY UNIT STATUS              W: SYSTEM STATUS LOG
X: DISPLAY S-BUS COMMUNICATION      Y: DISPLAY TABLE DATA

Ctrl-X/B:QUIT SETUP MENU
```

Example of primary station menu screen

## Menu screen/secondary station

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

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

Perform the respective settings from the secondary station menu screen by referring to Section 2-5 in the system setup manual of HKSP-R80.

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

### Note

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

SONY ROUTING SYSTEM SETUP MENU		BZR-IF820 V1.00	STATION NUMBER 3
MODIFICATION COMMAND			
F: SET ACTIVE UNIT NUMBER	Q: CHANGE CROSSPOINT		
R: CALL SECONDARY STATION	Z: SET UNIT DETECTABLE		
MAINTENANCE COMMAND			
K: RESET TO DEFAULT TABLE	T: SET CLOCK		
V: DISPLAY UNIT STATUS	W: SYSTEM STATUS LOG		
X: DISPLAY S-BUS COMMUNICATION	Y: DISPLAY TABLE DATA		
Ctrl-X/B:QUIT SETUP MENU			

Example of secondary station menu screen

## Setting Screen

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

The actual setting is performed on this screen.

Because the screens are different depending upon the setting items, the screen examples are shown in the respective setting items. (Sections 2-4 and 2-5 in the system setup manual of HKSP-R80.)

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

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

### Note

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





## Section 3

### Troubleshooting

#### Failed to download the program data.

- Condition : The hardware is reset (i.e. the RESET button is pressed) or the power is off while writing data into flash ROM.
- Countermeasure :
- When failure occurred when downloading the S-BUS driver software :  
The IF-844 board or IF-1160 board module should be replaced. Contact your local Sony Sales Office/Service Center.
  - When failure occurred when downloading the application program:  
Set the switch S804 on the CPU-355 board to “F” and press the switch S1201. Then download the application program through Ethernet again.

#### Connection is suddenly lost while the terminal is being set up using Ethernet.

- Cause : If no key entry is made for a certain period of time (default setting is 10 minutes), the BZR-IF820 detects a timeout and the connection is stopped from the BZR-IF820 side automatically.
- Countermeasure : Set the timeout time to an appropriate value by referring to “1-7. Setting Network Connection (IP Address)”.

##### Note

If the timeout time is set to 0, it means the timeout time is infinite. When the timeout is set to 0 and you quit BZR-IF820 without shutting down the connection between the PC and BZR-IF820 that has already been connected before using Ethernet, the corresponding port is left open and cannot be closed except by a hardware reset.

#### Backup CPU board is started but cannot be connected to the PC via Ethernet.

- Cause : A mismatch of information occurred between the backup board and the PC network when the CPU-355 board is switched over between the main CPU-355 board and the backup board.
- Countermeasure : Initialize the information regarding the PC network as described in the following procedure.

##### Initialization procedure

- (1) Display the MS-DOS prompt or command prompt screen.
- (2) Enter the following command from the command line.  
“arp -d -d XXX.XXX.X.XXX”  
(Enter the IP address set to this unit to the XXX.XXX.X.XXX portion. “-d” indicates a space.)
- (3) Press the **Enter**.

#### BZR-IF820 does not start up even though the program is installed successfully.

- Condition : “CODE \*\*\*\*\*” keeps scrolling on status indicator. (\* : Numerics)
- Cause : The Install Key is not entered correctly.
- Countermeasure : Enter the Install Key correctly again by referring to Section 1-6.

#### System status screen is not displayed when the power is turned on.

- Countermeasure :
- Check whether the unit is correctly connected by the cable to the PC.
  - Check that the switch S803-3 on the CPU-355 board is set to ON. (Refer to Section 1-2-3.)
  - Check the communication conditions by referring to Section 2-2.
  - Reinstall the program data correctly again by referring to Section 1-5.

#### Version number of the software is not correctly displayed in the V:DISPLAY UNIT STATUS menu or the message “FAIL” appears.

- Countermeasure : Check that the program data is correctly installed by referring to Section 1-5.
- If the version number of the software is not correctly displayed even though the program data is correctly installed, a component must be replaced. Contact your local Sony Sales Office/Service Center.



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