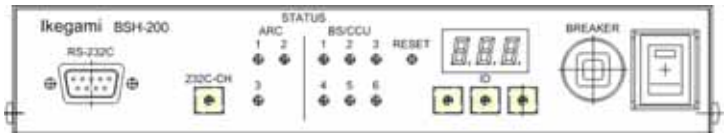
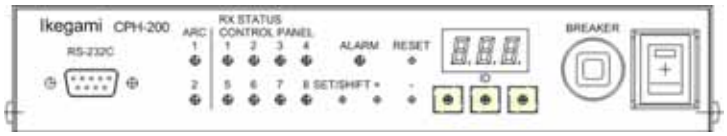




CPH-200

Control Panel Hub

BSH-200

Base Station Hub

Setup Manual

Ikegami

CPH-200/BSH-200 0512 VOL1 (E)

CPH-200 Control Panel Hub
BSH-200 Base Station Hub

Setup Manual

Index

1. Outline

1.1 Outline

CPH-200 is designed as the HUB unit(CP HUB) for Ikegami's network capable control system.

And BSH-200 is designed as the HUB unit(BS HUB) of which employs command converter for Ikegami's existing non-network capable BS/CCU to use under network control system.

1.2 Feature

1) CPH-200

●8 Control Panel connection capability

8 Control Panel connection available and panels can be connected with current CP Cables. No external power supply required for control panels since DC+12V is supplied from CPH-200 via CP cable.

●2 Network Port facility

Employs 2 network connectors for 2 nodes. In connecting multiple HUBs, number of BS/CCU and Control Panel connection can be increased.

2)BSH-200

●6 BS/CCU connection capability

Control Panel connection available and panels can be connected with current CP Cables. Employs CPUs for each channel to have compatibility with both current ICCP(Ikegami Camera Control Protocol) and new Network Command.

●3 Network Port facility

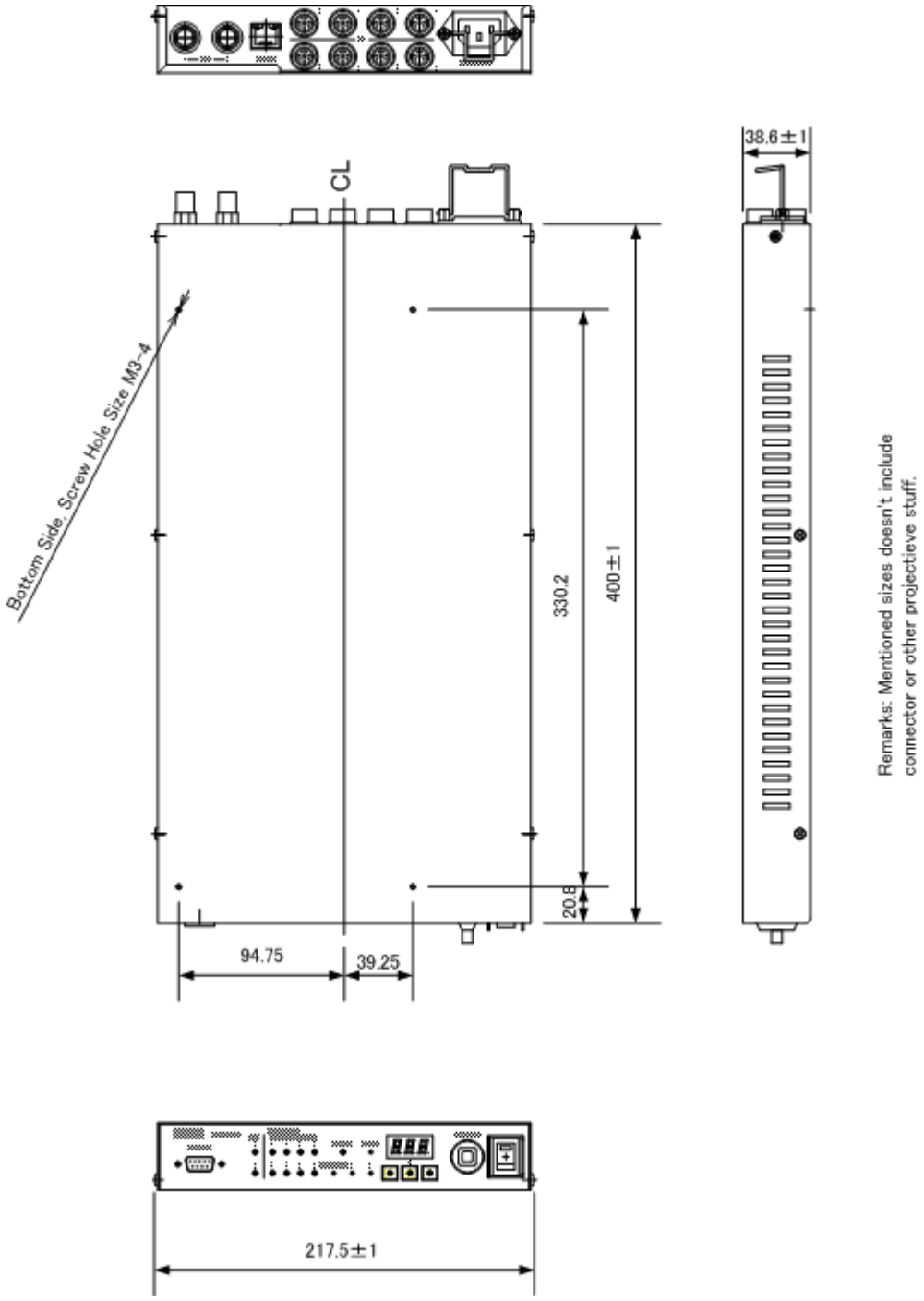
Employs 3 network connectors for 3 nodes. In connecting multiple HUBs, number of BS/CCU and Control Panel connection can be increased.

●Preview output facility

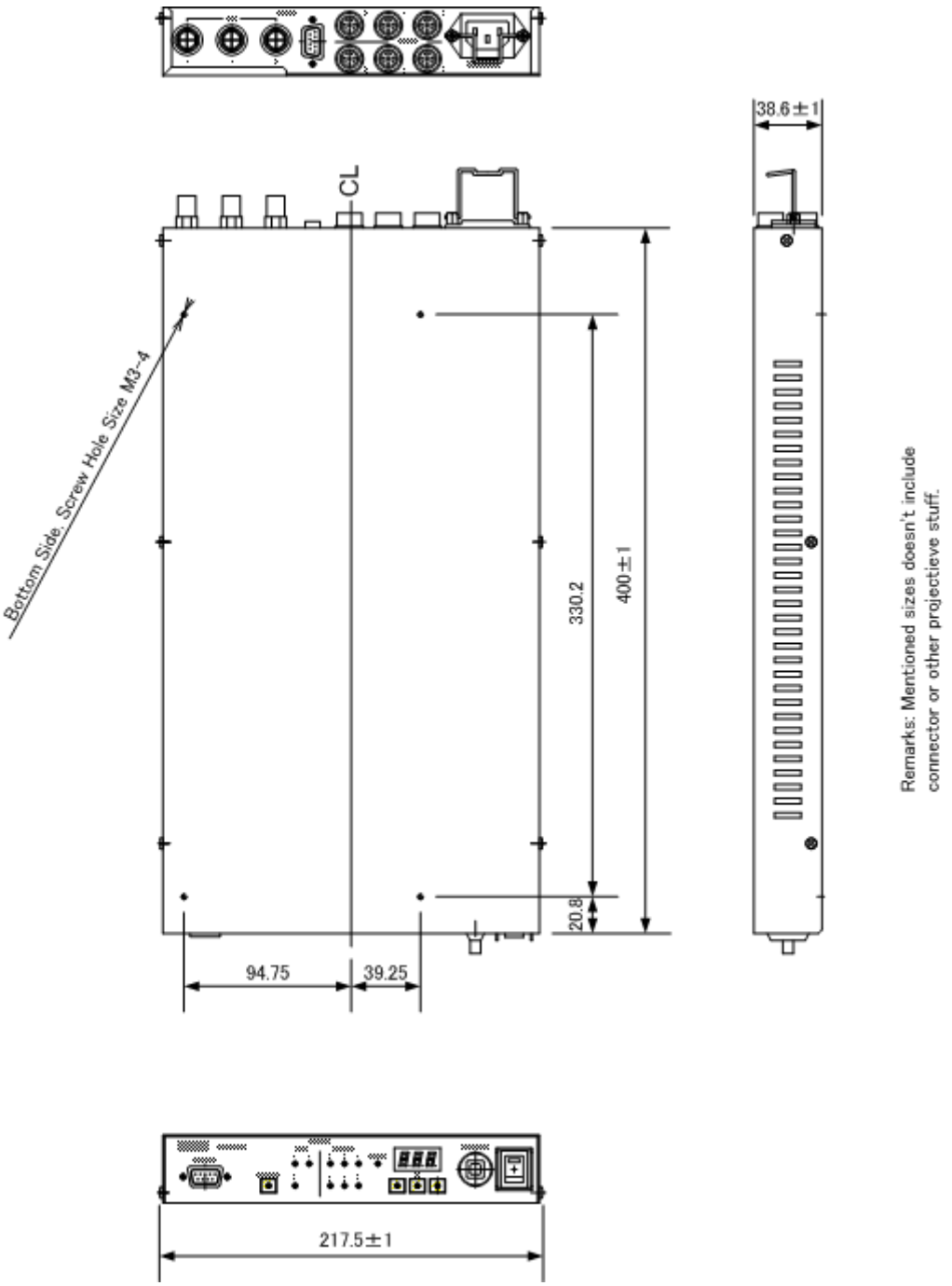
Employs preview connector as same as current OCP has, preview function is available even if in case of assignable operation.

1.3 External Appearance

1)CPH-200



2) BSH-200

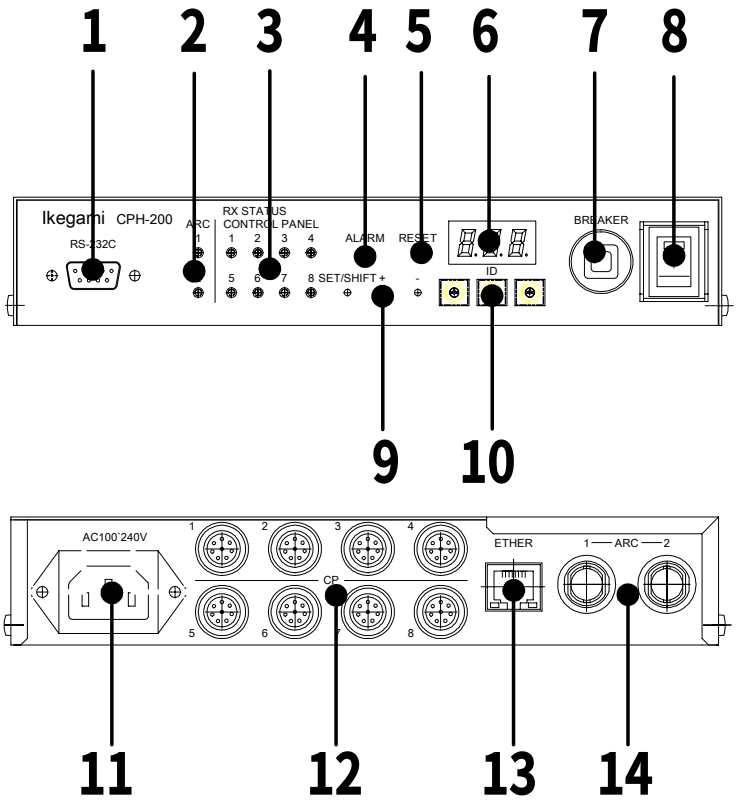

38.6±1
CL
Bottom Side. Screw Hole Size M3-4
330.2
400±1
20.8
94.75
39.25
217.5±1
Remarks: Mentioned sizes doesn't include
connector or other projectieve stuff.

2. Nomenclature and Functions

Explanation shows on next double spread pages.

2-2 2. Nomenclature and Functions

1)CPH-200



1. RS-232C Connector
2. ARC RX STATUS Indicator
3. CONTROL PANEL RX STARUS Indicator
4. ALARM Indicator
5. RESET Switch
6. Status Indicator
7. Circuit Breaker
8. Power Switch
9. Setup Switch
10. Network ID switch
11. AC Inlet
12. CP Connector
13. LAN Connector
14. Network Connector

1. RS-232C Connector

Used for PC connection in case of network expansion or version-up of installed firmware.
*Functionality doesn't work as of Dec. 2005.

2. ARCNET STATUS Indicator

Data receiving indicator for network connected on rear coaxial connector. Green lamp lights when data received. The receiving statuses of two BNC connectors are indicated.

3. CONTROL PANEL RX STATUS Indicator

Control panel command receiving indicator. Green lamp lights when command data are receiving. It indicates condition of eight command lines for eight coaxial command connectors.

4. ALARM Indicator

Will light in case of something wrong with CP-HUB(CPH-200) or network.

5. RESET Switch

This is the RESET switch for CP-HUB(CPH-200). If this unit is something wrong, it is possible to reset with this switch. Push this switch by thin tip of stick to reset.

6. Status Indicator

Network ID or Error Notice will be indicated.

7. Breaker(3A)

Will work when abnormal electric current is detected. In case of breaker button pops up, cure the problem and push breaker button to original position.

8. Power Switch

For Power On/Off control. Green lamp of switch will light when power turns on.

9. Setup switch

Used for various setup.

10. Network ID Switch

Network ID can be set by center and right rotary switch. ID can be set from 01h to FEh (= 1 to 255 by decimal system).

The one ID code can not be duplicated in the same network. If the ID code is doubled, it may cause system error to every unit connected to the same network.

Refer Chapter 3.2 for detail setup.

Left rotary switch is used for various setup.

11. AC Inlet

This is AC Inlet connector for CP-HUB(CPH-200). AC100 to AC240V automatic sensing.

12. CP Connector

Used for connection to network capable control panel.

Do not connect non network capable panels. The control panel doesn't work and may cause system failure.

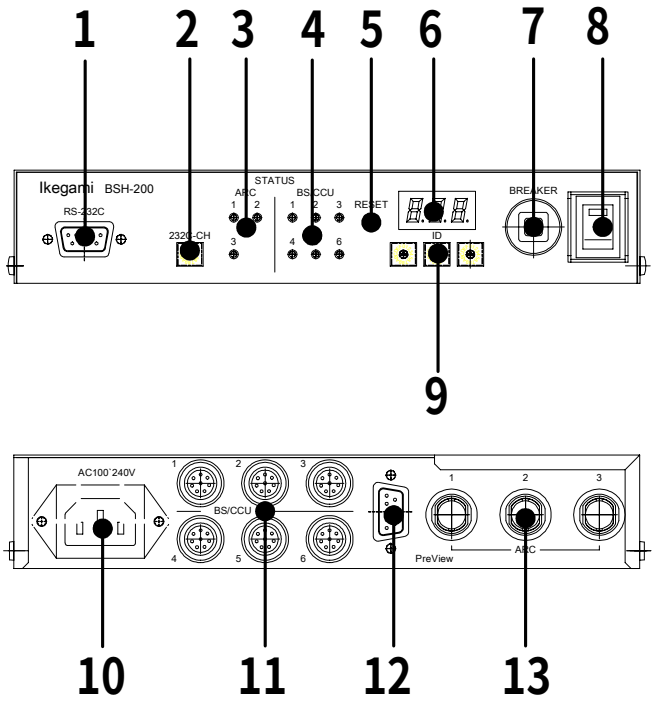
13. LAN Connector

LAN Connector for system expansion. Not used as of Dec. 2005.

14. Network Connector

Used for network connection. Use F-Type BNC connector included in standard accessory for cable connection. Cable and Termination should be 75ohm type. Refer Chapter 4 for detail of network.

2)BSH-200



1. RS-232C Connector
2. RS-232C Channel Selection Switch
3. ARC RX STATUS Indicator
4. BS/CCU STATUS Indicator
5. RESET Switch
6. Status Indicator
7. Circuit Breaker
8. Power Switch
9. Network ID Setup Switch
10. AC Inlet
11. BS/CCU Connector
12. Preview Connector
13. Network Connector

1. RS-232C Connector

For PC connection in case of firmware version up.

2. RS-232C channel selection switch

Channel selection switch for firmware version up with PC.

3. ARC RX STATUS Indicator

Data receiving indicator for network connected on rear coaxial connector. Green lamp lights when data received. The receiving statuses of 3 BNC connectors are indicated.

4. BS/CCU STATUS Indicator

Data receiving indicator for BS/CCU command connected on rear coaxial connector. Green lamp lights when data received. Red lamp will light when any conversion error between current serial command and network command detected. Red lamp will light temporally in case to detect processing delay of camera head or BS/CCU. The statuses of 6 BNC connectors are indicated.

5. RESET Switch

This is the RESET switch for BS-HUB(BSH-200). If this unit is something wrong, it is possible to reset with this switch. Push this switch by thin tip of stick to reset.

6. Status Indicator

Network ID or Error Notice will be indicated.

7. Breaker(3A)

Will work when abnormal electric current is detected. In case of breaker button pops up, cure the problem and push breaker button to original position.

8. Power Switch

For Power On/Off control. Green lamp of switch will light when power turns on.

9. Network ID Setup Switch

Network ID can be set by center and right rotary switch. ID code can be set from 01h to FFh (= 1 to 255 by decimal system).

The one ID can not be duplicated in the same network. If the ID code is doubled, it may cause system error to every unit connected to the same network.

Network ID is assigned to each BS/CCU. First assigned ID becomes Channel-1, Channel-2 will be 1 added ID number to Channel-1 and Channel-3 will be 2 added ID number to Channel-1. And following channels will be numbered incremental manner.

Refer Chapter 3.2 for detail setup.

Left rotary switch is used for various setup.

10. AC Inlet

This is AC Inlet connector for CP-HUB(CPH-200). AC100 to AC240V automatic sensing.

11. BS/CCU Connector

Used for connection to non-network capable control panel with CP Cable.

12. Preview Connector

In pressing OCP preview switch, terminal of selected BS/CCU will be connected. This allows preview function even though panel assignment operation case.

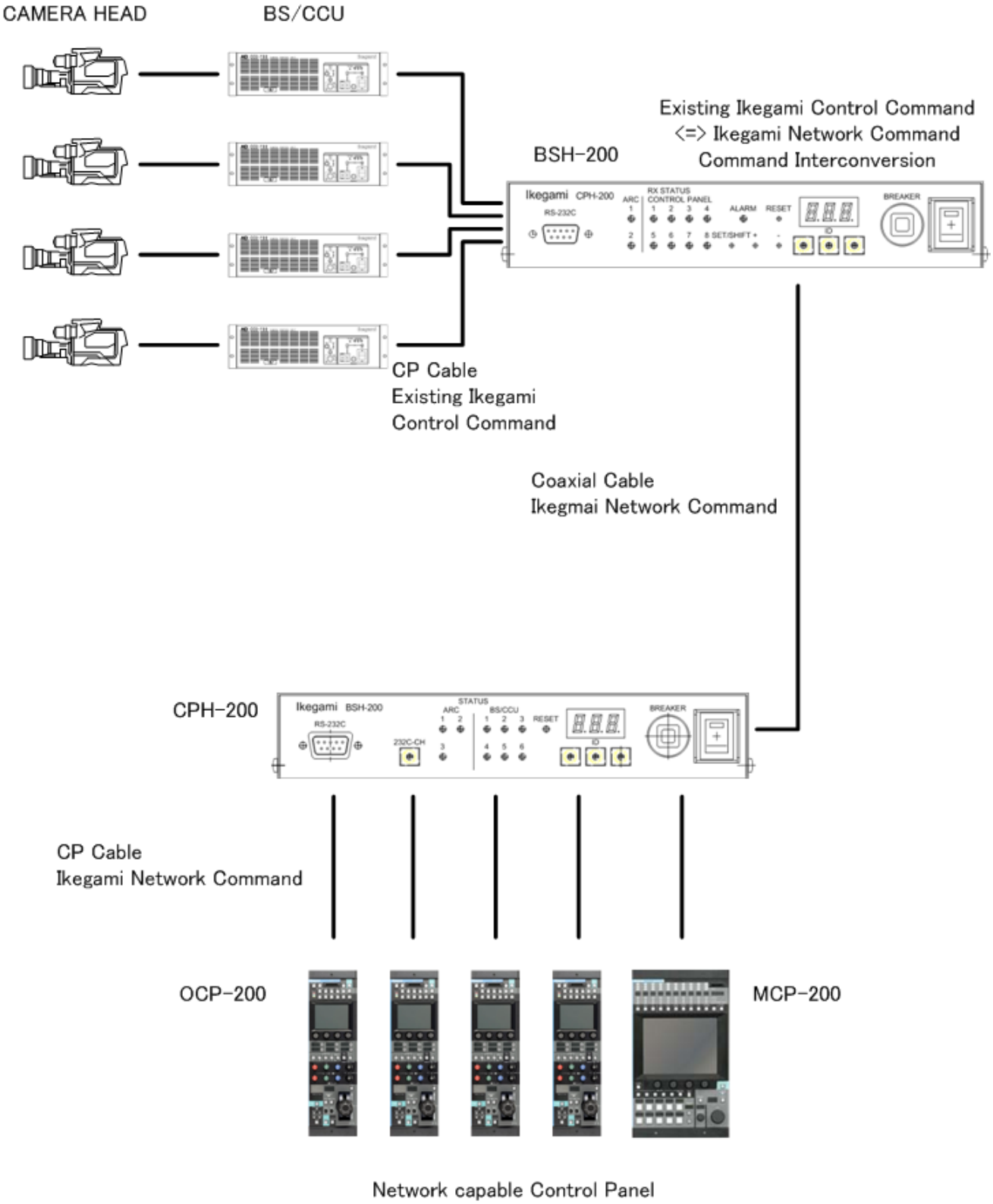
13. Network Connector

Used for network connection. Use F-Type BNC connector included in standard accessory for cable connection. Cable and Termination should be 75ohm type. The end of each network line should be terminated with 75ohm termination plug.

3. Network

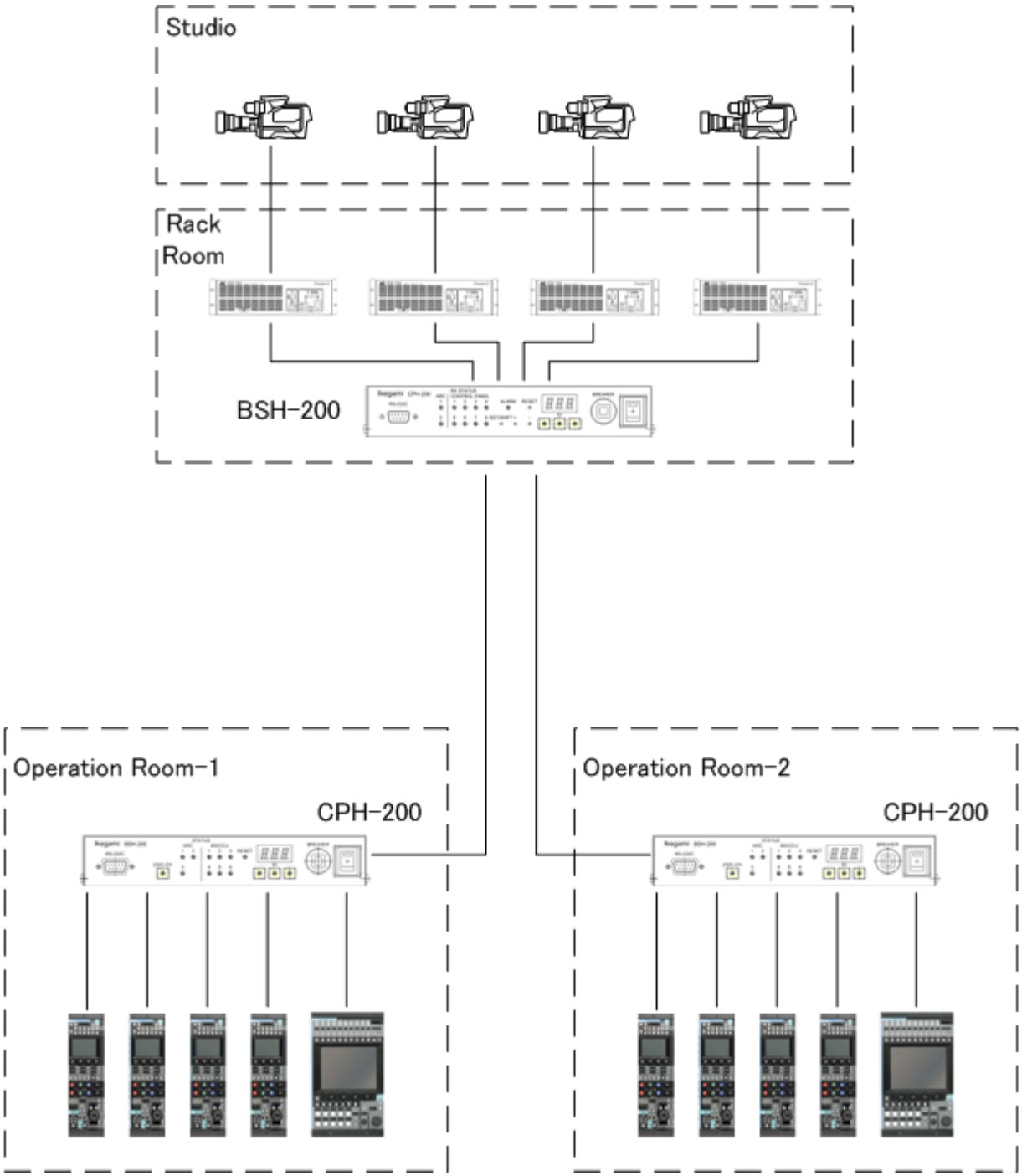
In the Chapter 3, explanation shows for practical operation together with setup/connection manner of related equipments.

3.1 Concept image of Network

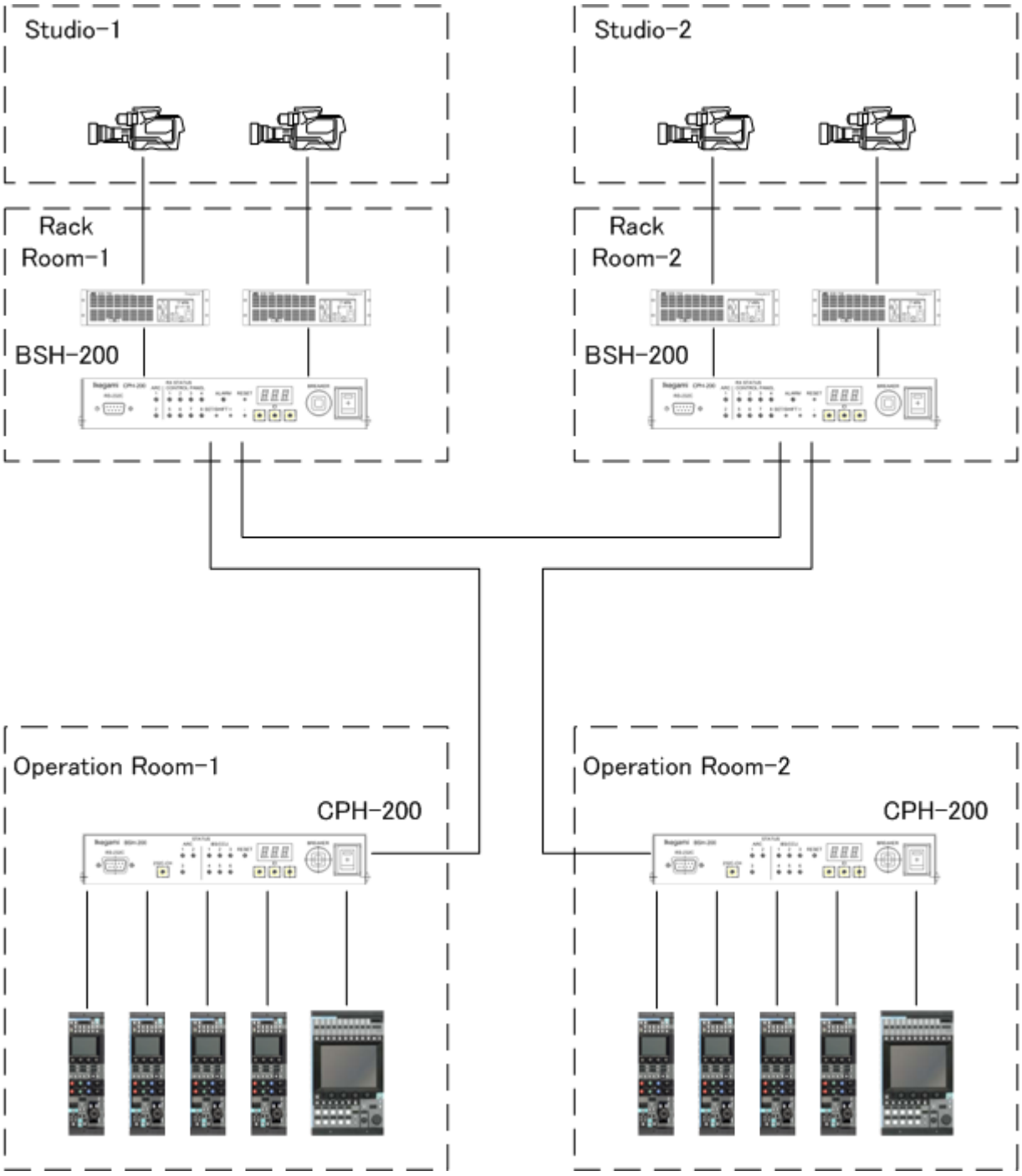


3.2 Typical System Configuration

1) 1 Studio and 2 Control Room Case



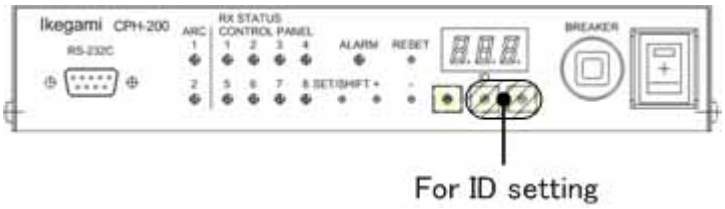
2) 2 Studio and 2 Control Case



3.3 Network ID Setup

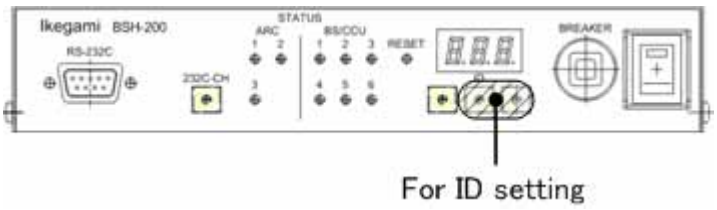
Up to 255 Node(Unit) can be connected to 1 network (Node of HUB is excluded from number of Node.). Each Unit(Node) connected to the network should be assigned network . Network ID can be set from 1h to FFh (= 1 to 255 by decimal system).
The one ID code can not be duplicated in the same network. If the ID code is doubled, it may cause system error to every unit connected to the same network.

1) CPH-200 Setup



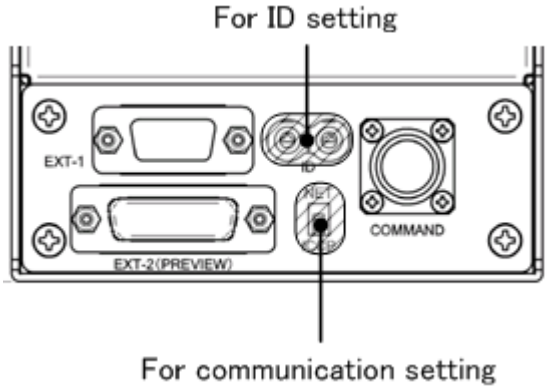
A CP-HUB employs 11 Nodes consisting of 6 for Control Panel, 1 for expansive CPU block and 2 for network coaxial cable connection. Since 6 control panel Nodes and 2 network Nodes are used for HUB function, it is not necessary to assign network ID for those 8 nodes. ID for CP-HUB should be set FFh(= 255 in decimal classification) in case of single CP-HUB system, and ID should be set FEh or FDh etc. by decrement manner in case of multiple CP-HUB system. ID for expansive CPU Block is set by center and right rotary switch on front panel.

2）BS-200 Setup



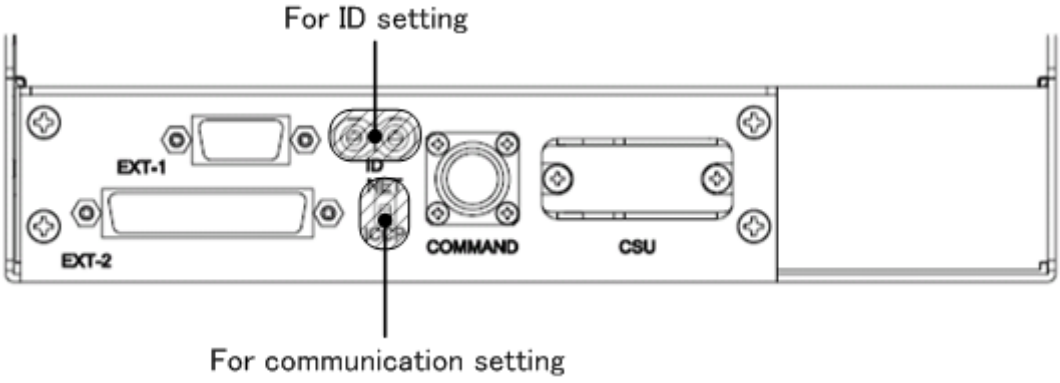
A BS-HUB employs 8 Nodes consisting of 6 for Control Panel, 1 for expansive CPU block and 2 for network coaxial cable connection. Since 6 control panel Nodes and 2 network Nodes are used for HUB function, it is not necessary to assign network ID for those 8 nodes. Network ID can be set by center and right rotary switch. This ID reflects BS/CCU Connector-1 and the ID will be numbered to connected BS/CCU. the code can be set from 1h to FEh (= 1 to 255 by decimal system). 1 added number to the set ID on front panel reflects Channel-2 of command conversion block, then this will become ID for BS/CCU connected to connector-2. As same as channel-2, 5 added number to the set ID on front panel reflects Channel-6 of command conversion block, then this will become ID for BS/CCU connected to connector-6. Please note ID is set to every channel even though BS/CCU is not connected.

3） OCP-200 Setup



To set ID with rotary switches located on connector panel of bottom side. In case of network connection, set “NET” with slide switch.

4) MCP-200 Set-up



To set ID with rotary switches located on connector panel of bottom side. In case of network connection, set “NET” with slide switch.

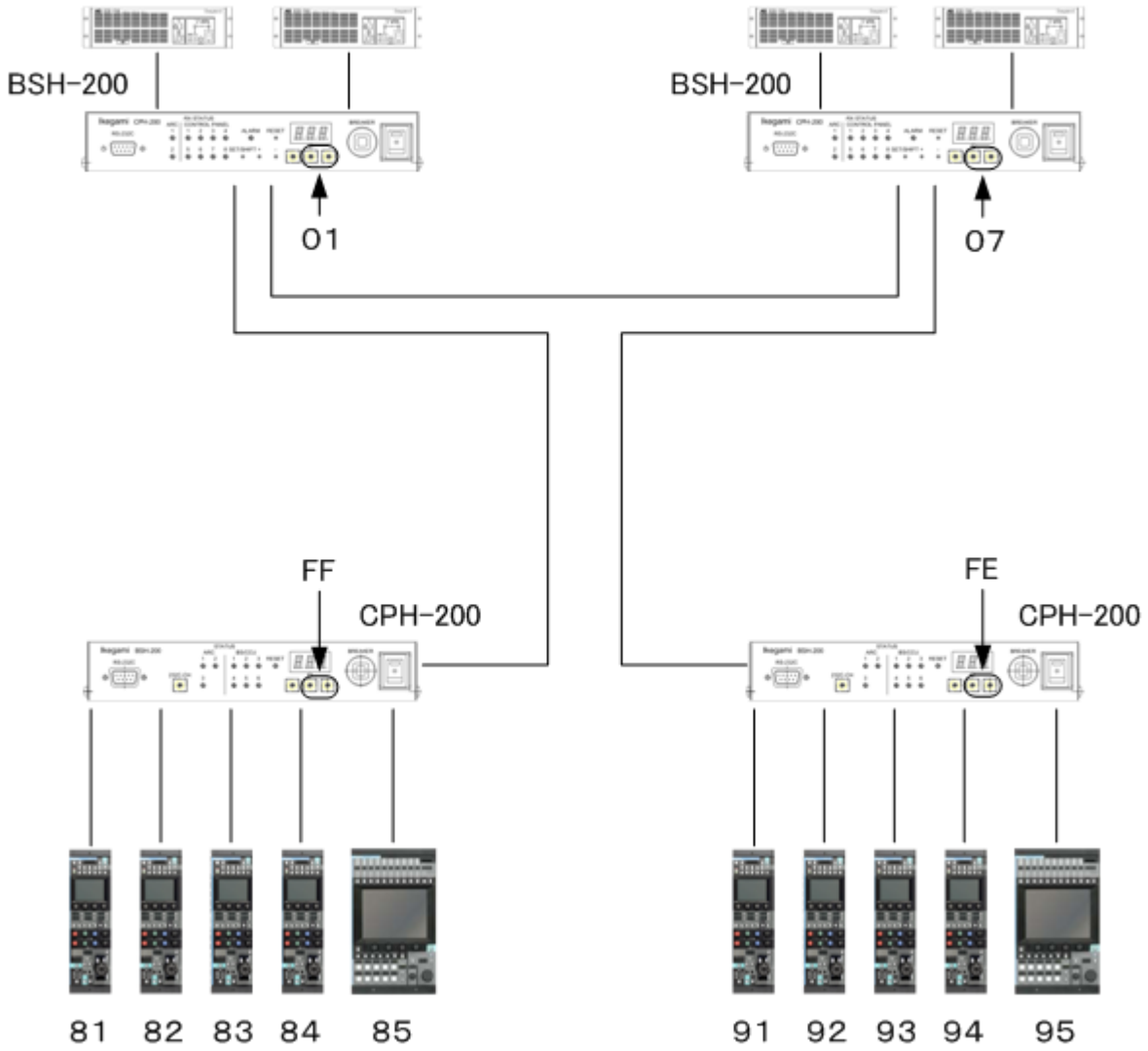
5) Example of Network ID Setup

Following is an example for system mentioned previously.

ID of which is assigned by rotary switches on the front of BS-HUB reflects to 6 command conversion block inside. Those ID looks to be assigned to rear BS/CCU connectors. Although IDs for CP-HUB, OCP and MCP can be assigned by any numbering pattern, we recommend to decide your own numbering pattern by the system management point of view. ID for control panels of which connected to CP-HUB doesn't apply automatic numbering function such as BS-HUB.

BS/CCU Connector	1	2	3	4	5	6
Network ID	01	02	03	04	05	06

BS/CCU Connector	1	2	3	4	5	6
Network ID	07	08	09	0A	0B	0C



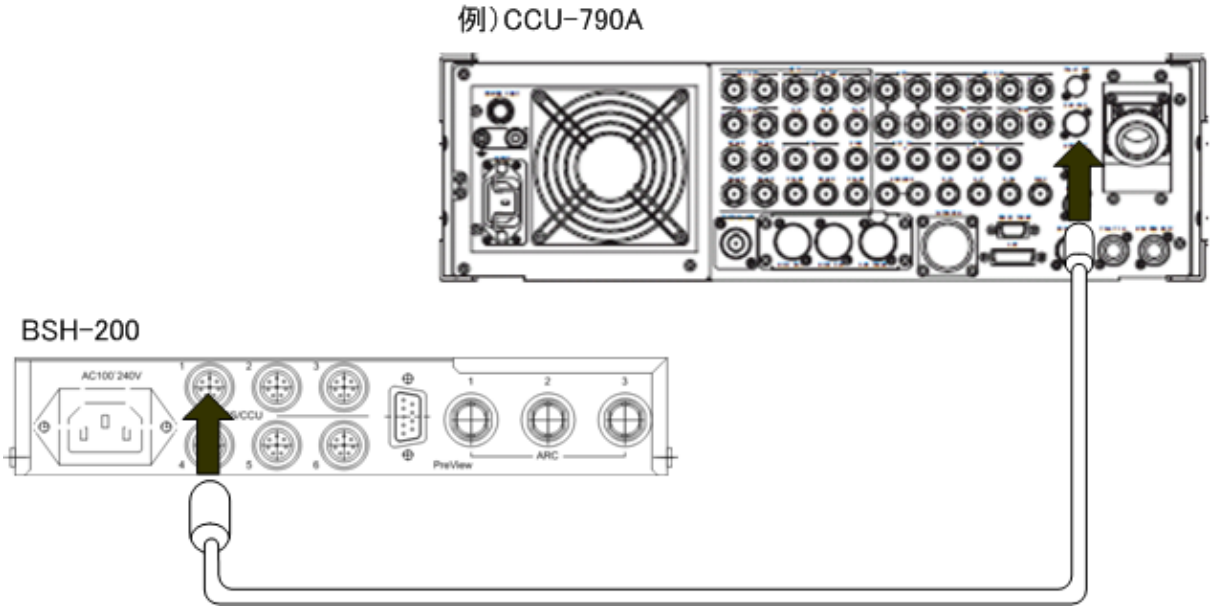
4. Connection

Regarding to network connection, BUS Connection, Star Connection and Tree Connection are available.

Although connection between BSH-200 and BS/CCU, CPH-200 and network capable control panel must be Star Connection, BUS connection, Star connection and mixed them of Star connection are available for connection between HUBs.

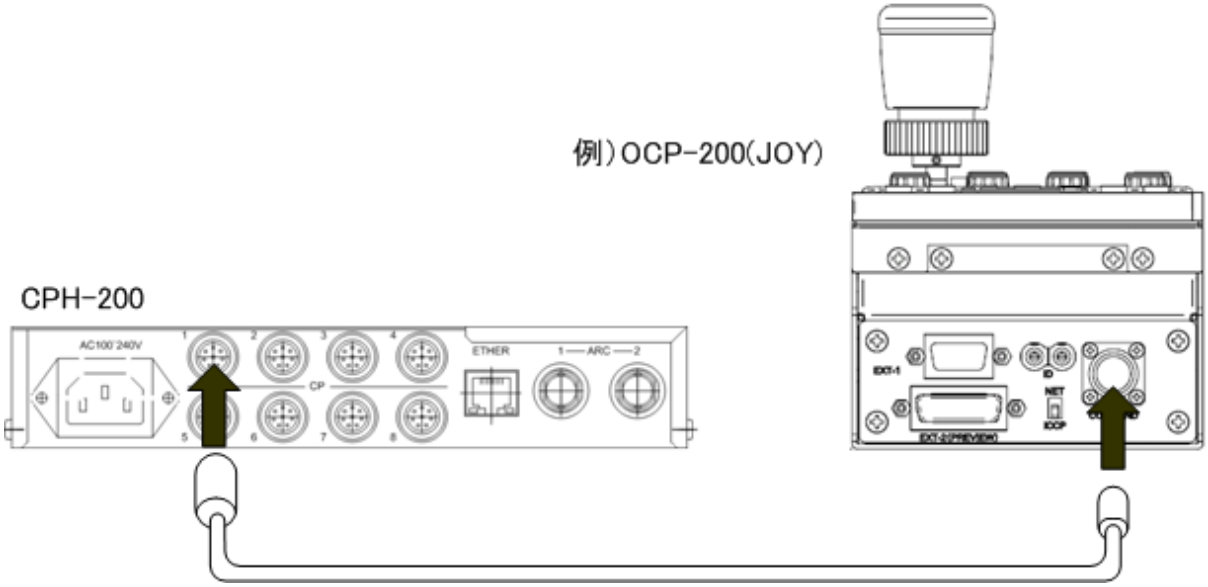
1) Connection between BSH-200 and BS/CCU

BSH-200 and BS/CCU are connected by Ikegami CP Cable and control command is existing Ikegami control command(ICCP). CP cable should be connected to OCP/CCP command connector of BS/CCU and connected to BS/CCU connector of BSH-200. Maximum cable length is 300m(tentative specification).



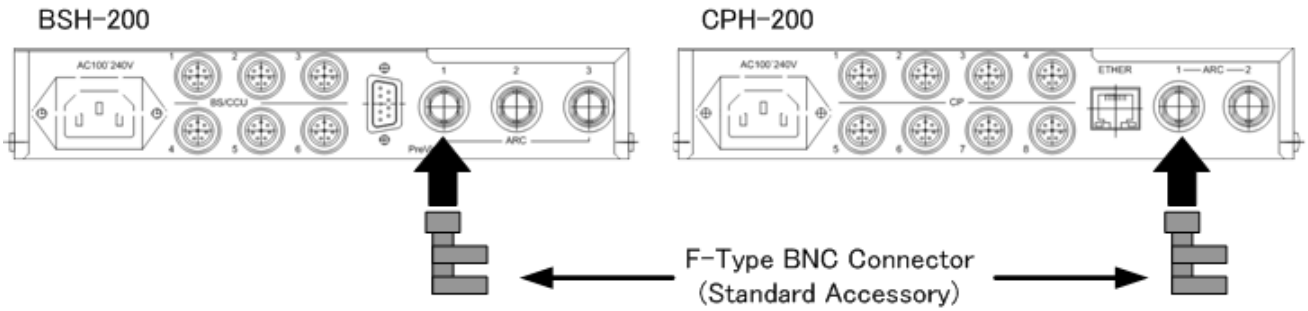
2) Connection between CPH-200 and network capable Control Panel

CPH-200 and network capable Control Panel are connected by Ikegami CP Cable and command is Ikegami network command(ICNP). CP Cable should be connected to CP Connector of CPH-200 and connected to Command Connector of Control Panel. Cable length should be from 1m to 30m(tentative specification).



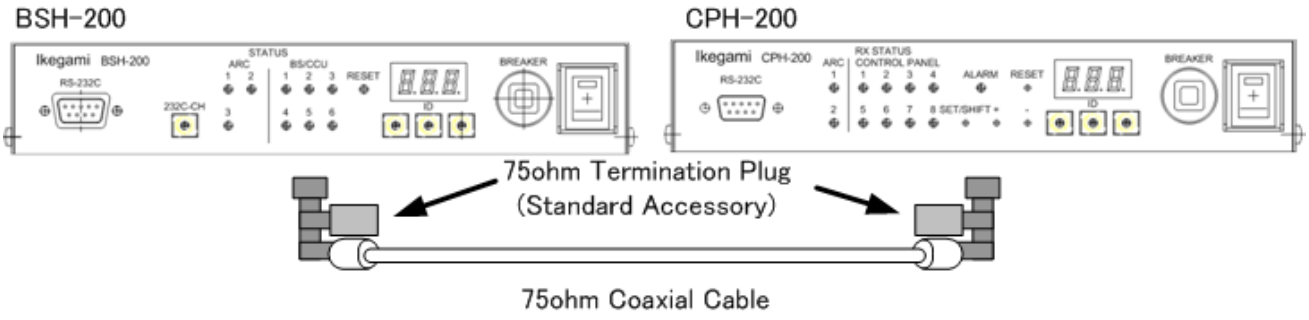
3) Connection between HUBs

To use F-Type BNC connector for network connection of HUB.



Star Connection

To connect HUBs one by one, F-Type BNC connector of both HUB should be terminated by 75ohm termination plug included in standard accessory. Cable length should be from 1m to 400m(tentative specification).



Bus Connection

It is possible to connect multiple HUBs and network capable units to one network system. Use F-Type BNC connector(standard accessory) or T-Type BNC connector between Nodes. And the both end of BUS should be terminated by 75ohm termination plug. Use 75ohm coaxial cable for the connection and the cable length of end to end of BUS should be from 1m to 280m(tentative specification). Maximum number of Node to be connected is ten for one BUS.