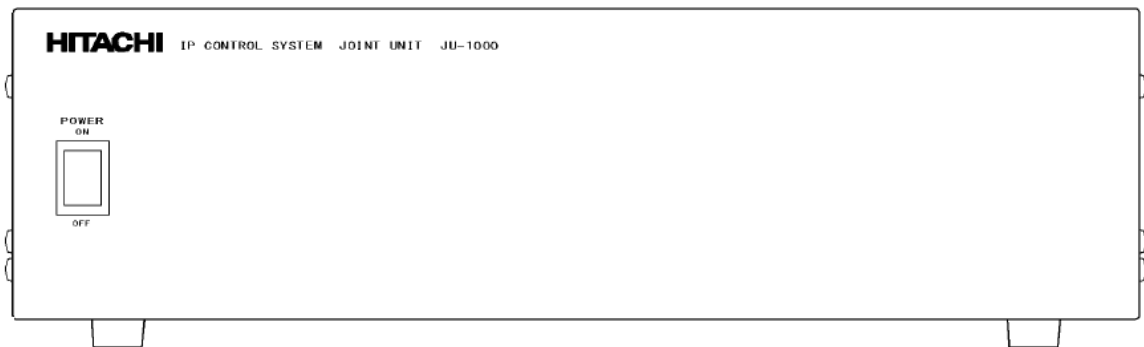


HITACHI

IP CONTROL SYSTEM JUNCTION UNIT

JU-1000

OPERATING INSTRUCTIONS



Hitachi Kokusai Electric

Safety Instructions

Carefully read all safety messages in this manual and safety Instructions on your equipment. Follow recommended precautions and safe operating practices.

SAFETY ALERT SYMBOL



This is the "Safety Alert Symbol." This symbol is used to call your attention to items or operations that could be dangerous to you or other persons using this equipment. Read these messages and follow these instructions carefully.

It is essential that you read the instructions and safety regulations before you attempt to assemble or use this equipment.

The definitions of signal words are as follows:



WARNING: Personal danger

Warning notes indicate any condition or practice, which if not strictly observed, could result in personal injury or possible death.



CAUTION: Possible damage to equipment

Caution notes indicate any condition or practice, which if not strictly observed or remedied, could result in damage or destruction of the equipment.



NOTE: Notes indicate an area or subject of special merit, emphasizing either the product's capabilities or common errors in operation or maintenance.



TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS COLOR CAMERA TO RAIN OR MOISTURE.

AVERTISSEMENT

Afin d'éviter tout risque d'incendie ou d'électrocution, ne pas exposer l'appareil à la pluie ou à l'humidité.
Afin d'écartier tout risque d'électrocution, garder le coffret fermé.
Ne confier l'entretien de l'appareil qu'à un personnel qualifié.

VORSICHT

Um Feuergesfahr und die Gefahr eines eiektrischen Schiages zu vermeiden, darf das Gerät weder Regen noch Feuchtigkeit ausgesetzt werden.
Um einen elektrischen Schiag zu vermeiden, darf das Gehäuse richt geöffnet werden.
Überiassen Sie Wartungsarbeiten stets nur einem Fachmann.

Important Safety Instructions

- 1. Read Instructions**

All the safety and operating instructions should be read before the product is operated.
- 2. Retain Instructions**

The safety and operating instructions should be retained for future reference.
- 3. Heed Warnings**

All warnings on the product and the operating instructions should be adhered to.
- 4. Follow Instructions**

All operating and use instructions should be followed.
- 5. Cleaning**

Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
- 6. Attachments**

Do not use attachments not recommended by the product manufacturer as they may cause hazards.
- 7. Water and Moisture**

Do not use this product near water - for example, near a bath tub, wash bowl, kitchen sink, or laundry tub; in a wet basement; or near a swimming pool; and the like.
- 8. Accessories**

Do not place this product on an unstable cart, stand, tripod, bracket, or table. The product may fall, causing serious injury to a child or adult and serious damage to the product. Use only with a cart, stand, tripod, bracket, or table recommended by the manufacturer, or sold with the product. Any mounting of the product should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.
- 9. Moving**

A product and cart combination should be moved with care. Quick stops, excessive force, and uneven surfaces may cause the product and cart combination to overturn.
- 10. Ventilation**

Slots and openings in the cabinet are provided for ventilation and to ensure reliable operation of the product and to protect it from overheating, and these openings must not be blocked or covered. The openings should never be blocked by placing the product on a bed, sofa, rug, or other similar surface. This product should not be placed in a built-in installation such as a bookcase or rack unless proper ventilation is provided or the manufacturer's instructions have been adhered to.
- 11. Power Sources**

This product should be operated only from the type of power source indicated on the marking label. If company. For products intended to operate from battery power, or other sources, refer to the operating instructions.
- 12. Grounding or Polarization**

This product is equipped with a three-wire grounding-type plug a plug having a third (grounding) pin. This plug will only fit into a grounding-type power outlet. This is a safety feature. If you are unable to insert the plug into the outlet, contact your electrician to replace your obsolete outlet. Do not defeat the safety purpose of the grounding-type plug.
- 13. Power-Cord Protection**

Power-supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, paying particular attention to cords at plug, convenience receptacles, and the point where they exit from the product.
- 14. Lightning**

For added protection for this product during a lightning storm, or when it is left unattended and unused for long periods of time, unplug it from the wall outlet. This will prevent damage to the product due to lightning and power-line surges.
- 15. Overloading**

Do not overload wall outlets, extension cords or integral convenience receptacles as this can result in a risk of fire or electric shock.
- 16. Object and Liquid Entry**

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind on the product.
- 17. Inflammable and Explosive Substance**

Avoid using this product where there are gases, and also where there are inflammable and explosive substances in the immediate vicinity.

18. Heavy Shock or Vibration

When carrying this product around, do not subject the product to heavy shock or vibration.

19. Servicing

Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

20. Damage Requiring Service

Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:

- a. When the power-supply cord or plug is damaged.
- b. if liquid has been spilled, or objects have fallen into the product.
- c. If the product has been exposed to rain or water.
- d. If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions as an improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- e. If the product has been dropped or damaged in any way.
- f. When the product exhibits a distinct change in performance-this indicates a need for service.

21. Replacement Parts

When replacement parts are required, be sure the service technician has used replacement parts specified by the manufacturer or have the same characteristics as the original part. Unauthorized substitutions may result in fire, electric shock, or other hazards.

22. Safety Check

Upon completion of any service or repairs to this product, ask the service technician to perform safety checks to determine that the product is in proper operating condition.

23. Wall or Ceiling Mounting

The product should be mounted to a wall or ceiling only as recommended by the manufacturer.

24. Heat

The product should be situated away from heat sources such as radiators, heat registers, stoves, or other products (including amplifiers) that produce heat.

Wichtige Sicherheitsanweisungen

- 1. Alle Anweisungen lesen.**

Vor Betrieb des Erzeugnisses sollten alle Sicherheits- und Bedienungsanleitungen gelesen werden.
- 2. Die Anweisungen aufbewahren.**

Die Sicherheits- und Bedienungsanleitungen sollten fünftigen Bezug aufbewahrt werden.
- 3. Warnungen beachten.**

Die Warnungen auf dem Erzeugnis und in den Bedienungsanleitungen sollten beachtet werden.
- 4. Anweisungen befolgen.**

Alle Bedienungsanleitung- und Verwendungsanweisungen sollten befolgt werden.
- 5. Reinigung**

Den Stecker des Geräts vor Reinigung aus der Steckdose ziehen. Keine flüssigen Reinigungsmittel oder Aerosolreiniger verwenden. Zum Reinigen einen feuchten Lappen verwenden.
- 6. Zubehör**

Nur vom Hersteller des Erzeugnisses empfohlenes Zubehör verwenden, da es sonst zu Störungen kommen kann.
- 7. Wasser und Feuchtigkeit**

Dieses Erzeugnis nicht in der Nähe von Wasser verwenden - z.B. in der Nähe einer Badewanne, eines Waschbeckens, einer Küchenspüle, eines Waschzubehörs, in einem nassen Keller, in der Nähe eines Schwimmbekens usw.
- 8. Aufstellung**

Das Erzeugnis nicht auf einen instabilen Wagen, Stand, Dreifuß, Träger oder Tisch stellen. Das Erzeugnis kann sonst herunterfallen und ein Kind oder einen Erwachsenen schwer verletzen. Außerdem kann das Gerät schwer beschädigt werden. Nur mit einem Wagen, Stand, Dreifuß, Träger oder Tisch verwenden, der vom Hersteller empfohlen oder mit dem Erzeugnis verkauft worden ist. Für jegliche Anbringung sollten die Anweisungen des Herstellers befolgt werden, und das vom Hersteller empfohlene Anbringungszubehör sollte verwendet werden.
- 9. Eine Kombination von Erzeugnis und Wagen sollte vorsichtig bewegt werden.**

Schneller Halt, übermäßige Krafteinwirkung und unebene Oberflächen können Umkippen der Kombination von Erzeugnis und Wagen verursachen.
- 10. Ventilation**

Schlitze und Öffnungen im Gehäuse dienen der Ventilation. Sie sind für zuverlässigen Betrieb des Gerätes und Schutz vor Überhitzung erforderlich und dürfen nicht blockiert oder abgedeckt werden. Die Öffnungen sollten niemals dadurch blockiert werden, daß das Gerät auf ein Bett, ein Sofa, einen Teppich oder eine ähnliche Oberfläche gestellt wird. Das Gerät sollte nur dann in Einbauinstallation wie in einem Bücherschrank oder einem Gestell verwendet werden, wenn angemessene Ventilation vorgesehen ist bzw. Die Anweisungen des Herstellers befolgt worden sind.
- 11. Stromversorgung**

Dieses Erzeugnis sollte nur an der auf dem Typenschild angegebenen Stromversorgungsart betrieben werden. Wenn Sie nicht sicher sind, was für eine Stromversorgung Sie haben, so wenden Sie sich bitte an Ihren Erzeugnishändler oder an das lokale Elektrizitätswerk. Beziehen Sie sich für Batteriebetrieb oder andere Stromquellen vorgesehene Erzeugnisse bitte auf die Bedienungsanleitungen.
- 12. Erdung oder Polarisierung**

Dieses Erzeugnis ist mit einem Schutzkontaktstecker mit drei Leitern ausgerüstet, mit einem Erdungskontakt. Dieser Stecker paßt nur in eine schuko-Steckdose. Dies ist eine Sicherheitsmaßnahme. Wenn Sie den Stecker nicht in die Steckdose stecken können, so wenden Sie sich bitte an Ihren Elektriker, damit er die veraltete Schutz des Schutzkontaktsteckers unwirksam macht.
- 13. Netzkabelschutz**

Netzkabel sollten so verlegt werden, daß möglichst nicht darauf getreten wird und daß sie nicht eingeklemmt werden, mit besonderer Beachtung der Kabel an Stackern, Verlängerungskabeln und dem Austritt des Kabels aus dem Erzeugnis.

14. Blitzschlag

Für zusätzlichen Schutz des Erzeugnisses während eines Gewitters oder bei Nichtverwendung für lange Zeit den Stecker aus der Steckdose ziehen. Dies verhindert Beschädigung durch Blitzschlag und Netzspannungstöße.

15. Überlastung

Wandsteckdosen, Verlängerungskabel und eingebaute Bequemlickeitssteckdosen nicht überlasten, da dies Feuer oder elektrischen Schlag verursachen kann.

16. Eindringen von Fremdkörpern und Flüssigkeit

Niemals Objekte irgendwelcher Art durch die Öffnungen in das Gerät schieben, da diese unter hoher Spannung stehende Teile berühren oder kurzschließen können, wodurch es zu Feuer oder elektrischem Schlag kommen kann. Niemals Flüssigkeiten irgendwelcher Art auf das Erzeugnis verschütten.

17. Entflammbare und explosive Substanzen

Vermeiden Sie Verwendung dieses Erzeugnisses an Orten mit Gasen bzw. entflammbaren oder explosiven Substanzen in der direkten Umgebung.

18. Starke stöße oder Vibrationen

Setzen Sie das Erzeugnis beim Transport nicht starken Stößen oder Vibrationen aus.

19. Wartung

Versuchen Sie nicht, dieses Erzeugnis selbst zu warten, da Sie sich durch Öffnen bzw. Entfernen von Abdeckungen hohen Spannungen und sonstigen Gefährdungen aussetzen können. Beziehen Sie sich für jegliche Wartung auf qualifiziertes Wartungspersonal.

20. Beschädigung, die Wartung erfordert

Ziehen Sie den Stecker dieses Erzeugnisses aus der Steckdose und wenden Sie sich an qualifiziertes Wartungspersonal, wenn eine der folgenden Bedingungen vorliegt:

- a. Wenn das Netzkabel oder der Stecker beschädigt ist.
- b. Bei Eindringen von Flüssigkeit oder Fremdkörpern in das Gerät.
- c. Wenn das Erzeugnis Regen oder Wasser ausgesetzt worden ist.
- d. Wenn das Erzeugnis bei Befolgen der Bedienungsanleitungen nicht normal funktioniert.

Nur die Regelelemente verstellen, die in den Bedienungsanleitungen behandelt werden, da unangemessene Einstellung anderer Regelelemente Beschädigung verursachen kann und oft beträchtliche Arbeit durch einen qualifizierten Techniker erfordert, um das Erzeugnis wieder, zu normalem Betrieb zurückzubringen.

- e. Wenn das Erzeugnis fallen gelassen oder beschädigt worden ist.
- f. Wenn das Erzeugnis eine klare Änderung in der Leistung zeigt-dies weist darauf hin, daß Wartung erforderlich ist.

21. Ersatzteile

Wenn Ersatzteile erforderlich sind, darauf achten, daß der Wartungstechniker nur die vom Hersteller festgelegten Ersatzteile oder Teile mit den gleichen Charakteristiken wie die ursprünglichen Teile verwendet. Unautorisierte Ersatzteile können Feuer, elektrischen Schlag oder sonstige Gefährdungen verursachen.

22. Sicherheitsprüfung

Bitten Sie den Wartungstechniker nach der Vollendung von Wartung oder Reparaturarbeiten an diesem Erzeugnis um die Durchführung von Sicherheitsprüfungen, um zu bestimmen, daß das Erzeugnis im angemessenen Betriebszustand ist.

23. Anbringung an der Wand oder an der Decke

Das Erzeugnis sollte nur entsprechend den Empfehlungen des Herstellers an einer Wand oder an der Decke angebracht werden.

24. Wärme

Das Erzeugnis sollte fern von Wärmequellen wie Radiatoren, Heizwiderständen, Öfen und anderen Wärme erzeugenden Erzeugnissen (einschließlich Verstärkern) aufgestellt werden.

Mises en Garde Importantes

1. Lire les instructions

Lire toutes les instructions de sécurité et de fonctionnement avant de faire fonctionner l'appareil.

2. Conserver ces instructions

Conserver les instructions de sécurité et de fonctionnement à des fins de référence ultérieure.

3. Tenir compte des avertissements

Tous les avertissements qui figurent sur l'appareil et dans le mode d'emploi devront être respectés.

4. Observer les instructions

Observer toutes les instructions de fonctionnement et d'utilisation.

5. Nettoyage

Avant de procéder au nettoyage, débrancher l'appareil de la prise secteur. Ne pas utiliser de produits de nettoyage liquides ou en aérosol.

Nettoyer l'appareil avec un chiffon humide.

6. Fixations

Ne pas utiliser de fixations non recommandées par le fabricant de l'appareil car elles pourraient être source de danger.

7. Eau et humidité

Ne pas utiliser l'appareil à proximité d'eau-par exemple près d'une baignoire, d'un lavabo, d'un évier ou d'un bac à lessive, dans un sous-sol humide, ou près d'une piscine, etc.

8. Accessoires

Ne pas placer l'appareil sur un chariot, un socle, un pied, un support ou une table instables. L'appareil pourrait tomber, blessant grièvement des enfants ou des adultes, et étant sérieusement endommagé. Utiliser exclusivement le chariot, le socle, le pied, le support ou la table recommandés par le fabricant, ou vendus avec l'appareil. Pour tout montage de l'appareil, respecter les instructions du fabricant, et utiliser à cette fin l'accessoire de montage recommandé par le fabricant.

9. L'appareil monté sur son chariot devra être déplacé avec précaution.

Des arrêts brusques, une force excessive et des surfaces irrégulières pourraient provoquer le renversement de l'ensemble appareil-chariot.

10. Ventilation

Les fentes et les ouvertures du coffret sont prévues pour la ventilation ainsi que pour garantir un fonctionnement en toute sécurité de l'appareil et le protéger de toute surchauffe, et ces ouvertures ne devront donc être ni obstruées ni recouvertes. Ne jamais obstruer les ouvertures en plaçant l'appareil sur un lit, un sofa, un tapis ou toute surface similaire. Ne jamais placer l'appareil dans un support confiné, par exemple une bibliothèque ou une étagère, sans ventilation suffisante ou sans respecter les instructions du fabricant.

11. Sources d'alimentation

L'appareil devra être alimenté exclusivement sur le type d'alimentation indiqué sur l'étiquette signalétique. Si l'on n'est pas sûr du type d'alimentation du local, consulter le revendeur de l'appareil ou la compagnie d'électricité locale. Pour les appareils qui fonctionnent sur batterie ou sur d'autres sources, voir le mode d'emploi.

12. Mise à la terre ou polarisation

L'appareil est doté d'une fiche trifilaire avec mise à la terre, dont la troisième broche assure la mise à la terre. Cette fiche ne rentrera que dans les prises trifilaires de mise à la terre. Ceci est une mesure de sécurité. Si la fiche ne rentre pas dans la prise, faire remplacer la prise défectueuse par un électricien. Ne pas rendre vaine la mesure de sécurité assurée par cette prise avec mise à la terre.

13. Protection du cordon d'alimentation

Acheminer les cordons d'alimentation de façon qu'on ne risque pas de marcher dessus ou de les coincer sous un objet placé dessus ou contre eux.

Faire particulièrement attention aux fiches des cordons, à la proximité des prises, et à l'endroit où ils ressortent de l'appareil.

14. Foudre

Pour renforcer la protection de l'appareil pendant un orage, ou si l'on s'en éloigne ou qu'on reste longtemps sans l'utiliser, le débrancher de la source d'alimentation. Ceci permettra d'éviter tout dommage de l'appareil dû à la foudre et aux surtensions de ligne.

15. Surcharge

Ne pas surcharger les prises, rallonges et prises multiples car cela pourrait entraîner un risque de feu ou de choc électrique.

16. Pénétration d'objets et de liquides

Ne jamais enfoncer d'objets d'aucune sorte dans les ouvertures de l'appareil car ils pourraient toucher des points de tension dangereuse ou court-circuiter des pièces, ce qui pourrait provoquer un feu ou un choc électrique. Ne jamais renverser de liquide d'aucune sorte sur l'appareil.

17. Substances inflammables et explosives

Eviter d'utiliser l'appareil en présence de gaz, ainsi qu'à proximité immédiate de substances inflammables et explosives.

18. Chocs ou vibrations violents

Lorsqu'on transporte l'appareil, ne pas le soumettre à des chocs ou des vibrations violents.

19. Réparations

Ne pas tenter de réparer l'appareil soi-même car le fait d'ouvrir ou de retirer les caches risque d'exposer l'utilisateur à des tensions dangereuses notamment. Confier toute réparation à un personnel qualifié.

20. Dommages nécessitant réparations

Débrancher l'appareil de la source d'alimentation et confier les réparations à un personnel qualifié dans les cas suivants:

- a. Lorsque le cordon d'alimentation ou sa fiche sont endommagés
- b. Si du liquide s'est renversé sur l'appareil ou que des objets sont tombés dedans
- c. Si l'appareil a été exposé à la pluie ou à l'eau.
- d. Si l'appareil ne fonctionne pas normalement lorsqu'on observe les instructions d'utilisation.

Ne régler que les commandes couvertes par le mode d'emploi ; en effet, un réglage incorrect des autres commandes pourrait entraîner des dommages et nécessiteront souvent des travaux de réparation coûteux par un technicien qualifié pour remettre l'appareil en état de marche.

- e. Si l'appareil est tombé ou qu'il a été endommagé.
- f. Si l'appareil affiche une nette modification de ses performances, cela signifie qu'il a besoin d'être réparé.

21. Pièces de rechange

Si l'on a besoin de pièces de rechange, veiller à ce que le technicien de réparation utilise exclusivement les pièces de rechange spécifiées par le fabricant ou des pièces ayant les mêmes caractéristiques que les pièces d'origine. Les pièces de rechange non autorisées risquent de provoquer un feu, un choc électrique et autres dangers.

22. Vérification de sécurité

Après tout travail d'entretien ou de réparation de l'appareil, demander au technicien de réparation d'effectuer les vérifications de sécurité pour s'assurer que l'appareil est en bon état de marche.

23. Montage au mur ou au plafond

L'appareil ne pourra être monté au mur ou au plafond que de la manière recommandée par le fabricant.

24. Chaleur

Eloigner l'appareil des sources de chaleur, telles que radiateurs, appareils de chauffage, cuisinières, et de tout produit engendrant de la chaleur (y compris les amplificateurs).

IMPORTANT NOTICE

For USA

These products have been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this product in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

WARNING

Changes or modifications not expressly approved by Hitachi Kokusai Electric responsible for compliance could void the user's authority to operate the equipment.

For Canada

This product does not exceed the class A/class B limits for radio noise emissions from digital apparatus as set out in the radio interference regulations.

Le présent appareil n'émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de classe A prescrites dans le règlement sur le brouillage radioélectrique édicté par le ministère des communications du Canada.

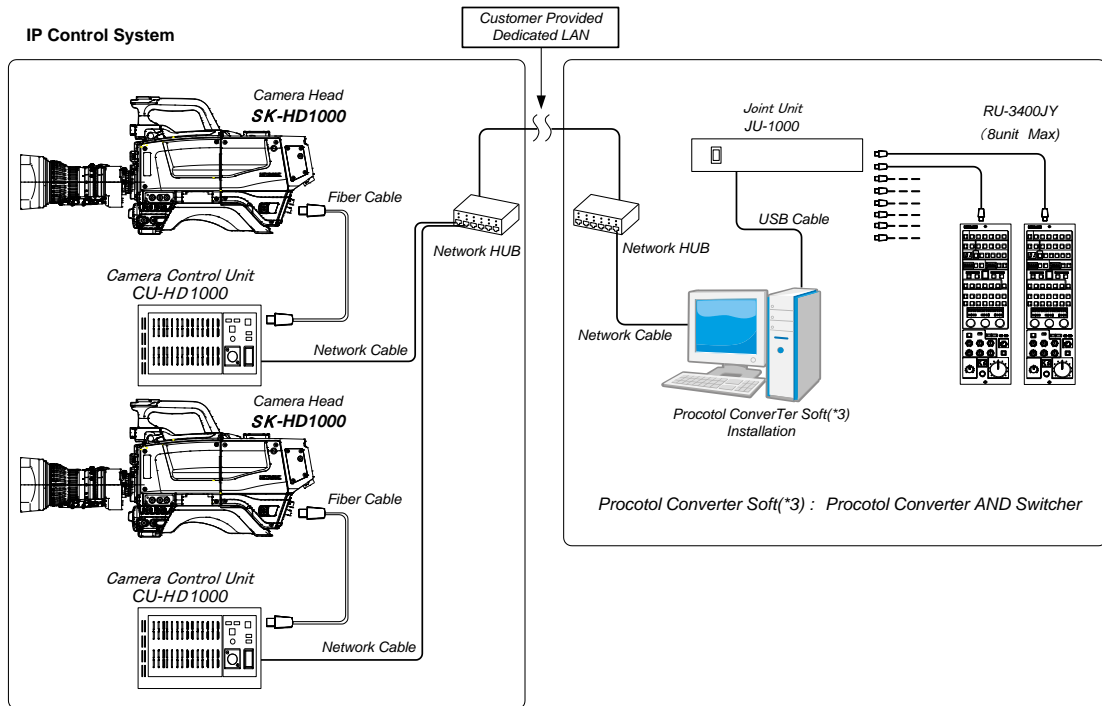
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Introduction

1. General

This system provides remote control of Hitachi HDTV production cameras via a customer provided data network. The expanded camera IP control system consists primarily of the data multiplexer/ serializer unit JU-1000. This unit is configured and controlled via the customer provided gateway PC via USB cable as shown below. The gateway PC provides the network access via standard TCP/IP for the remote control of the camera CCUs.



2. Features

(1) The HDTV camera remote control is provided via TCP/IP as follows:

- The control panel junction unit model JU-1000 is configured and controlled via HITACHI provided software using a standard PC.
- A standard USB port is used as the connection between the PC and the JU-1000.
- Eight (8) camera remote control panels can be directly connected to the JU-1000.

(2) Power supply details of the JU-1000

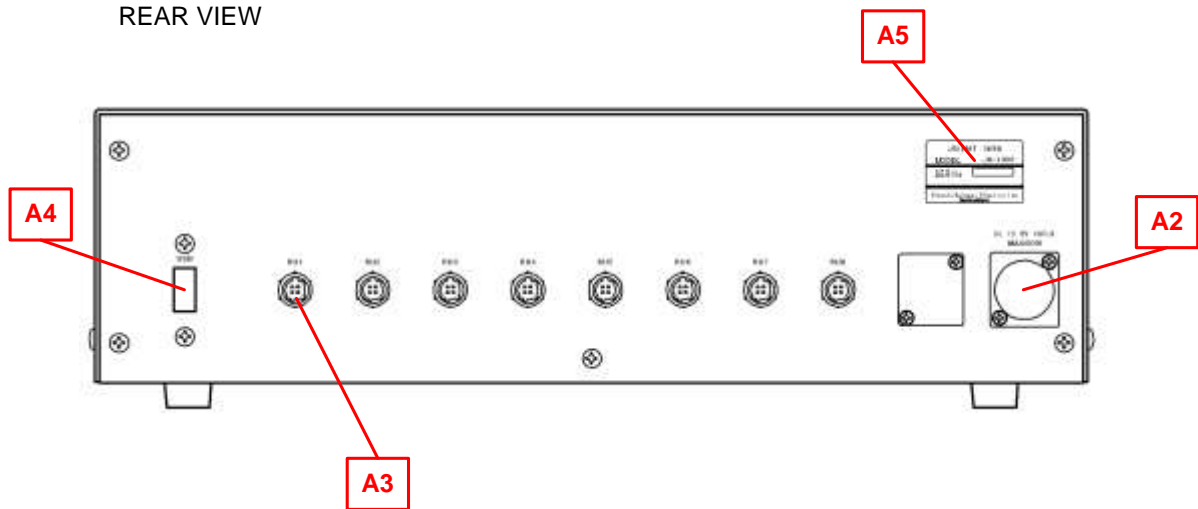
- The USB port provided on the JU-1000 uses the 5VDC provided via the USB port PC voltage supply.
- Power for up to eight (8) remote control panels is provided by the externally provided HITACHI power supply.

Facility names & Functions

FRONT VIEW



REAR VIEW



A1 POWER SW

A2 DC POWER INPUT (Adaptor connection)

A3 REMOTE INPUT CONNECTOR (Remote cable connection)

A4 USB2.0 (USB cable connection)

A5 JU-1000 LABEL

Features & Functions

Function

(1) Remote control panel connections:

- RU-3400JY (X8)

(2) POWER ON/OFF (Front panel side)

- The front panel POWER SWITCH turns on/off the remote control panels connected.
- The POWER SWITCH illuminates green when power is ON.

(3) Remote control panel power supply

- DC13.8V is supplied with the supplied external AC adaptor.

(4) USB Port power supply

- DC5V 500mA MAX is supplied from the connected personal computer.

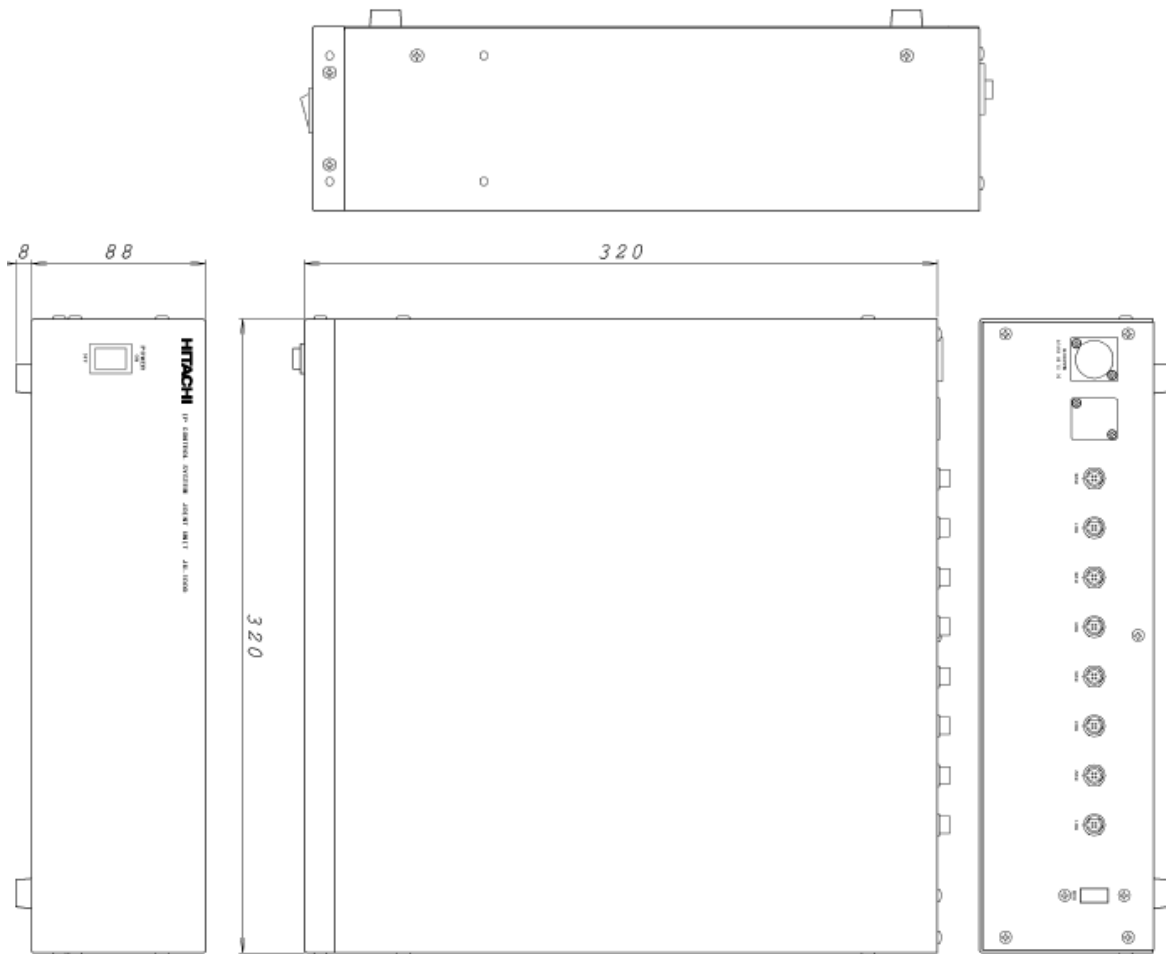
(5) Physical Interface (JU-1000 rear panel)

- USB2.0 X1: port (Type A) for PC serial data connection.
Accessory: USB cable 3m for connection of JU-1000 and personal computer (Type A to A).
- AC adapter X1: connector (HA16RA-4P:HIROSE)
- Accessory: External Power Supply (IA-200a) with 2 meter DC cable.
- RU Remote control connector X8 (HR10A-7R-4SC:HIROSE)
- Labeling RU1 ~ RU8 (Eight positions).
- Maximum cable distance to RU: 10 meter

Specifications

- (1) Dimensions (WxDxH): 320 x 320 x 88mm
- (2) Mass: 4Kg.
- (3) AC Adapter Power input: AC100~240V 50/60Hz
- (4) Power consumption: 60W max. w/ (RU-3400 x 8)
- (5) USB Supplied electricity: DC5V 500mA (2.5W) Max.
- (6) Ambient temperature: 0 to +40°C

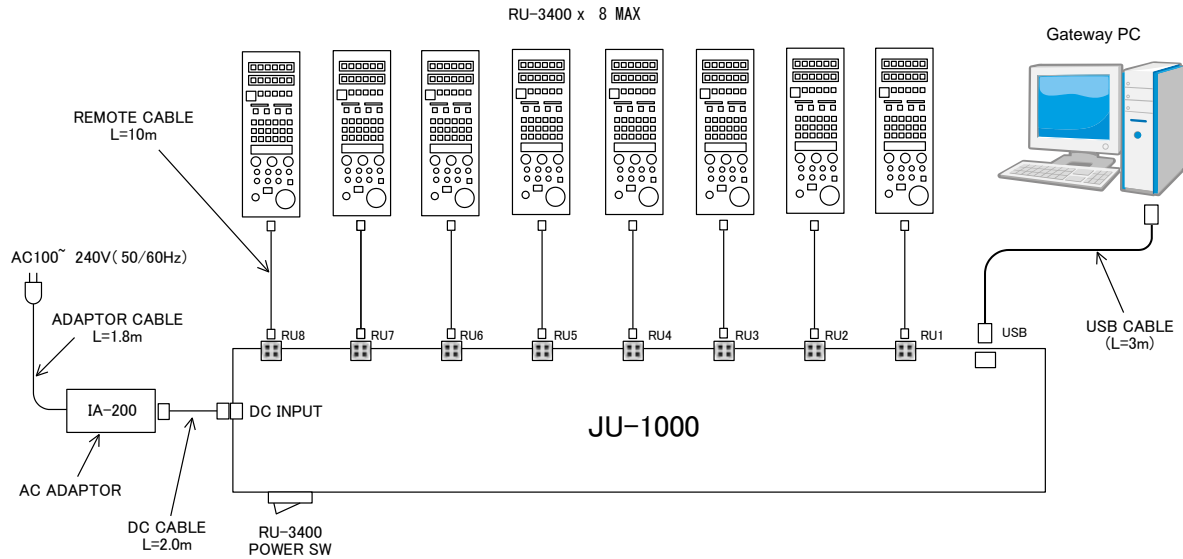
Dimensions



(All units in mm)

JU-1000 Connection Diagram

■ JU-1000: Cable connection diagram

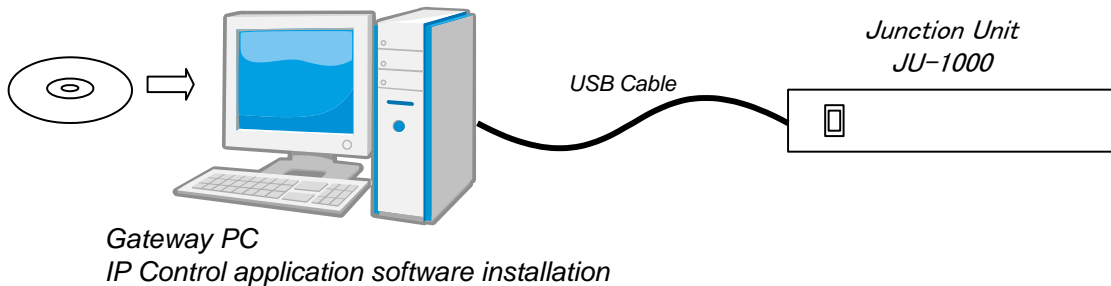


■ Accessories parts list

PARTS	NAME	Net
AC ADAPTOR	IA-200a	1
ADAPTOR CABLE	Accessories (IA-200a)	1
DC CABLE	DC-S2	1
USB CABLE	KB-USB-A3K	1
DRIVER CD-ROM	Communication Product Driver (Quatech)	1
SOFT CD-ROM	IP Control Soft CD-ROM (HITACHI)	1

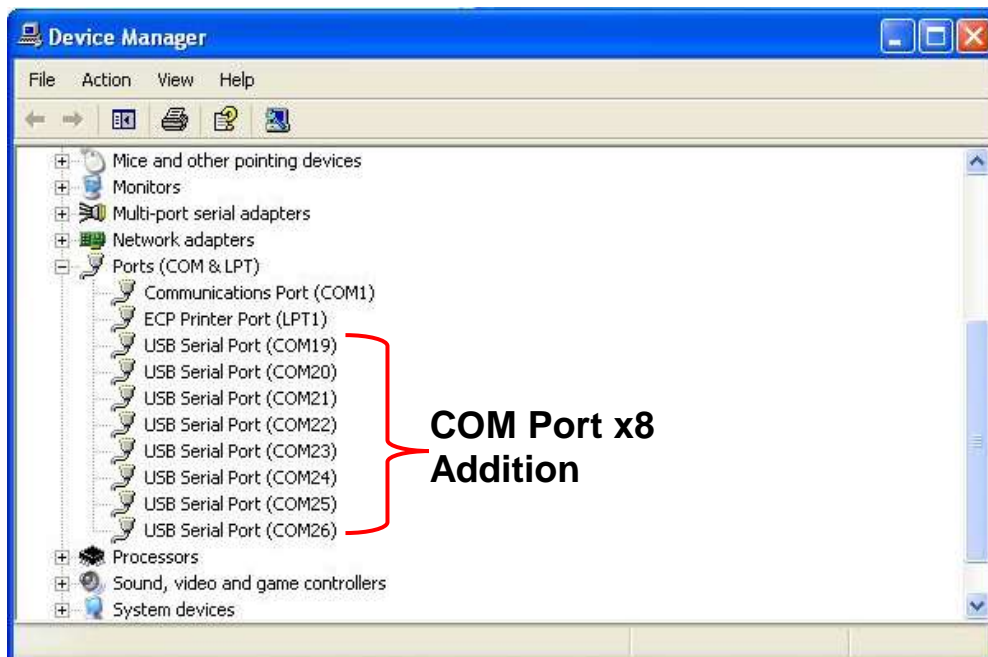
Gateway PC Software Installation

1. In order for the gateway PC to configure and control the RU-3400JY-S11 connected to the JU-1000, it is necessary to install the HITACHI provided software.



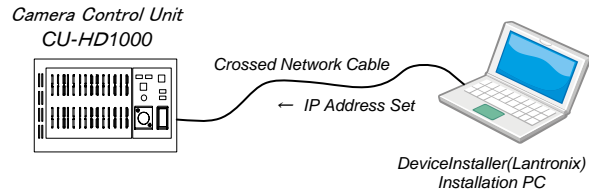
2. Driver installation on PC
 - a. Connect the JU-1000 to the PC via USB cable. It is not necessary to connect the RU-3400JY-S11 at this time.
 - b. Insert the CD-ROM disc labeled "QUATECH Communication Product Drivers and Manuals" in the PC's CD/DVD drive. Follow the instructions on the PC for the installation of the drivers.
 - c. When the installation is completed remove the CD-ROM disc in step b above from the PC's optical drive.
 - d. Verify the drivers have been properly installed by: "My computer" → "Property" → "Hardware" → "Device manager" select and expand the "Port (COM & LPT)", the eight (8) new USB ports for the JU-1000 should exist as shown below.
 - e. When connecting and disconnecting the JU-1000 from the PC's USB port, ALWAYS verify that these com ports are open and available for use.

(Please document the COM PORT NUMBERS shown in the window below since they are needed for TCP/IP address assignment in later steps.)



CCU - CU-HD1000-S5 Network Settings

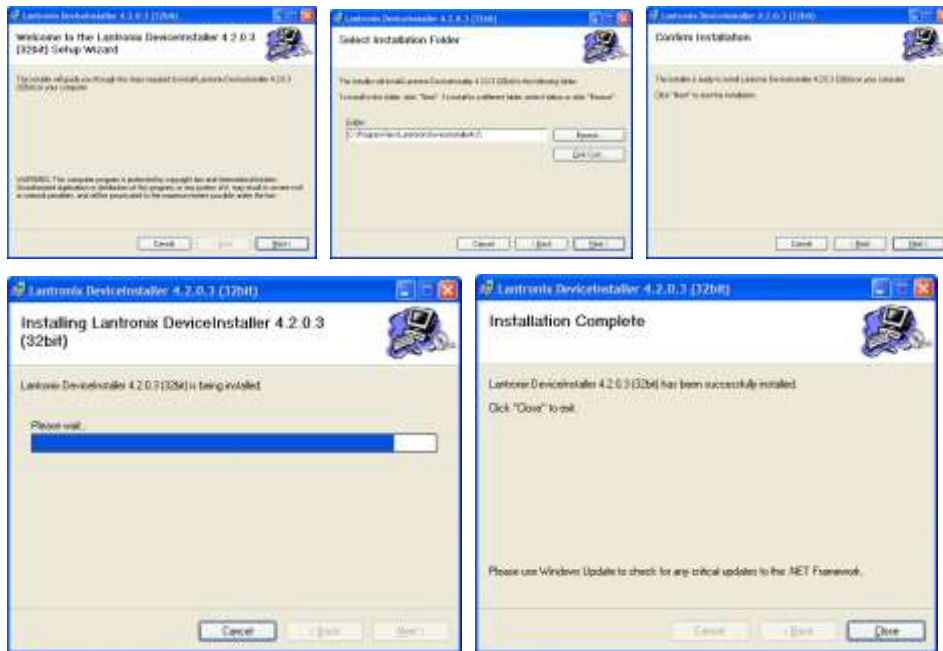
The network IP address can be set by connecting a CROSSED RJ45 network cable (crossed-cable) between a PC and the CU-HD1000-S5. The PC requires the HITACHI provided software in order to communicate via the CU-HD1000-S5's RJ45 port.



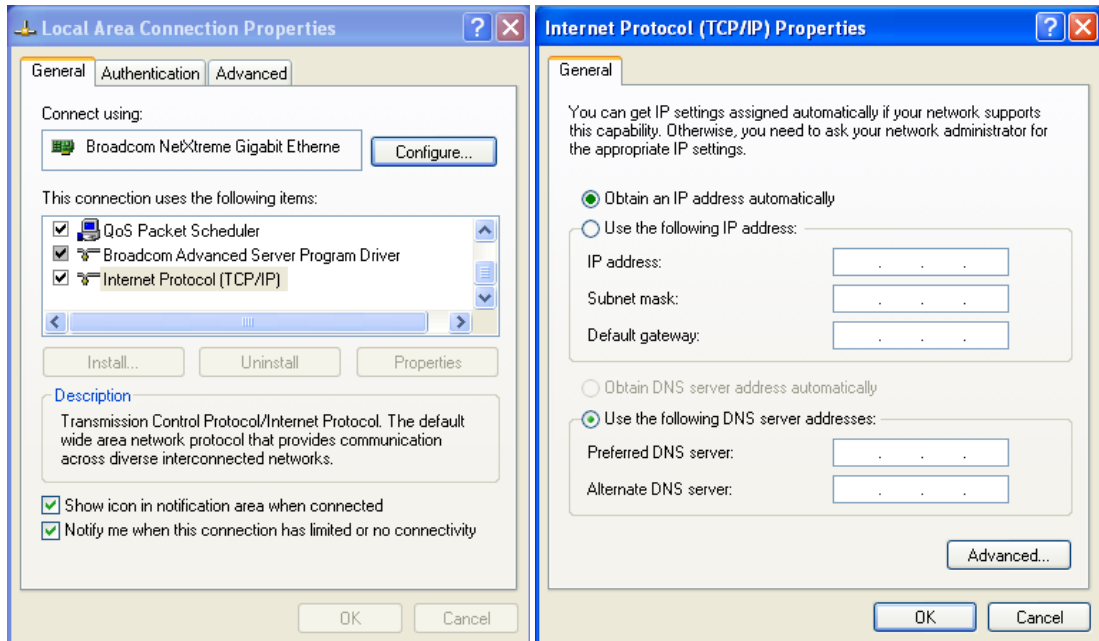
- a. XPORT web server device installation

NOTE: Microsoft .NET Framework 2.0 or greater must be installed on the PC beforehand

- b. Insert the HITACHI provided CD-R disc labeled “IP Control Soft CD-ROM” into the optical drive of your PC and look for the file name “Di32DL_4.2.0.3_Web.exe”The PC does not have to be connected to the CU-HD1000-S5 at this time.
- c. Double click to install and follow the instructions on the screen to install the program on the PC.



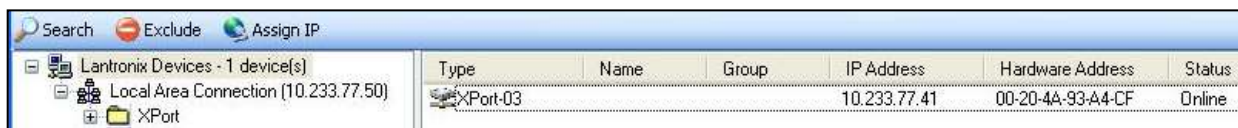
- 1.) Please set or change the TCP/IP protocol properties of the PC to “Obtain an IP address automatically” because the IP Address initialization of CU-HD1000-S5 is an automatic acquisition mode.



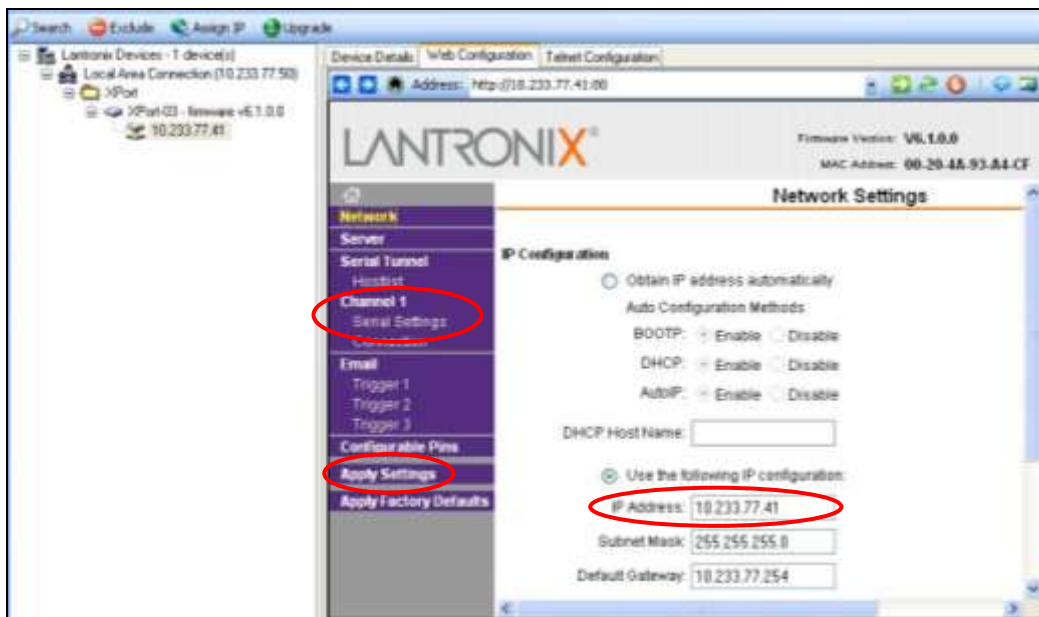
- 2.) Connect the CU-HD1000-S5 to the PC as shown in the above figure. Execute the Lantronix **DeviceInstaller** application by START > ALL PROGRAMS > LANTRONIX > **DeviceInstaller** 4.2 > **DeviceInstaller**.



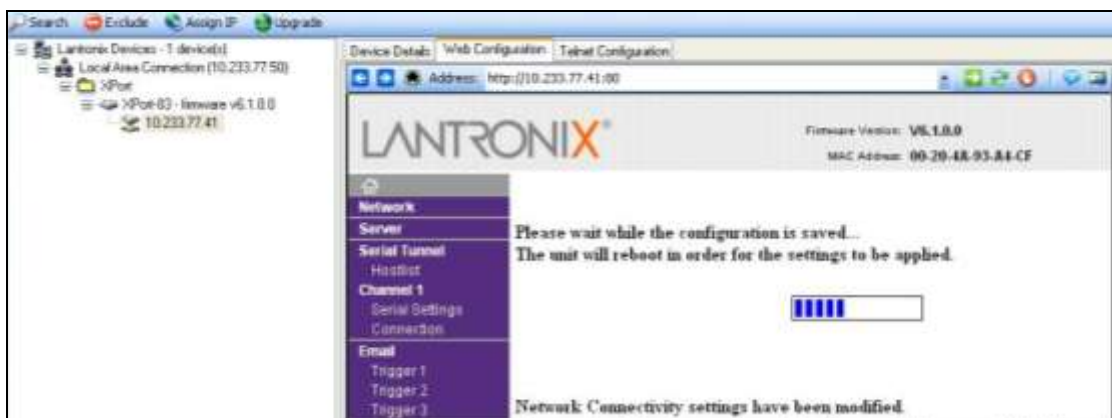
- 3.) Click on "Search" to display the current IP Address of the connected CU-HD1000-S5. The right pane will show the CU-1000 TCP/IP Network Settings.



- 4.) If the IP Address of the CU-HD1000-S5 is highlighted, and the "Home" button on the screen is clicked, the Network Settings are displayed on the right pane of the **DeviceInstaller** program. Note that only the IP Address can be changed on the Network Settings pane. When it is necessary to change the port number of the CCU, click on the "Serial Settings" under Channel 1 on the Network Settings pane.



- 5.) Click on "OK" on the right pane then on "Apply Settings" on the left pane to change the IP address.

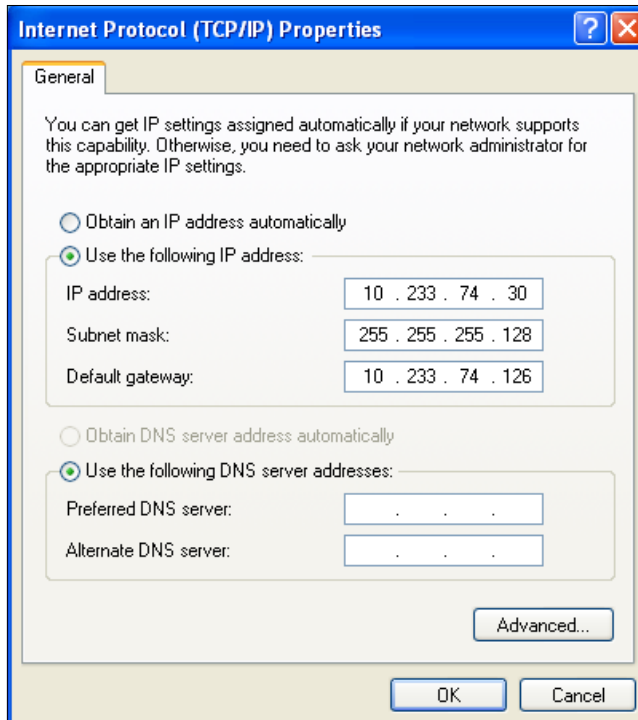


- 6.) Confirm that the IP Address has been changed by re-starting the "DeviceInstaller" program again by clicking on "Search". The IP Address on the PC side should also change when retrieving it.

Lantronix DeviceInstaller 4.2.0.3							
File Edit View Device Tools Help							
Search Exclude Assign IP							
Lantronix Devices - 1 device(s)			Type	Name	Group	IP Address	Hardware Address
Local Area Connection (10.233.77.50)			XPort-03			10.233.77.42	00-20-4A-93-A4-CF
XPort							

- 7.) When CU-HD1000-S5 is changed to arbitrary [IP Address], [Subnet Mask], and [Default Gateway], and the address is retrieved, it is necessary to match IP Address of PC, Subnet Mask, and Default Gateway.

(Enough operational administrative to IP Address etc.)



Resetting the CCU IP Address

In the case of emergency when the CCU device is not displayed on the *DeviceInstaller* application screen or you forgot the IP address necessary to access the CU-HD1000-S5 by the following procedure to reset the IP address.

Requirements

- "CU-HD1000-S5 MAC ADDRESS SHEET" initially attached on the CU-HD1000-S5 CCU.
- Personal Computer for maintenance with installed Microsoft Windows XP SP2 (or greater) Operation System and Microsoft Netframework 2.0 (or greater).
- Crossed-type LAN (RJ45) cable.
- IP address number to reset the CCU (CU-HD1000-S5) as provided by your network administrator..

In this example, we use following address as re-setting IP address

[IP address: 172.16.0.11]

[Subnet Mask: 255.255.0.0]

[Default Gateway: 172.16.0.1]

1) Check MAC Address of CCU

Check the serial number of CCU to read out MAC address on "CU-HD1000-S5 MAC ADDRESS SHEET".

In this example, we use the following MAC address

[MAC Address : 00-20-4a-95-18-84]

2) Define IP Address for the maintenance PC

We recommend using the IP address of the Default Gateway or any IP addresses that is available and able to communicate with the IP address to be reset.

3) Connect the maintenance PC and CCU with a crossed- type LAN cable.

4) Start up the command prompt

Start up the command prompt program pre-installed on the Windows.

"START" -> "PROGRAM" -> "ACCESSORIES" -> "COMMAND PROMPT"

5) Register the ARP cache

Register the MAC address on the ARP table of the maintenance PC.

Command: arp -s <IP Address> <MAC Address>

Example PC screen display:

```
C:\Documents and Settings\Administrator>arp -s 172.16.0.11 00-20-4a-95-18-84
```

6) Check the ARP cache.

Confirm the ARP cache has been correctly registered on the maintenance PC.

Command : arp -a

Example PC screen display:

```
C:\Documents and Settings\Administrator>arp -a  
Interface: 192.168.0.99 --- 0x2  
Internet Address      Physical Address      Type  
172.16.0.11          00-20-4a-95-18-84    static
```

7) Execute the Telnet command (1)

Try to access the IP address by the Telnet command with the port number "1".

NOTICE: Be sure to use the port number "1" although port number is typically used as Telnet. It is the proper action for the next step although the telnet connection will fail.

Command: telnet <IP address> <PortNumber>

Example PC screen display:

```
C: \Documents and Settings\Administrator>telnet 172.16.0.11 1
```

8) Execute the Telnet command (2)

Next, access desired IP address by the telnet command with port number "9999".

NOTICE: When the command is correctly entered, the message "Press Enter for Setup Mode" appears.

Press the "ENTER" key within 5 seconds to avoid the timeout of this prompt. When the command is accepted, the following example screen is displayed on the PC.

*You can check current IP address.

*In case of time-out, start from 7) again.

Command : telnet <IP address> <PortNumber>

Example PC screen display:

```
C: \Documents and Settings\Administrator>  
C: \Documents and Settings\Administrator>telnet 172.16.0.11  
9999  
MAC address 00204A951884  
Software version V6.1.0.0 (051122) XPTEXE  
Press Enter for Setup Mode
```

```
*** basic parameters
Hardware: Ethernet TPI
IP addr 192.168.0.21, no gateway set,netmask 255.255.255.0
*** Security
SNMP is enabled
Change Setup:
  0 Server
  1 Channel 1
  3 E-mail
  5 Expert
  6 Security
  7 Defaults
  8 Exit without save
  9 Save and exit          Your choice ?
```

9) Reset the IP address

Select the "0" Server, and reset IP address following the direction on the screen.

NOTICE:

The Netmask setting specifies the bit length used for the host addressing.

Example:

When the netmask setting is 255.0.0.0, the host addressing uses 24 bits.

When the netmask setting is 255.255.0.0, the host addressing uses 16 bits.

When the netmask setting is 255.255.255.0, the host addressing uses 8 bits.

NOTICE:

Never change the password for telnet.

Controlling this password is your responsibility.

Example PC screen display:

```
Change Setup:
 0 Server
 1 Channel 1
 3 E-mail
 5 Expert
 6 Security
 7 Defaults
 8 Exit without save
 9 Save and exit          Your choice? 0

IP Address : (192) 172.(168) 16.(000) 0.(021) 11
Set Gateway IP Address (N) ? Y
Gateway IP addr (000) 172.(000) 16.(000) 0.(000) 1
Netmask: Number of Bits for Host Part (0=default) (8) 16
Change telnet config password (N) ? N
```

10) Save the setting and Exit

Choose "9 Save and exit".

Example PC screen display:

```
Change Setup:
 0 Server
 1 Channel 1
 3 E-mail
 5 Expert
 6 Security
 7 Defaults
 8 Exit without save
 9 Save and exit          Your choice? 9

Parameters stored...
```

11) Verify the connection

Verify the reset IP address is correct.

Command: ping <IP address>

Example PC screen display:

```
C:\Documents and Settings\Administrator>ping 172.16.0.11

Pinging 172.16.0.11 with 32 byte of data:

Reply from 172.16.0.11:bytes=32 time=0ms TTL=125
Reply from 172.16.0.11:bytes=32 time=0ms TTL=125
Reply from 172.16.0.11:bytes=32 time=0ms TTL=125
Reply from 172.16.0.11:bytes=32 time=0ms TTL=125

Ping statistics for 172.16.0.11:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms
```

This is the end of the procedure for recovering the CU-HD1000-S5's IP ADDRESS

Gateway PC program install & setup

1.) Installation

Copy the HITACHI "CTVIPcontrolSystem" Folder onto an arbitrary drive/folder.
The main application is registered to the STARTUP menu group after installation.

2.) File Configuration

IPCSYS.exe	Main Application
CTVIPControlSystem.ini	Initialization File
CTVIPControlSystem.dat	Internal Data (Please do not delete it)
LOG Folder	Communication Log

3.) Initialization File

[Socket]		
connect_wait_time = 100		socket connection timeout [msec]
recv_retry_timeout = 10		received retry interval [msec]
recv_wait_time = 10		received wait timeout [msec]
[Serial]		
recv_retry_timeout = 10		received retry timeout [msec]

4.) Log File

File name	=	IPCONTROL_1_20091003.log
IPCONTROL_	=	fixed
1_	=	RU's number (1 ~ 8)

Configuration

2001, 2009-10-0317:37:19.761168,[CNTL ← CUCU], message box

1

2

3

4

1 Starting from number 1000, 1001 ~ 1008 indicate the transmission with RU.
Starting from number 2000, 2001 ~ 2008 indicate the transmission with CCU.

2 Record date the decimal point is μSec.

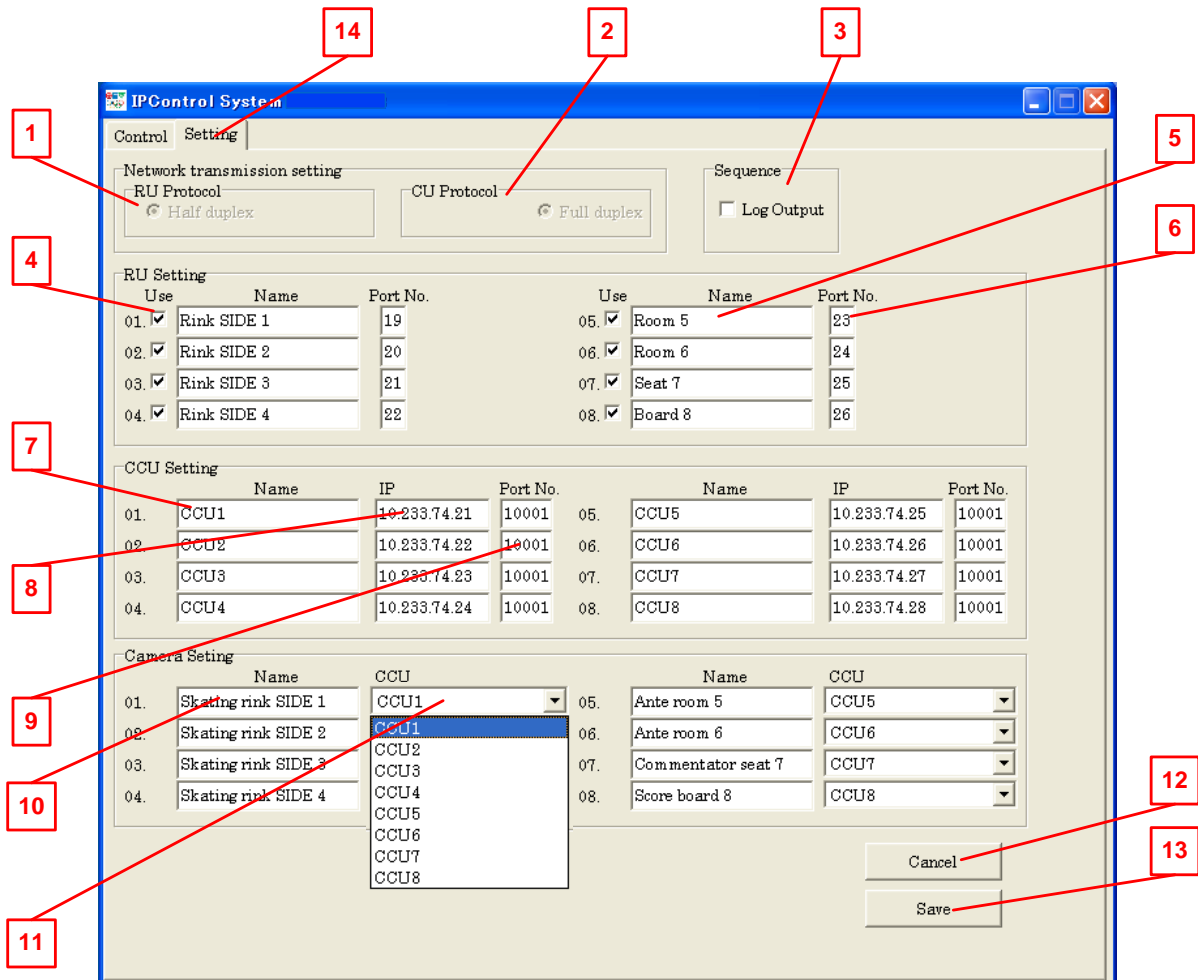
3 Transmission Direction
CNTL expresses the main system.
CUCU stand for CCU,

RURU stand for RU
CNTL → RURU transmitting from PC to RU
CNTL ← RURU receiving from PC to RU
CNTL → CUCU transmitting from PC to CCU
CNTL ← CUCU receiving from PC to CCU

4 Message box
Transmission data display HEX and ASCII array, string length.
The others display message.

(Example)
Socket Connect Success [192.168.0.2:10001] = Connect Success
Serial Connect Success [9600, n, 8, 1] = Connect Success
Serial Disconnect Success = Disconnect Success

IP Control System - Setting screen



1 RU Protocol: The setting of the communication of RU is shown.(not available for the setting changed).

2 CU Protocol: The setting of the communication of CU is shown.(not available for the setting changed).

3 Sequence: When the communication log data is preserved, the check is put and SAVE is selected. Since the log data preservation becomes load, we recommend you not to normal operation.

4 RU Setting – Use: Check RU of the camera system that controls IP.

5 RU Setting – Name: An arbitrary name is input to RU on the IP control side. (It is automatically reflected it in the Control screen.)

6 RU Setting – Port No.: "My computer" →"Property" →"Hardware" →"Device manager" →"Port"
The port number displayed here is input to"01.-08." of the IP Control screen in numerical order.

(Refer to Gateway PC Software Installation on Page-16)

7 CCU Setting – Name: Enter an arbitrarily name of CCU.

8 CCU Setting – IP: IP Address individually set to CCU is input.

(Refer to CCU - CU-HD1000-S5 NETWORK SETTINGS on page 17)

9 CCU Setting – Port No.: The port number set to CCU is input. (The setting when the factory is shipped is 10001.)

10 Camera Setting – Name: Enter an arbitrarily name of Camera.

(It is automatically reflect it in the Control screen.)

11 Camera Setting – CCU: The name of CCU entered at **7** is automatically reflected, and the combination with the camera of **10** is displayed.

While Off Line the combination of CCU can be changed from the pull-down tab.

(Item managed when combination of CCU and camera is physically changed)

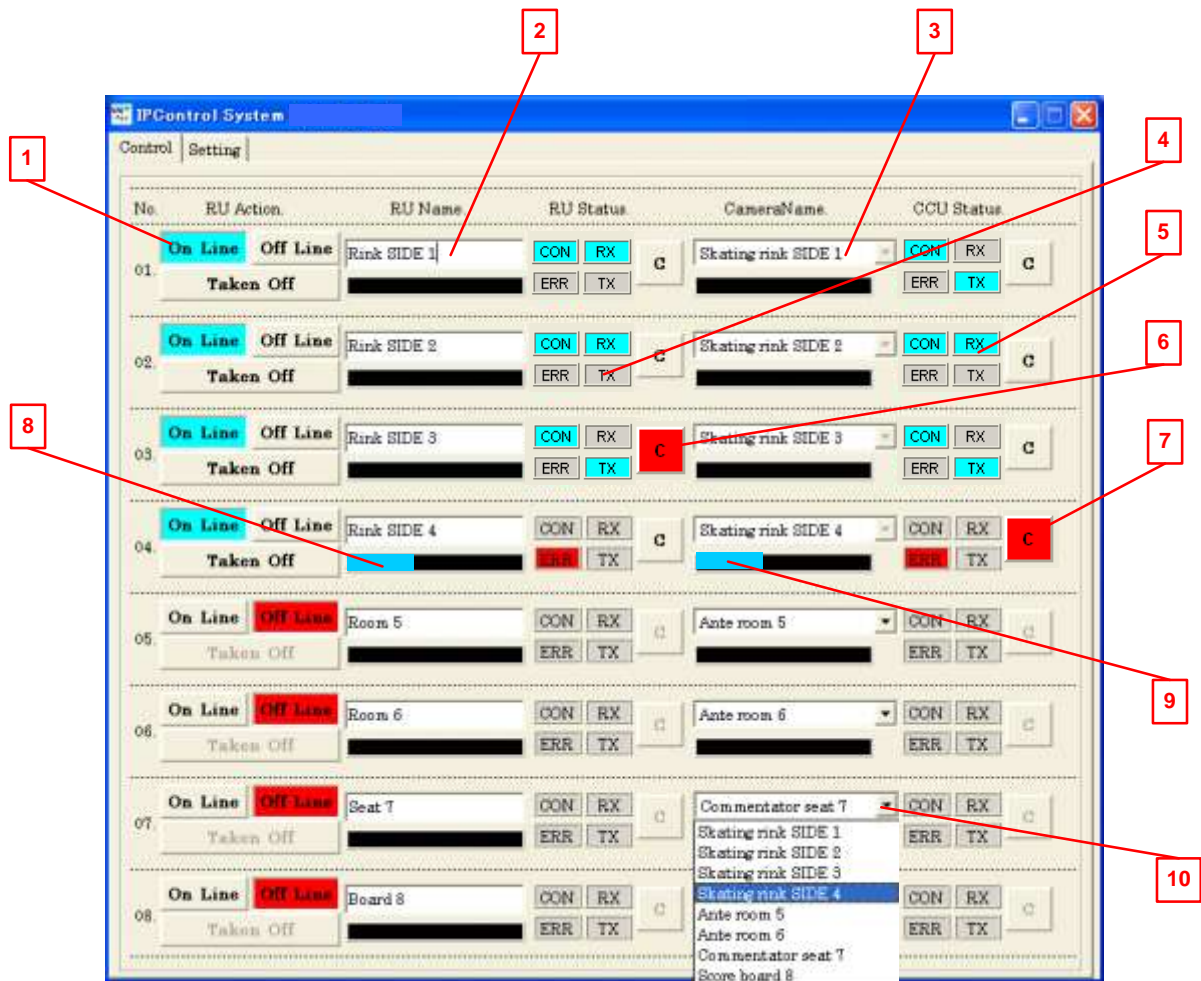
(While off line cannot be changed.)

12 Cancel: The setting changed on the Setting screen is canceled.

13 Save: When the setting changed on the screen is executed or is preserved, click "save" button.

14 Control / Setting: Switch tab on Control screen and Setting screen.

IP Control System - Control screen



1 RU Action

- ON Line ----- Transmission status (Lit Blue)
- OFF Line ----- Non-transmission status (Lit Red)
- Taken Off ----- Deactivates the RU

2 RU Name

The User-programmable name for the RU connected.
(Provide a description that corresponds with the camera controlled by the RU.)

3 Camera Name

The User-programmable name for the Camera connected.
(Provide a description that corresponds with RU controlling this camera)

4 RU Status

- CON----- Status of the RU communication (blue flashing)
- ERR----- RU abnormal connection (red flashing or steady)
- RX----- RU is being received (blue flashing).
- TX----- RU is being transmitted (blue flashing).

5 CCU Status

- CON----- Status of the CCU communication (blue flashing)
- ERR ----- CCU abnormal connection (red flashing or steady)
- RX ----- CCU is being received (blue flashing).
- TX ----- CCU is being transmitted (blue flashing).

6 RU Call

- Call is being received from the RU (red flashing or steady).
- Call of RU responds when **C** on the RU side of the Control screen is pushed (red steady + Call sound).

7 CCU Call

- Call of CCU or the camera is received (red flashing or steady).
- Call of CCU and the camera responds when **C** on the CCU side of the Control screen is pushed. (red steady + Call sound).

8 RU Progress Bar

The quantity of the data transmission buffer from PC to RU is displayed (blue gauge linear display).

(A high PC CPU load causes data rate increase. There is a possibility that interference may occur when the buffer and data transmission indicated becomes more than the half on the blue linear display.)

9 CCU Progress Bar

The quantity of the data transmission buffer from PC to CCU is displayed (blue gauge linear display).

(A high PC CPU load causes data rate increase. There is a possibility that interference may occur when the buffer and data transmission indicated becomes more than the half on the blue linear display.)

10 Camera Name Change

Only in the OFFLINE MODE; the camera can be selected from the pull-down menu and the combination of RU and the CCU camera be changed.

(It is not possible to change in the OnLine operation state.)

Notes about IP Control System

- 1) Follow these instructions when starting the remote IP control system.
 - Execute the program "IPCSYS exe" Start (OffLine Mode) → JU-1000 Power ON → Control screen (ONLINE)
 - Attention: When JU-1000 is started in the state of ON Line, the RU3400 on the IP side might automatically acquire the operation priority.
 - (Please begin from the state of OFFLINE when operating it.)
- 2) Do not remove the USB cable between JU-1000 and PC while they are live and communicating.
 - If the USB cable comes loose or falls off the PC; close the "IPCSYS exe" program, insert the USB cable, and re-open the "IPCSYS exe".
(If the USB cable is disconnected, the control remains active on the RU-3400's connected on the CCU/ camera side.)
 - Confirm that the PC recognizes the (8) eight COMM ports by "Port" on "Device Manager".
(Refer to 5-1)

NOTE: When "!" mark is displayed in each port, the port is not recognized.
- 3) Do not remove the network cable between PC<->CCU while they are live and communicating.
 - The communication resets automatically when the cable is reconnected.
 - When the cable is disconnected, ERR on the CCU side lights red.
 - (Even when the network cable comes off, the control is possible on the camera system side.)
- 4) Do not remove the remote cable of RU while they are live and communicating.
 - The communication resets automatically when the cable is reconnected.
 - When the cable has come off, ERR on the RU side lights red.
 - (Even when a remote cable comes off, the control is possible on the camera system side.)
- 5) Do not turn off the power supply (AC adaptor) of the JU-1000 while the system is online and communicating.
 - Upon restoring power; the JU-1000 becomes active and the communication is reestablished.
 - ERR on the RU side lights red in the state of power supply OFF.
 - (The control is possible even in the state of power supply OFF on the camera system side.)
- 6) Do not turn off the power supply of the PC while the system is live and communicating.
 - When the power supply of the PC is restored, and IPCSYS exe program is opened again. Start →JU-1000 Power ON re-setup.
 - (Even when the power supply of PC fails, the control is possible on the camera system side.)
- 7) Do not end the Control Screen while communicating.
 - The program, IPCSYS.exe will stop transmitting, (controlling traffic) and upon re-execution it returns. Start →JU-1000 Power ON re-setup.
 - (Even when the Microsoft Windows XP OS shuts down, the control is possible on the camera system side.)

General Troubleshooting

The following is a brief list of Troubleshooting procedures in the case of problems during normal and routine operation.

TROUBLE: The RU's connected to the JU-1000 suddenly stopped working but have power.
ACTION: Check and assure that the IP Network Software is up and running.

TROUBLE: The RU's connected to the JU-1000 stopped working and all lamps are extinguished.
ACTION: Check the JU-1000 front panel POWER SWITCH. It should be lit and in the ON position.
Check the EXTERNAL power supply that feeds 12VDC to the JU-1000. It should be ON and its power switch illuminated. Check AC mains and replace AC LINE FUSE if necessary.

TROUBLE: One of the RU's connected to the JU-1000 does not work.
ACTION: Check to see if it is in OFFLINE mode.
Check to see if there is an ERROR light on.
Check to see if the camera head has control (camera TAKEN mode).

Troubleshooting items during the change of IP address on the CU-HD1000-S5

TROUBLE: The CU-HD1000-S5 does not show in the [DeviceInstaller] program right pane.
ACTION: Check the CCU presence using "LAN Cross Cable" connected directly to the PC.
Check that the CCU Power is ON.
Check the SUBNET MASK of the CCU and make sure it is the same as the PC's.

TROUBLE: The CCU forgets its IP address after setting or power cycle.
ACTION: Need to set the ARP (Address Resolution Protocol) of MAC Address/ IP Address in the CCU (CU-HD1000-S5). (See the X-Port operation manual)

Troubleshooting items in the IP Control Screen

TROUBLE: The CCU side ERR light is illuminated Red.
ACTION: Check to see if there is power supplied to the CCU.
Check to see if the network cable of the CCU is connected?
Check to see if the IP Address of the CCU is correctly set?
Refer to XX and XX

TROUBLE: The RU side ERR is illuminated Red.
ACTION: Check to see that there is a power supply connected to the JU-1000?
Refer to 7-6(5)
Check to see if the RU cable connected?
Check the setting of the port number on the Setting screen that corresponds to the PC recognizes corresponding.

TROUBLE: The RU operation doesn't react and ERR is unlit.
ACTION: Check the USB cable between PC<->JU-1000 so that it is connected.

TROUBLE: The screen of IP Control System is not displayed
ACTION: Do not minimize it to the Windows Task Bar. Keep program running on top.

TROUBLE: The application fails to start
ACTION: When the gauge of the quantity of the transmission buffer is filled; there is a possibility that abnormality is found in the network line. There is a possibility that the load hangs to CPU data processing of PC.
Close all other running applications on the PC when the IPCSYS.EXE program is running

TROUBLE: Communication fails although the IP address is correct.
ACTION: If the port number of CCU is not changed according to the kind of the network line, it is likely not to communicate.
In this case, please confirm the port number that the network manager assigns.
It is necessary to change the CCU port number on the Setting screen.
It is necessary to change the port number of CCU.
(Please inquire of HITACHI when the trouble is not canceled for the above-mentioned problem.)