










CCTV RECEIVER

USER MANUAL

DRX-500

DONGYANG UNITECH

WARNING

	<p>Always have the unit installed by the store it was purchased from.</p> <ul style="list-style-type: none">● Improper connections and/or installation could result in electrical shock, fire or other serious injury or damage.
	<p>Do not place the unit on an unstable surface.</p> <ul style="list-style-type: none">● Always checks the strength and stability of the installation location.● A falling unit will result in damage and could cause serious injury.
	<p>Never disassemble or attempt to repair or modify the unit.</p> <ul style="list-style-type: none">● Disassemble by untrained personnel could result in serious electrical shock, fire and/or malfunction.
	<p>Never use in locations where combustible materials are used.</p> <ul style="list-style-type: none">● The unit should never be used where combustible materials, such as gases, are being used.● Fire, explosion or other serious accidents could occur
	<p>Never touch electrical connections with wet hands.</p> <ul style="list-style-type: none">● Touching electrical connections with wet hands could result in serious electrical shock.
	<p>Never expose the unit to water.</p> <ul style="list-style-type: none">● If the unit becomes wet, turn off the power and unplug it immediately.● Stop using the unit if it becomes wet and contact your nearest supplier or manufacturer representative.
	<p>Never use the unit if there is an abnormality.</p> <ul style="list-style-type: none">● Turn off the power and unplug the unit immediately if there is any type of abnormality, such as a strange smell or smoke.● Continuing to use a unit that is not operation properly could result in serious injury or damage to the unit.
	<p>Always use the designated power supply.</p> <ul style="list-style-type: none">● Failure to use the proper power supply could result in fire, electrical shock, serious injury and/or damage.● Always uses the designated power supply.
	<p>Always handle the connecting cords properly.</p> <ul style="list-style-type: none">● Never damage or modify the connecting cords.● Never pull on the connecting cord, expose them to extreme heat and/or place heavy objects on top of them.● Failure to follow these warnings could result in fire, electrical shock or other damage or injury.



CAUTION

	<p>Always use the unit indoors.</p> <ul style="list-style-type: none">● The unit should never be used outdoors, or in any place where it will be exposed to rain or other extremes of moisture.● Direct exposure to water will result in rust and will damage the unit.
	<p>Never use in environments that have heavy concentrations of dust, smoke, steam or humidity.</p> <ul style="list-style-type: none">● Environments such as these could result in fire, electrical shock or other serious damage or injury.
	<p>Never place the unit in extremes of high or low temperatures.</p> <ul style="list-style-type: none">● Extreme temperatures will damage the unit.● Always use within an operating range of -15°C to 60°C
	<p>Never place the unit near the magnetic.</p> <ul style="list-style-type: none">● The unit should never be placed near by magnetic.● It is reason for the malfunctions.
	<p>Never expose the unit to impact.</p> <ul style="list-style-type: none">● Strong impact may seriously damage the unit.



FOR PROPER OPERATION

	<p>Never install the unit yourself.</p> <ul style="list-style-type: none">● The unit should be installed by trained personnel.
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This product has been designed and manufactured in accordance with the harmonized European standards, following the provisions of the below stated directives.

Low Voltage Directive 73/23/EEC & Electromagnetic Compatibility Directive 89/336/EEC(EN60065, EN50130-4, EN55022, EN61000-4-2, 3, 4, 5, 6, 11)

This device complies with part 15 of the fcc rules operation is subject to the following two conditions: (1) This device may not cause harmful interference and (2) This device must accept any interference received including interference that may cause undesired operation

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CHAPTER1. INTRODUCTION

1. FEATURES

1-1. Controlling through Data Communication

Data communication with the controller allows this receiver to control Pan/Tilt, Zoom Lens, Camera, Light Power, etc.

1-2. Supports Various Communicating Standards.

This receiver covers various communicating methods of RS485, RS422, TTL.

1-3. Waterproof, Dustproof

Designed to be protected from water and dust, this machine can be used both indoor and outdoor.

1-4. PAN/TILT Control

Can control Pan/Tilt Driver.

1-5. ZOOM LENS Control

Can control Zoom Lens.

1-6. AUTO PAN Function

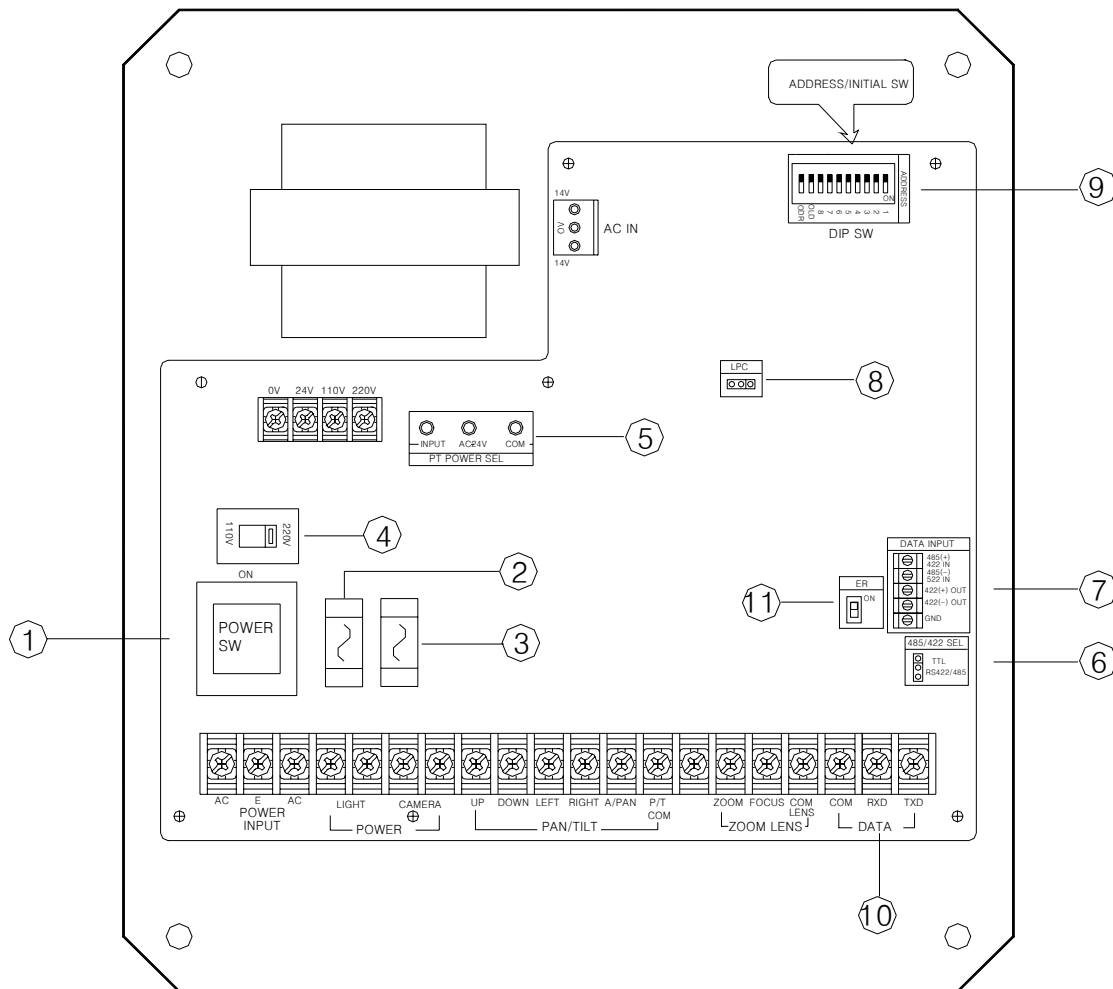
Auto Pan (On/Off)

1-7. Choice of Voltages for PAN/TILT Controlling

Can select the kind of voltages for controlling Pan/Tilt Driver among AC24V, AC110V and AC220V.

CHAPTER 2. CONNECTIONS

1. NAMES AND FUNCTIONS OF EACH PART



① MAIN POWER Switch
Operates On/Off of Power Supply.

② MAIN FUSE
Protects the Whole Machine against Surge. Uses 5A FUSE.

③ 1A FUSE
Cut off the electric currency in case the unexpected accidents happen on the Electric Circuit or on Pan/Tilt Driver.

④ AC110/220 Converting Switch

Choose suitable kind of Power Sources with this switch.

⑤ P/T POWER SELECT

Can choose suitable kind of Pan/Tilt-activating power. AC110V, AC220V and AC24V are available.

⑥ TTL/485(422) SELECT

Insert the socket to the pin on your demand. If your socket covers the pin beside which 'RS422/485' is written, you choose 485/422 way

⑦ DATA INPUT

This is an Outlet Box to which Data Lines would be connected when you use RS-422 or RS-485.

⑧ LPC (LENS POWER CHANGE)

If Zoom Lens operates its zooming In/Out work oppositely, turn the socket over.

⑨ DIP Switch

Sets each receiver (camera)'s address with this switch. (You must turn off the switches of 9 and 10 if you use 'DCK-255' controller together. If you turn on the switches of 9 and 10, you can use this receiver for DVR Use.)

⑩ TTL Data Input

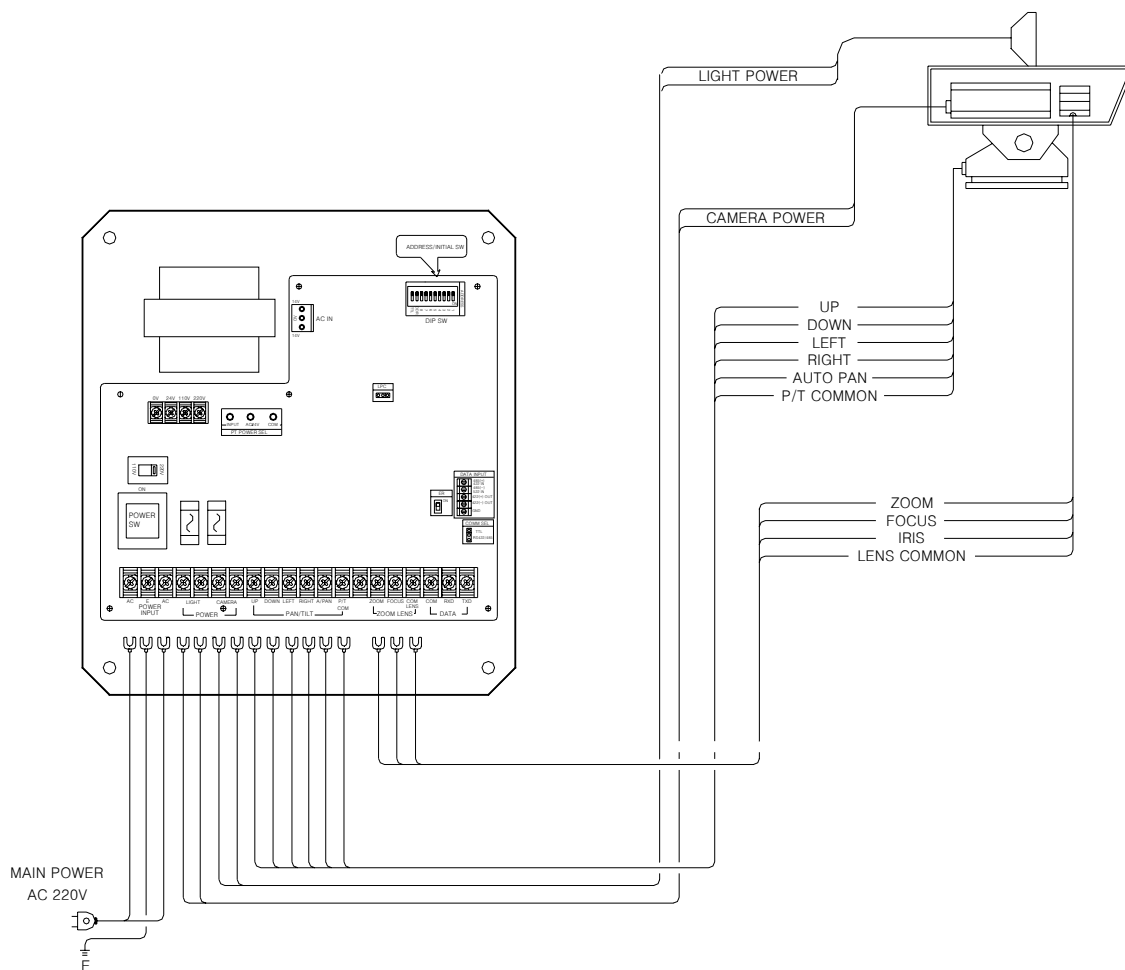
It is data communication terminals for compatibility with old models. These terminals will be activated if the socket in COMM SEL box covers the pin named 'TTL'.

⑪ End Resistance Switch (ER)

Notice: Only in the last receiver among the all connected, this switch is to be 'ON' position.

2. HOW TO CONNECT TO PERIPHERALS

□ Basic Diagram of Line Connection

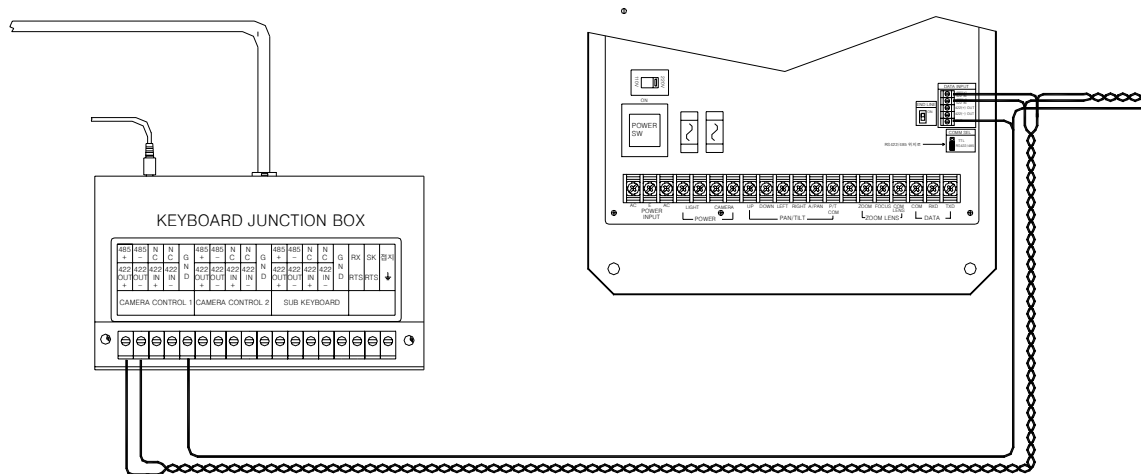


Notice: When released, this Unit's Main Power is set to AC220V and Pan/Tilt Voltage is set to AC24V. Please plug after confirming your power source.

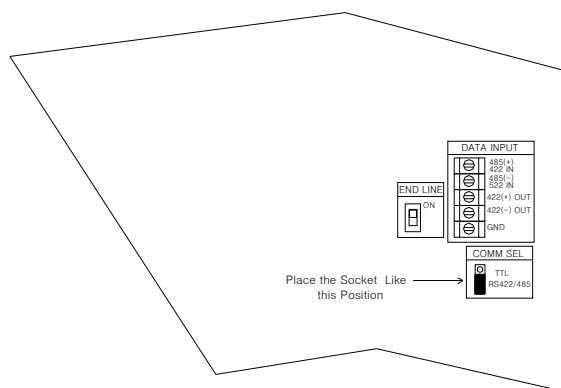
CHAPTER 3. HOW TO USE THE DETAILED FUNCTIONS

1. RS485 CONNECTION

Used when the RS485 mode is chosen in the Junction Box. Shielded Twist Paired Cable is recommended. In case of using AWG28 cable, this receiver can send the data up to 1.2Km away. (It may differ from real spots)



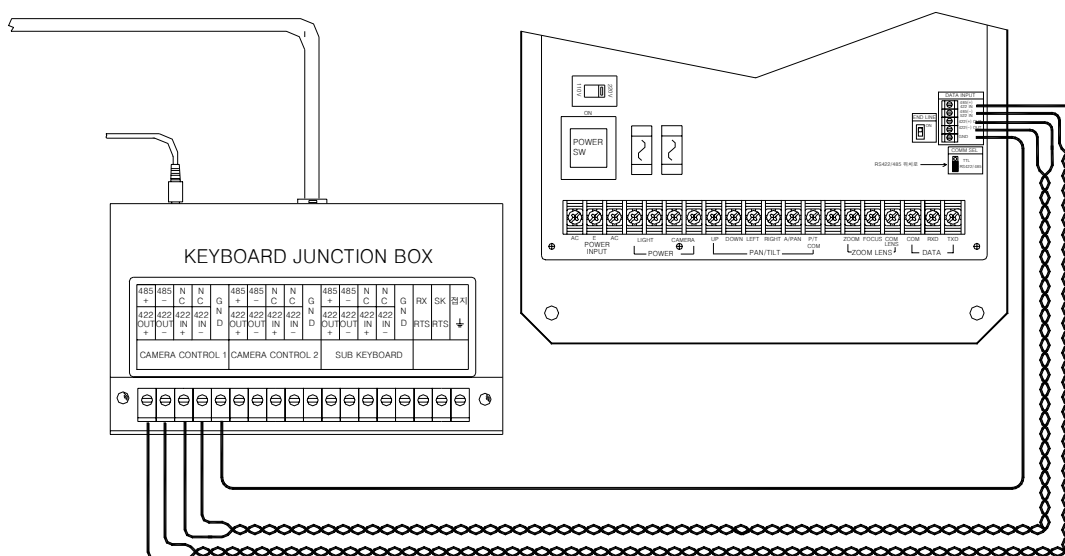
In COMM SEL box, you must cover the Pin on which 'RS422/485' is written with the socket.



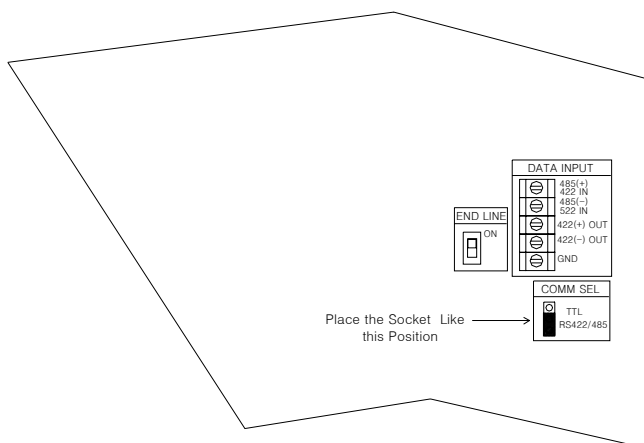
Notice: There are 2 sets of Camera Control Ports in the Keyboard Controller (DCK-255), and each of them can be connected to up to 128 receivers in parallel.

2. RS422 CONNECTION

Used when the RS422 mode is chosen in the Junction Box. Shielded Twist Paired Cable is recommended. In Case of using AWG28 Cable, this receiver can send the data up to 1.2Km away. (It may differs from real spots)



In COMM SEL box, you must cover the Pin on which 'RS422/485' is written with the socket.



3. ADDRESS SETTING

1. Set the addresses with DIP switches numbered 1~8. You can use up to 255 receivers (cameras) with the keyboard controller (DCK-255).
2. You must turn off the switches of No. 9 and 10 if you are using the 'DCK-255' controller together.
3. If you turn on the switches of 9 and 10, you can use this receiver for DVR use.

* Table for Address Setting

RX NO (DEC)	DIP SWITCHES (HEX)							RX NO (DEC)	DIP SWITCHES (HEX)						
	1	2	3	4	5	6	7		1	2	3	4	5	6	7
1	ON	OFF	OFF	OFF	OFF	OFF	OFF	33	ON	OFF	OFF	OFF	OFF	ON	OFF
2	OFF	ON	OFF	OFF	OFF	OFF	OFF	34	OFF	ON	OFF	OFF	OFF	ON	OFF
3	ON	ON	OFF	OFF	OFF	OFF	OFF	35	ON	ON	OFF	OFF	OFF	ON	OFF
4	OFF	OFF	ON	OFF	OFF	OFF	OFF	36	OFF	OFF	ON	OFF	OFF	ON	OFF
5	ON	OFF	ON	OFF	OFF	OFF	OFF	37	ON	OFF	ON	OFF	OFF	ON	OFF
6	OFF	ON	ON	OFF	OFF	OFF	OFF	38	OFF	ON	ON	OFF	OFF	ON	OFF
7	ON	ON	ON	OFF	OFF	OFF	OFF	39	ON	ON	ON	OFF	OFF	ON	OFF
8	OFF	OFF	OFF	ON	OFF	OFF	OFF	40	OFF	OFF	OFF	ON	OFF	ON	OFF
9	ON	OFF	OFF	ON	OFF	OFF	OFF	41	ON	OFF	OFF	ON	OFF	ON	OFF
10	OFF	ON	OFF	ON	OFF	OFF	OFF	42	OFF	ON	OFF	ON	OFF	ON	OFF
11	ON	ON	OFF	ON	OFF	OFF	OFF	43	ON	ON	OFF	ON	OFF	ON	OFF
12	OFF	OFF	ON	ON	OFF	OFF	OFF	44	OFF	OFF	ON	ON	OFF	ON	OFF
13	ON	OFF	ON	ON	OFF	OFF	OFF	45	ON	OFF	ON	ON	OFF	ON	OFF
14	OFF	ON	ON	ON	OFF	OFF	OFF	46	OFF	ON	ON	ON	OFF	ON	OFF
15	ON	ON	ON	ON	OFF	OFF	OFF	47	ON	ON	ON	ON	OFF	ON	OFF
16	OFF	OFF	OFF	OFF	ON	OFF	OFF	48	OFF	OFF	OFF	OFF	ON	ON	OFF
17	ON	OFF	OFF	OFF	ON	OFF	OFF	49	ON	OFF	OFF	OFF	ON	ON	OFF
18	OFF	ON	OFF	OFF	ON	OFF	OFF	50	OFF	ON	OFF	OFF	ON	ON	OFF
19	ON	ON	OFF	OFF	ON	OFF	OFF	51	ON	ON	OFF	OFF	ON	ON	OFF
20	OFF	OFF	ON	OFF	ON	OFF	OFF	52	OFF	OFF	ON	OFF	ON	ON	OFF
21	ON	OFF	ON	OFF	ON	OFF	OFF	53	ON	OFF	ON	OFF	ON	ON	OFF
22	OFF	ON	ON	OFF	ON	OFF	OFF	54	OFF	ON	ON	OFF	ON	ON	OFF
23	ON	ON	ON	OFF	ON	OFF	OFF	55	ON	ON	ON	OFF	ON	ON	OFF
24	OFF	OFF	OFF	ON	ON	OFF	OFF	56	OFF	OFF	OFF	ON	ON	ON	OFF
25	ON	OFF	OFF	ON	ON	OFF	OFF	57	ON	OFF	OFF	ON	ON	ON	OFF
26	OFF	ON	OFF	ON	ON	OFF	OFF	58	OFF	ON	OFF	ON	ON	ON	OFF
27	ON	ON	OFF	ON	ON	OFF	OFF	59	ON	ON	OFF	ON	ON	ON	OFF
28	OFF	OFF	ON	ON	ON	OFF	OFF	60	OFF	OFF	ON	ON	ON	ON	OFF
29	ON	OFF	ON	ON	ON	OFF	OFF	61	ON	OFF	ON	ON	ON	ON	OFF
30	OFF	ON	ON	ON	ON	OFF	OFF	62	OFF	ON	ON	ON	ON	ON	OFF
31	ON	ON	ON	ON	ON	OFF	OFF	63	ON	ON	ON	ON	ON	ON	OFF
32	OFF	OFF	OFF	OFF	OFF	ON	OFF	64	OFF	OFF	OFF	OFF	OFF	OFF	ON

* If you turn on NO.7 DIP S/W, NO.1 in above Table will be NO.65 and NO.64 in above table will be set for NO.128. And if you turn off NO.7 DIP S/W and turn on NO.8 DIP S/W, NO.1 in above Table will be NO.129. And if you turn on both NO. 7 and 8 DIP switches, NO.1 in above Table will be the NO.193.
In this way, you can set up to 255 addresses.

CHAPTER4. NOTICE

1. CAUTION

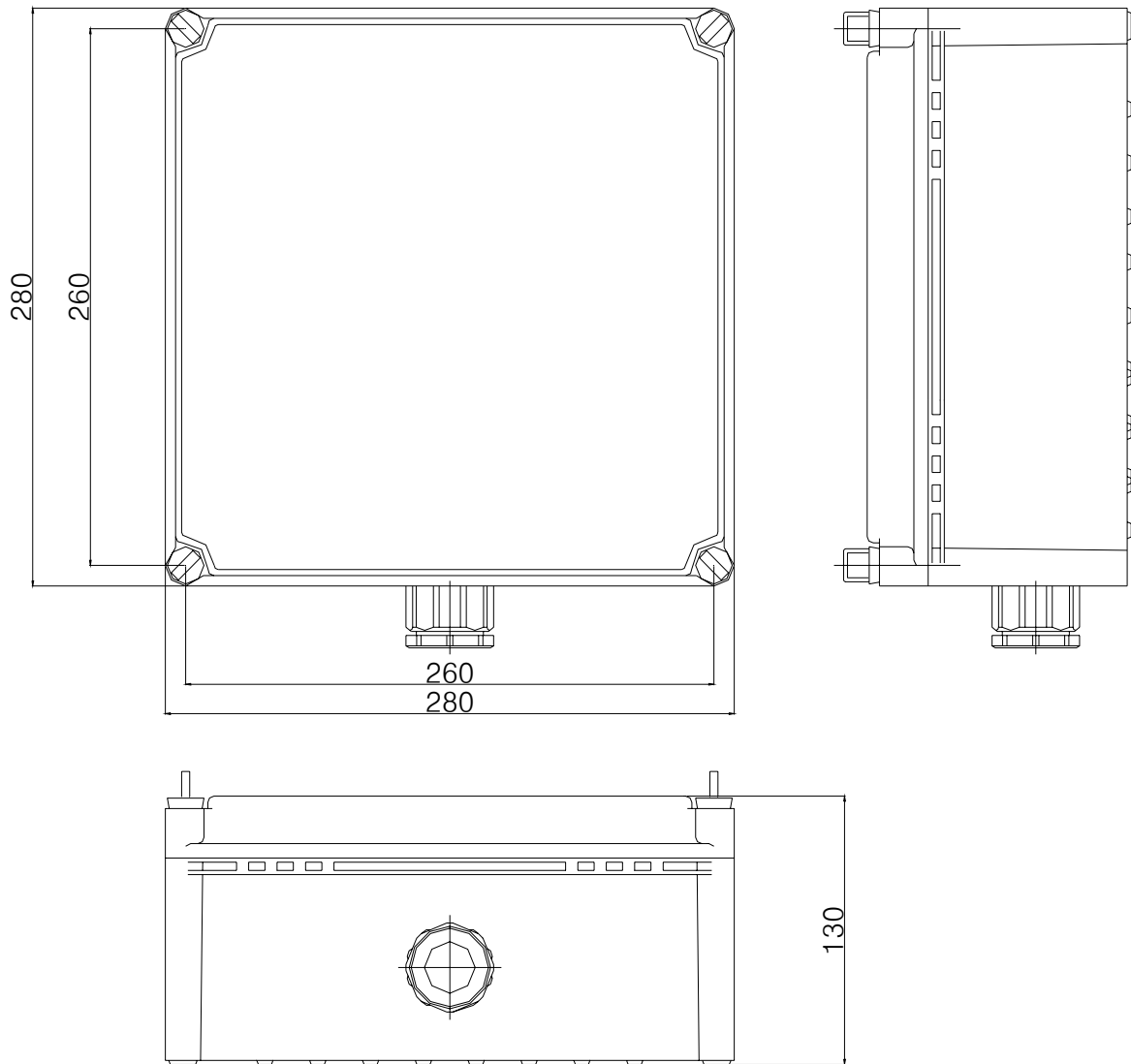
- You make sure that the Power Switch is Off Position before install.
- Never install in improper circumstances. (Consider Temperature, Humidity, etc)
- Never install near the Magnet or so.
- Never open the Cap in Operation.
- Always use the designated power supply.
- This unit can be used in $-15^{\circ}\text{C} \sim 60^{\circ}\text{C}$ Condition and also be used both indoor and outdoor.
- Never expose the unit to impact.
- Always handle the connecting cords properly.

2. REPAIRING MEASURES

* Check the unit as the following ways when you happen to meet situations mentioned in table.

Status	Confirmation	Management
Power not supplied	Is the Power supplied normally?	Reconnect the Power after confirmation
Power is being supplied normally, but the unit doesn't work	Is the right fuse and voltage you are using?	Check the fuse and control the input voltage of S/W in normal
Data LED is not working	Is Data Line connected normally?	Check the state of Data Line Connection
Operates up & down, but doesn't operate left & right	Isn't the unit being fixed in AUTO PAN function?	Off the AUTO PAN function
Data LED is operating, but the Pan/Tilt doesn't work	(1) Is the address of DIP S/W correct? (2) Is the socket in right position in COMM SEL box?	1) Off the power and fix a correct DIP Switch 2) Check again the socket's position in COMM SEL box
There's a trouble at a revolution speed of PAN/TILT	Is the right voltage selected?	In the Pan/Tilt power selecting box, confirm the right connection
Zooming is operating in opposite way		Insert the socket oppositely in LPC box
Doesn't operate left & right	Is the unit in AUTO PAN function?	Off the Auto Pan function at Keyboard
* Please contact where you purchased if you happen to meet the other problems.		

CHAPTER 5. APPEARANCE



UNIT: mm

CHAPTER6. SPECIFICATION

Power	● AC 110V/220V, 50/60HZ
Power Consumption	● 1KW
Communicating Method	● RS485/RS422 DATA Async., 1 start bit, 1 stop bit, 8 data bits, No parity, 9600 bps ● NEGATIVE TTL (9V PULL UP) Async., 1 start bit, 1 stop bit, 8 data bits, Even parity, 1200 bps
Cable	● Shielded Twisted Pair Cable is recommended
Address Setting	● DIP Switch
Voltages	● ZOOM --- $\pm 9V$ ● FOCUS --- $\pm 9V$ ● IRIS --- $\pm 9V$ * Can change the lens-activating voltage in control keyboard. ● PAN/TILT --- AC 24V, Input Power (AC110, 220V) ● CAMERA POWER --- Same as Input Power (MAX. 1A) ● AUTO PAN --- Same as Pan/Tilt Power ● LIGHT POWER --- Same as Input Power (MAX 5A) * When released, Pan/Tilt Power is set to AC24V. ● AUX1 --- No Voltage, Point of Contact
Constituent Parts	● CCTV Receiver 1EA ● Manual 1EA ● Fuse (1A, 5A) 2EA ● Brackets 4EA
Dimension	● W: 280 × H: 280 × D: 130 (UNIT: mm)
Weight	● 3Kg
Material	● PC . ABS (Grey)

Notice: Some gages can be modified without notice for improving the efficiency and quality of the unit.

