ScanDome II™ KEYBOARD CONTROLLER

HTX-3000

Instruction Manual

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HTX-3000

Please read this manual thoroughly before use and keep it handy for future reference.

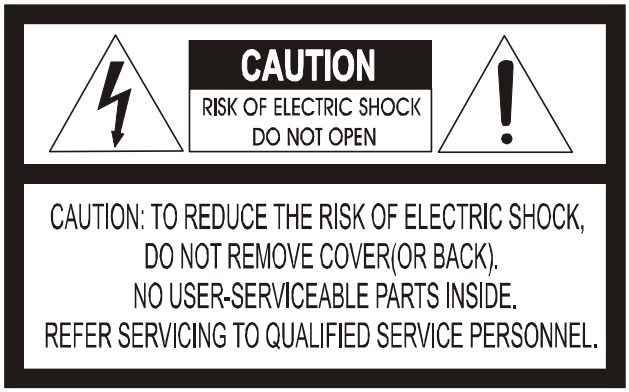
Rev.2 04/10/05

WARNING AND CAUTION

WARNING

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE. DO NOT INSERT ANY METALLIC OBJECTS THROUGH THE VENTILATION GRILLS OR OTHER OPENINGS ON THE EQUIPMENT.

CAUTION



EXPLANATION OF GRAPHICAL SYMBOLS

The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instruction in the literature accompanying the product.

FCC COMPLIANCE STATEMENT

FCC INFORMATION: THIS EQUIPMENT HAS 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 EQUIPMENT 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.

CAUTION: CHANGES OR MODIFICATIONS NOT EXPRESSLY APPROVED BY THE PARTY RESPONSIBLE FOR COMPLIANCE COULD VOID THE USER'S AUTHORITY TO OPERATE THE EQUIPMENT.

THIS CLASS A DIGITAL APPARATUS COMPLIES WITH CANADIAN ICES-003.

CET APPAREIL NUMÉRIQUE DE LA CLASSE A EST CONFORME À LA NORME NMB-003 DU CANADA.

CE COMPLIANCE STATEMENT

WARNING

THIS IS A CLASS A PRODUCT. IN A DOMESTIC ENVIRONMENT THIS PRODUCT MAY CAUSE RADIO INTERFERENCE IN WHICH CASE THE USER MAY BE REQUIRED TO TAKE ADEQUATE MEASURES.

IMPORTANT SAFEGUARDS

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with dry cloth.
7. Do not block any ventilation openings. Install in accordance with the manufacturer's instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that product heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong is provided for your safety. If the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Unplug this apparatus during lightning storms or when unused for long periods of time.
13. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.
14. CAUTION - THESE SERVICING INSTRUCTIONS ARE FOR USE BY QUALIFIED SERVICE PERSONNEL ONLY. TO REDUCE THE RISK OF ELECTRIC SHOCK DO NOT PERFORM ANY SERVICING OTHER THAN THAT CONTAINED IN THE OPERATING INSTRUCTIONS UNLESS YOU ARE QUALIFIED TO DO SO.
15. Use Certified/Listed Class 2 power supply transformer only.
16. Warranty does not cover the product damages caused by installation carelessness or natural disaster such as lighting.

Table of Contents

Chapter 1
INTRODUCITON

1.1 Features

This keyboard controller is capable to control 32 ScanDomeII™ dome cameras and remote control functions for variety of external switching devices like Multiplexer(max 255) etc…

The keyboard controller features:

- The capability of control a camera's panning and tilting movement with variable speed from 0.5 °/sec to 90°/sec as well as its zoom, focus, and iris command. Normal speed is inversely proportional to the current zoom ratio. Turbo speed is Max 380°/sec when ***Ctrl*** key pressed.
- The ability to define and recall up to 240 ***presets***, which are immediate camera call-ups of preset position view, with automatic zoom and focus.
- The ability to define and run up to 8 ***patterns***, which comprise a sequential series of pan, tilt, zoom, and focus movements from a single camera.
- The ability to define and run up to 8 ***scans***, which scan between two limits.
- The capability to incorporate up to 300 of the presets, patterns, scan and tour itself in up to 8 ***tours***, where the presets, patterns and scan automatically displayed one after the other on the Main monitor.
- ***Global preset*** recalls preset of all dome cameras.
- Auto Iris mode activated by moving the joystick slightly.
- Auto Focus mode is activated by twisting the zoom handle slightly.
- Programmable user preferences (alarm, preset, title, etc.).
- Administrator and user, two levels of password are supported for higher security.
- One Master and slave Keyboard is supported to control in a distant place.
- Multiplexers (Max 255) can be controlled remotely.
- Up to two programmed data from domes can be downloaded to none volatile memory space in KBD, and uploads to a new dome.

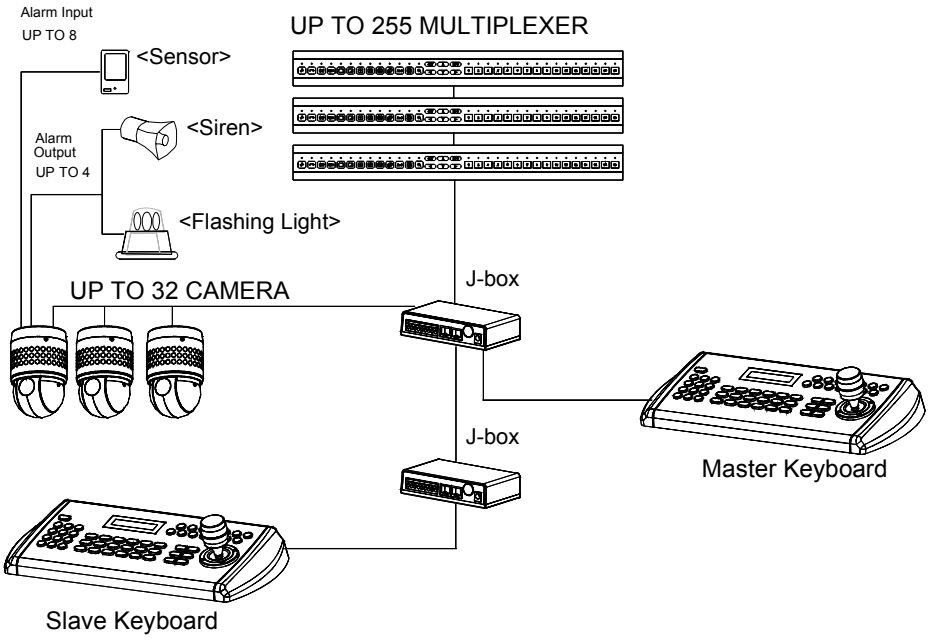


Figure 1 – Typical system Configuration

1.2 Unpacking

Unpack the equipment and make sure all listed items are included in the box.

Contents of Keyboard box

Keyboard controller ---------- 1

Junction box ---------- 1

3m cable ---------- 2

M4 Self tapping screws ---------- 4

Instruction manual ---------- 1

12VDC SMPS & Power Cord ---------- 1

Chapter 2
INSTALLATION

2.1 Connection Diagram

2.1.1 Basic Installation Diagram

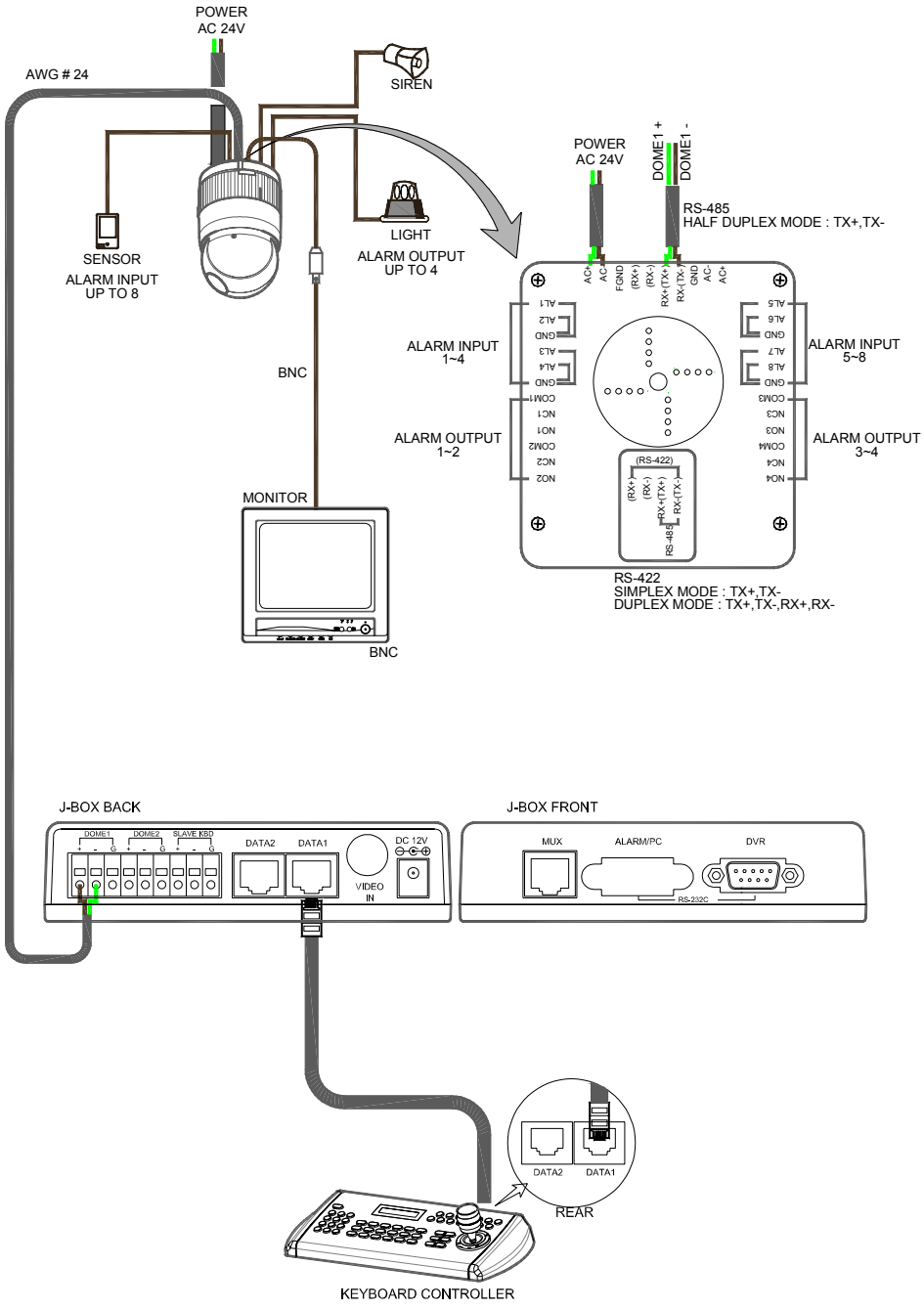


Figure 2 – Basic installation diagram

2.1.2 Single Multiplexer

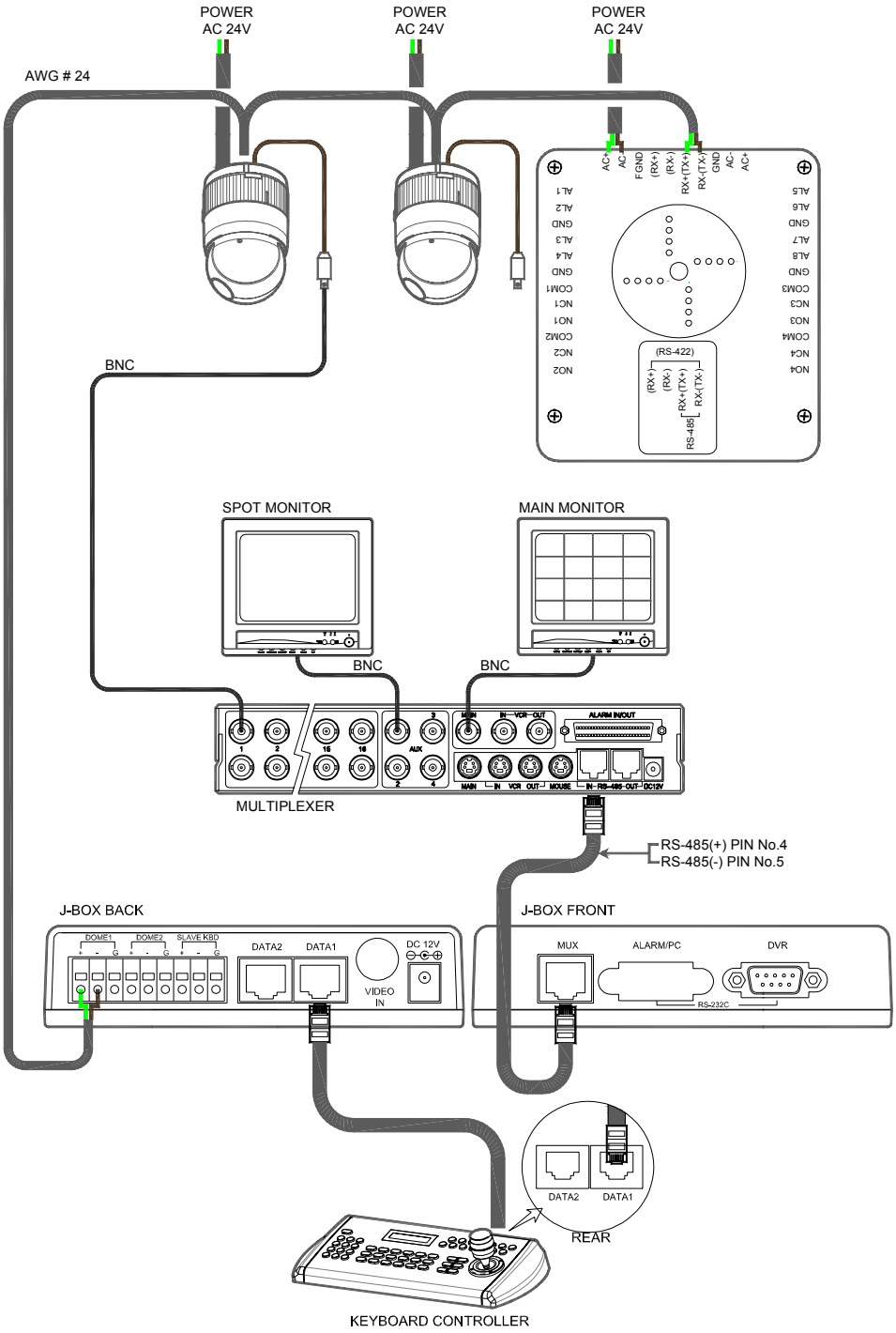
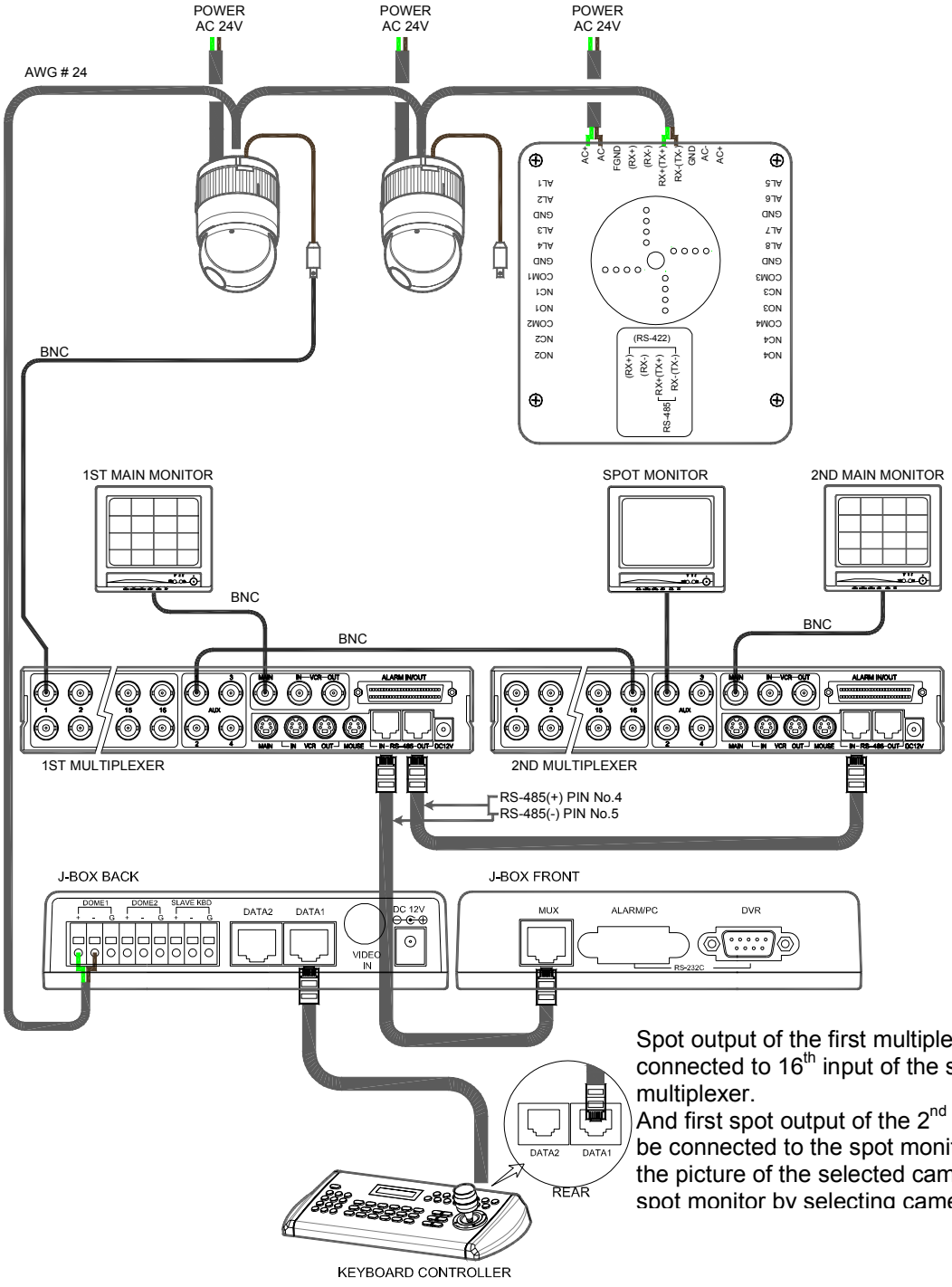


Figure 3 – Single Multiplexer

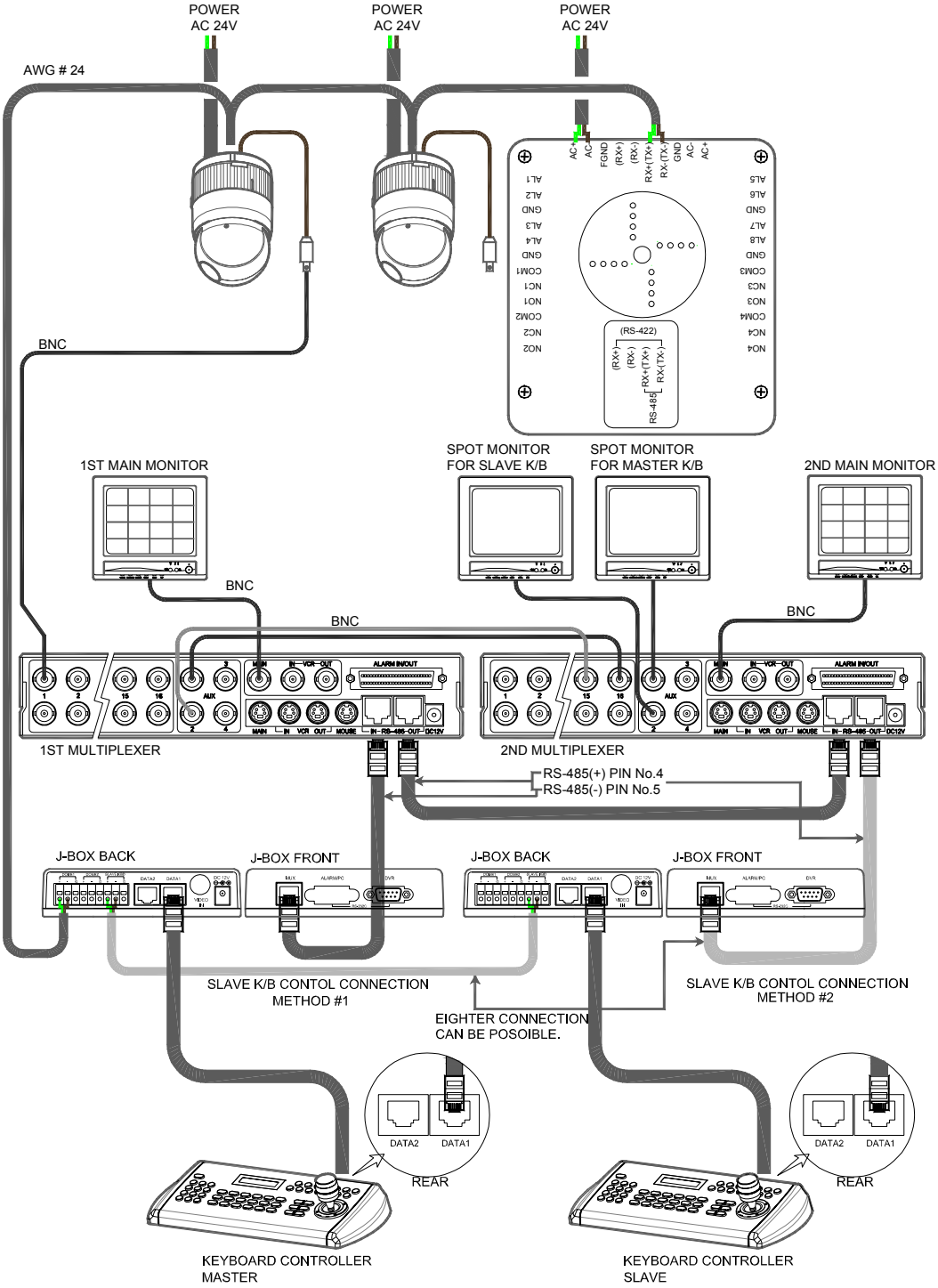
2.1.3 Single User with Two Multiplexer



Spot output of the first multiplexer to be connected to 16th input of the second multiplexer.
And first spot output of the 2nd multiplexer to be connected to the spot monitor. You will see the picture of the selected camera (1~31) on spot monitor by selecting camera ***No.+Cam***.

Figure 4 – Two Multiplexer

2.1.4 Two Multiplexer with Slave Keyboard Controller



Spot output 1 of the first multiplexer to be connected to 16th input of the second multiplexer. n: User, Spot out of n th to be connected to (15-n) th camera input of the 2nd multiplexer. n th spot out of the 2nd multiplexer to be connected to the n th use spot monitor. Each user will see the picture of the selected camera (1~(31-n)) on n th spot monitor of the Mux 2 by selecting camera ***No.+Cam***.

Figure 5 – Two Multiplexer with Slave Keyboard Controller

2.2 Termination & Dip Switch Setting

The first and last devices in an installation (dome and keyboard controller) must have the data line terminated by setting the DIP switch. Without proper termination, there is potential for control signal errors. Total length of the cable for communication should not exceed 1.2 km. Refer to Figure 7 for setting the dome camera and keyboard controller termination.

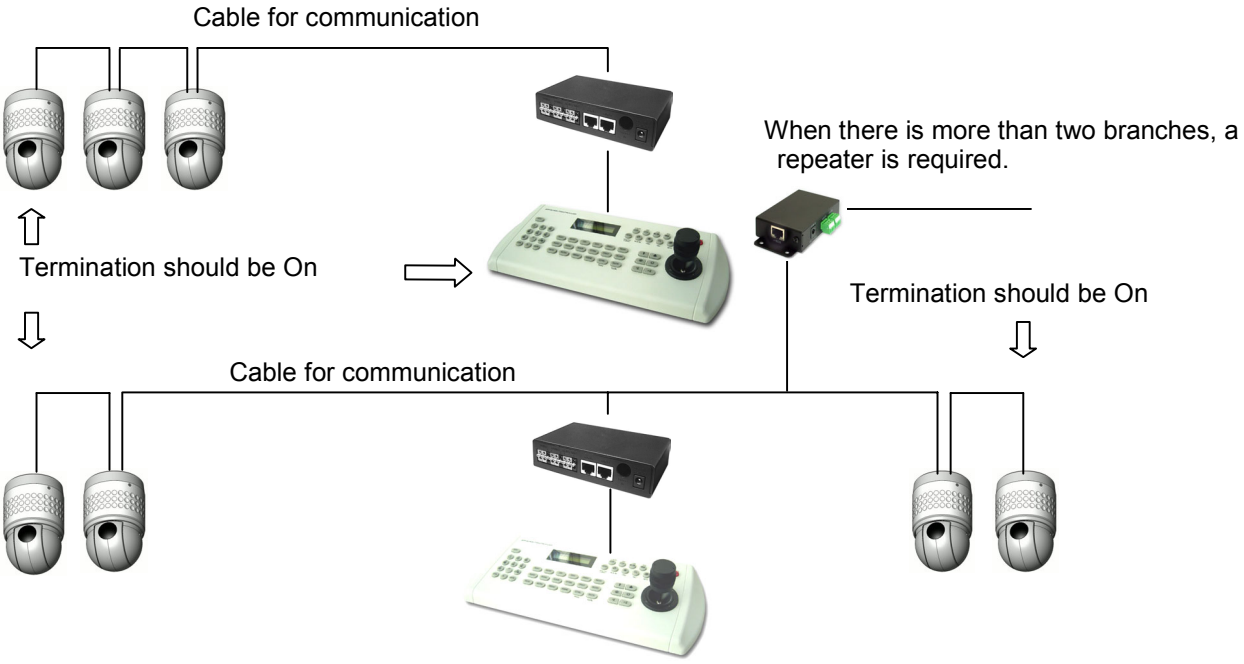


Figure 6 – Termination and ID Switches.

Termination and Master/Slave: Set the switches according to your configuration.

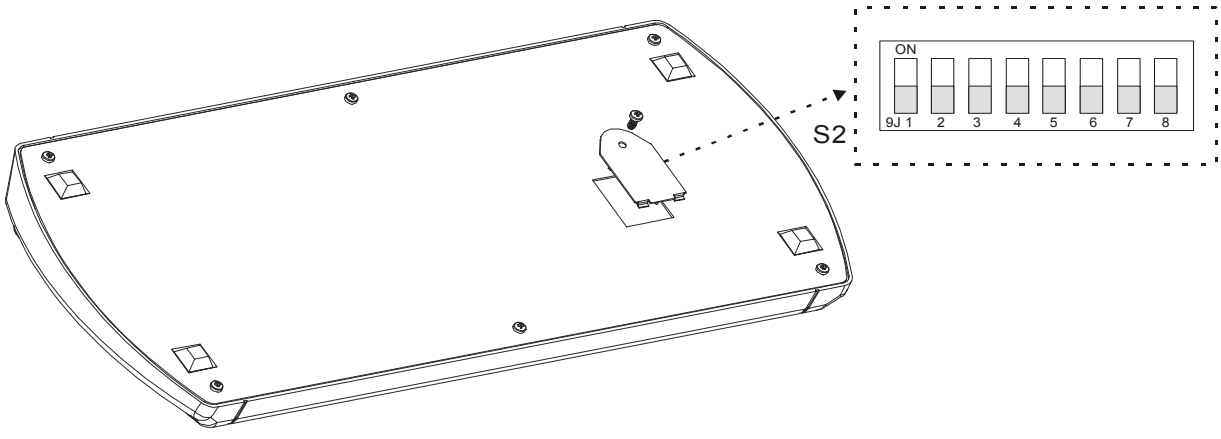


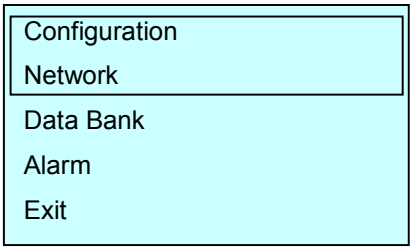
Figure 7 – Keyboard DIP Switches

Termination	DOME	Multi-plexer	Sub-controller				Controller		
	1	2	3	4	5	6		7	8
ON	ON	ON	ON	reserved			SLAVE	ON	Factory Use
OFF	OFF	OFF	OFF				MASTER	OFF	

Table 1 – S2 Switch Setting

2.3 Keyboard Setup

User need to setup network, passwords and special functions such as Uploading and Downloading programmed data from the dome cameras. To enter the Keyboard menu, press ***Ctrl + Menu***. You will see the following menu. Joystick Up/Down scrolls menu items, push the stick to Right to enter the sub-menu.



Configuration

- Key Beep : ON - enable key beep sound,
  OFF - Disable beep sound.
- Key-Lock : OFF~60Min - After elapsed setup time, keyboard lock automatically.
  OFF - Disable Auto Key-Lock function.
  User needs login password to operate Keyboard again.
- Chg User Pin - Change 4digit of user password.
  CurrentPin : Enter 4 digits of current user's password.
  NewPin : Enter 4 digits of new password.
  ConfirmPin : Confirm 4 digits of new password.

- Chg Admin Pin - Change 4 digits of administrator's password.
  CurrentPin : Enter 4 digits of new password.
  NewPin : Enter 4 digits of new password.
  ConfirmPin : Confirm 4 digits of new password.

Note) Factory default Administrator's password is 9999+Enter and user password is 1111+Enter.
If you forgot your own password, contact service personnel or distributor.

- Rescan Domes Scan newly installed dome cameras without turn off the Keyboard power.

- Save and Exit Save the programmed data and return to the previous Menu
  (Exit without saving if you press ESC key)

Network Setup properties of devices to be connected.

- Set Baud rate
  - Dome : 2400~230K — Correspond with dome setting (9600bps)
  - MUX : 2400~230K
  - DVR485 : 2400~230K
  - DVR232 : 2400~230K
  - Save and Exit

- Com Ports — Select the device to be connected on selected port.
  - Dome : None/Dome …
  - MUX : None/DUPLEX/TRIPLEX/AUX IN/AUX I/O…
  - DVR485 : None/ADR/SDR/IDR/AUX IN/AUX I/O…
  - DVR232 : None/ADR/SDR/IDR/AUX IN/AUX I/O…
  - Save and Exit — Save the programmed data and return to the previous Menu (Exit without saving if you press ***ESC*** key)

Note) AUX IN : auxiliary signal input (simplex mode)
AUX I/O : when auxiliary signal input , respond to the signal (Half duplex mode)

- Set Slave kbd
  - Slave kbd : ON/OFF — ON- Slave KBD exit, OFF- Not exist.
  - MUX control : ON/OFF — Set accessibility of the multiplexer menu at slave keyboard
  - Dome Menu: ON/OFF — Set accessibility of the dome camera menu at slave keyboard
  - Release :INF/001~200s — INF (Infinite) - Slave Keyboard user never have the control right of the dome which is selected by master Keyboard users
    1 ~ 200s(Second) - After elapse of programmed time since master Keyboard user use the dome, slave Keyboard user can get the control right of the dome.
  - Save and Exit — Save the programmed data and return to the previous Menu
- Exit

- Data Bank - Up/Download saved data of the dome
  - DataBank 1 : 001 — 001— Data from Dome ID 001 is exist on Bank 1
    - Upload
    - Clear Data

    If you are sure to upload or clear data to the selected dome then press ***Enter*** key, ***ESC*** key to cancel and exit.
  - DataBank 2 : Empty
    - DownLoad
    - Exit

    If you are sure to download data from the selected dome then Press ***Enter*** key, ***ESC*** key to cancel and exit.

- Alarm
  - Alarm Check : ON/OFF — Whether K/B check the alarm input of domes or not. On : 32 domes, Off : 64 dome cameras supported.
  - Alarm Beep : ON/OFF — When dome's alarm, beep sound on or off
  - Exit

2.4 Master & Slave Keyboard setting

You can use two keyboards at distant site.

Master keyboard should be setup as following procedure.
1. Check for dip switch the 7th of S2 “OFF”.
2. Press ***Ctrl + Menu***. Check Slave KBD setting “ON”. (Network ▶ Set Slave Kbd ▶ Slave kbd:ON/OFF)

Slave keyboard need to setup as following procedure.
1. Check for dip switch the 7th of S2 “ON”.
2. If you setup all connection correctly (See Figure 4) and turn on slave keyboard, you can see following screen.

SCANDOME II Vxxx	
Slave ID = 1	← Current Device ID = 1
Input Password : xxxx	← Default setting is ***9999*** for administrator, ***1111*** for user
CAM : 000	← 000 means that the controller is not connected to the master keyboard

3. Press ***Ctrl + Menu***. Set the Slave ID to 01
4. Set Slave Node to “B” in case that master keyboard model is HTX-3000 and to “B” in case HTX-2000

Slave ID = 1	
Slave Node : A / B	← A : HTX-3000 , B : HTX-2000

Chapter 3
OPERATION

3.1 Keyboard Lock/Unlock **(Hidden command)**

When the user leaves the control desk, he may wish to lock the keyboard controller to prevent unauthorized use.
Pressing ***777 + Enter*** will lock the keyboard controller. Pressing ***777 + Enter*** while the keyboard is locked will open the password screen. If the correct password is entered, the keyboard controller will return to normal operation.
If the power is turned OFF and ON while the keyboard is locked, it will ask for the password. Entering the correct password will cause the keyboard controller to return to normal operation.

> *** If you forget your own passwords, turn off the keyboard controller, contact distributor to get 4-digit back door password. This will change the passwords to the factory default **1111** and **9999**. Contact your service personnel to get 4-digit back door password.*

3.2 Controlling Multiplexer

Using a multiplexer allows more flexibility in the types of cameras that can be used in a full system. Dome cameras and regular cameras can be mixed.

The keys ***PIP, 2x2, 3x3, 4x4, Zoom, Set***, etc., are keys that are used to operate the multiplexer.
See Figure x for details.

3.2.1 Selecting Multiplexer

Duplexer : Press ***Macro/Menu*** key to enter Multiplexer set up menu and hold down the ***Enter*** Key while navigating using the joystick. (***Enter+Joystick***)

Triplexer : Push the ***Jostick*** to upward with ***Enter*** pressed (***Enter+Joystick***)will show the Mux menu. It will act like a mouse. Rotatingthe handle clockwise will act like the set key of the multiplexer. Rotating counterclockwise will act like the ***ESC*** key of the Multiplexer.

3.2.2 Dome Camera Selection

There are three types of dome camera selection, ***No.+Cam***, ***No.+Main*** and ***Prev*** or ***Next***. And with these selections, the keyboard controller has full control of the selected camera if it is a dome camera.

Single multiplexer configuration
By pressing the camera No. ***1*** to ***16+ Cam***, you will see the picture of the selected camera through the spot monitor which connected to the spot output of the multiplexer.

Two multiplexer configurations
By pressing the camera No. ***1*** to ***31 + Cam***, you can see the picture of the selected camera through the spot monitor which is connected to the spot output of the second multiplexer.
Spot output of the first multiplexer is connected to the 16th camera input of the second multiplexer.

For example, ***1 + Cam*** will switch the camera 1 to second multiplexer spot output. If the selected camera is a dome, the keyboard controller has control of it, and you can control all functions of the selected camera using the keyboard controller.

Pressing the **Next** or **Prev** keys will scroll through all connected dome cameras and display them on the Spot output.

Viewing full screen mode (*m + Mux*, *n + Main*)

Select cameras 1 to 16 by pressing the camera number and then Main. The selected camera will appear in the full screen mode and is under control if it was dome camera.
Even if no camera is connected to the multiplexer input, the screen will show the camera input (see following example).

To select first multiplexer under control, press ***1 + Mux*** (m: ID of Mux – up to 128)successively

Multiplexer 1	Keyboard controller
1	***1+ Main***
2	***2+ Main***
.	
.	
15	***15+ Main***
16	***16+ Main***

This sequence (***No.+Main***) is same as pressing the 1, 2, 3…16 buttons on the multiplexer.

To select second multiplexer under control, press ***2 + Mux***
when a second multiplexer is connected:

Multiplexer 2	Keyboard controller
1	***1+ Main***
2	***2+ Main***
3	***3+ Main***
.	
.	
16	***16+Main***

When using two multiplexer configuration, connect the main or spot output of the first multiplexer to the Camera 16 input of the second multiplexer.

If the spot output of the first multiplexer is connected to the Camera 16 input of the second multiplexer, you can see selected camera output through the spot output of second multiplexer by pressing camera No. (***1*** to ***31***) + **Cam** Successive camera call is valid on two Mux configuration only.
For example: ***1+Cam*** will switch camera 1 to the second multiplexer spot output and you can control all functions of the selected camera using the keyboard controller.
If you install more than two Multiplexers, the unit number (ID : up to 128) of the Multiplexer and selection of the Multiplexer must be the same in order to control the Multiplexer with the Keyboard.

Example: *If the unit address (number, see page 15) of the Multiplexer is 128, you should press* ***128 + Mux*** *to control the 128th Multiplexer.*

Picture on Spot output monitor (Camera No.1~16+Aux1~4)

Pressing Camera No. ***1*** to***16 + Aux1~ 4*** will switch the selected camera number to the specific spot monitor output of the multiplexer. The selected camera can be a dome camera or a standard camera. The Keyboard controller maintains control of the previously selected dome camera. It does not change the main output of the multiplexer.

Example: m+Mux, n+AuxN ***m****: ID of Mux,* ***n****: input No. of camera,* ***N****: spot output No.*
1+MUX*,* ***2+Aux1(~4)*** *will switch camera 2 on multiplexer 1 to the spot output of multiplexer 1.*
2+MUX*,* ***3+Aux1(~4)*** *will switch camera 3 on multiplexer 2 to spot output of multiplexer 2.*
1+Cam *will switch camera 1 to the spot output of multiplexer 1 and the keyboard controller has control of the selected camera.*

*In a two multiplexer configuration, **18+Cam** will switch camera 18 (second camera on Multiplexer 2) to the spot output of multiplexer 2 and the keyboard controller has control of the selected camera.*
***31+Cam** = camera 15 of the second multiplexer.*

3.3 Summary of Keyboard Controls

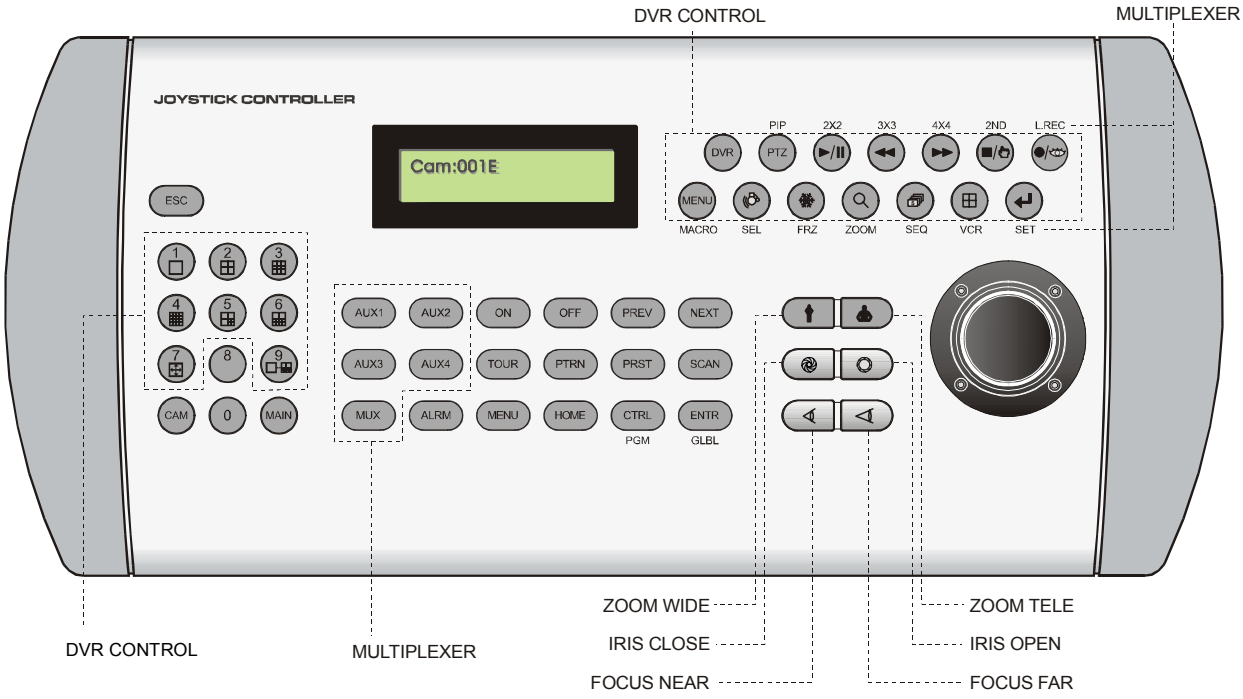


Figure 8 – Keyboard Key map

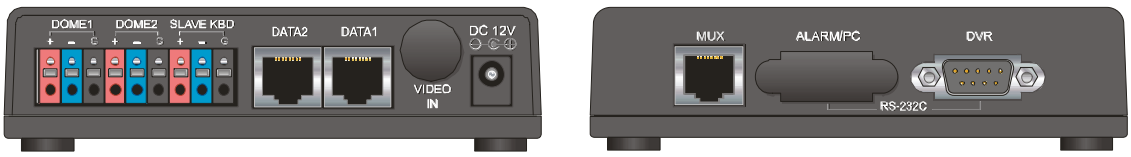


Figure 9 – J-box Front & Rear

Key operation example

Ctrl + Menu : Press and hold down ***Ctrl*** Key and press ***Menu*** Key

1 + Cam : Press ***1*** Key, ***Cam*** Key sequentially

Ctrl + Joystick : Press and hold down ***Ctrl*** Key while manipulate ***Joystick*** Handle

Enter + Joystick : Press and hold down ***Enter*** Key while manipulate ***Joystick*** Handle

3.3.1 Keys for Dome camera

Function	Key Label	Descriptions
1,2, ... 9,0	***1,2, ... 9,0***	Camera selection with **Cam** key. Function number selection with function keys. (e.g., ***1+Cam, 3+Tour, 5+Scan, 6+Prst***)
Camera	***CAM***	Displays the selected camera on the spot out of the multiplexer and allows the camera to be controlled by the keyboard controller, if the selected camera is a dome camera.
Full	***MAIN***	Camera No. ***1~16+Main*** will display the selected camera full screen
Cancel	***ESC***	Cancels current inputs. Exits from currently running functions or menu, error status, etc.
Alarm	***ALRM***	Disregards all currently activated alarms and turns off the beep temporarily. If alarm is activated again within the programmed hold time, the timer will restart and beep again.
Relay ON	***ON***	Relay No. ***1~4+ ON*** will activate the selected relay.
Relay OFF	***OFF***	Relay No. ***1~4+ OFF*** will disable the selected relay.
Previous	***PREV***	Allows the previous dome camera to be controlled manually.
Next	***NEXT***	Allows the next higher number dome camera to be controlled manually.
Home	***HOME***	Immediately calls Home function. Deletes selected value or function in programming mode
Global	***GLBL***	Sends all cameras to preset (e.g., ***1, 2… 55 + Enter/Glbl***). ***888+Enter/Glbl***: Night shot mode, *999+**Enter/Glbl***: Normal mode
Call Preset position	***PRST***	Pressing Prst will bring up the preset programming menu. Recalls preset; e.g.; ***1, 2… 31… 240 + Prst*** In the preset or tour programming mode, the operator can review the exiting preset (selected by cursor) by pressing this key.
Tour	***TOUR***	Pressing ***Tour*** will bring up the tour programming menu directly Recalls programmed presets or functions sequentially. (e.g., ***1 ~ 8+Tour***)
Pattern	***PTRN***	Pressing ***Ptrn*** will bring up the pattern programming menu directly. Repeats the selected pattern of the current dome camera. (e.g., ***1 ~ 4+Ptrn***)
Auto Scan	***SCAN***	Pressing Scan will bring up the Auto Scan programming menu. Calls Auto panning function (e.g., 2+Scan repeats Auto Scan 2).
Configuration	***MENU***	Enters programming menu. ***Ctrl+Menu*** will invoke Keyboard set up menu
Program	***PGM***	***No.+Pgm+Prst*** will store current view as a preset directly. ***No.+Pgm+Tour*** *will open programming menu* ***No.+Pgm+Scan*** *will open programming menu*
Control	***CTRL***	***Ctrl+Joystick :*** In a programming mode (Preset, Pattern, Scan, Privacy….) the joystick operates as if in the normal control mode. While pressing and holding down the ***Ctrl*** key, all movements of the joystick will start recording when in the pattern programming menu. ***Ctrl+Joystick:***, In normal operation mode, manual speed of the joystick control will be operated in turbo mode. (Max. speed = 380° /sec)
Enter	***ENTER***	Completes entering data for the password or title ***ENTER+Joystick : Direction*** *key in DVR remote mode or Mux (PTZ, Mouse, Cursor)*

Manual Focus		Overrides auto focus. Moving the Zoom handle reactivates Auto Focus mode.
Manual Iris		Overrides auto iris. Moving the joystick reactivates Auto Iris mode.
Zoom		Zoom control.
Joystick	**Twist** **Up / Down** **Left / Right** **Press(Toggle)**	Zoom control (proportional to position).(HID2404CZx model only). Tilt control, Cursor Up / Down in the PGM. menu Pan control, Cursor Left / Right or Page scroll in the PGM. Menu Pressing the joystick toggles between zoom control mode on and off. When zoom control mode is on, you can see “Z” letter at LCD right down corner. (joystick up : zoom in & joystick down : zoom out) (HID2404CLx model only).

3.3.2 Keys for Multiplexer

Function	**Key Label**	**Descriptions**
PiP	***PIP***	Picture-in-Picture mode
2 by 2 Display	***2X2***	Displays view of four cameras. The remaining cameras can be sequenced in the lower-right window.
3 by 3 Display	***3X3***	Displays view of nine cameras. The remaining cameras can be sequenced in the lower-right window.
4 by 4 Display	***4X4***	Displays view of 16 cameras in 1/16-size pictures.
2nd	***2ND***	Second mode of PIP multiplexer. Pressing 2nd+Enter again will return to normal mode.
Panic record	***L.REC***	Put a camera in the Panic Record Mode.
Macro	***MACRO***	Same as Menu key in the Duplexer model. Same as Macro key in the Triplexer model.
Select or Alarm	***SEL***	Same as Select key in the Duplexer model. Same as Alarm key in the Triplexer model.
Freeze	***FRZ***	Freeze the video from the currently selected camera.
Digital Zoom	***ZOOM***	Enter the Zoom Mode.
Sequence	***SEQ***	Put the multiplexer in the Sequence Mode.
VCR	***VCR***	Switch the multiplexer into VCR playback mode.
SET	***SET***	This button has several functions. It brings up a Popup Menu, sets selections on the OSD menus and decreases numbers in the number setup function.
Spot output	***AUX1 (~4)***	Displays selected camera as spot output of the current Multiplexer. (e.g., 2+Aux1 will display camera 2 as a spot output of the current Multiplexer)
Select Mux ID	***MUX***	Select Multiplexer (e.g.; 1 or 2+Mux)
Cursor movement	***Enter + Joystick***	Up / Down / Left / Right control in the ZOOM and SET UP mode. Handle turn clockwise for SET mode. Handle turn counterclockwise for ESC mode.

Appendix A
Trouble Shooting

If problems occur, verify the installation of the camera with the instructions in this manual and with other operating equipment. Isolate the problem to the specific piece of equipment in the system and refer to the equipment manual for further information.

Problem	Possible Solution
Joystick can't control system.	1. Check that the dome camera IDs are set properly (See Figures 1 to 7). Check the polarity of the data line
Camera number does not match the multiplexer number.	1. Check the camera ID and insert the BNC cable into the proper input of the multiplexer.
Forgot password	1. Consult your supplier, distributor or service Center
Multiplexer can't work with the Joystick controller.	1. Check that the data cable for the multiplexer has the correct Pin configuration (1=1, 2=2, 3=3 .... 8=8). 2. Check the communication menu of Multiplexer as per Pages 15 (setting Multiplexer)

Appendix B
SPECIFICATION

Power Consumption	12VDC, 5W
Control Method	RS-485, RS-232C
Baud Rates	2400~230K bps
Operating Temperature	0°C to 50°C(32°F to 122°F)
Humidity	0 to 90%RH(non-condensing)
Storage temperature	-20°C to 60°C(-40°F to 122°F)
Dimension	380 x 168 x 96 (mm)
Shipping Dimension	452 x 283 x 162 (mm)
Unit Weight	Approx. 1.2kg
Shipping Weight	Approx. 3.0kg
Communication	Dome Connection : Max 32
	Multiplexer Connection : Max 255

(Design and Product specifications subject to change without notice)

ScanDome II™KeyBoard Controller