Honeywell

HSX3208L

32 Input 8 Output
Looping Video Matrix

HEGS5002

System Controller

User Manual

900.0398 – January 2006 – Rev. 1.0

ISSUE	DATE	REVISIONS
1.0	January 30, 2006	Initial release

FCC COMPLIANCE STATEMENT

INFORMATION TO THE USER: 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.

USERS OF THE PRODUCT ARE RESPONSIBLE FOR CHECKING AND COMPLYING WITH ALL FEDERAL, STATE, AND LOCAL LAWS AND STATUTES CONCERNING THE MONITORING AND RECORDING OF VIDEO AND AUDIO SIGNALS. HONEYWELL VIDEO SYSTEMS SHALL NOT BE HELD RESPONSIBLE FOR THE USE OF THIS PRODUCT IN VIOLATION OF CURRENT LAWS AND STATUTES.

IMPORTANT SAFEGUARDS

1. **READ AND FOLLOW INSTRUCTIONS** – All of the safety and operating instructions should be read before the appliance is operated and followed during installation and operation.

2. **RETAIN INSTRUCTIONS** – The safety and operating instructions should be retained for future reference.

3, **HEED WARNINGS –** All warnings on the product and in the operating instructions should be adhered to.

4. **CLEANING –** Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning. See cleaning procedures under Maintenance.

5. **OBJECT AND LIQUID ENTRY** – Never push objects of any kind into this equipment 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.

6. **ACCESSORIES** – Do not place this unit on an unstable stand, tripod, bracket, or mount. The unit may fall, causing serious injury to a person and serious damage to the unit. Use only with a stand, tripod, bracket, or mount recommended by the manufacturer, or sold with the product. Any mounting of the unit should follow the manufacturer's instructions, and should use a mounting accessory recommended by the manufacturer.

7. **WATER AND MOISTURE** – Do not use this product near water.

8. **POWER SOURCES** – This unit should be operated only from the type of power source indicated on the marking label.

9. **GROUNDING OR POLARIZATION** – This unit must be connected to a true Earth ground. This product is equipped with a 3-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.

10. **OVERLOADING** – Do not overload outlets and extension cords as this can result in a risk of fire or electric shock.

11. **POWER CORD PROTECTION** – Power supply cords should be routed so they will not be walked on or pinched by items placed on or against them. Pay particular attention to the cord at the electrical outlet and the point where the plug connects to the product.

12. **SERVICING** – Do not attempt to service this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
    Caution: Grounded wrist straps must be worn and proper ESD safety precautions observed when handling the electrostatic-sensitive printed circuit boards.

IMPORTANT SAFEGUARDS, CONTINUED

13. **DAMAGE REQUIRING SERVICE** – Remove power to the unit and refer servicing to qualified service personnel under the following conditions:

    a. If liquid has been spilled, or objects have fallen into the unit.

    b. If the unit 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 unit to its normal operation.

    c. If the unit has been dropped or the enclosure has been damaged.

    d. When the unit exhibits a distinct change in performance - this indicates a need for service.

14. **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.

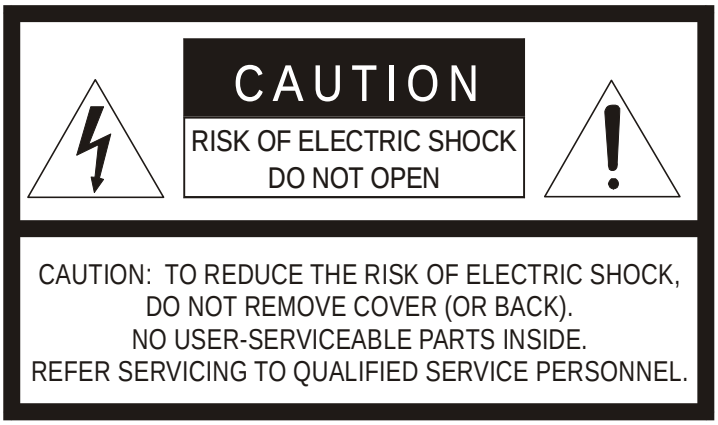
15. **SAFETY CHECK** - Upon completion of any service or repairs to this unit, ask the service technician to perform safety checks to determine that the unit is in proper operating condition.

16. **LIGHTNING** – Surge suppression must be provided for this unit to prevent lightning induced electrical surges. The warranty is void if damage is done to the unit due to electrical surges. For added protection of this unit during a lightning storm, or when it is left unattended and unused for long periods of time, remove power to the unit. This will prevent damage to the unit due to lightning and power-line surges.

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.

CAUTION



WARNING

	**WARNING:** TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS PRODUCT TO RAIN OR MOISTURE.
	**WARNING:** THIS IS AN ElecTROSTATIC-SENSITIVE DEVICE. USE PROPER CMOS/MOSFET HANDLING PRECAUTIONS TO AVOID ELECTROSTATIC DISCHARGE.
	**WARNING:** TO PREVENT ELECTRIC SHOCK, DO NOT REMOVE THE GROUNDING PIN (THIRD PIN) ON THE POWER PLUG ON THE POWER SUPPLY.

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INTRODUCTION

1.1 PRODUCT DESCRIPTION

The HSX3208L is a 32-input, 8-output looping video matrix. An on-screen-display overlays Time, Date, and Camera Identification on the video. The matrix contains 32 alarm inputs and 8 open collector alarm outputs. Up to 32 PTZs can be connected to one of two RS-485 ports. A total of eight (8) keyboards can be connected.

The HSX3208L uses auto terminating BNC connectors for looping video. A 10BaseT Ethernet port provides TCP/IP connection to control Honeywell's range of digital products, providing a true hybrid analog/digital solution.

The HSX3208L is powered by an external universal power supply and can be placed on a desk or 19" rack mounted using the brackets provided.

1.2 FEATURES

The HSX3208L video matrix includes the following features:

- 32 Video Inputs.
- 8 Composite Video Outputs.
- 32 Potential Free Alarm Inputs.
- Control of up to 32 Honeywell domes.
- 8 Open Collector Alarm Outputs
- Support for 8 keyboards
- User programmable macros
- Separate logins for Operators and Master User (supervisor)
- Sequences
- Macros
- Support for Honeywell's digital range of products through the Ethernet connection

WARNING: Users Of The Product Are Responsible For Checking And Complying With All Federal, State, And Local Laws And Statutes Concerning The Monitoring And Recording Of Video And Audio Signals. Honeywell Shall Not Be Held Responsible For The Use Of This Product In Violation Of Current Laws And Statutes.

NOTES:

SECTION 2:
CONNECTIONS

2.1 CONNECTIONS

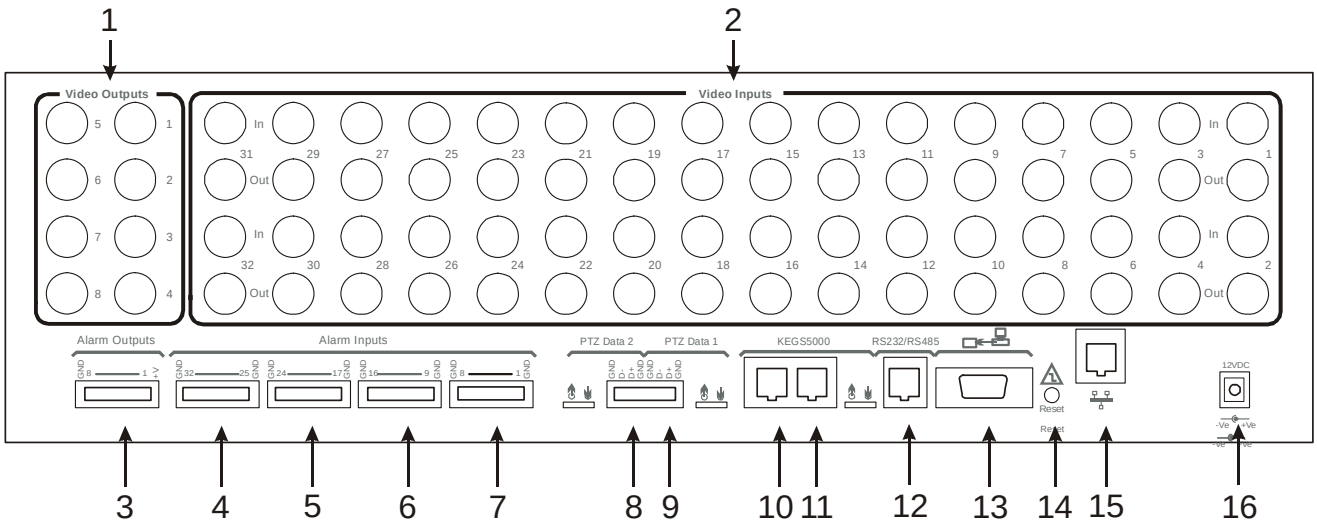


Figure 1: Rear Connections of the HSX3208L

ID	Usage	Description
1	Video Outputs	Composite Video Outputs.
2	Video Inputs	Composite Video Inputs and Auto-terminating Looping Outputs
3	Alarm Outputs	Open Collector Outputs.
4	Alarm Inputs 25 to 32	N/O Alarm Inputs 25-32.
5	Alarm Inputs 17 to 24	Alarm Inputs 17-24 – NC or NO (default).
6	Alarm Inputs 9 to 16	Alarm Inputs 9-16 – NC or NO (default).
7	Alarm Inputs 1 to 8	Alarm Inputs 1-8 – NC or NO (default).
8	PTZ Data 2 (Port 4)	RS-485 PTZ Data 2. Connect to PTZ (KD6i/HD6/RapidDome) domes (cameras 17-32).
9	PTZ Data 1 Port 3	RS-485 PTZ Data 1. Connect to PTZ (KD6i/HD6/RapidDome) domes (cameras 1-16)
10	HEGS5002 Keyboard	RS-485 Keyboard Port. Connect to HEGS5002.
11	HEGS5002 Keyboard (Port 2)	RS-485 Keyboard Port. Connect to HEGS5002.
12	Auxiliary (Port 1)	RS-485/RS-232 Auxiliary Port.
13	Download Port	RS-232 Connection to PC for Firmware Uploads.
14	Reset Button	System Reset.
15	Ethernet Port	10BaseT Ethernet Port.
16	Power Socket	Power Connection 9~12V dc.

NOTES:

SECTION 3:
INSTALLATION AND SETUP

3.1 INSTALLATION

3.1.1 Connecting HEGS5002 Keyboards

The figure below shows two HEGS5002 keyboards connected to the HSX3208L.

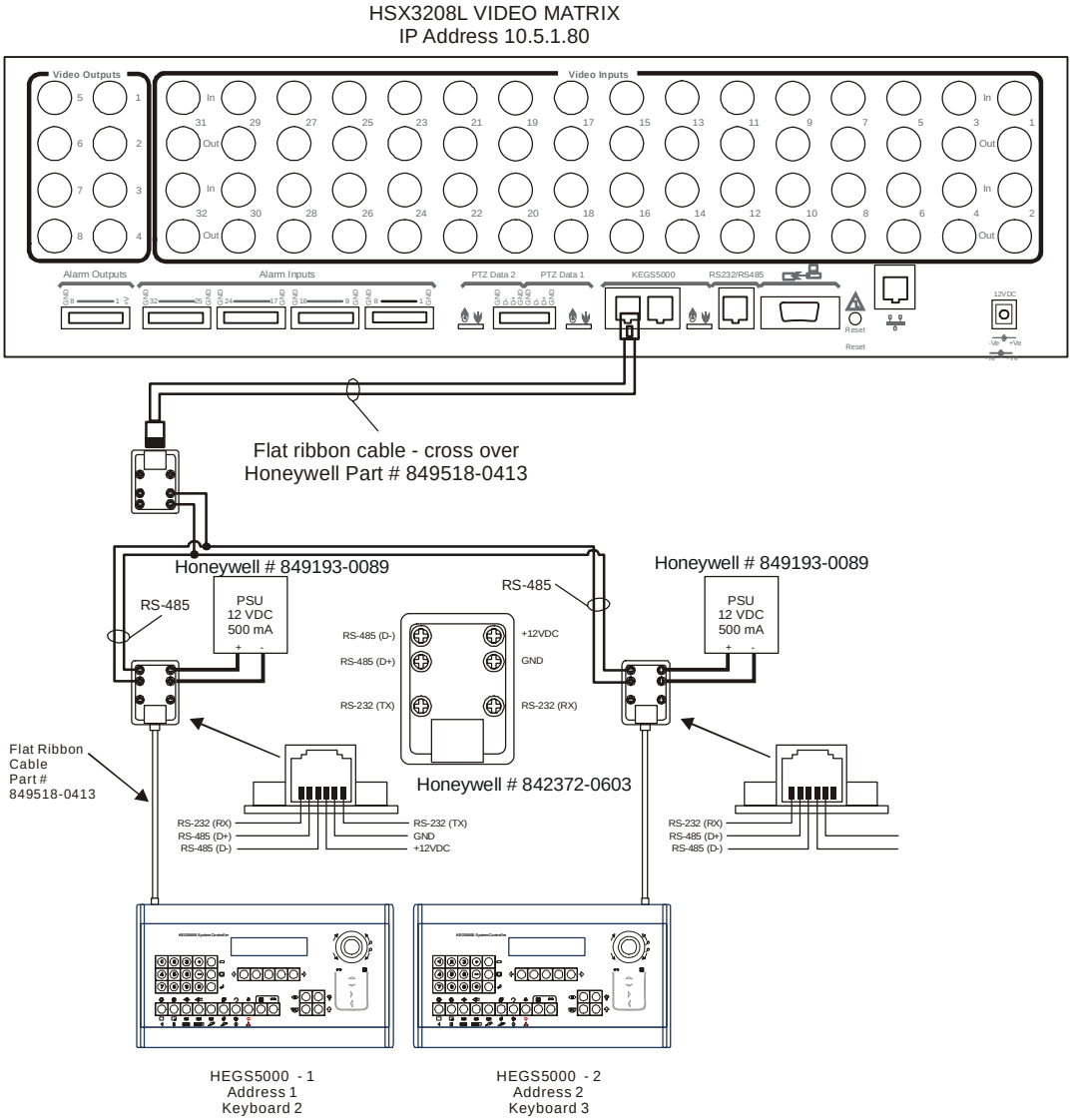


Figure 2: Connecting 2 HEGS5002 Keyboards

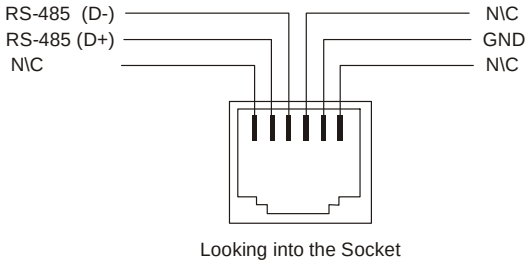


Figure 3: HEGS5002 Connections

3.1.2 Connecting the HSX3208L with a Digital Server and Client

The figure below shows two HEGS5002 keyboards, a Digital Server and Client connected to the HSX3208L.

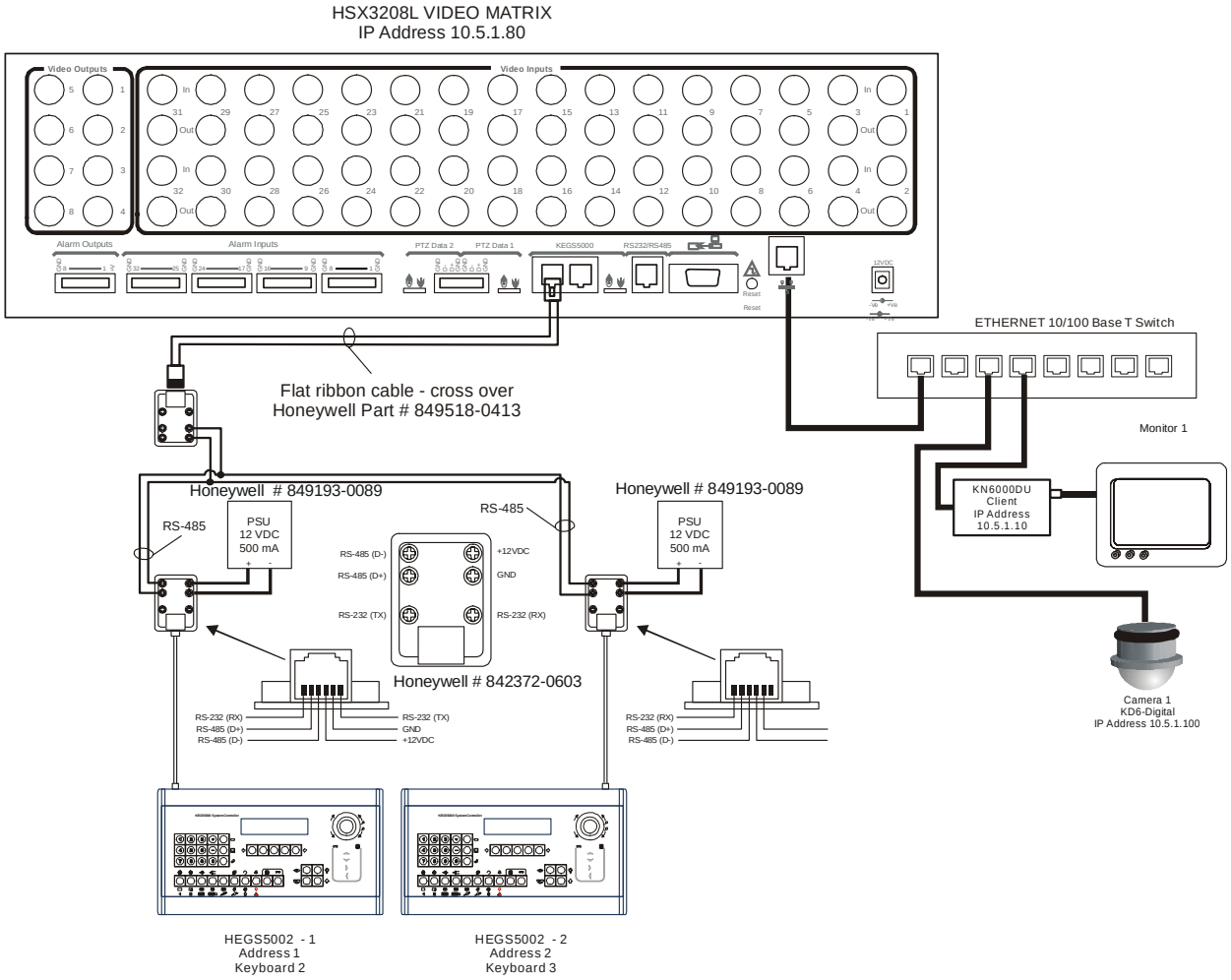


Figure 4: Connecting two HEGS5002, a Digital Server and Client

3.1.3 Connecting KD6i/HD6 Domes

Up to 32 KD6i/HD6 domes can be connected to the RS-485 PTZ Data Connectors as shown in the figure below. Cameras 1-16 must be connected to PTZ Data 1 and cameras 17-32 must be connected to PTZ Data 2.

The address of the Dome must match the Camera number. i.e., Camera 1 = PTZ address 1, Camera 2 = PTZ address 2, etc.

Only the last Dome must be terminated.

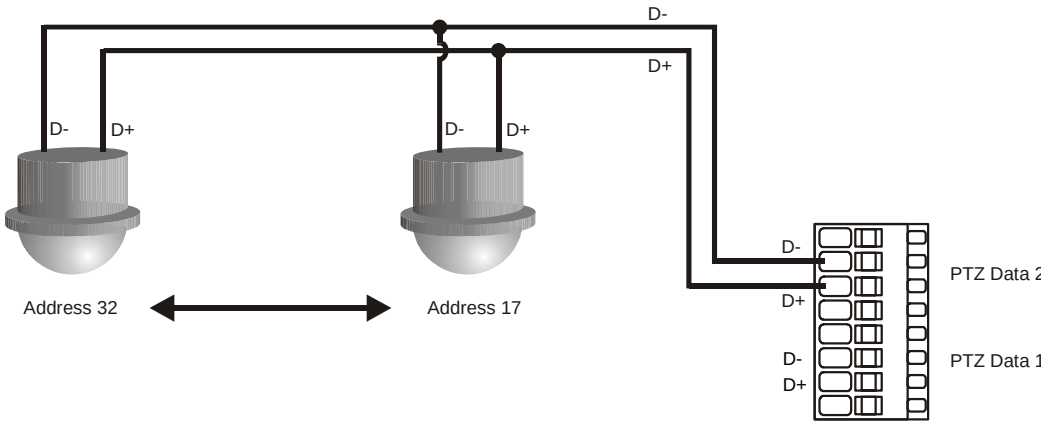


Figure 5: Connecting KD6i/HD6 Domes

3.1.4 Connecting Alarm Inputs

Alarm inputs must be a voltage free contact. A total of 32 alarms can be connected. Connect as shown below.

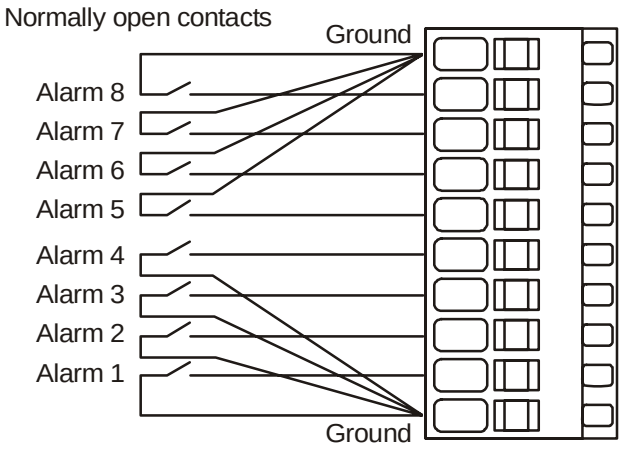


Figure 6: Connecting Alarm Inputs

3.1 INSTALLATION, CONTINUED

3.1.5 Connecting Alarm Outputs

Alarm outputs are open collector. Connect as in the figure below. The maximum current for each Output is 500 mA.

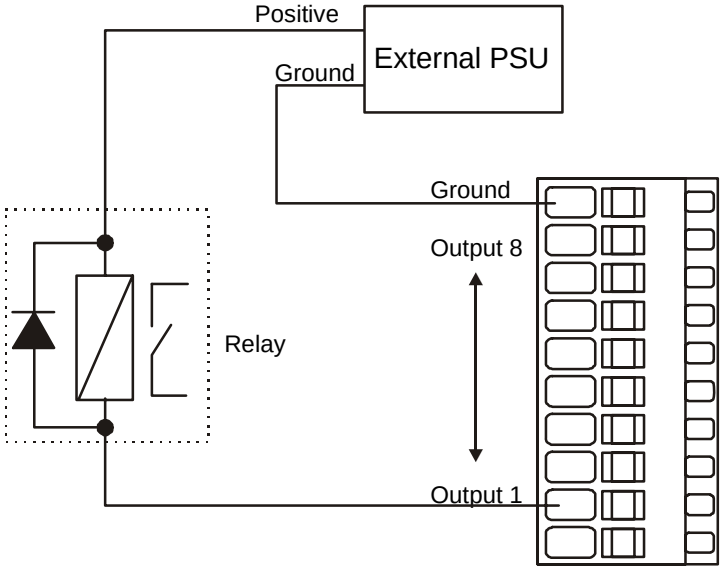


Figure 7: Connecting Alarm Outputs

3.2 SETTING NTSC OR PAL VIDEO MODE

The HSX3208L is setup for NTSC operation. To change to PAL press the reset button 6 times in a row, at a rate of 1 press per second. The HSX3208L will reboot in PAL mode.

To change to NTSC, press the reset button 5 times in a row, at a rate of 1 press per second.

3.3 KD6i/HD6 SETUP

By default all domes are configured as KD6i/HD6 domes. The KD6i/HD6 Dome must be set to operate in Diamond Standard or Maxpro mode. DIP switch S4 must be set as follows:

Diamond Standard	
S4-1	OFF
S4-2	OFF
S4-3	OFF
S4-4	OFF

MAXPRO Mode	
S4-1	ON
S4-2	OFF
S4-3	OFF
S4-4	OFF

Refer to the KD6i or HD6 User Manual for more details. **Note:** for full functionality of the dome, the protocol must be set to Diamond standard.

The address of the KD6i dome must be set to match the number of the camera. Camera 1 = address 1, Camera 2 = address 2, etc.

3.4 HEGS5002 SETUP

3.4.1 LCD Display and Function Keys

The HEGS5002 has an LCD display that displays system data, user info, and operator prompts. There are five keys below the LCD that are used by the operator for accessing menus and selecting menu options.

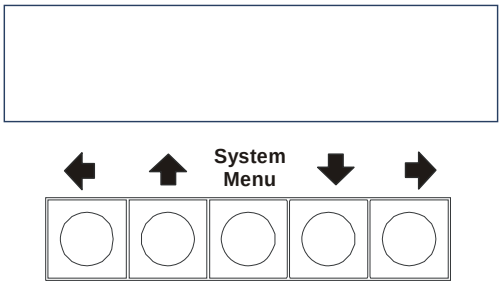


Figure 8. HEGS5002 LCD Display and Functions

3.4.2 Overlays

There are two overlays, English version and Icon version, included with the HEGS5002 controller. Refer to Figure 9 for the English version and Figure 10 for the Icon version. Throughout the text the operation instructions are provided using the English keys followed by the Icon keys in parenthesis.

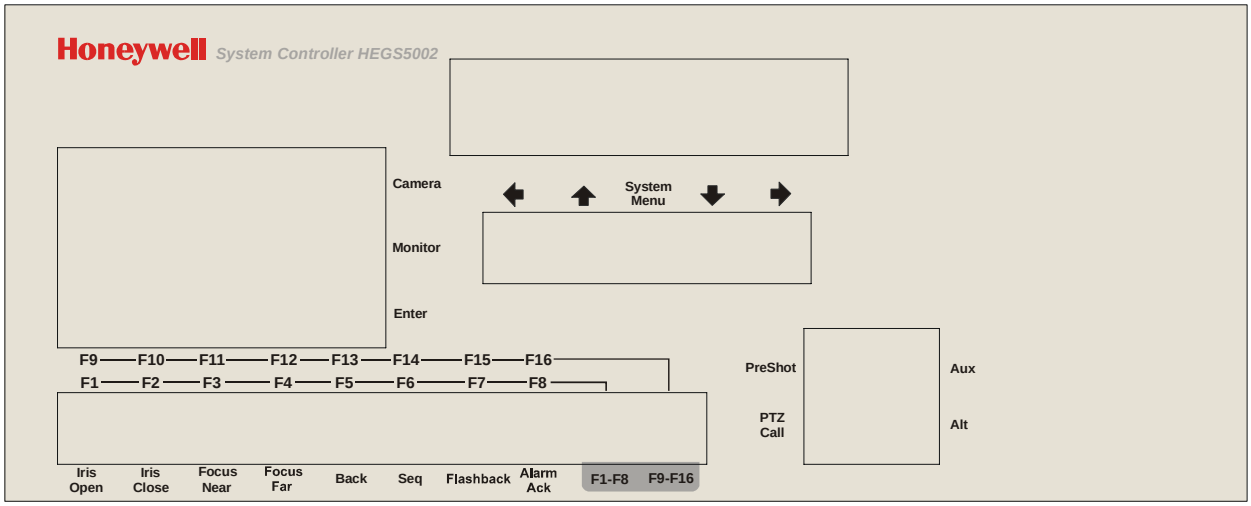


Figure 9. HEGS5002 with English Overlay

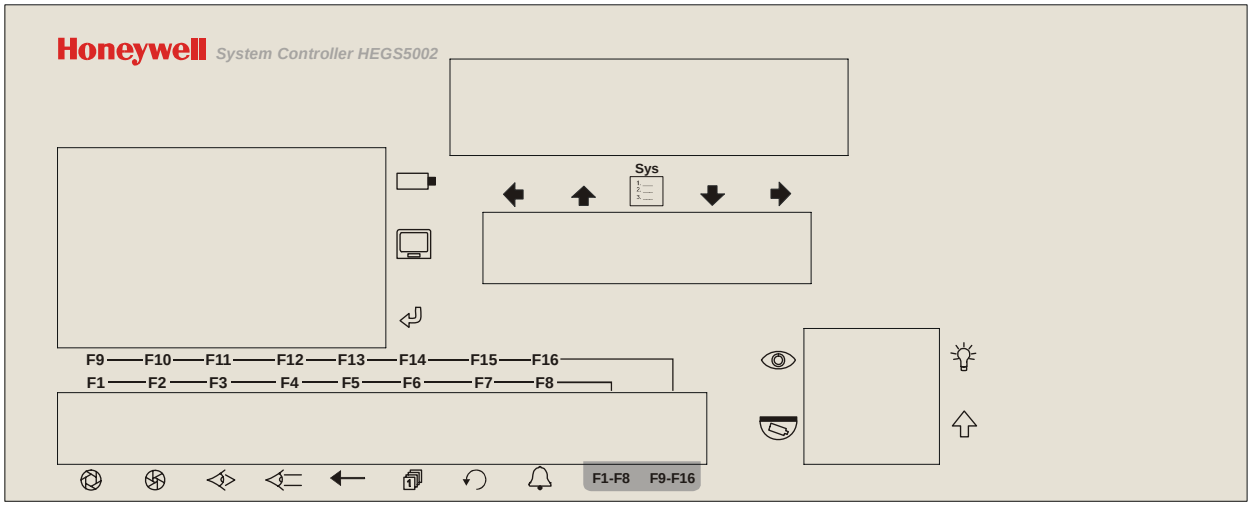


Figure 10. HEGS5002 with Icon Overlay

3.4.2 Selecting the Correct HEGS5002 Firmware

HEGS5002 controllers contain Boot Manager firmware and three versions of controller firmware. The three versions of controller firmware are listed below.

1 - Standalone

2 - MUX Mode

3 - System Mode

To work with the HSX3208L, the keyboard must be in the **System Mode.** This is the default setting for the HEGS5002 Controller. If the keyboard is not in System Mode, perform the following procedure to place the keyboard in system mode.

1. Reboot the HEGS5002 by cycling the power.
2. Before the Boot count down reaches zero, press the [**1**] key
3. Enter the password 1994 using the numeric keys. The LCD displays “Run Bank” on the top line and either “Standalone”, “Mux Mode”, or “System Mode” on the bottom line.
4. Press the left or right arrow key below the LCD to switch between the three versions until System Mode is displayed.
5. Press **Enter (****)** to select System Mode. The keyboard will then display the version number, the keyboard address, and then enter the run mode.

NOTE: The controller remembers which mode it is in and will always power up in the mode selected.

3.4.3 Changing the Address of the HEGS5002

The default address of all HEGS5002 keyboards is 1. All Keyboards must have the address set as below:

Keyboard 1: Address 1 Keyboard 2: Address 2 Keyboard 3: Address 3 Keyboard 4: Address 4	Keyboard 5: Address 5 Keyboard 6: Address 6 Keyboard 7: Address 7 Keyboard 8: Address 8

Perform the following procedure to change the address.

1. Reboot the HEGS5002 by cycling the power.
2. Wait for the Boot count down to complete. Press the **System Menu** (Sys ) key when the Version number is displayed.

3.4.3 Changing the Address of the HEGS5002, Continued

3. The current address is displayed. Enter the new address using the numeric keys. Press Enter (⏎) to save the address.
4. Press **Enter** (⏎) three times to accept the KB mode (slave), the Stick Range (Hi), and the Baud Rate (19k2).
5. The keyboard LCD displays Reconnecting..... and then connects to the HSX3208L.

You can also change the keyboard address using the on-screen setup menus. Refer to paragraph 4.4.8. Programming Keyboards.

SECTION 4.
HSX3208L SYSTEM CONFIGURATION

4.1 BOOTING THE SYSTEM

After connecting power to the HSX3208L and the HEGS5002, and the system firmware boots, the LCD display will first show the message:

```
Keyboard is
Off Line
```

Then the display changes to:

```
KSX32080 V:AG
Starting...
```

Refer to paragraph 4.2 for logging into the system.

4.2 LOGGING INTO THE SYSTEM

Before the system can be used, an Operator must login using a password. Enter the password for the operator logging on.

```
System Login
Enter PIN:
```

Note: to access the setup menus, the operator must login as Master operator (default password is 1111).

Once the correct password has been entered, the Operator is logged in. The display shows which operator is logged in. Refer to paragraph 4.4.9 for programming operators and passwords.

```
No Mon. Selected
Master
```

Note: To select a monitor, press the monitor # (1-8) and press the Monitor key ( ).

4.3 NAVIGATING THE SETUP MENUS USING A HEGS5002

CAUTION: To enter the setup mode, the user must have rights to do so. By default, only the Master user can edit the menus.

Through the setup menus, the user can define the system setup (network data, time/time format, and date), devices, cameras, monitors, alarms, auxiliary outputs, keyboards, operators, sequences, macros, timed events, and ports on the HSX3208L.

4.3.1 Navigating the Menus

Keys		Usage / Description
PLUS		When navigating the root menu, steps to the next menu. When editing text, inserts a space after the cursor. When in a menu, used to toggle through any options.
MINUS		When navigating the root menu, steps to the previous menu. When editing text, deletes the character above the cursor. When in a menu, used to toggle down through any options.
ENTER		When navigating the menus, enters the selected menu. When editing text, accepts the text and moves to the next menu item. When in a submenu, accepts the current values and moves to the next menu item.
BACK		When in the root menu, used to exit out of the programming mode.
NUMERIC KEYS (0-9)		Press the numeric key associated with a menu option to access a submenu or enter a value in a field in a submenu.
JOYSTICK UP/DOWN/ LEFT/RIGHT		Move the joystick up and down to navigate between submenu options. Move the joystick left and right to move the cursor left and right.

4.3.2 Editing Menus

LCD Keys	Usage / Description
←	Move the cursor left.
↑	Move up through character set. Used to select a character when entering a name or punctuation.
System Menu **Sys** 	Used to enter the setup mode.and to log an operator out.
↓	Move down through the character set. Used to select a character in a name or value.
→	Move the cursor right.

4.4 ENTERING THE SETUP MODE

1. Press **System Menu** to access the setup menus on the LCD display.

   Sel menu option,
   <ent> to Log out

2. Press the + or – key to scroll the available setup menus.

   1:Set Local IP Properties
   2:Set Up Device Properties
   3:Set up Camera Properties
   4:Set up Monitor Properties
   5:Set up PTZ Cam Properties
   6:Set External Event Handling
   7:Set Auxiliary Control Outputs
   8:Set Keyboard Properties
   9: Set Operator Properties
   10:Set Sequences and Guard Tours
   11:Set up Macros
   12:Set system time and date
   13:Edit System String Library
   14:Set up Timed Event Operations
   15:Set Serial Ports
   16:Save Settings to NU Memory
   17:Erase settings to Defaults (!!!)

3. When the desired setup menu is displayed, press Enter. Refer to paragraphs 4.4.1 through 4.4.17 for more detailed instructions on the setup menus.

4. **Important!** When setup is complete, access menu 16: Save Settings to NU Memory to save your settings. Press + or – until Yes is displayed on the LCD then press Enter.

4.4.1 Set Local IP Properties

Press + or – until **1:Set Local IP Properties** is displayed on the LCD, then press **Enter.**

WARNING: Consult your network administrator for the IP Address, Subnet, and Gateway addresses. Incorrect entries in these fields could cause severe degradation of a network.

Menu Option	Definition
Ent Local IP:	This is the IP (Internet Protocol) address of the unit. Use the left and right arrow keys to move left or right on the display to the desired field. The location of the cursor blinks. Use the numeric keys to enter numbers and use the up or down arrow keys to display the "." between numbers (ex: 10.5.1.80). Press Enter to accept entry.
Ent Default G/W:	This is the Gateway address used by the network. Use the numeric keys to enter numbers and the up or down arrow keys to display the "." between numbers. Press Enter to accept entry.
Ent Subnet Mask:	This is the Subnet address used by the network. Use the numeric keys to enter numbers and the up or down arrow keys to display the "." between numbers. Press Enter to accept entry.

Editing Notes:

1. Press the **Back** key (←) when in a menu option to delete characters in front of the cursor on the LCD display.

2. Press the Flashback key to exit the current menu

4.4.2 Programming Devices

Press + or – until **2:Set Up Device Properties** is displayed on the LCD, then press **Enter.**

Menu Option	Definition
Select Device	Each device has a unique device number (01-64). Use numeric keys to select the device number to program/edit and press Enter.
Sel Dev "n" Type	Press the + or – key to scroll through the available device types. Ultrakey, KD6i digital, KD6i/Z DEI Group, Matrix Device, PTZ Device, Text Device, Alarm Inputs, Ctrl Outputs, MAX HD Test, Configurator, KEGS5300, HEGS5002, Max VLD Card, KD6i CSP, Pelco PTZ P, Pelco PTZ D, HSX3208L, MME PTZ Group, None **Note:** Ultrakey and KD6 CSP are no longer available for use with the HSX3208L. A MAX1000 system must be installed to use an Ultrakey. The KD6 CSP has been discontinued.
Edit Device Name	Enter a logical name for the device. Use the left or right arrow keys to position the cursor. Use the up and down arrow keys to select the desired character. Press Enter.
Edit Dev Address	Use the numeric keys to enter the device address. HEGS5002 = 1 through 4 Ultrakey = IP Address
Device Present	Yes or No. Use the +/- keys to switch between Yes or No. Press Enter. Device Settings Completed is displayed on the LCD.

Select another device or press Back (←) to return to the menu option display.

4.4.3 Programming Cameras

Press + or – until **3:Set Up Camera Properties** is displayed on the LCD, then press **Enter.**

Menu Option	Definition
Sel Camera	The cameras in the system are numbered 1-32. The camera number should be the same as the video input number it is connected to on the rear panel. Use the numeric keys to enter the camera to be programmed/edited and press Enter.
Edit Camera name	Enter a logical name for the camera. Use the left and right arrow keys to position the cursor. Use the up and down arrow keys to select the desired character. Press Enter to accept display.
Sel Video Parent	Use the +/- keys to scroll through available options. The options available are the programmed devices. When the desired parent is displayed, press Enter.
Enter Channel in Parent	Enter channel using numeric keys. Press Enter
Sel. Vid. Conn.:	Press the +/- keys to scroll through available options: Analog, UDP Private, UDP Multicast, TCP. When the desired option is displayed, press Enter.
Enter Pseudo Num :	Using the numeric keypad, enter a pseudo number (0-65535) for the camera. Press Enter.
Enter PTZ Num :	If the camera is a PTZ, use the numeric keys to enter a PTZ number. Press Enter.
Ent Text X&Y Pos (x,y)	Enter the X&Y coordinates for displaying any programmed text on this camera. Use the numeric keys to enter the numbers, and the up or down arrow keys to enter a comma between the coordinates.
Select Text Prop	Define what text is to be displayed on the monitor when the camera is being viewed. Use the + and – keys to scroll through the options: Blank, Time/Date & Name, Time/Date, or Name. Press Enter.
Enter Alt Cam & View:	Enter the camera and view (preset position) to be called up when viewing this camera and the operator presses the Alt key. Enter the camera and view numbers using the numeric keypad and the up or down arrow keys to enter a comma between the camera and view. Enter 0,0 for no Alternate camera and view.
Enter PTZ Call & View:	Enter the PTZ camera and view (preset position) to be called up when viewing this camera and the operator presses the PTZ Call key. Enter the camera and view numbers using the numeric keypad and the up or down arrow keys to enter a comma between the camera and view. Enter 0,0 for no PTZ call and view. Press Enter.
Ent. Cam. Source Grp (1-32):	Use the numeric keys to enter the camera source group. Press Enter.
Enable Camera?	Yes or No. Press the +/- keys to switch between yes and no. Press Enter. Camera Settings Completed is displayed on the LCD.

Select another camera or press the **Back** key (←) to exit the menu and return to the Sel menu option screen.

4.4.4 Programming Monitors

Press + or – until **4:Set Up Monitor Properties** is displayed on the LCD, then press **Enter.**

Menu Option	Definition
Sel. Monitor:	The monitors in the system are numbered 1-8. The monitor number should be the same as the video output number it is connected to on the rear panel of the switcher. Using the numeric keypad, enter the monitor number to program/edit and press Enter.
Edit Mon. Name:	Enter a logical name for the monitor. Use the left and right arrow keys to position the cursor. Use the up and down arrow keys to select the desired character. Press Enter to accept display.
Sel Video Parent	Use the +/- keys to scroll through available options. The options available are the programmed devices. When the desired parent is displayed, press Enter.
Enter Channel in Parent	Enter channel using numeric keys. Press Enter
Sel. Vid. Conn.:	Press the +/- keys to scroll through available options: Analog or Digital. When the desired option is displayed, press Enter.
Select Text Prop	Define what characters are to be displayed on the monitor when the camera is being viewed. Use + and – to scroll through the available options: Blank or Name. When desired option is displayed, press Enter.
Select Text Parent	Use the +/- keys to scroll through available options. The options available are the programmed devices. When the desired parent is displayed, press Enter.
Enter Channel in Parent	Using the numeric keypad, enter the channel number the monitor is connected to in the Parent. Press Enter.
Sel VCR Contrlr	Use the +/- keys to select the device for VCR control. The available devices are the programmed devices. Select None for no VCR control. Press Enter when the desired device is displayed on the LCD.
Ent. Channel in Parent	Using the numeric keys, enter the channel in parent device. Enter 0 for no channel. Press Enter.
Ent Default Cam:	Using the numeric keypad, enter the camera (1-32) to be switched to this monitor upon power up of the system. Press Enter
Ent. Source Groups Grp	Defines the monitor source group (1-32). Eg: 1-3.5.30 or ALL are valid entries. Default = None.
Ent.. Mon Keybds (8)	Enter the Keyboard Group. Eg: 1-3.5.30 or ALL are valid entries. Default = 1-8. Press Enter.
Ent Alarm Grps	Enter the alarm group for the monitor. Eg: 1-3.5.30 or ALL are valid entries. Default = 1. Press Enter.
Enable Monitor?	Use the + and – keys to toggle between yes and no. Press Enter. Monitor Settings Completed.

Edit another monitor or press the **Back** key (←) to exit the menu and return to the Sel menu option display.

4.4.5 Programming PTZ Cameras

Press + or – until **5:Set Up PTZ Cam Properties** is displayed on the LCD, then press **Enter.**

Menu Option	Definition
Select PTZ:	Using the numeric keypad, enter the PTZ number to program/edit and press Enter.
Sel. PTZ Type	Press the +/- keys to scroll through the available options: Ultrak KDZ 3rd Party/Other Smart Scan Ultrak KD6 Press enter when the desired option is displayed.
Sel net PTZ Dev:	Enter the device where the PTZ is connected. Use +/- keys to scroll through available devices. Press Enter when device is displayed on LCD.
Enter PTZ Node Address	Use the numeric keypad to enter the address of the PTZ. Press Enter.
Variable Spd PTZ	Use the +/- keys to switch between yes and no. Press Enter.
Home on timeout	Use the +/- keys to switch between yes and no. Press Enter.
Home on deselect	Use the +/- keys to switch between yes and no. Press Enter.
Ent Release time secs:	Using the numeric keypad, enter the amount of time to set the timer between manual control of the PTZ and idle time. Press Enter.
Enter Home View	Enter the view (preset) you want the PTZ to go to when it times out or is deselected. Press Enter.
Enter System View:	Using the numeric keypad, enter the system view you want activated when the timer times out. Press Enter. PTZ Settings Complete

Edit another PTZ camera or press the **Back** key (←) to exit the menu and return to the Sel menu option display.

4.4.6 Programming Alarms (External Event Handling)

Press + or – until **6:Set External Event Handling** is displayed on the LCD and then press **Enter.**

Menu Option	Definition
Sel External Evt	External events are the alarm inputs in the system numbered 1-32. Use the numeric keys to select the alarm to be programmed/edited. Press Enter.
Edit Event Name	Enter a logical name for the alarm. Position the cursor then use the left and right arrow keys and the up and down arrow keys to select the desired characters. Press enter when desired name is displayed.
Sel Parent Dev:	Use the +/- keys to scroll through the available programmed devices. The parent device is where the alarms are physically connected. Press Enter.
Ent. Channel in Parent	Defines where the alarm is generated. Use the numeric keys to enter the channel # (1-32). Press Enter.
Sel active level	Use the +/- keys to scroll through the options available for determining when an alarm is activated: Normally Open Normally Closed Either Press Enter.
Input	Enter the input # (1-32) of the alarm.
Activate	Open – normally open contact Closed – normally closed contact
Sel Evt Behavior	Use the + and – keys to select the available options: Foreground External – the alarm becomes part of the alarm stack Background External –only starts the macro defined in the Start Mac field. Video Fail - future use Press Enter
Sel Clear Trigs: (Does not apply if alarm behavior defined as background	Timeout OR Oper. (default) Timeout Operator Contact Reversal Cntct OR Timeout Contact OR Oper. Any Press Enter
Ent Evt Timeout secs:	Using the numeric keys, enter the amount of time in seconds before the alarm times out and is automatically cleared. Press Enter.
Ent Evt Priority	Using the numeric keys, enter the alarm priority (1-High to 255 Low). Press Enter.

4.4.6 Programming Alarms, Continued

Menu Option	Definition
Sel Invoke Mac	Use the numeric keys to define the macro (1-255) to start when the alarm is activated. Press Enter.
Sel Clear Macro	Use the numeric keys to define the macro (1-255) to stop when the alarm is cleared. Press Enter.
Sel Ident. Cam.	Use the numeric keys to define which camera (1-32) to switch to the alarm monitor when the alarm is activated. Press Enter.
Ent Ident. View	Use the numeric keys to defines which PreShot (view) 0-99 in the Ident. camera to recall when the alarm is activated. Press Enter.
Ent Evt Sequence Dwell (s)	This is the time (000-999 seconds) that the camera will sequence on the alarm monitor when more than one alarm is active. (default = 3 seconds). Use the numeric keys to enter the time and press Enter.
Ent Event Group (1-32)	The alarm must be in the same source group (1-32) as all other components, i.e the monitor, camera, operator, keyboard must all be in the same source group. By default all cameras, monitors, alarms etc. are part of source group one.
Event Enabled?	Use the + and – keys to toggle between yes and no. Yes = alarm is online No = alarm is offline Press Enter. Event settings completed.

Edit the next alarm or press the **Back** key (←) to exit the menu and return to the Sel menu option display on the LCD.

4.4.7 Programming Auxiliary Outputs

Press + or – until **7:Set Auxiliary Control Outputs** is displayed on the LCD, then press **Enter.**

Menu Option	Definition
Sel Aux. Output	Use the numeric keys to select the auxiliary output to be programmed/edited. The auxiliary outputs (contact outputs) in the system are numbered 1-8. Press Enter.
Edit Outp. Name	Enter a logical name for the output. Position the cursor using the left and right arrow keys and use the up and down arrow keys to select the desired characters. Press Enter to accept displayed name.
Sel Parent Dev:	Use the +/- keys to scroll through the available programmed devices. Press Enter when device is displayed on LCD.
Ent. Channel in Parent	Using the numeric keys to select the channel in the parent device.
Sel Startup Iel:	Press +/- to switch been Activated and Deactivated. Press Enter.
Ent Startup in ms:Time	Use the numeric keys to enter the time (000-999 seconds) a contact output is to remain active, before it times out. Output settings complete.

Edit the another auxiliary output or press the **Back** key (←) to exit the menu and return to the Sel menu option.

4.4.8 Programming Keyboards

Press +or – until **8:Set Keyboard Properties** is displayed on the LCD then press **Enter**.

Menu Option	Definition
Select Keyboard	The keyboards in the system are numbered 1-8. Using the numeric keys, enter the Keyboard number to program/edit. Press Enter.
Sel Parent Dev:	This defines the keyboard type. Press +/- to scroll through the available programmed devices.
Ent KB monitors:	This defines the monitor group the keyboard has access to. Eg: 1-3.8 or ALL are valid entries. Use the numeric keys to enter numbers; use the up and down arrow keys to enter characters. Press Enter to accept display.
Ent KB Alrm mons	This defines the alarm group the keyboard is assigned to. Eg: 1-3.8 or ALL are valid entries. Use the numeric keys to enter numbers; use the up and down arrow keys to enter characters. Press Enter to accept display.
Ent KB Accept mons	This defines the monitor (video output) that video is switched to when an alarm is accepted by the operator at this keyboard.. Use the numeric keys to enter the monitor number, then press Enter.
Ent Audio Props:Status	Use the + and – keys to scroll through the options: K = Keyclick J = Joyclick A = AlarmBuzz Note: Any or all of the 3 options can be entered. Press Enter to accept display.
Sel Default Oper	Enter the default operator for this keyboard. Use the +/- keys to scroll through the options: None Master Supervisor Operator 1 to Operator 14 Press Enter to accept display.
Keyboard Present?	Use the + and – keys to switch between Yes and No. Press Enter to accept display. Keyboard Settings Completed.

Edit the another keyboard or press the **Back** key (←) to exit the menu and return to the Sel menu option.

4.4.9 Programming Operators

Press + or – until **9:Set Operator Properties** is displayed on the LCD, then press **Enter.**

Menu Option	Definition
Select Operator	Use the +/- keys to scroll through the available operators. Press Enter.
Edit Oper. Name	Enter a logical name for the operator. Use the left and right arrow keys to position the cursor. Use the up and down arrow keys to select characters. Press enter to accept display.
Edit 4-digit PIN	Using the numeric keys, enter a 4-digit personal ID number (0000 to 9999) for this operator. Press Enter to accept display.
Ent Oper. Prio	Enter the priority (1-255) for this operator using the numeric keys. 1 is the highest priority. Press Enter.
Ent. Oper. KBds	Enter the keyboards this operator may log on to. Note: 1,2,5-9 or 1-3,7,8 or ALL are valid inputs. Use the left and right arrow keys to position the cursor; use the numeric keys to enter numbers; use the up and down arrow keys to select characters. Press Enter to accept display.
Ent Oper. Source Grps	Enter the source group for this operator. Note: 1,2,5-8 or 1-3,7,8 and ALL are valid inputs. Use the left and right arrow keys to position the cursor; use the up and down arrow keys to select characters. Press Enter to accept display.
Ent Oper. Alarm Grps:	Enter the alarm groups this operator has access to. Note: 1,2,5-8 or 1-3,7,8 or ALL are valid inputs. Use the left and right arrow keys to position the cursor; use the up and down arrow keys to select characters. Press Enter to accept display.
Ent Oper. Max View:	Enter the highest view (PreShot) 0-99 this operator can recall. Note: all operators can save and recall views (PreShots) 1-10. Operators with the V privilege can save and recall views up to this highest view. Operators with no V privilege can only recall views up to this view. Press Enter.
Edit Privileges	Set the privileges for this operator. The privileges can be any combination of the following letters. C = Configuration Menus. This allows the operator to access the setup menus. M = This allows the operator direct access to running Macros V = This allows the operator to save views (PreShots) above 10 an dup to the Max View set above. Use the up and down keys to scroll through characters options; use the + key to move the cursor to the right to add another privilege. Use the – key to move the cursor to the left to remove a privilege. Press Enter to accept display.

4.4.9 Programming Operators, Continued

Menu Option	Definition
Ent Access Level	Set the access level using the numeric keys. 1 = limited access to setup menus when C above is set. Use this for a supervisor. Allows access to changing Titles and setting Time and Date. 10 = Full access to all setup menus when C privilege above is set. Use for super user only. Access levels 2-9 are reserved for future use. Press Enter.
Operator Active?	Use the + and – keys to switch between YES and NO. Press Enter. Operator Settings Completed.

Edit/program another operator or press the **Back** key (←) to exit and return to the Sel Menu option display on the LCD.

4.4.10 Programming Sequences

Press + or – until **10:Set Sequences and Guard Tours** is displayed on the LCD, then press **Enter.**

Menu Option	Definition
Sel Sequence:	Sequences are numbered (1-32). Using the numeric keys enter the sequence to program/edit. Press Enter.
Edit Seq.Name:	Enter a logical name for the sequence. Use the left and right arrow keys to position the cursor, use the numeric keys to enter numbers and use the up and down arrow keys to select characters. Press Enter to accept display.
Sel. Seq. Type:	Use the +/- keys to scroll through the available sequence types. Deactivated Scan Sequence Guard Tour Salvo Slave By default the sequence is deactivated. Press Enter to accept display.
Ent Salvo Slaves	Enter the salvo slaves, eg: 1-3.8, NONE, or ALL are valid entries. Use the left and right arrow keys to position the cursor, use the numeric keys to enter numbers and use the up and down arrow keys to select characters. Press Enter to accept display.
Ent Seq. Source Grp:	Using the numeric keys, enter the source group of the sequence. Note: this must be the same source group as the camera.

4.4.10 Programming Sequences, Continued

<table>
<tr><td rowspan="2">Sel Step to Edit</td><td colspan="2">Press enter to access the menu for programming/editing step 1 in the sequence or use the +/- keys to scroll through the steps. Press enter to start the display at a specific step.</td></tr>
<tr><td>Sel Sequence Cam</td><td>Use the +/- keys to scroll through available cameras</td></tr>
<tr><td></td><td>PS,Xfer,Dwl,Type</td><td>PS=The Preshot to be called

Xfr = The transfer time is the amount of time the camera takes to go to the PreShot from its present location.

Dwl= The dwell time is the amount of time the sequence remains on this camera before going to the next step.

Type= Instructs the system how to interpret this step
N = normal step
S = this step must be skipped over
E = this step is the last step in the sequence.

Use the left and right arrow keys to position the cursor, the numeric keys to enter numbers; and the up and down arrow keys to select characters

Press Enter. Step Settings Completed</td></tr>
<tr><td>Sel Step to Edit</td><td colspan="2">Use the +/- keys to edit another step and press enter to start programming/editing. Continue editing steps
or press the Back key (←) to exit the step menu.</td></tr>
</table>

Select another sequence to program or press the **Back** key (←) to exit the sequence menu.

4.4.11 Programming Macros

Press + or – until **11:Set up Macros** is displayed on the LCD, then press **Enter.**

Menu Option	Definition	
Select Macro:	Macros are numbered 1-255. Use the numeric keys to select the macro to program/edit. **Note: Macros 001-016 are mapped to Function Keys F1-F16 respectively.** Press Enter.	
Edit Macro Name:	Enter a logical name for the macro. Use the left and right arrow keys to position the cursor and use the up and down arrow keys to select characters. Press Enter to accept display.	
Sel Step to Edit	Press enter to access the menu for programming/editing step 1 or use the +/- keys to select a step in the macro.	
	Sel Step Command	Use the +/- keys to select the step command. The required data for each command is in parenthesis beside the command. Output (Output#, State, Time) Sleep (Milliseconds) MenuSelect (KB, string lib#) KB Buzzer (KB, mode, time, cnt) WriteString (Mon, str#, 3 args) FlashString (Mon, str #, 3 args) ClearString (Monitor number) Jump (Step number) SetFlag (Flag # 1-32) ClearFlag (Flag #1-32) TestInput (Input #, state) TestFlag (Flag # 1-32) End (No arguments required). Last Step. VCR Control (Output Num, Func) Nop (No Arguments Required) Not operational CamSelect (KB, Cam, View) CamLink (Cam, Mon, View) Start Macro (Macro Number) Stop Macro (Macro Number) MonKeep (Monitor Number) MonRestore (Monitor Number) PTZKeep (Camera Number) PTZRestore (Camera Number) EnableEvent (Event Number) DisableEvent (Event Number) Press Enter when desired command is displayed. Enter the required data for each field then press Enter.
Sel Step to Edit	Use the +/- keys to select another step to edit and press enter to start programming/editing. Enter the End command for the last step in the macro. Continue editing steps or press the **Back** key (←) to exit the step menu.	

Select another macro to edit/program or press the **Back** key (←) to exit the sequence menu.

4.4.12 Setting the Time/Date

Press + or – until **12:Set system time and date** are displayed on the LCD, then press **Enter.**

Ent date (DD/MM/YYYY)	This is the current date (day/month/year) Use the left and right arrow keys to position the cursor. Use the numeric keys to enter data.
Ent Time, 24H(HH:MM:SS)	This is the system time (Hours 01-24:Minutes 00-59:Seconds 00-59). Use the numeric keys to enter data.

4.4.13 Editing System Library Strings

Press + or – until **13:Edit System String Library** is displayed on the LCD, then press **Enter.**

Menu Option	Definition
Sel Strg to Edit:	Using the numeric keys, enter the string # (1-64) and press Enter.
Edit the String:	Enter the desired system string. Use the left and right arrow keys to position the cursor. Use the numeric keys to enter numbers and the up and down arrows to enter characters. Press enter when the desired string is displayed on the LCD.

4.4.14 Programming Timed Event Operations

Press + or - until **14:Set up Timed Event Operations** is displayed on the LCD and press **Enter.**

Menu Option	Definition	
Sel Timed Event	Using the numeric keys, enter the event number (1-32) to edit/program. Press Enter.	
Ent Tmd Evt Name	Enter a logical name for the event. Use the left and right arrow keys to position the cursor. Use the up and down arrow keys to enter characters and the numeric keys to enter numbers.	
Sel Date/Day Trg	Use the +/- keys to view the available selections for the type of timed event Day Trigger Date Trigger Press Enter.	
	Day Trigger Ent Days Mon=1-7=Sun	Use the numeric keys to enter the days to activate the timed event. 1=Monday; 7=Sunday. eg: 1-5 (Monday – Friday) is a valid entry. Press Enter.
	Date Trigger Ent Date (DD/MM/YYYY)	Use the left and right arrow keys to position the cursor. Use the numeric keys to enter a date (day/month/year) Press Enter.
Ent Time (HH:MM)	Use the left and right arrow keys to position the cursor. Using the numeric keys, enter the time (HH:MM) based on a 24-hour clock to activate the event. Press Enter.	
Select Macro	Use the +/- keys to select the desired macro to start. Press Enter.	
Enable Timed Evt	Use the + and – keys to switch between YES and NO. Yes = Event is enabled No = Event is disabled Press Enter. Timed Event Set Complete.	

Edit/program another timed event or press the Back key (←) to exit the menu.

4.4.15 Ports

Press + or - until **15:Set Serial Ports** is displayed and press **Enter.**

Menu Option	Definition
Sel Serial Port	Ports are numbered 1 –4. Select the port to program/edit. Port 1 = RS232/RS485 Auxiliary Port Port 2 = KEGS5000/HEGS5002 Keyboard Port 3 = PTZ Port 1 (Cameras 1-16) Port 4 = PTZ Port 2 (Cameras 17-32)
Params (BR, Db, Pt)	Use the left and right arrow keys to position the cursor. Use the up and down arrow keys to select characters and numeric keys to enter numbers. BR = Baud Rate (01200 TO 57500) Db = Data Bits (7 or 8) Pt = Parity (E=Even, O=Odd, N=None) Press Enter.
Sel Port Type:	Use the +/- keys to view the available port types: RS-232, RS-485, or RS-422 Press Enter
Set Port Proto	Select the PTZ protocol to be outputted on this port: Pelco Ascii, KEGS5300 Flow Th, Ultrak Command, Pelco P, Pelco D, VCL Protocol, Ultrak CSP, Maxpro Subrck, Maxpro HLI, DEI KD/KC, VBCP Serial, Commend.
Enable Port?	Use the + or – keys to switch between YES or NO. Yes = port is active No = port is inactive. Press Enter. Port's settings completed.

Edit/program another port or press the Back key  to exit the menu.

4.4.16 Save Settings

Press + or - until **16:Save Settings to NV Memory** is displayed and press **Enter.**

Menu Option	Definition
Save Settings	Press +/- to switch between Yes and No. Press Enter. NO = Settings not saved ! YES = Settings Saved !

4.4.17 Erase settings to Defaults

Press + or - until **17:Erase settngs to Defaults (!!!)** is displayed on the LCD and then press **Enter**.

Menu Option	Definition
Select System	Use the +/- key to view the available defaults : KSX32080 NTSC KSX32080 PAL KEGS5300 NTSC KEGS5300 PAL

SECTION 5:
OPERATION WITH A HEGS5002

5.1 BOOTING THE SYSTEM

After connecting power to the HSX3208L and the HEGS5002, the LCD display will first show the message:

```
Keyboard is
Off Line
```

Then the display changes to:

```
KSX32080 V:AG
Starting...
```

5.2 LOGGING INTO THE SYSTEM

Before the system can be used, an Operator must login using a password. Enter the password for the operator logging on.

```
System Login
Enter PIN:
```

Once the correct password has been entered, the Operator is logged in. The display shows which operator is logged in.

```
No Mon. Selected
Operator 1
```

Refer to paragraph 4.4.10 for defining operators and passwords.

5.2.1 Default Passwords

Default password for the Master is 1111.
Default password for Operator 1 is 1231.
Default password for Operator 2 is 1232
Default password for Operator 3 is 1233
Default password for Operator 4 is 1234

5.2.2 Operator Default Rights

Master Mode has access to all menus. **Operator** Mode allows access to all menus except those in which changes to system setup are involved. The table below shows which menus and functions are available for each operator by default.

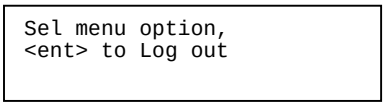
Description	Operators 1-4	Master
Program and save Preshot (View) on KD6i domes	Preshots 0-9 only	Preshots 0 -99
Recall Preshot (View) on KD6i domes	0-99	0-99 KD6i
Access to the KD6i Dome menus	No	Yes
Access to the system Setup menu	No	Yes

5.3 LOGGING OUT OF THE SYSTEM

To change to a different operator or to logout,

1. Press the **System Menu (** 

) key.



2. Press Enter.

3. The display returns to the System Login screen.

5.4 CONTROLLING MONITORS AND CAMERAS

After logging in, the operator must select an active monitor. Refer to section 5.4.1.

NOTE: To cancel an operation, press the **Back** (←) key. Pressing the Back (←) key returns the controller to the main LCD display.

5.4.1 Selecting a Monitor

Before a camera can be viewed or controlled, a monitor must be selected as active.

Example: Make monitor 1 the active monitor.

Press **1 Monitor** ( )

or

Press **Monitor** ( ) **1 Enter** ( )

```
No Mon. Selected
Operator 1
```

```
M1:Camera 1
Operator 1
```

5.4.2 Selecting a Camera

All camera switching goes to the active monitor.

Example: Switch camera 2 to monitor 1.

Press **2 Camera** ( )

or

Press **Camera** ( ) **2 Enter** ( ).

```
M1:Camera 2
Operator 1
```

Note: If multiple keyboards are installed, the display may not reflect which camera is actually being controlled or viewed on the monitor. Only the most recent controller LCD display is updated when a controller requests to control a camera or switch a camera to a monitor.

5.5 PTZ OPERATION AND PROGRAMMING

Use the joystick to control the PTZ.

- Joystick Left = pan left
- Joystick Right = pan right
- Joystick Up = tilt up
- Joystick Down = tilt down
- Rotate knob clockwise = zoom in
- Rotate knob counterclockwise = zoom out

5.5.1 View/PreShot Programming (with default titles, PS#)

PreShots (Views) 1-9 are available as scratchpad PreShots. These can be programmed and recalled by any operator. PreShots (Views) 10-99 -can only be recalled by the operator. PreShots 10-99 must be programmed by the master operator

To program a PreShot or view:

1) Position the camera (pan, tilt, zoom, focus) to the desired scene

2) Press **PreShot (**  **) # ➔**.

5.5.1 PreShot Programming (with default titles, PS#), Continued

Example: To save PreShot 5, press PreShot ( ) 5 [➔].

PreShot 5 is stored in the KD6 unit with title PS5. When the PreShot is recalled, the KD6 goes to the programmed position and displays PS5 on the video. Notes: PreShot titles must be enabled to view them on the video.

Note: To save PreShots 10-99, the user must log in as a **Master** User.

5.5.2 PreShot Programming (with user-defined titles)

To program a PreShot with a user-defined title, perform the following steps.

Note: The same rules for operator and master as defined in paragraph 5.5.1 apply.

1) Position the camera (pan, tilt, zoom, focus) to the desired scene

2) Press the **Aux (**) key. The following message is displayed on the controller LCD.

Enter function

3) Press the **PTZ Call** ( )key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

4) Press the **+ or –** key until **Program PreShot** is displayed as shown below.

Select PTZ Func: Program PreShot

5) Press **Enter ( ).** The following message is displayed on the controller LCD.

Sel Character: <- A ->

The following prompt is displayed on the monitor (where the KD6 video can be viewed).

Program PreShot #____

6) Enter the **PreShot #** using the numeric keys and press **Enter ( ).** The cursor moves to the PreShot title field.

5.5.2 PreShot Programming (with user-defined titles), Continued

7) Enter the PreShot title (up to 24 characters).

   a) Press the ↑or ↓ key below the controller's LCD until the desired character is displayed and then press the **System Menu** (

) key. This action sends the character displayed on the LCD to the KD6 and it is displayed on the monitor.

   b) Continue performing step a) until the desired title is displayed on the monitor and then press **Enter** (↵). The following prompt is displayed on the monitor.

C to Change	Change the location of the PreShot title on the display
E to Edit	Edit the PreShot title before saving PreShot coordinates
D to Delete	Delete the PreShot
S to Save	Save PreShot coordinates and title
N to Save Name	Saves the PreShot title only

8) Press the ↑ **or** ↓ key until the character (**C, E, D, S, or N**) for the desired option is displayed on the controller LCD and then press System Menu.

   a) If you selected **C**, use the +, -, ←, and → keys to move the PreShot title to the desired location on the monitor display and then press **Enter** (↵).

   b) If you selected **E**, programming returns to the PreShot title field. Perform step 7 and then perform step d) or e) below to save.

   c) If you selected **D**, the programming for the PreShot # you entered in step 6 is deleted. Go to step 9.

   d) If you selected **S**, the current position of the KD6 is stored with the PreShot # and title entered in steps 6 and 7.

   e) If you selected **N**, only the title is saved for the PreShot # entered in step 6. The current KD6 positioning is not saved.

9) Program another PreShot by repeating step 1 and steps 6 through 8 or press **Flashback** (↻)to exit PreShot programming.

10) Press **Back** (←) twice to exit the menus on the controller LCD display.

5.5.3 PreShot Recall

To recall a PreShot,

1) press **# PreShot (**  **)**

Or

2) press **PreShot (**  **) # Enter (**  **).**

Example: To recall PreShot 5,

1) press **5 PreShot** ()

Or

2) **PreShot (** ) **5 Enter (**  **)**.

5.5.4 List PreShots

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **List PreShots** is displayed as shown below.

Select PTZ Func: List PreShots

4) Press **Enter (**  **).** The following message is displayed on the controller LCD.

Sel Character: <- A ->

The first page of the list of programmed PreShots is displayed. Press **+ or -** to view the next page. An "End of Directory" message appears at the bottom of the last page. Pressing + or – displays the first page of the listing.

5) Press **Flashback** () to remove the listing from the monitor.

6) Press **Back (** ) to exit the menus on the LCD.

5.5.5 Programming VectorScans

1) Press the **Aux** ()key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** ()key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **Program VectorScan** is displayed as shown below.

Select PTZ Func: Program VectorScan

4) Press **Enter** (). The following message is displayed on the controller LCD.

Sel Character: <- A ->

The following prompt is displayed on the monitor (where the KD6 video can be viewed).

Program VectorScan #____

5) Enter the **VectorScan #** (0-9) using the numeric keys and press **Enter** (). The cursor moves to the VectorScan title field.

6) Enter the VectorScan title (up to 24 characters).

   a) Press the ↑or ↓ key below the controller's LCD until the desired character is displayed and then press the **System Menu** (

) key. This action sends the character displayed on the LCD to the KD6 and it is displayed on the monitor.

   b) Continue performing step a) until the desired title is displayed on the monitor and then press **Enter** ().

   The VectorScan programming fields are displayed on the monitor.

NUM	PRESHOT	VELOCITY	DWELL
0	••	•.•	••
.	••	•.•	••
.	••	•.•	••
63	••	•.•	••

5.5.5 Programming VectorScans, Continued

7) Enter the first PreShot Number in the PreShot Column in the **0 row**.
Note: after editing data in a field, the cursor moves to the next column. If the cursor does not move, press the right arrow key to move it.

8) Enter the velocity from **1 to 400 (degrees per second)** in the VELOCITY column of the **0 row.**

9) Enter the dwell time from 00-99 seconds.

10) Continue entering PreShots (up to 63) by repeating steps 7 through 9. PreShots will be performed in the order listed. To rearrange the order of the PreShots, use the up, down, left, and right arrow keys to move the cursor to any field in the display.

    Insert PreShot - To insert a line above the cursor, press the ↑ or ↓ key until insert is displayed on the controller LCD display then press the System Menu key.

    Delete PreShot - To delete the line the cursor is on, press the ↑ or ↓ key until delete is displayed on the controller LCD display then press the System Menu key.

11) When finished entering PreShots in the VectorScan, press **Enter (↵)**. The following prompts are displayed on the monitor.

E to Edit	Edit the VectorScan title and/or contents before saving
S to Save	Save VectorScan title and programmed PreShots
D to Delete	Delete the VectorScan

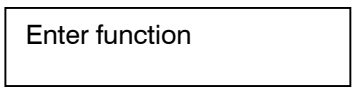
12) Press the **+ or –** key until the character (**E, D, or S**) for the **desired option is displayed on the controller LCD and then press System** Menu.

13) Program another VectorScan by repeating steps 5 through 12 or press **Flashback (↺)** to exit VectorScan programming.

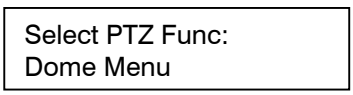
14) Press **Back (←)** twice to exit the menus on the controller LCD display.

5.5.6 Run VectorScan Continuously

1) Press the **Aux** () key. The following message is displayed on the controller LCD.



2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.



5.5.6 Run VectorScan Continuously, Continued

3) Press the **+ or –** key until **Run VectorScan Cont.** is displayed as shown below.

Select PTZ Func: Run VectorScan Cont.

4) Press **Enter** (⏎). The following message is displayed on the controller LCD.

Sel Character: <- A ->

The prompt “Run Continuous VectorScan ___ “ is displayed on the monitor.

5) Enter the **#** for the VectorScan you want to run and press **Enter** (⏎).

The VectorScan runs from beginning to end; then repeats the list until halted by an operator.

5.5.7 Run VectorScan Once

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **Run VectorScan Cont.** is displayed as shown below.

Select PTZ Func: Run VectorScan Once

4) Press **Enter** (⏎). The following message is displayed on the controller LCD.

Sel Character: <- A ->

The prompt “Run Single VectorScan ___ “ is displayed on the monitor.

5.5.7 Run VectorScan Once, Continued

5) Enter the **#** for the VectorScan you want to run and press **Enter (**  **).**

The VectorScan runs from beginning to end; then stops.

5.5.8 List VectorScans

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **List VectorScans** is displayed as shown below.

Select PTZ Func: List VectorScans

4) Press **Enter (****).** The following message is displayed on the controller LCD.

Sel Character: <- A ->

The first page of the list of programmed VectorScans is displayed. Press **+ or -** to view the next page. An “End of Directory” message appears at the bottom of the last page. Pressing + or – displays the first page of the listing.

5) Press **Flashback** () to remove the listing from the monitor.

6) Press **Back (** ) to exit the menus on the LCD.

5.5.9 List VectorScan Contents

The contents of each VectorScan stored in the KD6 can be viewed. The VectorScan contents cannot be edited from this display. This list displays the PreShots with the programmed transit times (velocity) and dwell times in the order they are programmed.

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **List VectorScan Contents** is displayed as shown below.

Select PTZ Func: List VectorScan Contents

4) Press **Enter (**  **).** The following message is displayed on the controller LCD.

Sel Character: <- A ->

The first page of the list of programmed PreShots is displayed. Press **+ or -** to view the next page. An "End of Directory" message appears at the bottom of the last page. Pressing + or – displays the first page of the listing.

5) Press **Flashback (**  **)** to remove the listing from the monitor.

6) Press **Back (** ) to exit the menus on the LCD.

5.5.10 Programming Sector IDs

Sector IDs are used for labeling specific areas that the scan views. Whenever a scan unit is under manual control and it is viewing a programmed sector, the name given that sector is added to the video signal.

Note: the camera ID display must be enabled.

When an operator is viewing the monitor or a video-tape machine is recording a specific dome, this labeling provides a quick reference for the area being displayed. Up to 16 Sector IDs can be programmed for each KD6 unit.

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **Program Sectors** is displayed as shown below.

Select PTZ Func: Program Sectors

4) Press **Enter** (). The following message is displayed on the controller LCD.

Sel Character: <- A ->

Follow the on-screen prompts on the monitor.

5) Enter the Sector ID **# (0-15)** and press **Enter** ().

6) Enter the Sector ID title.

   a) Press the ↑or ↓ key below the controller's LCD until the desired character is displayed and then press the **System Menu (** ) key. This action sends the character displayed on the LCD to the KD6 and it is displayed on the monitor.

5.5.10 Programming Sector IDs, Continued

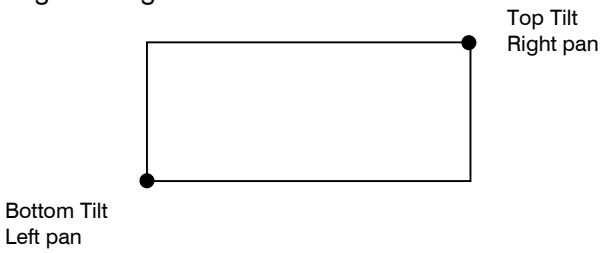
b) Continue performing step a) until the desired title is displayed on the monitor and then press **Enter (↵)**.

The following options are displayed on the monitor.

E to Edit Sector (edits Sector title)
D to Delete Sector (deletes programming for sector number entered in step 5)
S to Save Sector Coordinates (program the coordinates for the defined Sector)
N to Save Name Only (saves only the sector title, programmed coordinates are not changed.

7) Press the ↑or ↓ key until the character (**E, D, S, or N**) for the desired option is displayed on the controller LCD and then press **System Menu (Sys)**.

a. Select **S** to program and save sector coordinates. Refer to the diagram for programming coordinates.



b. Using the joystick, move the scan so the **lower left corner** of the sector is centered on the monitor, then press **Enter**. (The crosshair function may be helpful in determining the center of the monitor.

c. Using the joystick, move the scan so the **upper right corner** of the sector is centered on the monitor, then press **Enter**. If the upper right tilt position is below the lower left tilt position, the message “Illegal Tilt Direction” is displayed.

Readjust the tilt position until the message disappears or press **Flashback** (↻) to cancel the operation and return to manual operation.

8) Repeat steps 5 through 7 to program another Sector or press **Flashback (↻)** to exit.

9) Press **Back** (←) to exit menus on the controller LCD.

5.5.11 List Sector IDs

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **List Sectors** is displayed as shown below.

Select PTZ Func: List Sectors

4) Press **Enter (**  **).** The following message is displayed on the controller LCD.

Sel Character: <- A ->

The first page of the list of programmed Sectors is displayed. Press **+ or -** to view the next page. An "End of Directory" message appears at the bottom of the last page. Pressing + or – displays the first page of the listing.

5) Press **Flashback** () to exit.

6) Press **Back (** ) to exit the menus on the LCD.

5.5.12 Programming Privacy Zones, Sony Camera

All privacy zone programming is password protected. The password is user programmable up to 14 alphanumeric characters. Up to ten (0-9) privacy zones can be programmed with a unique 24-character alphanumeric title.

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **Program Sectors** is displayed as shown below.

Select PTZ Func: Program Sectors

4) Press **Enter** (). The following message is displayed on the controller LCD.

Sel Character: <- A ->

Follow the on-screen prompts on the monitor.

5) Press the ↑or ↓ key below the controller's LCD until **P** is displayed and then press **System Menu** (

).

6) Enter the **password**. (The factory set password is blank. Press Enter to submit a blank password.)

   a) Press the ↑or ↓ key below the controller's LCD until the 1st character of the password is displayed and then press **System Menu** (

).

   b) Continue step a) for the remaining characters in the password.

   c) Press Enter when the password character entry is complete.

7) Enter the Privacy Zone # (0-9) you want to program, edit, or delete.

5.5.12 Programming Privacy Zones, Sony Camera Continued

8) Enter the Privacy Zone title to be displayed on the monitor when viewing the privacy zone. If the zone has already been programmed, the current title is displayed.

   a) Press the ↑or ↓ key below the controller's LCD until the desired character is displayed and then press the **System Menu (**Sys)key. This action sends the character displayed on the LCD to the KD6 and it is displayed on the monitor.

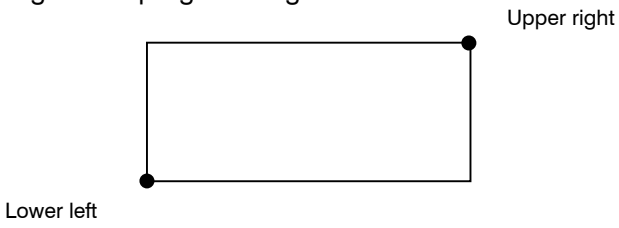
   b) Continue performing step a) until the desired title is displayed on the monitor and then press **Enter (**↵**)**.

   The following options are displayed on the monitor.

   E to Edit Zone
   D to Delete Zone (deletes programming for privacy zone number entered in step 7)
   S to Save Zone Coordinates (program the coordinates for the privacy zone)
   N to Save Name (saves only the privacy zone title; the programmed coordinates are not changed.

9) Press the ↑or ↓ key until the character (**E, D, S, or N**) for the desired option is displayed on the controller LCD and then press **System Menu (**Sys).

   a. Send an **S** to the KD6i to program and save zone coordinates. Refer to the diagram for programming coordinates.



   b. Using the joystick, move the scan so the **lower left corner** of the privacy zone is centered on the monitor, then press **Enter (**↵**)**. (The crosshair function may be helpful in determining the center of the monitor.

   c. Using the joystick, move the scan so the **upper right corner** of the privacy is centered on the monitor, then press **Enter (**↵**)**. If the upper right tilt position is below the lower left tilt position, the message "Illegal Tilt Direction" is displayed. Readjust the tilt position until the message disappears or press **Flashback (**↺**)** to cancel the operation and return to manual operation.

10) Repeat steps 7 through 9 to program another Privacy Zone or press **Flashback (**↺**)** to exit.

11) Press **Back** (←) to exit menus on the controller LCD.

5.5.13 Programming Privacy Zones, Hitachi Camera

1) Perform steps 1 through 6 in paragraph 5.5.12.

2) Enter the Privacy Zone # (1 or 2) you want to program, edit, or delete.

3) Enter the Privacy Zone title to be displayed on the monitor when viewing the privacy zone. If the zone has already been programmed, the current title is displayed.

   a) Press the ↑or ↓ key below the controller's LCD until the desired character is displayed and then press the **System Menu (** 

)key. This action sends the character displayed on the LCD to the KD6 and it is displayed on the monitor.

   b) Continue performing step a) until the desired title is displayed on the monitor and then press **Enter (**  **)**.

   The following options are displayed on the monitor.

   E to Edit Zone
   D to Delete Zone (deletes programming for privacy zone number entered in step 2)
   S to Save Zone Coordinates (program the coordinates for the privacy zone)
   N to Save Name (saves only the privacy zone title; the programmed coordinates are not changed.

4) Press the ↑or ↓ key until the character (**E, D, S, or N**) for the desired option is displayed on the controller LCD and then press **System Menu (** 

).

   a. If you selected S to program zone coordinates, use the joystick to move the block over the area to be hidden. To increase or decrease the width of the privacy block, press the ← and → keys. To increase or decrease the height of the privacy block, press the + and **-** keys.

   Note: the zoom function is disabled while programming a privacy zone.

5). Press Enter **(****)**.

15. Repeat steps 9-12 to continue programming privacy zones or press Clear/Manual to return to manual operation.

5.5.14 Changing the Privacy Zone Password

1. Perform steps 1) through 6) in paragraph 5.5.12.
2. Press the ↑or ↓ key below the controller's LCD until **P** is displayed and then press **System Menu** (Sys ).
3. Enter the new password as described in step 6 in paragraph 5.5.12.
4. Re-enter the new password. If you enter a different password the second time, an invalid message is displayed and you must start again.
5. After programming the password, you can program a privacy zone or press **Flashback (** ) twice to exit.
6. Press **Back** () to exit menus on the controller LCD.

5.5.15 PTZ Tours

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **PTZ Tour** is displayed as shown below.

Select PTZ Func: PTZ Tour

4) Press **Enter (**  **).** The following message is displayed on the controller LCD.

Enter Tour #: (1-3): 1

5) Enter the Tour # (1-3) and press Enter.

PTZ Tour Option Run

5.5.13 PTZ Tours, Continued

6) Press the **+ or –** key to select the desired option, Run Tour, Program Tour, or Delete Tour and then press **Enter.**

   a) Run Tour

      The selected tour (if programmed) continues to run until stopped by an operator. To stop a tour send a manual PTZ command, go to a PreShot, start a VectorScan, or start another tour.

   b) Program Tour

Tour Capture.... <ent> to Stop

      The scan counts from 120 to 0 seconds. You have 120 seconds to pan and tilt the scan and adjust the lens zoom setting. The scan save the PTZ commands performed during the 120 seconds. When the scan reaches 0, it displays **PTZ Tour Complete.**

      To program a tour less than 120 seconds, press the **Enter (**  **)** key. The scan saves the PTZ commands you entered between the time you started the programming mode until you pressed Enter.

   c) Delete Tour

      The programming for the tour # entered in step 5 is deleted.

5.5.14 Freeze Video

When the video is frozen, an asterisk displays in the bottom left corner of the display and the camera remains on the current scene until the operator unfreezes the video. An operator can manually control the camera or send the camera to a PreShot, but the video display does not change. When the video is unfrozen, the scene the camera is viewing is outputted on the video signal.

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **Freeze Video** is displayed as shown below.

Select PTZ Func: Freeze Video

4) Press **Enter** (). The following message is displayed on the controller LCD.

Freeze Video No

5) Press the **+ or –** key to switch between Yes and No. Select Yes to Freeze Video; Select No to unfreeze video.

6) Press Enter () when desired option is displayed.

5.5.15 Display

The KD6i outputs its camera address (number) on the video signal. The camera number (Cam 001) display on the monitor can be turned on or off.

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **Display** is displayed as shown below.

Select PTZ Func: Display

4) Press **Enter** **(**  **).** The following message is displayed on the controller LCD.

Display No

5) Press the **+ or –** key to switch between Yes and No. Select Yes to Display the Camera number; Select No to disable the camera number display. Press **Enter** **(** **)** to select Yes or No.

5.5.16 Error Table Display

The KD6i error table can be turned on or off. If the error table is turned on the table is displayed on the monitor where the selected KD6 is viewed. Refer to the KD6i User Manual for the error table codes.

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **Error Table Disp** is displayed as shown below.

Select PTZ Func: Error Table Disp

4) Press **Enter** **(**  **).** The following message is displayed on the controller LCD.

Error Table Display No

5) Press the **+ or –** key to switch between Yes and No. Select Yes to Display the Camera number; Select No to disable the camera number display. Press **Enter** **(** **)** to select Yes or No.

5.5.17 Coordinate Display

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **Coordinate Displ** is displayed as shown below.

Select PTZ Func: Coordinate Displ

4) Press **Enter** **(**  **).** The following message is displayed on the controller LCD.

Coordinate Display No

5) Press the **+ or –** key to switch between Yes and No. Select Yes to Display the pan and tilt coordinates. The coordinates are displayed in degrees on the monitor.

Example: Pan = 073.0 Tilt = 00.0

Select No to disable the camera number display. Press **Enter** **(**  **)** to select Yes or No.

5.5.18 Go to Absolute

For future use.

5.5.19 Find Home Position

Each KD6i has a factory set mechanical “HOME” position. The receiver board uses the home position as a reference point for the pan and tilt positions. The KD6i can be sent to its HOME position using the controller.

Enter function

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **Find Home Pos.** is displayed as shown below.

Select PTZ Func: Find Home Pos

4) Press **Enter** (). The KD6i goes to its factory-set mechanical home position.

5.5.20 Return to Manual

If the KD6i is performing an automatic command (VectorScan or Tour), the user can return the KD6 to manual control. This command stops any function currently running in the KD6i and returns control to the operator.

1) Press the **Aux** () key. The following message is displayed on the controller LCD.

Enter function

2) Press the **PTZ Call** () key. The following message is displayed on the controller LCD.

Select PTZ Func: Dome Menu

3) Press the **+ or –** key until **Return to Manual** is displayed as shown below.

Select PTZ Func: Return to normal

4) Press **Enter** (). If a tour or VectorScan is running, it stops.

5.6 ACCESSING KD6i ON-SCREEN SETUP MENUS

5.6.1 Accessing KD6i Setup Menus

The KD6i menus can be accessed directly from the HEGS5002.

1. Press **AUX (** **)** followed by **PTZ Call (** **)**.
   The following menu appears.

```
Select PTZ Func:
Dome Menu
```

2. Press **Enter** ( ) to select Dome Menu. The KD6i menu appears on the monitor.

   The HEGS5002 LCD display changes to text entry mode.

```
Sel Character:
<-      A       >
```

   Follow the on-screen prompts to setup the KD6i.
   Refer to the KD6i user manual for details for each menu and associated options.

5.6.2 Navigating the KD6i Menus

All commands needed to navigate the on-screen menus are available by scrolling through the alphabet on the controller's LCD display. These include Home, End, Page Up, Page Down, Insert, Delete, Backspace

- **↑ and ↓ keys** scroll forward and back to display a character or command
- **System menu** (Sys) selects the character displayed on the LCD and sends it to the KD6i.
- **Flashback (** **)** sends the Esc command to the KD6i
- **Numeric keys 0-9** send the corresponding number to the KD6i ← and → keys send Left and Right commands to the KD6i ⊕ and ⊖ send Up and Down commands to the KD6i
- **Enter (** **)** sends the Enter command to the KD6i
- **Back** ( ) exits the KD6i menus on the HEGS5002 LCD display.

5.7 SEQUENCES

The HSX3208L supports up to 32 sequences. Each sequence can contain 32 steps. Each step contains the camera number, PreShot number, transfer time and dwell time.

Transfer time is the time taken for the KD6i Dome to move from one PreShot to another. Dwell time is the time between each step.

5.7.1 Running a Sequence

1. Press the 1 key, use the + and – keys to scroll through the list of sequences.

```
Select Sequence
Sequence 1
```

2. Press ↵ to start the sequence running forward or press the → to run the sequence forward or ← to run the sequence backwards.

```
Sequence 1:4
Run Paused  Stop
```

The display now changes to show the number of the sequence running in front of the camera name.

```
M1:S1 Camera 1
Operator 1
```

The Camera number will now change as the sequence runs.

```
M1:Sp Camera 7
Operator 1
```

5.7.2 Pausing a Sequence by moving the Joystick

Moving the joystick will automatically pause the sequence. The display will indicate this by displaying **Sp** in front of the camera number.

5.7.3 Controlling the Sequence Manually

Press the **Seq** (1) key to enter the Sequence menu. The top lines shows the sequence number and the current step in the sequence.

```
Sequence 1:4
Pause >>>  Stop
```

Press → to pause the sequence and step the sequence manually in the forward direction. The display will indicate that the sequence has been paused and display the current step in the sequence.

Press ← to step to the previous step and → to step to the next step.

5.7.4 Pausing and Resuming the Sequence

Press the **Seq** (1) key to enter the Sequence menu. The ↑ key will toggle between pausing and running the sequence. The >>>> or <<<< show the direction the sequence is running in.

```
Sequence 1:4
Pause >>>>  Stop
```

```
Sequence 1:4
Run Paused  Stop
```

5.7.5 Stopping a Sequence

Press **Seq** (1) to enter the Sequence menu. Press ↓ to stop the sequence running.

```
Select Sequence:
Sequence 1
```

5.7.6 Exiting the Sequence Menu

To exit the sequence menu, press the **Back** key (←).

```
M1:Camera 4
Operator 1
```

5.8 ALARMS

The HSX3208L uses the term Events to describe Alarm Handling. An Event is triggered by the closing or opening of one of the Alarm inputs. By default the input is a Normally Open contact and is triggered by closing the contact. This can be changed to Normally Closed or Either, which means a change in the input condition will trigger the alarm.

An Event can be programmed to be part of the standard alarm stack. This is called a Foreground Event. The alarm switches a camera to the ALARM Monitor in which case it will be used to alert the operator, switch a camera to a monitor and recall a PreShot.

The alarm handling defaults are as described below.

- Alarm 1-32 inputs have a Normally Open contact (Normally open is the default. It can be changed to be Normally Closed for each input)
- Alarm 1 will connect Camera 1 (This is the default, can be changed to switch any camera) to the Alarm Monitor (Monitor 4 is the default alarm monitor, this can be changed to any monitor).
- Alarm 2 will connect Camera 2 to the Alarm Monitor, and so on for Alarm 32 switching Camera 32 to the Alarm Monitor.
- When the alarm is active the camera will switch to the Alarm Monitor and the keyboard will beep.
- When the operator accepts the alarm, by pressing the Alarm key () on the keyboard, the beep is silenced and the camera which was displayed on the Alarm Monitor (Monitor 4) will be switched to the ACCEPT Monitor (Default for Accept Monitor is Mon 1 for all keyboards, but this can be changed).
- When the operator is finished working with the alarm he presses the Alarm button again, if there is another alarm waiting the next alarm will be switched to the ACCEPT monitor.
- If more than one alarm is active before the operator accepts the alarm then the active alarms will sequence on the alarm monitor. The time each one is displayed for on the Alarm monitor is 3 seconds (This is called the DWELL TIME, this is the default and can be changed for a different time for each alarm.

In addition to switching a camera to the alarm monitor the alarm can trigger a macro when the alarm becomes active and another macro when the alarm is cleared. By default no macros are triggered.

- The idea of the INVOKE MACRO is you can use this to do additional things like close a relay to switch on a light or switch a second camera to another monitor.
- The idea of the CLEAR MACRO is you can use this to do something when the alarm has cleared. EXAMPLE: Switch the light off.

An alarm (EVENT) can be set as FOREGROUND (Default) or BACKGROUND

- FOREGROUND: The alarm works as described above. It becomes part of the ALARM Handling.

- BACKGROUND: The alarm will only call the INVOKE MACRO when the alarm becomes active This mode can be used for automatically turning on lights or starting VCR recording without having to alert the operator

5.8.1 Accepting an Alarm

Press the Alarm Ack key () to accept the alarm. The buzzer will switch off and the camera will be transferred to the Alarm Accept Monitor. By default this is Monitor 1.

5.8.2 Sequencing of Alarms

Should more than one alarm be triggered before the Alarm Ack () key is pressed, the cameras will sequence on the Alarm Monitor with a 3-second dwell time. The Alarm with the highest priority will be transferred to the Accept Monitor.

5.8.3 Clearing an Alarm

Alarms can be cleared (CLEAR TRIGGERS) in 3 different ways and any combination can be used together. OPERATOR, TIME OUT, CONTACT REVERSAL

- OPERATOR: The Alarm will be active until the operator accepts the alarm.
- TIME OUT: The Alarm will clear after the TIMEOUT has elapsed.
- CONTACT REVERSAL: The alarm will clear if the contact that caused the alarm is reset.
- The default is OPERATOR or TIMEOUT.
- The default TIMEOUT is 30 seconds.

5.9 FUNCTION KEYS F1 – F16

Function keys F1 to F16 are mapped to Macros 1 to 16, respectively. Refer to paragraph 4.4 for accessing the system menus and paragraph 4.4.11 for programming macros.

To activate keys F1 through F8 (macros 1 through 8), press the **F1-F8** key. To activate keys F9 through F16 (macros 9 through 16), press the **F9-F16** key. Pressing either of these keys once causes the LED on the key to blink; pressing it twice causes the LED to remain steady.

Blinking LED – after you press one of the function keys, the F1-F8 key is deactivated and the keys return to normal operation (Iris Open, Iris Close, etc.)

Steady LED – the function keys remain active until you press the associated **F1-F8** or **F9-F16** key again.

SECTION 6:
DOWNLOADING NEW FIRMWARE

6.1 DOWNLOADING NEW FIRMWARE TO THE HEGS5002

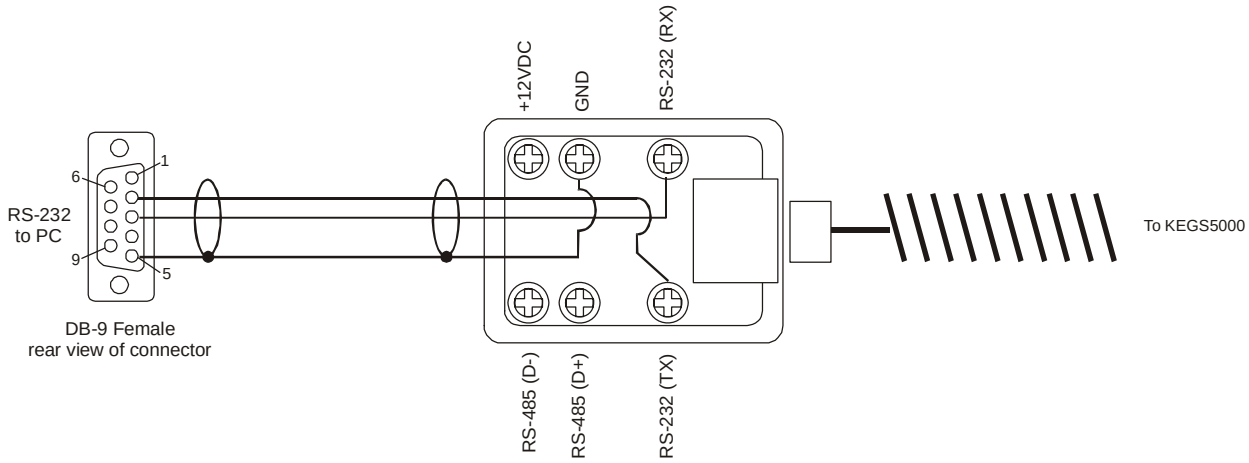
The HEGS5002 can have new firmware downloaded through the RS-232 port. This is done through a simple windows program called Ultrak Code Server.

To download the latest version of the Code Server visit the download section on the Honeywell website http://www.honeywellvideo.com or go directly to http://www.honeywellvideo.com/support/downloads/Downloads_keyboards.html. Locate the HEGS5000 Slave Firmware and download the zip file for the firmware and download the instructions to update the firmware.

To download the latest version of the HEGS5002 firmware, click the latest version and select “Run from Server.” This will open WinZip and install the firmware to the default directory (C:\Program Files\Ultrak Code Server\CCTV\HEGS5002). If Code Server was installed to a different drive, select the drive prior to installing.

The latest version will be saved to the computer.

1. Connect the HEGS5002 to COM1 or COM2 of the PC.
   (Refer to the diagrams below for correct download cable connections.)



RS-232 Download cable connections

2. Disconnect power from the HEGS5002. Reconnect the power and, before the timer reaches zero, press **1** on the controller. This will put the controller into the download mode.

3. Enter the **Master** password.
   (If it has not been changed from the default, enter 1111.)

4. Press the ← or → arrow keys until the LCD display shows **Download Firmware** .

5. Press ↵. The controller will clear the memory and, when ready to download, will display the message "**Begin Download**." The HEGS5002 is now waiting for data from the PC.

6. From the START bar on the PC, select Programs→Ultrak→Ultrak Code Server. The following window appears.

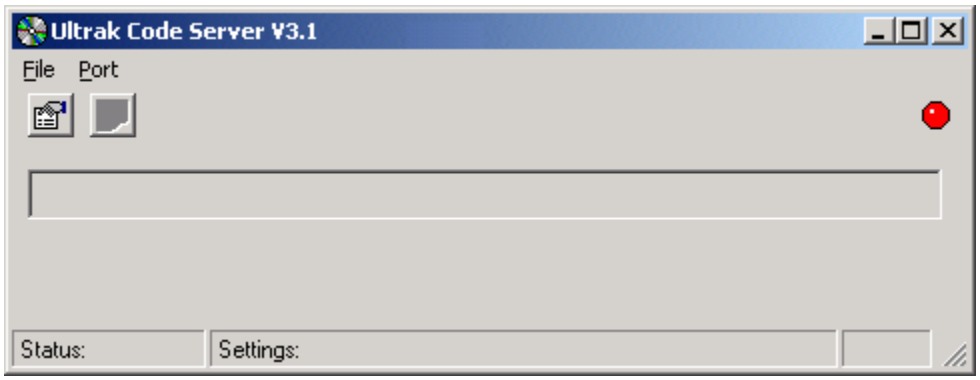


Figure 11: Ultrak Code Server Window

7. The Port Properties icon  allows selection of the serial port to use. Clicking on this opens the CommPort Properties window:

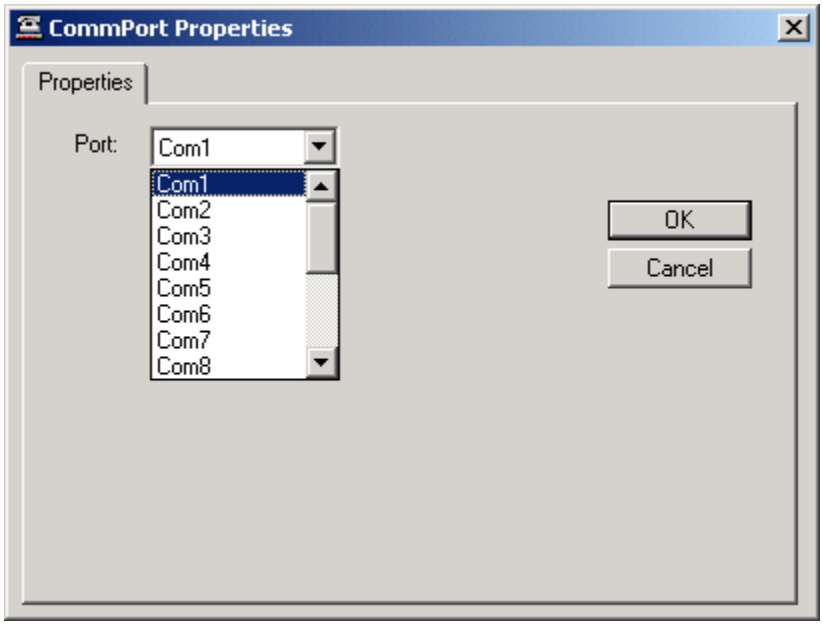


Figure 12: CommPort Properties Window

Select the serial port the download adapter is connected to and click OK.

8. Click on the red dot to enable the port.

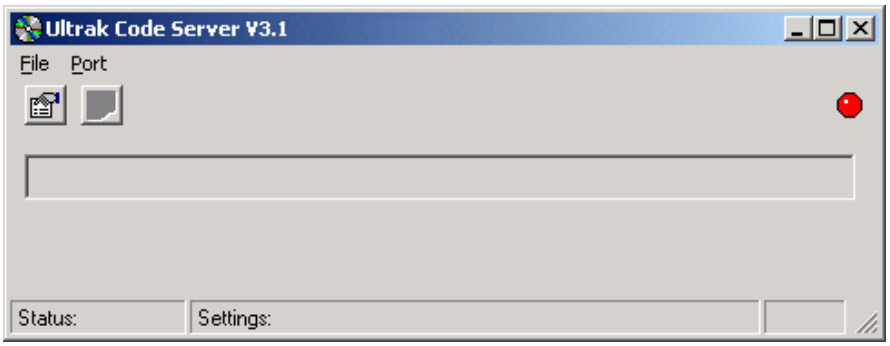


Figure 13: Enabling the CommPort

If the port is unavailable, an “Invalid port number” error message will display.

This is because the port is being used by another device, usually the mouse or a modem. Click on the properties icon and select a different port.

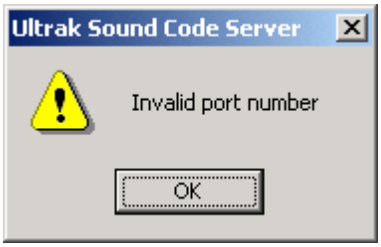


Figure 14: Invalid Port Error

9. If the port is available the red dot changes to green and the Transmit Hex file icon  becomes visible.

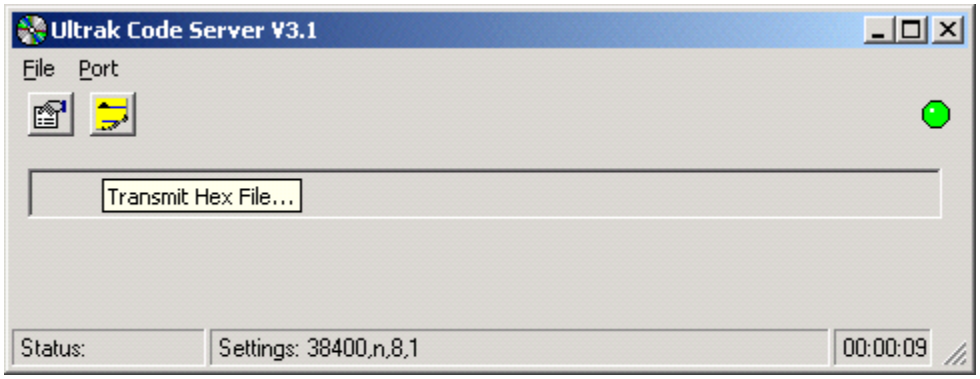


Figure 15: Transmit Hex File

10. Click on the Transmit Hex File icon  to bring up the Send Hex File window.

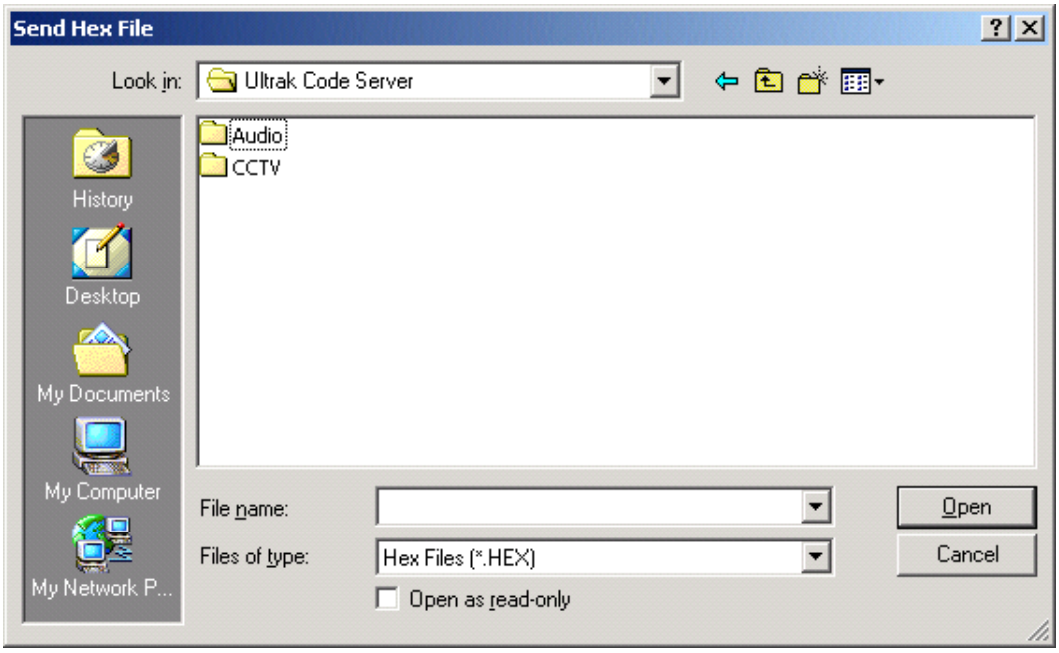


Figure 16: Send Hex File Window

11. Double-click the CCTV folder and then the HEGS5002 folder.

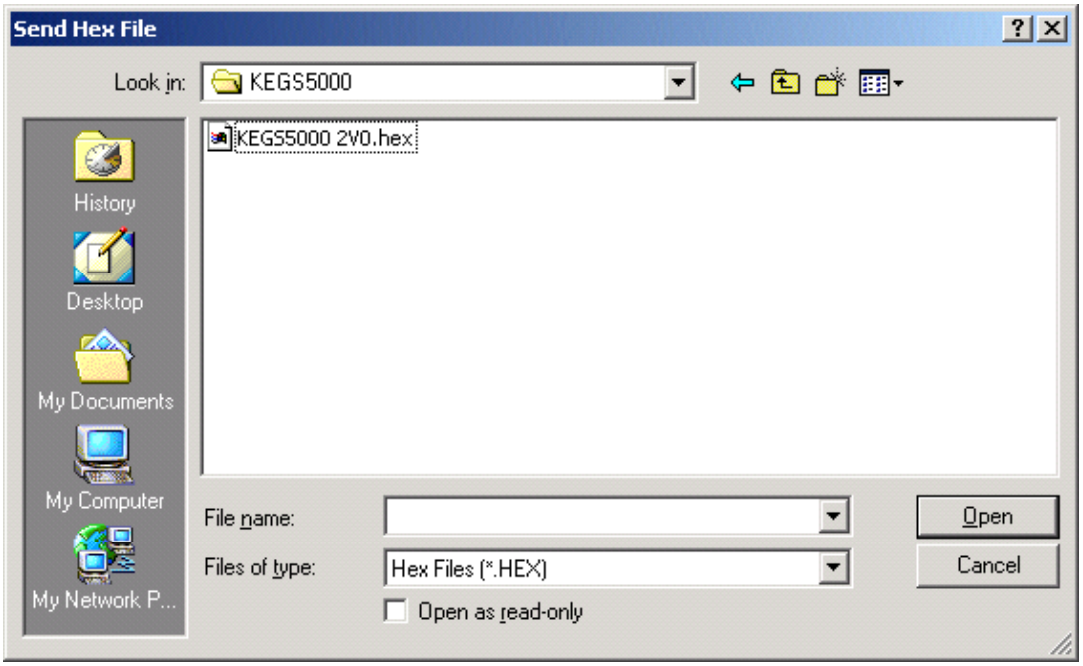


Figure 17: Selecting the Hex File to Send

12. Select the latest version (in this example, HEGS5002 2V0.hex) and click OPEN. The Sending Hex File window displays, indicating the file being transmitted and the progress of the download. "**Download Busy**" appears on the HEGS5002 LCD.

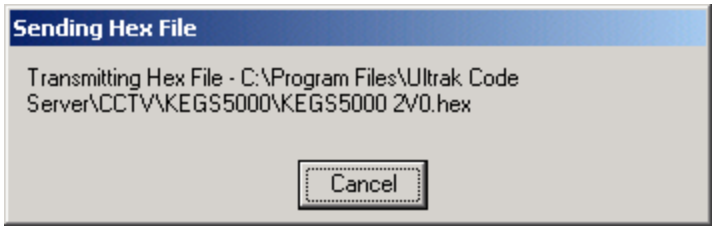


Figure 18: Sending Hex File status Window

13. When the download is complete, a **Transfer Complete** window will display and the HEGS5002 will restart with the new version of the software.

    Click OK to close the Ultrak Code Server.

Figure 19: Transfer Complete

6.2 DOWNLOADING NEW FIRMWARE TO THE HSX3208L

6.2.1 Download Files from Website

The HSX3208L can have new firmware downloaded through the RS-232 port. This is done through a simple windows program called RFU Download Program.

To download the latest version of the RFU DOWNLOAD PROGRAM visit the download section on the Honeywell website (www.honeywellvideo.com) or go directly to http://www.honeywellvideo.com/support/downloads/downloads_matrix.html. Locate HSX3208L and download the zip file for the firmware and download the instructions to update the firmware.

To download the latest version of the HSX3208L firmware, right click the latest version and save it to the same directory as the RFU program on the PC.

6.2.2 Setting Up the RFU Download Program

Double-click the RFU.exe file. The following window opens:

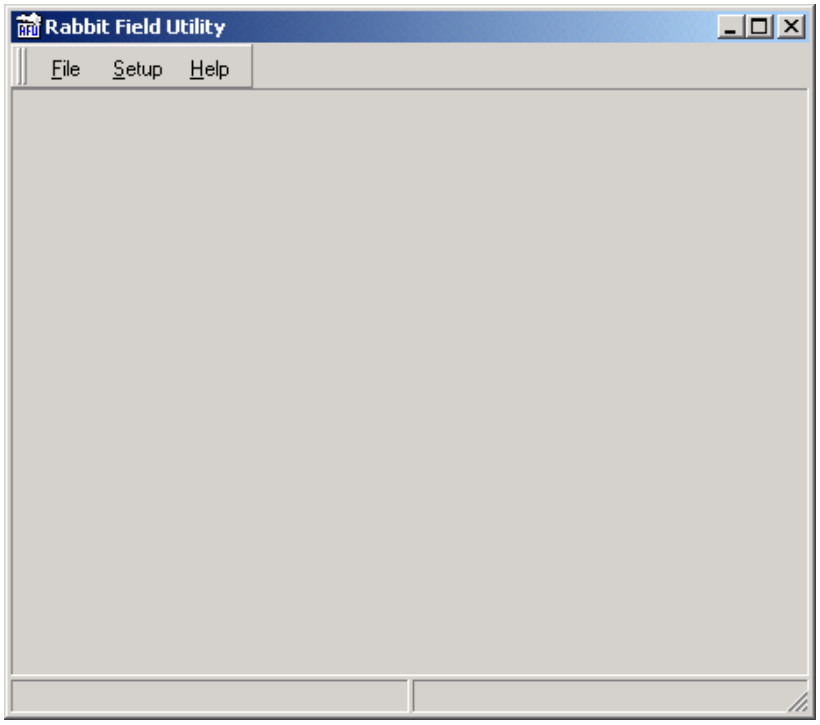


Figure 20: Rabbit Field Utility

6.2.3 Setup Communications

1. Select **Setup → Communications** from the menu bar.
2. Select the Comm port to use to download the firmware. Make sure the rest of the settings are as shown.
3. Select **OK**.

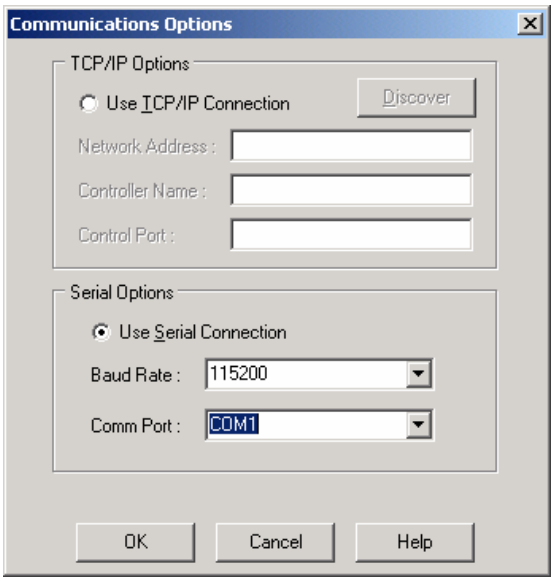


Figure 21: Setup Communications

6.2.4 Setup Boot Strap Loaders

1. Select **Setup → Boot Strap Loaders**.
2. Click the button with the three dots next to Cold Loader and browse to the folder where the RFU files were copied.
3. Click on the COLDLOAD.BIN file, then select OK.

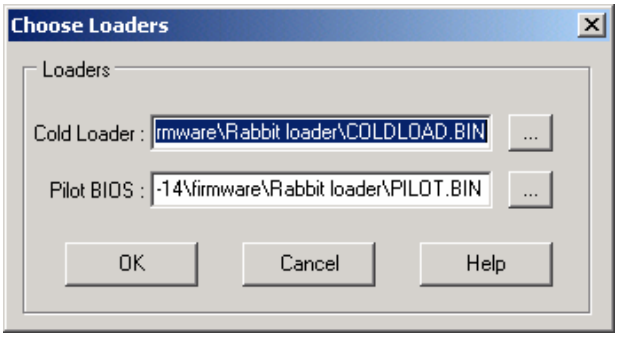


Figure 22: Boot Strap Loaders

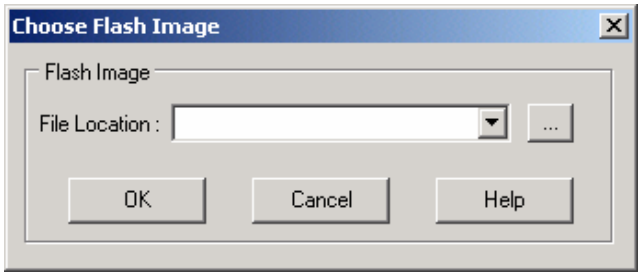
4. Repeat these steps for Pilot BIOS.
5. Click **OK** when done.

Note: The above procedure only needs to be done once.

6.2.5 Downloading a Bin File to the HSX3208L

1. Connect the RS-232 cable supplied with the HSX3208L from the Download port to the Com port on the PC.

2. Doubleclick the RFU.exe file to open the download utilit Select **File → Load Flash Image**.



3. Click on the button with the three dots to browse to the folder which contains the .bin file.

4. Select the version of the file to be downloaded, (MAINKSX.bin) and press **OK**.

5. Select **OK** to start the download. A window will open showing the progress of the download.

6. When complete unplug the cable from the rear of the unit.

Note: The HSX3208L will not run with the RS-232 cable connected to the PC. This places the units in a download mode.

SECTION 7:
TROUBLESHOOTING AND MAINTENANCE

7.1 TROUBLESHOOTING

If problems occur at the initial installation phase, verify the unit is installed correctly and the connectors are seated fully into the interconnecting equipment. Because this unit is just one part of an overall system, it may be necessary to verify that the other equipment types have been installed and are operating correctly before assuming the problem exists with the HEGS5002 controller.

If problems still exist after verifying correct installation and the problem has been isolated to the controller, then it must be removed for servicing. THERE ARE NO USER-SERVICEABLE PARTS. REFER SERVICING TO QUALIFIED PERSONNEL ONLY.

7.2 PREVENTIVE MAINTENANCE

Use of preventive maintenance allows detection and correction of minor faults before they become serious enough to cause equipment failure. As a result, major repairs can be avoided, and the equipment can be maintained in an operable condition with a minimum of maintenance.

Periodically perform the following.

1. Inspect all interface connecting cabling for deterioration or other damage.

2. Clean the front panel with a soft cloth using any mild commercial cleaner.

NOTES:

SECTION 8:
SPECIFICATIONS

ELECTRICAL SPECIFICATIONS	
Input Voltage	12V dc
Power	6W
Video Inputs	32
Video Outputs	8 monitor outputs & 32 camera looping outputs
Video Signal Format	EIA/NTSC and CCIR/PAL
Video Input/Output	1.0Vp-p, 75 Ohms, unbalanced
Alarm Inputs	32
Control Ports	10BaseT Ethernet or serial RS-485, RS-232
Communication Speed	10MB/sec Ethernet 1200 to 57500 baud serial
Cable requirements	Twisted pair, shielded, AWG 22 CAT 5
Operation Distances	4000 ft (1219m) for RS-485 50 ft (15.2m) for RS-232 300 ft (92m) for 10BaseT
MECHANICAL SPECIFICATIONS	
Construction	Metal chassis
Finish	Light gray powder coating
Dimensions	17.25W x 5.25H x 11.25D inches 438W x 133H x 286D mm)
Weight	~12 lbs. (5.4kg)
ENVIRONMENTAL SPECIFICATIONS	
Ambient Temp.	32°F to 120°F (0°C to 50°C)
Humidity	10% to 95% (non-condensing)

Notes:

APPENDIX A:
ASCII PROTOCOL

A.1 PTZ COMMANDS

Function	Command	Comment
Pan Left	[1-64]La	Example: 32La Pans left at speed 32.
Stop Pan Left	~La	Stop Left Pan.
Pan Right	[1-64]Ra	Example: 32Ra Pans Right at speed 32.
Stop Pan Right	~Ra	Stop Right Pan.
Tilt Up	[1-64]Ua	Example: 32Ua Tilts up at speed 32.
Stop Tilt Up	~Ua	Stop Tilt Up.
Tilt Down	[1-64]Da	Example: 32Da Tilts Down at speed 32.
Stop Tilt Down	~Da	Stop Tilt Down.
Focus Near	Na	
Stop Focus Near	~Na	
Focus Far	Fa	
Stop Focus Far	~Fa	
Iris Open	Oa	
Stop Iris Open	~Oa	
Iris Close	Ca	
Stop Iris Close	~Ca	
Zoom Tele	Ta	
Stop Zoom Tele	~Ta	
Zoom Wide	Wa	
Stop Zoom Wide	~Wa	
Stop All PTZ	sa	Stops all Pan, Tilt, Zoom, Focus and Iris commands.

A.2 PRESHOT COMMANDS

Function	Command	Comment
Save PreShot	[1-99] ^ a	Saves the current position
Recall PreShot	[1-99]\a	Moves the PTZ to the saved position

A.3 MATRIX COMMANDS

Select Monitor	[1-8]Ma	Example: 1Ma Selects Monitor 1 as the active monitor.
Select Camera	[1-32]#a	Example: 32#a Connects camera to the active monitor
Note: Commands can be sent together: Example: 1Ma3#a10\a will connect camera 3 to monitor 1 and recall PreShot 10		

A.4 SPECIAL FUNCTIONS

Preshots 19 and 20 are reserved to start and stop sequence 1.
Starting Sequence 1: 1Ma19\a will start sequence 1 running on monitor 1.
Stoping Sequence 1: 1Ma20\a will stop sequence 1 running on Monitor 1.

A.5 SETUP HSX3208L

Under Serial ports, set up a port as 9600,8,N (1 stop bit is assumed) with RS232 and Pelco ASCII Protocol.

Under Keyboards, Set keyboard 8 device type for EXT Command Interface, set default operator to Operator of your choice.

Note: It's important that a default operator be set. Do not leave this at NONE.

Note: After making changes to the Setup the changes must be saved before they take effect.

Refer to Figure 22 for the wiring connections.

A.6 ASCII Protocol Input Wiring

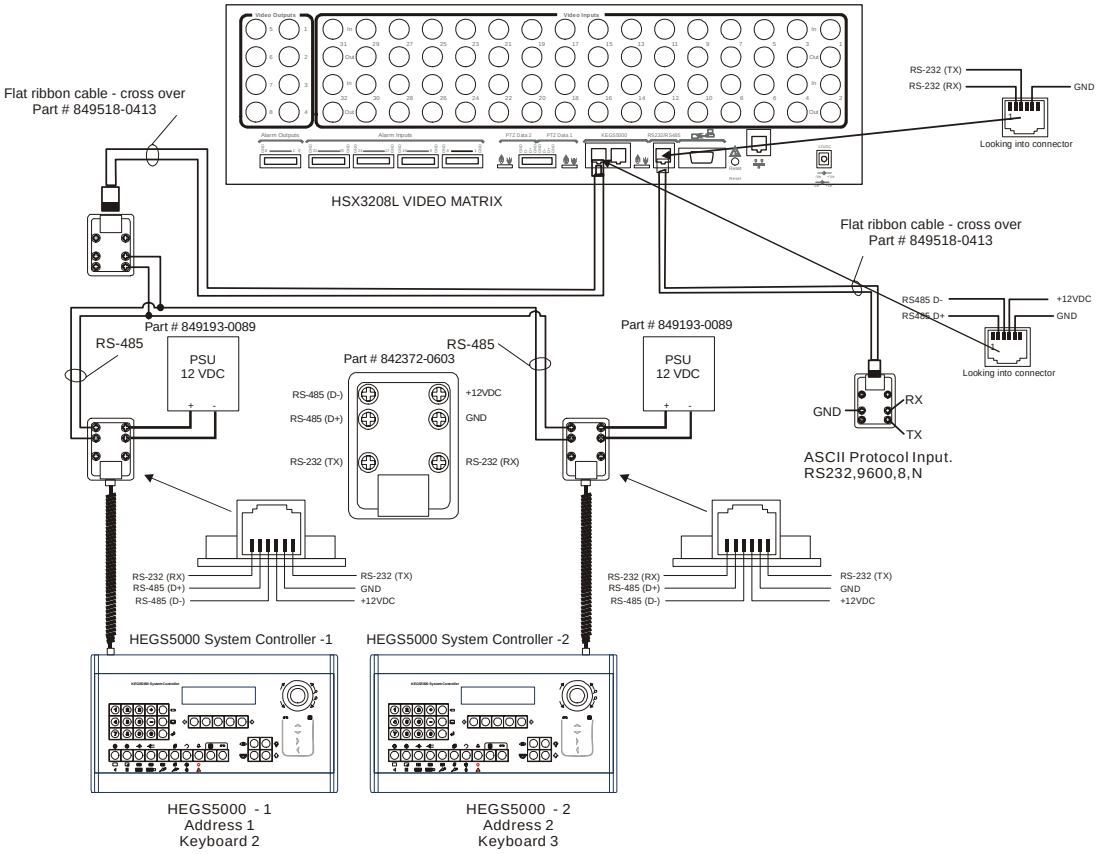


Figure 23. ASCII Protocol Input Wiring Connections

Notes:

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Notes:

Notes:

Honeywell Video Systems (Head Office)
2700 Blankenbaker Pkwy, Suite 150
Louisville, KY 40299
www.honeywellvideo.com
TEL+1-800-796–2288

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www.security.honeywell.com/hk
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