EAGLE
PAN TILT SYSTEMS
Helping to bring your world into focus

PT-TSC2 Color Touch Screen System Controller

Installation and Operations Manual

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Contents

INCLUDED WITH PT-TSC2 COLOR TOUCHSCREEN CONTROLLER:

1 EA. PT-TSC2 CONTROLLER BODY

1 EA. ELO 15" TOUCHSCREEN MONITOR

1 EA. ADJUSTABLE MONITOR MOUNTING BRACKET

1 EA. RS232-RS485 DATA CONVERTER

1 EA. MICROSOFT WINDOWS XP CD ROM DISC

1 EA. INSTRUCTION MANUAL

The PT-TSC2 touch screen control allows integrated pan, tilt, zoom, focus and camera control of all of the pan-tilt heads from Eagle. It provides directional control of the pan tilt head as well as zoom, focus and iris control of camera lenses. In conjunction with the optional PT-CCB camera control boards located inside our pan tilt heads, it will allow detailed remote bidirectional camera control of many of the Hitachi cameras, as well as some selected Sony, Panasonic, and JVC cameras.

PRECAUTIONARY STATEMENT

Improper settings and connections may cause damage to the pan tilt head, the camera, and the lens being used. Please read all of the following documentation before attempting the installation and configuration of these systems. If any of the instructions are unclear to you, call your servicing dealer or Hitachi <u>before</u> proceeding for clarification. Failure to correctly configure and install these systems may cause damage to the equipment, and will void the warranties. Please make sure before connecting or disconnecting any cables that the power supplies are turned OFF.

WARRANTY

Hitachi Denshi America, Ltd. warrants to the original customer that each controller unit shall be free from malfunction due to defective workmanship or component failure for a period of ONE YEAR from the original date of delivery to the customer. For service under the warranty period, return authorization <u>must</u> be obtained before returning the product. This warranty does not apply to finish or appearance items, to malfunction due to abuse or operation in violation of published operating specifications, or to failures caused by improper connections, modifications, alterations, or other unauthorized repairs. This warranty does not cover labor or shipping costs for removal and/or reinstallation of equipment under warranty. Under no circumstances shall Hitachi Denshi America, Ltd. or Display Devices, Inc., their owners or employees be liable to you for any special damages, including any lost profits, lost savings, or other incidental or consequential damages, or for any claim by any other party. The LCD touchscreen monitor is covered by the manufacturers' warranty and is not part of the PT-TSC2 controller warranty.

CONTROL PANEL USAGE

The PT-TSC2 control panel has a 15" diagonal backlit color touch screen LCD display for feedback and control of Eagle™ pan-tilt systems. <u>It is important not to use anything but a finger or a special touch-screen stylus for touching the screen as it may get scratched!! Window cleaner or special screen wipes may be used for cleaning fingerprints and smears from the screen.</u>

The control joystick allows adjustment of the pan tilt head and lens control. Eagle pan tilt heads are vector solving, i.e., they will move diagonally instead of just moving horizontally and vertically. It is also speed sensitive; deflect the joystick a small amount and the head moves slowly; deflect the joystick a large amount and the head moves quickly. The same speed sensitive control applies to the rocker control lever in controlling the lens' zoom or

MAIN PAGE VIEW

focus in the "speed" mode only. For ease of use, views of all of the screen layouts used in the PT-TSC2 can be found throughout this document, as well as at the end.

TOUCH SCREEN ASSEMBLY--NOTE: THIS MUST BE COMPLETED BEFORE OPERATION OF THE SYSTEM CAN BEGIN !!!

First, remove the PT-TSC2 controller and accessories from the box and set them aside.

Open the touchscreen monitor box and set the monitor face down on a flat clean surface.

Take the adjustable monitor mount and using the included screws, fasten the X shaped portion of the mount to the rear of the monitor.

Securely tighten the screws fastening the bracket to the monitor.

Hold the monitor and bracket assembly upright over the controller body mounting holes and using the included screws, fasten the lower portion of the bracket to the controller body. Adjust the monitor assembly forward or rearward to a point of your liking, then tighten the screws securely.

The monitor bracket is adjustable for height as well as angle. To adjust the monitor, firmly hold the bottom of the monitor with one hand while grabbing one of the the L handled brackets. Press in on the handle to engage the locking teeth, then turn the handle counter-clockwise to loosen it. Adjust the height or angle to your desired position, then turn the handle clockwise while pushing in to tighten it. Make sure that the height or angle adjuster is securely tightened before releasing your grip on the monitor.

From the included accessories, find the RS-232 to RS-485 converter and set it aside. DO NOT install it to the serial port on the rear of the controller; you will hook up the data line to the pan tilt heads later in the instructions.

Hookup the included USB cable from a port on the rear of the controller to the port on the

monitor.

Hookup the included VGA cable from the output of the controller to the input of the monitor.

Hookup the 12VDC monitor power cable from the top of the controller to the power input jack of the monitor.

If you wish to hookup a video input from a switcher to the PT-TSC2 controller for local monitoring of camera menu screens or video feeds, use the included RCA to BNC adapter and hook your cable up to the lower RCA jack on the rear of the controller panel.

Retrieve the large multivoltage 12VDC 6.67A power supply from the accessory box and plug it in to the 3 pin Phoenix connector on the rear of the controller. Insert the AC line cord to the power supply and plug it into an AC outlet.

It is preferable to use a battery backup device to power the controller so that in the event of a power glitch or outage, power is not immediately lost to the controller and it can be safely shut down if needed in the event of a long power outage.

If an Ethernet connection is available, you can hook an Ethernet cable to the Ethernet port of the controller to allow easy program updating via the Eagle FTP site. The connection routine is automatic once started; see the instructions later in this manual for full details. Your network needs to allow connections via FTP protocol; you may need to check with your network administrator to confirm this is possible otherwise updating cannot take place.

Now take the RS232-485 converter. You should have one RS-485 serial line leading to your pan tilt heads. Using that line, connect the wire going to pin 2 on the head(s) to the port marked (A) on the converter. Connect the wire going to pin 3 on the head(s) to the port marked (B) on the converter. Finally, connect the wire going to pin 5 on the head(s) to the port marked GND on the converter. It is not necessary to hook up 12V power to the converter as it draws its' power from the serial port of the controller. Plug the converter into the 9 pin serial port on the rear of the controller and tighten the screws.
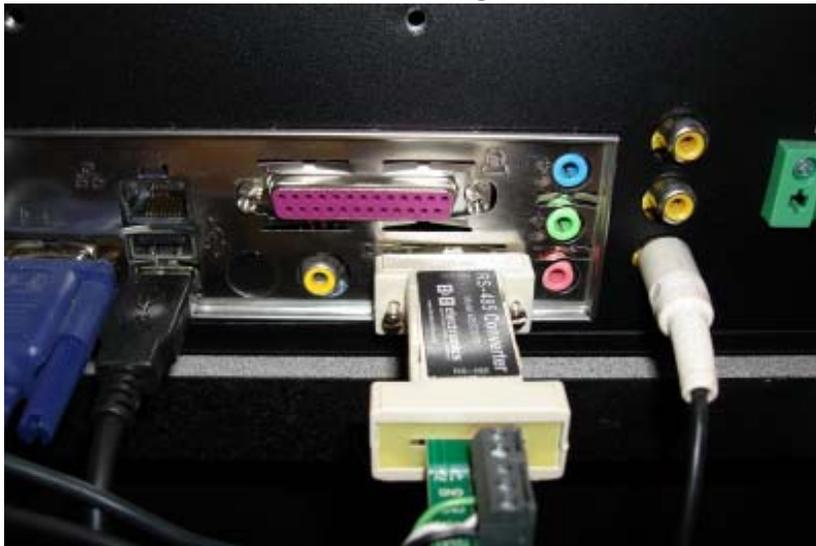
Rear panel with RS232-485 converter, USB, VGA, and video input connectors shown

Rear panel showing power input connector and power on switch

Once all of the connections are made, turn on the monitor by pressing the power switch on the right hand edge of the monitor.

Next, turn on the controller by depressing the red power on switch on the left rear corner of the controller. The controller will go through various boot up menus automatically, finally arriving at the MAIN page when done.

SHUTDOWN CONTROLLER

If you would like to shut down the controller for any reason, follow this procedure:

1) Go to the main page from whatever page you are currently on

2) Press the SHUTDOWN button in the bottom right corner of the screen.

3) The PT-TSC2 application will shutdown. From the lower left corner of the main Windows™ screen, choose START, then shutdown from the Windows menu.

4) The controller will then shut off.

CONTROL PAGES

MAIN PAGE

MAIN PAGE CONTROLS

Take a moment to look at the layout of the MAIN PAGE of controls. It is broken up into three areas; the camera selection / preset selection display in the top area; the lens commands section in the center; and the preset option area in the lower area. The camera number / camera status area in the top right corner shows the name of the camera / pan-tilt head currently selected to be controlled. It will also show various status messages from time to time or when recalling information from a camera.

The Camera selection section allows quick access to selecting individual cameras numbers; selecting all cameras simultaneously; and recalling, saving, or deleting presets . These commands are detailed below. The back pages of this manual contain a printout of all of the screens to allow you to quickly refer to the layout of the controller.

SELECT CAMERA PAGE

SELECT CAMERA

Selects the camera / head combination to be used. Press the SELECT CAMERA button and a page of up to 39 camera buttons will pop up. Touch the number of the camera you wish to control, or if you have set up the PT/camera heads with names, choose the name you wish to control. For example, to control head #1, press SELECT CAMERA, then the 1 button. The status display will read "CAMERA 1" or the name of the selected camera.

NOTE: to control all pan tilt heads at once, press SELECT ALL CAMERAS button. This is the command to control ALL heads on the line. Please note that when this button is pressed, you may not clear the travel limits of any head; this is a safety issue.

NOTE: if this is the first time the pan tilt head and camera have been accessed this work session, and you are using the PT-CCB camera control option in bidirectional mode, it may take a few seconds for the camera head to synchronize its' current settings to the controller. You will see the CAMERA STATUS line popup in the display window at the top right; it will count from 1 to 24 as it downloads the information from the head. It may stop and start momentarily during the count; this is normal. Please let the counting finish before attempting to use the head or any other head. If the counting does not finish, this may be indicative of a camera control problem or wiring issue. Please contact Eagle service for help if this happens.
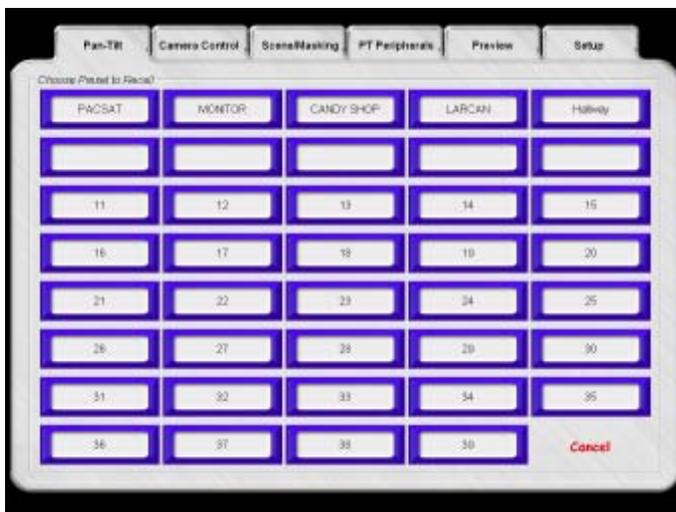
RECALL PRESET PAGE

RECALL PRESET

Push this button followed by the number or name of the preset you wish to recall. Example: to recall preset 14, touch RECALL PRESET, then press button 14 on the RECALL PRESET page that pops up.

SAVE PRESET

This button is used to save preset position/lens setting combinations. To use this button, you must first be in PRESET mode. Enter PRESET mode by pressing the PRESET MODE button under the Lens Operation heading on the main page. When the PRESET MODE button is highlit (yellow), the lens will shift to PRESET mode. You can tell by the fact that the zoom and focus motion will now "stutter" as you move it. Move the left joystick up,

down, left, or right for positioning the head, manually aiming the shot the way you desire. Use the zoom and focus controls to select the field of view as desired.

YOU MUST ZOOM AND FOCUS TO SET UP YOUR SHOT <u>AFTER</u> ENTERING THE PRESET MODE !!. If you set up your zoom and focus before entering the PRESET mode, the lens will not report where it is in its' zoom and focus range to the pan tilt head. Press the SAVE PRESET button followed by the number or name of the preset. It is automatically saved when you press the button. Up to 64 presets may be saved for each individual pan tilt head (dependent upon pan tilt model). The system automatically stays in PRESET MODE after you save the preset, so you will have to manually enter SPEED MODE from the MAIN PAGE to return to normal operating mode, or just recall a preset and it will automatically leave PRESET MODE.

DELETE PRESET

Use the DELETE PRESET button to delete a preset position that is no longer wanted. Press the DELETE PRESET button; the preset page will pop up. Select the preset you wish to delete, and it will be deleted.

Note that once a preset is deleted, there is no way to retrieve it. It will have to be recreated from the beginning.

LENS OPERATION AREA

There are several buttons under the LENS OPERATION area of the Main page. They are SPEED MODE, PRESET MODE, AUTO IRIS, MANUAL IRIS, FOCUS LOCKED, FOCUS UNLOCKED, ZOOM LOCKED, and ZOOM UNLOCKED.

SPEED MODE

Speed mode is the normal manual operation mode of a teleconferencing lens. When the SPEED MODE button is highlit yellow, the lens is in full manual zoom and focus mode.

PRESET MODE

Preset mode is used for setting and saving preset positions using a teleconferencing lens. To use PRESET MODE, follow the instructions above under SAVE PRESET. Preset mode does not have to be used when using a DC drive (CCTV type) lens, as that type of lens is always in PRESET MODE.

AUTO IRIS

When the AUTO IRIS button is highlit, the lens should be in Auto Iris mode. This means that the camera will determine the proper iris level based on the video level seen by the camera. This button will have no effect on cameras without automatic iris control. Iris modes can also be selected from the CAMERA CONTROL page.

MANUAL IRIS

When the MANUAL IRIS button is highlit, the lens is in Manual Iris mode. The lens' iris setting can then be adjusted manually using the IRIS UP / DOWN buttons on the lower control panel, or from the iris level adjust wheel on the CAMERA CONTROL page. Manual iris control cannot be used on some CCTV type camera / lens combinations that only have Auto Iris control.

FOCUS LOCKED/UNLOCKED

The FOCUS LOCKED and FOCUS UNLOCKED buttons will either lock or unlock, respectively, the focus control of the lens on the PT head selected. These buttons can be used to lock the focus of the lens if you don't want it to move.

ZOOM LOCKED/UNLOCKED

As above FOCUS LOCKED/UNLOCKED command, but for ZOOM control.

PRESET OPTION AREA

There are four buttons under the final control area of the main page for controlling some options of the system. These are PRESET SPEED, PRESET SCENE, CHAIN PRESET, and CHAIN TIME.

PRESET SPEED

PRESET SPEED is to be used to change the recall speed of an existing saved preset. For example, if you created a preset using speed range 1 of the pan tilt head, and later decide that the motion is too fast, you can use the PRESET SPEED function to change the speed to a slower speed. Simply recall the preset to be changed, then press PRESET SPEED button. A numeric keypad will pop up and ask the speed to change the preset to; speed 1 is the fastest, speed 2 is medium, and speed 3 is the slowest. Select the speed 1 through 3 and press enter. See the photo below.
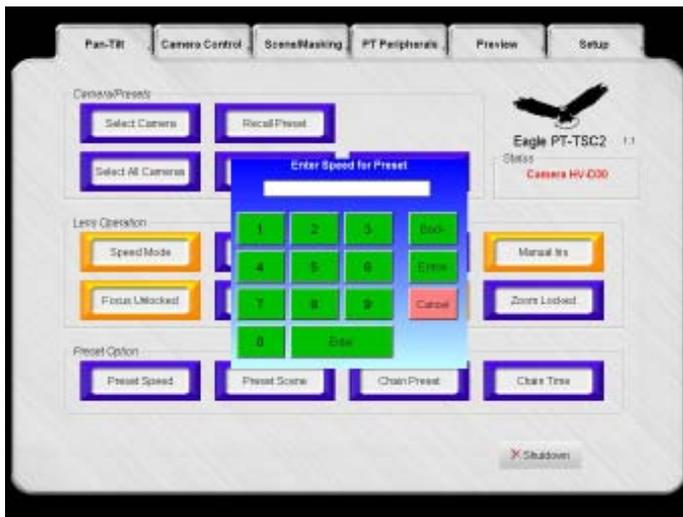

PRESET SPEED POPUP PAGE

PRESET SCENE

Similar in function to the PRESET SPEED button above, this button let the user tie saved scene files to a recalled preset position. This is useful if you have cameras in areas with mixed lighting sources, such as daylight and tungsten in the same room. Some presets may be in daylight, some may be in tungsten light. Instead of forcing the user to manually change the scene file of the camera, the pan tilt system can do it automatically. First, scene files must be created and saved for the different lighting characteristics of the room. Create and save preset positions as desired. Next you can use the PRESET SCENE button to tie the saved scene files to the saved presets. Recall the desired preset. Then, press the PRESET SCENE button. The keypad will pop up asking you which scene file number to attach to this preset. Choose a number 1 through 4 dependent upon the camera you are using, then press enter. The scene file is now tied to this preset. If you have made a mistake or change your mind, simply repeat the process and choose the correct scene file number. Note that you must always recall the preset you wish to use just before pressing the PRESET SCENE button, or it will not tie them together correctly.

CHAIN PRESET AND CHAIN TIME

Presets may be linked together with these functions. It will automatically recall presets at intervals of your choosing. First, recall the preset number you wish to start from; even if you are at this preset currently, you must recall it in order to use the CHAIN function. Press CHAIN PRESET and then enter the number of the next preset to go to on the keypad; Press CHAIN TIME and enter the wait time at this preset in seconds from 1 to 16. Repeat this process for as many presets as desired to be linked. Recall the first preset and the CHAIN feature will start.

Example: enter RECALL PRESET, 1, ENTER, CHAIN PRESET, 2, ENTER, TIME, 5, ENTER. When this preset is reached, RECALL PRESET, 2, ENTER, CHAIN PRESET, 1, ENTER, TIME, 5, ENTER. This will cause the head to alternate between presets 1 and 2, waiting 5 seconds at each one.

CAMERA CONTROLLER
PAGE VIEW

⚠️ **IMPORTANT NOTE:**

MAKE SURE TO SET YOUR CAMERA'S BAUD RATE TO 9600BPS TO ALLOW CONTROL BY THE EAGLE PAN TILT SYSTEM.

CAMERA CONTROLLER MENUS

The CAMERA CONTROLLER page allows the user to unleash the power of the Eagle™ system. No other pantilt control system on the market makes it as easy to use the camera controller at the same time as the pan-tilt / zoom / focus controller. Most of the frequently needed camera control items can be found on this one page; other menus linked to this page are for detailed camera setup parameters that are usually done when the camera is first installed, and then rarely touched again. This page is an emulation of the Hitachi RC-Z3 remote control.

⚠️ *It is not the intent of this section of the manual to tell you how to set up your camera, merely to explain how the camera controller works.* For a detailed explanation of your particular cameras' operation and setup, consult your camera's owners manual, your dealer, or Hitachi representative.

NOTE: all of the CAMERA CONTROLLER functions only apply to the camera / head that is currently addressed as shown in the STATUS box in the lower right corner; you *cannot* adjust camera parameters for a different camera than the one addressed. If background changes are a necessity for your system, a second PT-TSC2 or PT-C/PT-CC controller and a PT-MP-1 multiplexer, or dedicated manufacturers' camera remote controls for each camera would be required.

BAR/CAM

This is a toggling function between the normal video out of the camera and the built in color bar generator of the camera.

EXTEND

This toggling button controls an optional 2x lens extender attached to a pan tilt head. Many Fujinon and Canon teleconferencing lenses have available 2x converters that can be re-

mote controlled by the Eagle™ system. The pan tilt head being used must be factory configured for this function to work. There is a duplicate of this button on the PERIPHERALS page as well.

SPECIAL

Pressing the SPECIAL button will activate the on screen SPECIAL SET menu available on most Hitachi cameras. This menu allows the detailed setup of many of the basic functions of the camera. In most cases this menu only needs to be entered upon initial setup of the camera and only occasionally after that. For detailed explanations of your particular cameras' SPECIAL SET functions, consult your camera owners manual.

SHUTTER

Press SHUTTER to select the electronic shutter speed setting. Use the multifunction joystick to select from OFF, 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000, VAR, AES and back again to OFF. Use VAR for variable shutter speed or long time integration modes, selectable by the VAR. SHUTTER button.

CONTRAST

Use this toggling button to select between OFF, NORMAL, and HIGH contrast modes.

ULTRA GAIN

Pressing ULTRA GAIN activates this feature (if your camera has it). This adds additional gain, with low noise, to the image for use in low light conditions.

AUTO WHITE

This activates the AUTO WHITE feature of the camera. In order to use and save the reference values generated by the camera, the WHITE BAL mode must be set to MEM. Just press the button to start the AUTO WHITE process.

AUTO BLACK

This sets the black level of the camera. Just press the button to activate it; it will go through an automatic setup level procedure; the picture will go black momentarily and then return when the setup is done.

MENU AND ARROWS buttons

Use the MENU button to turn on or off the remote menu display of certain Hitachi cameras, such as the HV-D30, DK-H31 or the HV-D15AS. You may then use the up, down, left, and right arrow keys to make menu selections from the video monitor display. All of the remote functions shown may be selected in this manner. Push the MENU button again to turn off the remote display.

DTL

This sets the DETAIL enhancement circuitry of the camera to LOW, NORMAL, HIGH, or

VARIABLE. Press the text next to each LED to select the desired mode.

WHITE BAL

This sets the WHITE BALANCE mode of the camera to AUTO, MEMORY or PRESET. Press the text next to each LED to select the desired mode.

GAIN

This sets the gain level of the camera to 3, 6, 9, 12, or 18 dB gain levels. Press the text next to each LED to select the desired mode.

RED GAIN, BLUE GAIN

Use the rotating knobs on the touchscreen or the buttons on the control panel to control the amount of red and blue gain. These controls should only be used in conjunction with a waveform monitor / vectorscope.

RED BLACK , BLUE BLACK

Use the rotating knobs on the touchscreen or the buttons on the control panel to control the amount of red and blue black level. These controls should only be used in conjunction with a waveform monitor / vectorscope.

IRIS LEVEL

This is for level control of the iris when the IRIS MODE is set to MANUAL. Press the IRIS LEVEL buttons up or down or use the rotating dial on the touchscreen to adjust the range from 0 to +127.

MASTER BLACK

Press SHIFT and then IRIS UP or IRIS DOWN buttons or use the on screen MASTER BLACK wheel to raise or lower the MASTER BLACK level of the camera. This should only be done when used in conjunction with a waveform monitor/vectorscope.
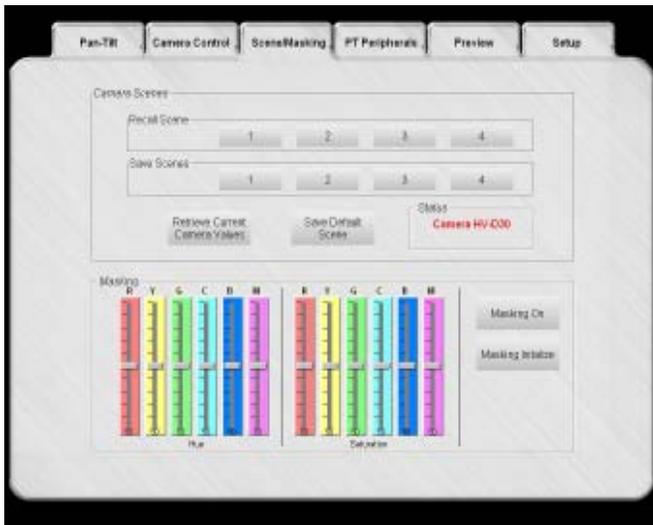
SCENE/MASKING
PAGE VIEW

CAMERA SCENES

The camera scenes page will allow you to memorize and store multiple different combinations of camera parameter settings for later recall. You could create individual SCENE memories for different lighting setups, different studio configurations, etc. , and store them for easy recall. Not all of the Hitachi cameras have these features, and some of them have 3 memory locations instead of 4. Consult your specific camera instruction manual for detailed instructions.

RECALL CAMERA SCENES

Buttons 1-4 will recall a stored scene file from memory. The memory location is inside each camera, not inside the controller. This information is stored specific to each camera head.

SAVE CAMERA SCENES

Buttons 1-4 will store the chosen parameters to file locations 1-4. Please note that the memory locations are onboard each individual camera, not in this controller.

RETRIEVE CURRENT CAMERA VALUES

Pressing this button will force a retrieval of the current camera information from the currently selected head. Ordinarily, this is done automatically during use. This button is only used if you feel the displayed information is incorrect.

SAVE DEFAULT SCENE

This button will save chosen settings to the power up memory of the camera. For example, if you chose BARS on the camera control page 1, then pressed this button, when the camera is powered up, BARS will be displayed. Whatever settings you make and store using this button will become the power up default of the camera. This includes info such as timing settings, etc.

CAMERA MASKING

The masking menu allows you to adjust the six way color correction features of certain Hitachi cameras. The HUE controls adjust the color phase for each individual color; the SAT controls adjust the level of each color. MASKING ON/OFF is a toggle button to turn the correction on and off; MASKING INITIALIZE will return any corrections made back to a factory setting.

PERIPHERALS
PAGE VIEW

PERIPHERALS PAGE

On the PERIPHERALS page are located control option settings for some of the Eagle™ control accessories.

The TELEPHONE CONTROL area is used with the optional PT-AAM modem system for remote, dial-up phone line control of Eagle™ systems.

> ADD NUMBER: Using the numeric keypad, enter in the number of the remote site to be dialed. Uses standard dialing conventions; either direct 7 or 10 digit dialing, or PBX codes may be entered (9 for outside line, etc.) Enter in the number, then press DIAL; the display will prompt for memory location. Enter in 1 thru 10 for the location you want to store the number in.

> REMOVE NUMBER: Using the selection box, choose the number you wish to re move from memory, then press the REMOVE NUMBER button.

> DIAL: Press this button to dial a number directly entered from the keypad, or to execute a number recalled from memory.

> HANG UP: This disconnects the phone call when the control session is done.

> SAVE PHONE LIST: This saves the numbers to memory of the controller.

SHOT BOX

This is an area for the control of the optional PT-SB Shot Box, motion control recorder.

The PT-SB is a digital motion path recorder, capable of recording all input from the PT-TS controller to the pan tilt heads. Everything entered on the controller(s) is recorded by the

PT-SB for recall later during a production.

START SAVE/ END SAVE

Pushing this button activates the saving process. The keypad will prompt you to save to a memory location (1 - 8). Choose a location to save to, followed by ENTER, and the display will change to "Saving". You can then just move the pan-tilt, zoom / focus joysticks to save manual moves, EXIT this menu and recall presets, activate relay closures on an optional PT-MFA, etc. Just return to this screen when done to press END SAVE. This closes the recording process.

NOTE: there is no way to edit a motion path once recorded; if you make a mistake or don't like the final result, you must delete the saved file and start the process over.

RECALL SHOT

This button will recall a saved motion path. Touch RECALL SHOT; the keypad will prompt for the memory location to recall. Enter the location (1 - 8) and press ENTER. The saved motion path will be recalled just as it was recorded.

STOP playback

Pressing the STOP button will halt playback of a motion path partway through its' progress. It is necessary to restart playback from the beginning if the playback is stopped.

DELETE SHOT

Press this button to delete a saved shot. It will pop up the keypad to ask which shot number to delete. Press the number and enter to delete the shot.

PT-MFA control area

This area is used with the accessory PT-MFA multi-function adapter; see the instruction manual included with the PT-MFA for details on how to configure it. There are buttons labeled 1 through 8; these allow the selection of the relays on the MFA. Once chosen, you can then use the other four buttons to execute the desired function; open, close, toggle or fire a preprogrammed sequence. Sequences are programmed using software included with the PT-MFA and cannot be programmed by this controller.

**MULTIPLEXOR (PT-MP-1) control area**

These buttons are used with the optional PT-MP-1 multiplexor unit. This is used for inter-connecting multiple PT-TSC2 or PT-C controllers on a single RS-485 line; controllers can then share the same line and pan-tilt heads. MULTIPLEXOR RESERVE assigns exclusive control of the selected head to your controller; when pushed the screen will prompt for the head number to be reserved. Enter the number of the head, followed by the ENTER button. It will then prompt you for the number of your controller, which is determined by what port number it is plugged into on the multiplexor. MULTIPLEXOR RELEASE releases the head from your controller for use by other operators. PT-C55 controllers can be used with the multiplexor, but they don't have the firmware to reserve PT heads. See the detailed instruc-tions included with the PT-MP-1 for further instructions on its' usage.

LENS EXTENDER

This toggling button controls an optional 2x lens extender attached to a pan tilt head. Many Fujinon and Canon teleconferencing lenses have available 2x converters that can be remote controlled by the Eagle™ system. The pan tilt head being used must be factory configured for this function to work. There is a duplicate of this button on the camera controller page as well.

WIPER

The wiper button is for the optional wiper unit that exists on some older PTE-300 exterior pan tilt models. The wiper option is discontinued, but this button exists for the use of clients upgrading their controllers to this one.
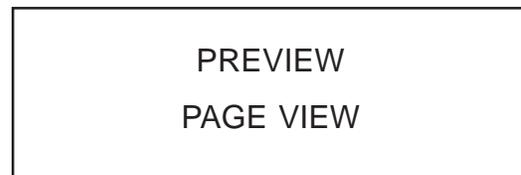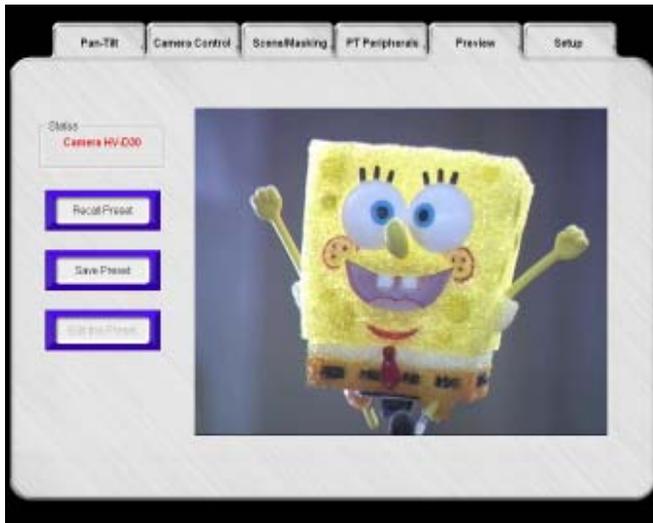
PREVIEW

PAGE VIEW

PREVIEW PAGE

This page shows a larger full frame view of the image from the currently selected camera. It also has buttons to allow the recall, saving, and editing of presets directly from this page. If you press the RECALL PRESET button, it will pop up the recall preset page, showing the names or numbers of all the presets available to this head. If you press the SAVE PRESET button, it will prompt you to save a preset as described in the instructions on page 11.

If you press the EDIT PRESET button, this will allow the immediate editing of an already saved preset. When the button is pressed, the preset name will appear flashing over the image on the PREVIEW page. This is to make you aware that you are editing this preset. If using a teleconferencing type lens, the lens will automatically be put into PRESET mode. Adjust the shot to the way you want it, then press the SAVE PRESET button. The preset name over the image display will stop blinking, and the former preset will be overwritten with the new shot you just chose. There is no way to retrieve the former saved preset once this is done.
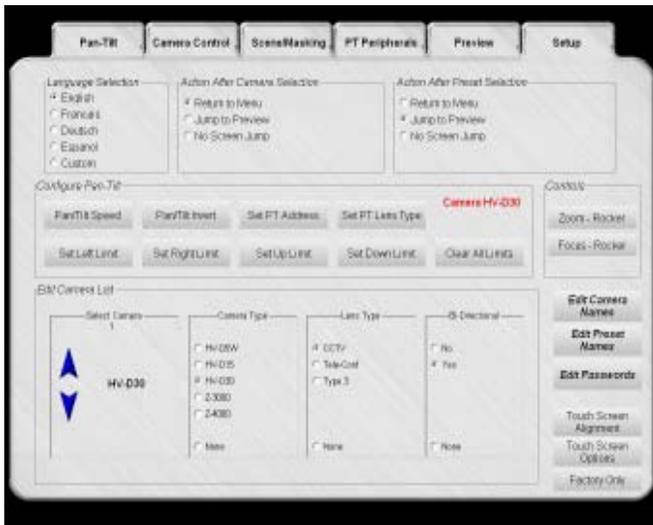
SETUP
PAGE VIEW

SETUP PAGE

The SETUP page is used when first configuring your PT-TSC2 controller. It has basic functionality controls for the language selection of the controller, how the controller functions after a camera or presets are selected, and basic configuration control of the pan tilt heads and cameras attached to the controller. You also edit the camera names, preset names, and password protection of individual pages from this page.

Note that when the controller is shipped and first initialized, there is only password protection on this SETUP page and on the FACTORY only page. Both of these pages use the pass code 1988. These codes can be changed as desired. If you change these codes, please make a note of them in a secure location, as once they are changed it is very difficult (though possible!) to reset them if they are lost!!

LANGUAGE SELECTION

Under the language selection heading are five language selections. By pressing the desired language, the prompts and text headings will change to that language. If you choose the custom setting, the controller will look up the settings from a user-configurable file on the hard drive of the PT-TSC2 and fill the boxes and prompts from the user provided file. Please contact Eagle™ tech support for information on this process if you wish to create a custom file.

ACTION AFTER SELECTION

You can change the action executed by the controller after selection of a camera or preset. The actions choosable are either RETURN TO MENU, whereby the controller will return to the main menu after selecting a camera or preset; GO TO PREVIEW, where the controller will go to the PREVIEW page; or no screen jump.

CONFIGURE PAN TILT area

This area allows you to configure the basic operation of each pan tilt attached to the controller.

PAN/TILT SPEED

This changes the overall speed of the pan and tilt motion. Press the PAN/TILT SPEED button; it will then pop up the numeric keypad. Choose 1 for HIGH speed, 2 for NORMAL, and 3 for SLOW. Then hit the ENTER button to set the speed. Any pan and tilt PRESETS will also store the speed set here. For example, you can set a preset position using two different speeds, and recall them at different times depending on the effect desired. NOTE: lens zoom and focus presets are always recalled at full speed, this is not changeable.

PAN/TILT INVERT

(up/down, left/right reversed). This function is used when the pan/tilt is to be ceiling mounted instead of tripod mounted, and it reverses the movement directions of the pan tilt head. This can be set individually on a head by head basis so that if a mix of upright and inverted heads are being used in the same room, they can be configured such that they all move the same direction.

SET PT ADDRESS

All heads are set to address 1 by the factory when shipped. When a change is required, follow these procedures carefully.

It is recommended to use the internal address dip switches inside the PT head to set the address instead of setting them by software.

NOTE: this will set the number for all heads hooked to the RS-485 comm line; you must disconnect the power or communications for all the heads except the one you wish to re-address, otherwise all the powered heads will be set to the same ad-dress.

From the MAIN page, press SELECT CAMERA, 1, ENTER. Check to make sure you have control of the head by panning or tilting. If you don't have control, press SELECT ALL CAMERAS, ENTER. This will enable you to talk to all heads on the RS-485 line at the same time.

Enter the FUNCTION menu, and press the SET PT ADDRESS button. Use the numeric keypad to enter the number you wish to set the head to, then press ENTER. The head is now addressed to this number. Check it by exiting to the main page, selecting CAMERA, x (the number you just programmed in), ENTER. Move the pan/tilt joystick to make sure you have control of the newly addressed head.

SET PT LENS TYPE

Each head is set by the factory when ordered for your specified lens type; 1 is for Rainbow and other CCTV type (DC drive) lenses, 2 is for Fujinon and Canon teleconferencing lenses set to Fujinon mode. Use this function only if changing lens / camera types; ordi-narily, no change is needed. NOTE: The setting of lens type on the PT-TSC2 setup screen must match the type of lens set in the pantilt head by this function.

SET LIMITS

NOTE: SETTING THE LIMITS MUST BE DONE TO INSURE THE SAFE OPERATION OF THE PAN TILT HEAD! IF LIMITS ARE NOT SET, DAMAGE TO THE PANTILT HEAD, CAMERA, AND LENS MAY RESULT FROM STRIKING A WALL, CEILING, OR OTHER OBJECT. DAMAGE FROM THIS IS NOT COVERED BY OUR WARRANTY!!

Limits are preset at the factory to about 50 degrees each up and down, and about 90 degrees each left and right (dependent upon pan tilt head model). Change the limit settings if you want to change these amounts; this is useful to set up cameras such that they can not get shots of the wall behind the camera, the ceiling above the camera, the floor directly below the camera, etc. Also, limits may need to be set for tilting upwards to prevent lens contact with the ceiling, etc. Make sure when cabling the system that enough cable slack is included to prevent damage to the pan-tilt connectors and camera and lens connectors. The motors in the head are very strong, and will easily rip a connector out of its' socket.

Once the travel limits are set, normal operation of the pan tilt head can begin.

NOTE: as this function is tied in with the PAN/TILT INVERT command, the left/right, up/down limits are reversed when in INVERTED OPERATION.

SET LIMIT

To set a limit, first press the CLEAR ALL LIMITS button. This will temporarily erase the limits set while going through testing at the factory. Next, move the head to the desired limit position. For example, to set the UP LIMIT, move the camera/lens assembly to the upper most position of travel you wish. Then press the SET UP LIMIT button.

EXAMPLE: If you move the camera to the leftmost position, hit SET LEFT limit button, and the camera will not move back the other direction, it's because the left and right, up and down are flip-flopped with the PAN/TILT INVERT command. Simply hit CLEAR ALL LIMITS, then reset the limit using the opposite command, in this example touch SET RIGHT instead of SET LEFT. Or temporarily hit the PAN/TILT INVERT button to reverse the direction controls, then set the limits using the normal UP, DOWN, LEFT, RIGHT buttons.

CLEAR ALL

This function will eliminate all position limits that may have been set to prevent excess travel. **This clearing is temporary only; when power is reset, the previous limits will return unless you set new limits.** Press the CLEAR ALL LIMITS button; this will erase any limits previously set by the factory during testing. You should only press this button if you intend to set new travel limits at the same time. It should not be used on a regular basis during normal operation as this may create a hazardous situation in that the camera/lens assembly can be run into an obstacle.

CONTROLS area

The CONTROLS area has two buttons that allow the configuration of the zoom/focus controls. If you press the Zoom-Rocker button (default), it will be highlighted in blue text. This means that the zoom control is on the proportional rocker switch on the control panel,

and the focus control is on the end of the joystick. If the Focus-Rocker button is highlit in blue, the focus control will be on the rocker switch and the zoom control will be on the joystick.
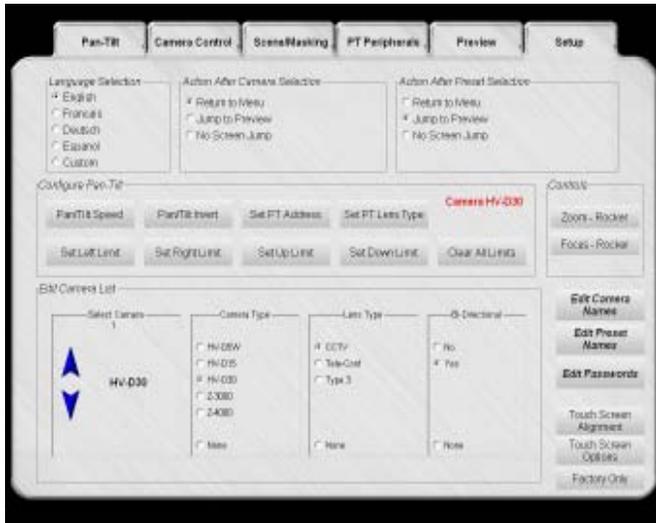
SETUP
PAGE VIEW

EDIT CAMERA LIST

This area is to setup the controller parameters for each pan tilt head/camera that is attached to the controller.

You must configure every pan tilt head/camera combination attached to the controller. To configure the pan tilt head, simply press the blue up or down buttons until the camera name or number is shown. Select the Hitachi camera model from the list shown; if your camera model is not shown here, contact Eagle™ tech support for the model to choose.

Next select the type of lens being used; CCTV is for DC driven C mount lenses, Tele-conf is for servo driven teleconferencing lenses, and Type 3 is a special type of lens drive that should only be selected when told to by Eagle™ tech support.

Finally, select the camera control mode of bidirectional communcation on or off. Some older types of cameras and pan tilt models did not have bidirectional communications with the controller; most new cameras and pan tilts do have bidirectional communications. One example would be the Eagle™ PT-101 pan tilt head; it does have full bidirectional comm. The PT-50 however does not have bidirectional communications. If you are not sure whether or not your pan tilt/camera combination has bidirectional comm, leave this set to OFF, check your pan tilt owners' manual, or check with tech support.

EDIT CAMERA NAMES
PAGE VIEW

EDIT CAMERA NAMES

On the right side of the SETUP page are buttons to let you edit the camera and preset names. The Edit Camera Names page is shown above. Press this button and the keyboard emulator will popup, displaying the first camera in your system. This will show up as Camera 1 if this is the first time your system has been used. To edit the number into a name, just touch the Erase button, then enter in the desired name using the keyboard. If this is the only camera in your system, just hit the Enter key, then the Exit key at the bottom right of the keyboard.

If you have more than one camera in your system, hit the Next Camera button and complete the same procedure of erasing and entering the name. Continue on in this process until you have named all of your cameras. When done, hit Enter, then the Exit button to leave the Edit Camera Names menu.

EDIT PRESET NAMES
PAGE VIEW

EDIT PRESET NAMES

This is the same process as the above Edit Camera Names, but for preset names. The Edit Preset Names page is shown above. Press this button and the keyboard emulator will popup, displaying the first preset of the first pan tilt head in your system. This will show up

as Camera 1/Preset number 1 if this is the first time your system has been used. Note that this page also allows you to select the head that the named preset is assigned to. All Eagle™ heads store the preset positions in the heads, not in the controllers, so each head can have its' own complement of preset position names.

Use the buttons to select Next Camera or Previous Camera until the desired head is shown on the display. To edit the preset number into a name, just touch the Erase button, then enter in the desired name using the keyboard. If this is the only preset in your pan tilt head, just hit the Enter key, then the Exit key at the bottom right of the keyboard.

If you have more than one preset in your pan tilt head, hit the Next Preset button and complete the same procedure of erasing and entering the name. Continue on in this process until you have named all of your presets for this pan tilt head.

If you have more pan tilt heads with more presets to be named, select Next or Previous Camera and continue on with the same process as above. When done, hit Enter, then the Exit button to leave the Edit Preset Names menu.

EDIT PASSWORDS
PAGE VIEW

EDIT PASSWORDS button

Each page of the PT-TSC2 can have a password protection code set for it to disallow usage by unauthorized personnel. To create or delete a pass code for a selected page, first enter the SETUP page (entering the pass code if set). Then press the EDIT PASSWORDS button. The Page names will be shown at the left side of the entry box, with a keypad in the middle. Select the page that you wish to add or remove a pass code for. If a pass code is set for a selected page, it will show up in the Enter Password window. Enter a 4 digit pass code then press Enter. If you make a mistake, press Back to clear the last digit(s) out. To remove a pass code for a page, select the page name, press Back four times to remove the old code, and enter 0000 for the pass code. The next time this page is selected it will not prompt you for a pass code. If you change these codes, please make a note of them in a secure location, as once they are changed it is very difficult (though possible!) to reset them if they are lost!!

TOUCH SCREEN ALIGNMENT

In the bottom right corner of the SETUP page are some important maintenance buttons. Press the Touch Screen Alignment button to run an automated screen alignment process. The usual operating screens will be replaced by a plain white screen with a crosshair cursor and instructional text at the top of the screen. Follow the instructions onscreen to complete the alignment process.

TOUCH SCREEN OPTIONS

Pressing this button will open an Elo™ touchscreen configuration box. This box contains some specific settings to the touchscreen unit, such as the beep volume and duration controls, another version of the alignment routine, and so on. It is recommended to only adjust the beep volume/duration commands. Altering other settings may render your touchscreen unit temporarily unusable if the wrong settings are chosen.

FACTORY ONLY

Pressing the Factory Only button will allow you to enter a pass code to access a submenu as shown below:
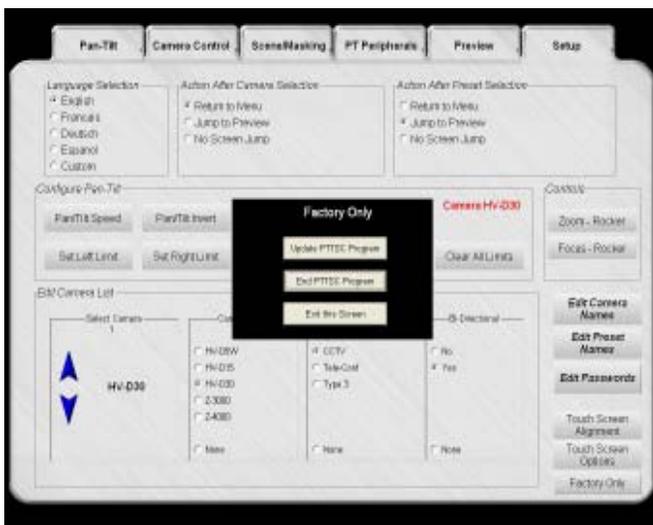

```
FACTORY ONLY
PAGE VIEW
```

The pass code to enter the submenu is factory set to 2001; it cannot be changed from the Edit Password page. There are three selections in the sub menu: Update PT-TSC program, which will run an automated software update utility if your PT-TSC2 is hooked up to the Ethernet/Internet; End Program, which will exit the running PT-TSC2 program, and Exit this screen, which closes the popup window and returns to the SETUP page.

Update PT-TSC2 program

To update your PT-TSC2 program to the latest version, your PT-TSC2 must be hooked to an Ethernet connection in your network allowing access to the Eagle™ FTP site via the Internet. Check the current version number by going to the Main page of the controller and looking for the version number to the right of the Eagle PT-TSC2 legend. Your network

needs to allow connections via FTP protocol; you may need to check with your network administrator to confirm this is possible, otherwise updating cannot take place. A special passcode for updating the software can be obtained from Eagle™ tech support. You must use this pass code when updating the software. Choose the Update PT-TSC program button and the following page will pop up:
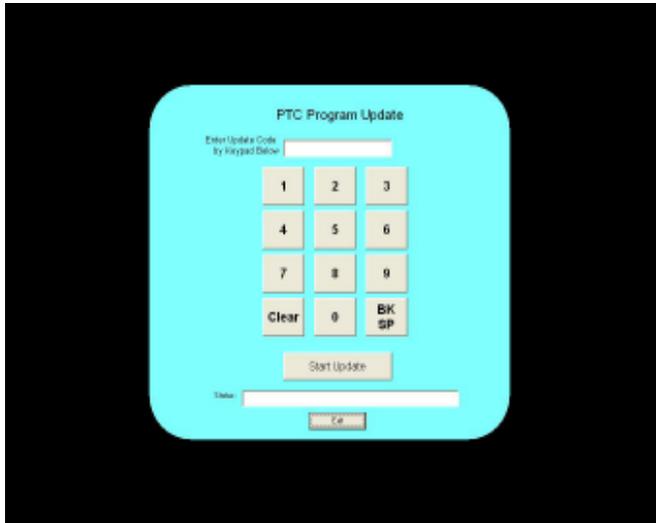
Update PT-TSC program
passcode entry page

Enter the pass code given you by Eagle™ tech support, then press Start Update. A system window will then open, showing the connection status to the Eagle™FTP site. If a success-ful is made, the program will show the status of the connection and the size of the file being downloaded. This process can take up to a couple of minutes depending upon the speed of your Internet connection. When the download is complete, the system will automatically install the update and then reset to the Main page. You can then observe the version num-ber of the installed software to the right of the Eagle PT-TSC2 legend to confirm the new version was installed.

If the connection is not successful, the system window will close quickly with a short notice about the failed connection, and return to the Main page, the version number not having changed.

GENERAL PAN-TILT OPERATIONS WITH THE PT-TSC2 CONTROLLER

Be sure to follow <u>all</u> of the installation instructions included with the Eagle pan tilt head <u>before</u> starting to use this controller !!

First, follow the procedure for TOUCH SCREEN ASSEMBLY found on page 5 of this manual. Correct operation of the system depends on this being done. Adjust the angle and contrast of the screen to provide the best viewing from your position.

The pan tilt heads are all set at the factory to address 1; it is up to the installer to correctly set the desired address into the head before using the system. It is recommended to use the address dip switches inside the PT heads to set the address instead of setting them by software. Continue in this manner to set all of the addresses for the rest of the system.

Next, select the address of the head you wish to control. Since many heads may be on a single RS-485 line, you must choose the correct one to control. Press SELECT CAMERA, then the number of the head to be controlled. Press SELECT ALL CAMERAS to talk to ALL heads simultaneously. Head addresses can be changed as described in the section on page 21.

If this is the first use of the system, the safety limits of pan tilt movement must be set now. Follow the detailed instructions on page 22 to set the safety limits.

Use the joystick for up/down, left/right control; use the rocker for zoom or focus control and the rotary knob on the end of the joystick for focus or zoom control (depends upon menu settings).

You may now utilize any of the control screens as described previously in the manual to operate your Eagle pan-tilt system.

MAIN PAGE

SELECT CAMERA PAGE
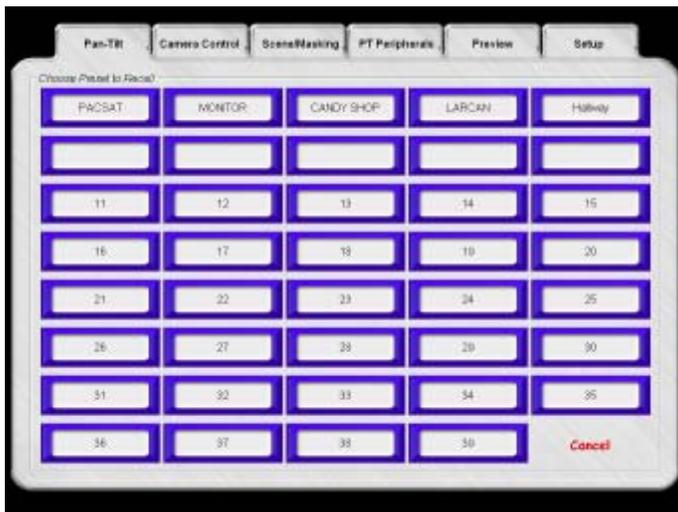
RECALL PRESET PAGE
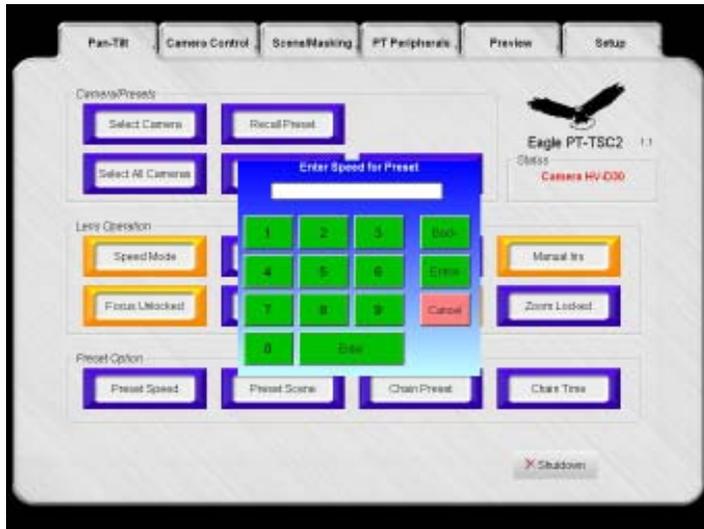
PRESET SPEED POPUP PAGE
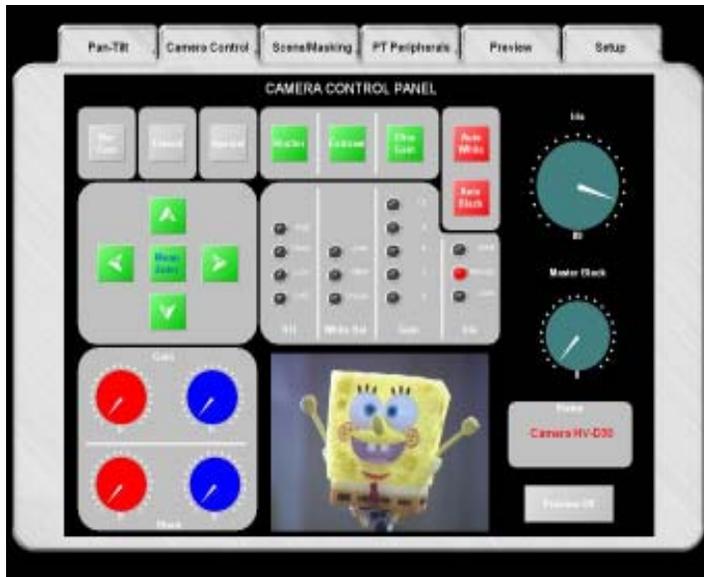

CAMERA CONTROLLER PAGE VIEW
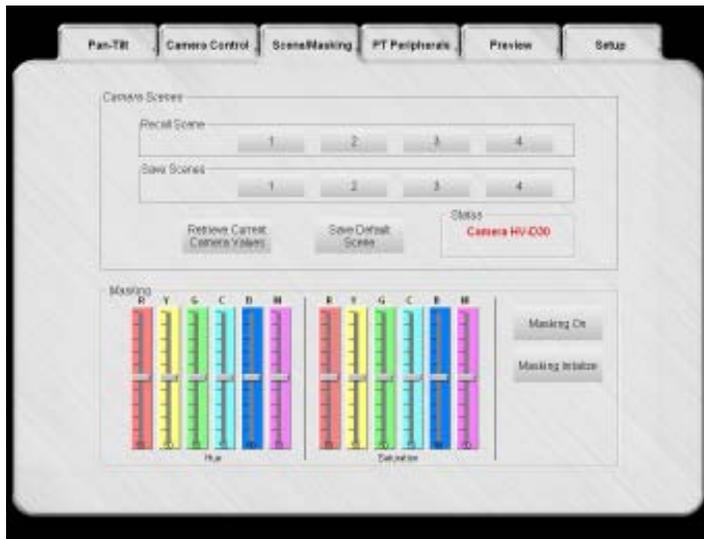
SCENE/MASKING PAGE VIEW

PERIPHERALS
PAGE VIEW
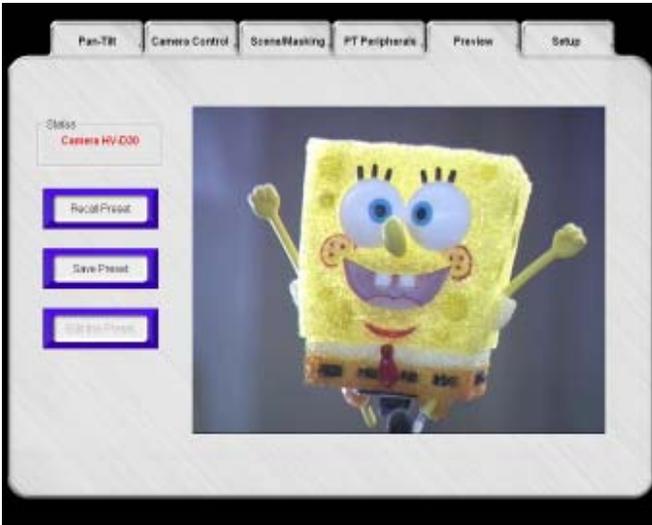

PREVIEW
PAGE VIEW
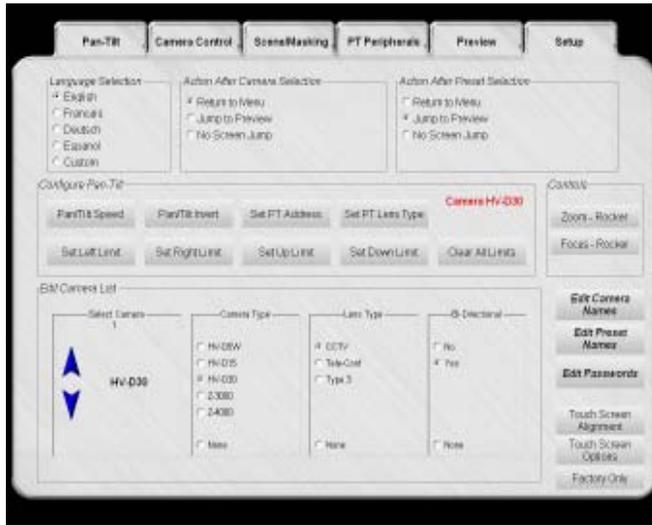
SETUP
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EDIT CAMERA NAMES
PAGE VIEW

EDIT PRESET NAMES
PAGE VIEW

EDIT PASSWORDS
PAGE VIEW
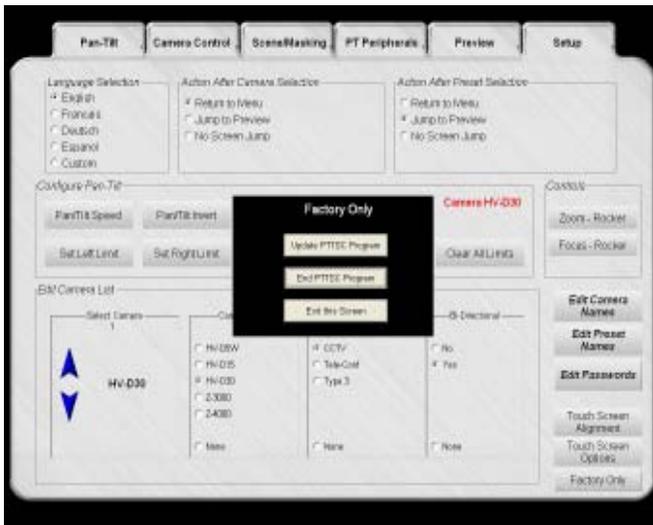
FACTORY ONLY
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