Using MegaPower® 48 Matrix Switcher with ADTTE Keyboard Controller

Operation and Programming Reference Guide

Figure 1: MegaPower 48 (MP48) Typical Configuration
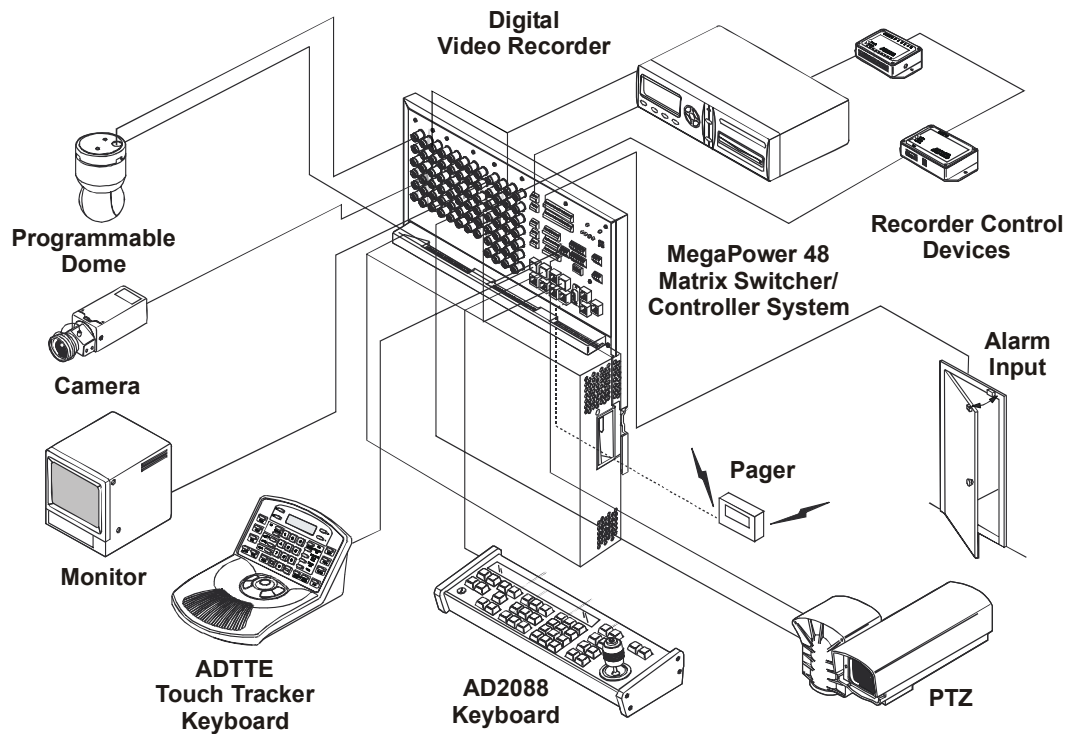

Figure 2: ADTTE Keyboard Controller

Contents

About this Guide

This operation and reference guide explains tasks you can perform using the ADTTE keyboard with the MegaPower 48 (MP48) Matrix Switcher. It supplements material found in the following documents:

- ADTTE Enhanced Touch Tracker Operator's Manual, 8000-2675-02

- MegaPower 48 (MP48) Matrix Switcher/ Controller Programming & Operation Manual, 8000-1804-51

If you need assistance...

Contact your Sales Representative.

About the MegaPower 48 Matrix Switcher/Controller System

The MegaPower 48 (MP48) Matrix Switcher/ Controller System is an integrated matrix switching and control system for CCTV surveillance systems. It provides multiple video inputs, outputs, and control stations.

The MP48 system can also respond to alarms and perform auxiliary switching for the control of gates, doors, lights, and other output devices. Depending on the control requirements of a given application, various AD keyboards and accessory devices can be used with the system.

The MP48 provides the following features:

- Matrix size of 48 video inputs by 16 video outputs
  - > Eight video outputs with text overlay
  - > Eight public view video outputs
- Modular wall mount with rack mount option
- Embedded menus for system setup programming
- Flash memory module on system for data backup
- Video recorder control using AD2088 keyboard
- Macro programming and control using AD2088 keyboard
- Fixed and variable speed pan/tilt and dome control using SensorNet, RS-422, or AD Manchester protocols
- Alarm responses include camera, presets, patterns, salvos, text paging, recorder and auxiliary control
- Text paging on alarm with up to 250 different messages
- System partitioning for inputs, outputs, and keyboards
- System priority levels and user password
- Monitor tours
- On-screen text includes displaying video input number, monitor status, time/date information, and titles for cameras/presets/alarms
- 64 universal tours

- 64 system salvos
- 35 event timers
- Alarm tables for system, dome, communications (RS-232), and video loss alarms
- Automatic call up of alarm inputs
- 4096 preset titles
- On-board system diagnostics

External communications to system devices can be achieved through a variety of protocols, including Manchester Control Code, RS-232, RS-422, and SensorNet.

About the ADTTE Keyboard Controller

The ADTTE keyboard is a video control station that is compatible with the MP48 matrix switcher/ controller systems. The keyboard provides the following operating modes: *Keyboard Lock* (Operate*)*, *Program*, and *Menu modes*. All operators may use the Keyboard Lock mode. Operators with password privileges may use Program and Menu modes.

Keyboard Lock mode does not require password privileges and provides the following functions:

- Monitor and camera selection
- Camera and dome control
- Preset, pattern, salvo and system tour recall
- Auxiliary control
- Alarm acknowledgment

Program mode provides the following functions:

- Preset (target), pattern, and scratch-pad tour programming
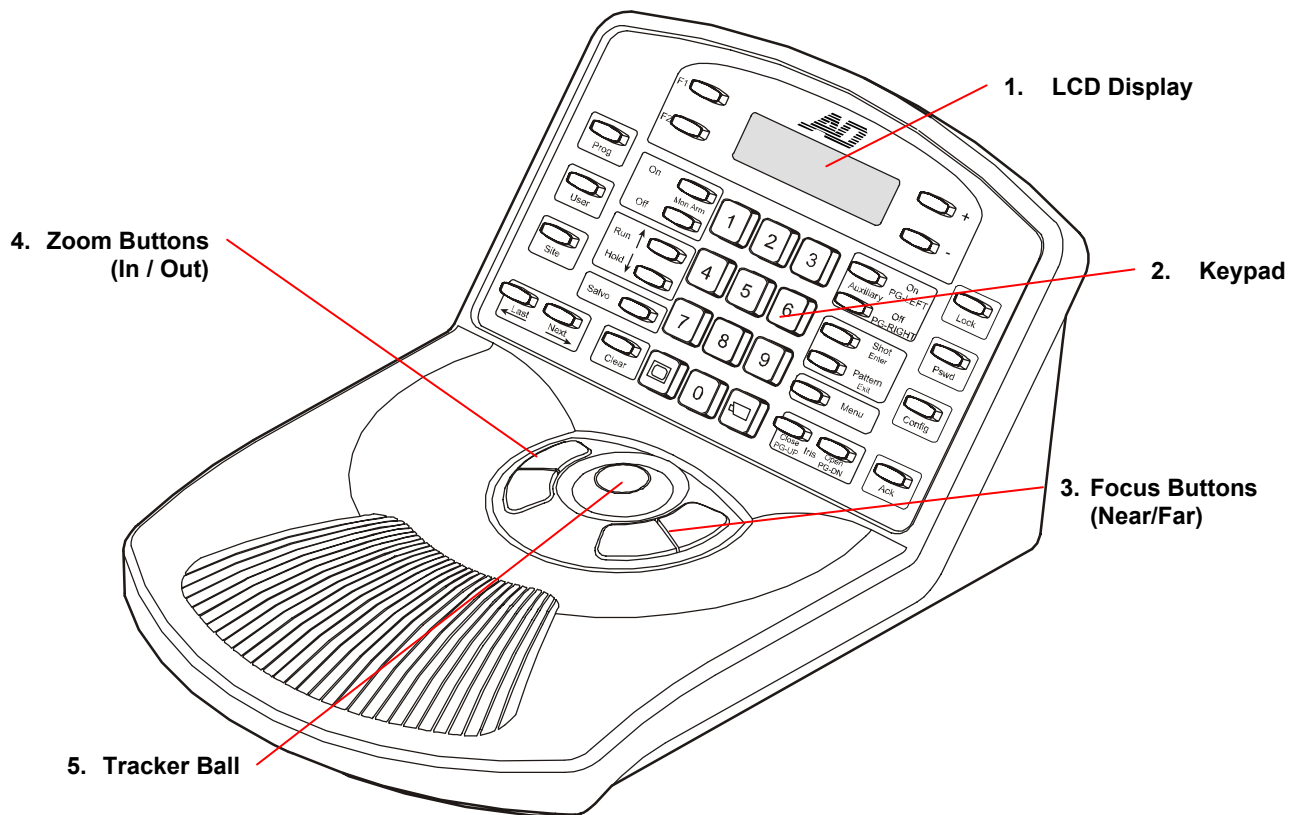- Alarm monitor arming and disarming

Menu mode enables operators to set up the parameters of the connected switching system.

**Note:** The ADTTE keyboard does not support the following MP48 features:

- Macro programming and recall
- VCR control

Figure 3 illustrates the features of the ADTTE keyboard.

Figure 3: ADTTE keyboard features

1. **LCD Display**
2. **Keypad**
3. **Focus Buttons (Near/Far)**
4. **Zoom Buttons (In / Out)**
5. **Tracker Ball**

1. The *LCD* displays status information, the selected monitor and camera numbers, and keyboard operating status. It also displays system prompts and messages. The following illustrates the fields that normally appear on the LCD.
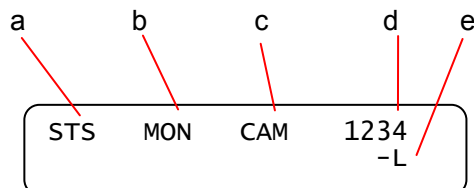

a. The *Site* (STS) field shows the status of the connected switching system.

b. The *Monitor* (MON) field shows the monitor number currently under keyboard control.

c. The *Camera* (CAM) field shows the camera number currently under keyboard control.

d. The *Entry* field shows the numbers being entered on the keypad.

e. The *Status* field shows the current operating state of the system. During normal operation (Program mode), "P" appears in this field. During system menu programming, "M" appears in this field. During keyboard lock mode, "L" appears in this field.

2. The *keypad* enables you to call up video from individual cameras and control their pre-programmed movement. It also provides for camera iris control, auxiliary control, monitor selection, and the ability to clear alarms.

3. The *focus buttons* enable you to control a camera's focus setting.

4. The *zoom buttons* enable you to control a camera's zoom setting.

5. The *Tracker Ball* provides variable speed control of a camera's pan and tilt.

Figure 4 illustrates the locations of the buttons on the ADTTE keypad.

Figure 4: Keypad button locations
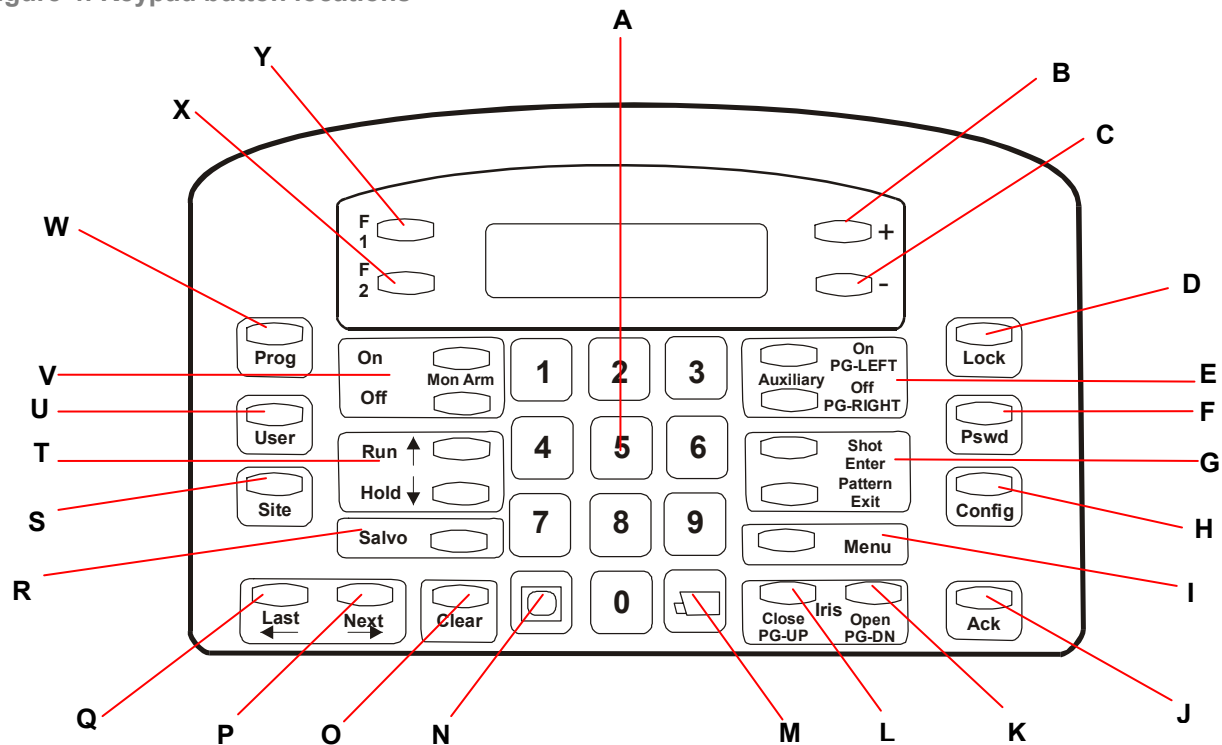
A. **Numeric Keypad:** Keys ranging from 0 to 9 that enable the user to enter numbers assigned to specific cameras, monitors, salvos, tours, presets, patterns, auxiliaries, sites, and macros.

B. **+:** Multi-function key that is used with the **Config** button to increase selected ADTTE settings. When used with the **Shot** function, enables preset programming.

C. **–:** Multi-function key that is used with the **Config** button to decrease selected ADTTE settings. When used with the **Shot** function, enables preset recall.

D. **Lock:** Multi-function key used to toggles the lock state of the keyboard when the password is entered. When used in conjunction with camera selection, toggles the camera control lock.

E. **Auxiliary OFF (Page Left):** Multi-function key that is used to deactivate an auxiliary device in Monitor Operate mode. Displays page to left in Menu mode.

   Auxiliary ON (Page Right): Multi-function key that is used activate an auxiliary device in Monitor Operate mode. Displays page to right in Menu mode.

F. **Pswd:** Sets or changes the keyboard lock password. There are two types of passwords: *Permanent* and *User Defined*.
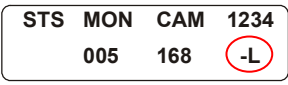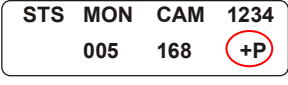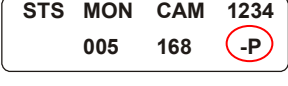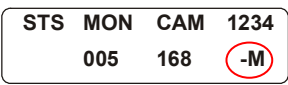
G. **Shot (Enter):** Multi-function key used to recall shots (presets) in Operate mode. Used to program shots in Program mode. Used to store data in Menu mode.

   Pattern (Exit): Multi-function key used to run or repeat patterns in Operate mode. Used to program patterns in Program mode. Used to exit menu programming in Menu mode.

H. **Config**: Used to adjust ADTTE keyboard settings, such as backlighting and key click volume.

I. **Menu:** Used to display the MP48 main menu of the attached switching system. It also enables the use of the menu programming buttons. This key is under keyboard lock protection.

J. **ACK:** Used to acknowledge alarms, run tours, set and repeat patterns in Operate mode.

K. **Iris OPEN (Page Down):** Multi-function key used to open the selected camera's iris in Monitor Operate mode. Displays next menu page down in Menu mode.

L. **Iris CLOSE (Page Up):** Multi-function key used to close the selected camera's iris in Operate mode. Displays prior menu page up in Menu mode.

M. **(Camera):** Calls the camera number entered using the numeric keypad.

N. **(Monitor):** Calls the monitor number entered using the numeric keypad.

O. **CLEAR:** Removes numbers entered on the numeric keypad.

P. **NEXT (→):** Multi-function key used to display the next camera in sequence during a monitor tour or an alarm tour that is on hold. Also serves as the *Cursor Right* function during menu programming.

Q. **LAST (←):** Multi-function key used to display the previous camera in sequence during a monitor tour or an alarm tour that is on hold. Also serves as the *Cursor Left* function during menu programming.

R. **SALVO:** Used to display a pre-defined group (salvo) of camera inputs on a group of contiguous of monitors, beginning with the currently selected monitor.

S. **Site:** Used to control satellite systems. This feature is not supported on the MP48 system.

T. **Run (↑):** Multi-function key used to start a monitor tour, universal (system) tour, or alarm tour. Also serves as the *Cursor Up* function during menu programming.

Hold (↓): Multi-function key used to pause a monitor tour, universal (system) tour, or alarm tour. Also serves as the *Cursor Down* function during menu programming.

U. **User:** Used to authorized users to log on to the system.

V. **Mon Arm On:** Used to enable system alarms to appear on monitors. This feature is under keyboard lock protection.

Mon Arm Off: Used to disable system alarms from appearing on monitors. This feature is under keyboard lock protection.

W. **Prog:** Used to program monitor tours and other system programming features. This button is under keyboard lock protection.

X. **F2:** Function key whose use varies depending upon the feature being accessed.

Y. **F1:** Function key whose use varies depending upon the feature being accessed. The F1 button is also used to set the baud rate and display the firmware version information for the ADTTE.

Identifying the ADTTE Operating Mode

The current operating mode of the ADTTE keyboard can be determined by looking at the lower-right corner of the LCD.

Table 1: ADTTE modes

Display Reading	Mode
STS MON CAM 1234 005 168 -L	**L:** Keyboard Lock mode. Only basic functions available.
STS MON CAM 1234 005 168 +P	**+P:** Programming mode. When **+** is displayed, Presets can be programmed.
STS MON CAM 1234 005 168 -P	**-P:** Program Recall mode. When **–** is displayed, Presets cannot be programmed, only recalled.
STS MON CAM 1234 005 168 -M	**M:** Menu mode. Multi-function keys provide secondary functions.

See the following sections:

General User Tasks

The following tasks can be performed regardless of the keyboard lock setting.

- Log On
- Log Off

Logging On

If **UC** appears in the *Camera* display of your keyboard, *User Codes* and *Passcodes* have been implemented at your facility. You must log on before attempting to use the system.

Note: MP48 provides a default passcode for user 1. *The default passcode is 914365.* To prevent unauthorized use of the system, this passcode should be changed. See *Changing User Settings* on page 30.

1. *UC* (User Code) appears on the LCD.

2. Enter the *User Code* (1-64). Press **User**.

3. *PSC* (Passcode) appears on the LCD.

4. Enter the passcode (up to 6 digits). Press **User**.

Once logged on, you can begin performing other tasks.

Logging Off

When the MP48 system is not in use, you should log off the system. This will ensure that unauthorized users cannot control your system.

1. Enter **99**.

2. Press **F1** (located to the left of the LCD display.

Enter **99** then press **F1** to log off.

```
F
1
F
2
```

```
STS   MON   CAM   99
       005   168    -L
```
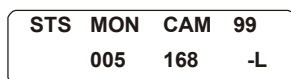
3. *UC* (User Code) appears on the LCD to indicate successful log off.

Working in Keyboard Lock Mode

```
STS   MON   CAM   1234
       005   168    -L
```

When the keyboard is in the *Lock mode*, the following MP48 tasks can be performed.

Table 2: Operate Mode Tasks

Task	Page
Selecting Monitors	8
Selecting Cameras and Domes	8
Locking Cameras and Domes	8
Controlling Cameras and Domes	9
Calling Presets	10
Running Patterns	10
Controlling Tours	11
Controlling Auxiliary Devices	12
Acknowledging Alarms	12
Running Salvos	13

Note: These tasks may also be performed using programming mode. However, users without programming privileges are limited to performing only these tasks.

Selecting Monitors

Monitors display the video from the cameras and domes installed in local and/or satellite facilities. Each monitor has an identification number used for video call up. Up to 16 monitors can be installed.

1. Enter the monitor identification number.

2. Press ▢ (**Monitor**). The monitor identification number appears in the MON field of the LCD.

The selected monitor is under keyboard control. Camera video can now be viewed on the called monitor.

On-Screen Information

When monitors 1-8 are selected, a text overlay appears on the selected video. There are two display formats available. See Figure 5 and Figure 6.

Figure 5: Monitor Display Format #1
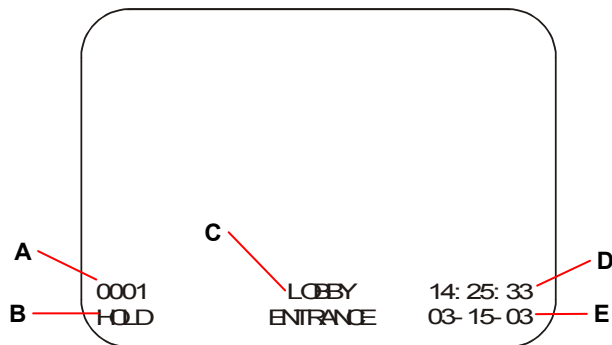
Figure 6: Monitor Display Format #2
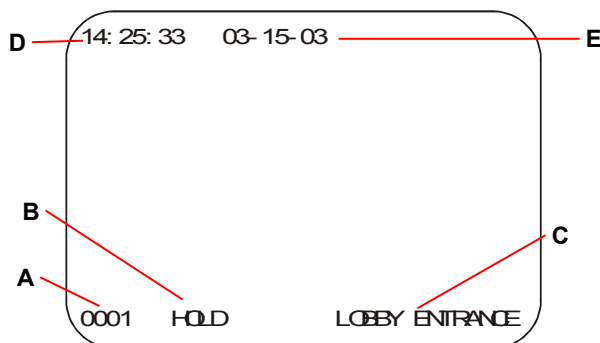
The following information is displayed:

A. **Camera Number:** Number assigned to the camera whose video is displayed. Either the real number based on the input connection or a pseudo number (1-9999) may be displayed.

B. **Status Line:** This shows current information about system operation. Information displayed may include day of week, monitor arming codes, dwell times, and messages related to tours, salvos and alarms. Appendix B of the ***"MegaPower 48 Programming and Operation Manual"*** includes a complete list of the status messages.

C. **Camera Title**: Up to 16 characters may be used for the camera title. Depending on the format selected, the title may appear on one or two lines.

D. **Time:** This is the current time in 24-hour format set using the menus.

E. **Date:** This is the current date set using the menu function.

Selecting Cameras and Domes

Once a monitor is selected, you may call camera or dome video to the monitor. Each system camera has a unique identification number documented by the system administrator.

1. Enter the camera identification number.

2. Press ▭ (Camera). The camera identification number appears in the CAM field of the LCD.

The selected video input now appears on the selected monitor screen. Depending upon the camera type, you may be able to control the pan, tilt, zoom, focus, and iris settings.

Locking Cameras and Domes

Cameras can be "locked" to prevent other keyboard operators from controlling their movements. If a camera is locked, other operators with the same or lower priority will be able to view the camera, but will not be able to control its pan, tilt, zoom, focus, iris, preset, and auxiliary functions. When an operator calls a camera that has been locked out, the word "LOCK" appears on the monitor's status line.

An operator with a higher priority level than the operator who locked the camera can gain control of the camera.

Lock is used to lock or unlock the selected camera.

Note: You may also use the F1 function key to lock and unlock the selected camera.

Command	Function
2- F1	Lock the camera
1- F1	Unlock the camera

Controlling Cameras and Domes

With the ADTTE keyboard, you can control the pan, tilt, zoom, focus and iris settings for appropriately equipped cameras.

Using the Tracker Ball

The Tracker Ball controls the panning and tilting of cameras connected to the switching system. To control pan/tilt direction:

- Move the Tracker Ball left or right for pan control.

- Move the Tracker Ball towards (down) or away from (up) for tilt control.

Figure 7: ADTTE Tracker Ball control pan/tilt movement
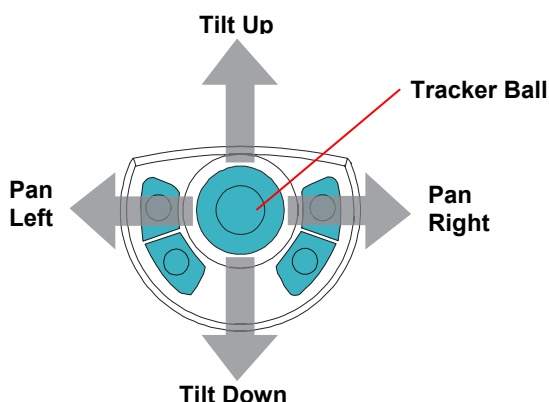
When the Tracker Ball is moved diagonally, the camera pans and tilts in the direction the Tracker Ball moves.

Figure 8: ADTTE Tracker Ball control diagonal movement
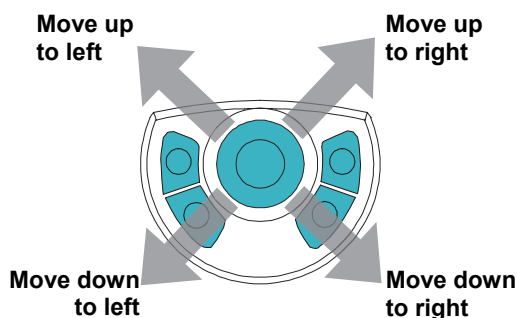
Note: For cameras with variable speed pan/tilt capability, camera movement speed is proportional to the positioning of the Tracker Ball. The further from the stationary center position the Tracker Ball travels, the faster the camera moves. Eight independent speed levels are available for the up, down, left, and right directions.

When the camera has been positioned appropriately, release the Tracker Ball to the center position.

Controlling Zoom and Focus

The zoom and focus controls are located to the left and right of the Tracker Ball.

Command	Function
Zoom In	Increase magnification
Zoom Out	Decrease magnification
Focus Far	Adjust clarity for distant objects
Focus Near	Adjust clarity for nearby objects

Figure 9: ADTTE zoom and focus controls
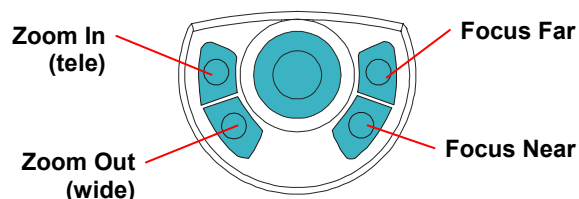
Adjusting Iris Settings

Normally, the brightness of a picture is controlled by the camera's auto gain and the auto/manual iris functions. The *Iris Control* keys allow you to manually adjust the brightness or darkness of an image. These keys are located to the right of the numeric keypad, next to the camera key.

Figure 10: Iris control keys
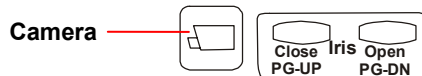
Command	Function
Iris Open	Brightens image
Iris Close	Darkens image

Note: SpeedDome Ultra dome units are designed with Auto Focus and Auto Iris capability. After performing manual focus or iris adjustments, the auto control mode may be resumed by pressing the **Iris Open** and **Close** keys simultaneously.

Flipping Domes

The "flip" command allows you to instantaneously rotate the dome 180° from its current pointing position.

Command	Function
19-F1	Flip dome

IMPORTANT! On suitably equipped domes with the auto-flip function enabled, the dome flips automatically when the Tracker Ball is held in the tilt down position and the dome reaches its lower tilt limit.

Calling Presets

A *preset* is a memorized location or scene that a pan/tilt camera or dome can display on demand. Presets are also referred to as *shots* or *targets*. The **Shot** (Preset) key is located to the right of the numeric keypad.

Figure 11: Shot (Preset) and Pattern keys
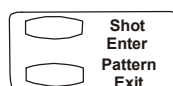
To call a preset:

1. Press – (to the right of the LCD). This ensures that the Touch Tracker is in recall mode.

2. Call the camera or dome that will display the preset.

3. Enter the preset identification number.

4. Press **Shot**.

The selected scene now appears on the monitor with appropriate pan, tilt, zoom, and focus adjustments.

Running Patterns

A *pattern* is a sequential series of pan, tilt, zoom, and focus commands defined for SpeedDome series domes, and are programmed in real time. The Pattern key is to the right of the numeric keypad (Figure 11).

Running Patterns One Time

1. Press **–** (to the right of the LCD). This ensures that the Touch Tracker is in recall mode.

2. Call the dome that will run the pattern.

3. Enter the pattern number (1-3).

4. Press **Pattern**. Depending upon the pattern number entered, *P-1*, *P-2*, or *P-3* appears on the LCD.

5. Press **Run** (located to the left of the numeric keypad). The camera runs through the pattern movements once.

Note: If the selected pattern has not been programmed, the default "Apple Peel" pattern runs.

Repeating Patterns

1. Press **–** (to the right of the LCD). This ensures that the Touch Tracker is in recall mode.

2. Call the dome that will run the pattern.

3. Enter the pattern number (1-3).

4. Press **Pattern**. Depending upon the pattern number entered, *P-1*, *P-2*, or *P-3* appears on the LCD.

5. Press **Ack** (located in the lower right corner of the keypad).

The pattern runs repeatedly until a camera command (pan, tilt, zoom, focus or iris) is issued.

Holding Patterns

1. Press **–** (to the right of the LCD). This ensures that the Touch Tracker is in recall mode.

2. Call the dome that will run the pattern.

3. Enter the pattern number (1-3).

4. Press **Pattern**. Depending upon the pattern number entered, *P-1*, *P-2*, or *P-3* appears on the LCD.

5. Press **Hold** (located to the left of the numeric keypad). The camera moves to the start of the selected pattern and holds. Then follow the instructions for running or repeating a pattern when ready to do so.

Patterns and Older SpeedDome Camera Domes

If you cannot get patterns to work with older series SpeedDome camera domes, try using the function keys to access the patterns.

Note: Verify that the keyboard is in normal operating mode—Lock (-L) or Program Recall (-P)—before performing this task. See *Unlock/Lock the Keyboard* on page 14.

Table 3 lists the pattern function key commands.

Table 3: Pattern Function Keys

Command	Function
21-**F1**	Run Pattern 1
22-**F1**	Run Pattern 2
23-**F1**	Run Pattern 3
41-**F1**	Repeat Pattern 1
42-**F1**	Repeat Pattern 2
43-**F1**	Repeat Pattern 3
31-**F1**	Go to (hold) Pattern 1
32-**F1**	Go to (hold) Pattern 2
33-**F1**	Go to (hold) Pattern 3

Controlling Tours

A *tour* is a dynamic sequence of camera views or patterns, each of which appears on a selected monitor screen for a specified dwell time. In addition, each preset or pattern can have a pre-programmed preset status, auxiliary status, and connect next designation. The **Run** and **Hold** keys are located to the left of the numeric keypad. The **Next** and **Last** keys are located in the lower left corner of the keypad. Relative positions of the Tour control keys are shown in Figure 12.

Figure 12: Tour control keys
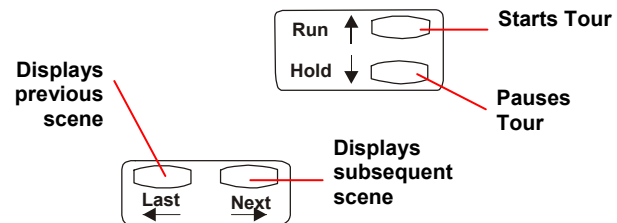
Additionally, there are monitor or "scratch-pad" tours, which are temporary tours programmed for the currently selected monitor.

Running System Tours

1. Select the monitor where the tour will run.

2. Enter the system tour number to be associated with the monitor under control.

3. Press **Run**, and then press **Ack** within three seconds to run the designated system tour.

Note: Tour direction can be changed while a tour is in progress. To change the direction of a running tour, press **Next** or **Last**, depending on which is appropriate in a given situation.

Holding Tours

A tour can be stopped and held on a single camera entry by pressing **Hold**. While a tour is on hold, all keyboard control actions (pan, tilt, lens adjustment, and auxiliary on/off functions) can be performed on the held camera. You may also step forward and backward through the cameras in the tour by pressing **Next** or **Last**.

Re-Starting Tours

- To re-start a held tour in the forward direction, Press **Run**.

- To re-start a tour in the reverse direction, press **Last**, followed by **Run**.

Controlling Auxiliary Devices

An *auxiliary* is a relay that controls devices such as lights, door locks, and audible alarms. Auxiliary devices are also called *output devices*. Use the Auxiliary **On** and **Off** keys (located to the right of the numeric keypad) to control the devices.

Figure 13: Auxiliary Control keys
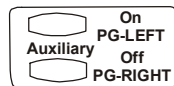
Auxiliary devices may be momentary or latched. A *momentary auxiliary* remains active as long as its control key is pressed. An example of momentary auxiliary action is a door that remains unlocked as long **Auxiliary On** is pressed. When released, the door returns to its locked state.

A *latched auxiliary* remains active until it is deactivated using the appropriate off switch. An example of a latched auxiliary is a light. When **Auxiliary On** is pressed (and released), the light is turned on. When **Auxiliary Off** is pressed (and released), the light is turned off.

IMPORTANT! The number of available auxiliaries depends on the dome type. Outdoor SpeedDomes have only one auxiliary connection. Indoor SpeedDomes have four auxiliary connections. If you are unsure about the number of available outputs on the device, refer to your operator's manual.

To control an auxiliary:

1. Call the camera associated with the appropriate relay.

2. Enter the auxiliary number (1-4).

3. Press **Auxiliary On** to activate the auxiliary.

   Note: When **Auxiliary On** is released, a latched auxiliary remains activated. A momentary auxiliary is deactivated.

4. To de-activate a latched auxiliary, press **Auxiliary Off**.

Acknowledging Alarms

System cameras may be associated with alarm contacts connected to key security points. If an alarm is activated, the camera scene associated with the alarm appears on a system monitor or monitors that are armed for alarm display. When the alarm camera scene appears on the monitor screen, the word "ALARM" appears on the monitor's on-screen status line. If an alarm title has been programmed, the alarm title also appears in the alarm title area.

Some system monitors are armed for automatic or delayed automatic clearance. Monitors armed for manual clearance (acknowledgment) can be cleared from a keyboard controller pressing **Ack** (located in the lower right corner of the keypad).

Figure 14: Alarm Acknowledge key

Acknowledging Single Alarms

1. Call the monitor that is displaying the alarm video.

2. Press **Ack**.

Acknowledging an Alarm Salvo

1. Call the first (lowest numbered) monitor in the alarm group (salvo).

2. Press **Ack**.

Acknowledging Sequencing Alarms

If a monitor is cycling through a sequence of multiple alarm scenes, do the following:

1. Hold or step to (press **Next** or **Last**) the first alarm to be cleared.

2. Press **Ack**.

3. Repeat steps 1 and 2 for each alarm in the sequence until all alarms are cleared.

Acknowledging a Wired Set

A wired set is a set of alarm contacts such that when any one member of the set is activated, all of the members are activated.

To acknowledge the wired set:

1. Call the monitor associated with the alarm contact.

2. Press **Ack**.

All alarms in the wired set are cleared when this alarm is cleared.

Running Salvos

A salvo is a group of camera scenes that can be called for simultaneous display on a contiguous group of monitors. Up to 64 salvos may be programmed. The **Salvo** key is located to left of the numeric keypad beneath the **Run** and **Hold** keys.

Figure 15: Salvo key
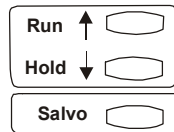
To call a salvo:

1. Enter the number of the first (lowest numbered) monitor in the salvo group.

2. Press (Monitor).

3. Enter the salvo number (1-64).

4. Press **Salvo**. The salvo will appear on the appropriate monitor group.

The first monitor of the salvo group displays "HOLD" on the status line. The remaining monitors in the salvo group display "SALVO".

Note: If a salvo is called in response to a system alarm, the first monitor of the salvo group displays "ALARM" on the status line. The remaining monitors in the alarm salvo group display "SALVO".

Working in Program Mode

STS	MON	CAM	1234
	005	168	+P

STS	MON	CAM	1234
	005	168	-P

Note: The keyboard lock must be disabled to use this feature. To disable the keyboard lock, see *Unlock/Lock the Keyboard*.

When the ADTTE keyboard is in *Program* mode, the following MP48 programming tasks can be performed.

Table 4: Program Mode Tasks

Task	Page
Pattern Programming	14
Programming Preset Scenes	15
Programming Monitor Tours	15
Monitor Arming	16

In addition, the following system settings can be configured via the keyboard.

Table 5: Program Mode System Setup Tasks

Task	Page
Resetting the System	17
Setting the Date Format	17
Adjusting Text Display Position	18
Detecting Camera Video Loss	18
Audio Alarm Programming	19
Transferring System Data	19

Unlock/Lock the Keyboard

Before any programming tasks can be performed, you must first unlock the keyboard by entering the keyboard lock password. When the ADTTE keyboard is first installed, the default password **1953** is active. For security purposes, the default password should be changed. See *Changing the Keyboard Lock Password* on page 20.

Unlocking the Keyboard

1. Enter the keyboard lock password.
2. Press **Lock** (located on the on the right side of the keypad).

The lower right corner of the LCD displays **P**, indicating that programming mode is active.

Locking the Keyboard

When programming tasks are finished, lock the keyboard.

1. Enter the keyboard lock password.
2. Press **Lock**.

The lower right corner of the LCD displays **L**, indicating that that the keyboard lock is active.

Pattern Programming

Three patterns may be programmed for each SpeedDome programmable dome. Pattern length and complexity are limited by two variables:

- The number of available camera commands
- Time

Each time you move the camera in any direction (with zoom, focus, or iris adjustments), you issue a command to the camera. The three patterns for a dome can collectively consist of up to 98 camera commands.

There is also a pattern time limit. A single pattern cannot have a duration longer than 400 seconds. Regardless of the number of commands issued, a pattern stops recording once the time limit has elapsed.

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard*.

To program a pattern:

1. Press **+** located to the right of the LCD.
2. Select the camera where the pattern will be saved.
3. Enter the pattern number (1-3), and press **Pattern**.
   IMPORTANT! With SpeedDome Ultra series domes, a progress bar displays showing the remaining number of programming steps available. The progress bar decreases as the pattern commands are used. In addition, the dome moves very slowly during patterns and cannot be adjusted.
4. Press **Prog**. Using the Tracker Ball and lens control keys, maneuver the called camera to define the pattern.
5. When finished programming the pattern, press **Ack** to save.

Pattern Programming for Older SpeedDome Series Domes

If you have older SpeedDome series domes installed at your facility, use the following procedure.

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

1. Select the camera that will be used for programming the pattern.
2. Enter a pattern programming command:

Command	Function
121-F2	Program *Pattern 1*
122-F2	Program *Pattern 2*
123-F2	Program *Pattern 3*

3. Using the Tracker Ball and lens control keys, maneuver the called camera to define the pattern.
4. Enter **120**, and press **F2** to end the pattern definition.
5. Enter **130**, and press **F2** to save the pattern.

Programming Preset Scenes

Certain cameras with pan/tilt and motorized lens capability can be programmed to immediately move to specific pan, tilt, zoom, and focus positions when called by a keyboard.

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

To program a preset scene:

1. Press **+** located to the right of the LCD.
2. Select the camera where the preset will be saved.
3. Adjust the camera to the desired scene using the Tracker Ball and lens control keys.
4. Enter the preset number (1-96), and press **Shot**.

Programming Monitor Tours

A monitor ("scratch pad") tour is a temporary sequence of camera views programmed for the selected monitor. A monitor tour can contain up to 64 camera scenes sequenced in any order. Each scene is shown for a specified duration called the dwell time.

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

To program a monitor tour:

1. Select the monitor where the tour will run.
2. Enter **62**, and press **Prog** (located above the keyswitch). This clears any previously programmed monitor tour.
3. Enter the first camera number to include in the tour, and press ⬚ (Camera).
4. Enter the dwell time (1-60), and press **Prog**.
5. Repeat steps 4 and 5 until all the cameras in the tour have been programmed. When finished, continue with step 6.
6. Press **Hold** or **Run** to exit the monitor tour programming mode.

Command	Function
Run	Starts the tour from the beginning.
Hold	Leaves the tour on hold at the most recently displayed camera.

Monitor Tour Programming Options

When a tour is running, press **Hold** to stop the tour and hold the currently displayed camera. While the tour is on hold, it can be re-programmed to add a camera, remove a camera, or change the dwell time.

Note: Verify that the keyboard is in programming mode before performing these tasks. See *Unlock/Lock the Keyboard* on page 14.

Adding a Camera to a Tour

1. Press **Next** until the desired camera scene is displayed, and then press **Hold**.
2. Call the camera to be inserted in the tour.
3. Enter the desired dwell time (1-60), and press **Prog** to set.
4. Press **Hold** or **Run** to exit tour programming mode.

Removing a Camera from a Tour

1. Press **Next** until the desired camera scene is displayed, and then press **Hold**.
2. Enter **0**, and press **Prog** to erase the currently displayed tour entry.
3. Press **Hold** or **Run** to exit tour programming mode.

Changing the Dwell Time for a Tour Entry

1. Press **Next** until the desired camera scene is displayed, and then press **Hold**.

2. Enter **0** to erase the current dwell time.

3. Enter the new dwell time (1-60), and press **Prog** to set the new dwell time.

4. Press **Hold** or **Run** to exit tour programming mode.

Clearing a Monitor Tour

Enter **62** and press **Prog** to clear the previously programmed monitor tour.

Monitor Arming

Armed monitors are system monitors that are configured to display alarm signals as they occur. By arming a monitor, you define how it will display, queue, and clear incoming alarms. Before arming a monitor, you must understand the alarm display, queue, and clearance methods.

Alarm Display Methods

Three alarm display methods are available: Single, Dual, and Block Display.

Single Display: Incoming alarms are displayed on a single monitor. Multiple alarms received at a single monitor will be displayed in sequence based on the monitor's queuing method.

Dual Display: Incoming alarms are displayed on a pair of monitors. The *hold monitor* receives the first of a series of alarms. The *sequence monitor* receives subsequent and queues the incoming alarms. After an alarm is cleared on the hold monitor, the first alarm in queue on the sequence monitor is moved to the hold monitor for viewing and clearance.

Block Display: Incoming alarms are displayed on a group (block) of monitors. The first incoming alarm is displayed on the first (lowest numbered) monitor of the block. The second alarm is displayed on the next lowest numbered monitor of the block, and so on. When all monitors in a given block are displaying alarm video signals, all subsequent alarms are held in queue until displayed alarms are cleared.

Alarm Queuing Methods

Two alarm queuing methods are available: Sequence and Hold Queuing.

Sequence Queuing: Incoming alarms are displayed in sequence on an armed monitor and cycle continuously until each alarm is cleared. Each alarm is displayed for a pre-designated dwell time.

Hold Queuing: An incoming alarm is displayed and held on an armed monitor until it is cleared. All subsequent alarms are queued in order until the current held alarm is cleared.

Alarm Clearance Methods

Three alarm clearance methods are available: Manual, Instant, and Auto Clear.

Manual Clear: Pressing **Ack** clears an alarm.

Instant Clear: An alarm is reset immediately at its source (if the alarm has not already been manually acknowledged). For example, a door opens and activates an alarm. Closing the door clears the alarm instantly.

Auto Clear: An alarm is reset at its source after a 20 second delay (if the alarm has not already been manually acknowledged). For example, a door opens and activates an alarm. The door is immediately closed, but the alarm will not clear unless the door remains closed for a 20 second interval.

Monitor Arming Codes

Arming codes are derived from the different combinations of display, queuing, and clearance methods. Based on the combinations, there are 16 codes, each with its own number and a three or four letter acronym ID. The default arming code for all monitors is disarmed.

Table 6: Monitor Arming Codes

Display / Queuing / Clearance	Code	Command
Single / Sequence / Instant	SSI	**1-Mon Arm On**
Single / Sequence / Auto	SSA	**2-Mon Arm On**
Single / Sequence / Manual	SSM	**3-Mon Arm On**
Single / Hold / Instant	SHI	**4-Mon Arm On**
Single / Hold / Auto	SHA	**5-Mon Arm On**
Single / Hold / Manual	SHM	**6-Mon Arm On**
Block / Sequence / Instant	BSI	**7-Mon Arm On**
Block / Sequence / Auto	BSA	**8-Mon Arm On**
Block / Sequence / Manual	BSM	**9-Mon Arm On**
Block / Hold / Instant	BHI	**10-Mon Arm On**

Display / Queuing / Clearance	Code	Command
Block / Hold / Auto	BHA	**11-Mon Arm On**
Block / Hold / Manual	BHM	**12-Mon Arm On**
Dual / Hold / Instant Dual / Sequence / Instant	DHI DSI	**13-Mon Arm On**
Dual / Hold / Auto Dual / Sequence / Auto	DHA DSA	**14-Mon Arm On**
Dual / Hold / Manual Dual / Sequence / Manual	DHM DSM	**15-Mon Arm On**
Disarm Monitor	--	**16-Mon Arm On** or **Mon Arm Off**
Enable Manual Override	--	**17-Mon Arm On**
Disable Manual Override	--	**18-Mon Arm On**
Display Arming Status	--	**0-Mon Arm On**

IMPORTANT! If a dual display code [13-15] is selected, the second (sequence) monitor is automatically selected after the first (hold) monitor is armed. The sequence monitor number will always equal the hold monitor number + 1.

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

To arm a monitor:

1. Call the monitor to be armed.

   Note: To display the current arming status, enter **0**, and press **Mon Arm On**.

2. Select the desired arming code from Table 6.
3. Enter the command number (1-18), and press **Mon Arm On**. The code letters will be displayed for five seconds in the on-screen status line.

Note: Selecting a monitor (1-16), and pressing **Mon Arm On**. This activates the arming method designated by using the Monitor menu (page 27).

Option for Manual Override

Any monitor assigned for instant or auto clearance can be additionally enabled for manual override.

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

To enable or disable manual override:

1. Call the desired armed monitor.
2. Do one of the following:

Command	Function
17-Mon Arm On	Enable manual override
18- Mon Arm On	Disable manual override

Any monitor armed for manual clearance will display a four-letter code acronym with "A" (acknowledge) as its fourth or right-most code letter.

Disarming a Monitor

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

1. Clear all currently active alarms.
2. Select the monitor you want to disarm (1-16).
3. Press **Mon Arm Off**.

Note: You can also disarm a monitor using the arming code. Select the monitor you want to disarm, enter **16** and press **Mon Arm On**.

Resetting the System

⚠️ **WARNING:** Resetting the MP48 clears all programmed information about the system. Before performing this task, backup your settings using the S3 software.

To clear all previously programmed information, and reset the system to its original default settings, perform a system reset.

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

1. Enter **55** and press **F2**.
2. Enter **99** and press **F2**.

Note: Step 2 must be performed within 3 seconds of performing step 1 or the reset will not occur.

Setting the Date Format

Note: This procedure may also be performed through the menus. See *Changing Time and Date Settings* on page 24.

There are three options for the on-screen date format:

- Month-date-year (MM-DD-YY)
- Date-month-year (DD-MM-YY)
- Year-month-date (YY-MM-DD)

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

To set the date format from the keyboard:

Enter a date format commands.

Command	Function
21 - F2	Sets *MM-DD-YY* format
22 - F2	Sets *DD-MM-YY* format
23 - F2	Sets *YY-MM-DD* format
24 - F2	Toggle through date formats

Note: The default date display format is *MM-DD-YY*.

Adjusting Text Display Position

IMPORTANT! This procedure applies to monitors with on-screen text displayed using Format 1 (Figure 5). On-screen text cannot be adjusted on monitors using Format 2 (Figure 6).

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

To adjust the text home positioning:

1. Select the monitor requiring text display adjustment.

2. Enter **50** and press **F2**. This enables the Tracker Ball for text positioning to the "home" position.

3. Move the Tracker Ball to adjust the positioning of the text overlay

4. Enter **51** and press **F2** when finished.

Detecting Camera Video Loss

The MP48 system has built-in video loss detection. Video loss is determined by the absence of a video sync signal at any of the 48 video inputs on the patch panel. Loss of the sync signal would occur if a camera is malfunctioning, disconnected, or if the camera cable is cut.

IMPORTANT! If video loss detection is enabled for any video input, video output 16 *cannot* be used for switching. Video output 16 is used to sample video when video loss detection is enabled.

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

To set the video loss detection mode:

1. Select or hold the desired camera whose video loss detection you want to change.

2. Enter video loss detection command.

Table 7: Video Loss Detection Commands

Command	Function
100 - F2	Disables video loss detection for the camera.
101 - F2	Enables sync loss detection (*SYNC ONLY*) for the camera.
105 - F2	Enables automatic video loss detection for the camera.
106 - F2	Enables automatic video loss detection for all system cameras.
108 - F2	Clears video loss settings for all cameras.
111 - F2	Prints the current video loss detection mode of the selected camera.
112 - F2	Prints the current video loss detection mode of all system cameras.

Audio Alarm Programming

The ADTTE keyboard can be programmed to provide an audio tone when an alarm is received at an armed monitor under keyboard control. The system default setting is audio enabled (ON) for all system keyboards. Audio alarm signals can be enabled or disabled through a keyboard, a keyboard port, or system wide.

Enabling/Disabling Keyboard Port Audio Alarms

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

To enable/disable an audio alarm for a single keyboard port (up to four individual keyboards), enter an audio alarm command.

Table 8: Audio Alarm Commands (single keyboard port)

Command	Function
48 - F2	Enables audio alarms for the keyboard port
47 - F2	Disables audio alarms for the keyboard port

System Wide Audio Alarm Programming

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

To enable/disable audio alarm for all keyboard ports, enter an audio alarm command.

Table 9: Audio Alarm Commands (all keyboard ports)

Command	Function
46 - F2	Enables audio alarms for all keyboard ports
45 - F2	Disables audio alarms for all keyboard ports

Transferring System Data

System data can be transferred from the MP48 system to a flash memory module in the patch panel section of the assembly. Data can also be transferred back to the system from the memory module.

IMPORTANT! In order for a system data transfer to be performed, System Reset privileges must be enabled when defining the priority level for a user or keyboard. For details on priority programming, see *Configuring Priority Settings* on page 32.

Transferring System Data to the Memory Module

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

1. Enter **55**, and press **F2**.

   IMPORTANT! Step 2 must be performed within 3 seconds.

2. Enter **140**, and press **F2**.

If step 3 is not performed within the 3-second interval, the data transfer will not take place.

Transferring System Data from the Memory Module

Note: Verify that the keyboard is in programming mode before performing this task. See *Unlock/Lock the Keyboard* on page 14.

1. Enter **55** and press **F2**.

   IMPORTANT! Step 2 must be performed within 3 seconds.

2. Enter **141** and press **F2**.

If step 3 is not performed within the 3-second interval, the data transfer will not take place.

Changing ADTTE Keyboard Settings

Use the following procedures to change settings specific to the ADTTE keyboard.

Table 10: ADTTE Keyboard settings tasks

Task	Page
Turning Keyboard Repeat Off	20
Changing the Keyboard Lock Password	20
Adjusting the LCD Brightness	20
Adjusting the Key Click Volume	21
Turning Key Click Sound On/Off	20
Changing the Language Setting	21
Displaying the Touch Tracker Baud Setting	21
Changing the Baud Rate	21
Displaying the Firmware Version	21

Turning Keyboard Repeat Off

The ADTTE keyboard must have keyboard repeat turned off to work with the MP48 system. To turn off keyboard repeat, enter **200** and press **F1**.

IMPORTANT! The default setting of the ADTTE keyboard is keyboard repeat on.

Note: Older versions of the ADTTE keyboard do not allow for changing the repeat mode. Verify that the firmware version for the keyboard is F01F-2840-0106 and 0701-2839-0102 or newer. See *Displaying the Firmware Version* on page 21 for procedure.

Changing the Keyboard Lock Password

Passwords allow you to limit access to advanced system features, such as arming or disarming monitors and the dual function menu programming keys (such as, PG-DN, PG-UP). Passwords can be 1 to 4 digits in length with the valid values being 0-9998. The default password is set to *1953*.

IMPORTANT! If you do not change the default password, anyone who knows the default password will be able to gain access to the advanced features of the ADTTE keyboard.

To set or change the password:

1. Press **Pswd**. *Enter Old PSWD* appears on the LCD.
2. Enter the current password and press **Pswd**. *Enter New PSWD* appears on the LCD.
3. Enter the new password and press **Pswd**. *ReEnter PSWD* appears on the LCD.
4. Enter the new password again. Press **Pswd** when finished. If the password successfully changed, *Successful PSWD* appears on the LCD.

    Note: The keyboard beeps if the password change was unsuccessful. The LCD refreshes and displays the status fields. If this happens, return to step 1 and repeat the process.
5. Press **Clear** to refresh the LCD.

Adjusting the LCD Brightness

1. Press number **1**, and then press **Config**.
2. Use the **+** and **−** buttons (located near the right side of the LCD) to adjust the brightness setting.

    *   Press **+** to make the LCD backlighting brighter.
    *   Press **−** to make the LCD backlighting dimmer.
3. When the backlighting is at the preferred level, press **Clear** to refresh the LCD.

Turning Key Click Sound On/Off

1. Press number **3**, and then press **Config** to change the setting.
2. The display shows the current setting for the key click.

    *   *Key Click On* appears on the LCD when the key click is enabled.
    *   *Key Click Off* appears on the LCD when the key click is disabled.

    Each time 3 and Config is pressed the setting changes.
3. Press **Clear** to refresh the LCD.
4. Repeat steps 2 and 3 until the preferred setting appears on the LCD.

Adjusting the Key Click Volume

1. Press number **2**, and then press **Config**.

2. Use the **+** and **–** buttons (located near the right side of the LCD) to adjust the volume.

   - Press **+** to make the key click volume louder.

   - Press **–** to make the key click volume softer.

3. When the volume is at the preferred level, press **Clear** to refresh the LCD.

Changing the Language Setting

The LCD information on your keyboard can be displayed in a number of languages, including:

- English
- Spanish
- German
- Portuguese
- French
- Italian

To change the language appearing on the LCD:

1. Enter **35**, and then press **Config**.

2. Press **Next** to scroll through the language choices.

3. Press **Ack** when the correct language choice appears on the LCD.

After the keyboard resets, messages on the LCD appear in the selected language.

Displaying the Touch Tracker Baud Setting

Enter **3** and press **F1** to display the current baud setting for the ADTTE Touch Tracker.

Changing the Baud Rate

The ADTTE keyboard supports four baud rates: 1200, 2400, 4800, and 9600 baud. The default setting for the baud rate is 1200.

IMPORTANT! If the baud rate is set incorrectly, the keyboard will not operate. Be sure that the baud rate is set to the correct value.

To set or change the baud rate:

1. Enter the baud rate (**1200**, **2400**, **4800** or **9600**).

2. Press **F1** (located to left of the LCD).

No prompts appear on the screen to inform you that the baud rate has been changed.

Displaying the Firmware Version

If you should experience problems with your ADTTE, you may need to provide information about the firmware version.

To display the firmware version:

1. Enter **100**, and then press **F1**. Firmware information appears on the LCD.

   - *F* represents the Flash version.

   - *E* represents the EEPROM version.

2. Press **Clear** to refresh the LCD.

Working in Menu Mode

STS	MON	CAM	1234
	005	168	-M

Note: The keyboard lock must be disabled to use this feature. To disable the keyboard lock, see *Unlock/Lock the Keyboard* on page 14.

The **Menu** button allows you to view the main menu of the attached switching system. When the main menu for the switching system has been displayed, the functions associated with the multi-function keys are enabled. Table 10 lists the multi-function keys.

When you complete using the main menu, press **Menu**. The multi-function buttons return to their normal operating mode.

To view the menus:

1. Select a text display monitor (1-8) for viewing the menus, and place the monitor on **Hold**.

    IMPORTANT! Do not select a monitor that is running a tour or salvo, or a monitor that is in an alarm condition.

2. Press **Menu**.

3. If User IDs are enabled, enter the passcode for the current user to access the menus.

Once the menu is displayed, the appropriate functions on the multi-function keys are used for operating the menus.

Note: The menu functions are printed beneath the primary key function names on the ADTTE keypad appliqué.

Table 11: Multi-Function keys description

Menu Function	Key label	Description
Page Left	*Auxiliary On*	Displays the menu page to the left.
Page Right	*Auxiliary Off*	Displays the menu page to the right.
Page Up	*Iris Close*	Displays prior menu page up.
Page Down	*Iris Open*	Displays next menu page down.
Left Arrow ←	*Last*	Moves cursor left one character.
Right Arrow →	*Next*	Moves cursor right one character.
Up Arrow ↑	*Run*	Moves cursor up one row.
Down Arrow ↓	*Hold*	Moves cursor down one row.
Enter	*Shot*	Displays options for a setting, and stores data entered via the menu.
Exit	*Pattern*	Exits the current screen and returns to the previously displayed screen.

Note: The Tracker Ball may also be used to change the cursor position.

IMPORTANT! To store data in Menu mode, you may press **Enter** (*Shot*) or **Ack** to end the sequence.

Exiting from the Menu System

The user can exit from any menu, or exit from the menu system at any time.

Task	Command
Return to a prior menu.	Press **Exit** (*Pattern*)
Exit from the menu system.	Press **Menu**

Using the Main Selection Menu

The **Main Selection** menu provides access to the MP48 features that may be configured using Menu mode.

```
              MAIN SELECTION

         1   SYSTEM
         2   MONITOR
         3   CAMERA
         4   USERS/KEYBOARDS
         5   SWITCHING
         6   PARTITIONING
         7   ALARMS

         LANGUAGE -  ENGLISH
```
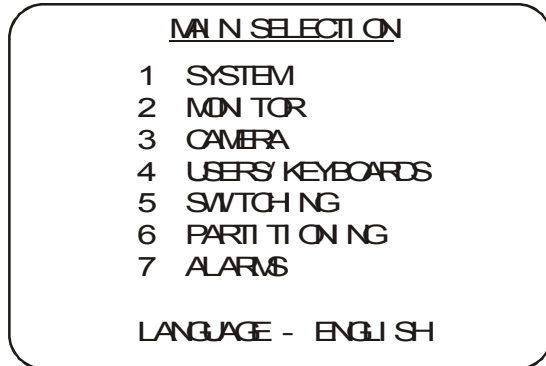
A flashing cursor appears on-screen to indicate the current selection.

The following selections are available:

- *System* changes settings associated with system options, date/time, port settings, monitor status, and paging profiles.

- *Monitors* changes settings associated with arming type and display format for the text display monitors (monitors 1-8).

- *Cameras* changes settings associated with pseudo-numbering, camera titles, and preset titles.

- *User/Keyboards* changes settings associated with user or keyboard priorities and user passcodes.

  Note: The *User/Keyboard* option changes based on the *User IDs* setting on the **System Options** menu.

- *Switching* changes settings associated with system tours, system salvos, and event timers.

- *Partitioning* changes settings associated with user access to system cameras, monitors, and keyboards.

- *Alarms* configure alarm titles, alarm contacts, and enables alarm association with system monitors.

In addition, you can configure the language setting for displaying menus. The supported languages are: English, French, German, Italian, Portuguese, and Spanish.

To select a menu items:

- Enter the number associated with the menu item and press **Enter** (Shot).

- Use **Up** (*Run*) or **Down** (*Hold*) to move the highlight. Press **Enter** (*Shot*) to make a selection.

- Use the Tracker Ball to move the highlight and press **Enter** (*Shot*) to make a selection.

Changing the Language Setting

The MP48 menus can be displayed in English, French, German, Italian, Spanish, and Portuguese.

To change the language setting:

1. Move the cursor to the *Language* field.

2. Enter the following key combinations to select the operating language:

Language	*Command*
English	**1 - Enter** (*Shot*)
French	**2 - Enter** (*Shot*)
German	**3 - Enter** (*Shot*)
Spanish	**4 - Enter** (*Shot*)
Portuguese	**5 - Enter** (*Shot*)
Italian	**6 - Enter** (*Shot*)

Following language selection, all menus appear in the selected language.

Changing System Settings

The *System* menu provides the means to configure system options, time and date, ports, monitor status, and paging profiles.

```
              SYSTEM

         1   SYSTEM OPTIONS
         2   TIME AND DATE
         3   PORTS
         4   MONITOR STATUS
         5   PAGING PROFILE
```
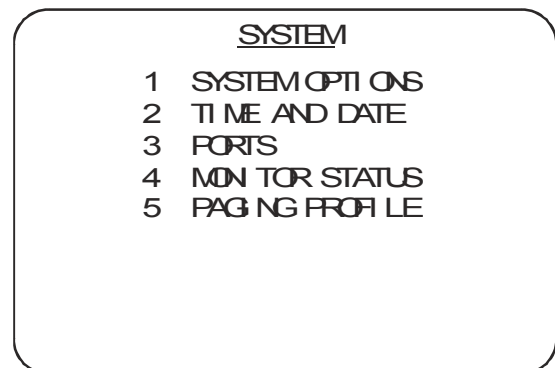
Changing System Options

Use *System Options* to configure settings associated with user IDs, peripheral interface, and logging system and alarm status.

```
          SYSTEM OPTIONS

 USER IDS - DISABLED

 PERIPHERAL INTERFACE - DISABLED

 LOG STATUS - ON

 LOG ALARMS - ON
```

The following settings can be changed:

Setting	Options
User IDs	**Enabled:** User IDs must be entered to use the keyboard
	Disabled: User IDs are not required
Peripheral Interface	**Port 1 - 8:** Video recorder control supported on specific port listed
	Disabled: Video recorder control not supported
Log Status	**On:** System status is logged
	Off: System status is not logged
Log Alarms	**On:** System alarms are logged
	Off: System alarms are not logged

To change the settings:

1. Move the cursor to the setting you want to change.

2. Press **Enter** (*Shot*) to change the setting.

3. Press **Exit** (*Pattern*) to return to the previous menu when finished making changes.

Changing Time and Date Settings

Use *Time and Date* to configure settings associated with year and date format, current date, and time.

```
          TIME AND DATE
 YEAR FORMAT - YY/YYYY

 DATE FORMAT - MM/DD/YY-YYYY

 MONTH - 01

 DAY - 01
 YEAR - 2003
 TIME - 13:16:45
```

The following settings can be changed:

Setting	Options
Year Format	**YY:** Display 2-digit year
	YYYY: Display 4-digit year
Date Format	**MM/DD/YY:** Month/Day/Year
	DD/MM/YY (YYYY): Day/Month/Year
	YY (YYYY)/MM/DD: Year/Month/Day
Month	**01-12:** 2-digit month identifier
Day	**01-31:** 2-digit day identifier
Year	**00-99:** 4-digit year display; only last 2 digits may be changed
Time	Current time in hours, minutes, and seconds in 24-hour format
	00-24: Hour
	00-59: Minute
	00-59: Seconds

To change the settings:

1. Move the cursor to the setting you want to change.

2. Do one of the following:

   - Press **Enter** (*Shot*) to change the *Year Format* and *Date Format* settings.

   - Enter the number and press **Enter** to change the *Month*, *Day*, *Year*, and *Time* settings.

3. Press **Exit** (*Pattern*) to return to the previous menu when finished making changes.

Changing Port Settings

Use *Ports* to configure the baud rate, data bits, parity, stop bits, and port use for the selected port.

```
          PORT - 01

 BAUD - 9600

 DATA BITS - 8

 PARITY - NONE

 STOP BITS - 1

 PORT USE - KEYBOARD
```

The following settings can be changed:

Setting	Options
Baud	300, 1200, 2400, 4800, 9600, 19200, or 38400.
Data Bits	7 or 8
Parity	None, Odd, or Even
Stop Bits	1 or 2
Port Use	Alarm, Keyboard, Terminal, Printer, Aux, Modem, Peripheral Interface Port
	See *Port Usage Notes* for details about these settings.

To change the settings:

1. Move the cursor to the *PORT* line.

2. Enter the port number (**1-8**), and press **Enter** (*Shot*). The selected port's settings are displayed.

3. Move the cursor to the setting you want to change.

4. Press **Enter** (*Shot*) to display the available options.

5. Repeat steps 3 and 4 for each setting you want to change.

6. When finished making changes, press **Exit** (*Pattern*) to return to the previous menu.

IMPORTANT! Once the selections for a port have been made, do not change the settings unless the connected devices are changed as well.

Port Usage Notes

Setting	Description
Alarm	Use this setting when connecting the AD2096A Alarm Interface Unit.
Keyboard	Use this setting when connecting the AD2088 keyboard or ADTTE controller. For keyboard use, set *Data Bits* to "8", *Parity* to "none", and *Stop Bits* to "1". **Note:** When a *Port Expander* is used, the port **Baud Rate** must be set to 4800, and the keyboards' baud rate set to 1200.
Terminal	Use this setting when a personal computer is connected for uploading/downloading system setup information via the S3 software.
Printer	Use this setting when an RS-232 serial printer is connected.
Aux	Use this setting when control of auxiliary devices through RS-232 communications is required.
Modem Port 8 only	Use this setting when paging communications with an external (AT command set) modem is required.
Peripheral Interface Port (PIP)	Use this setting when communication with a video recorder network is required. **Note:** The Peripheral Interface Port must be enabled through the System Options menu before port parameters can be programmed for the PIP. See *Changing System Options* on page 24.

Viewing Monitor Status

Use *Monitor Status* to determine the current camera, tour, status, and sync mode for each monitor.

```
          MONITOR STATUS
MON    CAM    STS    TOUR   SYNC
01     0024   R      02     Y
02     0001   H      64     N
03     0048   A      --     N
04     0012   S      --     Y
05     0007   S      --     N
06     0040   S      --     Y
07     0005   S      --     N
08     0036   S      --     N
```

No changes can be made from this screen. Two pages of information are available. Use the **Page Up** (*Iris Close*) and **Page Down** (*Iris Open*) to view the pages.

The following information is displayed:

Setting	Description
Mon	Monitor Number. Page 1 displays monitors 1-8; page 2 displays monitors 9-16.
Cam	Camera number. The number displayed may be the real number or pseudo number.
Sts	Status information. The following codes appear: • **R** (Run) • **H** (Hold) • **A** (Alarm) • **S** (Salvo)
Tour	Tour number currently running or on hold.
Sync	Camera sync display code. • **Y** indicates that a sync (video) signal is present. • **N** indicates loss of sync.

Configuring Paging Profiles

Use *Paging Profile* to create special profiles for sending messages to paging devices.

```
      EDIT PAGING PROFILE - 01

        1 2 3 4 5 6 7 8 9 * 0 #  ←── Character
                                       selection
  PHONE NUMBER

  -------------------------------

  PERSONAL ID NUMBER

  ----------------
```

The following settings may be configured:

Setting	Options
Phone Number	Up to 32 characters (1-9, *, #) for automatic dialing of the paging service.
Personal ID number	Up to 16 characters used to provide an identifier to the paging service.

Prerequisites for Implementing Paging

The following prerequisites are necessary when implementing paging with the MP48.

- An *analog* telephone line must be used for dial-up. MP48 paging will not work with a *digital* telephone line.

- An external (AT Command Set) modem

- Subscription to a telecommunications service provider. The service provider must support the Telocator Alphanumeric Protocol (TAP). The external modem wired to the MP48 must communicate directly with the service provider's computer.

- Personal Identification Numbers (PINs) assigned by the service provider to the remote paging devices that will receive transmissions.

Editing a Paging Profile

1. Position the cursor on the *Edit Paging Profile* field.

2. Enter a profile number (1 to 64) and press **Enter** *(Shot)*. The cursor moves to the *Character Selection* line and the *Phone Number* field.

3. Press **Next** or **Last** to move the cursor around the *Character Selection* line. Press **Enter** (*Shot*) to select the highlighted character.

   Note: The joystick may be used to move the cursor on the *Character Selection* line to highlight the character you want to use. Press **Enter** (*Shot*) to select. Repeat until all required characters are entered.

4. Press **Next** to move to the next field or subsequent *Paging Profile*. When finished making changes, press **Exit** (*Pattern*).

Refer to Appendix G in the *MP48 Programming and Operation Manual* for more information about implementing paging.

Changing Monitor Settings

The *Monitor* menu is used to view and/or modify each monitor's setup programming, and to arm monitors for response to alarms.

```
            MONITOR - 01

ARM TYPE-DIS BLK- 1-16 ACK-Y/N

TOUR - 02

TOUR STATUS - HOLD

DATE TIME - ON/OFF

TITLE DISPLAY - ON/OFF

SCREEN TEMPLATE- FORMAT 1 / 2
```

The following settings are available:

Setting	Options
Arm Type	Monitor arming type. Choose from single, dual, block, or disable. See *Monitor Arming Codes* on page 16 for more information.
Blk	Monitor Block number (1-16). The block number associates monitors together to form a monitor block for alarm call up.

Setting	Options
Ack	*Y (yes):* Enables manual acknowledgement for instant and auto clear arming codes.
	N (no): Disables manual acknowledgement for instant and auto clear arming codes.
	Note: This feature must be programmed after the monitor is armed with an instant or auto clear alarm type.
Tour	Indicates the system tour (1-64) currently associated with the monitor. An entry of "---" indicates that a scratch pad tour or no tour is associated with the monitor.
Tour Status	*Run:* The tour is currently running on the selected monitor.
	Hold: The tour is currently on hold for the selected number.
Date Time	*On:* The date and time display is enabled.
	Off: The date and time display is disabled.
Title Display	*On:* The title display is enabled.
	Off: The title display is disabled.
Screen Template	*Format 1:* Style associated with display template. See Figure 5 on page 8.
	Format 2: Style associated with display template. See Figure 6 on page 8.

To change the settings:

1. Move the cursor to the *Monitor* line at the top of the menu.

2. Enter the monitor number (**1-16**), and press **Enter** (*Shot*). The selected monitor's settings are displayed.

3. Move the cursor to the setting you want to change.

4. Do one of the following:
   - Press **Enter** (*Shot*) to change the *Arm Type*, *Ack*, *Date Time*, *Title Display*, and *Screen Template* settings.
   - Enter the number and press **Enter** (*Shot*) to change the *Blk* and *Tour* settings.

   Note: Tour Status cannot be changed. This is provided for information only.

5. When finished making changes, press **Exit** (*Pattern*) to return to the previous menu.

Note: Video output 16 (monitor 16) is used by the system to sample video. If video loss detection is enabled for any system video input, video output 16 is not available for video switching, regardless of parameters programmed through the Monitor screen.

Changing Camera Settings

The *Camera* menu is used to assign pseudo-numbering to cameras, to program camera titles and preset titles, and to set up camera video loss detection.

```
                  CAMERA

    1    PSEUDO
    2    TITLE
    3    PRESET TITLES
    4    PRESET/ PRESET TITLE NUMBERS
```

Assigning Pseudo-Numbering to Cameras

Use *Pseudo* to assign "substitute" numbers to use when selecting cameras.

```
         ASSIGN PSEUDO CAMERAS

                 CAMERA
       REAL #          PSEUDO #
       0001            0007
       0002            0002
       0003            1003
       0004            1004
       0005            0005
       0006            0006
       0007            0001
```

The "real" camera numbers are based on video input connection points. The pseudo numbers permits assignment of any numerical value from 1 to 9999 for any camera input. The Pseudo Number menu has multiple pages, with 12 camera numbers appearing on each page. Use **Page Down** (*Iris Open*) and **Page Up** (*Iris Close*) to scroll through the list of cameras.

IMPORTANT! On a system reset, all pseudo numbers are reset to the real (default) camera numbers.

To assign or change a Pseudo Camera Number:

1. Enter the *Real #* and press **Page Up** (*Iris Close*) or **Page Down** (*Iris Open*).

2. Enter the *Pseudo* number (1-9999), and press **Enter** (Shot).

3. Repeat steps 1 and 2 for each pseudo camera number you want to assign.

4. Press **Exit** (Pattern) to return to the previous menu when finished making changes.

Note: If a pseudo number is the same as a real camera number, the system switches the two camera numbers. For example, assigning pseudo number 0025 to real camera number 0001 automatically assigns pseudo number 0001 to real camera number 0025.

Changing Camera Titles and Video Loss Settings

Use *Title* to configure video loss settings and assign a title to the selected camera.

```
             CAMERA - 0001

  VIDEO LOSS - ON/OFF

  TITLE -        ABCDEFGHIJKLMN
  --------       OPQRSTUVWXYZab
                 cdefghijklmnop
  --------       qrstuvwxyz 012
                 3456789 <>:-./;
```

The following settings are available:

Setting	Options
Video Loss	*ON:* Loss of a video sync signal will result in an alarm. *OFF:* Loss of video sync signal will not be detected.
Title	*16-character name* (8 characters per line) assigned to the selected camera.

To change settings:

1. Move the cursor to the *CAMERA* number line. Enter the camera number (real or pseudo), and press **Enter** (*Shot*).

2. Press **Enter** (*Shot*) to toggle the *Video Loss* setting. When the correct setting is displayed, continue with step 3.

3. Change the camera title.

   a. Press **Next** to move to the *Title* field. Two cursors display: the *Title Cursor* and the *Selection Cursor*.

   b. Press **Next** to move the *Title Cursor* until the correct character/position in the title is highlighted.

      Note: You must start from the first character in the title and move through the text until the desired character position is selected. You cannot backspace through the title.

   c. Use the joystick to position the *Selection Cursor* over the letter, number, or symbol to include in the title. Press **Enter** (*Shot*) to add the selected character to the title.

   d. Repeat steps 3b and 3c until the title is complete.

4. When finished making changes, press **Exit** (*Pattern*) to return to the previous menu.

Changing Preset Titles

Use *Preset Titles* to program a 2-line, 16-character title that appears whenever a preset is displayed.

```
   PRESET TITLE-????


 TITLE -      ABCDEFGHIJKLMN
 -------      OPQRSTUVWXYZab
 -------      cdefghijkl mnop
              qrstuvwxyz 012
              3456789 <>:-./;
```

MP48 supports up to 4096 preset titles (96 presets X 48 cameras). See *Assigning Preset Titles to Cameras/Presets* for information about assigning the title.

To program preset titles:

1. Enter a preset title number (1-4096), and press **Enter** *(Shot)*.

2. Change the preset title:

   a. Move the cursor to the *Title* lines. Two cursors display: the *Title Cursor* and the *Selection Cursor*.

   b. Press **Next** to move the *Title Cursor* until the correct character/position in the title is highlighted.

      Note: You must start from the first character in the title and move through the text until the desired character position is selected. You cannot backspace through the title.

   c. Use the joystick to position the *Selection Cursor* over the letter, number, or symbol to include in the title. Press **Enter** (*Shot*) to add the selected character to the title.

   d. Repeat steps 3b and 3c until the title is complete.

3. When finished making changes, press **Exit** (*Pattern*) to return to the previous menu.

Assigning Preset Titles to Cameras/Presets

Each programmed preset title number must be associated with a corresponding four-digit camera (real or pseudo) number (1-9999) and a two-digit preset number (1-96). The same preset title (and preset title number) can be used multiple times for different cameras. Use **Preset/Preset Title Numbers** to assign the titles to a specific preset for a selected camera.

```
        PRESET/PRESET TITLE NUMBER

              CAMERA - 0001
  PRESET    PRESET TITLE
  01        0001  FRONT     LOBBY
  02        4096  MAIN      ENTRANCE
  03        ????  ????????  ????????
  04        ????  ????????  ????????
  05        ????  ????????  ????????
  06        ????  ????????  ????????
  07        ????  ????????  ????????
```

To assign the preset title to a specific camera preset:

1. Enter a camera number (1-9999) and press **Enter** (*Shot*).

2. Enter the preset title number (1-4096) and press **Enter** (*Shot*).

   The preset title previously programmed appears to the right of the preset title number. The title cannot be edited in this menu. The cursor automatically moves to the next preset number.

   Note: Entering a preset title number greater than 4096 (such as "9999") removes the preset title association.

3. Repeat steps 1 and 2 for each preset number associated with the designated camera number. When finished making changes, press **Exit** (*Pattern*) to return to the previous menu.

Configuring User or Keyboard Settings

The **Users/Keyboards** menu is used to set priority levels for keyboards or users, to set user numbers and passcodes, and to configure each of the eight priority levels.

```
            USERS/KEYBOARDS

   1   KEYBOARD (USER)
   2   PRIORITY
```

- If **User IDs** are disabled in the **System Options** menu, the first entry in the menu reads **Keyboard**.

- If **User IDs** are enabled in the **System Options** menu, the first entry in the menu reads **User**.

Changing User Settings

If User IDs are enabled, select **User** to set the priority and passcodes for the 64 available users.

```
                USER
  USER # - 01

  PRIORITY LEVEL:  8

  PASSCODE:

  XXXXXX
```

The following settings are available.

Setting	Description
User #	User code number being configured. Up to 64 users may be configured.
Priority Level	Level of user privileges. Eight levels are available.
Passcode	Number that authorizes use of the system. Six digits may be used.

To change user settings:

1. Move the cursor to the *User* line. Enter the user number (**1-64**) and press **Enter** (*Shot*).

2. Enter the *Priority Level* (**1-8**) and press **Enter** (*Shot*).

   Note: Priority levels are individually configurable. "**8**" represents the highest priority level; "**1**" represents the lowest priority. Users with higher priority levels can capture control of cameras from users with lower priority levels.

3. Set or change the Passcode for the selected user:

   a. Enter a passcode (6 digits maximum) and press **Enter** (*Shot*).

      The system displays "*VERIFY PASSCODE*" on the monitor.

   b. Re-enter the same passcode. Press **Enter** (*Shot*).

      Note: If the code entered in step 3b does not match the code entered in step 3a, the following message is displayed: ***ERROR - REENTER PASSCODE***. Repeat steps 3a and 3b.

4. When finished making changes, press Exit (Pattern) to return to the previous menu.

Note: The default passcode for User 1 is **914365**. This passcode should be changed to prevent unauthorized access to the system.

Changing Keyboard/Priority Settings

If User IDs are disabled, select *Keyboard* to assign priority levels to the selected keyboard. All keyboards default to level "8" priority.

```
                KEYBOARD

  KEYBOARD –  01

  PRIORITY LEVEL:  8
```

Keyboard Numbering

Eight RS-232 ports are provided on the rear of the system CPU module. It is possible to expand the eight ports using AD1981 Port Expanders to a maximum of 32 keyboard ports, For appropriate keyboard numbering, verify if a port expander is used with each port.

The following table shows the appropriate keyboard designations with and without port expanders.

Table 12: Keyboard Numbers

Port #	With Expander	Without Expander
Port 1	1-4	1
Port 2	5-8	5
Port 3	9-12	9
Port 4	13-16	13
Port 5	17-20	17
Port 6	21-24	21
Port 7	25-28	25
Port 8	29-32	29

Keep this keyboard numbering information in mind when changing keyboard priority settings.

Changing Keyboard Priority Levels

1. Enter the keyboard number (**1-32**), and press **Enter** (*Shot*).

2. Enter the *Priority Level* (**1-8**), and press **Enter** (*Shot*) to save.

   Note: Priority levels are individually configurable. In general, "**8**" should represent the highest priority level; "**1**" should represent the lowest priority level. Keyboards with higher priority levels can capture control of cameras from keyboards with lower priority levels.

3. When finished making changes, press **Exit** (*Pattern*) to return to the previous menu.

Configuring Priority Settings

Use *Priority* to configure settings relating to system functions that a user or keyboard may perform.

```
                    PRIORITY

   LEVEL  1

   ADD USER Y/N

   SYSTEM RESET Y/N

   LOCK CAM ABILITY Y/N

   OVERRIDE N/Y

   MENU ACCESS Y/N

   CHANGE PARAMETERS Y/N
```

The following settings are available:

Setting	Description/Options
Level	Currently selected priority level that is being configured.
Add User	*Y (Yes):* New users can be added. *N (No):* New users cannot be added.
System Reset	*Y (Yes):* System reset allowed via keyboard commands. *N (No):* System reset not allowed via keyboard commands.
Lock Cam Ability	*Y (Yes):* Lock camera control allowed. *N (No):* Lock camera control not allowed.

Setting	Description/Options
Override	*Y (Yes):* Override of keyboard/camera view and control partitioning restrictions allowed. *N (No):* Override of keyboard/camera view and control partitioning restrictions not allowed.
Menu Access	*Y (Yes):* Access to programming menus allowed. *N (No):* Access to programming menus not allowed. **Note:** *Menu Access* must be enabled to access the *Change Parameters* setting.
Change Parameters	*Y (Yes):* Changing system parameters allowed through the menus. *N (No):* Changing system parameters not allowed through the menus. Menus can only be viewed.

To configure a priority level:

1. Move the cursor to the *Level* menu item.

2. Enter the priority level number (1-8), and press **Enter** (*Shot*).

3. Move the cursor to the menu item you want to change. Press **Enter** (*Shot*) to change the setting.

4. Repeat step 3 for each setting you want to change.

5. When finished making changes, press **Exit** (*Pattern*) to return to the previous menu.

Configuring Switching Settings

Use the *Switching* menu to program system tours, salvos, and event timers.

```
              SWITCHING

    1    SYSTEM TOURS
    2    SYSTEM SALVOS
    3    EVENT TIMERS
```
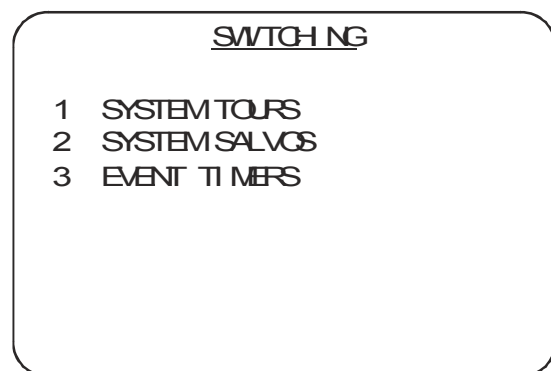
Programming System Tours

A system tour is a programmable sequence of camera views that can be called for display on a single monitor. Use *System Tours* to configure the cameras, dwell times, functions, auxiliary, and connect next settings for the 64 system tours.

```
              SYSTEM TOURS
                TOUR - 01
 ENT  CAM    DWL  FUNCT  AUX    CN
 01   0001   05   ----   0-     N
 02   0002   05   ----   0-     N
 03   0003   05   ----   0-     N
 04   0004   05   ----   0-     N
 05   0005   05   ----   0-     N
 06   0006   05   ----   0-     N
 07   0007   05   ----   0-     N
 08   0008   05   ----   0-     N
```

The following settings are available:

Setting	Description/Options
Ent	*Entry (1-64):* Relates to the order in which items are displayed in the tour.
Cam	*Camera:* Generally relates to a camera number, but may also represent a tour or salvo number. The CN field is used to identify if a camera, tour or salvo is called.

Setting	Description/Options
Dwl	*Dwell time (1-61):* The length of time that a camera view is displayed on the monitor(s) before switching to the next tour entry. A dwell time can range from 1 to 60 seconds. An entry of 61 will hold the current camera view displayed.
Funct	*Function (PR or PT):* Represents a preset (PR) or pattern (PT) that is called when a camera is selected.
Aux	*Auxiliary:* Activates the relay associated with the selected camera for auxiliary control. If no auxiliary action is required for the tour entry, enter a zero in this field. Relays 1-4 can be set to "**On**". Relays 1-3 can be set to "**Off**".
Cn	*Connect Next:* Four connect next options are available. *N (no):* The connect next function is not enabled. The next tour entry displays after the specified dwell time elapses. A typical system tour that shows a sequence of different camera views uses this setting. *Y (yes):* Connect next calls the next tour entry to the next contiguous monitor to emulate a salvo. A dwell time is selected for the first entry. Subsequent entries for the emulated salvo must have a zero (blank) dwell time. *S (salvo):* A pre-programmed system salvo is called for the specified dwell time. The pre-programmed salvo number is specified in the CAM field. *T (tour):* A different pre-programmed system tour is called. This selection links two tours together to form a larger camera sequence. *A connect next selection of tour can be made only for the last entry in a system tour.* **Note:** A tour cannot call itself. In addition, when a tour calls another tour, the sequence does not automatically return to the original tour unless specified by a CN entry of the tour being called.

Note: Programming examples for configuring different tour entries are found in the *MP48 Programming and Operation Manual*. Refer to these examples for specific details.

To program a system tour:

1. Select a tour to program.

   a. Move the cursor to the tour number line of the menu.

   b. Enter the tour number (1-64) and press **Enter** (*Shot*).

2. Enter a camera, salvo or tour number.

   a. Move the cursor to the cross point of the *CAM* column and the appropriate entry row.

   b. Enter the camera, salvo, or tour number and press **Enter** (*Shot*).

3. Set a dwell time for the entry.

   a. Move the cursor to the cross point of the *DWL* column and the appropriate entry row.

   b. Enter the dwell time (00-61) and press **Enter** (*Shot*).

   - Use *1-60* to display the entry for the specified number of seconds

   - Use *61* to hold the entry when displayed.

   - Use *00* to skip an entry or when the previous Connect Next (CN) field is set to *Y*.

4. Set the function to call a preset or pattern.

   a. Move the cursor to the cross point of the *FUNCT* column and the appropriate entry row.

   b. Press **Enter** (*Shot*) to toggle between *PR* (preset) and *PT* (pattern). When the appropriate function is displayed, press **NEXT**.

   c. Enter the preset (1-96) or pattern (1-3) number for the entry. A zero entry indicates no preset or pattern.

      Note: If the Connect Next field is set to S (salvo) or T (tour), a zero value must be entered for a preset or pattern.

   d. Press **Enter** (*Shot*).

5. Set an auxiliary action.

   a. Move the cursor to the cross point of the *AUX* column and the appropriate entry row.

   b. Press **Enter** (Shot) to display the auxiliary options:

1 = 1 ON	*5* = 1 OFF
2 = 2 ON	*6* = 2 OFF
3 = 3 ON	*7* = 3 OFF
4 = 4 ON	*8* = 0 – (no action)

   Note: If the Connect Next field is set to S (salvo) or T (tour), do not enter an auxiliary action.

   c. Press **Next** when the correct setting is displayed.

6. Set the connect next selection.

   a. Move the cursor to the cross point of the CN column and the appropriate row entry.

   b. Press **Enter** (*Shot*) to display the connect next options or enter the number for the appropriate selection and press **Enter** (*Shot*).

1=N	No link or last member of a CN salvo
2=Y	Connect to next entry in a CN salvo
3=S	Call a pre-programmed system salvo
4=T	Call a pre-programmed system tour

7. Repeat steps 2 through 6 to program additional tour entries. When finished making changes, press **Exit** (*Pattern*) to return to the previous menu.

Programming System Salvos

MP48 supports 64 salvos that are programmed to include 16 cameras on a contiguous group of monitors. Use *System Salvos* to configure the specific details for the salvos.

```
              SYSTEM SALVO
              SALVO - 01
ENT  CAM    FUNCT    AUX   CN
01   0001   ----     0-    N
02   0002   ----     0-    N
03   0003   ----     0-    N
04   0004   ----     0-    N
05   0005   ----     0-    N
06   0006   ----     0-    N
07   0007   ----     0-    N
08   0008   ----     0-    N
```

The following fields are displayed:

Field	Description/Options
Ent	*Entry*: Refers to the order of the cameras displayed on the contiguous monitors.
Cam	*Camera*: Identifies the camera or salvo number associated with each entry
Funct	*Function*: Represents a preset (PR) or pattern (PT) that is run for the entry if a camera is selected.

Field	Description/Options
Aux	*Auxiliary:* Activates the relay associated with the selected camera for auxiliary control. If no auxiliary action is required for the tour entry, enter a zero in this field. Relays 1-4 can be set to "**On**". Relays 1-3 can be set to "**Off**".
CN	*Connect Next:* Three options are available. *N (no):* The connect next function is not enabled. The salvo stops at the current position. *Y (yes):* The connect next function is enabled The next camera is called to the next contiguous monitor. *S (salvo):* If salvo is selected for the last entry, another pre-programmed system salvo is called, and the salvo being programmed stops at the appropriate position.

Note: Programming examples for configuring different salvo entries are found in the *MP48 Programming and Operation Manual*. Refer to these examples for specific details.

To program a system salvo:

1. Select a salvo to program.

   a. Move the cursor to the salvo number line of the menu.

   b. Enter the salvo number (1-64) and press **Enter** (*Shot*).

2. Enter a camera or salvo number.

   a. Move the cursor to the cross point of the *CAM* column and the appropriate entry row.

   b. Enter the camera or salvo number and press **Enter** (*Shot*).

   Note: Press **Enter** (*Shot*) without entering a camera/salvo number to remove the camera entry.

3. Set the function to call a preset or pattern.

   a. Move the cursor to the cross point of the *FUNCT* column and the appropriate entry row.

   b. Press **Enter** (*Shot*) to toggle between *PR* (preset) and *PT* (pattern). When the appropriate function is displayed, press **NEXT**.

   c. Enter the preset (1-96) or pattern (1-3) number for the entry. A zero entry indicates no preset or pattern.

Note: If the Connect Next field is set to S (salvo), a zero value must be entered for a preset or pattern.

   d. Press **Enter** (*Shot*).

4. Set an auxiliary action.

   a. Move the cursor to the cross point of the AUX column and the appropriate entry row.

   b. Press **Enter** (*Shot*) to display the AUX options:

1 = 1 ON	*5* = 1 OFF
2 = 2 ON	*6* = 2 OFF
3 = 3 ON	*7* = 3 OFF
4 = 4 ON	*8* = 0 – (no action)

   Note: If the Connect Next field is set to S (salvo), do not enter an auxiliary action.

   c. Press **Next** when the correct setting is displayed.

5. Set the connect next selection.

   a. Move the cursor to the cross point of the CN column and the appropriate row entry.

   b. Press **Enter** (*Shot*) to display the connect next options or enter the number for the appropriate selection and press **Enter** (*Shot*).

1=N	No link or last member of a CN salvo
2=Y	Connect to next entry in a CN salvo
3=S	Call a pre-programmed system salvo

6. Repeat steps 2 through 5 to program additional salvo entries. When finished making changes, press **Exit** (*Pattern*) to return to the previous menu.

Configuring Event Timers

Event timers enable the automatic call up of system tours and alarm monitor/contact groups at scheduled times and days. A maximum of 35 events can be programmed. Use *Event Timers* to configure the schedule associated with the event timers.

```
            EVENT TIMER

  HH:MM
  EDIT TIMER
  NEXT TIMER
  CLEAR TIMER
  ENABLE/DISABLE TIMER
  CHANGE TIMER TO HH:MM
```

Setting	Description
HH:MM	Scheduled time for the event in 24-hour format. If the event timer has not been configured, *NEW* appears next to the time setting.
Edit Timer	Displays the schedule for running tours or alarm monitor/contact groups.
Next Timer	Scrolls through the list of programmed timers and displays the enabled/disabled state.
Clear Timer	Deletes the currently displayed event timer.
Enable/ Disable Timer	Toggles the state of the currently displayed event timer. Either *Enable Timer* or *Disable Timer* appears on this line.
Change Timer To HH:MM	Changes the time for the currently displayed event timer.

To create an event timer:

1. Move the cursor to the time line.
2. Enter the appropriate two-digit hour (00-24) and press **Enter** (*Shot*).
3. Enter the minutes (00 – 59) and press **Enter** (*Shot*).
4. Edit the event timer.
   a. Move the cursor to the *Edit Timer* line and press **Enter** (*Shot*) to display the *Event Timers* screen.

```
            EVENT TIMERS
            TIME -  12:00
            DAY OF WEEK
  MON   S    M   T    W    T    F    S
  001   00   00  00   00   00   00   00
  002   00   00  00   00   00   00   00
  003   00   00  00   00   00   00   00
  004   00   00  00   00   00   00   00
  005   00   00  00   00   00   00   00
  006   00   00  00   00   00   00   00
  007   00   00  00   00   00   00   00
  008   00   00  00   00   00   00   00
  TBL   00   00  00   00   00   00   00
```

   b. Move the cursor to the cross point of the appropriate day of week and the appropriate monitor position row. Use **Page Up** (*Iris Close*) and **Page Down** (*Iris Open*) to find the monitor if not currently displayed.
   c. Enter the system tour number (1-64) and press **Enter** (*Shot*). This will call the tour to the specified monitor on the scheduled day and event time.

   Note: Entering **00** indicates that no tour is scheduled for the day and monitor. Enter **65** to hold the current camera on the specified monitor.

5. Define *Monitor/Contact* table to use with the event timer:
   a. Move the cursor to the cross point of the appropriate day of the week on the *TBL* line.
   b. Enter the monitor/contact table number (1-10) that you want to use, and press **Enter** (*Shot*).

   Note: If **- -** appears in the field, the default alarm contact table is used.

6. When all changes have been made to the Event Timer, press **Exit** (*Pattern*) to return to the previous menu.
7. To configure other Event Timers, move the cursor to **Next Timer**, and press **Enter** (*Shot*). Repeat steps 1-6. Press **Exit** (*Pattern*) to return to the previous menu.

System Partitioning

Use the *Partitioning* menus to restrict operator keyboard access to monitors and cameras.

```
                PARTITIONING

   1   KEYBOARD /  MONITOR
   2   KEYBOARD /  CAMERA VIEW
   3   KEYBOARD /  CAMERA CONTROL
   4   MONITOR /  CAMERA
```

Keyboard Numbering in the Partitioning Menus

Eight RS232 ports are provided on the MP48 patch panel. The total ports can be expanded to 32 by using AD Port Expanders. In order for partitioning to work properly, you must know if Port Expanders are in use.

The following table shows the appropriate keyboard designations with and without port expanders.

Table 13: Keyboard Numbers

Port #	With Expander	Without Expander
Port 1	1-4	1
Port 2	5-8	5
Port 3	9-12	9
Port 4	13-16	13
Port 5	17-20	17
Port 6	21-24	21
Port 7	25-28	25
Port 8	29-32	29

Keep this keyboard numbering information in mind when changing system partitioning settings.

Partitioning Keyboards and Monitors

Use *Keyboard/Monitor* to specify which keyboards have access to which monitors.

```
               KEYBOARD /  MONITOR
MON   01   02   03   04   05   06   07   08
0001  Y    Y    Y    Y    Y    Y    Y    Y
0002  Y    Y    Y    Y    Y    Y    Y    Y
0003  Y    Y    Y    Y    Y    Y    Y    Y
0004  Y    Y    Y    Y    Y    Y    Y    Y
0005  Y    Y    Y    Y    Y    Y    Y    Y
0006  Y    Y    Y    Y    Y    Y    Y    Y
0007  Y    Y    Y    Y    Y    Y    Y    Y
0008  Y    Y    Y    Y    Y    Y    Y    Y
0009  Y    Y    Y    Y    Y    Y    Y    Y
0010  Y    Y    Y    Y    Y    Y    Y    Y
0011  Y    Y    Y    Y    Y    Y    Y    Y
0012  Y    Y    Y    Y    Y    Y    Y    Y
0013  Y    Y    Y    Y    Y    Y    Y    Y
0014  Y    Y    Y    Y    Y    Y    Y    Y
0015  Y    Y    Y    Y    Y    Y    Y    Y
0016  Y    Y    Y    Y    Y    Y    Y    Y
```

The left hand column represents monitor numbers; the top row represents keyboard numbers. Use **Page Left** (*Auxiliary On*) and **Page Right** (*Auxiliary Off*) to display additional keyboard numbers.

To change the partitioning setting for a keyboard and monitor:

1. Move the cursor to the cross point of the keyboard and the monitor that you want to partition.

2. Press **Enter** (*Shot*) to change the setting.

   - *Y* (yes) indicates that a keyboard has access to a specific monitor.

   - *N* (no) indicates that a keyboard cannot access a specific monitor.

   - By default, all keyboards have access to all monitors.

3. Repeat steps 1 and 2 for each keyboard/monitor you want to change. Press **Exit** (*Pattern*) to return to the previous menu.

Partitioning Keyboards and Camera Views

Use *Keyboard/Camera View* to specify which keyboards have access to which cameras.

```
            KEYBOARD /  CAMERA VIEW
CAM   01   02   03   04   05   06   07   08
0001  Y    Y    Y    Y    Y    Y    Y    Y
0002  Y    Y    Y    Y    Y    Y    Y    Y
0003  Y    Y    Y    Y    Y    Y    Y    Y
0004  Y    Y    Y    Y    Y    Y    Y    Y
0005  Y    Y    Y    Y    Y    Y    Y    Y
0006  Y    Y    Y    Y    Y    Y    Y    Y
0007  Y    Y    Y    Y    Y    Y    Y    Y
0008  Y    Y    Y    Y    Y    Y    Y    Y
0009  Y    Y    Y    Y    Y    Y    Y    Y
0010  Y    Y    Y    Y    Y    Y    Y    Y
0011  Y    Y    Y    Y    Y    Y    Y    Y
0012  Y    Y    Y    Y    Y    Y    Y    Y
0013  Y    Y    Y    Y    Y    Y    Y    Y
0014  Y    Y    Y    Y    Y    Y    Y    Y
0015  Y    Y    Y    Y    Y    Y    Y    Y
0016  Y    Y    Y    Y    Y    Y    Y    Y
```

The left hand column represents camera numbers; the top row represents keyboard numbers. Use **Page Up** (*Iris Close*), **Page Down** (*Iris Open*), **Page Left** (*Auxiliary On*) and **Page Right** (*Auxiliary Off*) to display additional cameras and keyboards.

To change the partitioning setting for a keyboard and camera:

1. Move the cursor to the crosspoint of the keyboard column and camera row that you want to partition.

2. Press **Enter** (*Shot*) to change the setting.

   - *Y* (yes) indicates that a keyboard has access to a specific camera.

   - *N* (no) indicates that a keyboard cannot access a specific camera.

   - By default, all keyboards have access to all cameras.

3. Repeat steps 1 and 2 for each keyboard/camera you want to change. Press Exit (Pattern) to return to the previous menu.

Partitioning Keyboards and Camera Control

Use *Keyboard/Camera Control* to specify which keyboards have control over specific cameras.

```
            KEYBOARD /  CAMERA CONTROL
CAM   01   02   03   04   05   06   07   08
0001  Y    Y    Y    Y    Y    Y    Y    Y
0002  Y    Y    Y    Y    Y    Y    Y    Y
0003  Y    Y    Y    Y    Y    Y    Y    Y
0004  Y    Y    Y    Y    Y    Y    Y    Y
0005  Y    Y    Y    Y    Y    Y    Y    Y
0006  Y    Y    Y    Y    Y    Y    Y    Y
0007  Y    Y    Y    Y    Y    Y    Y    Y
0008  Y    Y    Y    Y    Y    Y    Y    Y
0009  Y    Y    Y    Y    Y    Y    Y    Y
0010  Y    Y    Y    Y    Y    Y    Y    Y
0011  Y    Y    Y    Y    Y    Y    Y    Y
0012  Y    Y    Y    Y    Y    Y    Y    Y
0013  Y    Y    Y    Y    Y    Y    Y    Y
0014  Y    Y    Y    Y    Y    Y    Y    Y
0015  Y    Y    Y    Y    Y    Y    Y    Y
0016  Y    Y    Y    Y    Y    Y    Y    Y
```

The left hand column represents camera numbers; the top row represents keyboard numbers. Use **Page Up** (*Iris Close*), **Page Down** (*Iris Open*), **Page Left** (*Auxiliary On*) and **Page Right** (*Auxiliary Off*) to display additional cameras and keyboards.

To change the partitioning setting for a keyboard and camera control:

1. Move the cursor to the crosspoint of the keyboard column and camera row that you want to partition.

2. Press **Enter** (*Shot*) to change the setting.

   - *Y* (yes) indicates that a keyboard can control a specific camera.

   - *N* (no) indicates that a keyboard cannot control a specific camera. This setting allows for viewing only.

   - By default, all keyboards can control all cameras.

3. Repeat steps 1 and 2 for each keyboard/camera you want to change. Press **Exit** (*Pattern*) to return to the previous menu.

Partitioning Monitors and Cameras

Use **Monitors/Cameras** to specify which monitors can view specific cameras.

```
                  MONITOR / CAMERA
CAM   01   02   03   04   05   06   07   08
0001  Y    Y    Y    Y    Y    Y    Y    Y
0002  Y    Y    Y    Y    Y    Y    Y    Y
0003  Y    Y    Y    Y    Y    Y    Y    Y
0004  Y    Y    Y    Y    Y    Y    Y    Y
0005  Y    Y    Y    Y    Y    Y    Y    Y
0006  Y    Y    Y    Y    Y    Y    Y    Y
0007  Y    Y    Y    Y    Y    Y    Y    Y
0008  Y    Y    Y    Y    Y    Y    Y    Y
0009  Y    Y    Y    Y    Y    Y    Y    Y
0010  Y    Y    Y    Y    Y    Y    Y    Y
0011  Y    Y    Y    Y    Y    Y    Y    Y
0012  Y    Y    Y    Y    Y    Y    Y    Y
0013  Y    Y    Y    Y    Y    Y    Y    Y
0014  Y    Y    Y    Y    Y    Y    Y    Y
0015  Y    Y    Y    Y    Y    Y    Y    Y
0016  Y    Y    Y    Y    Y    Y    Y    Y
```

The left hand column represents camera numbers; the top row represents monitor numbers. Use **Page Up** (*Iris Close*), **Page Down** (*Iris Open*), **Page Left** (*Auxiliary On*) and **Page Right** (*Auxiliary Off*) to display additional monitor and camera numbers.

To change the partitioning setting for a monitor and camera:

1. Move the cursor to the crosspoint of the monitor column and camera row that you want to configure.

2. Press **Enter** (*Shot*) to change the setting.

   - *Y* (yes) indicates that a monitor can view a specific camera.
   - *N* (no) indicates that a monitor cannot view a specific camera.
   - By default, all monitors can view all cameras.

3. Repeat steps 1 and 2 for each monitor/camera you want to change. Press **Exit** (*Pattern*) to return to the previous menu.

Configuring Alarms

Use the **Alarms** menus to configure alarm messages; configure RS-232, dome, and video loss alarms; and associate alarms to monitors.

```
                    ALARMS

        1   ALARM MESSAGES
        2   ALARM SETUP
        3   ASSOCIATE ALARMS TO MONITORS
```

Configuring Alarm Messages

Use **Alarm Messages** to create messages to display whenever alarms are active.

```
                ALARM MESSAGE

        MESSAGE NUMBER - 1 - 250
             ABCDEFGHIJKLMN
             OPQRSTUVWXYZab
             cdefghijklmnop
             qrstuvwxyz 012
             3456789 <>:-./;
        MESSAGE -
        ------------------------
        ------------------------
```

A maximum of 250 alarm messages can be entered through this menu. Each message may contain two lines of 24 characters (48 total characters). By associating the message with alarm contacts by using the four alarm setup menus, the message displays whenever the alarm contact is activated or sent to a paging device. The alarm message remains on screen until the alarm is cleared.

To program alarm messages:

1. Move the cursor to the message number line.

2. Enter the message number (1-250) and press **Enter** (*Shot*).

3. Enter the alarm message:

   a. Press **Next** to move the cursor to the correct position in the message.

   b. Use the joystick to select the appropriate character from the display of letters, numbers and symbols. Press **Enter** (*Shot*) to select the correct character.

   c. Repeat steps 3a and 3b until the message is complete.

4. Press **Exit** (*Pattern*) to return to the previous menu.

Setting Up Alarms

Use *Alarm Setup* to configure specific alarm types.

```
                 ALARM SETUP

  1    PATCH PANEL ALARM SETUP
  2    RS-232 ALARM SETUP
  3    DOME ALARM SETUP
  4    VIDEO LOSS ALARM SETUP
```

MP48 supports four alarm types:

- **Patch Panel Alarms:** Alarm contacts wired directly to the Alarms section of the patch panel. 16 patch panel alarm inputs are available.

- **RS-232 Alarms:** Alarm contacts routed to an RS-232 port on the patch panel via an AD2096A Alarm Interface Unit. 512 RS-232 alarm inputs are available.

- **Dome Alarms:** Alarm contacts routed from AD domes to the RS-422 or SensorNet connectors on the MegaPower 48 patch panel. Up to 192 dome alarm inputs (48 domes x 4 contacts) are available.

- **Video Loss Alarms:** Alarms triggered by the loss of the sync signal for any video input connected to the MegaPower 48 patch panel. 48 video loss alarm inputs are available.

Note: If video loss detection is enabled for any video input, video output 16 will not be available for video switching.

Once the specific alarm type is selected, individual alarm contacts can be associated with alarm messages, video inputs, alarm monitors, and paging numbers for text message transmission. Each monitor can be armed for unique alarm display and clearance methods. The following illustrates the Patch Panel Setup menu; however, RS-232, Dome, and Video Loss setup menus include the same settings.

```
                PATCH PANEL  SETUP
      ALARM        0001   0002   0003   0004
VIDEO SELECT       0048   0034   0035   0031
DWELL (SEC)        02     02     02     02
PATTERN NUM        –      –      –      –
PRESET NUM         00     00     00     00
AUXILIARY
      NUMBER       0      0      0      0
      STATE        –      –      –      –
ALARM MSG          ––     ––     ––     ––
PAGING
      SEND TO      –      –      –      –
      MESSAGE      –      –      –      –
SYSTEM OUTPUT
      NUMBER       0      0      0      0

LINK               N      N      N      N
```

The following settings are available:

Setting	Description/Options
Alarm	Alarm contact being configured. Use **Page Left** (*Auxiliary On*) and **Page Right** (*Auxiliary Off*) to display the contact numbers.
Video Select	Video displayed when the alarm contact is activated. The number may represent a real camera number, pseudo camera number, or salvo.
Dwell (Sec)	Time in seconds (1-61) the alarm will be displayed on screen during sequence queuing mode.
Pattern Num	The pattern (1-3) displayed in response to the alarm contact. If this field is left blank, no pattern is displayed. **Note:** If a pattern is used, the preset number must be left blank.
Preset Num	The preset (1-96) displayed in response to the alarm contact. If this field is left blank, no preset is displayed. **Note:** If a preset is used, the pattern number must be left blank.
Auxiliary Number	One of the dome outputs that is activated or deactivated in response to the alarm contact. **Note:** Leave this setting blank if you do not want an auxiliary action.
Auxiliary State	The On or Off state of the selected auxiliary.

Setting	Description/Options
Alarm Msg	The alarm message that displays on a monitor in response to the alarm contact. Note: Only monitors 1-8 can display alarm messages.
Paging Send To	The paging profile (1-64) that will be notified in response to an alarm.
Paging Message	The alarm message that is sent to the paging device.
System Output Number	Two direct wired relays that can be either normally open or normally closed. Either of these system outputs can be energized for an alarm contact.
Link	The link field provides the user with the option of linking the video associated with consecutive alarm contacts to form link salvos. Five types of links are available. *N (No):* The next consecutive alarm contact entry is either not linked to the previous entry, or is the last entry in a link salvo. *Y (Yes)*: The next consecutive alarm contact entry is part of a link salvo. *S (Salvo):* The alarm contact entry calls a system salvo. The system salvo number is specified in the video select field. Salvo may also be the last entry of a link salvo. *W (Wired):* The alarm contact entry is a member of a wired set. This means that if any member of the set is activated, all members of the set become activated. By programming a wired set, the user is eliminating the need to physically wire a group of alarm contacts together. Each alarm contact entry in a wired set is handled as a separate, active alarm armed to a monitor. The last entry of a wired set can be "N" or "S". *Wired Group Acknowledge (N*, Y*, S*, W*):* The alarm contact entry is a member of a wired set. When the alarm is manually acknowledged, all members of the wired set will be cleared.

To setup alarms:

1. Select the alarm type (patch panel, RS-232, dome, or video loss) from the *Alarm Setup* menu.
2. Locate the alarm contact (top row) that you want to configure.
3. Enter the *Video Selection*.
   a. Position the cursor at the cross point of the *Alarm* column and the *Video Select* row.
   b. Enter the camera or salvo number and press **Enter** (*Shot*).
4. Enter the *Dwell Time*.
   a. Position the cursor at the cross point of the *Alarm* column and the *Dwell* row.
   b. Enter dwell time between 1 and 61 ("61" = a "hold" state) and press **Enter** (*Shot*).

Note concerning steps 5 and 6: The Pattern and Preset settings cannot be used together. Choose either a pattern or preset, or leave the fields blank for no preset or pattern.

5. If a *Pattern* will be used, do the following:
   a. Position the cursor at the cross point of the *Alarm* column and the *Pattern* row.
   b. Enter the pattern number (1-3) and press **Enter** (*Shot*).
6. If a *Preset* will be used, do the following:
   a. Position the cursor at the cross point of the *Alarm* column and the *Preset* row.
   b. Enter the preset number (1-96) and press **Enter** (*Shot*).
7. Configure the *Auxiliary* setting.
   a. Position the cursor at the cross point of the *Alarm* column and *Auxiliary* number row.
   b. Press **Enter** (*Shot*) to cycle through the auxiliary states: *1-4 On*, *1-3 Off*, and *0* (disabled).
   c. Press **Next** when the correct auxiliary state is displayed.
8. Enter the *Alarm Message* number.
   a. Position the cursor at the cross point of the *Alarm* column and *Alarm Msg* row.
   b. Enter the alarm message number (1-250), and press **Enter** (*Shot*).
9. Enter the *Paging* information.
   a. Position the cursor at the cross point of the *Alarm* column and *Send To* row.
   b. Enter a paging profile number (1 to 64), and press **Enter** (*Shot*).
      The cursor moves to the *Message* field.
   c. Enter the alarm message number (1 to 250), and press **Enter** (*Shot*).

10. Configure the *System Output*.

   a. Position the cursor at the cross point of the *Alarm* column and *System Output Number* row.

   b. Press **Enter** (*Shot*) to cycle through the possible selections: *1 (energized)*, *2 (energized)*, or *0 (no relay selected)*.

   c. When the correct system output state is displayed, press **Next** to advance to the next field.

11. Configure the *Link* setting.

   a. Position the cursor at the cross point of the *Alarm* column and *Link* row.

   b. Press **Enter** (*Shot*) to cycle through the choices:

Setting	Description
N	No. Does not link to the next consecutive alarm contact.
Y	Yes. Links to the next consecutive alarm contact.
S	Salvo. Displays the system salvo indicated in the Video Selection field in response to an alarm contact.
W	Wired Set. Set of alarm contacts configured such that if any member of the set is activated, all members of the set will be activated.
N * *Y ** *S ** *W **	Wired Group Acknowledge. Indicates the alarm contact entry is a member of a wired set. When the alarm is manually acknowledged, all members of the wired set will be cleared.

   c. When the appropriate choice is displayed, press **Next** to advance to the next field.

12. When finished making changes, press **Exit** (*Pattern*) to return to the previous menu.

Associating Alarms to Monitors

Use *Associate Alarms to Monitors* to configure specific alarm types to display on specific monitors.

```
  ASSOCIATE ALARMS TO MONITORS

1    ASSOCIATE PATCH PANEL ALARMS
2    ASSOCIATE RS-232 ALARMS
3    ASSOCIATE DOME ALARMS
4    ASSOCIATE VIDEO LOSS ALARMS
```

Each of the four alarm types (patch panel, RS-232, dome, and video loss) can have up to 10 monitor/alarm tables that can be programmed for different associations appropriate for different times of day. These tables are linked to times through the *Switching/Event Timers* menu.

Once an alarm type is selected for configuration, a screen similar to the following is displayed.

```
ASSOCIATE PATCH PANEL            TABLE —
ALARM  01   02   03   04         MONITOR
0001    N    N    N    N
0002    N    N    N    N
0003    N    N    N    N
0004    N    N    N    N
0005    N    N    N    N
0006    N    N    N    N
0007    N    N    N    N
0008    N    N    N    N
0009    N    N    N    N
0010    N    N    N    N
0011    N    N    N    N
0012    N    N    N    N
0013    N    N    N    N
0014    N    N    N    N
0015    N    N    N    N
0016    N    N    N    N
```

Use **Page Up**, **Page Down**, **Page Right** and **Page Left** to display the monitors and alarm contact numbers.

To configure an alarm contact table:

1. Move the cursor to the **Table** position. Enter the alarm contact table number (**1-10**) if the table will be used with event timers.

   Note: If the default table is to be used, do not enter table number.

2. Associate alarms to monitors.

   a. Position the cursor at the cross point of the **Monitor** column and **Alarm** row.

   b. Press **Enter** (*Shot*) to toggle the setting.

N	No association between the alarm contact and monitor.
Y	Alarm association between the alarm contact and monitor.

   c. When the correct auxiliary state is displayed in the number and state rows, press **Next**.

   d. Repeat steps 2a-2c for each association you want to make.

3. When finished making changes, press **Exit** (*Pattern*) to return to the previous menu.

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BSL 07/2004