

**Multi  
Tasker™**

MANUAL PART NUMBER: 400-0391-002

**MT106-110**

**MPEG PLAYER WITH MEMORY CARD**

**FOR MULTI-TASKER™**

**USER'S GUIDE**

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## PRECAUTIONS / SAFETY WARNINGS 1

Please read this manual carefully before using your **MT106-110**. Keep this manual handy for future reference. These safety instructions are to ensure the long life of your **MT106-110** and to prevent fire and shock hazard. Please read them carefully and heed all warnings.

### 1.1 GENERAL

- Qualified ALTINEX service personnel, or their authorized representatives must perform all service.

### 1.2 INSTALLATION

- To prevent fire or shock, do not expose this unit to rain or moisture. Do not place the **MT106-110** in direct sunlight, near heaters or heat radiating appliances, or near any liquid. Exposure to direct sunlight, smoke, or steam can harm internal components.
- Handle the **MT106-110** carefully. Dropping or jarring can damage the card.
- Do not pull the cables that are attached to the **MT106-110**.
- Insert the card carefully into the slots of the Multi-Tasker™ without bending any edges.

### 1.3 CLEANING

- Clean only the connector area with a dry cloth. Never use strong detergents or solvents, such as alcohol or thinner. Do not use a wet cloth or water to clean the card. Do not clean or touch any component or PCB.

### 1.4 FCC / CE NOTICE

- This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

- This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.
- Any changes or modifications to the unit not expressly approved by ALTINEX, Inc. could void the user's authority to operate the equipment.

## ABOUT YOUR MT106-110 2

### MT106-110 MPEG Player with Memory Card

The **MT106-110** is an MPEG-2 player designed to display digital images or movie clips on VGA or composite video display devices such as LCD and plasma screens. The typical use for this product would be in digital signage, POP, training support, events, meetings, interactive kiosks and other areas where digital information needs to be displayed and a computer source is not available.

In addition to the MPEG-2 format, the card supports MPEG-1, JPEG and MP3 file formats, which are stored on High Speed Compact Flash cards. The **MT106-110** accepts flash cards ranging in size from 128MB up to 1GB. At 1GB, the **MT106-110** is capable of playing video/audio clips totaling up to 30 minutes in length.

Output formats include VGA or Composite Video, and stereo audio. The **MT106-110** recognizes up to 99 tracks and may be programmed for loop play or single track play. Loop mode is ideal for situations where no manual interference is needed or desired. The **MT106-110** may be programmed to loop on track one only, or to loop through all tracks. Additionally, for further control, the user may play a single, addressable track.

The **MT106-110** supports all standard video control including PLAY, STOP, PAUSE, NEXT and PREVIOUS commands. Additionally, audio control is included with the **MT106-110**. The output volume may be increased, decreased or muted for greater user control.

The HelpInside™ feature allows programmers to have access to command structures and control of the **MT106-110** from any terminal.

The **MT106-110** also has Menu driven protocol implemented for easier RS-232 control, which eliminates the requirement of typing lengthy commands for output adjustments.

400-0391-002

## TECHNICAL SPECIFICATIONS 3

FEATURES/DESCRIPTION	MT106-110
<b>GENERAL</b>	
<b>Inputs</b>	
High Speed Compact Flash Media Card	(1) Type II Slim FAT Formatted*, 128MB minimum
<b>Outputs</b>	
Composite Video	(1) RCA Female
Stereo Audio (L and R)	(1) RCA Female
VGA	(1)15-pin HD Female
<b>Compatibility</b>	MPEG-1, MPEG-2 at 640 x 480
	MP3 Standard
	JPEG 640 x 480

Table 1. **MT106-110** General

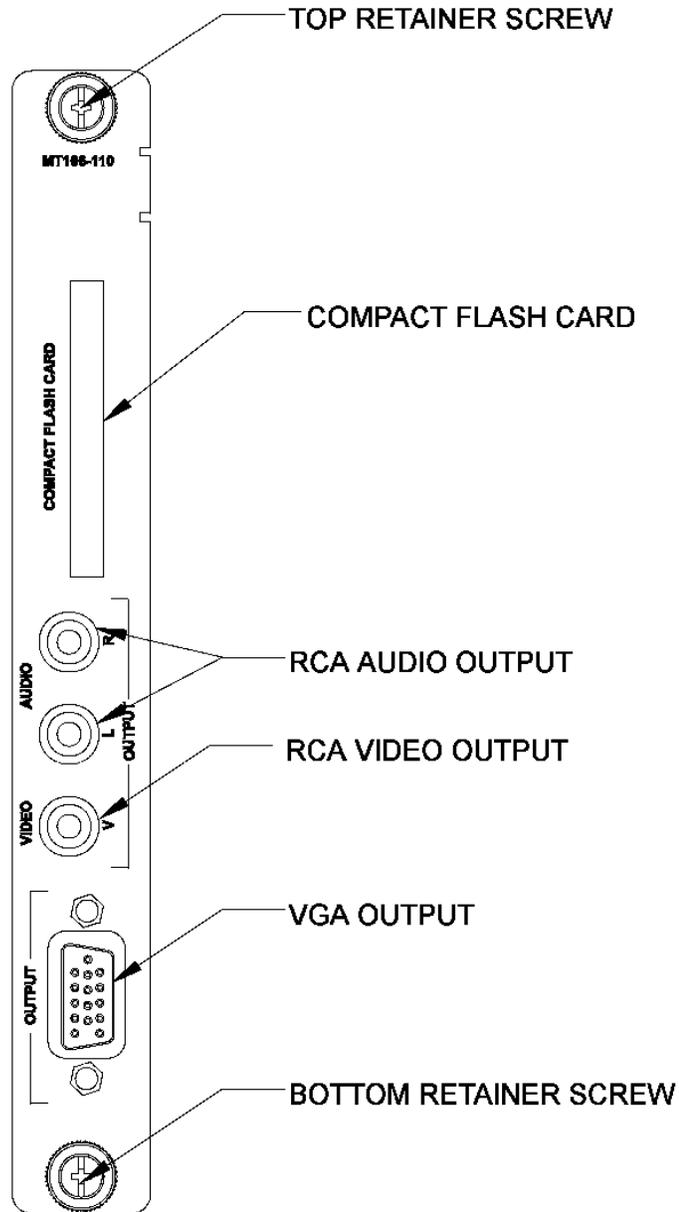
MECHANICAL	MT106-110
Basic Enclosure Slots Required	One
Weight	1.0 lb (0.45 kg)
Connector Panel	Black
T° Operating	10°C to 35°C
T° Maximum	0°C to 50°C
Humidity	90% non-condensing
MTBF (calc.)	40,000 hrs

Table 2. **MT106-110** Mechanical

ELECTRICAL		MT106-110	
<b>Input Audio/Video</b>			
Digital		Compact Flash	
<b>Output Video Signals</b>			
Analog		NTSC/PAL	
<b>Output Audio Signals</b>			
Stereo		Line Level	
<b>Power</b>			
Power from MT100-100	<b>+6V</b>	<b>+12V</b>	<b>Power Consumption</b>
MT106-110	70 mA	550 mA	7 watts

Table 3. **MT106-110** Electrical

\* The Compact Flash must be FAT formatted, not FAT32 and not NTFS.



APPLICATION DIAGRAM 5

DIAGRAM 1: TYPICAL CONFIGURATION

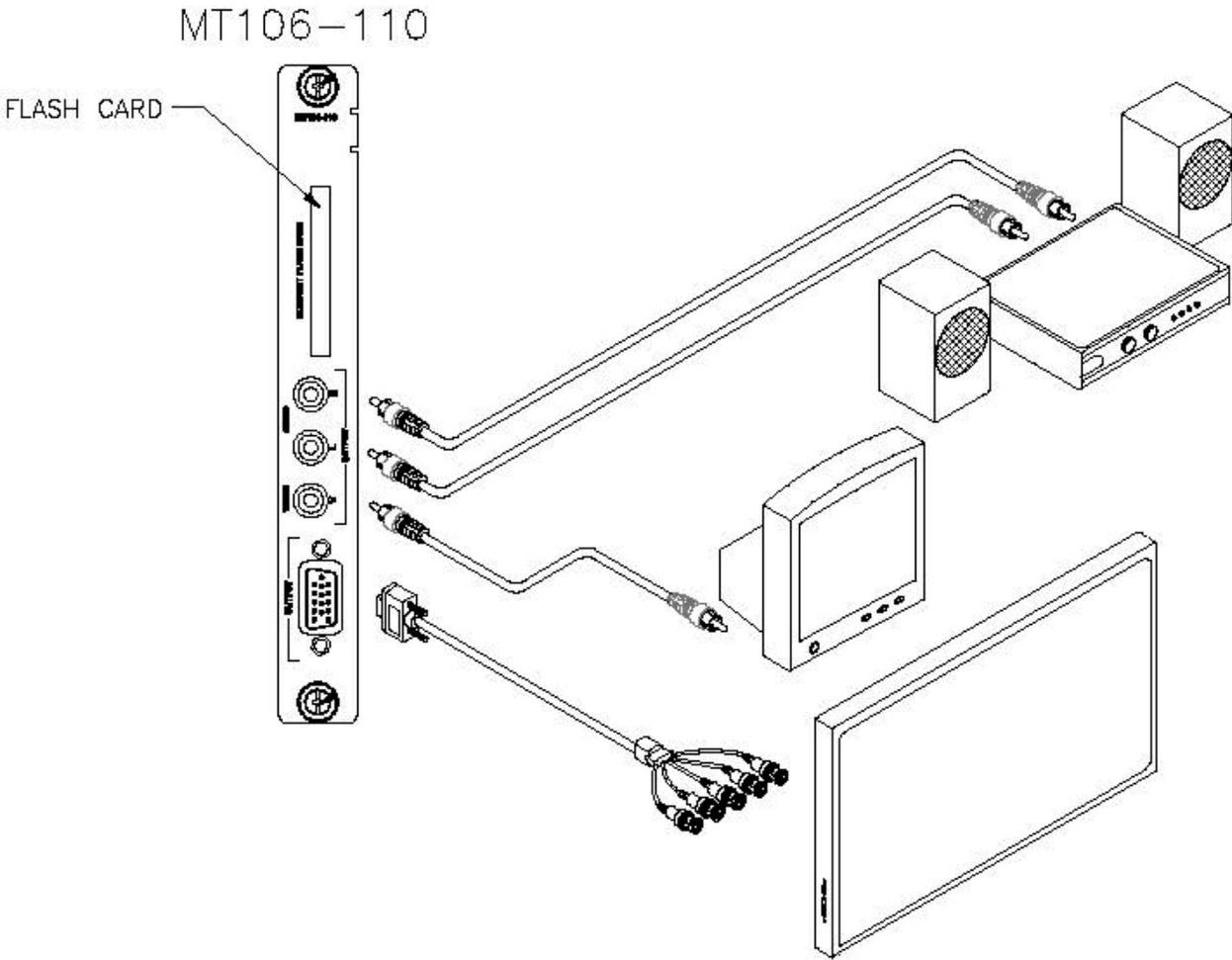
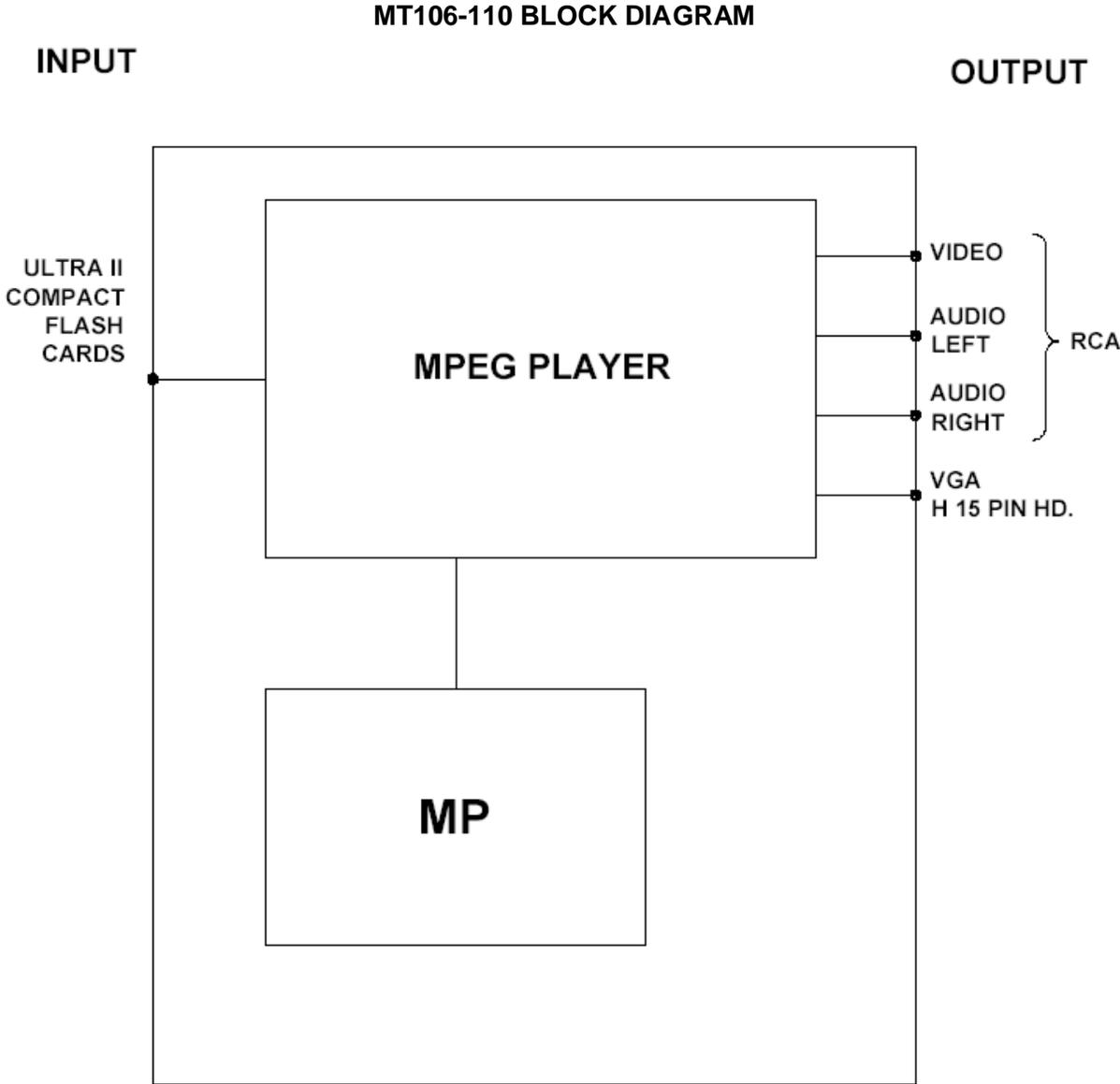


DIAGRAM 2: INTERNAL VIEW



## INSTALLING YOUR MT106-110

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### 6.1 COMPACT FLASH SETUP

#### 1. Compact Flash Format

The compact flash must be FAT formatted. Do NOT format FAT32 or NTFS.

#### 2. File Formats and Extensions

The **MT106-110** is capable of playing MPEG-I, MPEG-II, MP3 and JPEG files. The recognized file extensions are MPG, MP3 and JPG.

#### 3. File Names

The **MT106-110** sorts file names alphanumerically. The first file automatically becomes Track 001. The best practice is to add the desired 3-digit track number to the original file name as a prefix. For example:

001\_filename.mpg (track 1 or menu track)

001\_filename.mp3 (track 2)

002\_filename.jpg (track 3)

#### 4. Multiple File Types

The **MT106-110** is capable of playing MPEG-I, MPEG-II, MP3 and JPEG files. Different file types may be loaded on the same flash card. The files will be recognized in order of the file name, not the file extension.

#### 5. Compact Flash Size

File size is limited to the size of the compact flash. The recommended minimum compact flash size is 128MB.

#### 6. Image Resolution

The recommended resolution of both JPEG and MPEG files is 720x480. Larger files will be accepted, but only partial images will be displayed.

### 6.2 CREATING IMAGE FILES

There are many different MPEG converter software packages available on the market. In order to create the correct files, your software has to be able to output MPEG-1 or MPEG-2 files. Although there are many good software packages that may be used, Altinex recommends AVOne Gold MPEG Converter for the **MT106-110**.

[http://www.mpgdvd.com/avone\\_gold](http://www.mpgdvd.com/avone_gold)

<http://www.mpgdvd.com/download.htm>

The above software package does not have too many options and makes creating compatible files much easier and reliable.

1. Select the input file (typically a .AVI file)
2. Select the output format

Note: MPEG Output

The software will select the original pixel size and aspect ratio of the source file. Manual adjustments may be made, but are not recommended, since this may effect the usability of the output file.

3. Press File Convert to start encoding

Altinex recommends PhotoShop 7.0 to create JPEG files. JPEG files should have a fixed format of 720x480 pixels and 600 dpi. Set JPEG options to maximum image quality (12) and format option to Baseline ("Standard").

A number of different sample files are supplied on the Flash Memory card delivered with the **MT106-110**.

## 6.3 MT106-110 INSTALLATION

- Step 1.** Slide the **MT106-110** into an available slot in the Multi-Tasker™ Basic Enclosure in order to connect to the bus. The card should fit snugly into place. Secure the card by tightening the top and bottom retainer screws.
- Step 2.** Insert a High Speed Compact Flash Card containing valid MPEG, JPEG or MP3 files into the flash card slot on the **MT106-110**.
- Step 3.** Starting from the left, identify the slot number where the **MT106-110** card is plugged into the Enclosure and note that it is for RS-232 control.
- Step 4.** Connect the audio outputs on the **MT106-110** to the input of a stereo amplifier or powered speakers using RCA type cables.
- Step 5.** Determine the video output type, either VGA or Composite Video. Connect a cable from the **MT106-110** output port to the display device.
- Step 6.** In MTSetup, use the following steps to set the port:
1. Turn ON the enclosure power.
  2. Send one of the following commands:  
 [OUT1Cn] for VGA  
 [OUT2Cn] for Composite  
 n = card slot number
  3. Turn the enclosure power off and then back on again. Playback will begin automatically.

**NOTE:** The **MT106-110** should begin playback a few seconds after power up. When changing flash cards, turn off the enclosure power prior to removing the flash card. Insert the new card and turn power back on.

## OPERATION

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### 7.1 RS-232 CONTROL

When used in the Multi-Tasker™ Basic Enclosure, the **MT106-110** has many advanced remote control capabilities, which are accessible through standard RS-232 communication. The actual controlling can be accomplished through a computer control system or any other device capable of sending RS-232 commands.

#### 7.1.1 RS-232 INTERFACE

The RS-232 commands, for the **MT106-110**, are in a simple ASCII character format.

1. Square brackets “[ ]” are part of the command.
2. Use uppercase letters for all commands.

After processing a command, an OK or ER will be returned as feedback if "F" is included at the end of a command string.

#### 7.1.2 RS-232 COMMAND RESPONSE

The MPEG player is not a multi-function device. Priorities are given to playback and loading of video clips. Therefore, at times, it may be necessary to send a command more than once before the card responds. This most likely will occur during playback when the MPEG player is busy with image processing.

### 7.2 DESCRIPTION OF COMMANDS

Each command consists of three parts: Function, Card ID, and Unit ID.

[ Function , Card ID , Unit ID ]

Example: [VERC3U2]

VER = Function

C3 = Card ID

U2 = Unit ID

For Function, see a detailed explanation under each command description.

The Card ID is an assigned value. It is equal to the enclosure slot number in which the card is installed. The value can range from 1 to 4, up to 1 to 20, depending on the enclosure.

Card ID 0 (C0) is used for the controller. See the **MT100-100** User's Guide for details.

Changing the position of a card will significantly affect the commands recorded on software definitions or third party control systems.

The Unit ID has a value from 0 to 9. Unit ID 0 should be used for single unit operation. If the Unit ID is set to zero, each command may be used without Ui. Use the command [SETU0], as explained in the MT100-100 User's Guide.

Example:

[VERC3]: For Unit ID Zero  
[VERC3Ui]: For Unit ID other than Zero  
[VERC3]: Equivalent to [VERC3U0]

At times, it may be necessary to send a command more than once before the card responds. This may happen during playback when the MPEG player is busy with image processing.

## 1. [VER]

This command displays the software version and card type for the card.

Command Format: [VERCnUi]

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

Send the command **[VERC2]** to check the version of the **MT106-110** in slot 2. The system will return the following feedback:

MT106-110 690-0192-001

MT106-110 = card type

690-0192-001 = software version

## 2. [C]

This command receives the status of the card.

Command Format: [CnUi]

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = 0 to 9)

Example:

There is one **MT106-110** card in slot #4. Sending the command [C4] to the Multi-Tasker™ will yield feedback similar to the following depending on the card settings:

MODE: REPEAT TRACK 1

OUTPUT: VGA

AUDIO VOLUME: 16

MUTE: OFF

If there is no card in slot #4, sending the [C4] command will not return any feedback.

## 3. [CnS]

This command saves the card settings for volume, output and mode. These settings will be restored after the system is reset or powered off and then on.

Cn = card number

S = save configuration

Example:

Save the settings for the card in slot #4. Send the command [C4S] and the feedback will look the same as the status command and be similar to the following:

MODE: REPEAT TRACK 1

OUTPUT: VGA

AUDIO VOLUME: 16

MUTE: OFF

NOTE: The MUTE setting is not saved. After RESET or power up, MUTE is OFF.

## 4. [CLR]

This command resets all parameters to factory defaults.

Command Format: [CLRCnUi]

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

Send the command [CLRC4] to reset the card in slot #4.

## 5. [OUT]

This command selects the output port, either VGA or Composite Video. It is necessary to stop playback prior to changing the output port. Then start playback again after the port has been changed.

Command Format: [OUTmCnUi]

m = Output (1 = VGA, 2 = Composite)

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

There is an **MT106-110** in slot #2. Perform the following steps to change output types:

1. Use the [STOPC2] command to stop playback.
2. Send the command [OUT1C2] to select VGA output.
3. Send the command [PLAYC2] to begin playback. Other commands may be used before the [PLAY] command in order to go to a specific track.

## 6. [MODE]

This command sets the mode for playing tracks repeatedly, either all tracks or just the first track.

Command Format: [MODEmCnUi]

m = Mode ( m = 0 or 1 )  
0 = MENU, play track 1 repeatedly  
1 = REPEAT, play all tracks

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

There is an **MT106-110** in slot #2. In order to have the menu track played repeatedly, send the command [MODE0C2].

## 7. [PLAYT]

This command sets and plays a specified track number.

Command Format: [PLAYTmCnUi]

m = Track (m = # from 1 to 99)

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

There is an **MT106-110** in slot #7. In order to select and play track 11, send the command [PLAYT11C7].

## 8. [MUTE]

This command is used to mute the output volume off and on.

Command Format: [MUTEpCnUi]

p = Mute Mode (p = 0 or 1)  
0 = Mute OFF  
1 = Mute ON, no output volume

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

There is an **MT106-110** in slot #4. In order to mute the output volume, send the command [MUTE1C4].

## 9. [SEL]

This command is used to select the card output volume for adjustment and must be followed by the [+] or [-] commands. Once another command is sent, the output volume adjustment is no longer active.

Command Format: [SELCnUi]

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

See the [+] and [-] commands.

## 10. [+] and [-]

These commands are used to adjust the output volume and may be used from keyboard commands or programmed front panel buttons.

Command Format: [+], [-]

[+] = Increment level by one step

[-] = Decrement level by one step

Example:

Select the volume control for the card in slot #8. The current volume level is 5, but it is not the optimal value. After sending the following commands, an optimum volume level of 9 is obtained:

1. [SELC8]  
The current level is 5.
2. [-][-][-]  
The level is now 2 and is too low.
3. [+][++][+][+][+][+][+]  
The level is now 9 and no further adjustments are required.

## 11. [VOLA]

This command is used to set the output volume level to a specified level.

Command Format: [VOLAvCnUi]

v = Volume (v = # from 0 to 16)

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

There is an **MT106-110** in slot #7. In order to set the output volume to the maximum level of 16. Send the command [VOLA16C7].

## 12. [PLAY]

This command plays the current track.

Command Format: [PLAYCnUi]

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

There is an **MT106-110** in slot #7. In order to play the current track, send the command [PLAYC7].

## 13. [PAUSE]

This command pauses the video output on the current track.

Command Format: [PAUSECnUi]

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

There is an **MT106-110** in slot #7. In order to pause the output, send the command [PAUSEC7].

## 14. [STOP]

This command stops the video output.

Command Format: [STOPCnUi]

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

There is an **MT106-110** in slot #7. In order to stop play, send the command [STOPC7].

## 15. [NEXT]

This command skips to the next track and plays that track.

Command Format: [NEXTCnUi]

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

There is an **MT106-110** in slot #7 playing track #4. In order to skip to track 5 and begin playing that track, send the command [NEXTC7].

## 16. [PREV]

This command returns to the previous track and plays that track.

Command Format: [PREVCnUi]

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

There is an **MT106-110** in slot #7. In order to return to the previous track, send the command [PREVC7].

## 17. [HELP]

This command displays information available for the Multi-Tasker interface commands.

Command Format: [HELPCnUi]

Cn = Card ID (n = # from 1 to max slots)

Ui = Unit ID (i = # from 0 to 9)

Example:

In order to display the RS-232 commands available for the **MT106-110** card in slot #2, send the command [HELPC2]. The commands along with a brief description will be displayed in the Terminal Window.

## 18. [STA]

This command enables and disables automatic feedback from the front panel. The command affects any card with auto-feedback capability, not just the **MT106-110**. The default at power on or reset is '0', or OFF. The feedback will only be displayed if the parameter value is changed.

Command Format [STA1] = ON

Command Format [STA0] = OFF

NOTE: The CLR command returns feedback on each parameter as in the following line:

+ON10C04+MO1C04+VO10C04

Feedback Prefix Definitions:

+ON	ON/OFF	[OUT]
+MO	Mode	[MODE]
+MU	Mute	[MUTE]
+VO	Volume	[VOLA]

Example 1:

Command = [OUT1C4]

Feedback = +ON01C04

+ON = ON/OFF Setting

01 = 10=C-Video, 01=VGA

C04 = Card/Slot number

Example 2:

Command = [MUTE1C4]

Feedback = +MU1C04

+MU = Mute

1 = ON (0=OFF)

C04 = Card/Slot number

Example 3:

In example 2, the command to mute the output volume is sent again when the output volume is already muted. In this case, there will be no feedback.

Command = [MUTE1C4]

Feedback = n/a

## 19. [WR]

This command groups multiple cards in the Enclosure. Each unit may define a maximum of eight groups. In Multi-Tasker™ systems with audio and video cards, boards are typically grouped as follows:

Group 1 = Video Cards

Group 2 = Audio Cards

Group 3 = Video and Audio Cards

Command Format: [WRCn...GkUi]

Cn = Card ID (n = slot # from 1 to max slots)

Gk = Group number (k = # from 1-8)

Ui = Unit ID (i = # from 0-9)

Example:

To group cards 1, 2, and 3 as group 5 of Unit ID 1, send the command [WRC1C2C3G5U1]. After executing this command, cards 1, 2 and 3 will be grouped together as group 5 of Unit ID 1. The system will return the following feedback:

G1=C1C2C3

Sending commands to a group is the equivalent to sending the same command to each card in the group individually.

## 20. [CLRG]

This command clears the members for a single group or for all groups. The clear command restores the cards to default settings.

Command Format: [CLRGkUi]

Gk = Group number (k = # from 1-8)

Ui = Unit ID (i = # from 0-9)

Example:

- 1) To clear group 1, send the [CLRG1U1] command. This command clears the members for the specified group only.
- 2) To clear all groups of Unit ID 1, send the [CLRG[U1] command.

**NOTE:** Since this command is sending the [CLR] command to its group members, each card will display its own reset message if any.

## 21. [RD]

This command displays the members in each group.

Command Format: [RDGkUi]

Gk = Group number (k = # from 1-8)

Ui = Unit ID (i = # from 0-9)

Example:

The cards in slots 1, 2 and 19 are part of group 5 in Unit ID 1. Read the member data for group 5, by sending the command [RDG5U1]. The system will return feedback as follows:

G1=C1C2C19

The feedback shows G1 (Group 1) and then the cards that make up Group 1. In this case, Group 1 includes C1, C2 and C19.

## 22. [CLM]

This command removes the members in a group and leaves the group empty.

Command Format: [CLMGkUi]

Gk = Group number (k = # from 1-8)

Ui = Unit ID (i = # from 0-9)

Example:

Group 5 of Unit ID 1 contains the cards in slots 1, 2 and 19. Read the member data for group 5 of Unit ID 1. Send the command [RDG5U1] and receive the following feedback:

G1=C1C2C19

Now, clear group 5 by sending the command [CLMG5U1]. Reread the member data as above and note the following feedback:

G1=EMPTY - PLEASE RESET THE SYSTEM WHEN FINISHED

## 7.3 SUMMARY OF COMMANDS

### Card Commands

- 1) [VER]      **Receives software version**
- 2) [C]        **Receives status of the card**
- 3) [CnS]     **Save card settings**
- 4) [CLR]     **Resets card to defaults**
- 5) [OUT]     **Select output port**
- 6) [MODE]   **Select display mode**
- 7) [PLAYT]   **Select and play a track**
- 8) [MUTE]   **Toggle mute ON and OFF**
- 9) [SEL]     **Set output for volume adjust**
- 10) [ + ]     **Increments and Decrements**  
    [ - ]     **output volume**
- 11) [VOLA]   **Sets absolute audio volume**
- 12) [PLAY]   **Play the current track**
- 13) [PAUSE]   **Pause video output**
- 14) [STOP]   **Stop video output signal**
- 15) [NEXT]   **Plays the next track**
- 16) [PREV]   **Play the previous track**
- 17) [HELP]   **Display available commands**
- 18) [STA]    **Enable/disable auto feedback**

### Group Commands

- 19) [WR]     **Group multiple cards**
- 20) [CLRG]   **Clear group configurations**
- 21) [RD]     **Display group member**
- 22) [CLM]    **Remove group members**

## 7.4 MENU MODE

MENU MODE commands are RS-232 commands that allow virtually the same functionality as programming commands. Unlike the programming commands in the previous sections, 7.2 and 7.3, MENU commands prompt the user to select from a list of available options. The system then responds based upon selections made by the user.

MENU commands may be issued in response to prompts from within MTSetup™ or other RS-232 communication software.

The MENU driven commands are only available with Multi-Tasker™ Front Panel systems that have the following firmware:

690-0122-015 = Version 015 or later.

690-0123-004 = Version 004 or later.

690-0124-015 = Version 018 or later.

NOTE: In MTSetup™, send the command [VER] from the Terminal Window. The system will respond with feedback similar to the following:

[690-0122-015 690-0123-004 690-0124-018]

Check the last three digits against the numbers above to determine if the MENU MODE option is available.

MENU	COMMAND
Output Select	[OUT]
Mode Select	[MODE]
Audio Setup	[SEL]
+	[ + ]
-	[ - ]
MUTE	[MUTE]
Play Track	[PLAYT]
Play	[PLAY]
Pause	[PAUSE]
Stop	[STOP]
Next	[NEXT]
Previous	[PREV]
Version	[VER]
Status	[C]
Help	[HELP]
Not Available	[CnS], [CLR], [VOLA]

## 7.4.1 MENU COMMAND DEFINITIONS

Refer to section 7.2 for details on card functions and examples. The preceding table is a cross-reference of menu mode sections versus programming commands.

## 7.4.2 USING MENU MODE

**SUGGESTION:** Before using the menu mode, it is best to disable the automatic feedback feature. The values and current settings will be displayed in the menu mode, but the automatic feature will display after each setting change and may make the menus difficult to read.

1. In order to enter MENU mode, the system needs to be connected to a computer running MTSetup™ or other RS-232 control software.
2. Insert the card into an empty slot and push in all the way for a secure fit.
3. Reset the system or power the system OFF and then ON.
4. In MTSetup™, click in the Terminal Window and press the ENTER key.
5. The system will interrogate the enclosure and return a list of cards installed and their slot locations.

Example: 8 (Slot 8): **MT106-110**

NOTE: Only cards supporting the MENU feature will be displayed.

5. Find the alphanumeric character representing the card requiring changing. It will be the first character in the line.
6. Press the number or letter associated with the card, and a menu with options available for that card will appear on the screen. In the example above, press "8".

**WARNING:** Do NOT enter any characters except the one relating to the desired menu. Pressing ENTER or RETURN will force the system to the original prompt.

7. After selecting the **MT106-110** as described above, the system will prompt for selections specific to that card.
8. Read each menu carefully, and continue selecting keys as prompted for further functions.

## 7.4.3 MENU TYPES

### 1. MAIN MENU

The first menu displayed after selecting the card is the Main Menu. This menu provides access to the main functions related to the card. Press the key representing the menu item for access. A sub menu will appear next.

### 2. SUB MENUS

Each sub menu will display either another menu (sub menu) or a list of available options or settings. Press the key corresponding to the menu choice to change a setting or select the next menu.

**NOTE:** Pressing the ESCAPE (ESC) key in most menus will take you to the previous menu.

## 7.4.4 MT106-110 MENUS

Following are the menus available to the **MT106-110**. The first menu is the Main Menu only. The second listing is an expansion of all the menu items available.

The expanded menu contains values in parentheses that indicate the current setting or value of that parameter. In some areas, additional comments are provided for clarification.

Some menu settings act as toggle features. For example, in the Audio Setup menu, under Audio Volume is the MUTE ON/OFF feature. After selecting MUTE, the only prompt will be to enter '1'. If MUTE is on, selecting '1' will turn it off. If mute is off, selecting '1' will turn it on. In short, pressing 1 repeatedly toggles MUTE on and off.

NOTE: The OUTPUT SELECT menu is used to change the output between VGA and Composite Video. Before using this feature, make sure the card and the menu are synchronized per the instructions in the expanded menu. Once synchronized, select STOP to halt playback before changing the output, then select PLAY to restart playback.

## MT106-110 MAIN MENU

- 1: OUTPUT SELECT (VGA)
- 2: MODE SELECT (REPEAT TRACK 1)
- 3: AUDIO SETUP (VOLUME 16 MUTE OFF)
- 4: PLAY TRACK
- 5: PLAY
- 6: PAUSE
- 7: STOP
- 8: NEXT
- 9: PREVIOUS
- A: VERSION
- B: STATUS
- C: HELP
- ESC: GO BACK

## MT106-110 EXPANDED MENUS

1: OUTPUT SELECT (VGA)  
It may be necessary to synchronize the menu with the current display setting. If the value in "( )" is VGA and the actual output is Video, select TOGGLE OUTPUT until the menu matches the actual port setting.

- 1: VIDEO
  - 2: VGA
  - 3: TOGGLE OUTPUT
  - ESC: GO BACK
- 2: MODE SELECT (REPEAT TRACK 1)
- 1: REPEAT TRACK 1
  - 2: REPEAT ALL TRACKS
  - ESC: GO BACK

3: AUDIO SETUP (VOLUME 16 MUTE OFF)  
AUDIO VOLUME (16)

- 1: +
- 2: -
- 3: MUTE (ON)  
MUTE (ON)  
1: OFF  
ESC: GO BACK

ESC: GO BACK

4: PLAY TRACK  
PLAY TRACK  
1: PLAY TRACK 1  
2: PLAY TRACK 2  
...  
K: PLAY TRACK 20  
ESC: GO BACK

- 5: PLAY
- 6: PAUSE
- 7: STOP
- 8: NEXT
- 9: PREVIOUS
- A: VERSION

Equivalent to the [VER] command and returns the card number and firmware revision.

B: STATUS  
Equivalent to the [C] command and returns the card status.

C: HELP  
Equivalent to the [HELP] command and displays a list of commands available for the **MT106-110** along with a brief description.

ESC  
ESC returns to the parent menu.

## 7.4.5 MENU MODE EXAMPLES

All MENU MODE examples assume an **MT106-110** is installed in slot #1. Start by clicking the mouse in the Terminal window. Press ENTER and a list of available cards will be displayed.

### 1. Select the Output

Follow the keystrokes below while monitoring the output display to select the VGA output.

```
Enter  List available cards
1      Select MT106-110 in slot #1
1      Select OUTPUT SELECT menu
3      Select TOGGLE until the output signal
       is on the VGA port.
ESC    Return to the MAIN Menu
```

### 2. Increase the Volume

The volume level is starting at level 10. Increase the volume level to 13. In order to do this, start from the main menu and follow the keystrokes below.

```
3      Select AUDIO SETUP Menu
1      +
1      +
1      +
ESC    Return to the MAIN Menu
```

### 3. Select and Play a Track

Starting from the main menu, select and play track 9. Follow the keystrokes below.

```
4      Select PLAY TRACK Menu
9      Select and play track 9
ESC    Return to the MAIN Menu
```

### 4. Display Card Status

Starting from the Main Menu, follow the keystrokes below.

```
B      Displays card status
```

## TROUBLESHOOTING GUIDE

**8**

We have carefully tested and have found no problems in the supplied **MT106-110**. However, we would like to offer suggestions for the following:

### 8.1 NO DISPLAY

#### Cause 1: The card output is not selected.

*Solution:* Select the card output. See **INSTALLING YOUR MT106-110** and see RS-232 accessible commands in Section 7. If no display is present, see Cause 2.

#### Cause 2: Cable connections are incorrect.

*Solution:* Make sure that cables are properly connected. Also, make sure that the continuity and wiring are good. If there is still no display present, see Cause 3.

#### Cause 3: The flash card has a problem.

*Solution:* Make sure the flash card is plugged in all the way. If there is still no display, see Solution 2.

*Solution 2:* Make sure the flash card is working or use a known good flash. If there is still no display, see Cause 4.

#### Cause 4: The display has a problem.

*Solution:* Ensure the display has power and is turned on. If there is still no display, please call Altinex at (714)-990-2300.

## ALTINEX POLICY

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### 9.1 LIMITED WARRANTY/RETURN POLICY

Please see the Altinex website at [www.altinex.com](http://www.altinex.com) for details on warranty and return policy.

### 9.2 CONTACT INFORMATION

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