

Dream Player MC User Manual
Version 2.0
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Table Of Contents

1	Overview	2
2	Using the Dream Player MC	3
2.1	3.3V and 5.0 Volt Power Indicator LED's	4
2.2	Status Indicator LED's	4
2.3	PLAY Button.....	4
2.4	PNET Control.....	4
2.5	Trigger Input	4
2.6	Audio Output.....	4
2.7	Power Input	5
2.8	SD Card and Socket	5
2.9	Mode Switches	5
2.10	Creating WAV Files	5
2.11	Loading the SD Card	6
3	Connections	7
3.1	Power Input	7
3.2	Audio Output Connector	8
3.3	Trigger Input Terminal Strip	9
3.4	Mode Switches	12
3.5	PNET Control.....	12
3.6	Mounting Holes.....	12
4	Introducing the CONFIG.TXT File	13
4.1	General Mode Setup.....	14
4.2	Trigger Input Configuration	15
4.3	Control Output Configuration	16
4.4	Track Playback Configuration	17
4.5	Audio Mode Configuration	18
5	Firmware Updates	19
5.1	Updating Your Firmware	19
5.2	Downloading the Firmware Update	19
5.3	How to Update Your Firmware.....	19
6	Problems & Support	20
6.1	Help, I broke it!	20
6.2	E-mail.....	20
6.3	Web Site	20
7	Dream Player Specifications	21



1 Overview

Congratulations!

You have just received an extraordinary device.

The Dream Player MC is the perfect tool for audio playback of multi-channel files without any moving parts. Packed with an extensive array of features while measuring only 3 ½ by 4 ½ inches (90mm X 115mm), this is truly the best product of its kind.

Your audio files are stored on a micro SD Card, readily available at any electronics store as well as through PRICOM Design. We have tested card sizes ranging from 2GB-16GB from a variety of manufactures and have had success with all sizes. This means you could have up to 6 hours of CD quality 8-channel audio playback in your project using a 16GB SD Card. The advantage of using a micro SD Card is that you can mount the MC anywhere and easily change or update the sounds the device plays without having to remove the entire unit from your project.

The Dream Player MC uses a High Fidelity, 24bit, Multi-Channel DAC, to give you high quality audio. The Dream Player MC supports 44.1 KHz, 16bit, 8-Channel, WAV Files.

You can control the MC via external optically isolated controls such as a button or motion sensor directly attached to the board. The MC may also be integrated with external PRICOM Input modules which communicate via the PRICOM Network (PNET). This gives you the ability to have multiple trigger locations and the option to trigger up to 32 individual audio tracks. External PNET Output boards enable control of lamps, LED's, relays, or other animation devices. You can also use a MIDI file for precise control of these devices and complete synchronization with your audio playback.

Another exciting feature of the Dream Player MC is the "CONFIG.TXT" file that is stored on the SD Card. With this file you may change the characteristics of the MC. How long should your fade out be? Should it be 5 seconds? 1 second? None at all? Would you like the sound file to play only while you hold a button? How about starting the track when the button is released and stop playing when pressed again? These are just a handful of configuration possibilities you can control using the CONFIG.TXT file. The best thing about the CONFIG.TXT file is that you can change it at anytime to reflect your ever-changing project needs.

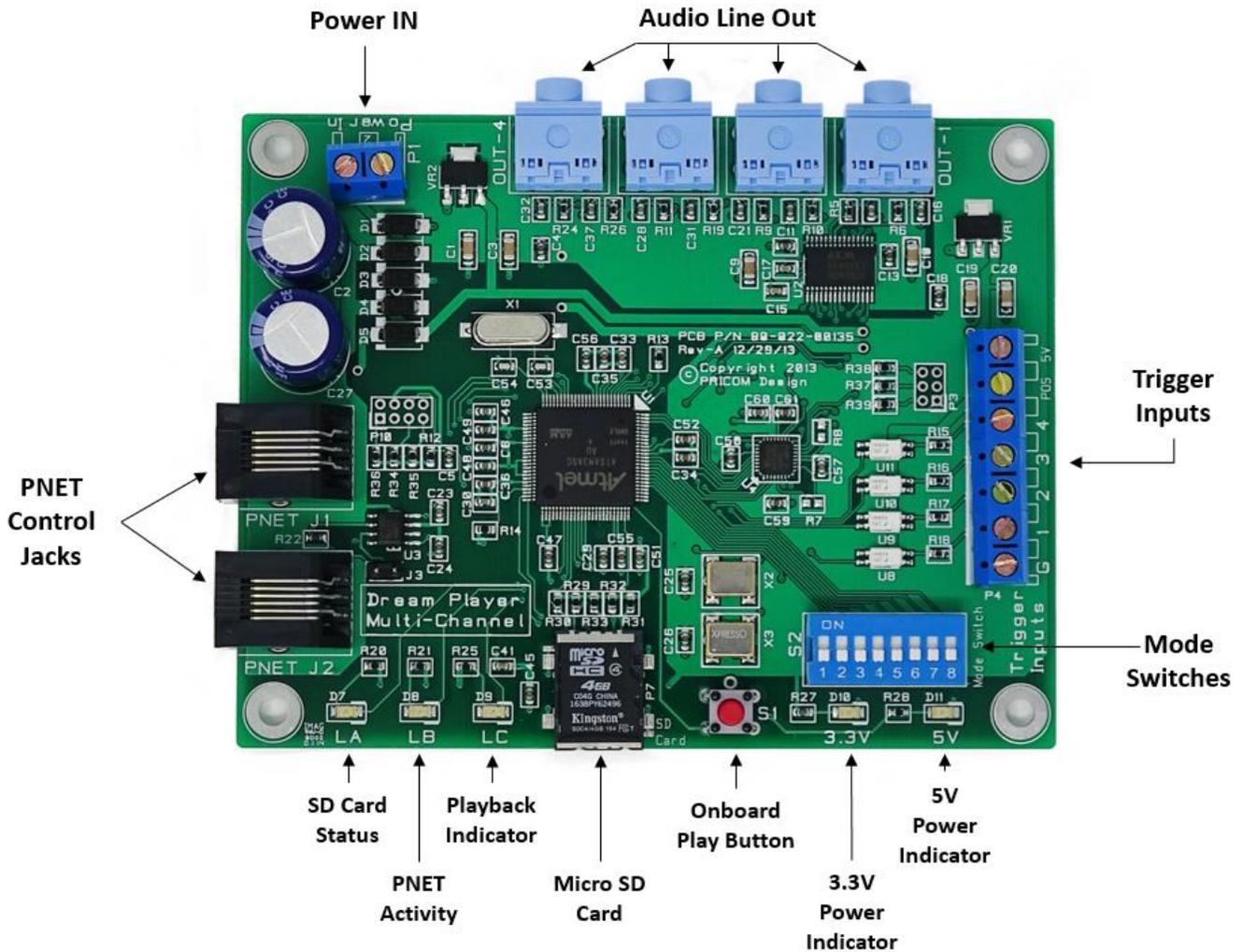
Included with the Dream Player MC packaging is a CD containing sample Audio Files, a sample CONFIG.TXT File, the complete User's Manual, and several other items to make your experience as enjoyable as possible.



2 Using the Dream Player MC

The following pages describe the Configuration and operation of the Dream Player MC. You can make it as simple, or as complicated as you wish. With so many options and Configurations available to you, the possibilities are endless!

THE DREAM PLAYER MC



2.1 3.3V and 5.0 Volt Power Indicator LED's

The Dream Player MC takes your power input and regulates it to both 3.3 and 5.0 volts. Two separate LED's indicate whether sufficient power is present to operate each supply. If both are lit then the MC has ample power, should one or both LED's not illuminate then there may not be sufficient power being supplied to the Dream Player.

2.2 Status Indicator LED's

SD Card Status: This is a Green LED, it will light when the SD Card is properly inserted, and the Dream Player MC is able to read the files on the card.

PNET Activity: When the Dream Player MC receives or sends data over the PRICOM Network (PNET) this Yellow LED will blink, indicating that the MC is communicating over PNET.

Playback Indicator: Whenever the Dream Player MC is playing a file or reading data from the SD Card this Red LED will light up.

2.3 PLAY Button

To play the first Track on the SD card at any time, you can simply hit the PLAY button. If you press the PLAY button when the Dream Player MC is already playing, the sound will fade out and stop, or whatever the settings on the CONFIG.TXT file may be set for. This button is also used to update firmware when a new version becomes available.

2.4 PNET Control

The Dream Player MC may be controlled via external PRICOM trigger boards using PNET, enabling you to individually control up to 32 separate files. PNET boards can also be used to control external devices when a file is playing. The Dream Player MC communicates to the PNET boards using these two 6 wire modular jacks.

2.5 Trigger Input

This input is the way to control the activities of the Dream Player MC. In its factory state, when the Dream Player MC is idle, the trigger input will cause the track to play. While the Dream Player MC is playing a track, any kind of trigger input will cause the current track to fade out. Any of these scenarios may be customized using the CONFIG.TXT file as described later in this manual.

2.6 Audio Output

Audio is supplied by the Dream Player MC through 4 standard 1/8 inch (3.5mm) stereo jacks. You may use any standard powered computer speakers as described in the next section. You can use external amplifiers such as the PRICOM Dream AMP if you are using the Dream Player MC with non-powered speakers.



2.7 Power Input

The MC may be supplied with AC or DC power ranging from 12-18 Volts and will draw about 400ma when playing. The polarity is irrelevant on this board, you may hook up the wires in either position and the device will still power on. The power input is also used to power external PNET Trigger Input boards, so we suggest a 12VDC 2A or 3A power supply.

2.8 SD Card and Socket

Your Audio Content, CONFIG.TXT File, and any firmware updates are loaded onto a Micro SD Card, and then inserted into the SD Card Socket. The connector used on the Dream Players is unique in that the card is loaded from the top and not from the front like standard connectors. One major feature of this style is that it ensures that the card does not accidentally fall out when the device is mounted. You can also mount the edge of your Dream Player MC against another surface since you don't need space to extract the card from the side. To load the card into the connector, simply insert the card into the socket from the top, gently push the card down, away from you and then pull towards yourself. You will feel it when the card is secured. If the card is not properly inserted into the socket, it will pop back up. The only time the card will remain down is when it is correctly inserted into the connector.

2.9 Mode Switches

The Dream Player MC has an on board DIP switch that is used to designate the "slot number" for use with external PNET Trigger Boards. Switches 1-4 will set the number that the PNET will associate with that particular board. For more information about this feature please see the Quick Start Guide for PNET Opto-Input and Output boards.

2.10 Creating WAV Files

Any suitable sound editor can be used to create WAV files. The Dream Player MC will only play 8-channel, 16-bit samples, at a 44.1KHz sample rate. This is the same format used for CD Players and is quite standard. The Dream Player MC also features 8-Channel Audio Playback which can be 4 Stereo Files combined to make a single 8-channel file.

Note: The Dream Player can NOT play MP3 files or other non-wav files.

Please visit the PRICOM Design web site (www.pricom.com), for some ideas and tips on creating your own 8-channel WAV Files. We have sample templates for Audacity, ProTools, Reaper and Adobe Audition. Each of these programs has a different way of handling multi-channel WAV files, but each can export in this format.



When created, ALL 8 channels of audio are contained in a single multi-channel file. This makes it quite convenient and easy to load a very complex file and have very reliable playback from your Dream Player MC.

You must number the audio files loaded onto the SD Card. The Dream Player will understand the numbers '1-', '2-', '3-', '4-', when placed in front of the file name. These numbers indicate to the Dream Player what 'track' they are. If you do not number the files, the Dream Player will not recognize the files, so it is very important to include the "-" at the beginning of the file name.

You can name your files anything you want. For your convenience, you can name the files something sensible like "Mountain Day.wav" on your computer, and then rename the file once it is on the SD Card. A good file name is something like "1-Mountain Day.wav" which would be treated as Track-1.

During normal operation the Dream Player will play track 1 by default when the on-board button is pressed or is triggered from an outside source via the trigger input.

2.11 Loading the SD Card

In order for the Dream Player MC to read your audio files, they must be copied onto your micro SD Card. Any standard SD Card reader attached to any computer can be used. The Dream Player MC will accept most brands of SD Card, in any capacity up to 16GB.

Simply copy your wav files onto the micro SD Card. Keep in mind The Dream Player will not look in any folders or sub-directories for its files. Keep all audio files in the root file of your SD Card.

After you copy the files onto the SD Card a file can be renamed at any time. The MC will accept fragmented cards, meaning you do not have to delete all files off the card before loading your new ones on. For example: If you had 4 tracks on your card and you wanted to change track 2 you would simply delete the old track and put the new one on the card. You do not have to delete and then rewrite ALL the files to the card.



3 Connections

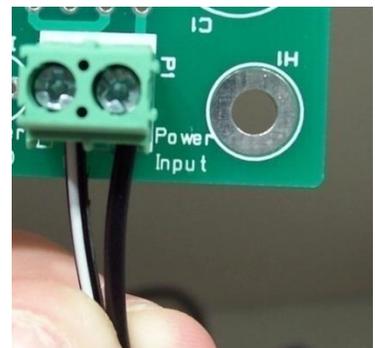
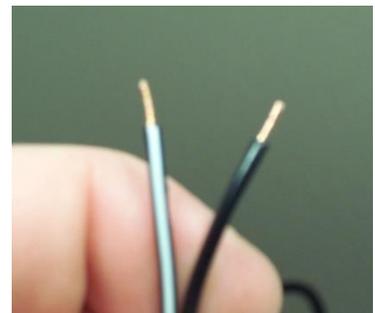
The following section provides detailed instructions for connecting your Dream Player MC. To get started, all you need to do is connect the Power Input, and the Audio Output. If you want to get more advanced you can use the Trigger Inputs.

3.1 Power Input

The Dream Player MC can accept AC or DC power inputs. Typically a wall transformer, or wall-wart is used, but any suitable AC or DC power supply can be used. Any voltage from 12V to 18V AC or DC can be used, but the higher the voltage, the warmer the MC will run. The most efficient voltage to use is 12VDC, especially when used in combination with PNET trigger boards, 12VDC is highly recommended. At this voltage the Dream Player MC will draw about 400mA when playing, so make sure to use a power supply that can supply at least 1A of current. As a convenience to you, we also offer wall-transformer power supplies tested and ready to run with your Dream Player at www.pricom.com

To connect the power supply to the Dream Player MC, locate the 2-position “Power Input” terminal strip.

If your desired power-supply comes with a connector on the end, simply clip it off as shown to the right. Separate the two wires and strip some insulation off to expose the wires then twist them to keep the strands together. Secure the stripped wire ends to the 2 terminals of the Power Input terminal strip. The polarity of an AC or DC power source is not important as there is a bridge rectifier included with the Dream Player MC.



3.2 Audio Output Connector

The Dream Player MC can drive any audio amplifier, powered speakers, or media speakers that you would typically use with a computer. Since the Dream Player MC is an 8-Channel device, you will need 4 sets of Stereo Speakers or amplifiers. Prices of media speakers are quite reasonable and you can obtain them from almost every computer store and electronic outlet. Depending on the quality and volume you are trying to achieve, these speakers can be purchased anywhere from \$15-\$100+.



We have found that many speakers in the \$35-\$50 range sound terrific and meet most of our customer's application needs. A lot of them are quite small and easy to conceal. Choose your speakers wisely as the best audio you can get is often times limited by the quality of the speakers you choose. If you are at a loss for what speakers to get, we offer some reviews of speakers we have purchased on-line with some links to how you may purchase them. Please visit www.pricom.com and check out the Media Speaker review on Bob's Bench.

To connect your speakers to the Dream Player MC, simply plug in the stereo plug from the speakers into one of the 4 Audio Output Jacks on the Dream Player MC. You can insert as many extensions as you need to accomplish your project wiring needs.

These extensions should be 1/8" stereo cables, and are sometimes sold as headphone extension cables. Again many electronic stores will sell this item.



To avoid 'blowing something up' set the volume on the speakers pretty low to start with. Then adjust as appropriate for your sound, and speaker, setup.

All sounds are not created and mixed equally, and we would hate for you to blow a good set of speakers at start-up!

To state the obvious, start low and work your way up from there.



3.3 Trigger Input Terminal Strip

More than simply playing an audio file, your Dream Player MC is capable of acting and reacting based on input from you or the devices it is controlling. This section describes the electrical connections for the Trigger Inputs.

The Trigger Inputs of the Dream Player are optically isolated which means you can wire the inputs so that they are electrically isolated from the Dream Player. Why is this important? Because sharing a common ground between an Audio Playback system and any other system can (and usually does) create ground loops and noises such as ‘buzz’ and ‘hum’.

By isolating the Trigger Inputs, we have removed this problem for you!

As a convenience to your wiring, you may use the power supplied on the Trigger Input Terminal Strip, but doing so will defeat the isolation offered by the Dream Player. If you are simply wiring switches or buttons, there isn’t much chance of a ‘ground loop’ or ‘noise’, so we give you the best of both worlds.

Figure 1 – Trigger Input Terminal Strip Pinout (P4)

Terminal	Name	Description
1	GND	Convenience Power Supply Ground
2	Trigger-1	Opto-Isolated Trigger #1 Input
3	Trigger-2	Opto-Isolated Trigger #2 Input
4	Trigger-3	Opto-Isolated Trigger #3 Input
5	Trigger-4	Opto-Isolated Trigger #4 Input
6	POS	Opto-Isolator Shared Power Input
7	5V	Convenience Power Supply (5VDC)

The trigger input terminals (Trigger-1 to Trigger-4) provide connection to the low-side (Cathode) of the LED in each opto-isolator. Current limiting resistors are built-in, so you can simply connect any Trigger Input to GND to cause the Trigger to occur.

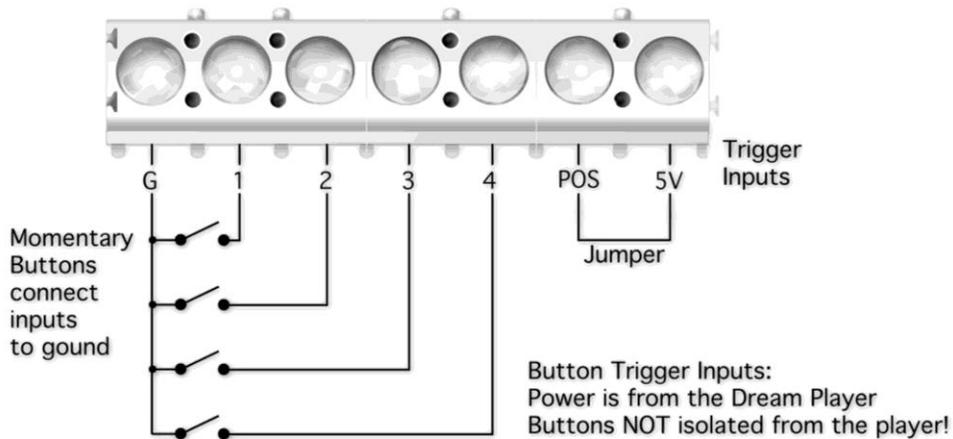
Terminal #6 (POS) is connected to the high-side (Anode) of all 4 opto-isolators. Typically, Terminal #6 is connected to the power source to be used for the trigger inputs. This can be an external power source, or Terminal #7 (5V) if you do not need to isolate the Dream Player ground. The internal current limit resistors are suitable for voltages from 5VDC up to 24VDC. If higher voltages are required please contact us to determine suitable added current limit resistors.

Terminal #1 and Terminal #7 provide a local power source that is not isolated from the Dream Player, but can be used to simplify wiring when using push-buttons, relays, or other inputs that don’t require optical isolation.



The following example shows how to connect switches (or relays) directly to the Dream Player MC without utilizing the ground isolation features of the opto-isolators. The convenience 5VDC power supply from the Dream Player is jumped to the opto-isolator POS terminal to supply the shared LED Anodes. Each Trigger Input can then be individually connected to the convenience GND pin through any suitable switching device such as a push-button or relay.

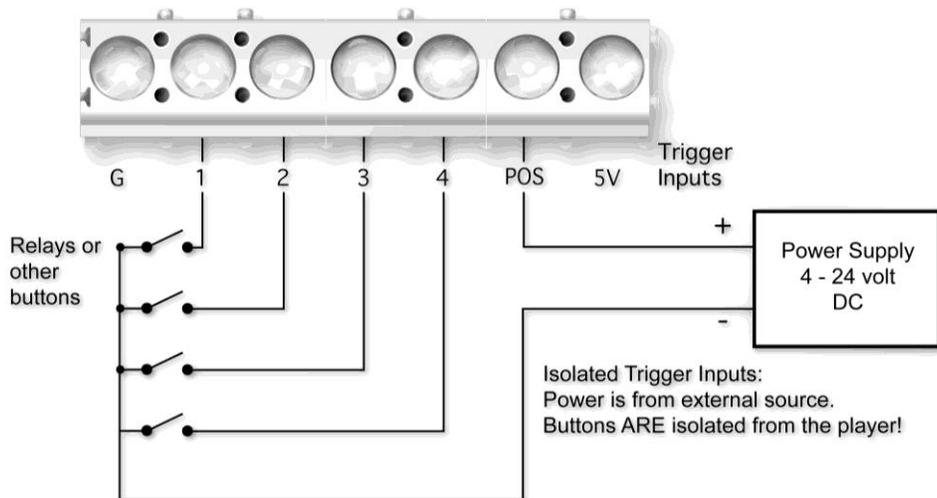
Figure 2 - Simple Trigger Input Button Connections



Note: The actual function of each Trigger Input is determined by the settings in the CONFIG File. More detailed application information is located in Section-4 of this manual.

In the next example we will use an external power supply to enable the opto-isolators to completely isolate the Dream Player Ground from the controlling device. Notice that the POS terminal is used, but not the 5V or G terminals. Opto-isolator power is supplied from the external 4-24VDC Power Supply.

Figure 3 - Isolated Trigger Input Button Connections

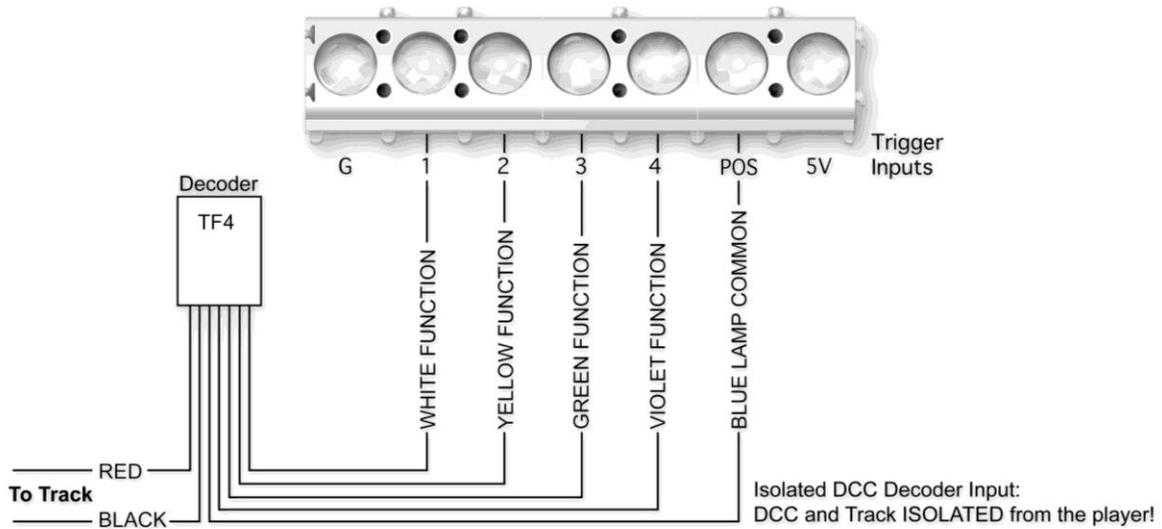


The switch examples shown above don't really need the opto-isolators, so where would you need the opto-isolators? How about connecting to a DCC Decoder!

In the next example, we will connect a Digitrax TF4 to allow the Dream Player to be controlled directly from your DCC System. Any brand of mobile or stationary decoder could be used, but the low-cost of the TF4 lends itself nicely to this application.

Here we have connected the 4 function outputs of the TF4 to the 4 Dream Player Trigger Inputs. Since the DCC Decoder must be connected to the DCC System, where there is considerable noise, some kind of isolation would help us here. The Dream Player opto-isolators keep the DCC system completely isolated from the Audio Ground and remove any chance of noise entering the sound system and speakers. Note that the 5V and the G terminals are left un-connected since the opto-isolators are being powered from the DCC decoder lamp power lead.

Figure 4 - Isolated DCC Decoder Connections



Note: The actual function of each Trigger Input is determined by using the CONFIG.TXT File.



3.4 Mode Switches

The Dream Player MC has an on-board DIP switch that is used to designate the “slot number” for use with external PNET Trigger Boards. For more information about this feature please see the Quick Start Guide for the PNET Opto-Input and Output boards.

3.5 PNET Control

The Dream Player MC may be controlled via external PRICOM trigger boards using PNET. Enabling you to individually control up to 32 separate tracks. The Dream Player communicates to these trigger boards using the 6 wire modular jacks.

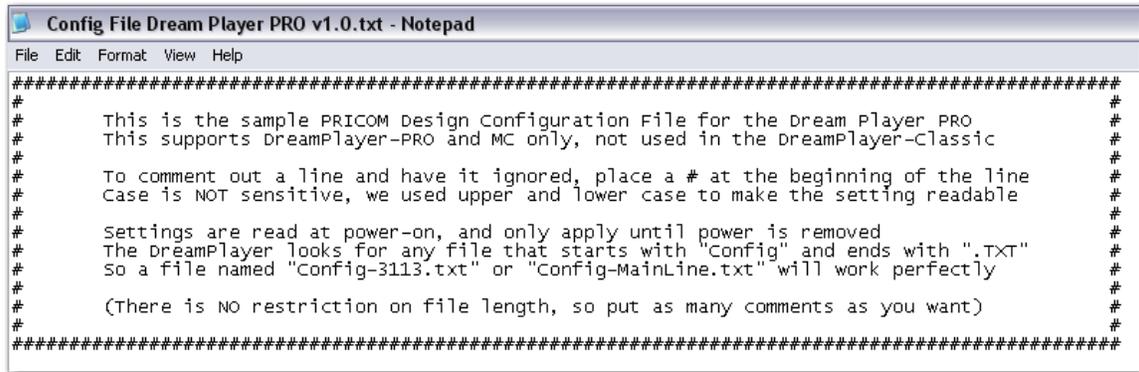
3.6 Mounting Holes

The Dream Player MC can be mounted to any non-conducting surface using the supplied mounting holes. Although there are not any components on the back of the MC, using some form of stand-off would be advisable to keep from breaking anything and more importantly to avoid any unwanted short circuits. The mounting holes are electrically isolated and using steel screws is fine, however, be careful not to over tighten them.



4 Introducing the CONFIG.TXT File

The CONFIG.TXT file might look intimidating at first but don't worry, it is a pretty self-explanatory and easy to use file. The below screen shots are exactly as they appear off a PRICOM Design supplied micro SD Card, downloaded off our website, or from the included CD.



```

#####
#
#   This is the sample PRICOM Design Configuration File for the Dream Player PRO
#   This supports DreamPlayer-PRO and MC only, not used in the DreamPlayer-Classic
#
#   To comment out a line and have it ignored, place a # at the beginning of the line
#   Case is NOT sensitive, we used upper and lower case to make the setting readable
#
#   Settings are read at power-on, and only apply until power is removed
#   The DreamPlayer looks for any file that starts with "Config" and ends with ".TXT"
#   So a file named "Config-3113.txt" or "Config-MainLine.txt" will work perfectly
#
#   (There is NO restriction on file length, so put as many comments as you want)
#
#####

```

We will go ahead and run down the list of what we can do with this fantastic little file.

First off:

To make a Function ACTIVE, remove the “#” from in front of it. If a feature is not applicable to your situation, simply insert a “#” in front of the name. Think of the “#” as commenting out a line of the code, or turning off a feature.

You may name the file whatever you want as long as it starts with “CONFIG” and ends with .txt. For example “CONFIG-bobsstuff.txt”, “CONFIG.txt” and “CONFIG-thisismysampletestfile.txt” would all work.

There should only ever be one CONFIG.TXT file on the micro SD Card.

The CONFIG.TXT File does not have any file size limit, you may write as much as you want, and make as many comments as you wish.

If for some reason you forget what a particular function does, the description is found in the file and will pretty much explain itself.

The CONFIG file used by the MC is a little different from the versions used on the Dream Player LITE and MK2. First off there are many more features and settings that you may configure. Secondly there are two lines to each feature of the CONFIG file. The first being a description illustrating an example of how to set the feature, the second line is where you can set whether you want that feature active and select which files you want to associate with that function.



4.1 General Mode Setup

```
#####
#                               General Modes Setup Here                               #
#####
# BackgroundMode                # Plays the background track (named "0-xxxx.wav" on the SD Card)
# BackgroundMode                # Enable Background track mode

# AutoStart=x,y,z               # Automatically start tracks when the Dream Player Starts
AutoStart=5                     # Set Autostart mode, play these tracks at Startup

# LoopMode=x,y,z                # LoopMode makes the Dream Player Loop at end of the listed track(s)
LoopMode=5                       # Enable LoopMode for the listed tracks

# MultiRandomMode=x,y,z        # Select tracks that have 8 random sub-tracks under each
MultiRandomMode=2,4             # Enable multi-random mode for the listed tracks

# TrackResume=x,y,z            # when a track is stopped, resume where it left off rather than beginning
TrackResume=1,2,3               # Enable TrackResume for the listed tracks
```

Feature	Description
Background Mode	In addition to the normal pre-file numbering 1-, 2-, 3-, 4-. You may have a track 0- that acts as a “background” track. When you use this feature, the Dream Player will continuously play the 0- track and loop when it reaches the end. Background mode implies Auto Start and Loop mode for Track 0-.
Auto Start	Activating this feature will Auto Start the designated file. If you select file number 4- then that track will Auto Start upon power-on of the Dream Player. You can select up to 6 different files to Auto Start, simply enter the track numbers after the AutoStart=.
Loop Mode	For every one of the files you can also set loop mode. Which means at the end of file playback the file will loop back to the beginning. For example: if you list tracks 1- and 2- as the Loop files, those files will loop to the beginning of the file once it reaches the end rather than stopping. For instance: if you had four files on your card and triggered them all at the same time then files 1- and 2- will play through to the end and loop back to the beginning, while tracks 3- and 4- will play to the end and stop.
Multi Random	This feature allows random playback of a specific track number from up to 8 sub files. For example: you can have up to 8 files named track 1- and with Multi Random the Dream Player will select randomly from those files labeled 1-. With the PRO and MC, you can set multi random on a track by track basis. This enables you to specify which tracks you would like to have operating under Multi Random Mode. If you had 4 tracks for example you can select tracks 1- & 2- to operate using Multi Random, and tracks 3- and 4- will operate normally.
Track Resume	This feature will enable the Dream Player to remember where it stopped playing so when you re-trigger the track it will continue playing where it left off rather than going all the way back to the beginning of the track. This is quite handy for really long tracks.



4.2 Trigger Input Configuration

```
#####
#                               Trigger Input Configuration Below                               #
#####

# LoopWhileTrigger=n,n,.# Loop the track as long as the Trigger Input is active
# LoopWhileTrigger=2,3| # Enable Loop While Trigger mode for the selected tracks

# HighTrigger=n,n,... # Trigger Input is Active HIGH instead of the normal Active LOW level
# HighTrigger=1 # Enable High Trigger for the selected trigger inputs

# NoRetrigger=n,n,... # Dream Player will IGNORE trigger until current track completes playing
# NoRetrigger=1,2,3 # Enable No Retrigger for the selected trigger inputs

# ToggleTrigger=n,n,... # Uses a toggle switch on the trigger input to select file 1 or 2
# ToggleTrigger=1 # When trigger is OFF "1a-Name.wav", when trigger is ON "1b-name.wav"
```

Feature	Description
Loop While Trigger	Just as its name implies, this feature will make the Dream Player continue to loop your audio file and play it over and over while the trigger input is active. If you are using a button as your input, then if you press and hold the button the file will play continuously. Release the button and the file will play to the end and stop.
High Trigger	Instead of playing the file when the trigger input is closed, this reverses the trigger logic so that it plays when open. With a button as an example of input then the file will play when the button is released “open” and then stop playback when you press the button “closed”. This is a great option for motion detectors that have a “normally closed” signal.
NO Retrigger	This feature is very important for motion sensors. If you set the trigger, or a trigger comes during playback, the Dream Player will ignore any inputs during playback. Think of a Motion Sensor where objects are continually passing in front of it causing the sensor to constantly re-trigger. In normal playback this means the track would be constantly fading in and out, stopping playback and instantly starting again. With No Re-Trigger once the track is triggered it will play until the end of the track, ignoring all other trigger events, at which point the Player will look and see if there are other triggers.
Toggle Trigger	Think of having a literal toggle switch, which when in the open position plays the first track and in the closed position plays the second track. With the MC that toggle trigger can be applied to any track. To set which track will play for the different positions, you will name your track 1a- for a switch in the OFF/Open position, and 1b- for a track in the ON/closed toggle position.



4.3 Control Output Configuration

```
#####
# Control outputs Setup Here #
#####
# ControlStart=x,y,z # pulse the Control output at start of Track Playback (ControlPulseTime)
ControlStart=1,2,3,4 # Enable on the selected tracks
# ControlEnd=x,y,z # pulse the control output at END of Track Playback (ControlPulseTime)
ControlEnd=1,2,3,4 # Enable on the selected tracks
# ControlPlay=x,y,z # Activate the Control output for as long as the Track is Playing
#ControlPlay=4 # Enable on the selected tracks
# ControlLoop=x,y,z # Activate the Control output only when a file "loops" playback
ControlLoop=1,2,3,4 # Enable on the selected tracks
# ControlPulseTime=500 # Set the Control output Pulse Length in Milliseconds (for ALL ouputs)
ControlPulse1=100 # Set the Control Pulse time for this Control output #1
ControlPulse2=200 # Set the Control Pulse time for this Control output #2
ControlPulse3=300 # Set the Control Pulse time for this Control output #3
ControlPulse4=400 # Set the Control Pulse time for this Control output #4
```

Feature	Description
Control Start	The Control Output will become active when a track starts, and will remain active for the length of time described in the Control Pulse Time setting later in this section. Please note that this is only when the track starts, it will not pulse when the track loops.
Control End	The opposite of Control Start, the output device will become active for the specified amount of time <i>after</i> the file plays.
Control Play	The control output will simply stay active as long as the file is playing.
Control Loop	In the case of a looping track this setting will activate the control output at the loop point, i.e. the end of the track.
Control Pulse Time	You may define exactly how long the output is active. Times may be set either across all tracks or on an individual track basis. Times are defined in Milliseconds, with 1000MS amounting to 1 full second, you can set your output to pulse for just 1MS. If both Control Start and End features are disabled then the pulse time is not used.



4.4 Track Playback Configuration

```
#####
#                               Track Playback Setup Here                               #
#####
# NoFade=x,y,z                 # this makes the Dream Player stop quickly instead of Fading
NoFade=1,2                     # Set the NoFade value for the selected tracks

# FadeTime=xxxx               # Set the fade OUT time in Milliseconds (5000 = 5 secs) (default is 5secs)
FadeTime=5000                 # Set the fade OUT time for ALL tracks to 2 secs
# FadeTime1=1000              # Set the fade OUT time for Track #1 only
# FadeTime2=2000              # Set the fade OUT time for Track #2 only
# FadeTime3=3000              # Set the fade OUT time for Track #3 only
# FadeTime4=4000              # Set the fade OUT time for Track #4 only

# FadeInTime=xxxx             # Set the fade IN time for "resume" tracks when resuming playback
# FadeInTime=2000             # Set the fade IN time for ALL tracks to 2 secs (default is 2 secs)
FadeInTime1=250               # Set the fade IN time for Track #1 only
# FadeInTime2=500             # Set the fade IN time for Track #2 only
# FadeInTime3=750             # Set the fade IN time for Track #3 only
# FadeInTime4=1000            # Set the fade IN time for Track #4 only
```

Feature	Description
No Fade	One of the most self-explanatory features in the file. If you want your audio to stop instantly activate this feature.
Fade Out Time	A neat feature of this CONFIG.TXT file is that you may customize the fade time exactly to the millisecond that you need. You may use anything from 1MS to 65000MS. If you have No Fade enabled then the fade time is irrelevant.
Fade In Time	Contrastingly you might also need a Fade In time for track resume to work properly. It works exactly the same as the Fade Out Time only these settings set how long the Fade In time should be. Setting a nice fade out time and then fade in time when resuming is a good idea so that when the track resumes it does not suddenly jump into something really loud, a fade in time would make the transition smoother.



4.5 Audio Mode Configuration

```
#####
#                               Audio Setup Here                               #
#####
# MasterVolume=xxx             # Master output volume (10-100%, '0' would be silly...) (default is 100)
MasterVolume=100              # Set Master output volume to 100%
# TrackVolume=xxx             # Track output volume (10-100%, '0' would be silly...) (default is 75)
# TrackVolume=75              # Set ALL Track output volumes to 75%
TrackVolume1=75               # Set output volume for track #1
TrackVolume2=75               # Set output volume for track #2
TrackVolume3=75               # Set output volume for track #3
TrackVolume4=75               # Set output volume for track #4
```

Feature	Description
Master Volume	The output volume of the Dream Player may be adjusted to your situation. For example if you have a set of speakers in your project but cannot access the volume on the physical speaker you may adjust the volume that the Dream Player produces.
Track Volume - ALL	A secondary Master Volume, this sets the output volume of all tracks to the specified amount.
Track Volume – 1, 2, 3, 4	<p>If you have a track that was recorded at a higher audio level than the other tracks or vice versa, You may want to set the volume for each individual track. This effectively provides you with a handy little mixer inside the Dream Player without having to hook up any additional hardware.</p> <p>You may ask why not just set everything to 100? The reason being is that if each file is recorded at normal digital full scale like a CD is recorded, the output of all four files combined will be too much for the output and you will actual hear it start to compress. It will not clip or crunch, but the quality will be affected, we did do an internal software limiter to prevent any audio abnormalities; however we do advise that you set the volumes to something less than 100 to receive the best possible audio quality. If you are only using one or two tracks then having the volume set at 100 will not be a problem.</p>



5 Firmware Updates

5.1 Updating Your Firmware

Another special feature of the Dream Player MC is the convenience of updating firmware. No cables needed! Revisions of firmware are loaded onto the micro SD Card which allows you to load any critical updates to the firmware without having to completely dismantle your project to get the unit to your computer.

5.2 Downloading the Firmware Update

When firmware updates become available we will announce it on our website www.pricom.com. On the download's page find the updated version of firmware and click the download link.

The firmware updates are a special PRICOM Design file called PDI, which means your machine will most likely not recognize the format and so you will be prompted with a box asking if you want to Find, Save, or Cancel.

You will want to SAVE the file to a folder somewhere that makes sense and you can find later. Creating a folder called "PRICOM Downloads" would be a good example. After you save the file to your machine you simply copy it to your micro SD Card. Make sure to have only one firmware file on the SD Card.

5.3 How to Update Your Firmware

To initiate the firmware update process follow the steps below.

1. Power off the Dream Player.
2. Remove the micro SD Card.
3. Load the SD Card into your computer.
4. Copy the PDI File onto the card. (Ensure there is only one .PDI file on the card.)
5. Insert the card back into its position on the Dream Player.
6. **(important) Hold down the onboard button while reapplying power.**
7. Reapply power to the Dream Player.
8. The SD Card Status and Playback Indicator LED's will flash four times to indicate the unit is in update mode.
9. You may stop holding down the button at this point.
10. The Red LED will rapidly strobe while the update is taking place. Next the Yellow LED will flash while the firmware is verified.
11. Generally the update takes only a few seconds and upon completion of the update the LED will stop flashing, and you are ready to go.

Note: Remember to hold down the button when reapplying power to the unit. Otherwise the Dream Player will not look for the new Firmware.



6 Problems & Support

Our goal is a product that is robust and trouble-free for you. Unfortunately, in the real-world, problems do arise.

6.1 Help, I broke it!

If you are not happy, then we are not happy! If you have a mishap with your Dream Player please let us know. Contact us at the e-mail below if you have questions or problems. Generally the problems end up being simple fixes that can be diagnosed and repaired by you the user with help from us here.

6.2 E-mail

If you are experiencing trouble with your Dream Player, please let us know. We are here to help you, and want your experience to be creative and fun. If you need help of any kind, please contact us via e-mail. The support e-mail address is Help@pricom.com.

6.3 Web Site

The PRICOM web site is where we will post any upgrades, updates, and improvements. Please be sure to check for Hardware and Software updates. www.pricom.com



7 Dream Player Specifications

Power Input:	12-18V AC or DC Connection using 2 position terminal strip Current consumption approximately 400mA while playing
Power Input:	3 ½ inches X 4 ½ Inches (90mm X 115mm)
Trigger Input:	4 Inputs for Switches or Contact Closures Connection using 7 position terminal strip Optically isolated with built-in current limit resistors
Audio Output:	Line Level 8-Channel Analog Audio Output Connection using 4x 3.5mm (1/8") Stereo Jacks Allows direct connection of amplified 'media speakers'
Audio Formats:	16bit, 8-Channel, 44.1KHz WAV file
Sample Rate:	44.1KHz
Output Level:	3V Peak-To-Peak Maximum
Storage Device:	Micro SD FLASH Card 2GB up to 16GB Files use about 40MB/minute. 2GB about 1 hour 16GB about 6 hours
Storage Format:	FAT32 formatted cards (standard)
File Format:	Standard WAV files placed in the root folder of the card



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