



INSTALLATION AND OPERATING
MANUAL

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MTV ROCK-N-ROLL TRIVIA

-Section 1-

Game Features

The "MTV Rock-N-Roll Trivia" is the first video game exclusively devoted to the world of Rock-N-Roll music. The game has a "new wave" design and appeals to young players, those who watch rock videos on MTV (Music Television) and all fans of Rock-N-Roll music. Players who listen to Rock music or watch rock videos, besides enjoying the music can finally "materialize" what they know by playing this game.

After extensive research by Record Producers, Rock-N-Roll Magazine Publishers, Video and Disc Jockeys, etc., 12,000 questions divided into four categories (approximately 4,000 questions per category) have been developed, containing the most popular ever and most recent Rock-N-Roll material featured on MTV and nationwide radio stations.

The categories featuring these questions with their age groups are as follows:

1. Heavy Metal (ages 8-30)
2. General Rock (ages 8-45)
3. Rock Videos (ages 7-30)
4. Classic Rock (ages 18-50)

Each question is brought on the video screen at random, however, a question will not be repeated within 255 game-plays. An update package will be released every 3-4 months and will be known as "Part 3", "Part 4", etc. which will contain all new and popular Rock-N-Roll releases, and a few category changes to maintain and increase players' interest.

The operator may operate the game on the "credit" mode via dipswitch setting, which allows for replays or payout by means of a hopper, ticket dispenser, etc. Two special outputs have been made available for this purpose (located on the "MTV Rock-N-Roll Trivia" module), one to drive the payout device and the other to drive the payout counter which keeps track of the accounting.

The "MTV Rock-N-Roll Trivia" video game is designed to convert any Pac-Man or Ms. Pac-Man dedicated game. However, it can also convert any vertical video game, if the operator has access to a Pac-Man or Ms. Pac-Man type P.C. Board, by constructing a new wiring harness as shown in Fig. 2 or in Fig. 3 of this manual.

Contact your authorized distributor which may be able to supply you with the above P.C. Board.

Every time you power-up the game, it performs a self-diagnosis to ensure the proper performance and to detect any hardware malfunctions that may occur on actual gameplay.

For a step-by-step easy conversion, please refer to the "Installation Procedure, Section 4" in this manual.

If you have any questions or comments regarding the "MTV Rock-N-Roll Trivia" video game, contact your authorized distributor or the manufacturer at:

(401) 331-2810

MTV ROCK-N-ROLL TRIVIA

-Section 2-

Recommended Locations and operating Suggestions

This section of the manual has been developed to help the operator get the maximum profits from operating an "MTV Rock-N-Roll Trivia" video game.

Upon prolonged testing of the game, we have determined that the "MTV Rock-N-Roll Trivia" game is a natural for bars, nightclubs and places appropriate for operating regular or video jukeboxes. In addition to these locations, we also recommend:

1. Record Stores
2. Mall Arcades
3. Movie Theatres
4. Street Arcades
5. Supermarkets, Etc.

By operating the game on the "credit" mode, the operator can increase his earning profits by approximately 35%. Here are some actual operating cases which may help you decide on the mode and location for your "MTV Rock-N-Roll Trivia" game:

Mr. Roland Parker from Ohio owns a chain of pizza restaurants and operates video games at these locations. For Parker to increase his operating earnings and restaurant business, he purchased a few "MTV Rock-N-Roll Trivia" kits which he decided to operate on the "credit" mode with a ticket dispenser. When reaching a certain bonus level (refer to Fig. 6), the game dispenses a ticket which allows for a \$.45 discount on a pizza. By operating the game under these conditions he earns more in the cashbox and sells more pizza.

Mr. Charles Williams from California owns three record stores. Because he knows music oriented people come into his stores, he purchased several "MTV Rock-N-Roll Trivia" video games which he operates in the "credit" mode with a ticket dispenser. By playing the game, his customers can get tickets dispensed for which they can get a discount

of \$.75 per album or tape. In this way, he gets people more interested in the game and automatically in the music that he sells, which shows in the cashbox and in the increase of merchandise sold.

Operating a video game on the "credit" mode always arises legal questions. Contrary to other video games such as Slot Machines, Poker, Hi-Lo, etc., where winnings are based on chance, the "MTV Rock-N-Roll Trivia" game is based on the players' knowledge of music. Therefore, it is not considered a "gambling" machine. Most State laws define a "gambling" machine as awarding winnings (coins, tokens, tickets, etc.) by chance and/or the video game winnings exceeding \$3.75 (15 credits). It is the manufacturer's belief that the "MTV Rock-N-Roll Trivia" video game may be operated under the "credit" mode with certain limitations. However, it is up to the operator to decide according to the laws of his State, whether he can operate the video game under such mode.

When the "MTV Rock-N-Roll Trivia" video game is initially placed in a location, we recommend the following game settings:

Play Pricing.....	1 Coin/1 Play
Questions Per Game.....	Five
Clock Speed.....	Beginner
Bonus Level Points.....	10,000

Refer to Fig. 5 and Fig. 6 for dipswitch setting information.

We strongly suggest that the "Bonus Level Points" be upgraded every few weeks for a progressing scoring routine and challenge to the players.

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-Section 3-

Playing Instructions

General 1 or 2 Players

Use joystick to select one of the four categories. Select your answer (A, B, C or D) to the question by moving the joystick to one of the four positions as shown on the video screen.

You are playing against the clock, the faster you answer the questions, the more points you will receive.

If you get a True or False question, select only True-(A) or False-(C) to answer.

The game will comment on your answering performance upon receiving your choice.

Upright 2 Players

When two players play, they are playing against each other (head-to-head competition). The player that first answers correctly gets all the points.

If a player answers incorrectly, then the other player has a chance to choose from the three remaining answers.

When a player answers a True or False question incorrectly, the other player will get a chance with a new question.

Table 2 Players

When two players play, each player takes turns to answer a different question with the video screen flipping over accordingly.

MTV ROCK-N-ROLL TRIVIA

-Section 4-

Installation Procedure

Your newly purchased "MTV Rock-N-Roll Trivia" Conversion Kit should include upon arrival from your authorized distributor the following:

1. One main game module
2. Two 16-pin bipolar I.C.'s (#1 and #2)
3. One 24-pin character Eprom
4. One marquee panel
5. One control panel overlay
6. Two push-buttons
7. Two 4-way joysticks
8. One operating manual

Carefully follow the step-by-step instructions given below for an easy Hardware/Software conversion.

Throughout this section we will refer to the Pac-Man or Ms. Pac-Man type P.C. Board as to the Main P.C.B. and to the "MTV Rock-N-Roll Trivia" module as the Main Module.

Before proceeding with the conversion, disconnect the power to the cabinet and unplug the Main P.C.B.

WARNING! Any further conversion steps taken with the power applied to the Main P.C.B. will damage it.

Refer to Fig. 1 for an overall view of the Main P.C.B. Unplug the little P.C. Board (if mounted) from the socket (location 6D) next to the Z-80 CPU (location 6B) using a small screwdriver.

Bipolars Change

Pull out the bipolar I.C.'s using a small screwdriver located at 7F and 4A (see Fig. 1). Plug in location 7F the new bipolar I.C. #1, and in location 4A the new bipolar I.C. #2 with the proper orientation.

Character Eprom Change

Pull out the 2532 character eprom located at 5E using a small screwdriver. Replace it with the new 2532 character eprom being aware of orientation.

Main Module

Pull out the Z-80 CPU located at 6B using a little screwdriver and plug in the 40-pin cable header of the Main Module with the proper orientation (see Fig. 4). Insert Z-80 into empty socket on small board

Plug the little P.C. Board back into the socket (location 6D).

Everything else on the Main P.C.B. can stay the same and will not affect the correct operation of the "MTV Rock-N-Roll Trivia" video game.

Remove the old marquee panel and replace it with the new one (it may need to be trimmed to the right size, depending on which type of game is being converted).

Remove the old game controls (buttons, joysticks, etc.) from the old control panel. Peel off the back of the new control panel overlay and stick it over the old control panel (some mechanical work may be required here to cover the old holes if you are not planning to place a plexis over the control panel overlay).

Mount the two joysticks and the two start buttons as shown in Fig. 7.

Connect the two joysticks and the two start buttons to the edge connect according to Fig. 2 or Fig. 3, depending on which type of Main P.C.B. is being used.

Build the rest of the wiring harness required in Fig. 2 or Fig. 3.

If using a hopper or a ticket dispenser,* connect it to the "hopper" drive located on the Main Module (Fig. 4), together with the payout counter which should be connected to the "payout counter" drive located on the same.

When using a payout device,* connect the additional +5V and Ground to the Main Module as shown in Fig. 4.

If the hopper or the ticket dispenser has feedback (when payout executed, it gives back acknowledge pulses) leave pad #2 on the Main P.C.B. open (Fig. 1). Otherwise, if the payout device does not have feedback, connect pad #2 by making a solder bridge with a soldering iron.

* only where permitted by state or local law.

If you want the game to accept a maximum of only 14 credits,* leave pad #1 on the Main P.C.B. open (Fig. 1). The game can accept a maximum of 98 credits by connecting pad #1 on the Main P.C.B. (Fig. 1).

By examining the dipswitch selection, (Fig. 5 and Fig. 6) you can set them according to your location requirements. The dipswitch #2 located on the Main Module is factory set to all Off positions.

WARNING! Before power-up, secure the Main P.C.B. and the Main Module so they do not make physical contact with each other in which case, damage to both may occur.

This concludes the Hardware/Software game conversion process.

On power-up, the "MTV Rock-N-Roll Trivia" video game self-diagnoses itself to ensure its accommodation and proper performance on the new hardware.

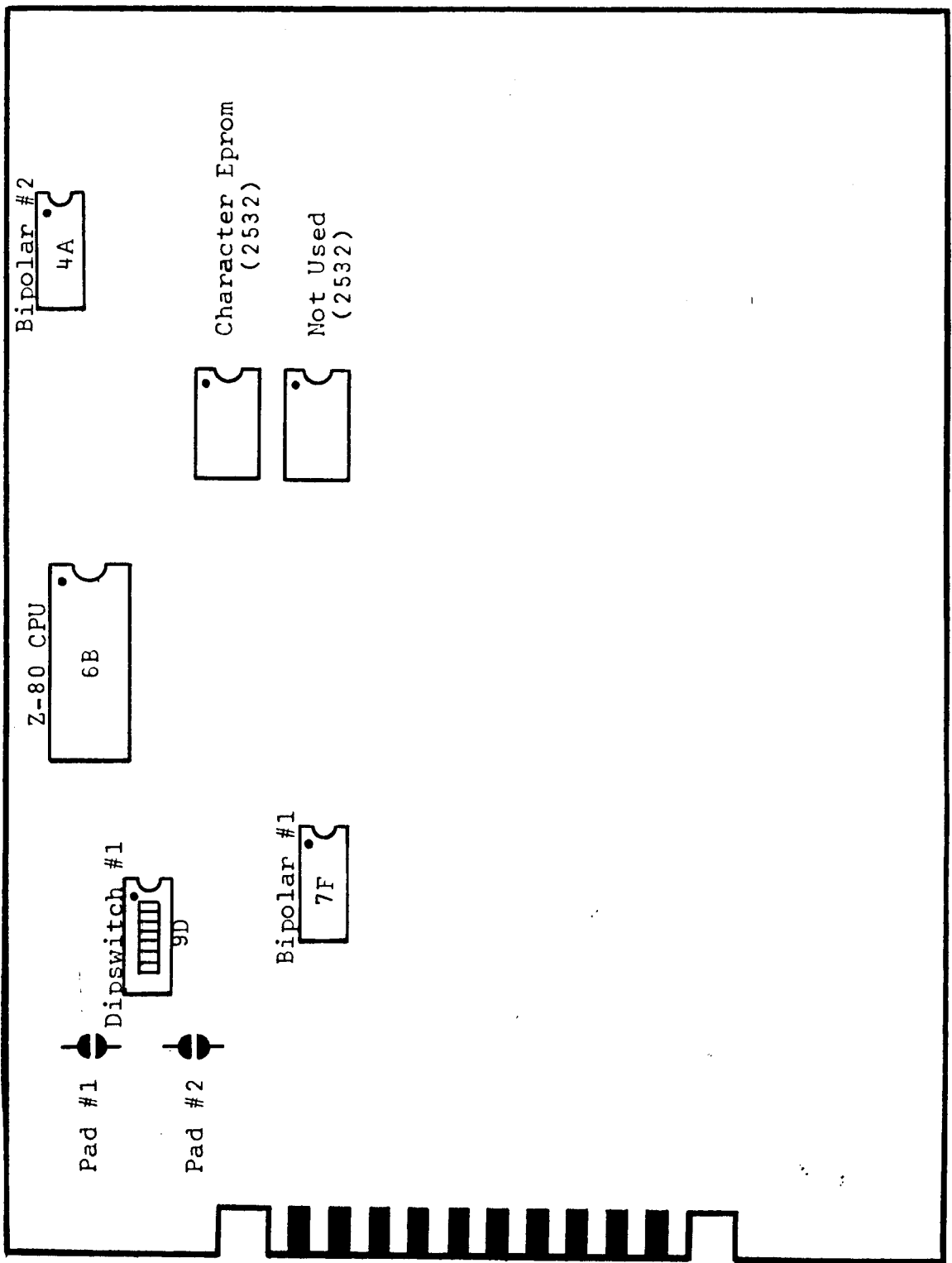
Always check the voltage and make sure the Main P.C.B. operates at +5V+-5% since the Main Module added draws additional current. When necessary, adjust the power supply to fall within the specified voltage range.

If you require service or need assistance, contact your authorized distributor or call the manufacturer at:

(401) 331-2810

* only where permitted by State or Local Law.

-Figure 1-



Overall Main P.C.B. View

MTV ROCK-N-ROLL TRIVIA

-Figure 2-

Component Side	Pin #		Solder Side
Ground	A	1	Ground
Ground	B	2	Ground
+5V	C	3	+5V
+5V	D	4	+5V
	E	5	
Speaker 1	F	6	$\overline{\text{Reset}}$
Speaker 2	H	7	Coins In Counter
Coins In	J	8	Coins In (test only)
Hopper Feedback	K	9	Slam
Start 1 Player	L	10	Start 2 Players
Player 1 A (left)	M	11	Player 1 C (right)
Player 1 B (up)	N	12	Player 2 B (up)
Player 2 A (left)	P	13	Player 2 C (right)
Knock Off Switch	R	14	Player 1 D (down)
	S	15	
Video Red	T	16	Video Green
Video Blue	U	17	$\overline{\text{Composite Sync}}$
Player 2 D (down)	V	18	Auxiliary +5V
+12V	W	19	+12V
+12V	X	20	+12V
Ground	Y	21	Ground
Ground	Z	22	Ground

cocktail to
remove gree
red wire fr
edge connec
pin R

MIDWAY PAC-MAN OR MS. PAC-MAN EDGE CONNECT

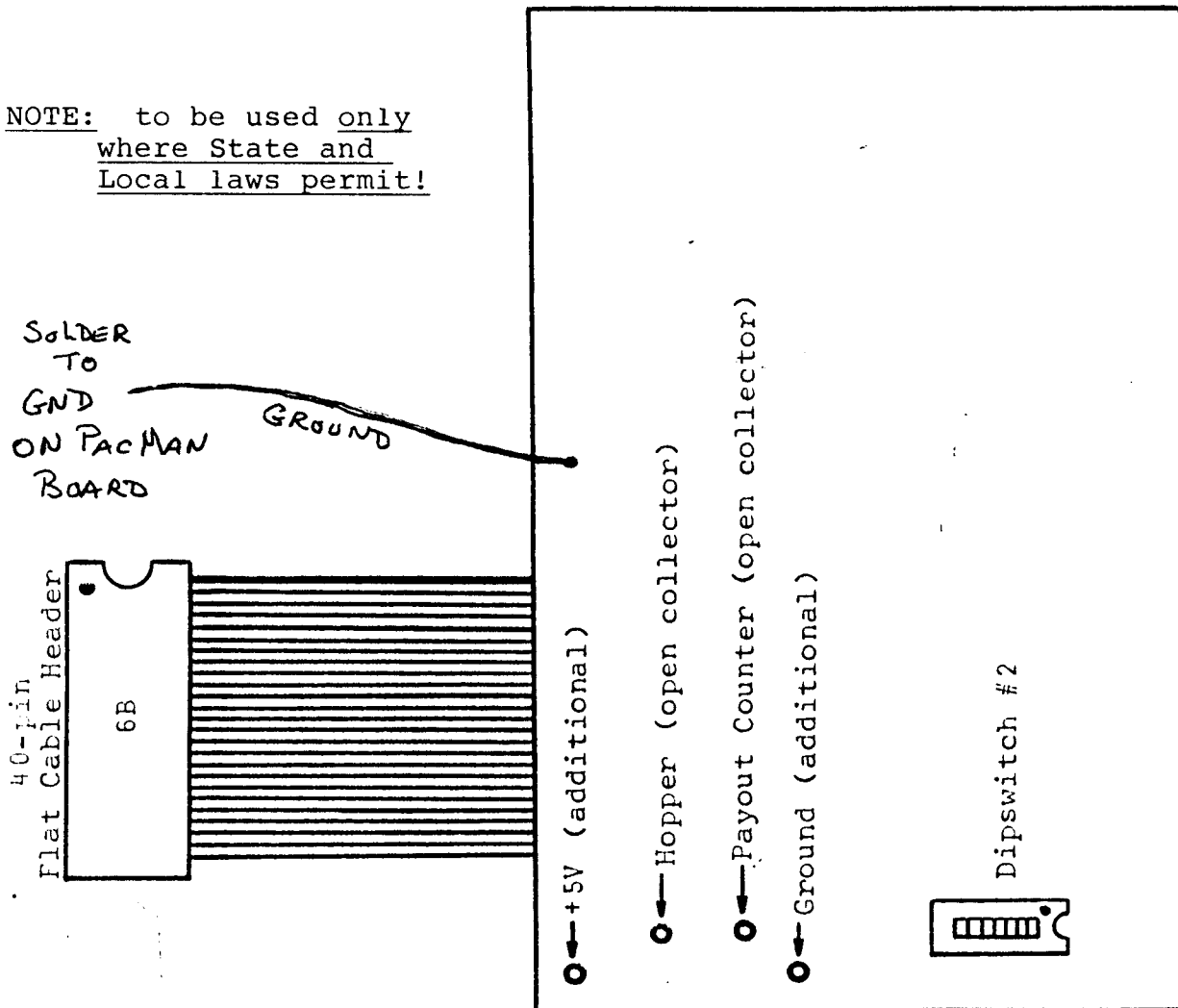
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-Figure 3-

Component Side	Pin #		Solder Side
Ground	1	A	Ground
Ground	2	B	Ground
Ground	3	C	Ground
Ground	4	D	Speaker Output
+12V	5	E	+12V
Knock Off Switch	6	F	Player 1 B (up)
Hopper Feedback	7	H	Player 2 B (up)
	8	J	
+5V	9	K	+5V
Player 1 D (down)	10	L	
Player 2 D (down)	11	M	
Coins In Counter	12	N	Start 2 Players
Coins In	13	P	Start 1 Player
Coins In (test only)	14	R	Player 1 C (right)
Video Red	15	S	Player 1 A (left)
Player 2 C (right)	16	T	Video Blue
Player 2 A (left)	17	U	Video Green
Slam	18	V	Composite Sync

PAC-MAN OR MS. PAC-MAN TYPE EDGE CONNECT

NOTE: to be used only
where State and
Local laws permit!



Overall Main Module View

NOTE: When using a hopper and/or a payout counter, connect the additional ground and +5V.

WARNING! Only use a 5 to 12V Max. coin counter or hopper interface (relay, optocoupler, SCR, etc.).

MTV ROCK-N-ROLL TRIVIA

-Figure 5-

DIPSWITCH #1									
Options	Settings	8	7	6	5	4	3	2	1
Play Pricing	1 Cn/1 Pl							Off	Off
	1 Cn/2 Pl							Off	On
	2 Cn/1 Pl							On	Off
	Freeplay							On	On
Questions Per Game	Two				Off	Off	Off		
	Three				Off	Off	On		
	Four				Off	On	Off		
	Five				Off	On	On		
	Six				On	Off	Off		
	Seven				On	Off	On		
	Eight				On	On	Off		
	Nine				On	On	On		
Clock Speed	Beginner		Off	Off					
	Intermed.		Off	On					
	Pro		On	Off					
	Super-Pro		On	On					
Freeze Image	Off	Off							
	On	On							

Dipswitch #1 is located on the Main P.C.B.

MTV ROCK-N-ROLL TRIVIA

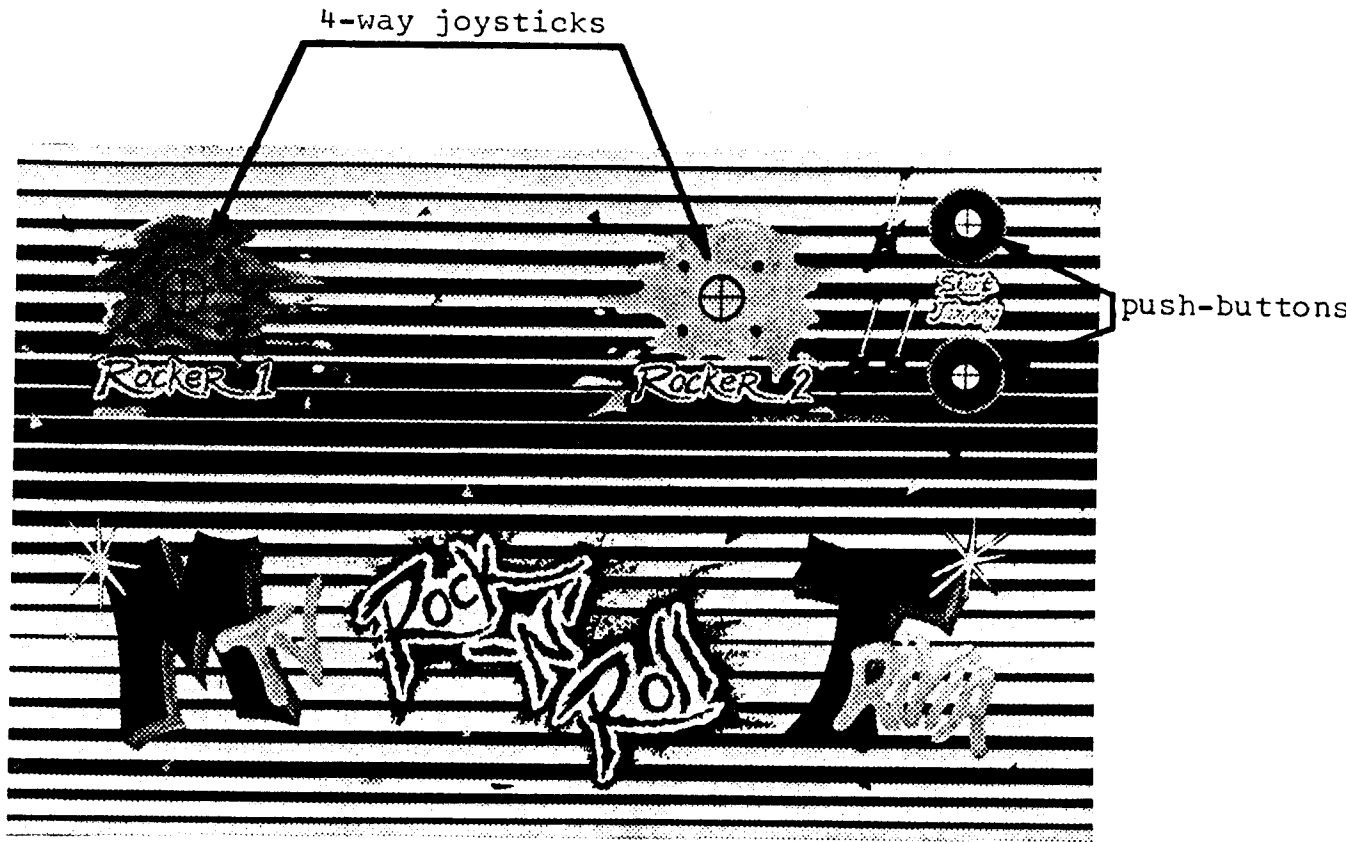
-Figure 6-

DIPSWITCH #2									
Options	Settings	8	7	6	5	4	3	2	1
Mode	Amusement								Off
	Credit								On
Style	Upright							Off	
	Table							On	
K.O. Switch	Auto						Off		
	Manual						On		
Test	Off					Off			
	On					On			
Bonus Level Points	10,000		Off	Off	Off				
	17,500		Off	Off	On				
	25,000		Off	On	Off				
	32,500		Off	On	On				
	40,000		On	Off	Off				
	47,500		On	Off	On				
	55,000		On	On	Off				
62,500		On	On	On					
Music	Off	On							
	On	Off							

Dipswitch #2 is located on the Main Module

MTV ROCK-N-ROLL TRIVIA

-Figure 7-



Control Panel Overlay