

PRELIMINARY
OWNER/OPERATOR'S
SECTION

PAC-LAND U.R.

BALLY
Midway MFG. CO

FOR

P A C - L A N D

INSTALLATION

1. Unlock and open the coin box door.
2. Remove four (4) "CABINET LEVELING LEGS" from inside the coin box.
3. Tip the cabinet to the side and remove the shipping cleats from its bottom.
 - Locate the threaded holes - one in each corner - and install the "CABINET LEVELING LEGS" in them.
 - Level the cabinet.
 - When finished, the cabinet should be stable in the upright position.
4. Plug the game into a standard AC wall outlet **ONLY**.

-----WARNING-----

Game **MUST** be properly grounded.

5. The power ON/OFF switch is located:

UPRIGHT MODEL: On top of the cabinet toward the back.

LINE VOLTAGE SAFETY INTERLOCK SWITCHES

Line voltage SAFETY INTERLOCK SWITCHES have been provided for your protection. The locations of these SAFETY INTERLOCK SWITCHES are:

UPRIGHT MODEL: Inside the rear of the cabinet where the access door, when closed, will be able to depress the switch plunger.

When the cabinet access door(s) are secured in place, the SAFETY INTERLOCK SWITCH plunger(s) are in a fully depressed condition. The game circuit can function normally.

When any cabinet access door(s) are opened, the SAFETY INTERLOCK SWITCH plunger(s) are in partially extended condition. This isolates the game circuit from the line voltage.

To restore power to the game circuit with the access door(s) open, gently pull the SAFETY INTERLOCK SWITCH plunger(s) out to the fully extended condition. **THIS IS TO BE USED FOR SERVICING THE GAME ONLY!**

TO SERVICE THE CONTROL PANEL(S)

1. UPRIGHT MODEL:

The control panel is held in place by Hassick clamps.

They are spring loaded to provide constant positive pressure on their latch plates.

They can be reached through the coin door **AFTER turning power to the game**

To release the clamps, lift up and toward the center of the control panel.

Once they are released, unhook them from their latch plates.

- To open the control panel for servicing:

Raise it up and tilt it toward you until you can see the cabling behind it

- The control panel is now loose and may be serviced but remains tethered to game by a plastic strap.

- To completely remove the control panel, disconnect it from its cabling and miscellaneous hardware, and remove the wing nut securing it to the plastic

The control panel is now free and can be removed.

- To reinstall the control panel(s), reverse this procedure.

REMOVAL OF THE MAIN-DISPLAY-GLASS AND/OR THE T.V. BEZEL ASSEMBLY

1. UPRIGHT MODEL:

NOTE: In order to do this, the control panel **MUST** be removed first. See the "UPRIGHT MODEL" procedure.

- Turn the power to the game off and remove the control panel. This frees the main-display-glass so it can be removed.

- By putting your finger in the hole in the middle of the main-display-glass support, you can lift it up and out.

- Loosen the screws which secure the T.V. bezel-diffuser-clamps in place.

Move the clamps to the side and the bezel diffuser may be removed.

Remove the bezel securing screws and the bezel with its bezel-difuser-clamps. Their screws may be removed.

- To reinstall the T.V. bezel assembly and the main-display-glass, reverse procedure.

VOLUME CONTROL POT / OPTION SWITCH LOCATIONS

The volume control pot(s) and option switches are located as shown in the attached Board reference drawing. For adjustment, it/they may be reached through the games access door.

To make the sounds louder, turn the volume pot clockwise as you face it.

To make the sounds less loud, turn the volume pot counterclockwise as you face it.

GAME OPERATION

Your new game is a one or a two player model with a color T.V. monitor. The game has five possible modes of operation: ATTRACT, READY-TO-PLAY, PLAY, HIGH SCORE/INITIAL, and SELF-TEST.

SELF-TEST MODE

The Self-Test mode is a special mode for checking the game switches and computer functions. It is the easiest and best way to check for proper operation of the entire game.

NOTE: Putting the game into Self-Test will cause it to erase any CREDITS it has on it from its memory.

You may begin a Self-Test at any time after the power to the game is on by pushing down on the spring loaded Self-Test switch. The game enters the Self-Test mode immediately. It will take about 5 seconds to perform the following 7 checks on itself.

1. ROM TEST: ROM OK appears.
2. RAM TEST: RAM OK appears.
3. SUB TEST: SUB OK appears.
4. UPRIGHT/TABLE: UPRIGHT appears.
5. COIN 1: 1 COIN 1 CREDIT appears.
5. COIN 2: 1 COIN 1 CREDIT appears.
6. MYPAC:
(players) 3 appears.
7. RANK: A appears.
8. SOUND 00 appears. Pushing the left or right direction control buttons should cause the numbers to change **AND** a sound to be heard. Pushing the jump buttons, game start buttons, and the coin switches should cause **ONLY** a sound to be heard.
9. EXTEND TYPE: A appears.
10. ATS: ON appears.
11. RND: OFF appears.

CROSS HATCH PATTERN

Pressing the service button while in the Self-Test mode causes a cross hatch pattern to appear on the monitor. Pressing it again, causes the cross hatch to disappear.

PAC LAND

OPTION SWITCH SETTINGS - DIP SWITCH "A"

////////////////////////////////////SELF-TEST MODE////////////////////////////////////

* NORMAL OPERATION
 SELF-TEST ENGAGED

SW#1	SW#2	SW#3	SW#4	SW#5	SW#6	SW#7	SW#8
OFF							
ON							

////////////////////////////////////NUMBER OF PLAYER'S PER GAME////////////////////////////////////

* 1 PLAYER'S
 2 PLAYER
 4 PLAYER'S
 5 PLAYER'S

OFF	OFF
OFF	ON
ON	OFF
ON	ON

////////////////////////////////////COIN SWITCH NUMBER 1////////////////////////////////////

* 1 COIN 1 CREDIT
 1 COIN 2 CREDITS
 2 COINS 1 CREDIT
 3 COINS 1 CREDIT

OFF	OFF
OFF	ON
ON	OFF
ON	ON

////////////////////////////////////ATTRACT MODE SOUND////////////////////////////////////

* SOUND IN ATTRACT MODE
 NO SOUND IN ATTRACT MODE

OFF
ON

////////////////////////////////////COIN SWITCH NUMBER 2////////////////////////////////////

* 1 COIN 1 CREDIT
 1 COIN 2 CREDITS
 2 COINS 1 CREDIT
 3 COINS 1 CREDIT

OFF	OFF
OFF	ON
ON	OFF
ON	ON

* INDICATES FACTORY RECOMMENDED SETTINGS

PART NO. M051-00B64-A007

PAC - LAND

OPTIONAL SWITCH SETTINGS - DIP SWITCH "B"

//////////////////////////////////// EXTENDED POINTS //////////////////////////////////////

VARIOUS OPTIONS

A
B
C
D
E
F
G
H

SW#1	SW#2	SW#3	SW#4	SW#5	SW#6	SW#7	SW#8
OFF	OFF	OFF					
OFF	OFF	ON					
OFF	ON	OFF					
OFF	ON	ON					
ON	OFF	OFF					
ON	OFF	ON					
ON	ON	OFF					
ON	ON	ON					

//////////////////////////////////// DIFFICULTY LEVEL //////////////////////////////////////

RANK A AVERAGE
RANK B EASY
RANK C HARD
RANK D VERY HARD

OFF OFF
OFF ON
ON OFF
ON ON

//////////////////////////////////// GAME CONTINUITY //////////////////////////////////////

NORMAL
RUNNING

OFF
ON

//////////////////////////////////// FREEZE VIDEO //////////////////////////////////////

NORMAL
FREEZE

OFF
ON

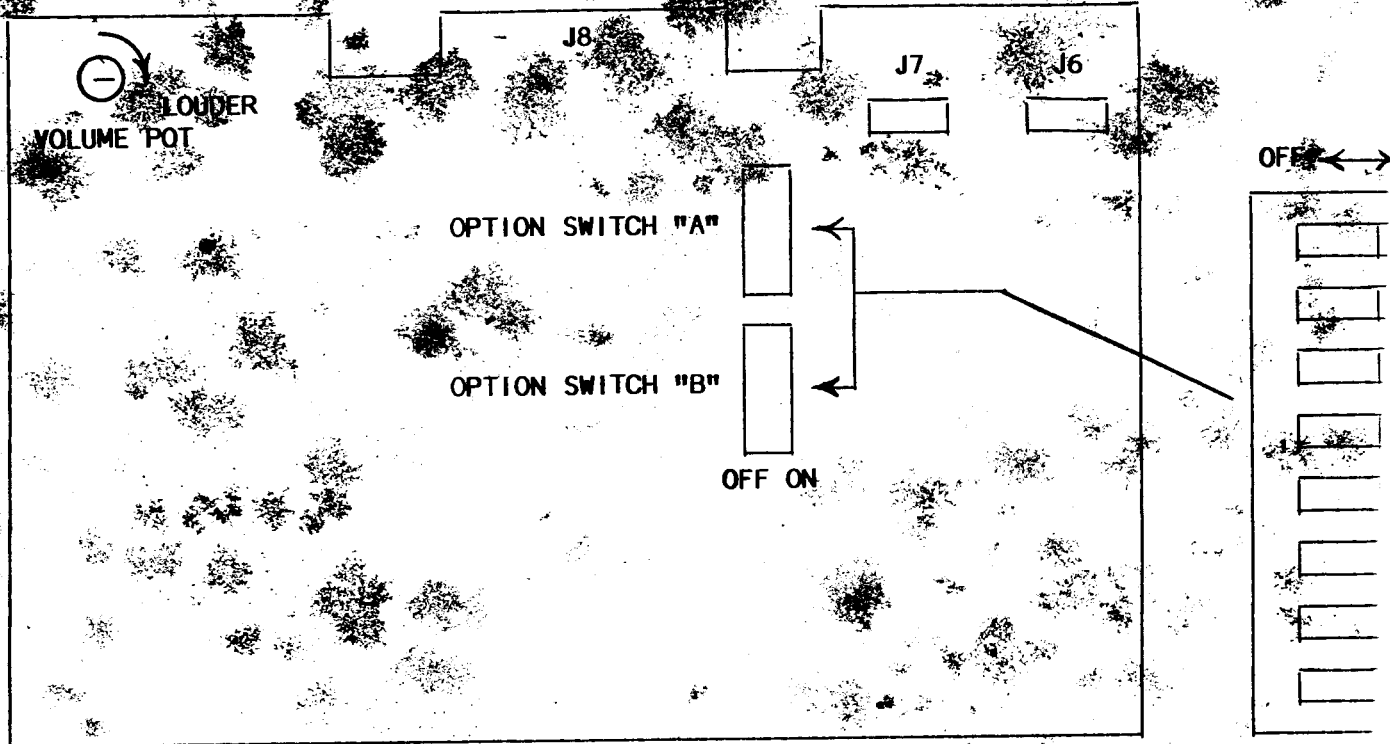
//////////////////////////////////// TRIP SELECT //////////////////////////////////////

YES
NO

OFF
ON

* INDICATES FACTORY RECOMMENDED SETTINGS

PART NO. M051-00B64-A007



//////////////////// EXTENDED POINTS TABLE //////////////////////

OPTION SWITCH SETTING	1ST EXTENSION AT:	2ND EXTENSION AT:	3RD EXTENSION AT:	4TH EXTENSION AT:	5TH EXTENSION AT:	6TH EXTENSION AT:
A	30,000	80,000	150,000	300,000	500,000	1,000,000
B	30,000	100,000	200,000	400,000	600,000	1,000,000
C	40,000	100,000	180,000	300,000	500,000	1,000,000
D	30,000	80,000	EVERY 100,000			
E	50,000	150,000	EVERY 200,000			
F	30,000	80,000	150,000			
G	40,000	100,000	200,000			
H	40,000					

Pac Land Logic Board Connections

J8.44P Edge Connector (The pole key is located between E and F)
225J-22221-488DDK (Pitch 3.96mm)

A	GND	1	GND
B	Speaker +	2	Speaker -
C	Lockout Solenoid	3	Coin Counter
D	1 P Start Lamp	4	2 P Start Lamp
E	+ 12v	5	+12v
F	+5v	6	+5v
H	GND	7	GND
J	Service Switch	8	Test Switch
K	Coin 1 Switch	9	Coin 2 Switch
L	1 P Start Switch	10	2 P Start Switch
M	Player 1 Jump Switch	11	Player 2 Jump Switch
N	Player 1 Left	12	Player 2 left
P		13	
R	Player 1 Right	14	Player 2 Right
S		15	
T		16	
U		17	
V		18	
W		19	
X		20	
Y	Coin Counter 2	21	Table GND
Z	GND	22	GND

Notes:

1. The lockout solenoid and the coin counter's power supply is +12v.
2. The start lamp's power supply is +5v.
3. Each microswitch is connected onto the N.O. terminal. Each GND is connected onto the COM terminal.
4. TABLE GND - for the table, the GND is connected. Others, the GND is not connected.

J6.6P Plug Housing (Socket Connector)

1	Video Red		
2	Video Green	Housing	1-480704-0
3	Video Blue	Contact	350689-1 AMP
4	Video Sync		
5	Video GND		
6			

J7.3P Plug Housing (Socket Connector)

1	+12v 1A	Housing	1-480704-0
2	GND	Contact	350689-1 AMP
3	+5v 4A		

Name Of Game: Pac Land

Manuf: Namco

Switch "A" Settings

Option	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
Normal Play Mode	OFF							
Test Mode	ON							
3 Pac-Mans Per Game		OFF	OFF					
2 Pac-Mans Per Game		OFF	ON					
4 Pac-Mans Per Game		ON	OFF					
5 Pac-Mans Per Game		ON	ON					
Coin 1: 1 Coin / 1 Credit				OFF	OFF			
1 Coin / 2 Credits				OFF	ON			
2 Coins/ 1 Credit				ON	OFF			
3 Coins/ 1 Credit				ON	ON			
Attract Sound On						OFF		
Attract Sound Off						ON		
Coin 2: 1 Coin / 1 Credit							OFF	OFF
1 Coin / 2 Credits							OFF	ON
2 Coins/ 1 Credit							ON	OFF
3 Coins/ 1 Credit							ON	ON

Switch "B" Settings

Option	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
ALWAYS OFF				OFF	OFF			OFF
Free Man Points A	OFF	OFF	OFF					
Free Man Points B	OFF	OFF	ON					
Free Man Points C	OFF	ON	OFF					
Free Man Points D	OFF	ON	ON					
Free Man Points E	ON	OFF	OFF					
Free Man Points F	ON	OFF	ON					
Free Man Points G	ON	ON	OFF					
Free Man Points H	ON	ON	ON					
Game Continuity Normal						OFF		
Game Continuity Running						ON		
Screen Hold Normal							OFF	
Screen Hold Stop							ON	

Free Man Points Table

	1st	2nd	3rd	4th	5th	6th
A	30,000	80,000	130,000	300,000	500,000	1,000,000
B	30,000	100,000	200,000	400,000	600,000	1,000,000
C	40,000	100,000	180,000	300,000	500,000	1,000,000
D	30,000	80,000	Every 100K			
E	50,000	150,000	Every 200K			
F	30,000	80,000	150,000			
G	40,000	100,000	200,000			
H	40,000					