

JUNK YARD



OPERATIONS MANUAL INCLUDES

Operations & Adjustments • Testing & Problem Diagnosis • Parts Information • Wiring
Diagrams & Schematics

Williams Electronics Games, Inc., 3401 N. California Avenue, Chicago, IL 60618

DIP SWITCH SETTINGS AND JUMPERS

EPROM Jumper Settings for G11		W1	W2
1MEG, 2MEG, 4 MEG EPROM		In	Out

DIP Switch Chart

COUNTRY	SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
AMERICA	Off	Off	On	On	On	On	On	On
EUROPEAN	Off	Off	On	On	On	Off	On	On
FRENCH	Off	Off	On	On	On	On	Off	Off
GERMAN	Off	Off	On	On	On	On	On	Off
SPAIN	Off	Off	On	On	Off	On	On	On

SOLENOID/FLASHER TABLE

Sol. No.	Function	Solenoid Type	Voltage Connections			Drive Xistor	Drive Connections			Drive Wire Color	Solenoid Part Number	
			Playfield	Backbox	Cabinet		Playfield	Backbox	Cabinet		Flashlamp Type	Playfield
01	AUTO PLUNGER	High Power	J133-2			Q72	J116-1			VIO-BRN	AE-23-800	
02	REFRIGERATOR POPPER	High Power	J133-2			Q68	J116-2			VIO-RED	AE-23-800	
03	POWER CRANE	High Power	J133-2			Q71	J116-4			VIO-ORG	A-20099	
04	NOT USED	High Power				Q67				VIO-YEL		
05	SCOOP DOWN	High Power	J133-2			Q70	J116-6			VIO-GRN	SM1-28-900	
06	BUS DIVERTER	High Power	J133-2			Q66	J116-7			VIO-BLU	AE-27-1200	
07	KNOCKER	High Power		J133-2		Q69		J116-8		VIO-BLK		AE-23-800
08	NOT USED	High Power				Q65	J116-9			VIO-GRY		
09	TROUGH	Low Power	J133-3			Q44	J113-1			BRN-BLK	AE-26-1500	
10	LEFT SLINGSHOT	Low Power	J133-3			Q48	J113-3			BRN-RED	AE-26-1200	
11	RIGHT SLINGSHOT	Low Power	J133-3			Q43	J113-4			BRN-ORG	AE-26-1200	
12	NOT USED	Low Power				Q47				BRN-YEL		
13	NOT USED	Low Power				Q42				BRN-GRN		
14	NOT USED	Low Power				Q46				BRN-BLU		
15	HOLD CRANE	Low Power	J133-2			Q41	J113-8			BRN-VIO	A-20099	
16	MOVE DOG	Low Power	J133-3			Q45	J113-9			BRN-GRY	AE-26-1200	
17	DOG FACE FLASHER	Flasher	J133-6			Q28	J111-1			BLK-BRN	#906 (1)	
18	WINDOW SHOP FLSHR	Flasher	J133-6			Q32		J112-2		BLK-RED		#906 (1)
19	AUTOFIRE FLASHERS	Flasher	J133-6			Q27	J111-3			BLK-ORG	#89 (2)	
20	LEFT SIDE FLASHERS	Flasher	J133-6			Q31	J111-4	J112-5		BLK-YEL	#906 (1)	#906 (1)
21	SCOOP UP**	Low Power	J133-3			Q26	J111-5			BLU-GRN	AE-26-1200	
22	UNDER CRANE FLSHR	Flasher	J133-6			Q30	J111-6			BLU-BLK	#906 (1)	
23	BACK LEFT FLASHERS	Flasher	J133-6			Q25	J111-7	J112-8		BLU-VIO	#906 (1)	#906 (1)
24	BACK RIGHT FLASHERS	Flasher	J133-6			Q29	J111-8	J112-9		BLU-GRY	#906 (1)	#906 (1)
25	SHOOTER FLASHER	Gen. Purpose	J133-6			Q16	J109-1			BLU-BRN	#906 (1)	
26	SCOOP FLASHERS	Gen. Purpose	J133-6			Q15	J109-2	J108-3		BLU-RED	#906 (1)	#906 (1)
27	DOG HOUSE FLASHER	Gen. Purpose	J133-6			Q14	J109-3			BLU-ORG	#89 (1)	
28	CARS FLASHERS	Gen. Purpose	J133-6			Q13	J109-4			BLU-YEL	#89 (2)	

General Illumination

01	PLAYFIELD STRING 1	G.I.	J105-1			Q5	J105-7			WHT-BRN	#44	
02	PLAYFIELD STRING 2	G.I.	J105-2			Q4	J105-8			WHT-ORG	#44	
03	LOGO STRING 3	G.I.		J106-3		Q3		J106-9		WHT-YEL		#555
04	*ILLUMINATION STRING 4	G.I.		J106-5		Q2		J106-10		WHT-GRN		#555
05	*ILLUMINATION STRING 5	G.I.		J106-6	J104-3	Q1		J106-11	J104-1	WHT-VIO		#555

Flipper Circuits		Voltage Connection	Playfield	Drive Transistors Power	Hold	Drive Connections	Playfield	Drive Wire Colors		Coil Part No.	Coil Colors
								Power	Hold		
29		Lwr. Rt. Power	J119-1 (RED-GRN)	Q90		J120-13		YEL-GRN		FL-11629	BLUE
30	LOWER RIGHT FLIPPER	Lwr. Rt. Hold	J119-1 (RED-GRN)	Q92		J120-11		ORG-GRN			
31		Lwr. Lt. Power	J119-4 (RED-BLU)	Q87		J120-9		YEL-BLU		FL-11629	BLUE
32	LOWER LEFT FLIPPER	Lwr. Lt. Hold	J119-4 (RED-BLU)	Q89	Q89	J120-7		ORG-BLU			
33	NOT USED	Upr. Rt. Power	J119-6 (RED-VIO)	Q84		J120-6		YEL-VIO		NOT USED	
34	UPPER RIGHT FLIPPER	Upr. Rt. Hold	J119-6 (RED-VIO)		Q86	J120-4		ORG-VIO			
35	NOT USED	Upr. Lt. Power	J119-8 (RED-GRY)	Q81		J120-3		YEL-GRY		NOT USED	
36	UPPER LEFT FLIPPER	Upr. Lt. Hold	J119-8 (RED-GRY)		Q83	J120-1		ORG-GRY			

J1XX = POWER DRIVER BOARD

24-6549 = #44 BULB; 24-8704 = #89 BULB; 24-8768 = #555 BULB; 24-8802 = #906 BULB

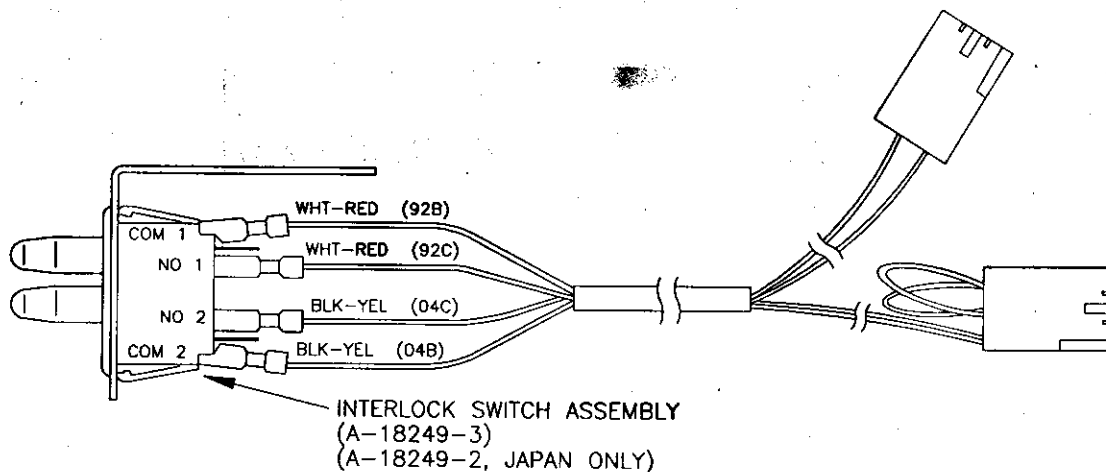
*THESE G.I. STRINGS DO NOT BRIGHTEN AND DIM, THEY ARE ALWAYS ON.

** TIEBACK DIODE FROM J111-12 & J111-13.

IMPORTANT NOTICE

PLEASE READ

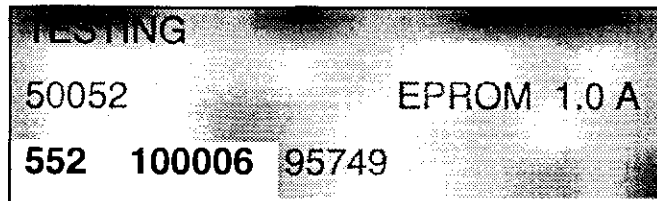
This pinball game is equipped with a SAFETY FEATURE to prevent shocks from the solenoid circuit when the coin door is opened. An interlock switch assembly (part no. A-18249-3), located at the left of the coin door opening, has been added to the game. This assembly is a bracket containing the existing memory protect switch on the bottom and a new interlock switch on the top. When the coin door is opened, this new interlock switch opens, breaking the connection to the +50V and +20V winding of the transformer secondary.



ATTENTION

The game uses a Security CPU Board that is not downward compatible to the CPU boards used in previous games. The board has an added security chip that can be interchanged between other **JUNK YARD** games and software revision levels. The CPU board itself is interchangeable with later model games, but must be equipped with the correct security chip and software for that specific game.

The games' electronic ID number is shown in the display during power-up. The number displayed is the same nine digit number printed on the security chip label. The first three digits are the project number without the country specific code. An example of the power-up display is shown below, the electronic ID number is bolded.



JUNK YARD

Information current at time of release.

Fill out and mail in game Registration card. Be sure to include the game serial number. For your records, write the PIC and game serial numbers in manual.

PIC Number _____ Serial Number _____

Williams Electronics Games, Inc. reserves the rights to make modifications and improvements to its products. The specifications and parts identified in this manual are subject to change without notice.

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JUNK YARD...THE STORY

By Dwight Sullivan

"Nice Doggie!", I exclaimed. Where did this ugly dog come from? I was only looking at a beat up old toaster and the next thing I knew a mouth full of ivory spikes was chomping on my heels as I fled for my life.

"GRRRRFFFFFF GRFF GRFFFFFF!" Snarled Spike.

"Maybe I have a Milkbone," it was lie. I rounded the corner and dashed through a large sliding gate. Spike was still coming attitude and all. Dropping the toaster, I hurried to slide the gate shut as spikes' shadow grew all around me. CLANG! The gate closed and Spike was unable to stop in time.

Then I got a bad feeling as I heard a laughter all around me echoing. "Your trapped in my junkyard HA HA HA HA HA" that must be CRAZY BOB I thought. I am going to have to build some kind of flying jalopy to get out of here.

The growls and snarls of Spike grew faint as I wandered deeper into the canyons of junk. I stumbled across a functional television set. Now if I only had a weather vane I could create a radar device. I looked up and there was a weather vane sticking out of a telephone pole. Climbing on top of a stack of cars, I retrieved the weather vane. Using some extra wiring, I integrated the weather vane to the TV creating a radar device. It was time to test the device. I flipped through the channels on the TV. My choices were Christmas trees, time machines, fireworks, hot babes, junk, and Mean Dogs. I chose fireworks. Then I adjusted the tuner and bingo. The display showed me where and how close the fireworks were.

Just then I saw a hair dryer buried under some bicycle tires. I combined the hair dryer and the toaster creating a kind of toaster gun. Holding the gun I felt the urge to say 'feeling lucky PUNK!', but I resisted.

With new found confidence I made my way deeper into the labyrinth. I had a growing sensation. The sensation of being watched. Turning the corner I saw them. Down the alley, under a street lamp, hundreds, no thousands of rats were bubbling out of crates of fireworks. A sudden urge of stupidity swelled within me. I charged down the alley screaming at the top of my lungs and toaster gun blazing. As I reached the crates, I wasn't sure if it was toast or dead rats crunching under my shoes. I had a feeling that I would need these fireworks sooner or later.

I heard the distinct sound of water running. Climbing over stacks of tires I hid in the shadows and watched. A bare outstretched foot and a wet leg glistened in the moon light. She was taking a bath! I started to forget my surroundings when I heard a familiar yet loathing sound.

"GRRRRFFFFFF GRFF GRFFFFFF!" Spike had a limited vocabulary. The bathing beauty leapt from the water naked and suds flying. I took a firm grip of the toaster gun, and a smile took control of my face.

"Somebody get this dog away from me!" She blurted. Leaping to my feet, I chased after them. FLANK FLANK FLANK, three pieces of toast whizzed past his head. I missed. I followed them to a small alcove. Locked in a figure eight, she was running for her life. I knew how she felt.

Crouching down I took aim. FLANK. Nervous, I shot too soon. The toast narrowly went between them. FLANK. This time I was successful! Spike, knocked down and away, the girl had time to escape. "Eat hot toast you scruffy old mutt!" I exclaimed victoriously.

That's when I had an idea. I tuned my radar device to the junk channel and calibrated it to search for a fan. I was lucky. There was a fan nearby. I tested the fan. I plugged the fan in and turned it on and the force blew me back against a wall of cars. The next thing I remembered was toast, dead rats, and small pieces of junk flying down the alley.

The bath tub still had her sweet smell. Digging the bike tires out I added them to the bath tub. I attached the fan to the rear. Using the fan as a means of locomotion and a rudder, I was soon tooling around the junk yard in my new jalopy.

I knew then that I would be able to collect all the junk I needed to finish this flying jalopy and go on many more adventures.

- J. W. O'Mally

JUNK YARD

RULES & SHOTMAPS

JUNK YARD RULES

RADAR ADVENTURE

- Build the RADAR to light the adventure.
- Collect WEATHER VANE and TV to build the RADAR.
- Shoot the SEWER when START ADVENTURE is lit.
- During RADAR ADVENTURE, shoot flashing arrows to collect FIREWORKS.
- Collect five FIREWORKS to finish.

- If the TOASTER GUN is assembled, the TOASTER GUN Target will be lit during all adventures. Hit the target to collect FIREWORKS at a cost of five pieces of TOAST (AMMO).

THE GREAT JALOPY RACE

- Build the JALOPY to light the adventure.
- Collect BATH TUB, FAN, and BICYCLE TIRES to build the JALOPY.
- Shoot the SEWER when START ADVENTURE is lit.
- During THE GREAT JALOPY RACE shoot all five flashing arrows to win.

- If the TOASTER GUN is assembled, the TOASTER GUN Target will be lit during all adventures. Hit the target to collect FIREWORKS at a cost of five pieces of TOAST (AMMO).

THE GREAT TOILET ADVENTURE

- Shoot THE GREAT TOILET to build the JACKPOT at all times.

- You need the SUBMERGER completed to light the adventure.

- Build the JALOPY first.
- Then collect FISH BOWL to complete SUBMERGER.
- Shoot the SEWER when START ADVENTURE is lit.
- All shots collect GREAT TOILET JACKPOT.
- During THE GREAT TOILET ADVENTURE shoot SEWER and THE GREAT TOILET to collect FIREWORKS. Collect five to finish.

- If the TOASTER GUN is assembled, the TOASTER GUN Target will be lit during all adventures. Hit the target to collect Fireworks at a cost of five pieces of TOAST (AMMO).

AIR TACTICAL COMBAT

- You need the FLYING JALOPY completed to light the adventure.
- Build the JALOPY first.
- Then collect PROPELLER to complete the FLYING JALOPY.
- Shoot the SEWER when START ADVENTURE is lit.
- Hit the WRECKING BALL five times to win.

- If the TOASTER GUN is assembled, the TOASTER GUN Target will be lit during all adventures. Hit the target to collect FIREWORKS at a cost of five pieces of TOAST (AMMO).

OUTER SPACE

- After all other adventures are completed, and all JUNK is collected, OUTER SPACE will be lit. Shoot the SEWER when START ADVENTURE is lit.
- If 20 FIREWORKS were collected, the player will receive FIREWORKS bonus.
- OUTER SPACE is a four ball continuous MULTIBALL that lasts until all your FIREWORKS run out. Hit the TOASTER GUN target to collect FIREWORKS at a cost of five pieces of TOAST (AMMO). Hit the CRANE to collect more FIREWORKS.
- Shoot flashing arrows before they can be re-lit.
- Complete all five to defeat CRAZY BOB.

RUN FROM SPIKE / SAVE THE GIRL

- Spell DOG to light the DOG video mode.
- Shoot ALLEY to play the video mode.
- RUN FROM SPIKE: Pound flipper buttons to escape from SPIKE.
- SAVE THE GIRL: Use flipper buttons to shoot TOAST at Spike. Hit SPIKE three times to win.
Note: Must have the TOASTER GUN to play SAVE THE GIRL.
Note: The initials hanging from SPIKE'S collar are that of the JUNK CHAMPION.

RECYCLE

- Complete the left three bank target to light the left RECYCLE outlane.
- Complete the right three bank target to light the right RECYCLE outlane.
- If the ball travels over the lit outlane, the player will get the ball back for another SKILL SHOT.

MULTIBALL

- Hit the WRECKING BALL to receive a MULTIBALL LETTER.
- Complete the left or right lower CAR three bank targets to receive a MULTIBALL LETTER.
- SNEAK IN: Shoot past the WRECKING BALL while the CRANE is down to receive three MULTIBALL LETTERS.
- Spell MULTIBALL to light MULTIBALL.
- Shoot the CRANE to start a three ball MULTIBALL.
- During MULTIBALL, shoot the CRANE to collect the JACKPOT.
- Shoot the CRANE while the WRECKING BALL is down to collect the SUPER JACKPOT.

CRANE HURRY UP/ CRANE MULTIBALL

- Complete both lower CAR three bank targets to light START HURRY UP return lanes. If the ball travels over either return lane the player will start CRANE HURRY UP.
- CRANE HURRY UP: Hit WRECKING BALL as quickly as possible to collect value and start CRANE MULTIBALL before value counts down.
- CRANE MULTIBALL: This is a two ball MULTIBALL.
- Hit any CAR target, upper or lower, to collect value.