

Self-Test Procedure

Instruction	Test Passes
1. Set the self-test switch to <i>on</i> . While holding the FIRE button down, press 1-player start.*	The screen shows the self-test display. RAMs, ROMs, and three integrated circuits are tested. If the screen is different from the self-test display, or if there are sounds, refer to <i>Chapter 2, Self-Test Procedure</i> .
2. Activate control panel and coin switches.	As you activate the switches, you should hear a beep and the proper 0 should change to 7. If the test fails, refer to <i>Chapter 2, Self-Test Procedure</i> .
3. Observe the white frame at the sides of the screen.	Each frame corner should be within 1/4-inch of each display bezel corner. If the test fails, refer to <i>Chapter 2, Self-Test Procedure, Screen 2</i> .

*All credits are cancelled when you enter self-test



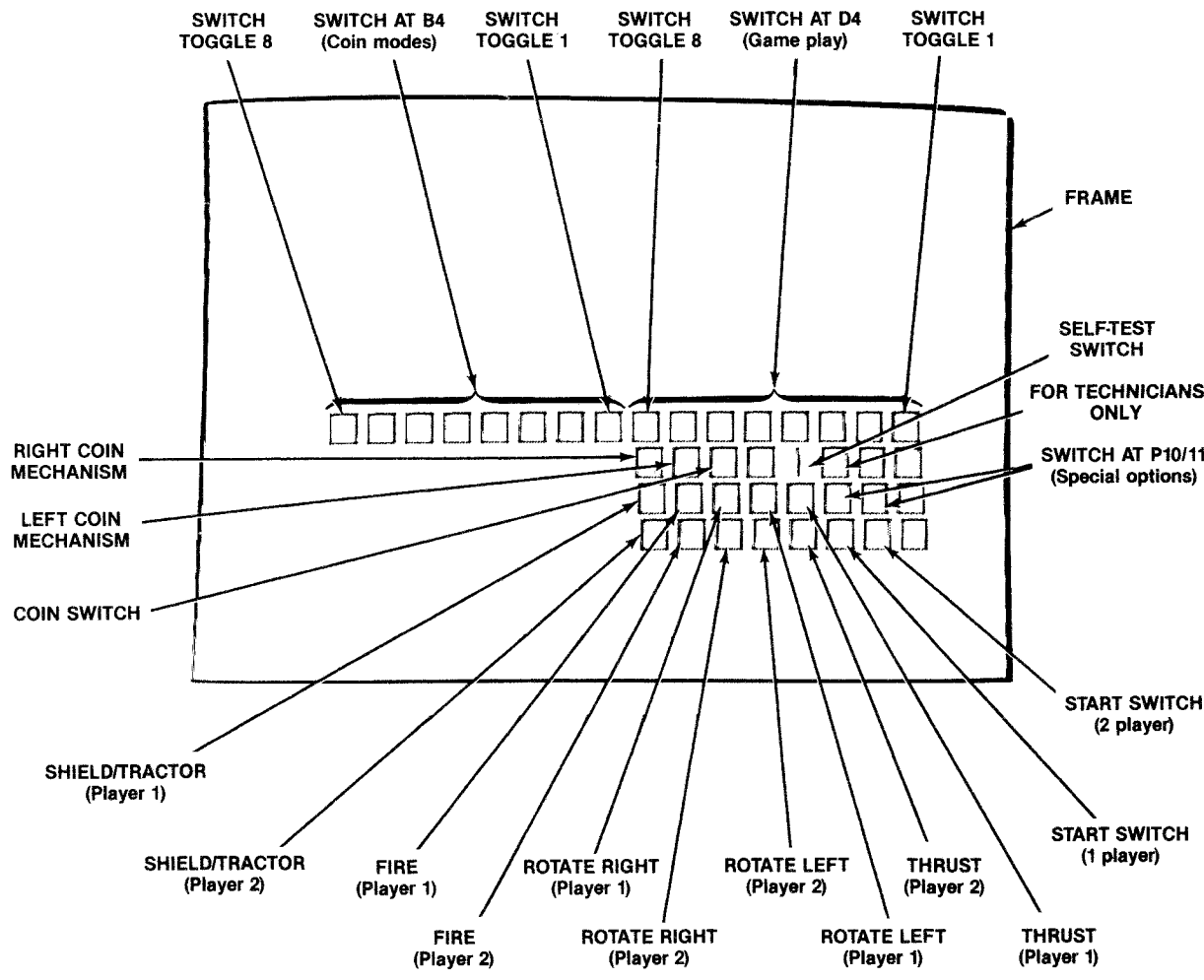
Important Note to Operators:

If the operation, maintenance and service manual, schematic package or video display manual was not included in this game when you unpacked it, contact your distributor to get a free copy. (All ATARI manuals for coin-operated games also include complete illustrated parts lists.)

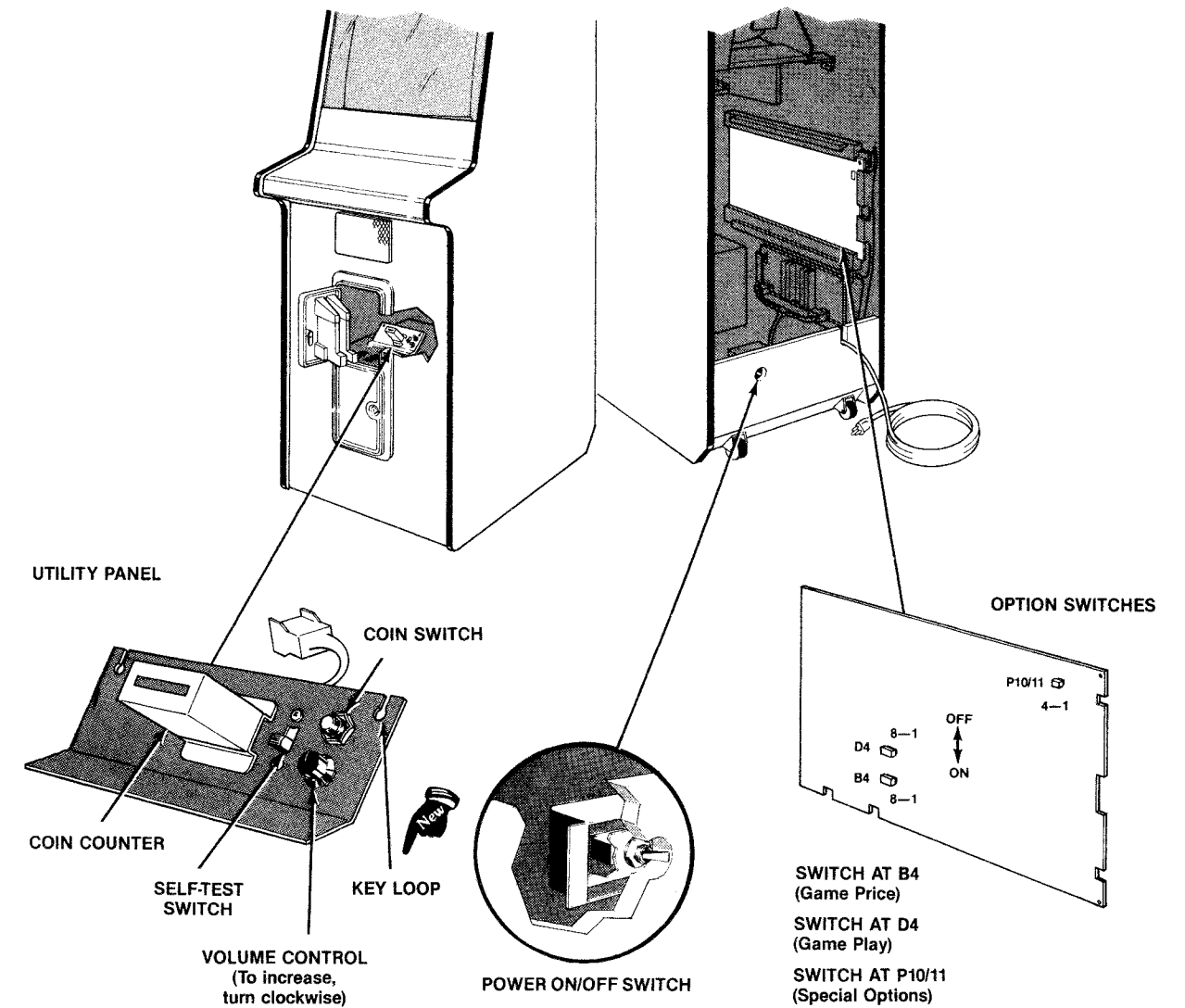
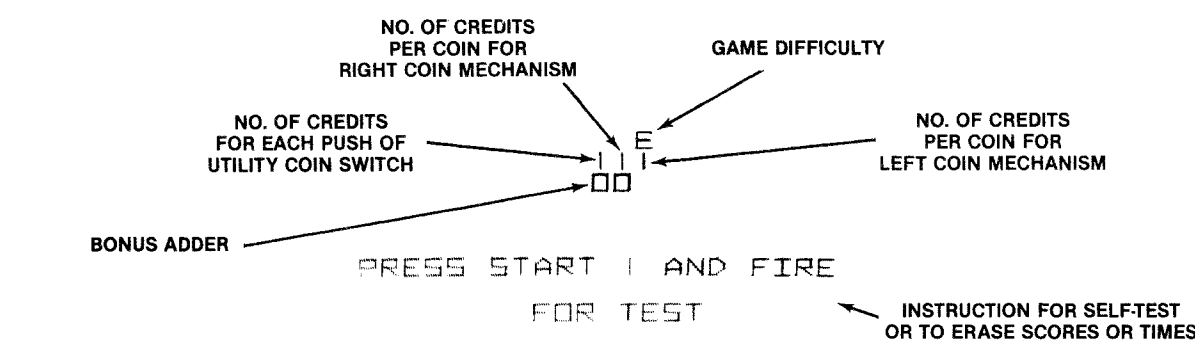
This game will test itself and provide data to show that the game's circuitry and controls are operating properly. The data is provided on the video display and speaker. No additional equipment is necessary.

We suggest you perform the self-test procedure when you first set up the game, any time you collect money from the game, when you change game options, or when you suspect game failure.

To perform the self-test, set the self-test switch to *on*. Then simultaneously press the 1-player start and FIRE buttons. To end the self-test, set the self-test switch to *off*.



Self-Test Display



Game Switch Locations

Game options are preset at the factory and shown by the ◀ symbols. However, you may change the settings to suit your individual needs.

To verify option switch settings, power the game *off* and then *on* again. Set the self-test switch to *on* and verify the settings on the self-test screen. Then set the self-test switch to *off*.

Game Price Options

This table contains the switch settings for options relating to game price, coin mechanism multipliers, and bonus play. The switches are on the game PCB at location B4 and are accessible when the game PCB is mounted in place.

The basic unit of measurement is a coin worth \$.25 or 1 DM, which equals a multiplier of x1. Therefore, if you have a 2 DM/1 DM coin door, you may want to set the left multiplier at x2 and the right multiplier at x1.

The *coin mechanism* is a device on the inside of the coin door that inspects the coin to determine if the correct coin has been inserted. After this inspection, the mechanism either accepts or rejects the coin.

You may offer *bonus play* for certain combinations of coins inserted. For example, with the game set at \$.25 per play, players who deposit four successive quarters, then press the start switch, can receive a bonus play. The bonus feature encourages players to insert more money than just the minimum \$.25 required for one game. All coins must be inserted before pressing the start switch.

The *multipliers* (toggles 4-6) determine how much each coin mechanism will be worth to the game's logic. The coin door has two mechanisms.

Settings of 8-Toggle Switch on Gravitar PCB (at B4)								Option
8	7	6	5	4	3	2	1	
Off	On							Free play
On	On							1 coin for 2 credits
Off	Off							1 coin for 1 credit ◀
On	Off							2 coins for 1 credit
				Off	Off			Right coin mechanism x 1 ◀
				On	Off			Right coin mechanism x 4
				Off	On			Right coin mechanism x 5
				On	On			Right coin mechanism x 6
						Off		Left coin mechanism x 1 ◀
						On		Left coin mechanism x 2
						Off	Off	No bonus coins ◀
						On	Off	For every 4 coins inserted, logic adds 1 more coin
						Off	On	For every 4 coins inserted, logic adds 2 more coins
						On	Off	For every 5 coins inserted, logic adds 1 more coin
						Off	On	For every 3 coins inserted, logic adds 1 more coin
						On	On	No bonus coins

◀ Manufacturer's recommended settings

Special Options

Settings of 4-Toggle Switch on Gravitar PCB (at P10/11)				Option
4	3	2	1	
			On	Credits counted on one coin counter.
			Off	Credits counted on two separate coin counters

Operator Information Display

The Operator Information Display, shows game statistics. You may also erase game scores and times. To see this display, set the self-test switch to *on*.

To erase game scores:

1. Push 1-PLAYER START until display reads **PRESS START 1 AND FIRE TO CLEAR SCORES**.
2. Press both FIRE and 1-PLAYER START.
3. The word **ERASING** flashes on the screen until the entire table is erased. Wait until the word **ERASING** disappears before going on with other tests.

To erase game times:

1. Push 1-PLAYER START until display reads **PRESS START 1 AND FIRE TO CLEAR TIMES**.
2. Press both FIRE and 1-PLAYER START.
3. The word **ERASING** flashes on the screen until the entire table is erased. Wait until the word **ERASING** disappears before going on with other tests.

To erase game scores and times:

1. Push 1-PLAYER START until display reads **PRESS START 1 AND FIRE TO CLEAR TIMES AND SCORES**.
2. Press both FIRE and 1-PLAYER START.
3. The word **ERASING** flashes on the screen until the entire table is erased. Wait until the word **ERASING** disappears before going on with other tests.

To end the Operator Information Display, set the self-test switch to *off*.

Game Play Options

This table contains the switch settings for options relating to game difficulty, language, bonus, and ships. The switches are on the game PCB at location D4, and are accessible when the game PCB is mounted in place.

Settings of 8-Toggle Switch on Gravitar game PCB (at D4)								Option
8	7	6	5	4	3	2	1	
						On	On	No bonus
						Off	Off	Bonus ship every 10,000 points ◀
						On	Off	Bonus ship every 20,000 points
						Off	On	Bonus ship every 30,000 points
Not used				On				Easy game play ◀
Not used				Not used				Hard game play
		Off	Off					3 ships per game ◀
		On	Off					4 ships per game
		Off	On					5 ships per game
		On	On					6 ships per game

◀ Manufacturer's recommended settings



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