

# ASTEROIDS DELUXE™

## Game Price Settings

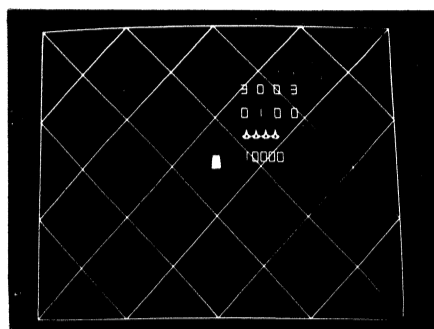
The white block below contains Atari's suggested settings. All numbers 1 thru 8 are toggle settings on the 8-toggle switch at location L8, on the Asteroids Deluxe™ game PCB (the CENTER switch assembly).

## Self-Test Procedure

Instruction	Results if Test Passes	Results if Test Fails
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1. Set self-test switch to on position (see figure in center of label). The monitor displays the picture below. The game produces only a very short beep sound.

**RAM FAILURE** is indicated by a sequence of low and high beeps. Note the sequence of beeps and determine which RAM(s) may be bad. To restart the sequence, press the reset pushbutton on the game PCB, or set the self-test switch to off, then again to the on position.



Example only—detail below explains these four rows of symbols.

Sequence of Beeps	Possible Bad RAM Chip Location(s)
1 low	L1
2 lows	M1
1 high, 1 low	M3
2 highs, 1 low	M3, R3
2 highs, 2 lows	R3
3 highs, 1 low	N3
4 highs, 1 low	N3, P3
4 highs, 2 lows	P3
5 highs, 1 low	

Any bad RAMs must be replaced before the self-test can continue.

**ROM/PROM FAILURE** is indicated by the display of the actual PROM or ROM chip location(s) on the center left side of the monitor screen. Both a PROM or its equivalent ROM are inserted into the same socket. Therefore, the displays are correct regardless of whether your game PCB has PROMs or ROMs or a combination of both. If the screen is blank or displays "garbage," the chips at locations N2 and/or J1 are probably bad.

**INVERTING CIRCUITRY FAILURE** is indicated by the **BANK ERROR** message in the lower center part of monitor screen. This circuitry is necessary for the cocktail-table version to function properly, that is, the picture turns 180° with every other ship in 2-player cocktail games.

**AUDIO CHIP FAILURE** is indicated by the **ERROR** message at center bottom of the screen. The large audio chip is at location M7/B on the game PCB.

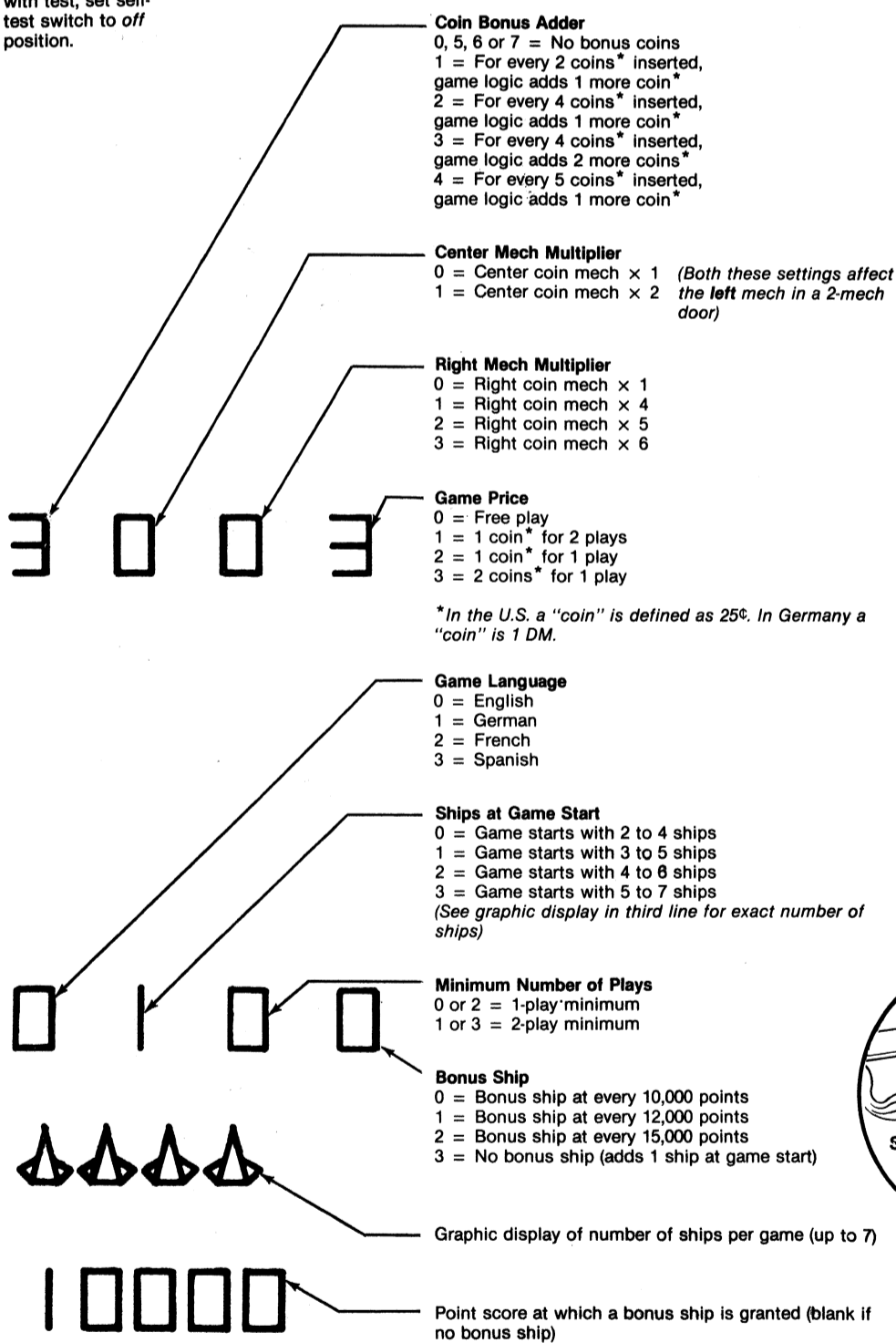
You will not hear a short low beep for the defective switch, or dark LED.

2. Activate all 7 control-panel switches, the slam switch, and coin door switches. As you activate and deactivate each switch, you'll hear a short low beep. Both start switch LEDs will be constantly lit.

### 3. Erasing the High Score Table (optional)

The current three highest scores are held in permanent memory, even if the game is unplugged. These three are marked with spaceship symbols in the high score table. If you want to erase these scores, simultaneously press the rotate left, rotate right, thrust, and fire buttons. The **ERASING** message near the center of the screen will then be displayed for several seconds, until the entire table is erased.

4. When satisfied with test, set self-test switch to off position.



**Important Note to Operators:**  
If the operation, maintenance and service 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 a complete illustrated parts catalog.)

### 50¢ PER PLAY:

	No bonus	Bonus \$1.00 = 3 plays	Bonus \$0.50 = 1 play \$0.75 = 2 plays \$1.00 = 3 plays
<b>Straight 25¢ Door</b>	8 On 7 On 6 On 5 On 4 On 3 On 2 On 1 On	8 On 7 Off 6 Off 5 On 4 On 3 On 2 Off 1 Off	8 On 7 On 6 Off 5 On 4 On 3 On 2 Off 1 Off
<b>25¢/\$1.00 Door or 25¢/25¢/\$1.00 Door</b>	8 On 7 On 6 On 5 On 4 On 3 On 2 On 1 On	8 On 7 Off 6 Off 5 On 4 On 3 On 2 Off 1 Off	8 On 7 On 6 Off 5 On 4 On 3 On 2 Off 1 Off

### 25¢ PER PLAY:

	No bonus	Bonus \$0.50 = 3 plays	Bonus \$1.00 = 5 plays
<b>Straight 25¢ Door</b>	8 On 7 On 6 On 5 On 4 On 3 On 2 On 1 On	8 On 7 On 6 Off 5 On 4 On 3 On 2 Off 1 On	8 On 7 Off 6 On 5 On 4 On 3 On 2 Off 1 On
<b>25¢/\$1.00 Door or 25¢/25¢/\$1.00 Door</b>	8 On 7 On 6 On 5 On 4 On 3 On 2 On 1 On	8 On 7 On 6 Off 5 On 4 On 3 On 2 Off 1 On	8 On 7 On 6 Off 5 On 4 On 3 On 2 Off 1 On

Circled numbers refer to coin-door labels you should use with each situation (labels are illustrated below).

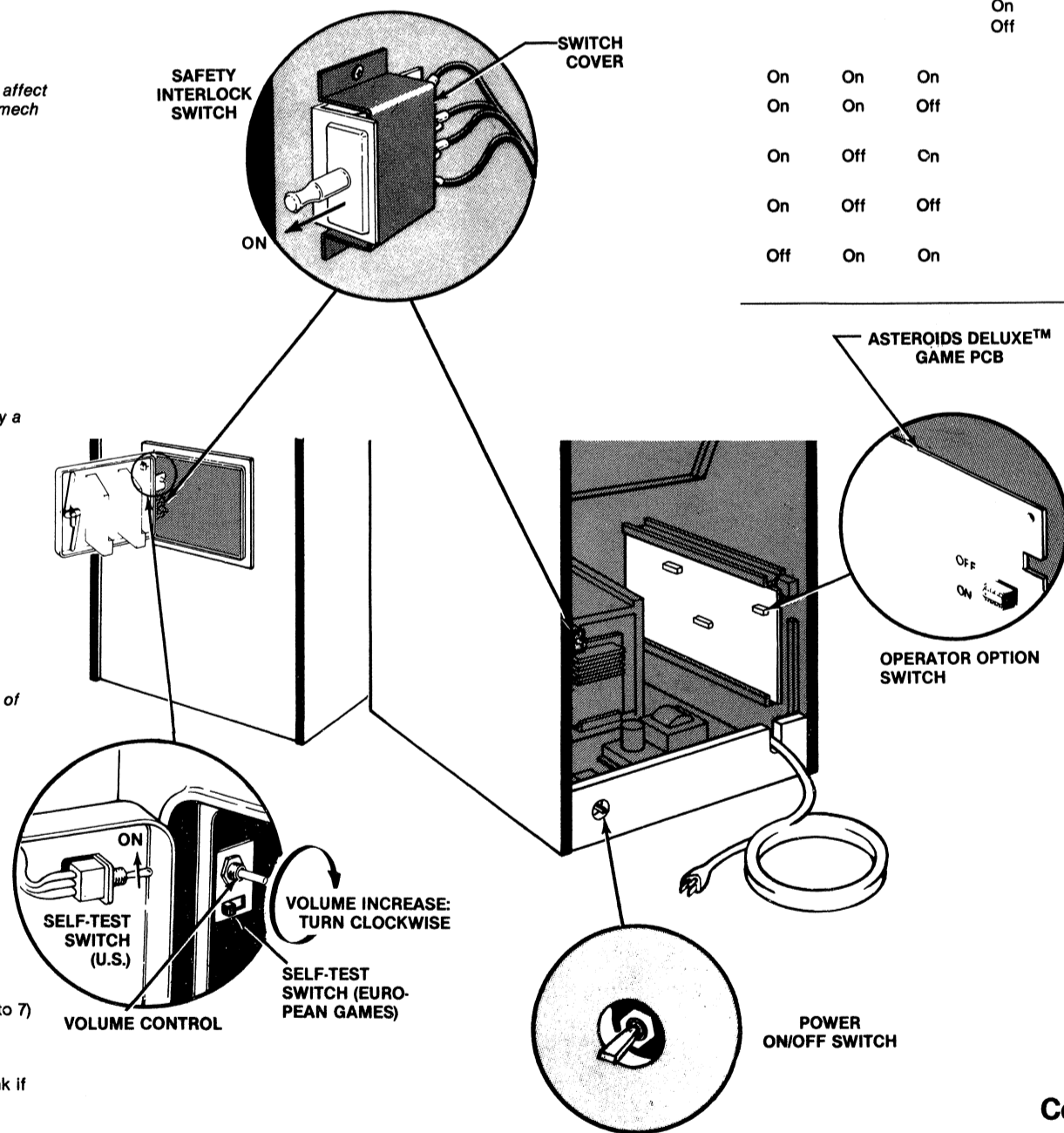
Use the label no. 6 (indicated above with ⑥) only if you set toggle 5 at PCB switch assembly R5 to off.

For your information, we have defined below the switch settings for those options relating to game price, coin mechanism multipliers, and bonus play. This information is useful in case you need to temporarily set the Asteroids Deluxe™ game on free play, or if you have German coin mechanisms in your door.

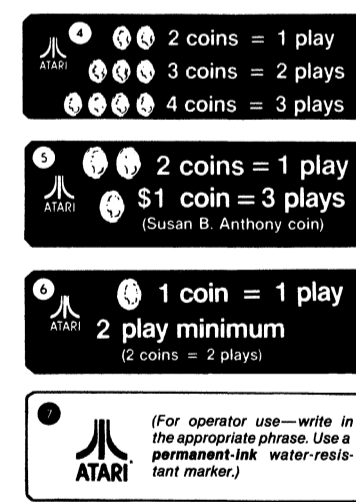
The label no. 6 shown below should be used only if you set toggle 5 at PCB switch assembly R5 to off.

### Toggle Settings of 8-Toggle Switch on Asteroids Deluxe PCB (at L8—CENTER switch when PCB is in game)

8	7	6	5	4	3	2	1	Option
							On	Free play
							On	1 coin* for 2 plays
							Off	1 coin* for 1 play \$
							Off	2 coins* for 1 play
				On	On			Right coin mech × 1 \$
				On	Off			Right coin mech × 4
				Off	On			Right coin mech × 5
				Off	Off			Right coin mech × 6
						On		Center coin mech × 1 \$
						Off		Center coin mech × 2 (Both these settings affect the left mech in a 2-mech door)
								No bonus coins \$
								For every 2 coins* inserted, game logic adds 1 more coin*
								For every 4 coins* inserted, game logic adds 1 more coin*
								For every 4 coins* inserted, game logic adds 2 more coins*
								For every 5 coins* inserted, game logic adds 1 more coin*



\*In the U.S., a "coin" is defined as 25¢. In Germany a "coin" is 1 DM.  
\$ Manufacturer's suggested settings  
To achieve bonus plays, all coins must be inserted before pressing start button.



## Game Option Settings

To change toggle positions on the switch assemblies, you need not remove the game PCB. The switches, usually colored blue, are easily accessible when the Asteroids Deluxe™ Game PCB is mounted in place.

When changing the options, verify proper results on the monitor display by performing the self-test. Note that changing an option on any of the following eight toggles will cause an immediate change on the monitor screen during the self-test.

### Toggle Settings of 8-Toggle Switch on Asteroids Deluxe PCB (at R5—LEFT switch when PCB is in game)

8	7	6	5	4	3	2	1	Option
							On	English language \$
							On	German language
							Off	French language
							Off	Spanish language
				On	On			Game starts with 2 ships
				On	Off			Game starts with 3 ships \$
				Off	On			Game starts with 4 ships
				Off	Off			Game starts with 5 ships
								1-play minimum \$
								2-play minimum
								Bonus ship at every 10,000 points \$
								Bonus ship at every 12,000 points
								Bonus ship at every 15,000 points
								No bonus ship

*If set for no bonus ship or 50¢ play, add 1 ship per setting.*

## Coin Counter Option Settings

[These toggles determine which coin mechanisms activate which counters]

### Toggle Settings of 4-Toggle Switch on Game PCB (L9)

4	3	2	1	Two coin acceptors in the coin door:	Two coin acceptors and a push-button utility coin switch in the game:	Three coin acceptors in the coin door:	
			On	On	Both acceptors activate all coin counters simultaneously.	Do not use this setting.	All 3 are same denomination and they activate all coin counters simultaneously.
			Off	On	Both acceptors activate 2 counters separately.	Do not use this setting.	Left and center acceptor activate one coin counter; right acceptor activates another coin counter.
Not Used	Not Used		On	Off	Both acceptors activate all coin counters simultaneously.	Utility coin switch will not activate a coin counter, if you do not hook up it up. Both acceptors activate all coin counters simultaneously.	Left acceptor activates one coin counter; center and right acceptor activate another coin counter. <i>Not for any currently designed 3-mech coin door.</i>
			Off	Off	Both acceptors activate 2 counters separately. \$	Utility coin switch will not activate a coin counter, if you do not hook it up. Left and right acceptors activate 2 coin counters separately.	Left, center and right acceptors activate 3 coin counters separately. \$

