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Operating Instructions

For Model

409A

GRAVITAR

Space Duel

ATARI

		SL2				START 2			SR2			5V	
		x				x			x				
LLP	SL1	SL5	SL3	LRP		START1	RLP	SR1	SR5	SR3	RRP	ON	OFF
	x	x	x			x		x	x	x			
x		SL4		x	x	x	x		SR4		x		
		x							x				
	SL6		SL7			COIN		SR6		SR7		POWER	
	x		x			x		x		x	x	ON	OFF

1. Insert 409A card into a slot with number side up.
2. Connect 22/44 edge connector to PCB with RED DOT UP.
3. Connect 12/24 edge connector to PCB with RED DOT UP.
4. Turn 5V and POWER to ON.
5. Connect short leads on 12/24 edge connector to speaker.
6. Controls are:

COIN-----COIN LEFT (CCL should light when pushed)
 SR6-----COIN RIGHT (CCR should light when pushed)
 SL7-----COIN AUXILIARY
 START 1--START 1 (TEST FIXTURE LED LIGHTS 1 CREDIT)
 START 2--START 2 (TEST FIXTURE LED LIGHTS 2 CREDITS)
 SR1-----LEFT (MOVE)
 SR3-----RIGHT
 SR2-----THRUST
 SR4-----SHIELDS
 SR5-----FIRE

7. Test switch is on 409A card.
8. Audio 1 & 2 are on 409A card.
9. L.O.-Lockout LED indicates when lockout is working.
10. 7 pin right angle connector makes video signals available from 409A card, RED, GREEN, BLUE, X & Y signals.

ROM SIGNATURES

CPU BOARD

<u>LOCATION</u>	<u>MARK</u>	<u>TYPE</u>	<u>SIGNATURE</u>	<u>PERSONALITY BOARD</u>
L 7	210	TMS2516	2694	2716/I24
M/N 7	207	TMS2532	4635	TMS2532/L24
N/P 7	208	"	3U00	"
R 7	209	"	3U00	"
D 1	201	"	4P9C	"
E/F 1	202	"	97AU	"
H 1	203	"	UH77	"
J 1	204	"	7C54	"
K/L 1	205	"	CAU3	"
M 1	206	"	A13C	"