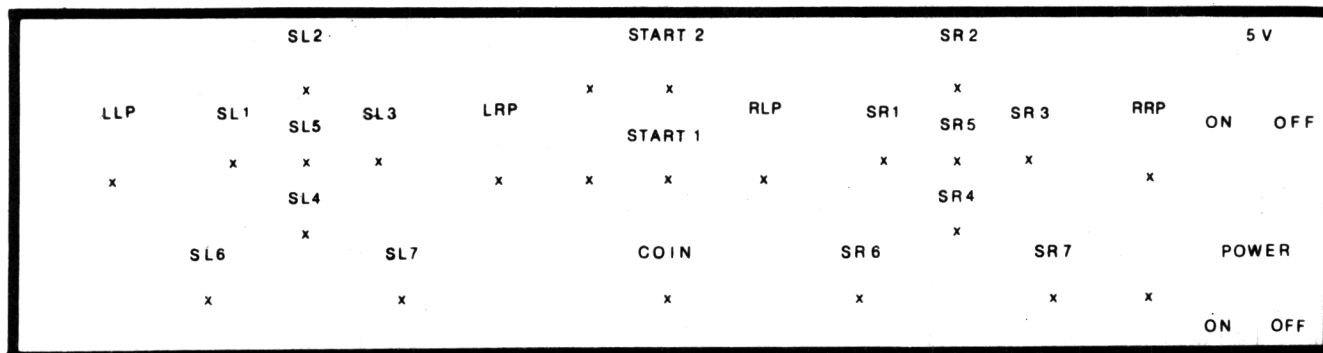# Kurz-Kasch, Inc.

Electronics Division
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Telephone (513) 296-0330

Operating Instructions
For Model ___102 A___

QUADRAPONG

Atari

		SL2			START 2			SR2			5 V

```
                    SL2                        START 2                      SR2                      5 V
                     x                       x     x                        x
   LLP      SL1            SL3      LRP                      RLP    SR1            SR3      RRP
                SL5                             START 1                 SR5                   ON   OFF
            x     x     x                x     x     x     x           x     x     x
    x             SL4                                                        SR4
                  x                                                          x
       SL6              SL7                     COIN              SR6              SR7          POWER
        x               x                       x                 x               x     x
                                                                                             ON   OFF
```

1. Insert 102A card into program "A" connector, number side up.

2. Insert computer board into test fixture using 22 pin orientation.

3. Push power switch to on.

4. Coin (push once for 2 players) switch select on PCB in 2 player mode.

5. Coin (push twice for 4 players)

6. Push start 1 (2 or 4 players)

7. LLP - left vertical paddle control

8. RRP - right vertical paddle control

9. LRP - bottom horizontal paddle control

10. RLP - top horizontal paddle control

Kurz-Kasch, Inc.

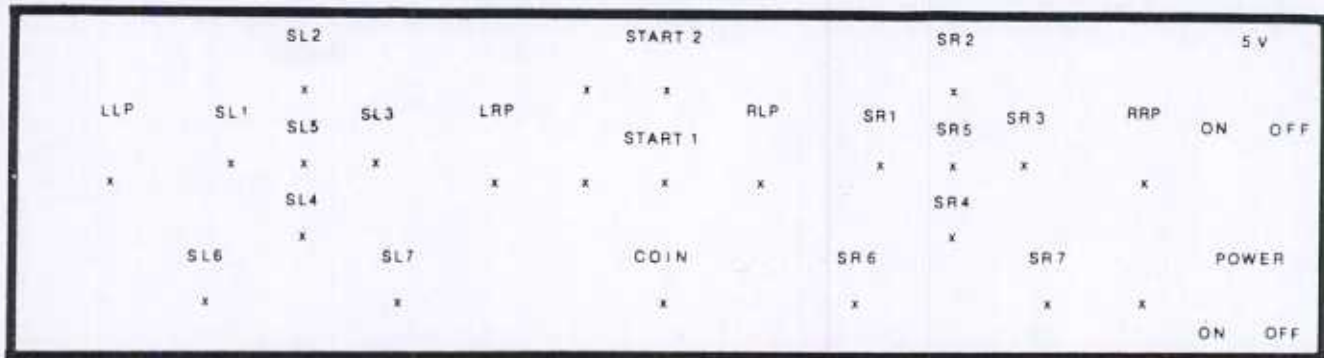Electronics Division
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Dayton, Ohio 45401
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Operating Instructions
For Model ___103A___

_____SPACE RACE/ASTROID_____

_____Atari/Midway_____

```
        SL2                    START 2              SR 2                    5 V
         x                       x                   x
LLP     SL1   SL3      LRP    x   x       RLP   SR1  SR5  SR 3    RRP    ON    OFF
        SL5                      START 1                 
  x      x    x    x      x   x   x    x      x   x    x            x
        SL4                                          SR 4
         x
   SL6         SL7             COIN         SR 6           SR 7        POWER
    x           x              x            x          x     x
                                                                     ON    OFF
```

1. Insert 103A card into program "A" connector, number side up.

2. Insert computer board into test fixture, using 22 pin orientation.

3. Turn power switch to on.

4. Push coin switch once, credit LED will come on.

5. Push coin switch once to start game.

6. SL2 - controls vertical up movement of left space ship.

   SL4 - controls vertical down movement left of space ship.

   SR2 - controls vertical up movement of right space ship.

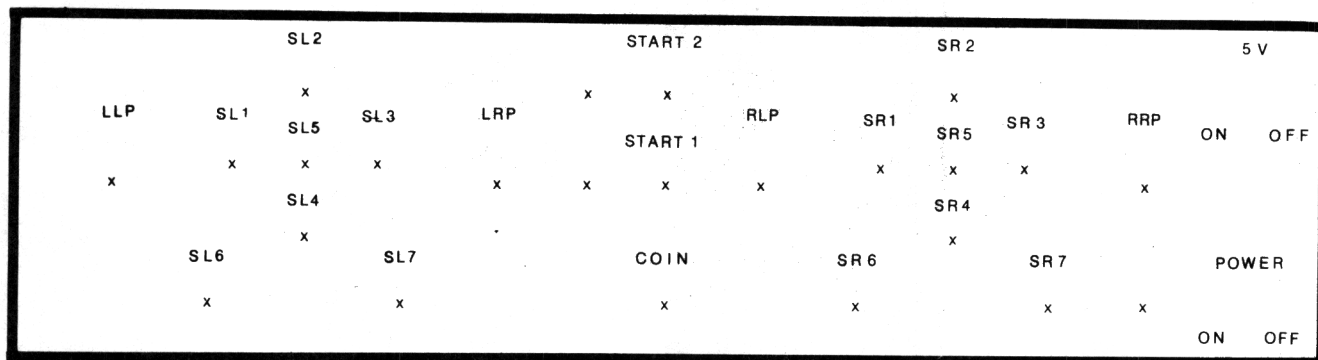   SR4 - controls vertical down movement of right space ship.

Operating Instructions
For Model ___104 A___

___GOTCHA___

___Atari___

	SL2				START 2				SR 2				5 V	
	x								x					
LLP	SL1	SL5	SL3	LRP			RLP	SR1	SR5	SR 3	RRP	ON	OFF	
						START 1								
x	x	x	x		x	x	x	x	x	x		x		
		SL4							SR4					
		x							x					
SL6			SL7			COIN		SR 6			SR 7		POWER	
x			x			x		x			x	x		
												ON	OFF	

1. Insert program card with number facing you in slots A or B, as marked.

2. Power on

3. Coin

4. Start 1

5. Character Movement (square)

        UP   -   SR2
        DOWN -   SR4
        RIGHT -   SR3
        LEFT -   SR1

6. Character Movement (cross)

        UP   -   SL2
        DOWN -   SL4
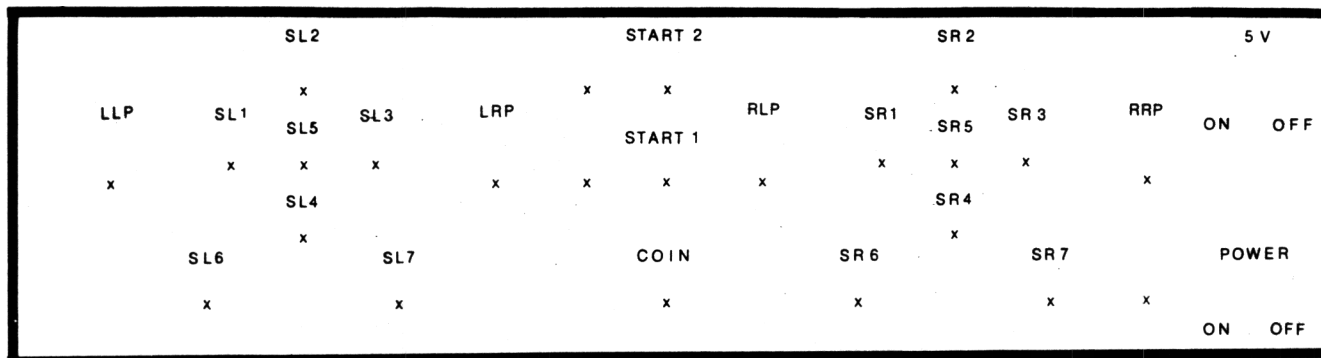   RIGHT -   SL3
        LEFT -   SL1

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```
        SL2                        START 2              SR2                    5 V

              x                 x       x                     x
  LLP    SL1    SL3    LRP                    RLP    SR1    SR5    SR3    RRP
               SL5                START 1                   .SR5
                                                                          ON   OFF
         x     x      x                                x    x     x
  x            SL4         x     x     x     x                              x
                                                         SR4
              x                                        x
        SL6          SL7                  COIN        SR6         SR7         POWER

         x           x               x          x          x      x
                                                                          ON   OFF
```
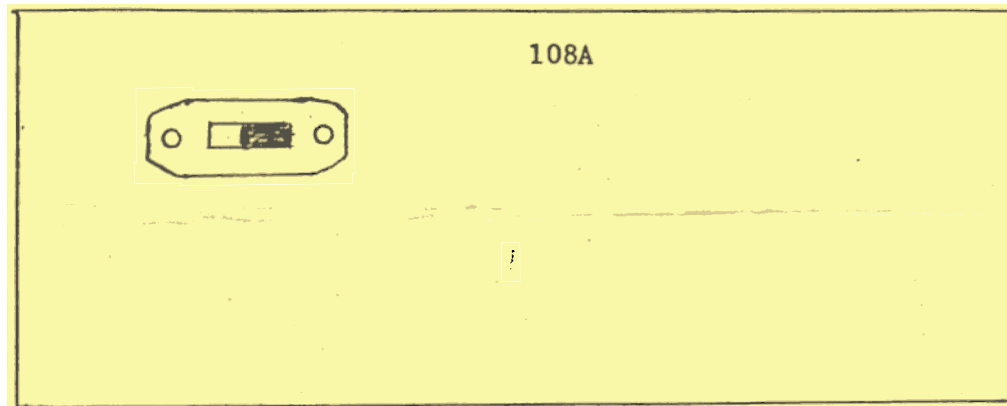
1. Insert 107 B card into program "B" connector with number side up.

2. Insert 107 C adapter card into test fixture.

3. Insert computer board into 107 C adapter card.

4. Push coin switch to start game.
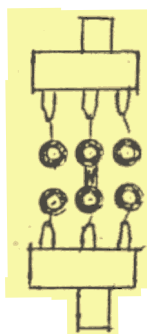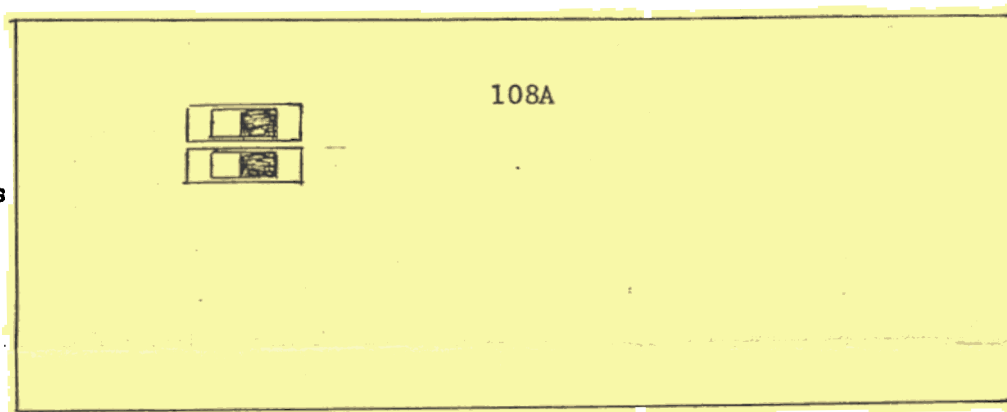
5. LLP is left paddle.
    RRP is right paddle.

**Original
PC Board**

108A

MUST BE PERFORMED FOR PROPER OPERATION OF THE 108 CARD SET.

**Modified
PC Card**

**Remove old
switch and
add 2 new switches**

108A

Hole pattern
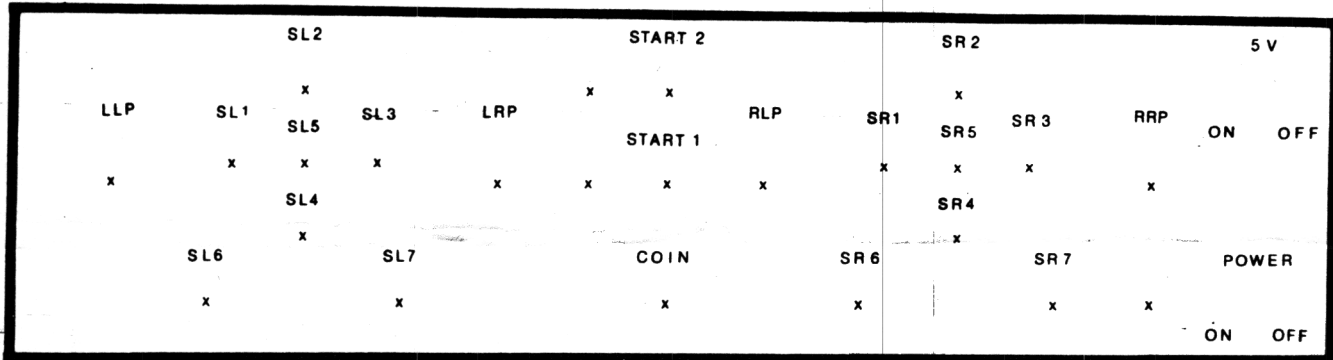on PC board

Connect to holes as shown

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Operating Instructions
For Model 108 A

DUAL - KNOCKOUT

Digital Games

		SL2				START 2				SR2				5 V
		x				x	x			x				
LLP	SL1	SL5	SL3	-	LRP			RLP	SR1	SR5	SR3	RRP	ON	OFF
						START 1								
x	x	x	x		x	x	x	x	x	x	x	x		
		SL4								SR4				
		x								x				
SL6			SL7			COIN		SR6			SR7		POWER	
x			x			x		x			x	x		
													ON	OFF

1. Insert program card with number facing you in slots A or B, as marked.

2. Power on

3. Coin (once for 2 players - twice for 4 players)

4. Game select switches are on 108A card
   Top switch is player against machine, push to left.
   Lower switch is player against player, push to left.
   NOTE: Use only one switch at a time.

5. Push START (1) once.

6. LLP - left-left paddle control

7. LRP - left-right paddle control

8. RLP - right-left paddle control
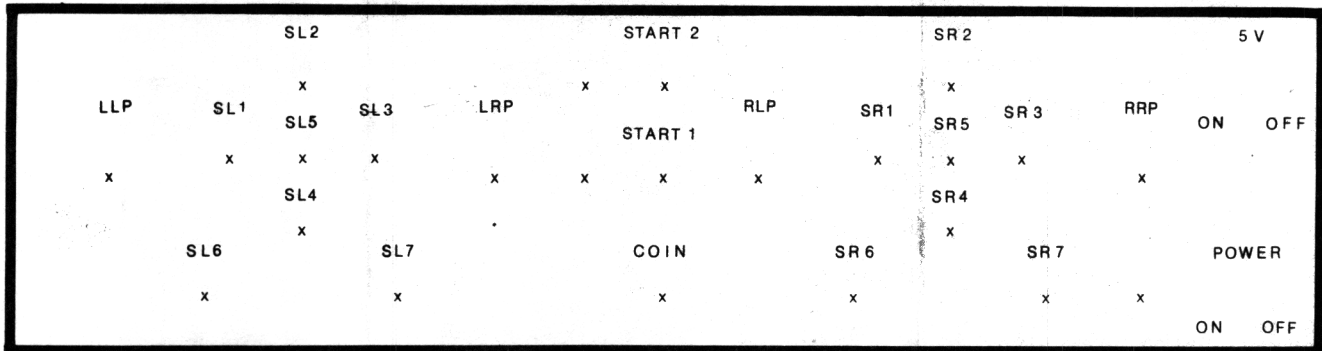
9. RRP - right-right paddle control

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Operating Instructions
For Model _____ 108 A

DUAL - KNOCKOUT

Digital Games

```
                SL2                         START 2              SR2                     5 V
                 x                       x      x                 x
  LLP      SL1        SL3        LRP                     RLP      SR1   SR5   SR3   RRP
                 SL5                        START 1                                      ON    OFF
   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 program card with number facing you in slots A or B, as marked.

2. Power on

3. Coin (once for 2 players - twice for 4 players)

4. Start 1

5. LLP - left-left paddle control

6. LRP - left-right paddle control

7. RLP - right-left paddle control

8. RRP - right-right paddle control

9. Switch 1 on program card is for game selection

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Operating Instructions
For Model 109 A, 109 B
WINNER IV
Midway

		SL2				START 2				SR2				5 V	
		x				x	x			x					
LLP	SL1	SL5	SL3	LRP	x	START 1		RLP	SR1	SR5	SR3	RRP	ON		OFF
x	x	x	x		x	x	x	x	x	x	x		x		
		SL4								SR4					
		x								x					
SL6		SL7				COIN			SR6		SR7		POWER		
x		x				x			x		x	x			
													ON		OFF

1. Insert Program Card 109 A into Program "A" connector
   Insert Program Card 109 B into Program "B" connector

2. Insert board to be tested into test fixture using 24 pin orientation

3. Turn power switch on

4. Push coin switch once for 2 player
   Push coin switch twice for 4 player

5. Push start 1 switch once

6. LLP is left paddle
   RRP is right paddle
   LRP is left right paddle
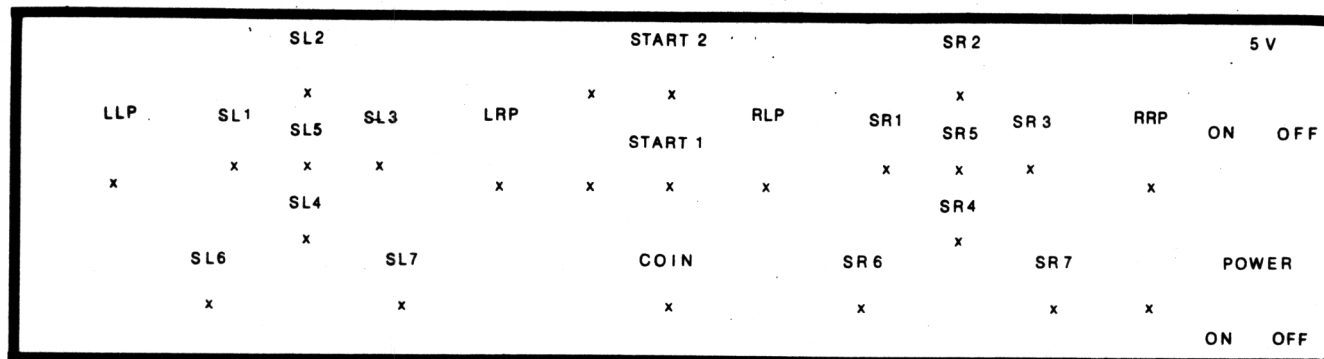   RLP is right left paddle

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SL2		START 2		SR 2		5 V
x		x		x		
LLP SL1 SL5 SL3 LRP x RLP SR1 SR5 SR3 RRP ON OFF						
x x x START 1				SR4		
x x x x x x x x						
SL4						
x				x		
SL6 SL7 COIN SR6 SR7 POWER						
x x x x x x						
						ON OFF

1. Insert 110 A card into program "A" connector, number side up.

2. Insert 110 B card into Program "B" connector, number side up.

3. Insert computer board into 25 pin connector orienting board to left side.

4. Push coin switch once for 2 player, twice for 4 player.

5. Push start 1 switch once.

6. LLP is vertical paddles for 2 player game
    RLP is horizontal paddles for 2 player game

7. LLP is left paddle for 4 player game
    RRP is right paddle for 4 player game
    LRP is bottom paddle for 4 player game
    RLP is top paddle for 4 player game

8. Switch on 110 A card is 5 or 7 score selector
    2 ply is 2 play lite
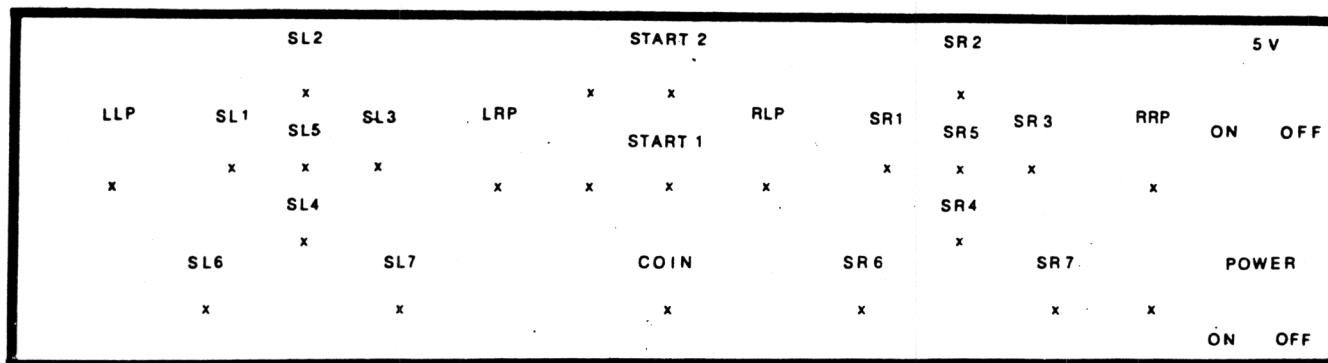   4 ply is 4 play lite
    GO is game over lite

Operating Instructions
For Model _____ 114 A, B

AZTEC HOCKEY

PMC

	SL2				START 2				SR2					5 V
	x			x	x			x						
LLP	SL1	SL5	SL3	LRP		START 1	RLP	SR1	SR5	SR3	RRP	ON	OFF	
	x	x	x		x	x	x	x	x	x		x		
x	SL4								SR4					
	x								x					
SL6		SL7			COIN		SR6		SR7		POWER			
x		x			x		x		x	x				
											ON	OFF		

1. Insert 114 A card into program "A" connector, number side up.

2. Insert 114 B card into program "B" connector, number side up.

3. Insert computer board into test fixture using 22 pin orientation.

4. Push POWER switch to ON.

5. Push 5 VOLT switch to ON.

6. Push COIN switch once for 2 players, twice for 4 players.

7. Push START 1 switch once.

8. LLP is left left paddle.
   LRP is left right paddle.
   RLP is right left paddle.
   RRP is right right paddle.

9. GO is game over LED on 114 A program card.

10. START 2 is TILT switch.

Operating Instructions
For Model ___ 116 A

PADDLE BALL &   TEAM HOCKEY

Williams   Amutronics

	SL2			START 2			SR 2		5 V
	x				x		x		
LLP	SL1	SL3	LRP		x	RLP	SR1	SR 3	RRP ON OFF
	SL5			START 1			SR5		
x	x x	x		x x x x		x	x x	x
	SL4						SR4		
	x						x		
SL6		SL7	.	COIN		SR 6		SR 7	POWER
x		x		x		x		x x	
									ON OFF
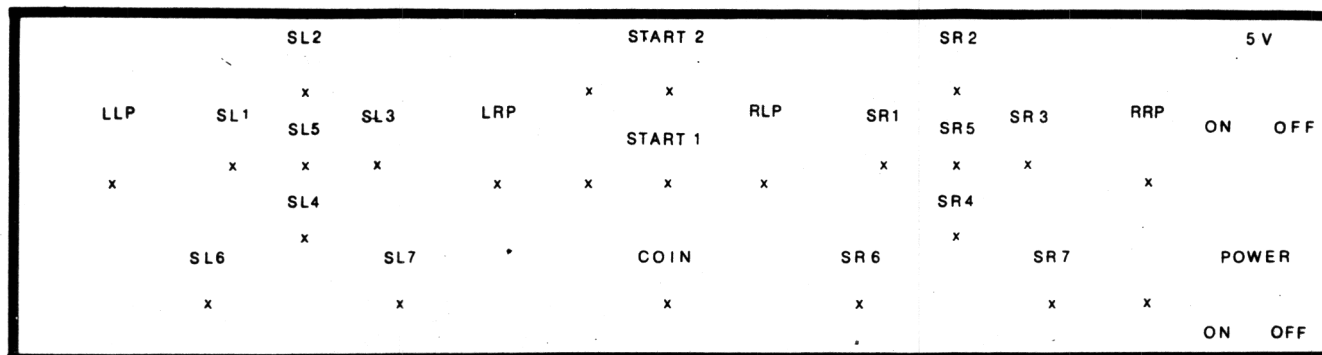
1. Insert 116 A card into program "A" connector, numbers side up.

2. Insert computer board into test fixture using 22 pin orientation.

3. Turn power switch on.

4. Turn 5 volt internal switch on.

5. Push coin switch once for 1 player, twice for 2 players.

6. Push start once.

7. RRP is right paddle ——⌐ Paddle Ball
    LLP is left paddle ▬▬ Paddle Ball
    RLP is right left paddle
    LRP is left right paddle

p.s.
    POUR QUE LE PROGRAMME FONCTIONNE, IL FAUT AJOUTER UNE
    PRISE DE TERRE ("GROUND") A L'ENTREE # 15.