KURZ - KASCH INC.
ELECTRONICS DIVISION
2271 ARBOR BLVD.
DAYTON, OHIO 45439
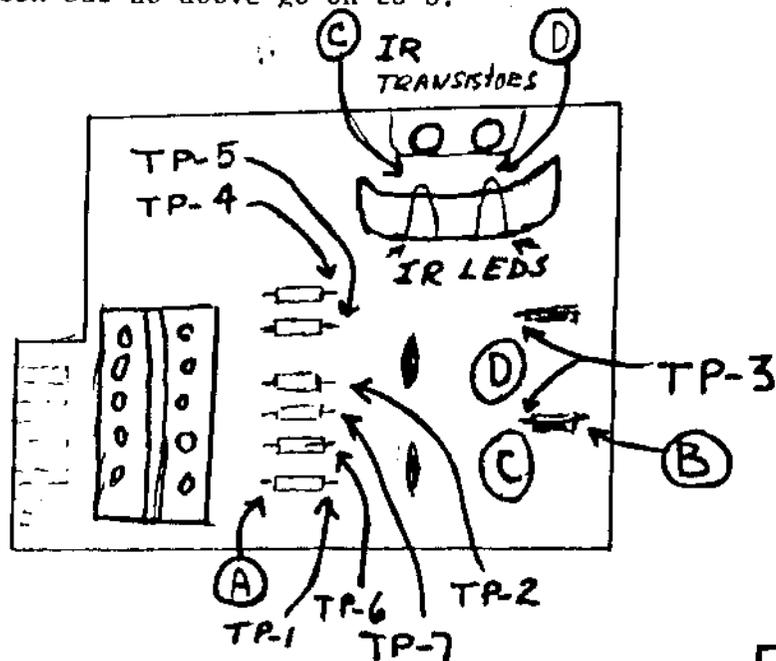
Operating Instructions
For Model ___188 BC___

Atari Steering Board

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

1. Insert 188 B card into "B" Program Slot, number side up.

2. Insert steering board into 25 pin connector at far left end, or use 188C when checking later turn circuit boards.

3. **Turn on 5 V switch.**

4. Turn on power switch.

5. If both red LEDS on program cards come on go to step 6, if not go to 8.

6. Place a piece of cardboard in slot between IR transistor and IR LED at point C. "B" LED on card should go out. Do same for transistor and LED at point D. "A" LED on card should go out.

7. If board does not check out as above go on to 8.

8.

Connect LP-520 - Red to A (5 volts)
                    Black to B (ground)

TP-1 (use LP-520) - low until "C" LED is blocked - then high
       while blocked.

TP-2 Same as TP-1 for "D" LED.

TP-3 (use DC voltmeter) Low at all times on LP-520 + 0.7 volts
       when C & D not obstructed less than 0.3 V when C & D are
       obstructed.

TP-4 (use DC voltmeter) +1.0 to + 1.5 volts.
TP-5 (use DC voltmeter) +1.0 to + 1.5 volts.

TP-6 & 7 (use DC voltmeter) +5.0 volts when C & D LEDS are
       obstructed - approximately +1.5 volts when obstruction
       removed.

CORRECTIVE ACTION IF NECESSARY:

9. TP-1 & 2 - Board OK if these check.

    TP-4 & 5 - If no check REPLACE IR LED

    TP-6 & 7 - If no check REPLACE IR TRANSISTOR

    TP-1 & 2 - If no check replace 2N 3643 TRANSISTOR "C" is
C channel, "D" is D channel.