

ROBOT FEATURES AND ADJUSTMENTS

One of the most outstanding features of the Robot game is that a single player can play against the machine.

If a player scores 12 points or more against the Robot, he gets extended play, which amounts to half the time of the original game.

The machine is adjusted at the factory so that a skilled player can score 12 points against the Robot.

The skill of the Robot is adjustable (VR17 on logic board) ; however, it should not be adjusted so that a player can score over 16 points against the Robot. If this happens it is possible that a skilled player can score 12 points against the Robot during the extended play period. If this happens the player will get another extended play period.

Robot is a very versatile machine in that one player can play the Robot, two players can play the Robot, Two players can play each other or four players can play each other.

The Robot display mode attracts attention because, the machine is simulating a game with the paddles automatically hitting the ball over the net.

The Robot uses a solid state 23" T.V. monitor with the T.V. adjustments easily accessible.

The durable joystick is designed to take a lot of abuse. If it becomes necessary to repair or replace a joystick, it can easily be removed by simply loosening four nuts and unplugging the electrical connector.

The joysticks used when playing the Robot are yellow in color, therefore; making it easier for novice players to identify them.

The velocity button located on top of the joystick is used to change the velocity of the ball and the distance the ball travels after impact with the paddle. This velocity button should be used at random by the players to make it harder for the opponent to determine the angle and distance of the ball, thus more difficult to return the ball.

Robot has an attractive designed wood grain formica cabinet, for easy care and cleaning.

Robot is designed to improve profits as it allows four players to compete or two players to play the Robot for TWO QUARTERS play.

ROBOT LOGIC BOARD ADJUSTMENTS

NOTE: All of the adjustments listed below are made and checked before the machine leaves the factory. Adjustments may be necessary if logic boards or control boards are exchanged.

1. The left Robot paddle should stop about 1/16inch from the left of the net. (VR1 adjustment on logic board DWG 272-10-1.)
2. The right Robot paddle should stop about 1/16inch from the right of the net. Note: you only have right Robot during display mode. Adjust VR2 on logic board see DWG 272-10-1.
3. The length of game can be adjusted by adjusting VR3 on logic board. (105 seconds)
4. The paddles should be adjusted so that the bottom line of the paddles is one line above the ground or gray level on screen. VR4 on logic board is the master (in four player mode only) control for all four paddles. Individual controls for each paddle are located on the control board. These adjustments to be made per DWG 272-10-2 if necessary.
5. The paddles should be adjusted so that they do not go more than two lines above the top and no less than one line above the bottom of the net. Adjust VR5 and VR4 (in 4 plater mode only) on logic board.
6. VR6 adjusts the high or peak ramp voltage. This voltage should be adjusted to 12.5+ 100MV measuring from ground to the top of the ramp. DO NOT ADJUST ON LOCATION. SEE LOGIC DRAWING FOR THIS ADJUSTMENT.
7. VR7 adjusts the 20 volt power supply and should be adjusted to 20 volts + 100MV. DO NOT ADJUST ON LOCATION. SEE LOGIC DRAWING FOR THIS ADJUSTMENT.
8. VR8 adjusts the right inside paddle distance from the net. This adjustment is made only in 4 player mode.
9. VR9 adjusts the left inside paddle distance from the net. This adjustment is made only in 4 player mode.
10. VR10 adjusts the peak voltage of the horizontal ramp. This voltage should be adjusted to 17 volts peak (measuring from ground + 100MV). DO NOT ADJUST ON LOCATION. SEE LOGIC DRAWING FOR THIS ADJUSTMENT.
11. The Robot paddles should be adjusted (left & right) so that the Robot paddles stop one line above the ground or gray area. Adjust VR11.
12. The Robot paddles (left& right) should be adjusted so that the top stop position of the Robot paddles is two lines above net. Adjust VR12 (in Robot mode only).
13. When the ball is at rest, it should be one line above ground. Adjust VR13.
14. VR14 adjusts the ball speed or drive in the left direction, only after contacting right side paddle. Its purpose is to give the right player more drive on the ball when playing against the Robot. This allows the right side player to have the ability to score by knocking the ball over Robot.
15. VR15 adjusts the horizontal size of the ball and should be adjusted so that the ball width is slightly less than height. (about 1/16inch less).
16. VR16 is used to adjust the fifth line of the ball to the same length as the top line.
17. VR17 is used to adjust the speed that the Robot can travel from net to the back court. When the pot. is turned clockwise, the Robot is faster and thus appears to be very skillfull.
18. VR18 adjusts the number of times the Robot will hit the ball on his serve before it goes over the net. This adjustment applies only to the display or game over mode. The Robot should hit the ball 3 times. If the Robot hits the ball more than 3 times, the serve is unstable and Robot will hit the ball into the net.

ROBOT LOGIC BOARD ADJUSTMENTS

19. VR19 adjusts the output volume for all sounds.
20. VR 20 adjusts the frequency of the sounds of the paddle hitting the ball.

NOTE: Refer to drawing #272-10-1 in the machine for location of the logic board adjustment pots.

Normal paddle location adjustments are made on the control P.C/ board located in the top right hand side of the machine. See Drawing #272-10-2.

Top of Circuit Board

Capacitor

Capacitor

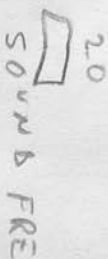
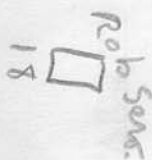
Capacitor



Voltage Reg.

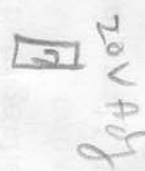
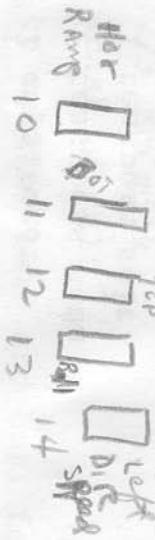
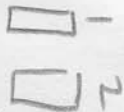


BALL WIDTH

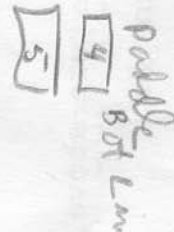


LF RET

Rt. Rob Net. only.

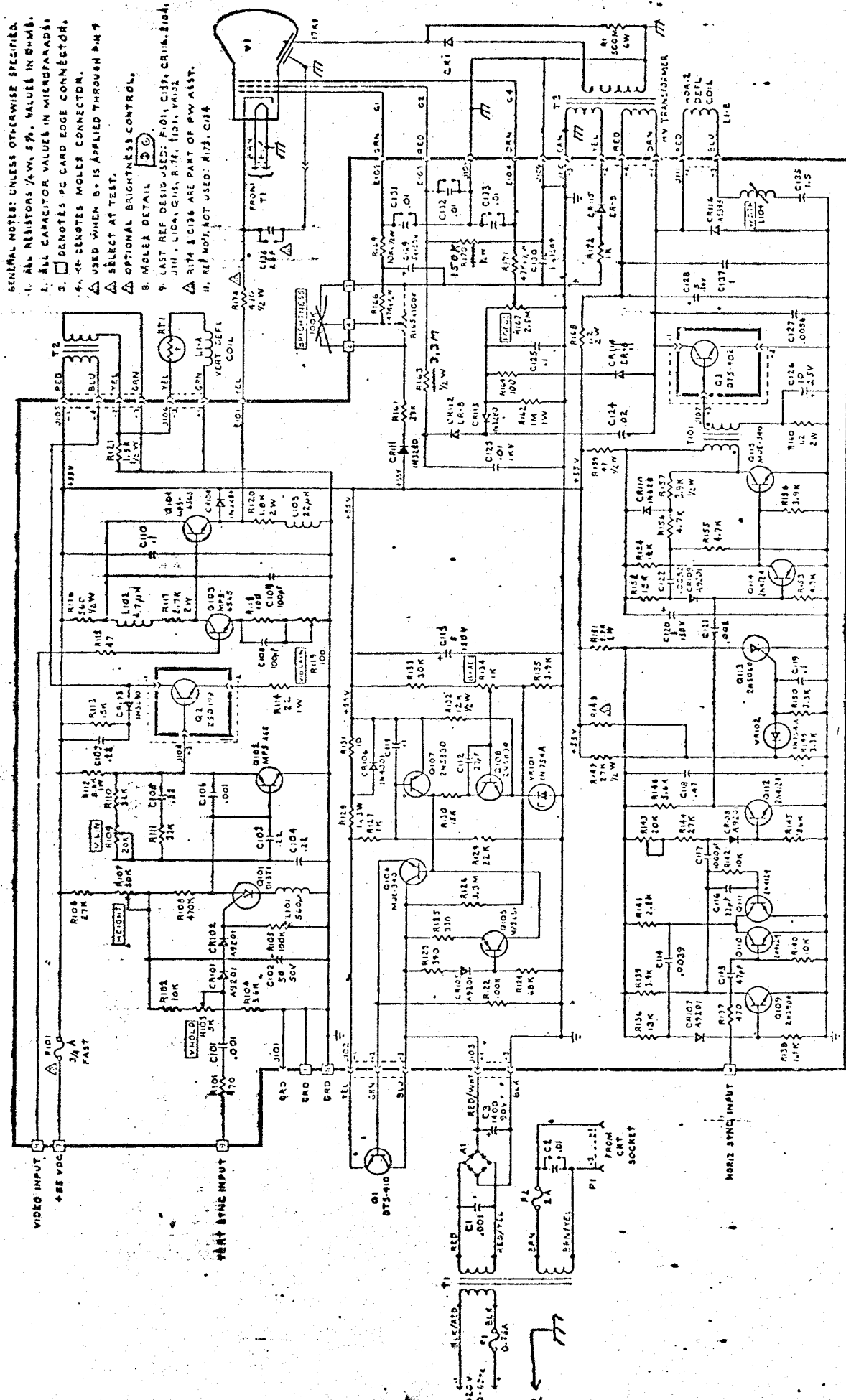


TOP Lamin

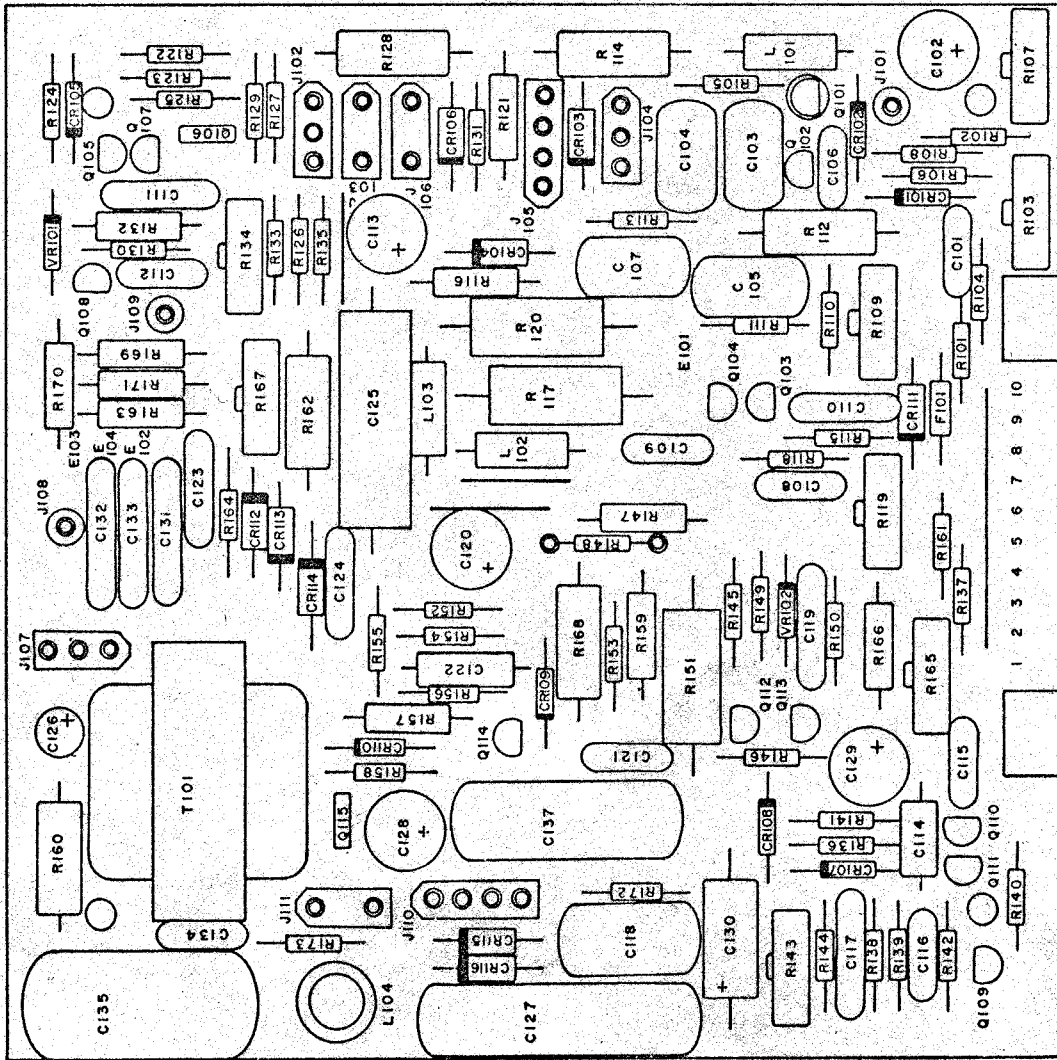


Rob. Skill

BALL MONITOR

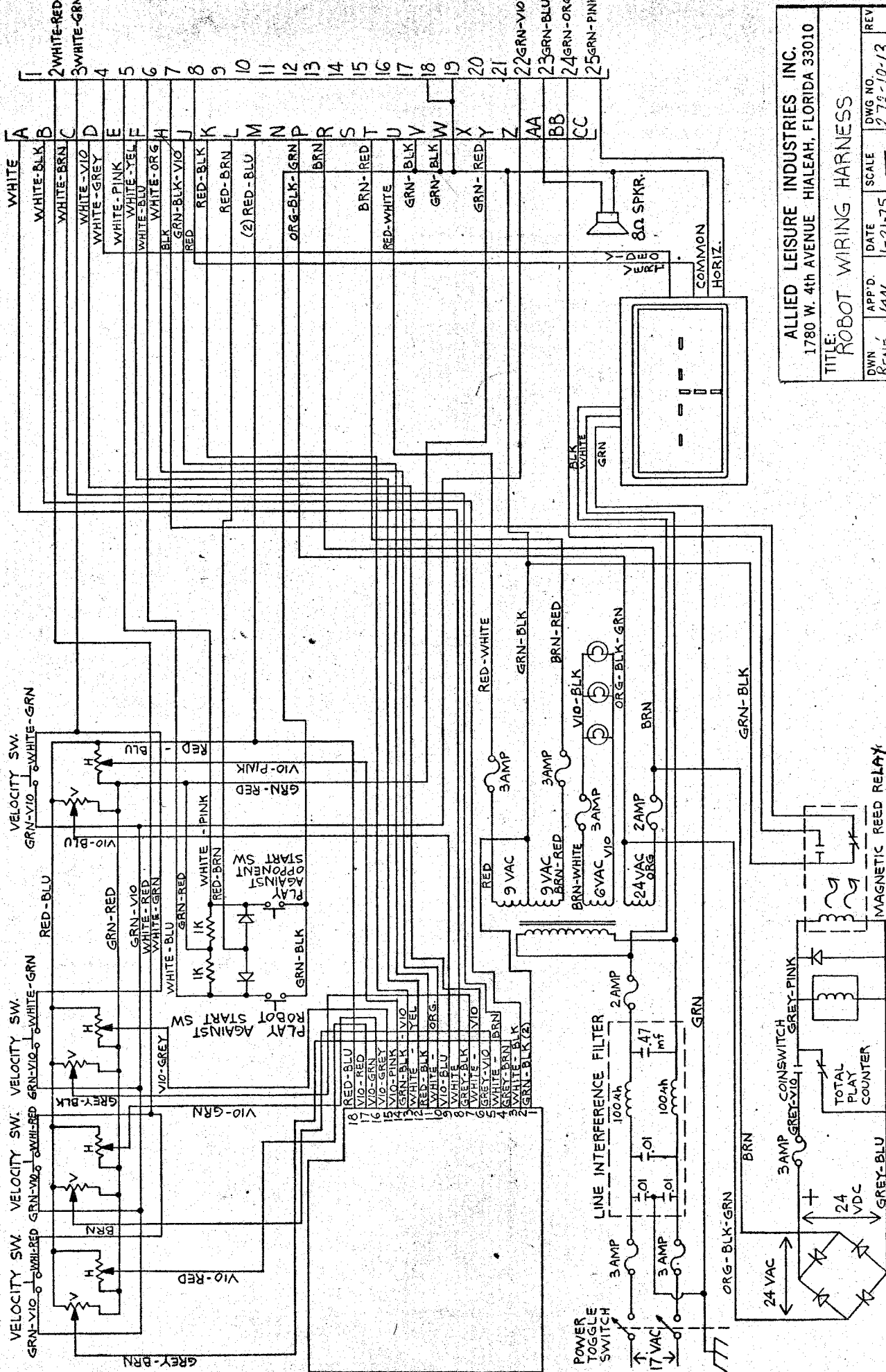


- GENERAL NOTES: UNLESS OTHERWISE SPECIFIED:
1. ALL RESISTORS $\frac{1}{2}$ W, 5%, UNLESS OTHERWISE SPECIFIED.
 2. ALL CAPACITOR VALUES IN MICROFARADS.
 3. DENOTES PC CARD EDGE CONNECTOR.
 4. ∇ DENOTES MOLE CONNECTOR.
 5. USED WHEN B IS APPLIED THROUGH PIN 7 SELECT AT TEST.
 6. OPTIONAL BRIGHTNESS CONTROL.
 7. MOLE DETAIL 30.
 8. LAST REF DESIGNATED: F101, C137, CR10, E104, J101, L10A, C18, R17, F101, W102.
 9. R17A & C18A ARE PART OF PW ASSY.
 10. R17 NOT USED: R17, C18.



		TITLE PWA, TTL-15, & TTL-X15	DRAWING NO. C 6-002-0525 B
SIGNATURE <i>[Signature]</i>	DATE 7/28/71	SIZE C	USED ON SHEET
DRAFTSMAN <i>[Signature]</i>	CHECKER <i>[Signature]</i>	SCALE 1:1	SHEET 1 OF 1

FROM MEASUREMENTS
 DATE 7/28/71
 ENG'G REL
 10-1134



ALLIED LEISURE INDUSTRIES, INC.
 1780 W. 4th AVENUE HIALEAH, FLORIDA 33010

TITLE: ROBOT WIRING HARNESS

DWN	APP'D.	DATE	SCALE	DWG NO.	REV
RENE	AWV	1-21-75		272-10-13	