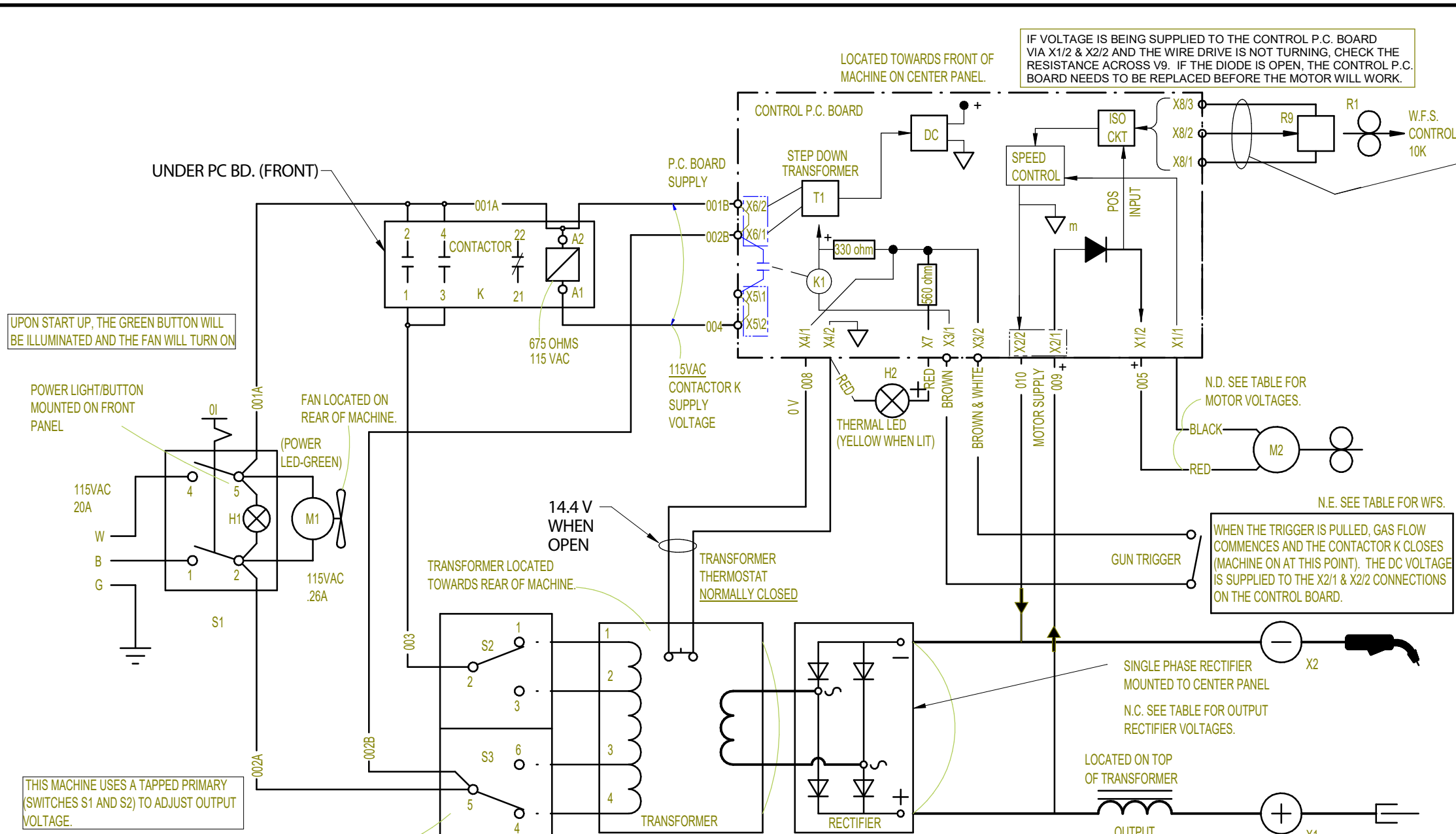


WELD-PAK HD MACHINE SCHEMATIC M20136 REV: B



MEASUREMENT	P.C. BOARD CONNECTION TO POT					
	X8/1-X8/2		X8/2-X8/3		X8/1-X8/3	
WFS CONTROL	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.
RESISTANCE VALUES IN OHMS	10K	0	0	2.5K	10K	2.5K
DC VOLTAGE VALUES IN VOLTS	2.8	0	0	1	2.8	1

UPON START UP, THE GREEN BUTTON WILL BE ILLUMINATED AND THE FAN WILL TURN ON

POWER LIGHT/BUTTON MOUNTED ON FRONT PANEL

FAN LOCATED ON REAR OF MACHINE.

TRANSFORMER LOCATED TOWARDS REAR OF MACHINE.

TRANSFORMER THERMOSTAT NORMALLY CLOSED

LOCATED TOWARDS FRONT OF MACHINE ON CENTER PANEL.

IF VOLTAGE IS BEING SUPPLIED TO THE CONTROL P.C. BOARD VIA X1/2 & X2/2 AND THE WIRE DRIVE IS NOT TURNING, CHECK THE RESISTANCE ACROSS V9. IF THE DIODE IS OPEN, THE CONTROL P.C. BOARD NEEDS TO BE REPLACED BEFORE THE MOTOR WILL WORK.

N.D. SEE TABLE FOR MOTOR VOLTAGES.

N.E. SEE TABLE FOR WFS.

WHEN THE TRIGGER IS PULLED, GAS FLOW COMMENCES AND THE CONTACTOR K CLOSES (MACHINE ON AT THIS POINT). THE DC VOLTAGE IS SUPPLIED TO THE X2/1 & X2/2 CONNECTIONS ON THE CONTROL BOARD.

SINGLE PHASE RECTIFIER MOUNTED TO CENTER PANEL
N.C. SEE TABLE FOR OUTPUT RECTIFIER VOLTAGES.

LOCATED ON TOP OF TRANSFORMER

THIS MACHINE USES A TAPPED PRIMARY (SWITCHES S1 AND S2) TO ADJUST OUTPUT VOLTAGE.

HEAT SWITCHES ARE MOUNTED ON FRONT PANEL NEXT TO POWER SWITCH.

HEAT SWITCH SHOWN IN HIGH - 2 POSITION
N.A. SEE TABLE FOR SWITCH CONNECTIONS.

N.B. SEE TABLE FOR TRANSFORMER OUTPUT VOLTAGES

N.A.		N.B.		N.C.		N.D.		N.E.**	
VOLTAGES WERE TAKEN AT MAXIMUM POTENTIOMETER SETTING									
HEAT SETTINGS	SWITCH S2 AND S3 CONNECTIONS	CONNECTION - OUT OF TRANSFORMER (RMS VALUES)	CONNECTION - OUT OF RECTIFIER (RMS VALUES)	DISCONNECTED FROM RECTIFIER (RMS VALUES)	VOLTAGE INTO WIRE DRIVE MOTOR	TENSION ARM AT MINIMUM SETTING*	TENSION ARM AT RECOMMENDED SETTING		
HIGH	2	2-1 5-4	32VAC	31.07VDC	39VDC	22.75VDC	230-260	200-250	
HIGH	1	2-1 5-6	28.45VAC	27.55VDC	34.5VDC	19.90VDC	180-210	130-190	
LOW	2	2-3 5-4	25.52VAC	24.5VDC	30.75VDC	17.35VDC	130-160	125-145	
LOW	1	2-1 5-6	23.14VAC	22.VDC	27.85VDC	14.8VDC	110-130	200-250	

LISTED VOLTAGES REFLECT AN INPUT VOLTAGE OF 115.0 VAC

* MINIMUM SETTING IS DEFINED AS THE LIGHTEST SPRING FORCE THAT WILL FEED WIRE WITHOUT RESULTING IN SLIPPAGE AT THE DRIVE ROLLS

** VALUES MAY VARY FROM VALUES IN THE CHART DEPENDING ON THE METHOD OR WFS MEASUREMENT AND WIRE FEEDER SETUP. FRICTIONAL DRAG RESULTING FROM WIRE FEED TENSION SETTING, CONDITION OF LINER, KINKS OR LOOPS IN GUN CABLE OR WIRE FEED SPEED METER WILL AFFECT THE WFS VALUE.

LEAD COLOR CODE:
 B-BLACK
 G-GREEN
 O-ORANGE
 R-RED
 U-BLUE
 W-WHITE
 Y-YELLOW

LABELS:
 COMMON
 FRAME GROUND
 EARTH GROUND

COMPONENT VALUE UNITS:
 CAPACITOR: MFD/VOLTS
 RESISTOR: OHMS/WATTS

CONNECTOR PIN NUMBERS:
 EX. 12 PIN CONNECTOR

VIEW OF CONNECTOR ON PC BOARD