

VRD "OFF" Open Circuit Volts:

	Max	Min
CC	58	58
CV	58	58
Pipe	58	26
Tig	14	14
Gauge	58	42

VRD "ON" Open Circuit Volts:

	Max	Min
CC	14	14
CV	18	18
Pipe	--	--
Tig	14	14
Gauge	18	18

* Pipe Mode is not active with VRD On

LEAD COLOR CODE:

- B - BLACK
- G - GREEN
- O - ORANGE
- R - RED
- U - BLUE
- W - WHITE
- Y - YELLOW

COMPONENT VALUE UNITS:

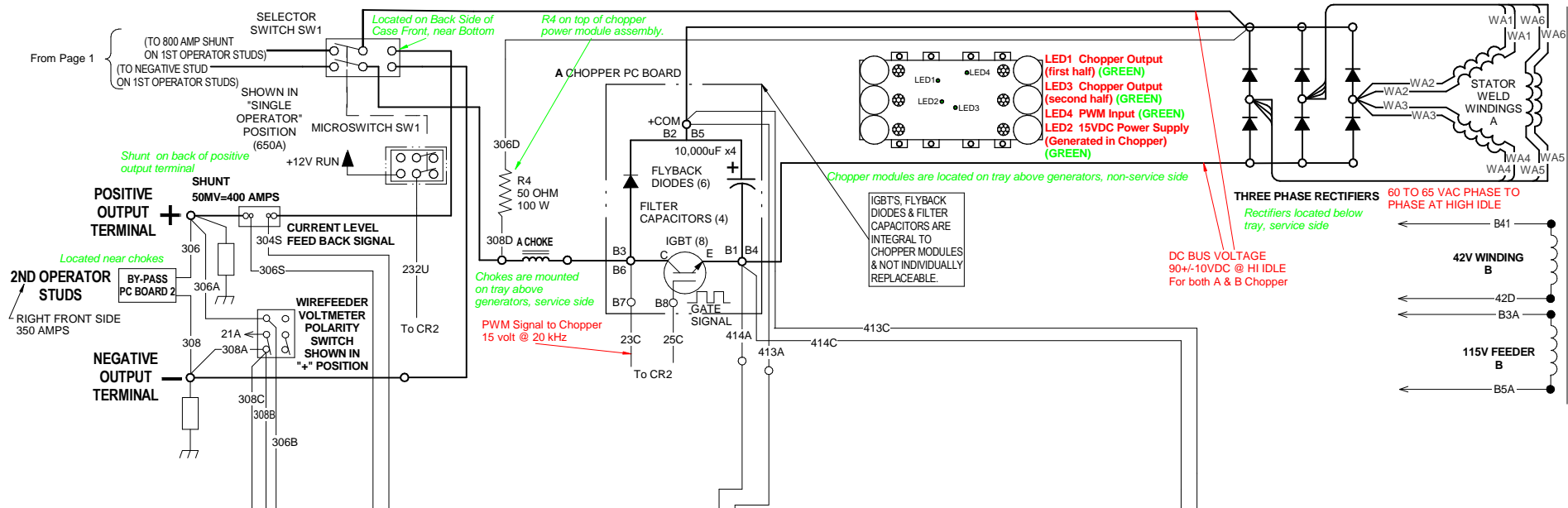
CAPACITOR: MFD/VOLTS
RESISTOR: OHMS/WATTS

CONNECTOR PIN NUMBERS:

EX. 12 PIN CONNECTOR

VIEW OF CONNECTOR ON PC BOARD:

ENGINE:
CUMMINS B3.3T
69 HP @ 1800 RPM



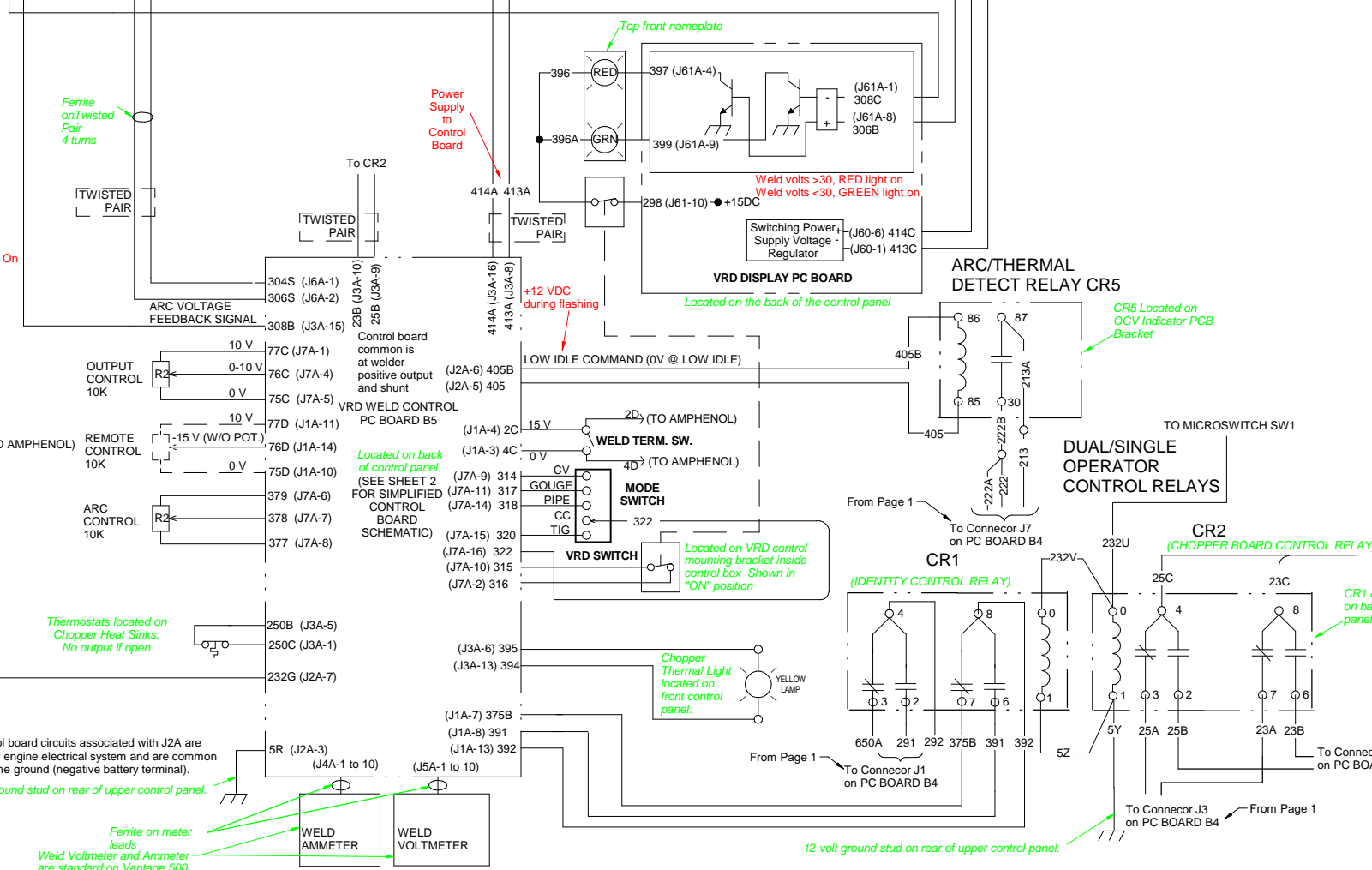
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	Max	Min
CC	14	14
CV	18	18
Pipe	--	--
Tig	14	14
Gouge	18	18

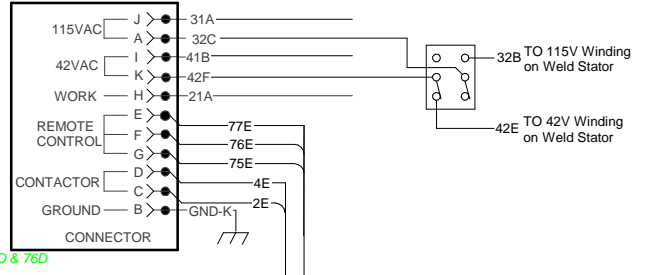
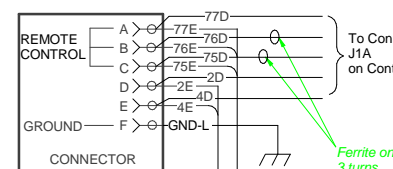
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+12 VOLTS RUN
 Thermostats located on Chopper Heat Sinks.
 No output if open

Control board circuits associated with J2A are part of engine electrical system and are common to frame ground (negative battery terminal).
 12 volt ground stud on rear of upper control panel.

Meters display setpoint volts or amps when not welding. Meters display actual volts and amps when welding. Hold function displays actual volts and amps for approximately 5 seconds after welding stops. During this hold display the right most decimal point will blink.

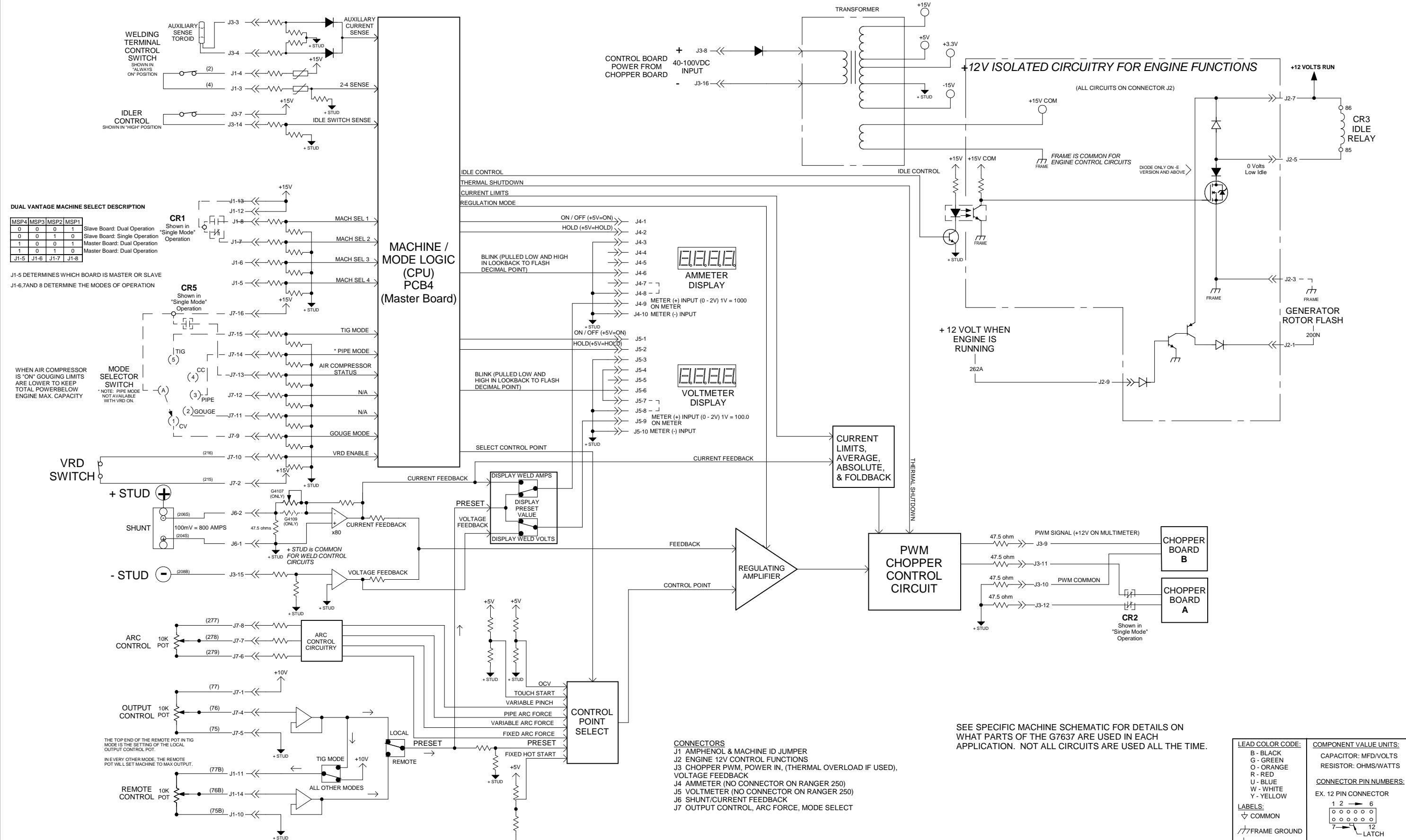


ENGINE:
 CUMMINS B3.3T
 69 HP @ 1800 RPM

LEAD COLOR CODE:	COMPONENT VALUE UNITS:
B - BLACK	CAPACITOR: MFD/VOLTS
G - GREEN	RESISTOR: OHMS/WATTS
O - ORANGE	
R - RED	CONNECTOR PIN NUMBERS:
U - BLUE	EX. 12 PIN CONNECTOR
W - WHITE	1 2 3 4 5 6
Y - YELLOW	7 8 9 10 11 12

LABELS:
 ∇ COMMON
 // FRAME GROUND
 ⊥ EARTH GROUND

VIEW OF CONNECTOR ON PC BOARD



DUAL VANTAGE MACHINE SELECT DESCRIPTION

MSP4	MSP3	MSP2	MSP1
0	0	0	1
0	0	1	0
1	0	0	1
1	0	1	0

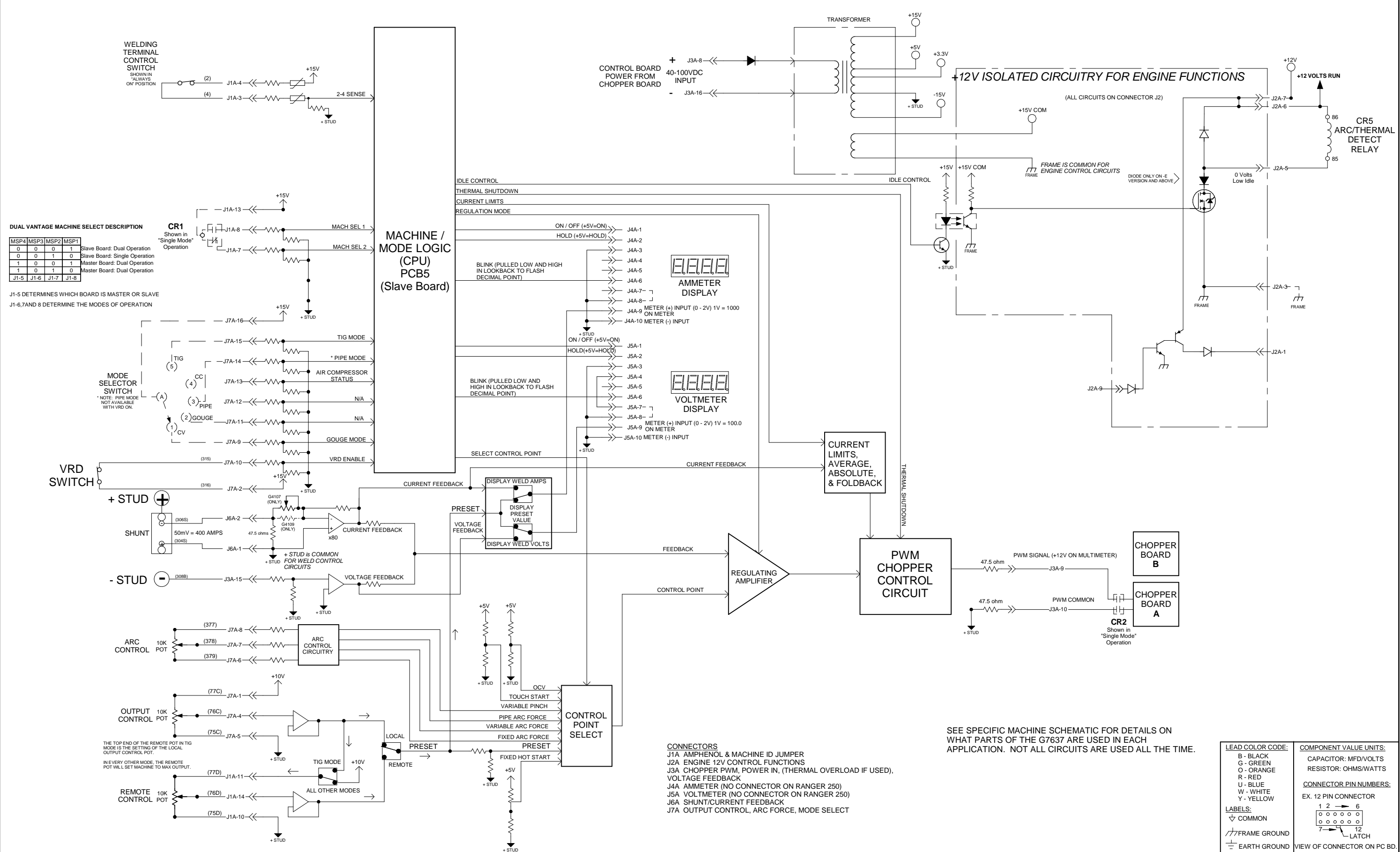
J1-5 DETERMINES WHICH BOARD IS MASTER OR SLAVE
 J1-6,7 AND 8 DETERMINE THE MODES OF OPERATION

WHEN AIR COMPRESSOR IS "ON" GOUGING LIMITS ARE LOWER TO KEEP TOTAL POWER BELOW ENGINE MAX. CAPACITY

- CONNECTORS**
- J1 AMPHENOL & MACHINE ID JUMPER
 - J2 ENGINE 12V CONTROL FUNCTIONS
 - J3 CHOPPER PWM, POWER IN, (THERMAL OVERLOAD IF USED), VOLTAGE FEEDBACK
 - J4 AMMETER (NO CONNECTOR ON RANGER 250)
 - J5 VOLTMETER (NO CONNECTOR ON RANGER 250)
 - J6 SHUNT/CURRENT FEEDBACK
 - J7 OUTPUT CONTROL, ARC FORCE, MODE SELECT

SEE SPECIFIC MACHINE SCHEMATIC FOR DETAILS ON WHAT PARTS OF THE G7637 ARE USED IN EACH APPLICATION. NOT ALL CIRCUITS ARE USED ALL THE TIME.

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CONNECTOR PIN NUMBERS:	
EX. 12 PIN CONNECTOR	
VIEW OF CONNECTOR ON PC BD.	



DUAL VANTAGE MACHINE SELECT DESCRIPTION

MSP4	MSP3	MSP2	MSP1	DESCRIPTION
0	0	0	1	Slave Board: Dual Operation
0	0	1	0	Slave Board: Single Operation
1	0	0	1	Master Board: Dual Operation
1	0	1	0	Master Board: Single Operation

J1-5 DETERMINES WHICH BOARD IS MASTER OR SLAVE
 J1-6,7 AND 8 DETERMINE THE MODES OF OPERATION

- CONNECTORS**
- J1A AMPHENOL & MACHINE ID JUMPER
 - J2A ENGINE 12V CONTROL FUNCTIONS
 - J3A CHOPPER PWM, POWER IN, (THERMAL OVERLOAD IF USED), VOLTAGE FEEDBACK
 - J4A AMMETER (NO CONNECTOR ON RANGER 250)
 - J5A VOLTMETER (NO CONNECTOR ON RANGER 250)
 - J6A SHUNT/CURRENT FEEDBACK
 - J7A OUTPUT CONTROL, ARC FORCE, MODE SELECT

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VIEW OF CONNECTOR ON PC BD.

EN70