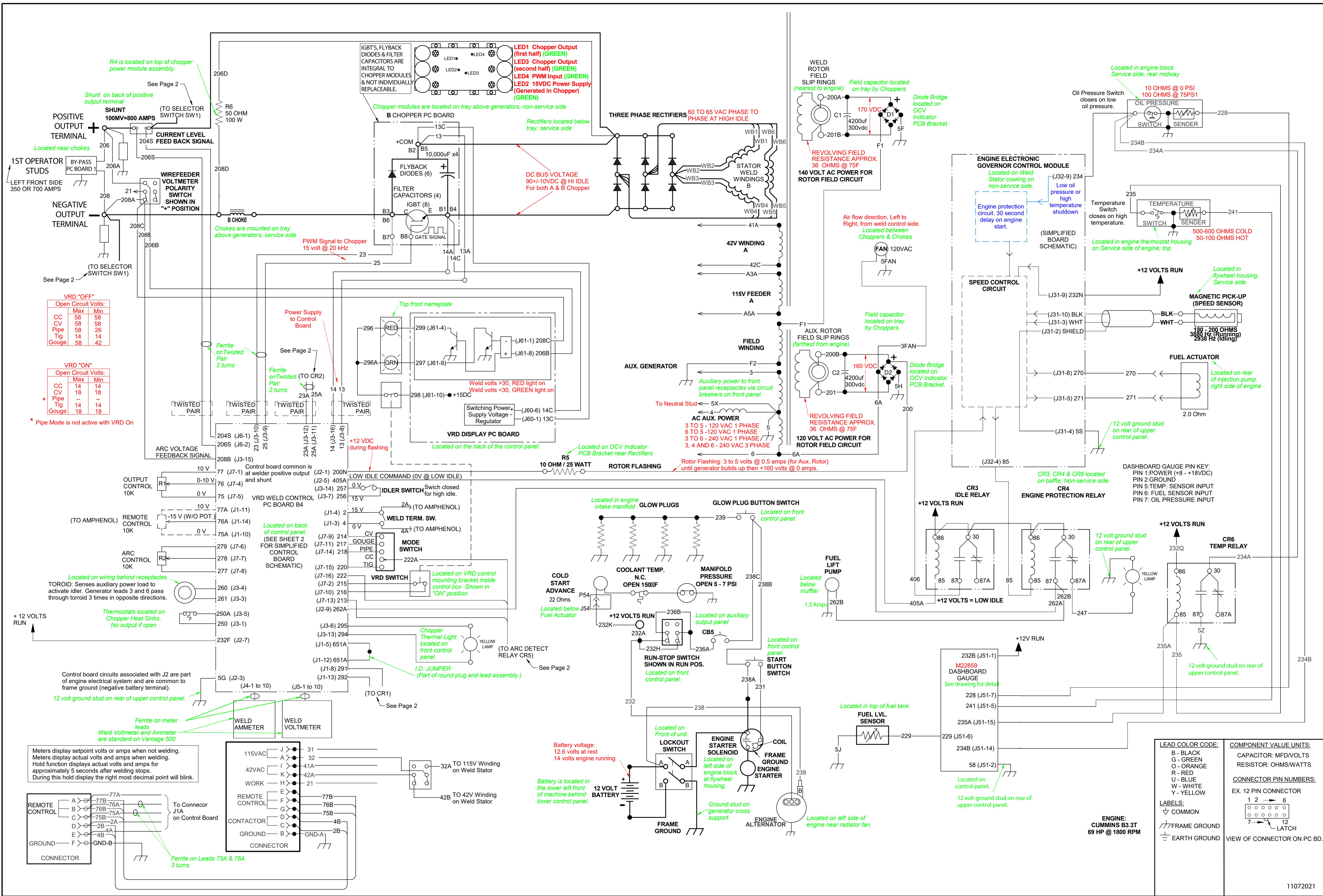


DUAL VANTAGE 700 MACHINE SCHEMATIC G8177 REV A



VRD "OFF"

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

VRD "ON"

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

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

```

    1 2 3 4 5 6
    7 8 9 10 11 12
    
```

LABELS:

- ∇ COMMON
- ⊥ FRAME GROUND
- ⊥ EARTH GROUND

VIEW OF CONNECTOR ON PC BOARD.

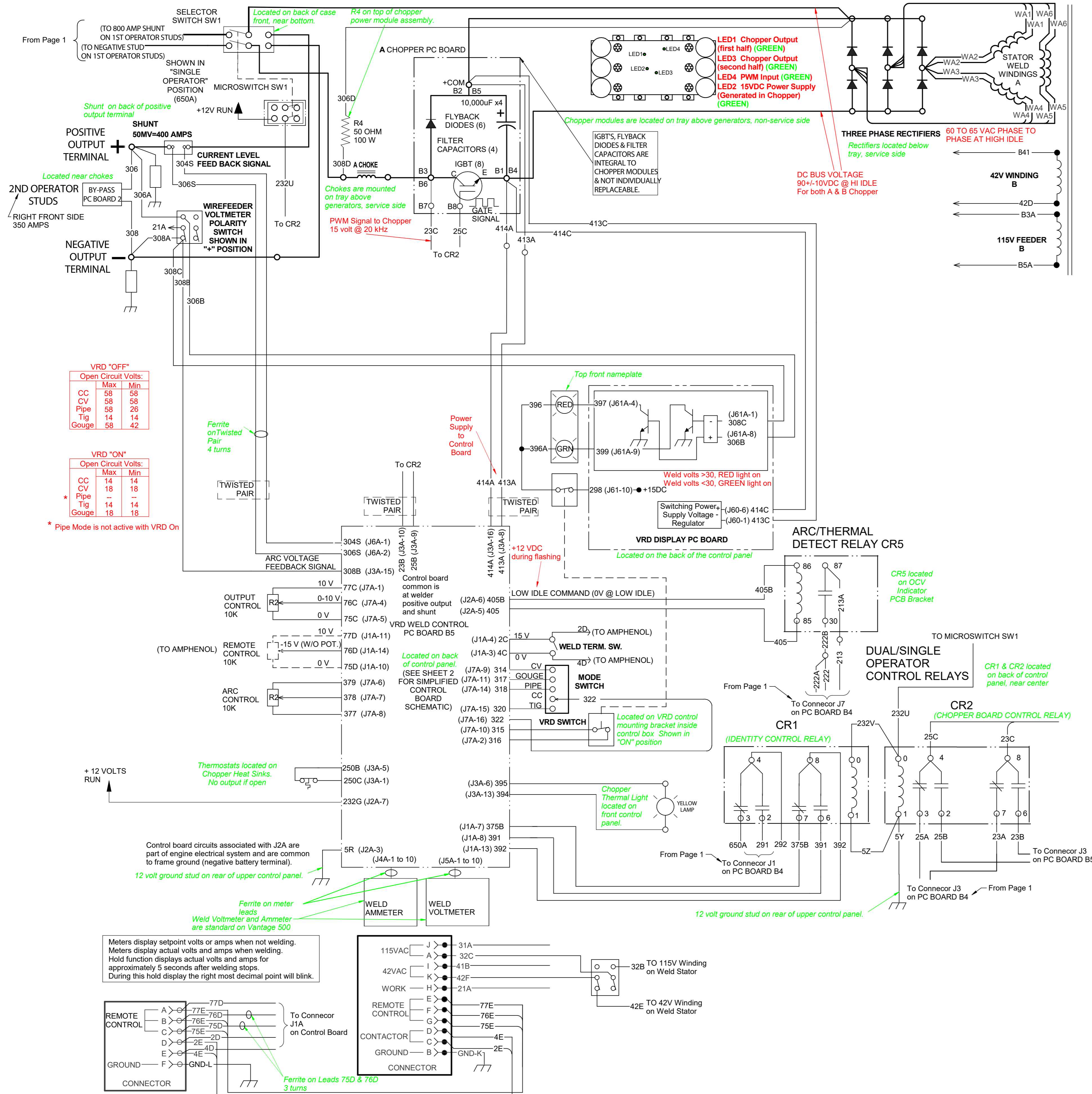
Meters display setpoint volts or amps when not welding. Meters display actual volts and amps when welding. Hold function displays actual volts and amps for approximately 5 seconds after welding stops. During this hold display the right most decimal point will blink.

Battery voltage: 12.6 volts at rest 14 volts engine running

Battery is located in the lower left front of machine behind lower control panel.

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

DUAL VANTAGE 700 MACHINE SCHEMATIC G8177 REV A PAGE 2



VRD "OFF"
Open Circuit Volts:

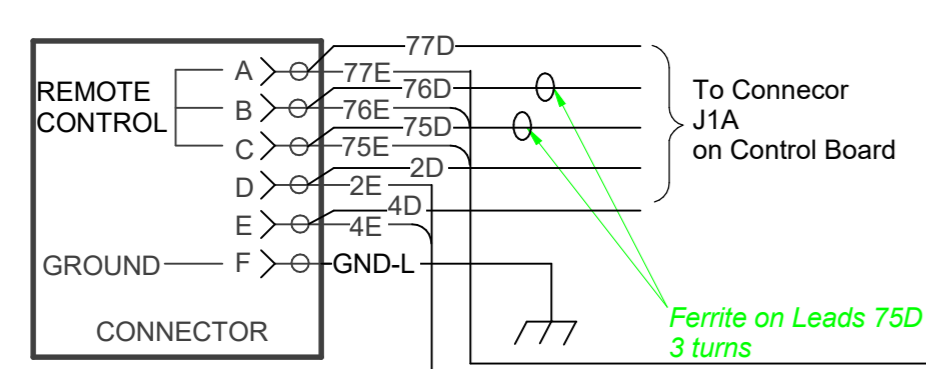
	Max	Min
CC	58	58
CV	58	58
Pipe	58	26
Tig	14	14
Gouge	58	42

VRD "ON"
Open Circuit Volts:

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

* Pipe Mode is not active with VRD On

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.



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

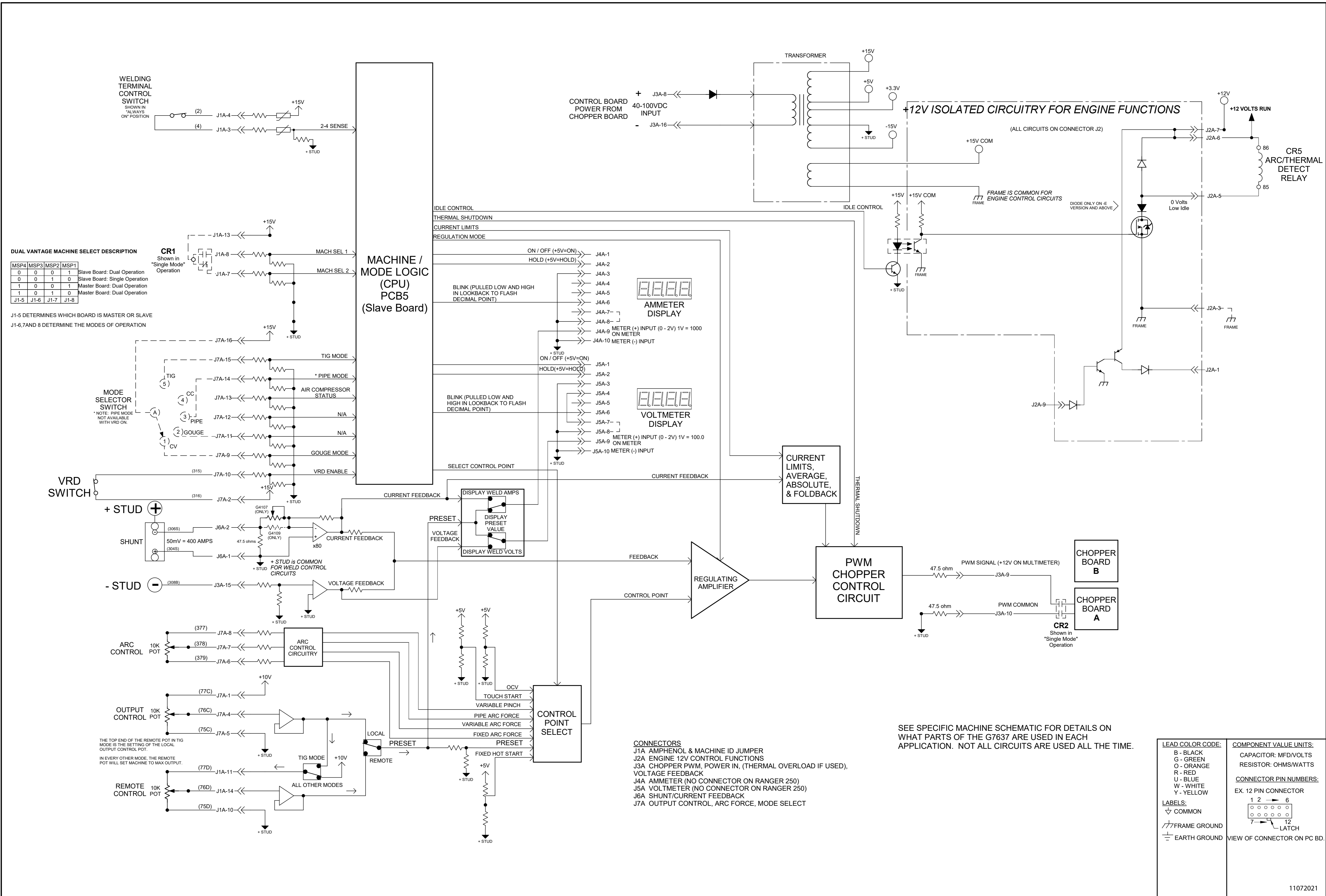
COMPONENT VALUE UNITS:
CAPACITOR: MFD/VOLTS
RESISTOR: OHMS/WATTS

CONNECTOR PIN NUMBERS:
EX. 12 PIN CONNECTOR

LABELS:
▽ COMMON
// FRAME GROUND
⊥ EARTH GROUND

VIEW OF CONNECTOR ON PC BOARD:

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



DUAL VANTAGE MACHINE SELECT DESCRIPTION

MSP4	MSP3	MSP2	MSP1	Slave Board: Dual Operation
0	0	0	1	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

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.

LEAD COLOR CODE:

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- R - RED
- U - BLUE
- W - WHITE
- Y - YELLOW

COMPONENT VALUE UNITS:

CAPACITOR: MFD/VOLTS
 RESISTOR: OHMS/WATTS

CONNECTOR PIN NUMBERS:

EX. 12 PIN CONNECTOR

```

    1 2 → 6
    ○ ○ ○ ○ ○ ○
    7 → 12
    LATCH
    
```

VIEW OF CONNECTOR ON PC BD.