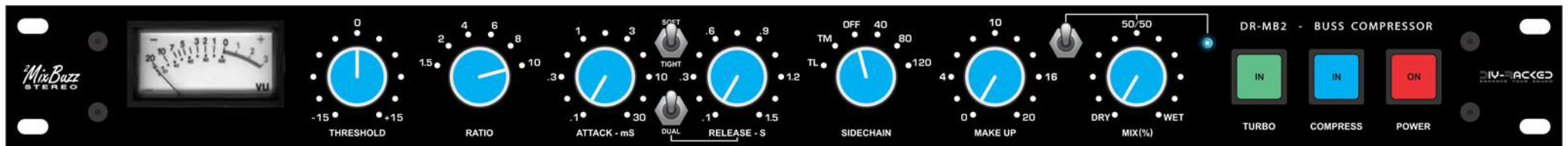


DR-MB2 BUILDING MANUAL



DR-MB2 MANUAL CONTENTS

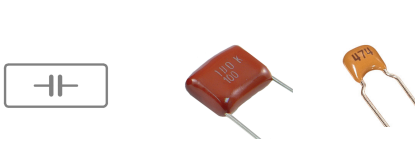
TITLE
CONTENTS
PCB PARTS INDEX
MAIN BOARD LAYOUT
FRONT PANEL BOARD
VCA BOARD LAYOUT
BUTTONS AND VU METER WIRING
THRESHOLD AND MAKE UP WIRING
WET/DRY ROTARY SWITCH WIRING
WET/DRY ROTARY SWITCH RESISTORS
WET/DRY TOGGLE AND LED WIRING
GROUND WIRING
POWER TOROID 115V WIRING
POWER TOROID 230V WIRING
CALIBRATION

DR-MB2 PARTS INDEX

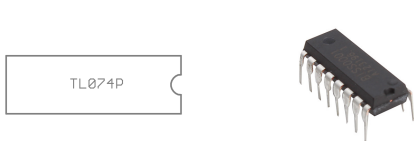
Resistor



Non Polarity Capacitor



IC



Trimmable Resistor



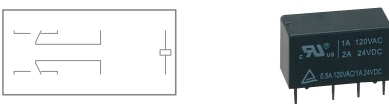
Diode



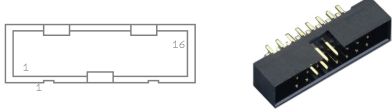
Molex Connector



Relay



IDC Connector



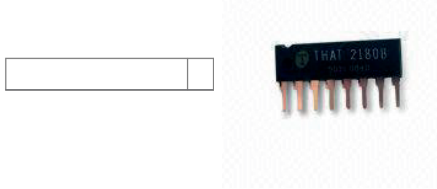
Polarity Capacitor



Transistor



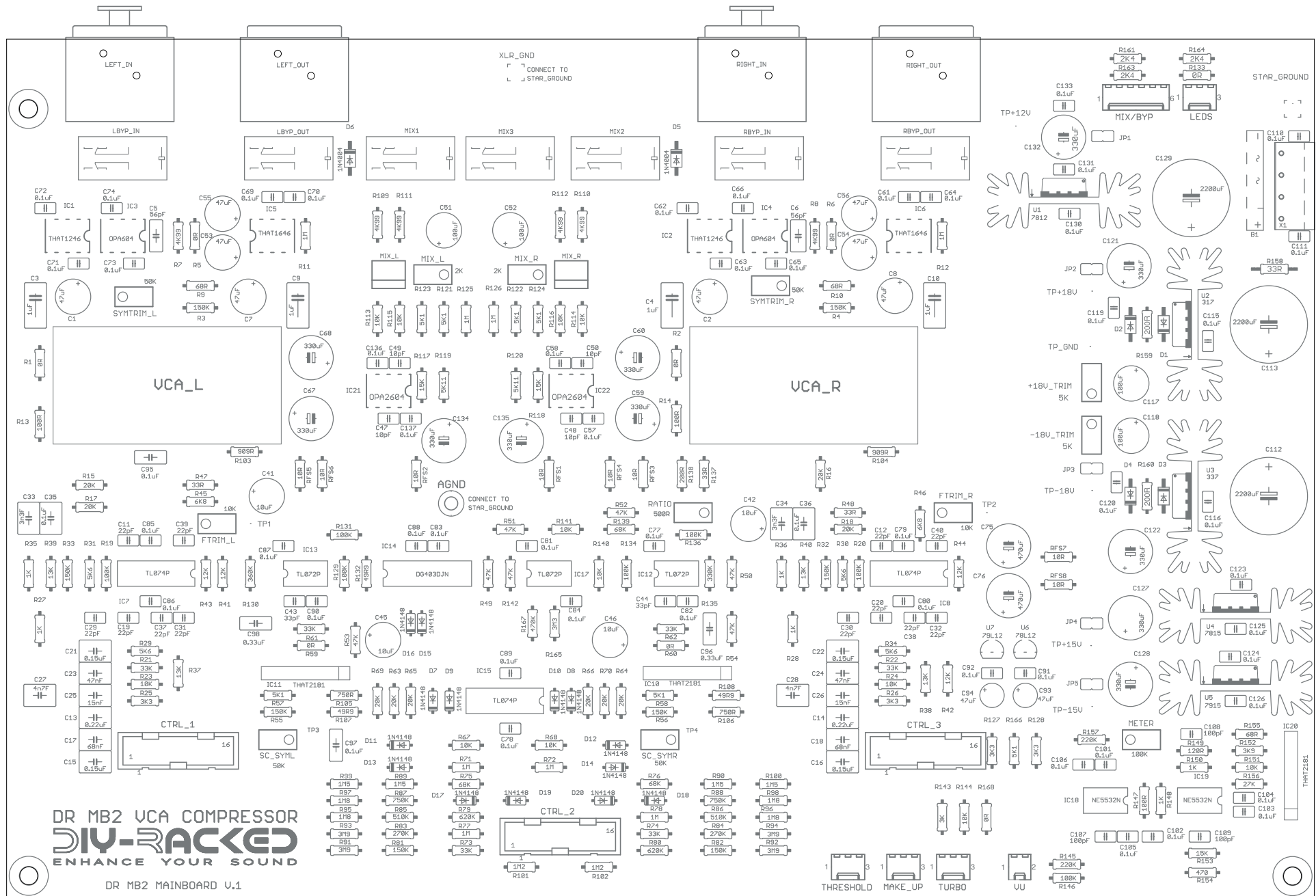
VCA IC



Jumper

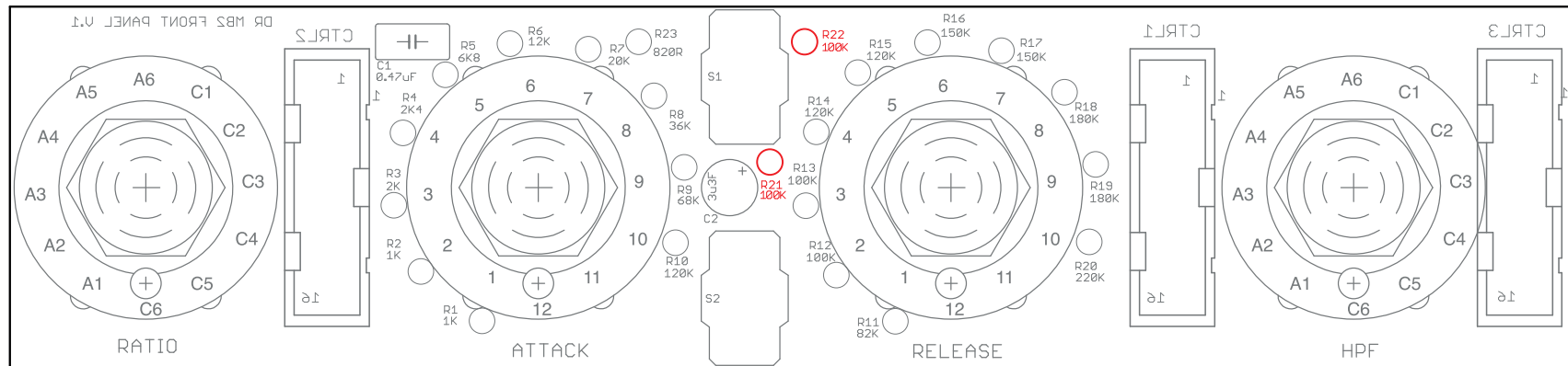


DR-MB2 MAIN BOARD LAYOUT

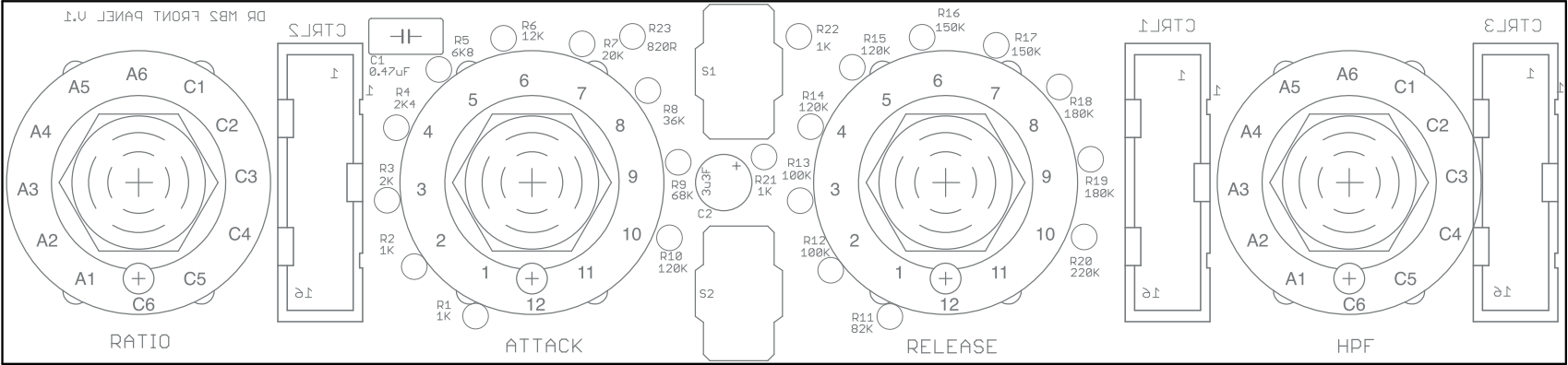


FIXED VALUE FOR DR MB2 FRONT PANEL V.1

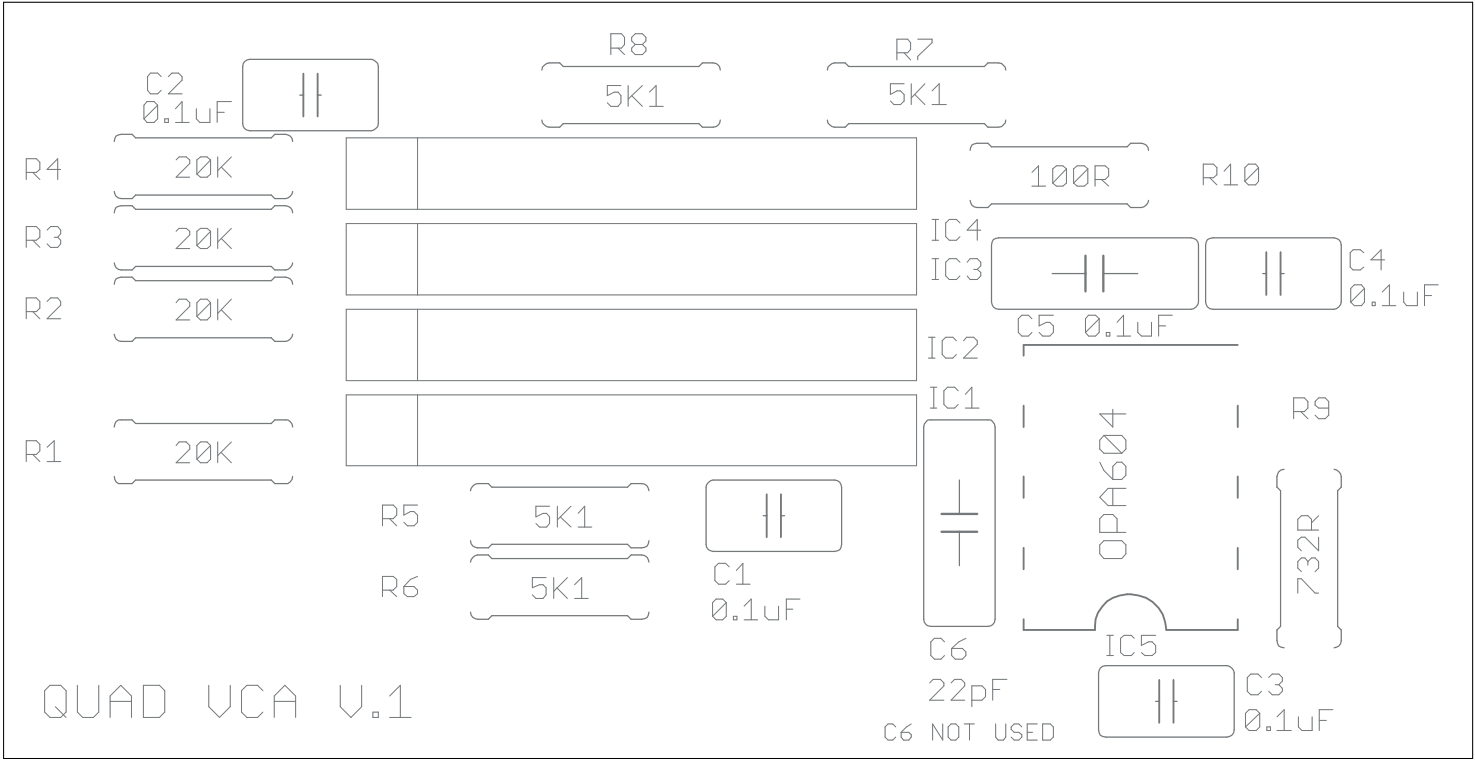
USE 100K FOR R21 AND R22



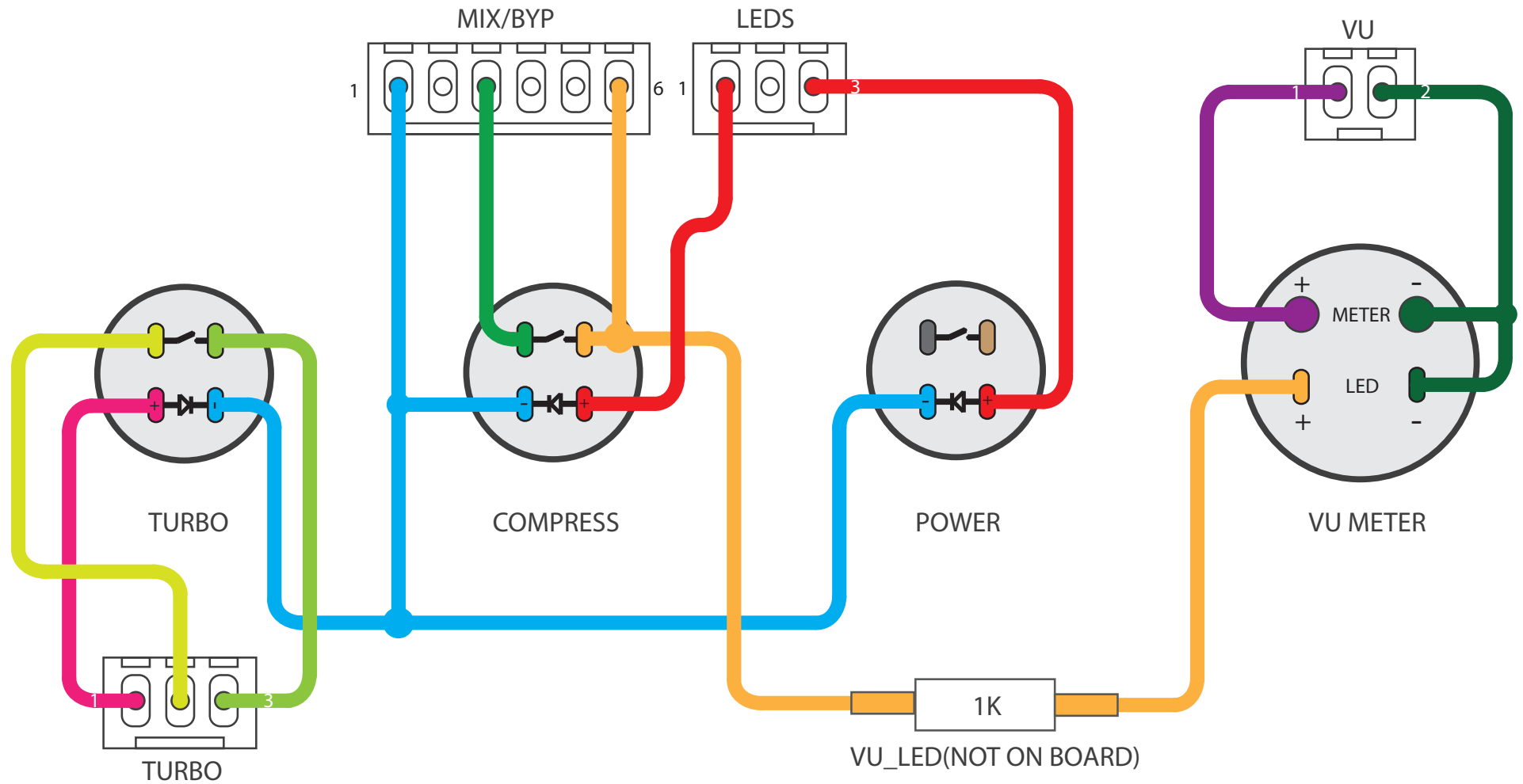
DR-MB2 FRONT PANEL BOARD LAYOUT



DR-MB2 QUAD VCA LAYOUT

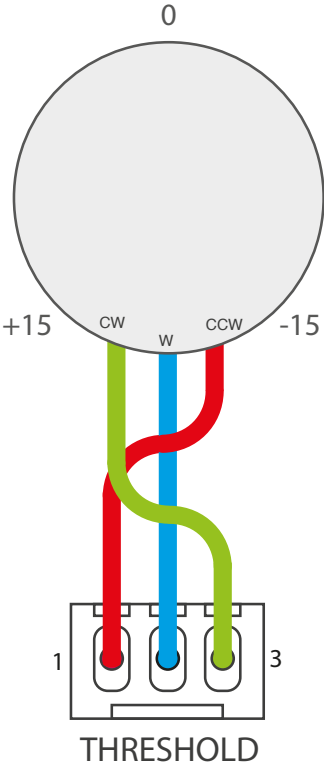


DR-MB2 PUSHBUTTONS,VU METER WIRING

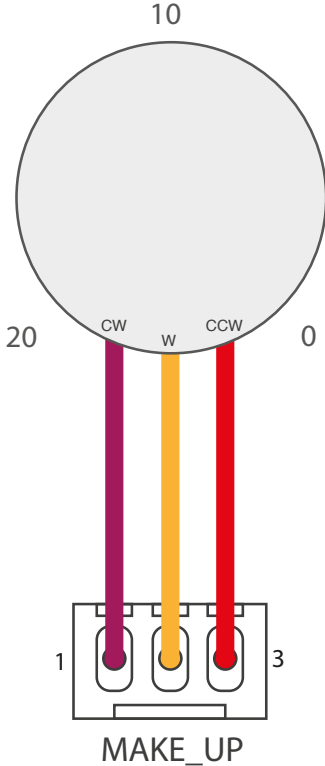


DR-MB2 THRESHOLD AND MAKE UP WIRING

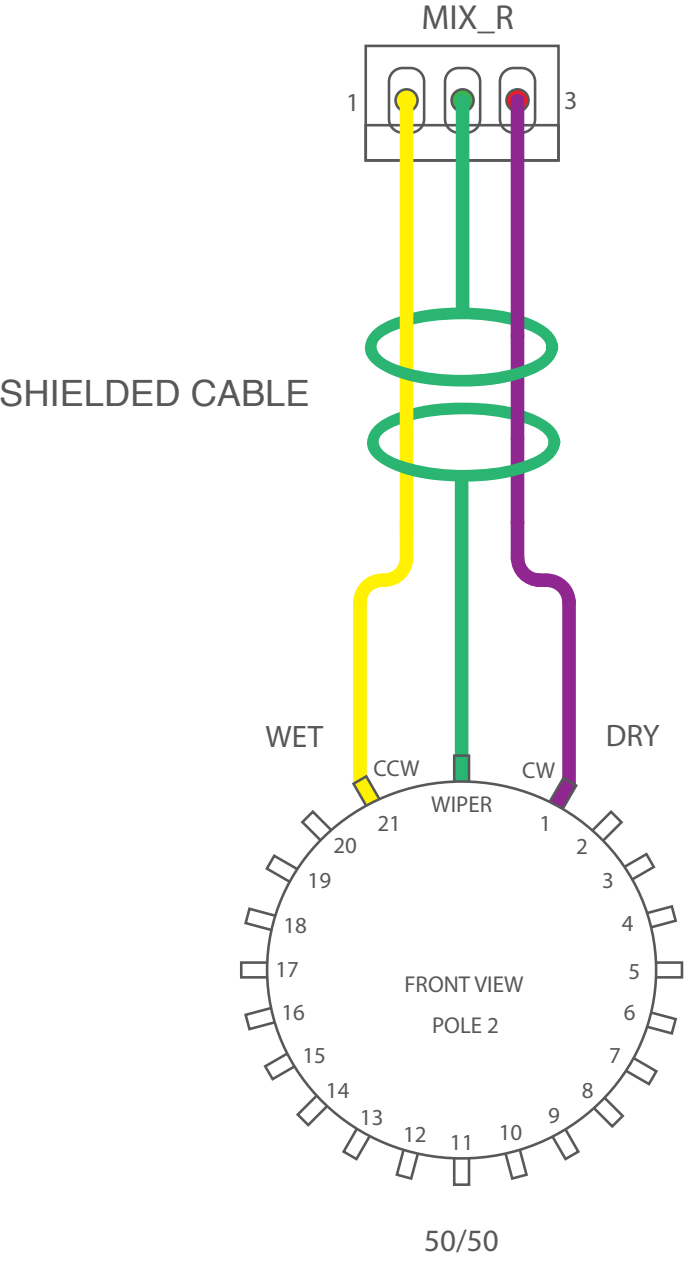
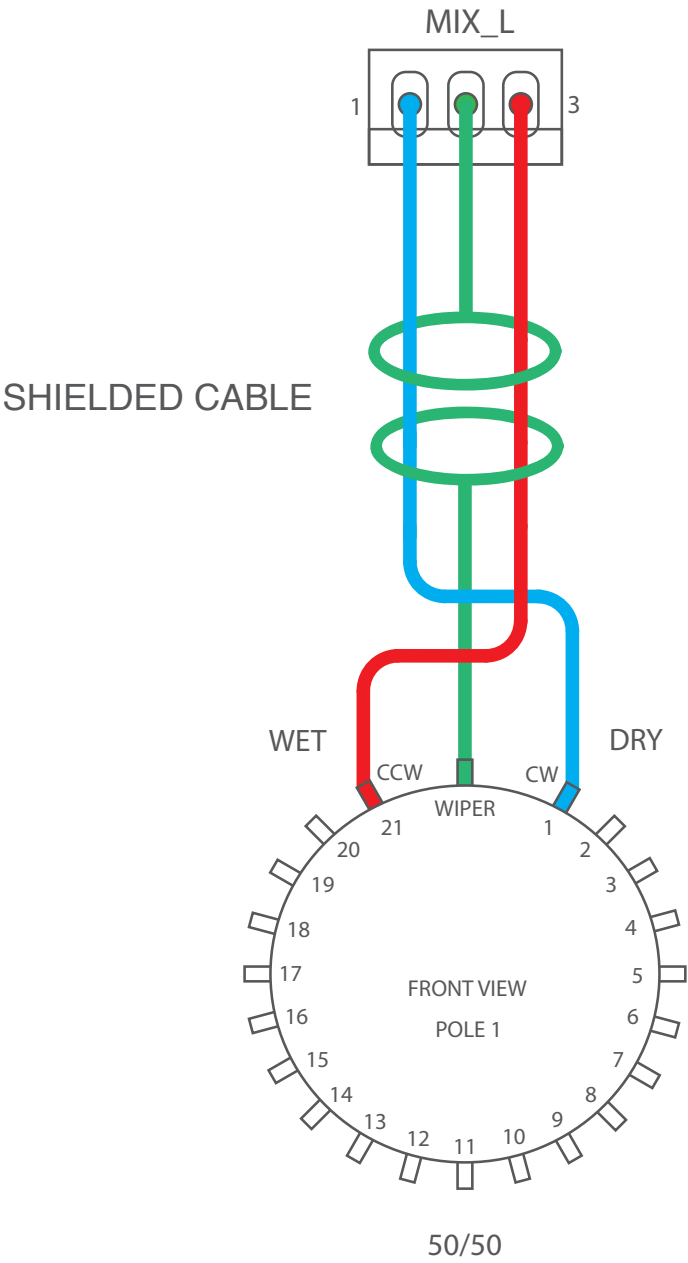
THRESHOLD POTENTIOMETER
(REAR VIEW)



MAKE UP POTENTIOMETER
(REAR VIEW)

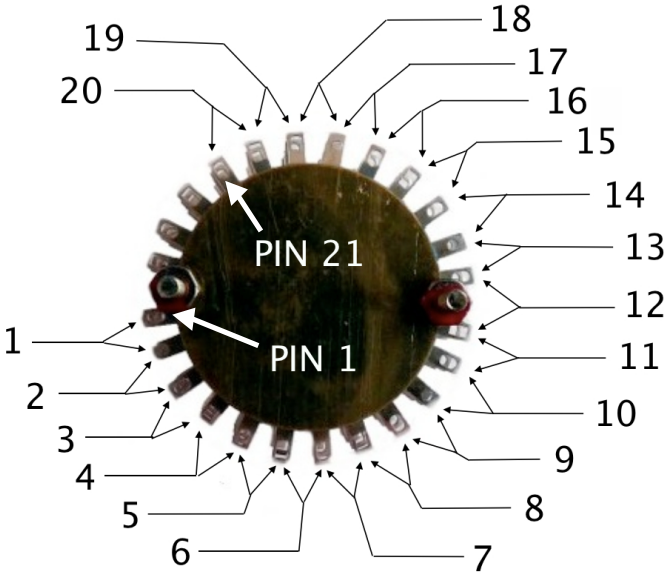


DR-MB2 WET/DRY ROTARY SWITCH WIRING

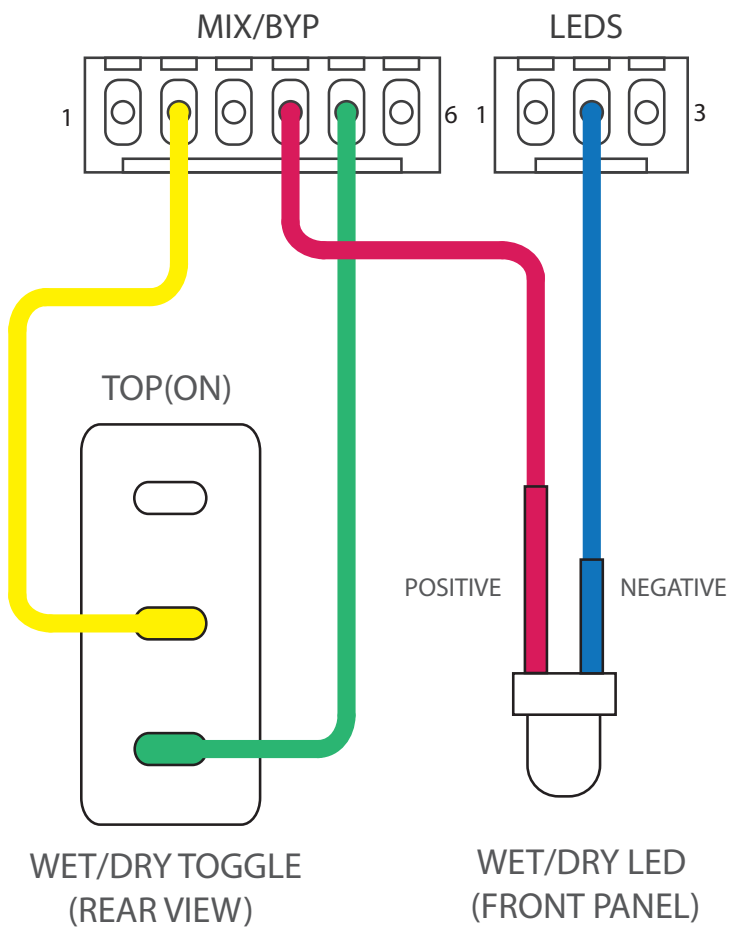


DR-MB2 WET/DRY ROTARY SWITCH RESISTORS

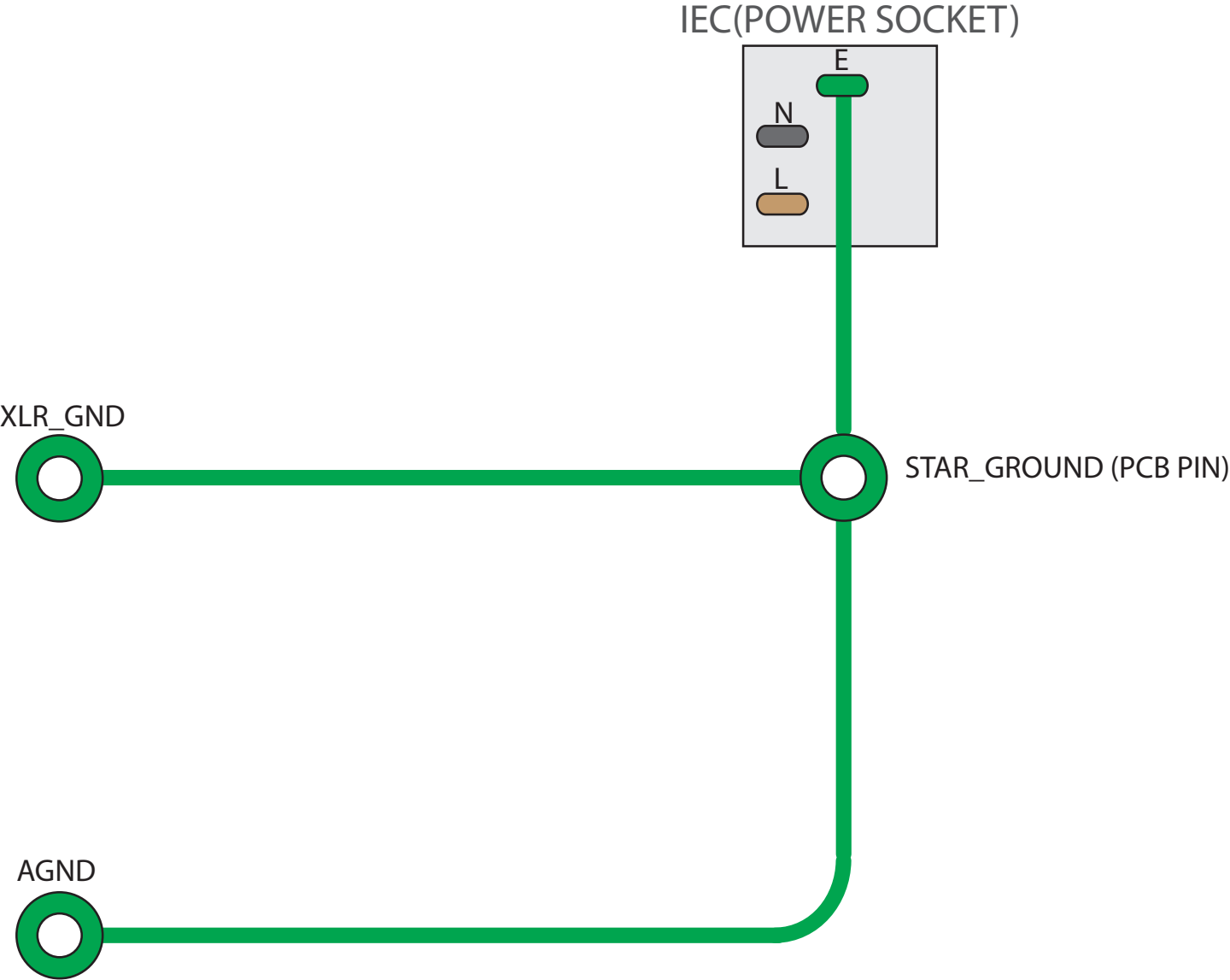
RESISTOR	FROM PIN	TO PIN	1 POLE	2 POLE
1	1	2	499	499
2	2	3	499	499
3	3	4	499	499
4	4	5	499	499
5	5	6	499	499
6	6	7	499	499
7	7	8	499	499
8	8	9	499	499
9	9	10	499	499
10	10	11	499	499
11	11	12	499	499
12	12	13	499	499
13	13	14	499	499
14	14	15	499	499
15	15	16	499	499
16	16	17	499	499
17	17	18	499	499
18	18	19	499	499
19	19	20	499	499
20	20	21	499	499



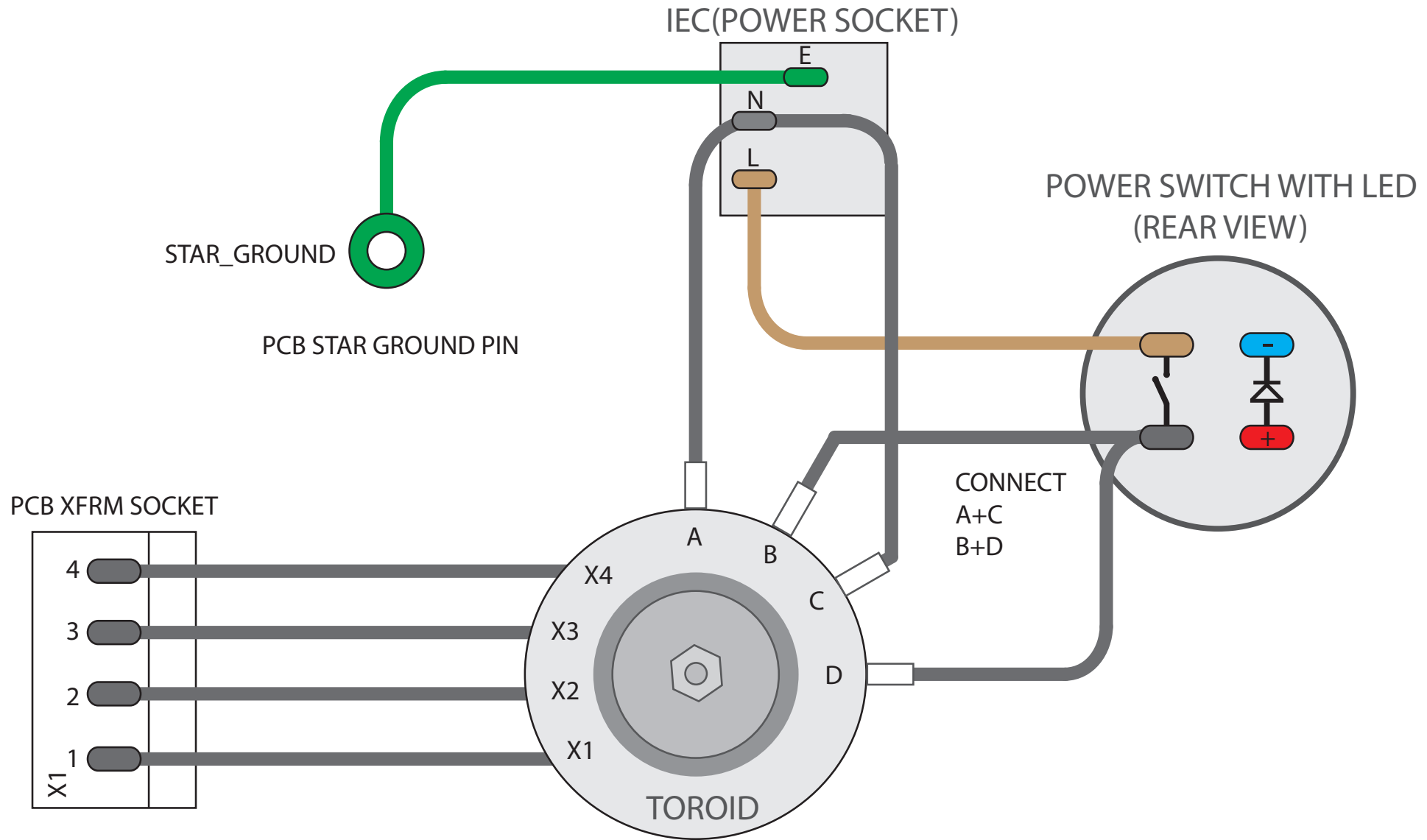
DR-MB2 WET/DRY TOGGLE AND LED WIRING



DR-MB2 GROUND WIRING

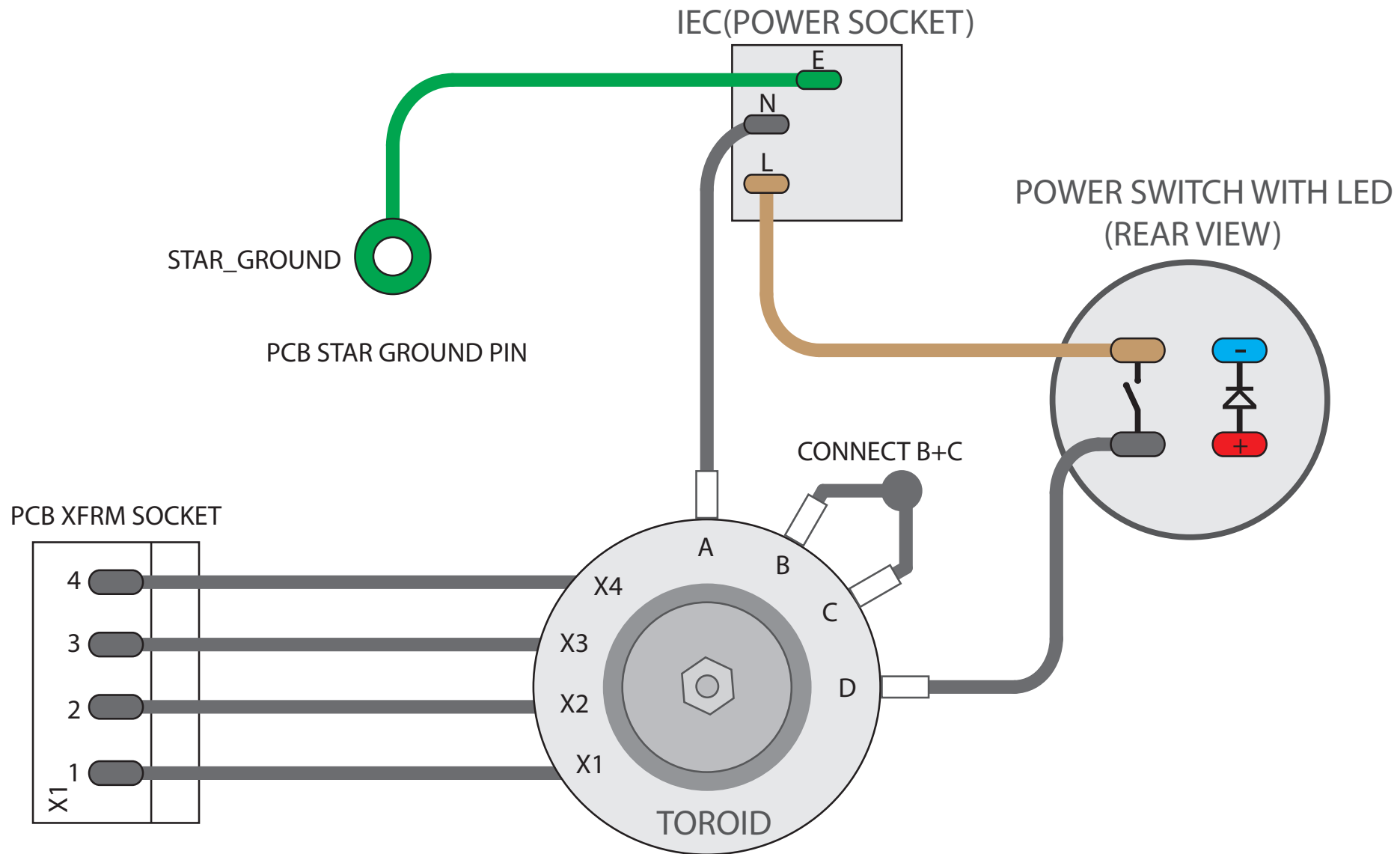


DR-MB2 TOROID WIRING FOR 115V



FOLLOW THE EXTRA SHIELDING FOR AC WIRES AND A B C D AND X1 X2 X3 X4 PATTERNS!

DR-MB2 TOROID WIRING FOR 230V



FOLLOW THE EXTRA SHIELDING FOR AC WIRES AND A B C D AND X1 X2 X3 X4 PATTERNS!

DR-MB2 CALIBRATION

TEST PROCEDURE and PSU CALIBRATION

1. With **not installed ICs and PSU JUMPERS** power UP compressor check no smoke. Let it work 10-15 minutes
2. Measure Voltage on PSU Test Points Measure between TP_GND and TP+12V, TP+18V, TP-18V, TP+15V, TP-15V
3. Adjust +18V and -18V rails with trim pots(+18V_TRIM, -18V_TRIM)
4. Switch OFF compressor
5. Install PSU jumpers JP1, JP2, JP3, JP4, JP5
6. Switch ON compressor, check no smoke, let it work 5 minutes
7. Switch OFF compressor
8. Install all Main Board and VCA Boards ICs
9. Switch ON compressor, check no smoke, let it work 5 minutes
10. Measure Voltage on PSU Test Points Measure between TP_GND and TP+12V, TP+18V, TP-18V, TP+15V, TP-15V

VU METER CALIBRATION

1. Use METER trim pot for adjust zero on VU Meter

UNITY GAIN TEST

1. Set MB2 front panel controls to THRESHOLD +15(CW), RATIO 2, ATTACK FAST(CCW), RELEASE SLOW(CW), MAKE UP 0(CCW), SIDECHAIN OFF, MIX TOGGLE OFF, TURBO OFF, COMP OFF
2. Generate in your DAW 1kHz Sinus
3. Feed -18dBfs test signal from your DAW to MB2 LEFT and RIGHT Inputs
4. Check MB2 LEFT and RIGHT OUTPUT level in your DAW level meter. Should be about -18dBfs(+/-0.1dB)
5. Press COMP ON
6. Check MB2 LEFT and RIGHT OUTPUT level in your DAW level meter. Should be about -18dBfs(+/-0.1dB)

DR-MB2 CALIBRATION

DISTORTION CALIBRATION

1. Set MB2 front panel controls to THRESHOLD +15(CW), RATIO 2, ATTACK FAST(CCW), RELEASE SLOW(CW), MAKE UP 0(CCW), WET/DRY IN MID(50/50), SIDECHAIN OFF, MIX TOGGLE ON, TURBO OFF, COMP ON
2. Generate in your DAW 1kHz Sinus
3. Feed -18dBfs test signal from your DAW to MB2 LEFT Inputs
4. Check MB2 LEFT OUTPUT signal with spectral analyzer(Voxengo Span, Blue Cat)
5. Adjust SYMTRIM_L trim pot for minimum level second harmonic(2kHz) on Spectral Analyzer
6. Feed -18dBfs test signal from your DAW to MB2 LEFT Inputs
7. Check MB2 LEFT OUTPUT signal with spectral analyzer(Voxengo Span, Blue Cat)
8. Adjust SYMTRIM_L trim pot for minimum level second harmonic(2kHz) on Spectral Analyzer

WET/DRY CALIBRATION

1. Set MB2 front panel controls to THRESHOLD +15(CW), RATIO 2, ATTACK FAST(CCW), RELEASE SLOW(CW), MAKE UP 0(CCW), WET/DRY IN MID(50/50), SIDECHAIN OFF, MIX TOGGLE ON, TURBO OFF, COMP ON
2. Generate in your DAW 1kHz Sinus
3. Feed -18dBfs test signal from your DAW to MB2 LEFT and RIGHT Inputs
4. Check MB2 LEFT OUTPUT level in your DAW level meter
5. Adjust MIX_L trim pot for read on DAW level meter -16dBfs
6. Check MB2 RIGHT OUTPUT level in your DAW level meter
7. Adjust MIX_R trim pot for read on DAW level meter -16dBfs
8. Turn WET/DRY to DRY(CCW)
9. Check MB2 LEFT and RIGHT OUTPUT level in your DAW level meter. Should be -20dBf(+/-0.5dB)
10. Turn WET/DRY to WET(CCW)
11. Check MB2 LEFT and RIGHT OUTPUT level in your DAW level meter. Should be -20dBf(+/-0.5dB)

DR-MB2 CALIBRATION

CONTROL SIGNAL CALIBRATION

1. Set MB2 front panel controls to THRESHOLD +15(CW), RATIO 10, ATTACK FAST(CCW), RELEASE SLOW(CW), MAKE UP 0(CCW), SIDECHAIN OFF, MIX TOGGLE OFF, TURBO OFF, COMP ON
2. Generate in your DAW 1kHz Sinus
3. Feed -18dBfs test signal from your DAW to MB2 LEFT and RIGHT Inputs
4. Turn THRESHOLD to -15(CCW)
5. Check MB2 LEFT and RIGHT OUTPUT level in your DAW level meter(Signal should be reduced)
6. Turn THRESHOLD to +15(CW)
7. Check DC voltages between TP3 and TG_GND
8. Adjust SC_SYML for 0V DC between TP3 and TP_GND
9. Check DC voltages between TP4 and TG_GND
10. Adjust SC_SYMR for 0V DC between TP4 and TP_GND
11. Adjust FTRIM_L and FTRIM_R to MIN(CW)

DR-MB2 CALIBRATION

RATIO 10:1 CALIBRATION

1. Set MB2 front panel controls to THRESHOLD +15(CW), RATIO 10, ATTACK FAST(CCW), RELEASE SLOW(CW), MAKE UP 0(CCW), SIDECHAIN OFF, MIX TOGGLE OFF, TURBO OFF, COMP ON
2. Generate in your DAW 1kHz Sinus
3. Feed -18dBfs test signal from your DAW to MB2 LEFT and RIGHT Inputs
4. Check MB2 LEFT and RIGHT OUTPUT level in your DAW level meter
5. Adjust MAKE UP for read on DAW level meter -18dBfs
6. Adjust THRESHOLD for read on DAW level meter -20dBfs
7. Increase level of test signal by 10db(-8dBfs)
8. Adjust RATIO trim pot for read on DAW level meter -19dBfs

RATIO 2:1 CALIBRATION

1. Set MB2 front panel controls to THRESHOLD +15(CW), RATIO 2, ATTACK FAST(CCW), RELEASE SLOW(CW), MAKE UP 0(CCW), SIDECHAIN OFF, MIX TOGGLE OFF, TURBO OFF, COMP ON
2. Generate in your DAW 1kHz Sinus
3. Feed -18dBfs test signal from your DAW to MB2 LEFT and RIGHT Inputs
4. Check MB2 LEFT and RIGHT OUTPUT level in your DAW meter
5. Adjust MAKE UP for read on DAW level meter -18dBfs
6. Adjust THRESHOLD for read on DAW level meter -20dBfs
7. Increase level of test signal by 10db(-8dBfs)
8. Adjust RATIO trim pot for read on DAW level meter -15dBfs(Could be +/- 0.5dB)