Marchand Electronics Inc.

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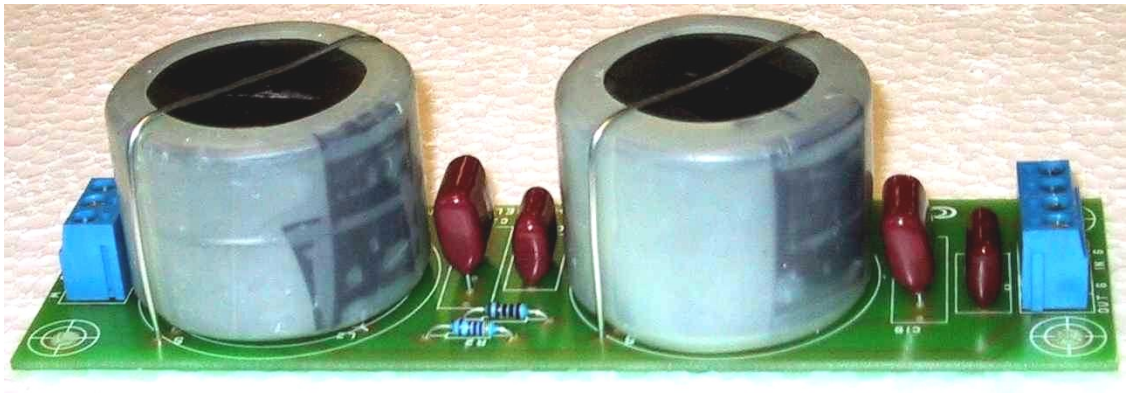
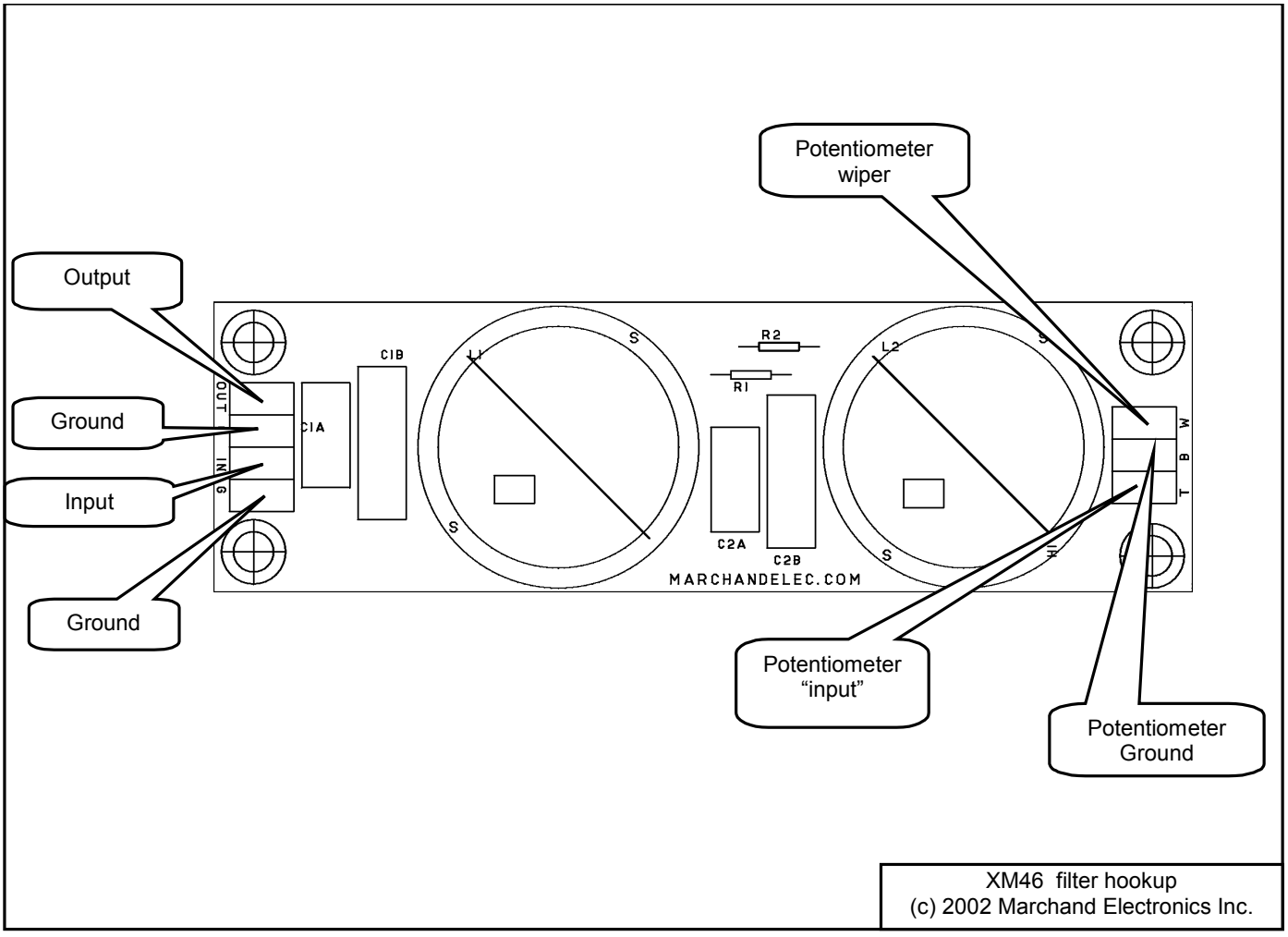
XM46 Passive 2-way crossover





XM46 filter hookup
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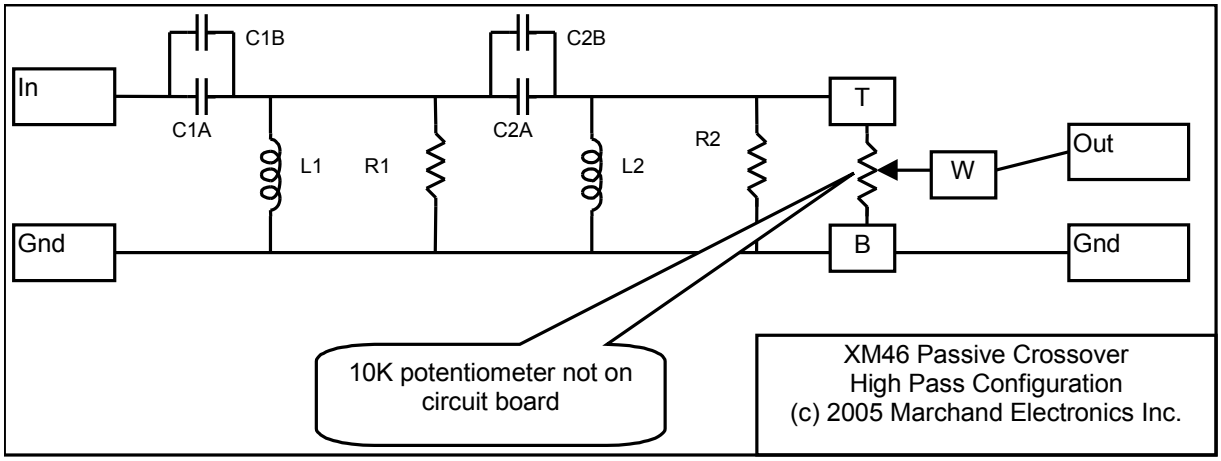
	High Pass Component values for 250Hz constant voltage filter, impedance = 1350 Ohm	
C1	.28uF	.22uF + .039uF 2% Polypropylene Capacitor
C2	.14uF	.10uF + .039uF 2% Polypropylene Capacitor
L1	1 H	Potcore inductor 1%
L2	2H	Potcore inductor 1%
R1	2.00 K	1% metal film resistor
R2	4.22K	1% metal film resistor

	Low Pass Component values for 250Hz constant voltage filter, impedance = 1350 Ohm	
C1	.4uF	.22uF +0.1uF+ .082uF 2% Polypropylene Capacitor
C2	.2uF	.10uF + .10uF 2% Polypropylene Capacitor
L1	1.4H	Potcore inductor 1%
L2	2.8h	Potcore inductor 1%
R1	2.00 K	1% metal film resistor
R2	4.22K	1% metal film resistor

Custom design worksheet			
High Pass Component values for Hz filter			
C1		Polypropylene Capacitor C1A=	C1B=
C2		Polypropylene Capacitor C2A=	C2B=
L1		Potcore inductor 1%	
L2		Potcore inductor 1%	
R1		1% metal film resistor	
R2		1% metal film resistor	
Low Pass Component values for Hz filter			
C1		Polypropylene Capacitor C1A=	C1B=
C2		Polypropylene Capacitor C2A=	C2B=
L1		Potcore inductor 1%	
L2		Potcore inductor 1%	
R1		1% metal film resistor	
R2		1% metal film resistor	
Notes:			


C1B
C2B
In
C1A
C2A
T
L1
R1
L2
R2
Out
W
Gnd
B
Gnd
10K potentiometer not on
circuit board
XM46 Passive Crossover
High Pass Configuration
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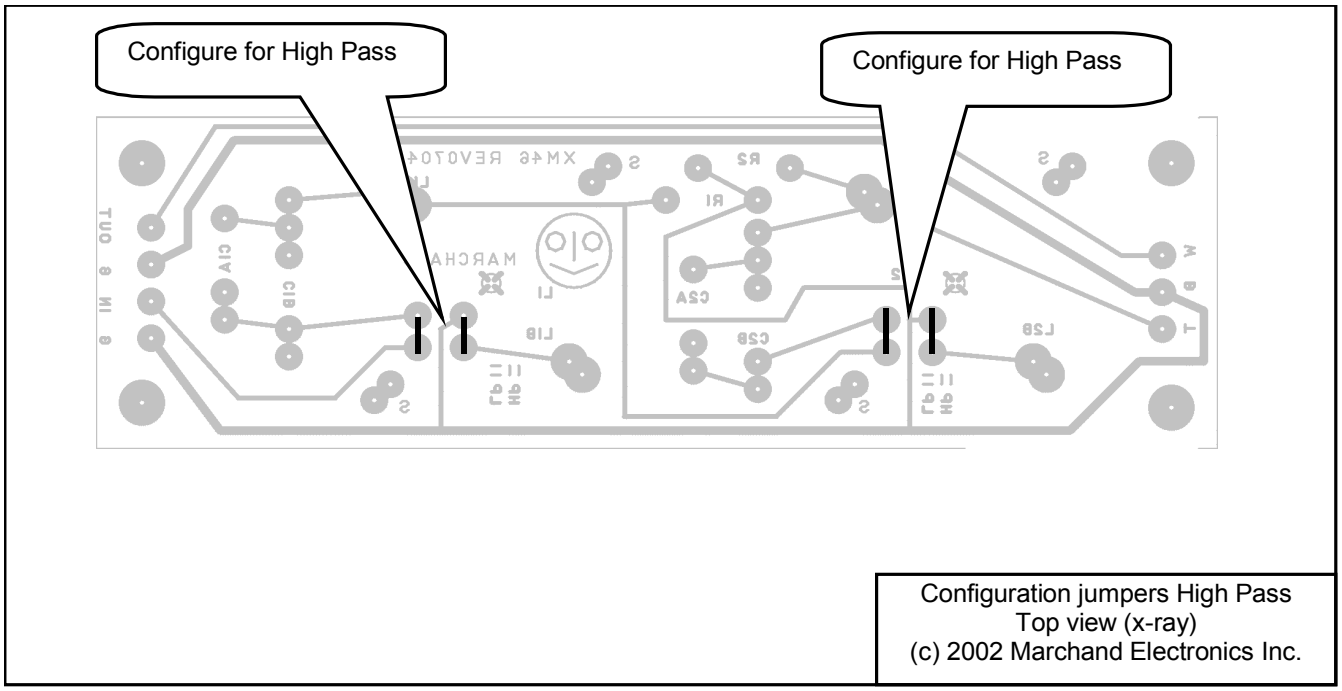
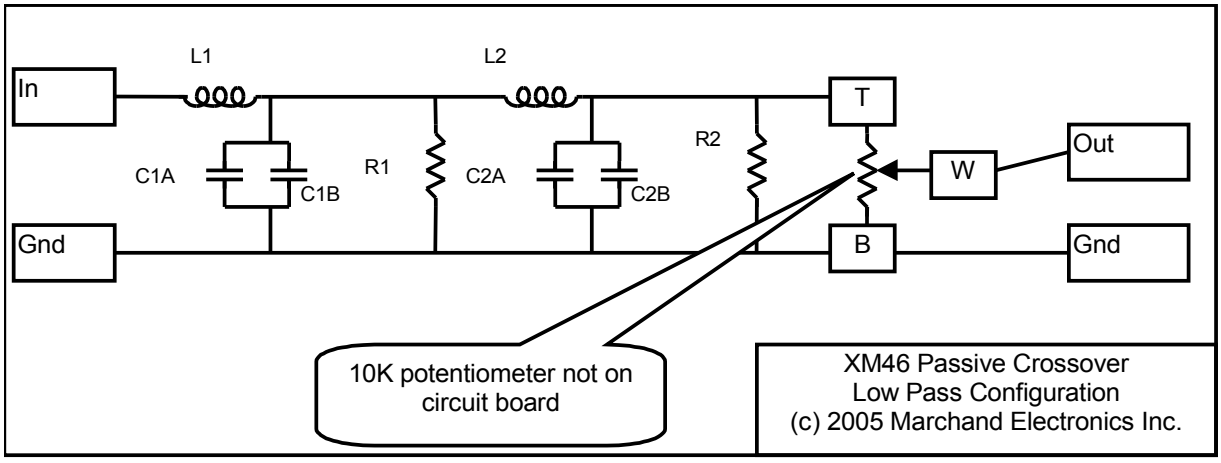

Configure for High Pass
Configure for High Pass
Configuration jumpers High Pass
Top view (x-ray)
(c) 2002 Marchand Electronics Inc.


L1
L2
In
T
R2
Out
C1A
C1B
R1
C2A
C2B
W
Gnd
B
Gnd
10K potentiometer not on circuit board
XM46 Passive Crossover
Low Pass Configuration
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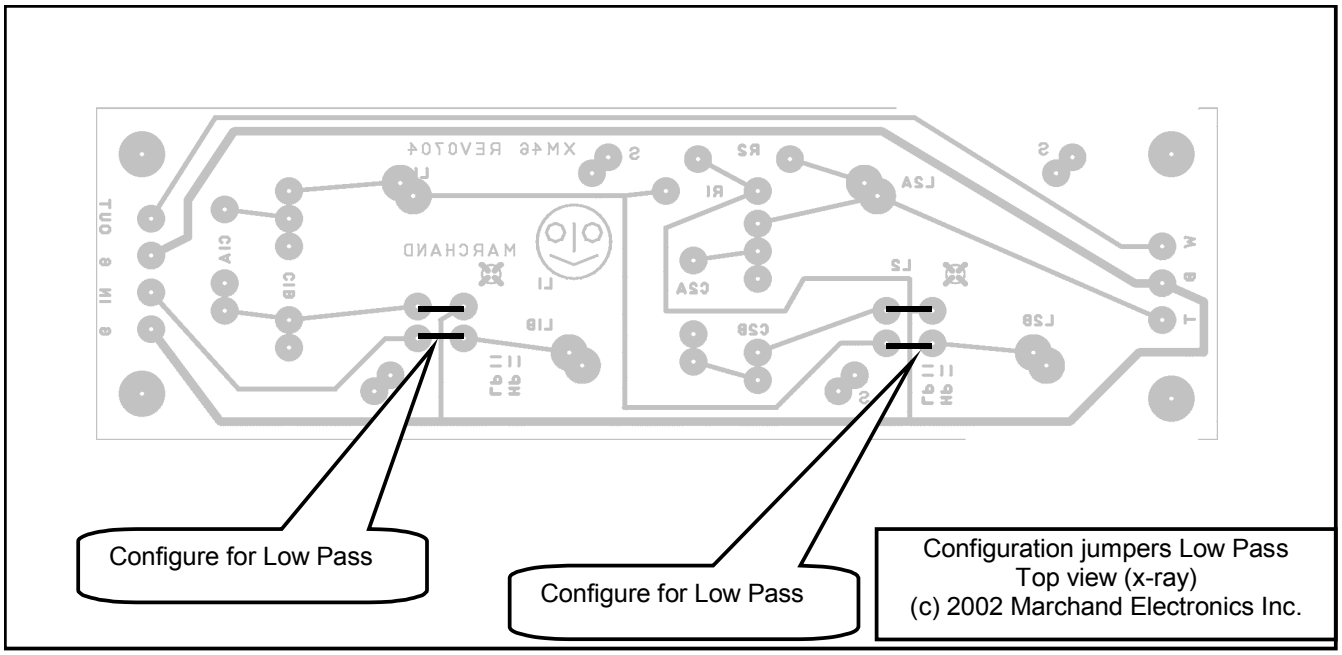
Configure for Low Pass
Configure for Low Pass
Configuration jumpers Low Pass
Top view (x-ray)
(c) 2002 Marchand Electronics Inc.

Assembly Instructions.

1: Configure board for High-Pass or Low-Pass.

Using bare wire install 4 jumpers on each circuit board.
The board can be configured for high-pass or low pass with these jumpers.
See picture for direction of jumpers.

2: Installation of potcore inductors.

Secure the inductors to the circuit board using nylon bolt and nut.
Use a fiber washer between inductor and circuit board.
Solder the two leads of each of the inductors to the pads on the circuit board.
For best result use some glue (like silicone glue) between inductor and circuit board.
Note: make sure the potcore inductor does not touch the configuration jumpers.
The ferrite material of the potcore is conductive.

3: Remaining parts.

The terminal blocks, capacitors and resistors are installed in the usual way.

4: Level control.

A level control potentiometer or attenuator can be installed at the terminal block labeled T-W-B.
The value of the potentiometer is typically 10 Kohm.
If no potentiometer is used connect a jumper wire between terminals T and W and
also connect a 10 Kohm resistor between terminals T and B.