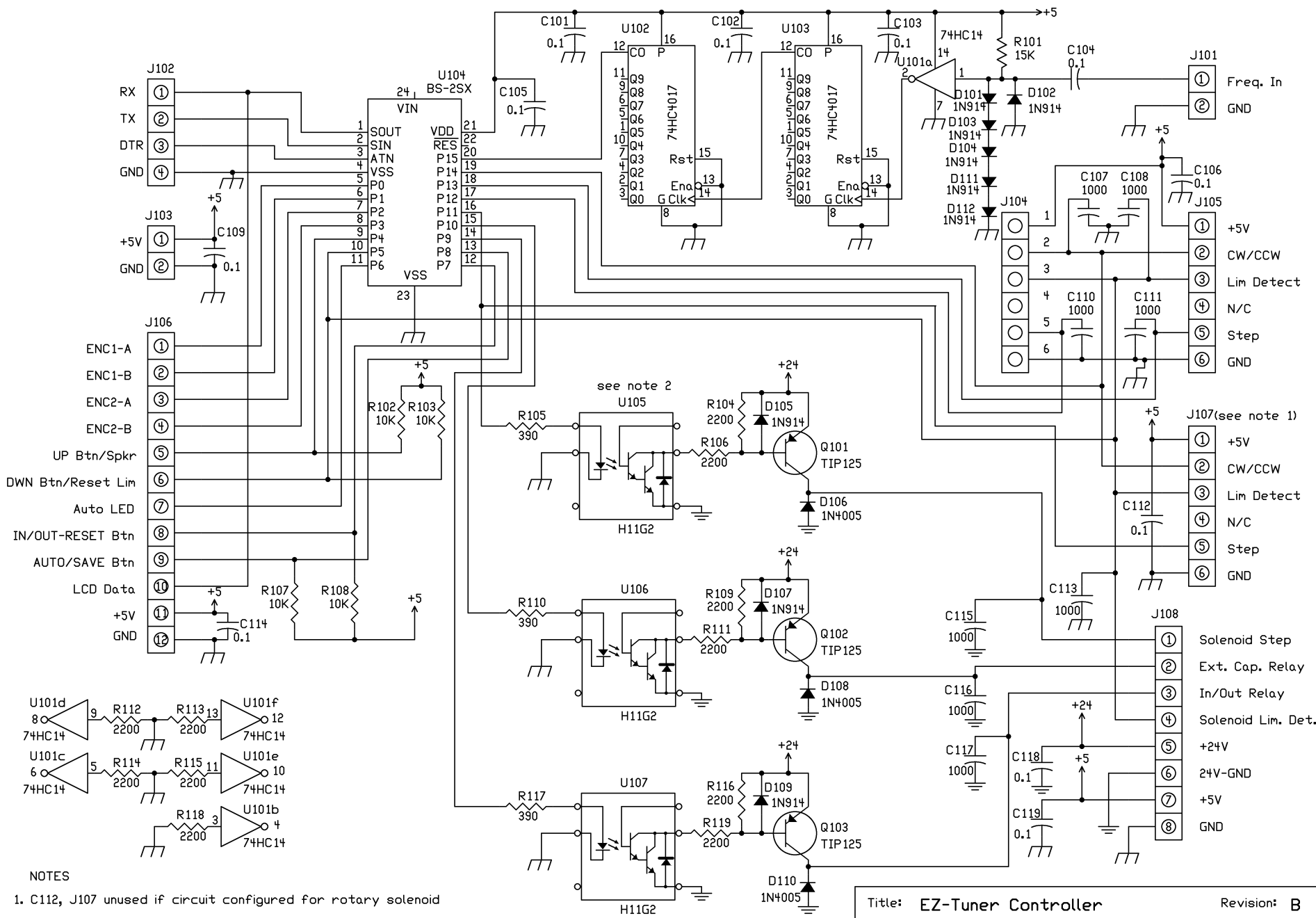


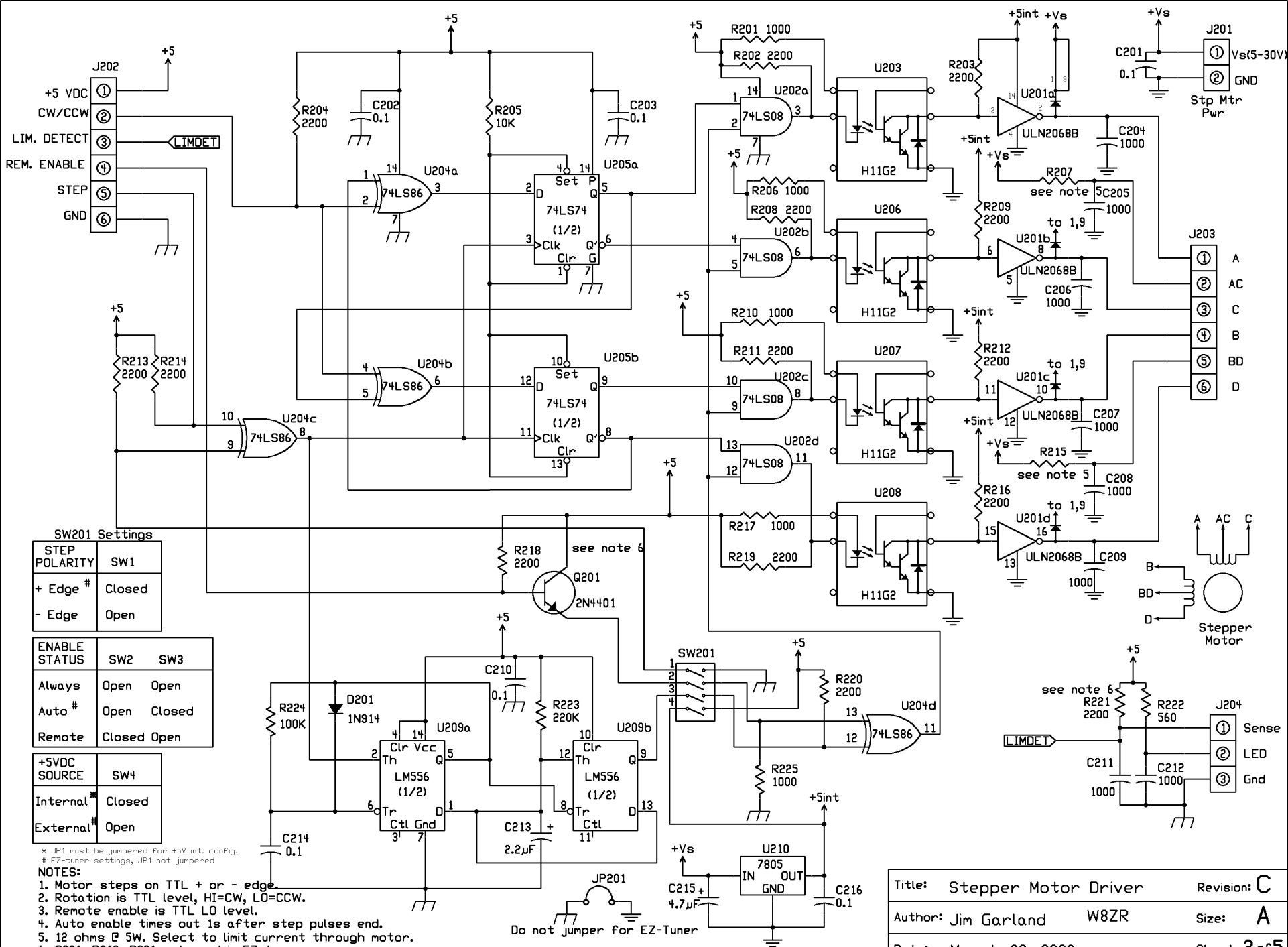
Title: EZ-Tuner - Chassis	Revision: A
Author: Jim Garland W8ZR	Size: A
Date: June 14, 2001	Sheet 1 of 5



**NOTES**

1. C112, J107 unused if circuit configured for rotary solenoid
2. D105, D106, Q101, R104, R105, R106, U105 unused if rot. solenoid replaced by stepper motor

Title: EZ-Tuner Controller	Revision: B
Author: Jim Garland W8ZR	Size: A
Date: Feb. 20, 2002	Sheet 2 of 5



**SW201 Settings**

STEP POLARITY	SW1	
+ Edge #	Closed	
- Edge	Open	

ENABLE STATUS	SW2	SW3
Always	Open	Open
Auto #	Open	Closed
Remote	Closed	Open

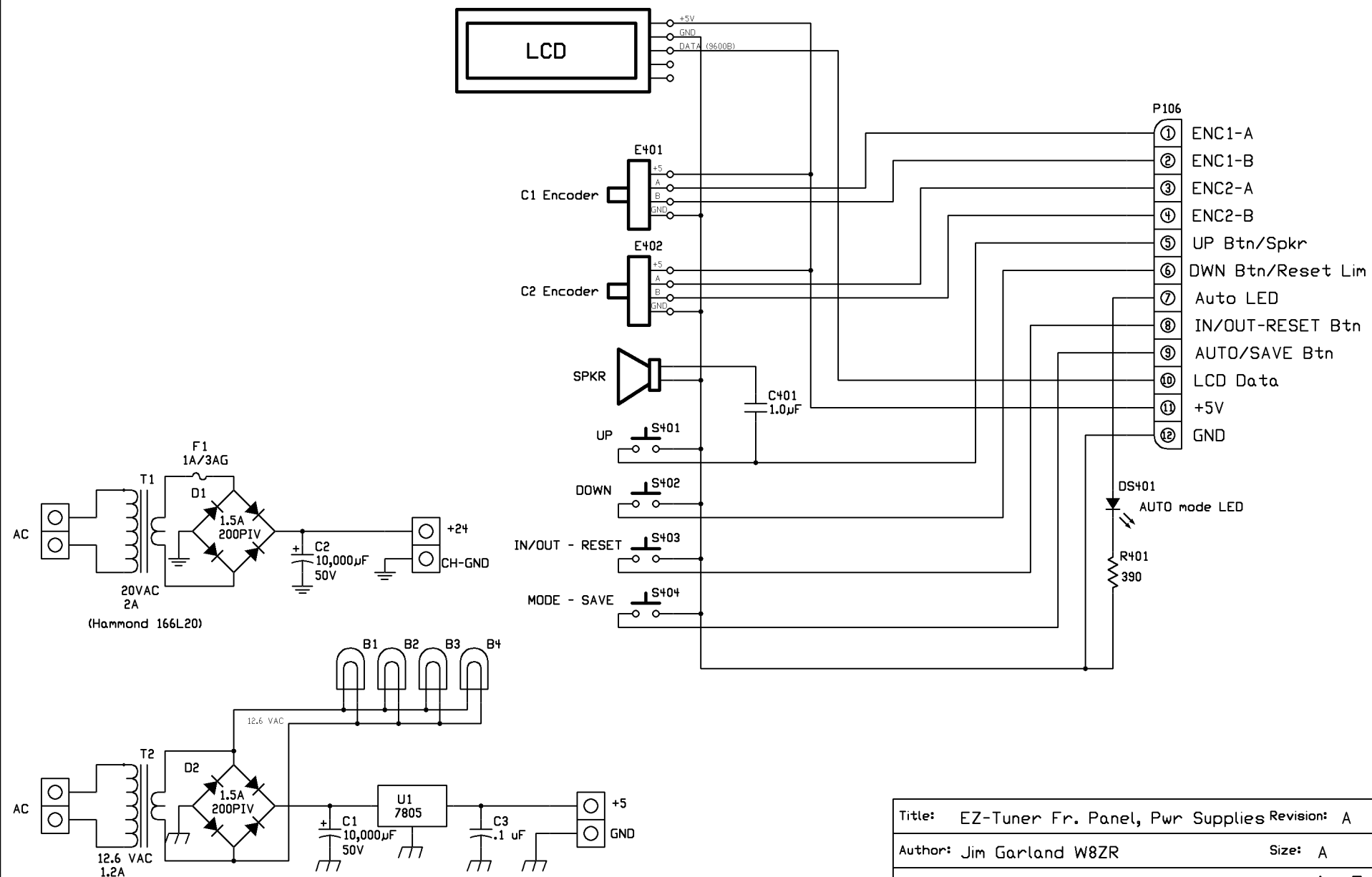
+5VDC SOURCE	SW4
Internal #	Closed
External #	Open

\* JP1 must be jumpered for +5V int. config.  
 # EZ-tuner settings, JP1 not jumpered

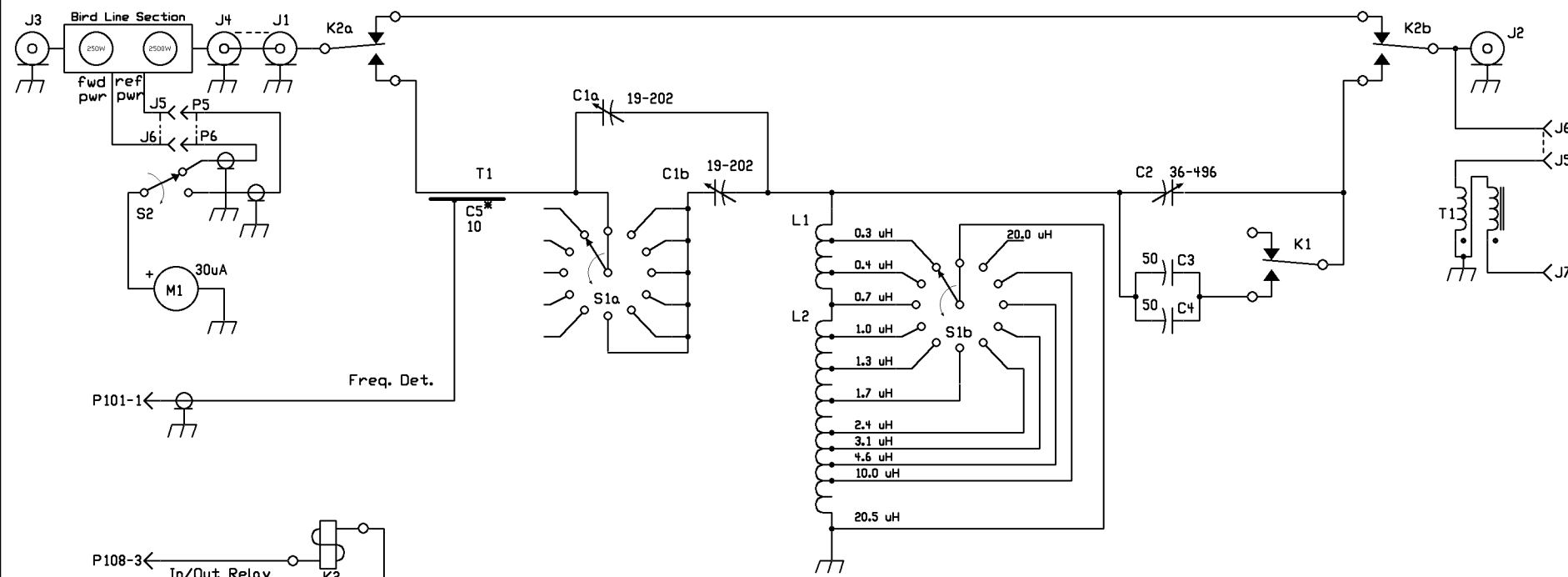
- NOTES:**
1. Motor steps on TTL + or - edge.
  2. Rotation is TTL level, HI=CCW, LO=CCW.
  3. Remote enable is TTL LO level.
  4. Auto enable times out 1s after step pulses end.
  5. 12 ohms 5W. Select to limit current through motor.
  6. Q201, R218, R221 not used in EZ-tuner.

Do not jumper for EZ-Tuner

Title: Stepper Motor Driver	Revision: C
Author: Jim Garland W8ZR	Size: A
Date: March 30, 2002	Sheet 3 of 5

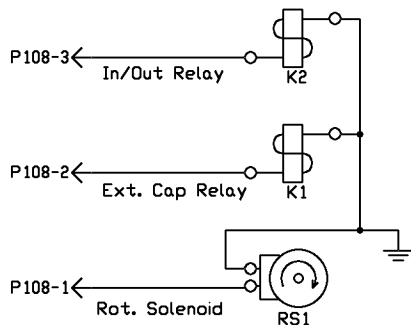


Title: EZ-Tuner Fr. Panel, Pwr Supplies	Revision: A
Author: Jim Garland W8ZR	Size: A
Date: Mar. 30, 2002	Sheet 4 of 5



### Parts List

- C1: 19-202 pf/section P3500V (Cardwell-Johnson 153-503-1)
- C2: 36-496 pf P3500V (Cardwell-Johnson 153-6-1)
- C3-C4: 50 pF 5000V ceramic (Centralab 858 or equiv.)
- C5: 10 pF custom (2.5" braid over teflon sleeve)
- K1: SPDT HV Vacuum 26.5VDC/156 ohm (Jennings RF3A or equiv.)
- K2: DPDT HV Vacuum 26.5VDC/120 ohm (Kilovac H-16/S1 or equiv.)
- L1: 1.1 uH (4t on 1.5in dia, 3/16 in. Cu tubing)
- L2: 20 uH (25 turns #10 tinned copper, 3 in dia, 4tpi - B&W 2404TL)
- M1: Panel meter, 30uA f.s., (Coaxial Dynamics 88953-A/w. bezel).
- RS1: Rotary solenoid, 12 steps/rev., 24V/3.11A (Ledex series 50-L)
- S1: 2-pole, 11-position HV ceramic (Radio Switch #86 or equiv.)
- T1: Balun, 12t #12, teflon insulated, bifilar wound on 3 T-200-2 Amidon cores.
- Wattmeter: Bird Electronics dual line section w. 250H & 2500H elements.



Title: EZ-Tuner RF Deck

Revision: A

Author: Jim Garland W8ZR

Size: A

Date: Feb. 2, 2002

Sheet 5 of 5