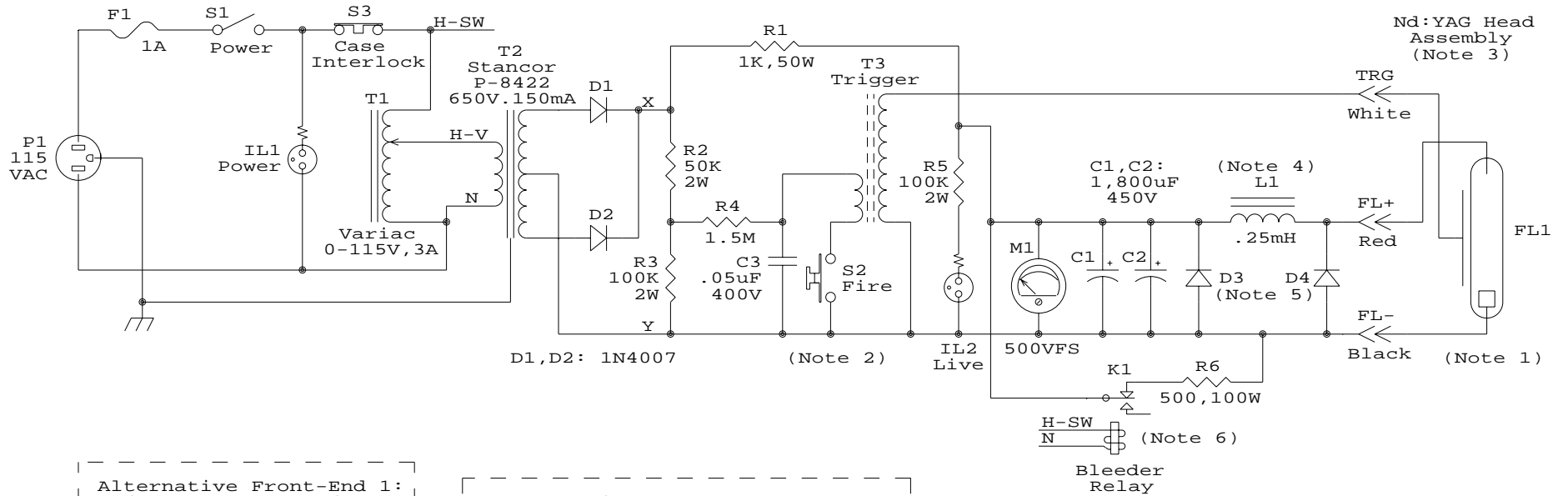
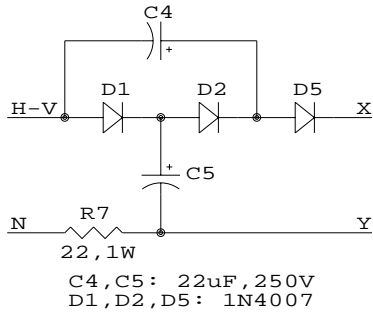


High Energy AC Line PSU for SSY1 (SG-SP3)

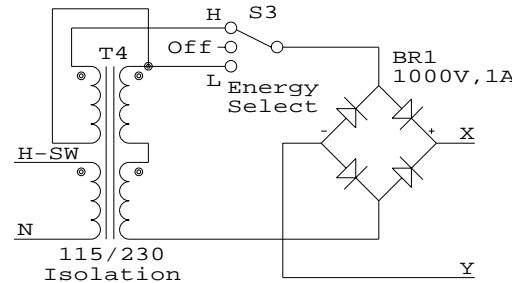


Alternative Front-End 1:
line-connected tripler
eliminates T2.



WARNING: No Isolation

Alternative Fron-End 2: Dual
primary/secondary isolation
transformer replaces T1, T2.



Notes:

- Usable flashlamp energy range is about 160 to 360 J (300 to 450 V on C1/C2)
- Cycle time is 20 seconds minimum at 160 J, 45 seconds at 360 J.
- Expected laser output should exceed 1 Gillette: Able to blow hole in razor blade with only one shot.
- L1 is 55 turns, #14, 5 layers, 3 inch diameter, 1.25 inches long.
- D3 and D4 provide reverse protection of C1/C2 and FL1, respectively.
- Capacitor bank is extremely lethal. Bleeder relay will discharge it to safe level in about 10 seconds once power is removed or case is opened.

Simplified Alternatives in Capacitor Charger

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Title

High Energy AC Line PSU for SSY1 (SG-SP3)

Size Document Number

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