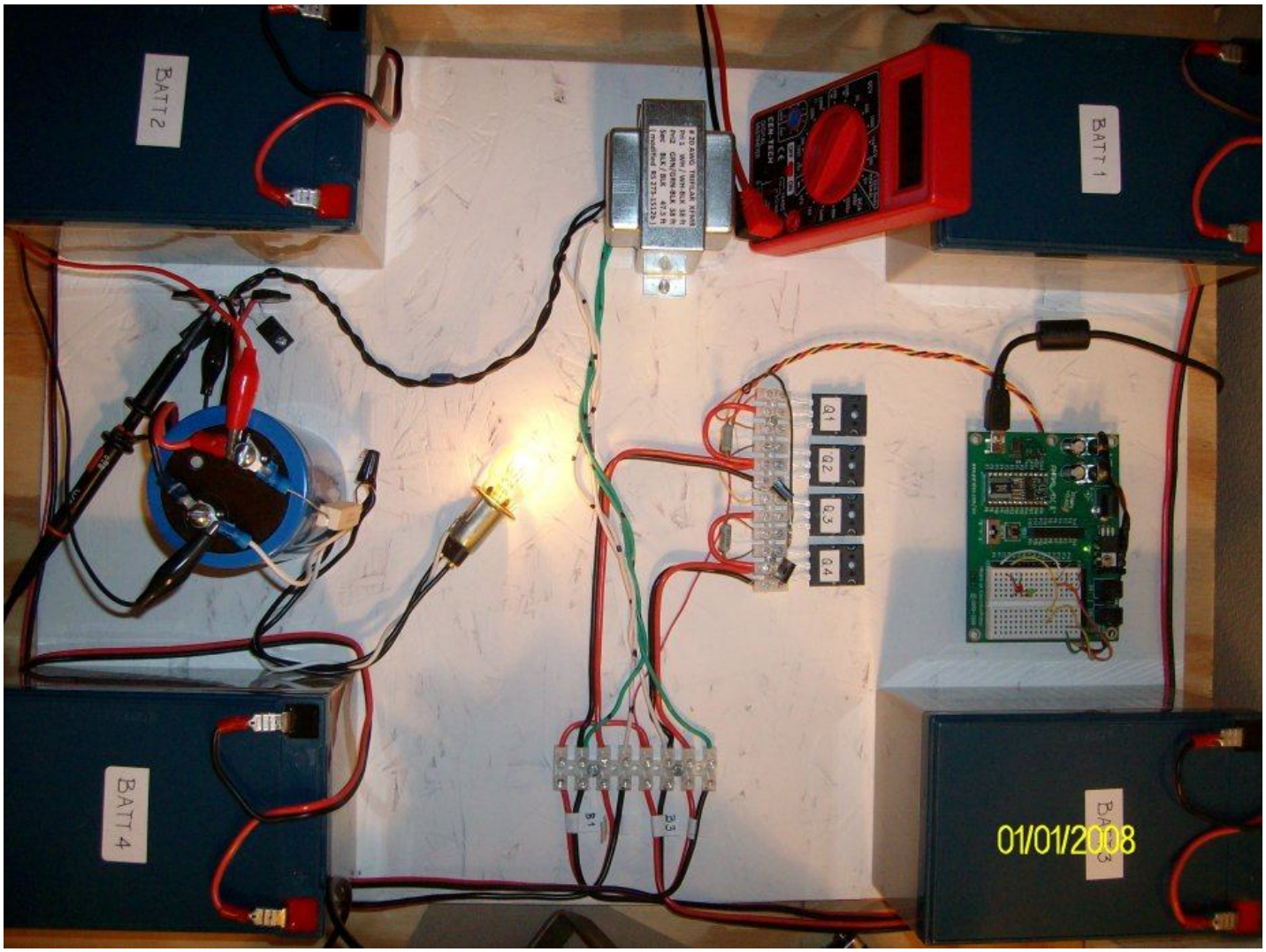


TRANSFORMER

RadioShack RS 273-1512B
Trifilar wound with #20 AWG
Primary 1 38 feet
Primary 2 38 feet
Secondary 47.5 feet

Center bobbin partition removed.
After winding, spool was squeezed in vise so that laminations cleared the wire.

Installed all but two laminations which were destroyed during removal. <grrr!>

"word to the wise" : If you decide to crush your spool in a vise, then block it with wood and shim pieces inside the core of the bobbin to prevent distorting it; else your laminations can't be inserted. Also, wrap two layers of tape over the wire to protect from nicking it.

(xfmr lead wires are color coded stripe/solid. Striped lead connects to start of winding; Solid lead connects to finish of winding.)

BATTERIES

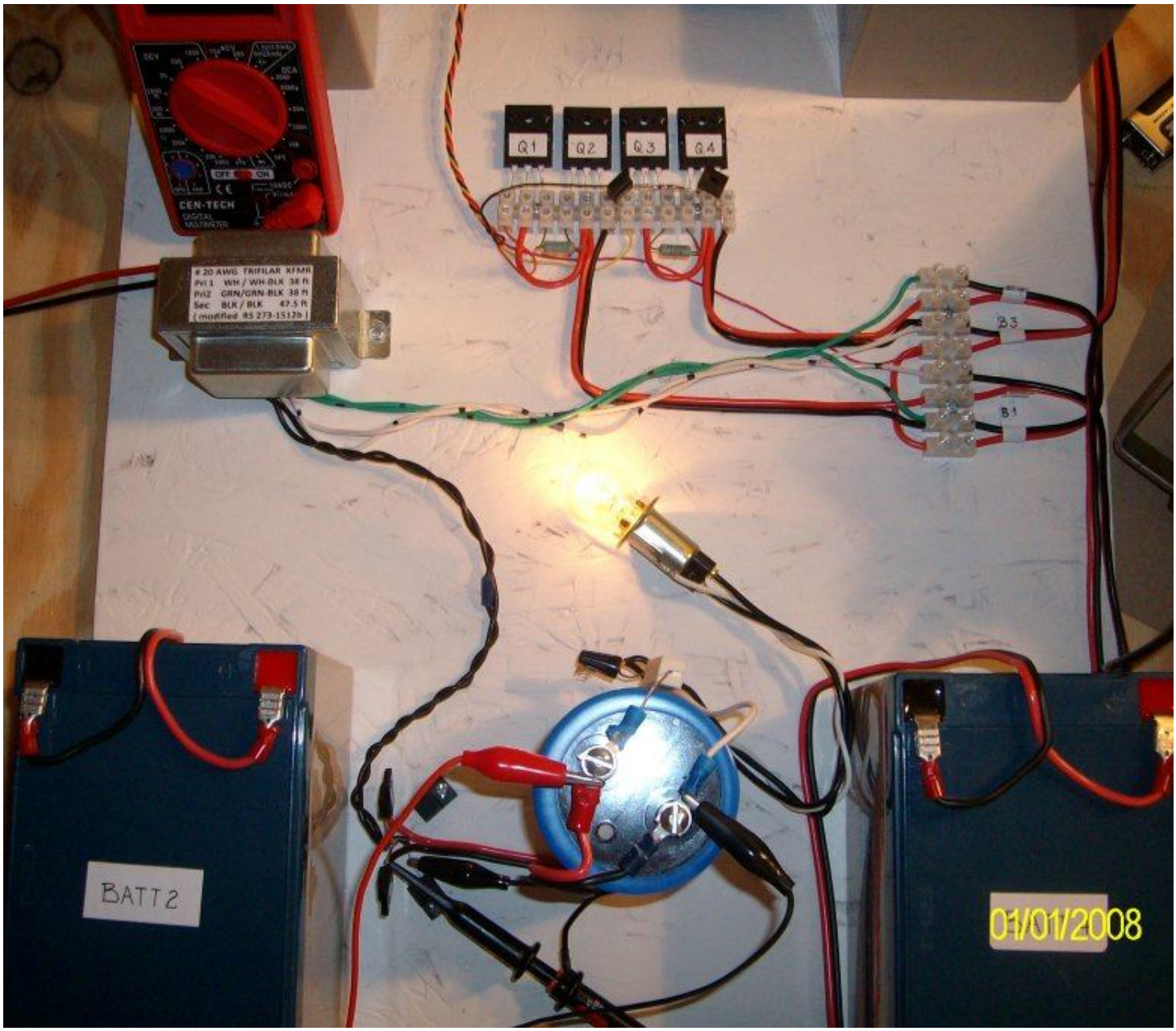
PowerSonic PS-12120 F2
12 Volt 12 Amp-Hr
AGM <absorbed glass mat> Lead Acid

These were given to me used, but they charged up okay. Seem to translate current better than Gel cells but probably not as good as flooded wet cell. Will prove this out at next opportunity.

DC RESISTIVE LOAD connected to output

#1157 Auto bulb (tail light / brake light) one filament 6 watts, the other is 22 watts. Had to use the six watt element because the xfmr couldn't provide more than about 1.6 amps out at 8.94 Vdc.

The six watt load gave good results for my setup. It averages 0.5 amperes.



Baseline loading:

Four 12V 12Ahr batteries were paralleled and connected to the 6W filament of a #1157 automobile bulb.

Average Starting voltage: 12.92 vdc

Average Ending voltage : 12.47 vdc Time elapsed : 10 hours 20 min

Then batteries replenished and connected to small Matt Jones TS replication:

	Batt 1	Batt 2	Batt 3	Batt 4	$V_{AVERAGE}$
Resting	13.00	13.21	13.08	13.14	13.10
$V_{starting}$	12.89	12.95	13.08	12.78	12.93
V_{ending}	12.47	12.40	12.59	12.42	12.47

Note: (B1 & B2) and (B3 & B4) were swapped five times during the run. Time elapsed : 17 hours 30 min

69% longer runtime on the TS configuration !!! Amazing!

BS2 Pulsout	$V_{LOAD\ DC}$	Frequency
800	11.62	250 Hz
900	11.66	
1000	11.69	205 Hz
1100	11.70	
1200	11.73	
1300	11.75	
1400	11.77	
1500	11.79	154 Hz
1600	11.81	141 Hz
1700	11.83	
1800	11.84	
2000	11.85	
2200	11.85	106 Hz
2300	11.86	102 Hz
2350	11.86	100 Hz
2400	11.86	98 Hz
2500	11.87	
2600	11.87	91 Hz
2650	11.87	89 Hz
2700	11.88	88 Hz
2800	11.88	
2900	11.88	
3000	11.88	81 Hz
3200	11.89	76 Hz
3400	11.90	70 Hz
3600	11.90	63 Hz
3800	11.92	
4000	11.93	62 Hz
4100	11.94	60 Hz
4200	11.96	59 Hz
4400	11.98	56 Hz
4600	11.99	53 Hz
4800	12.00	51 Hz
4900	12.01	
5000	12.02	49 Hz
5200	12.03	48 Hz
5400	12.03	46 Hz
5600	12.04	44 Hz
5800	12.04	43 Hz
6000	12.06	42 Hz

BS2 Pulsout	$V_{LOAD\ DC}$	Frequency
6200	12.10	40 Hz
6400	12.12	39 Hz
6600	12.15	38 Hz
6800	12.20	37 Hz
7000	12.24	36 Hz
7200	12.28	35 Hz
7400	12.30	34 Hz
7600	12.26	33 Hz
7800	12.24	32 Hz
8000	12.21	31 Hz
8200	12.18	31 Hz
8400	12.15	30 Hz
8600	12.10	29 Hz
8800	12.06	29 Hz
9000	12.03	28 Hz
9200	11.96	27 Hz
9400	11.93	27 Hz
9600	11.89	26 Hz
9800	11.83	26 Hz
9900	11.80	25 Hz
9950	11.79	25 Hz
10000	11.78	
10100	11.76	25 Hz
10200	11.74	25 Hz
10250	11.73	24 Hz
10300	11.72	24 Hz
10350	11.71	24 Hz
10400	11.70	
10450	11.70	
10500	11.69	
10550	11.69	
10600	11.68	
10700	11.66	
10800	11.65	
10900	11.64	
11000	11.61	
11100	11.59	
11200	11.57	22.5 Hz

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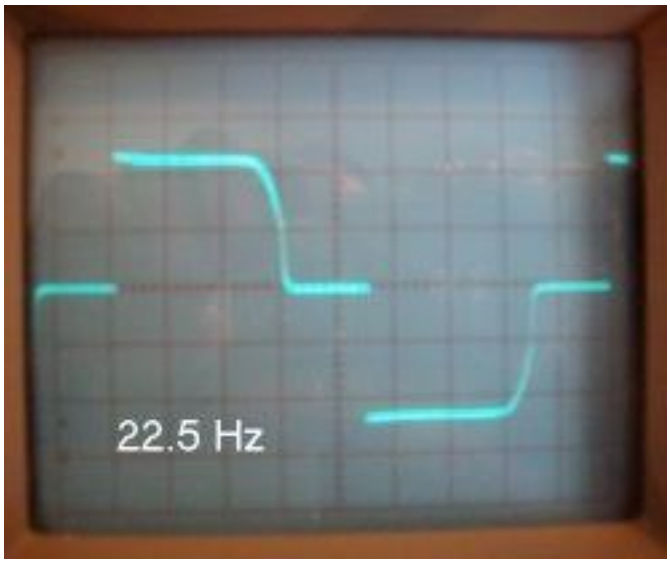

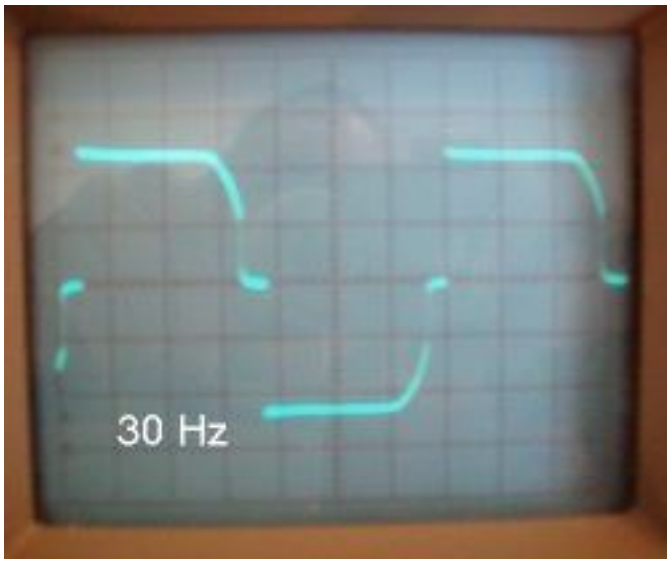

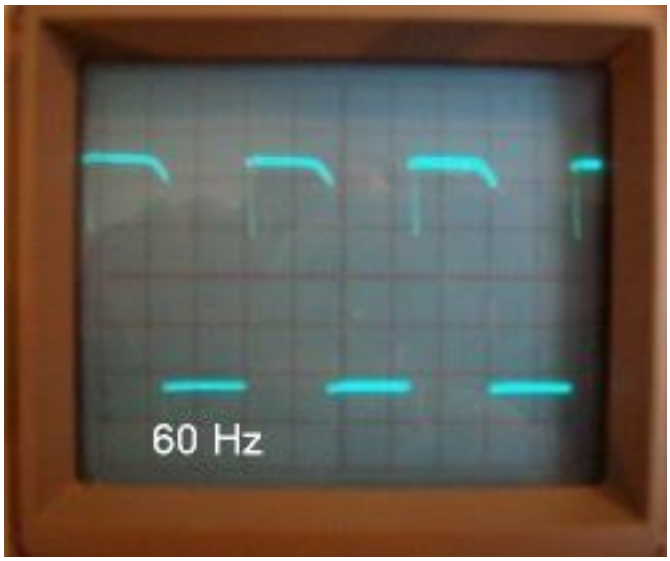

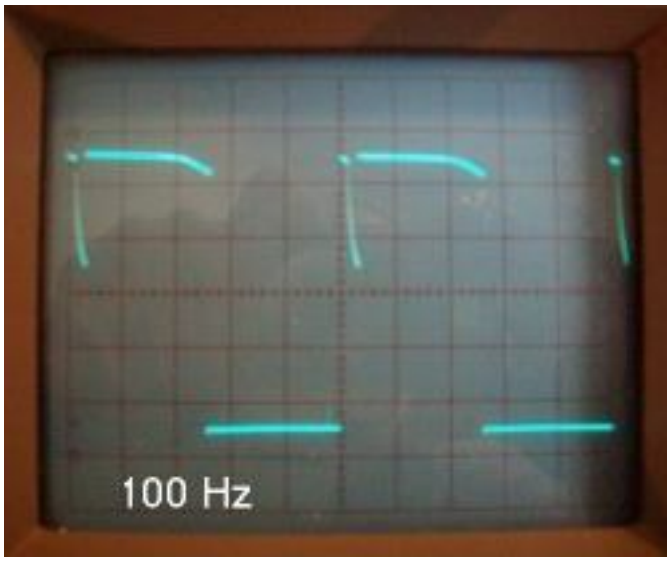

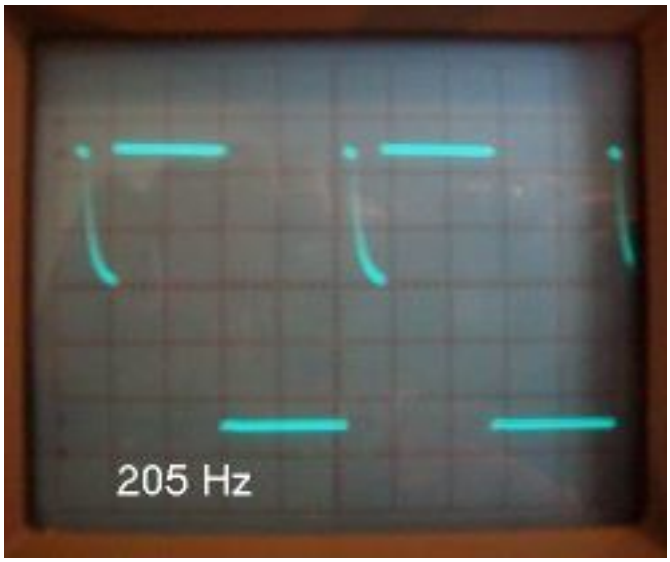

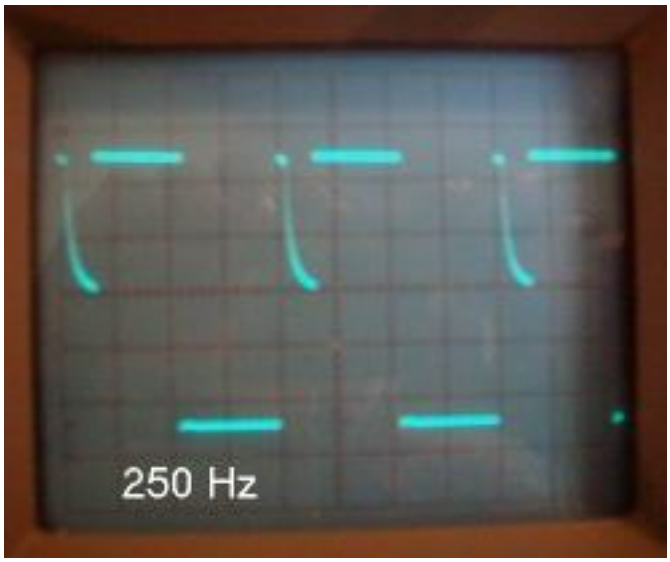

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