



A Lightweight +30KV HV DC power supply

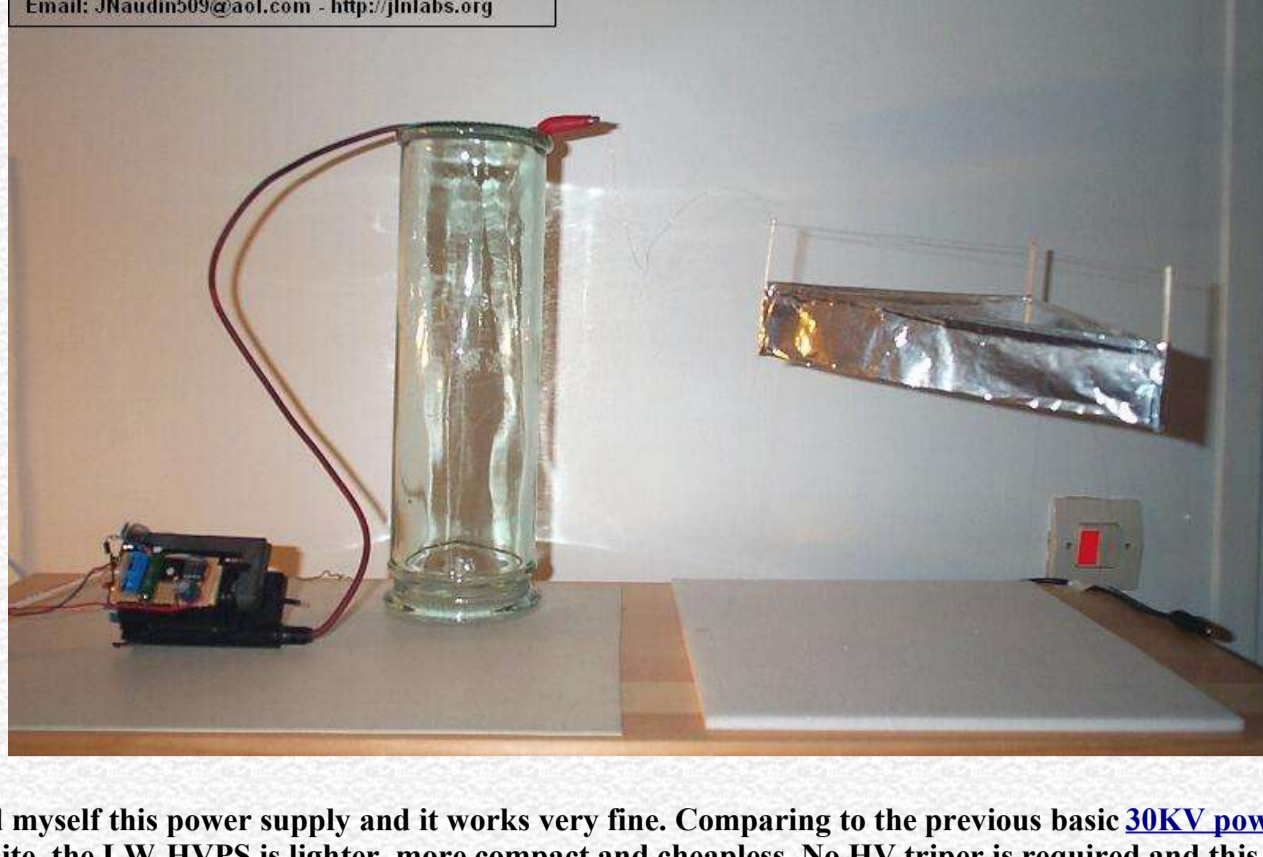
## A Lightweight High Voltage DC Power Supply

### The LW-HVPS v1.1

created on April 4, 2002 - JLN Labs - Last update february 6th, 2003

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You will find below a detailed diagram of a compact and lightweight HV power supply (LW-HVPS v1.1) for the Lifter experiments. The LW-HVPS v1.1 is a new updated version of the v1.0. The LW-HVPS is able to run up to 30 mn on common rechargeable NiMH batteries (type HR22).

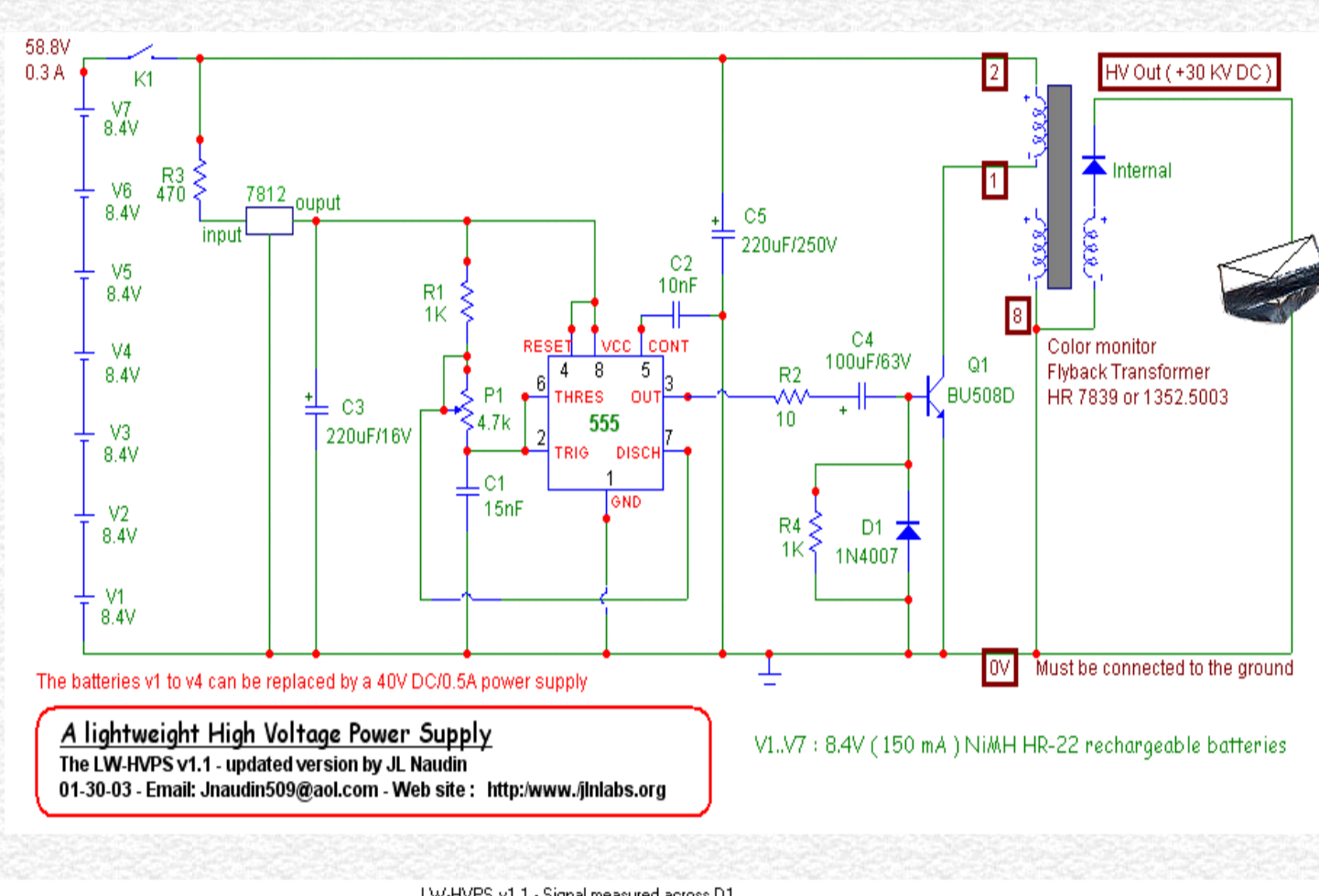


The Lifter1 with the Lightweight HV Power Supply built by Jean-Louis Naudin - April 4, 2002  
Email: JNaudin509@aol.com - http://jlnlabs.org

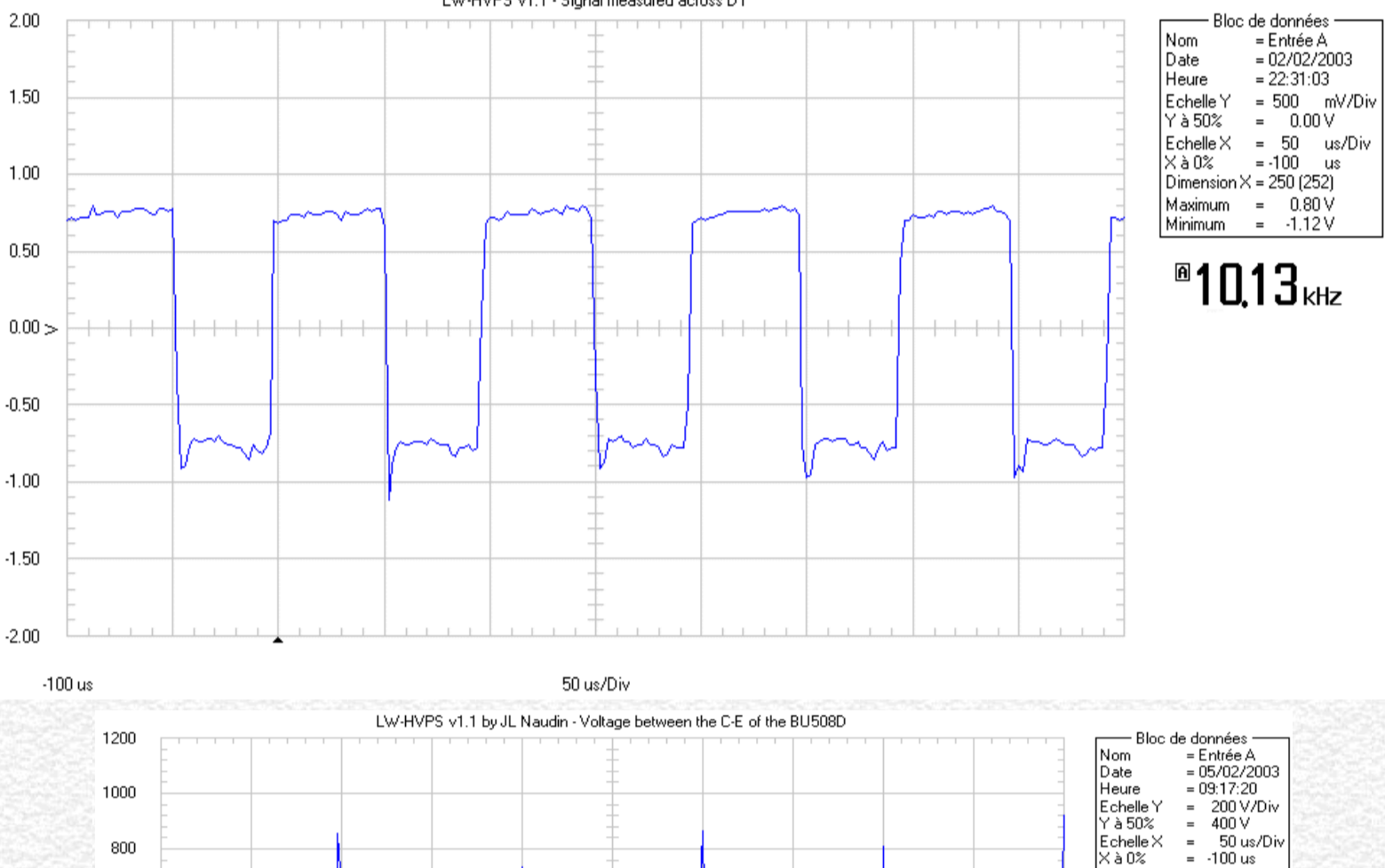
I have build and tested myself this power supply and it works very fine. Comparing to the previous basic 30KV power supply that I have presented in this web site, the LW-HVPS is lighter, more compact and cheapless. No HV triper is required and this use only common components.



The LW-HVPS v1.1 by Jean-Louis Naudin  
New updated version from January 30th, 2003  
Email: JNaudin509@aol.com - http://www.jlnlabs.org

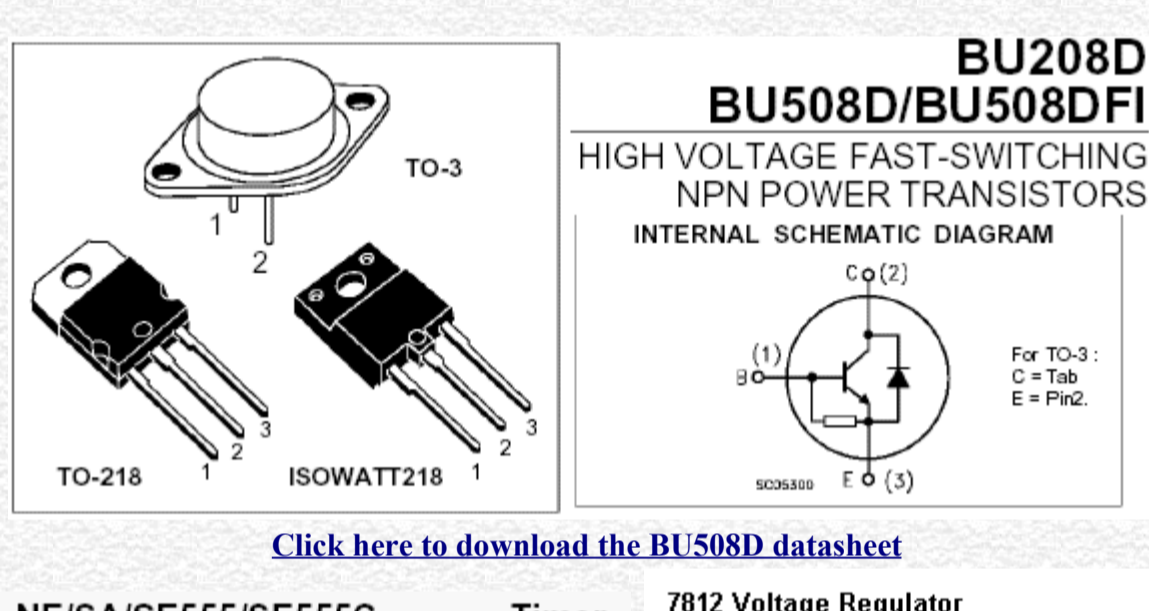


The batteries v1 to v4 can be replaced by a 40V DC/0.5A power supply  
Must be connected to the ground  
A lightweight High Voltage Power Supply  
The LW-HVPS v1.1 - updated version by JL Naudin  
01-30-03 - Email: JNaudin509@aol.com - Web site: http://www.jlnlabs.org  
V1..V7 : 8.4V (150 mA) NiMH HR-22 rechargeable batteries

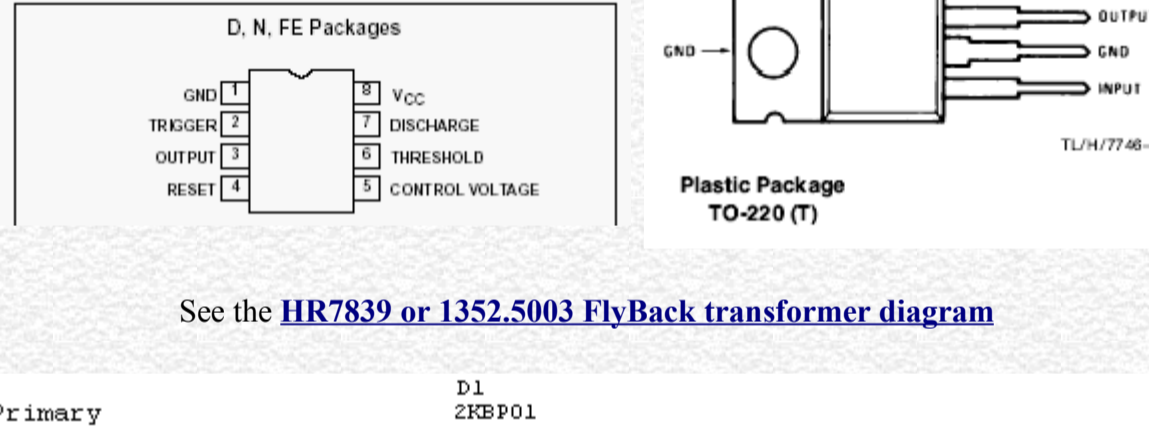


### LW-HVPS v1.1 - Components Listing

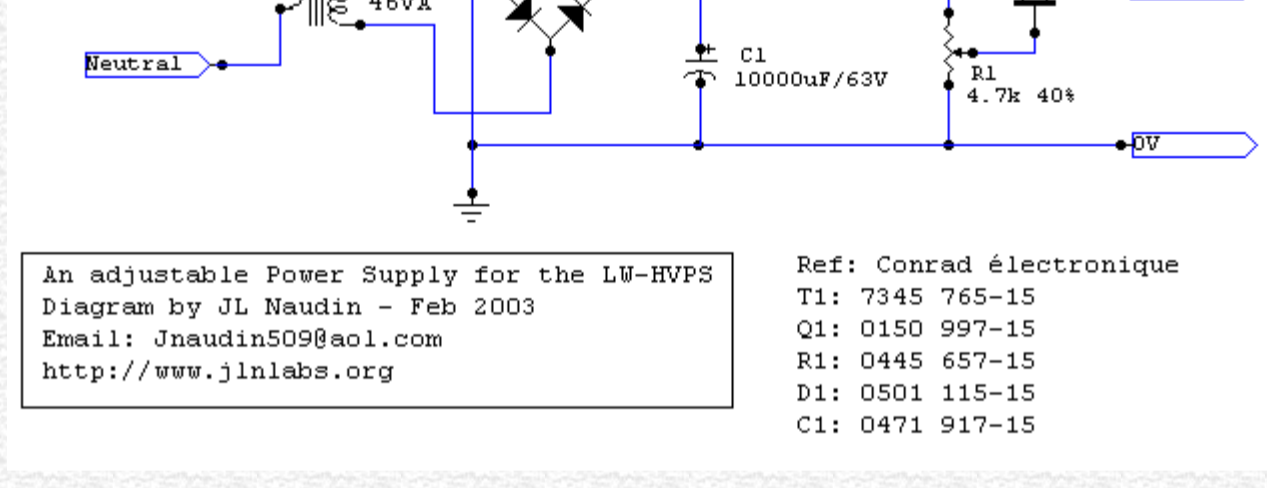
| Diagram Code | Part Number          | Description              | Quantity |
|--------------|----------------------|--------------------------|----------|
|              | NE555                | Timer                    | 1        |
|              | 7812                 | Voltage Regulator        | 1        |
| Q1           | BU508D               | HV Bipolar transistor    | 1        |
|              | HR 7839 or 1352.5003 | Flyback transformer TV   | 1        |
| P1           | 4,7 K Adj. Pot       | Adjustable Potentiometer | 1        |
| D1           | 1N4007               | Diode                    | 1        |
| R1, R4       | 1 Kohm 1/4 Watts     | Resistor                 | 2        |
| R2           | 10 ohms 2 Watts      | Resistor                 | 1        |
| R3           | 470 ohms 2 Watts     | Resistor                 | 1        |
| C1           | 15 nF                | Ceramic capacitor        | 1        |
| C2           | 10 nF                | Ceramic capacitor        | 1        |
| C3           | 220 uF/16V           | Electrolytic capacitor   | 1        |
| C4           | 100 uF/63V           | Electrolytic capacitor   | 1        |
| C5           | 220 uF/250V          | Electrolytic capacitor   | 1        |
| K1, K2       | Dual Switch ON/OFF   | Dual circuit switch      | 1        |
| V1...V7      | HR 22 - 8.4 V 150mA  | Rechargeable Batteries   | 9        |



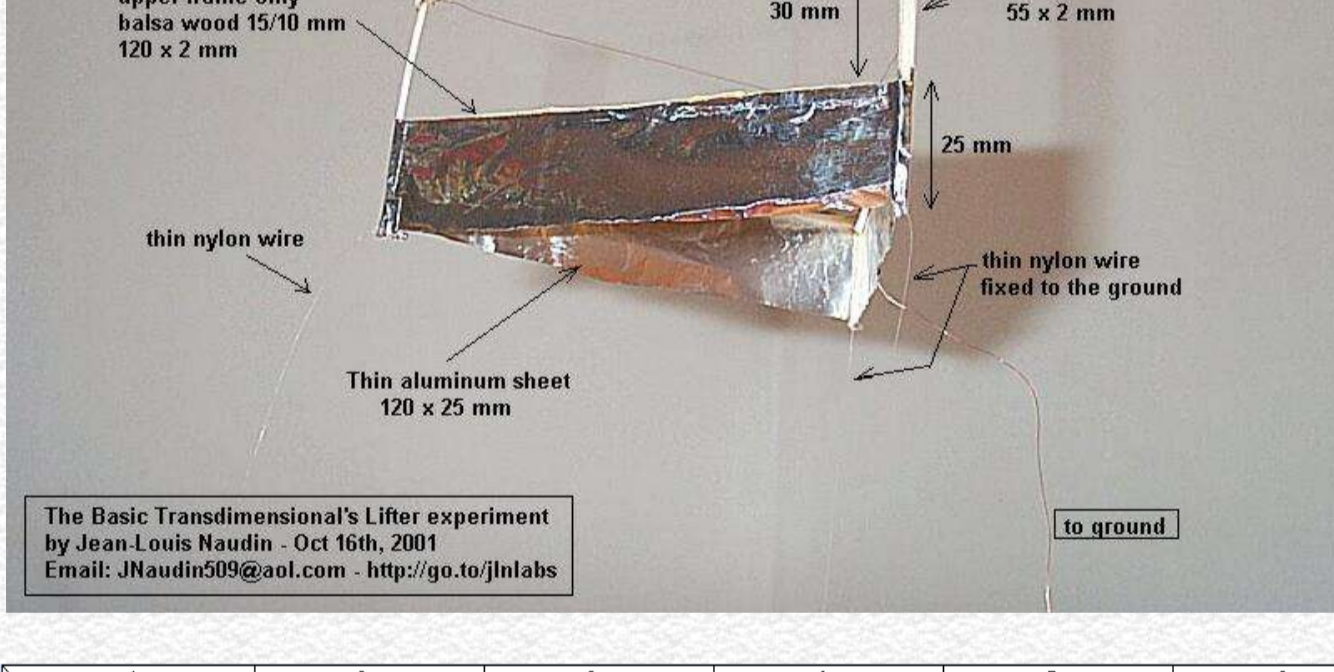
Click here to download the BU508D datasheet



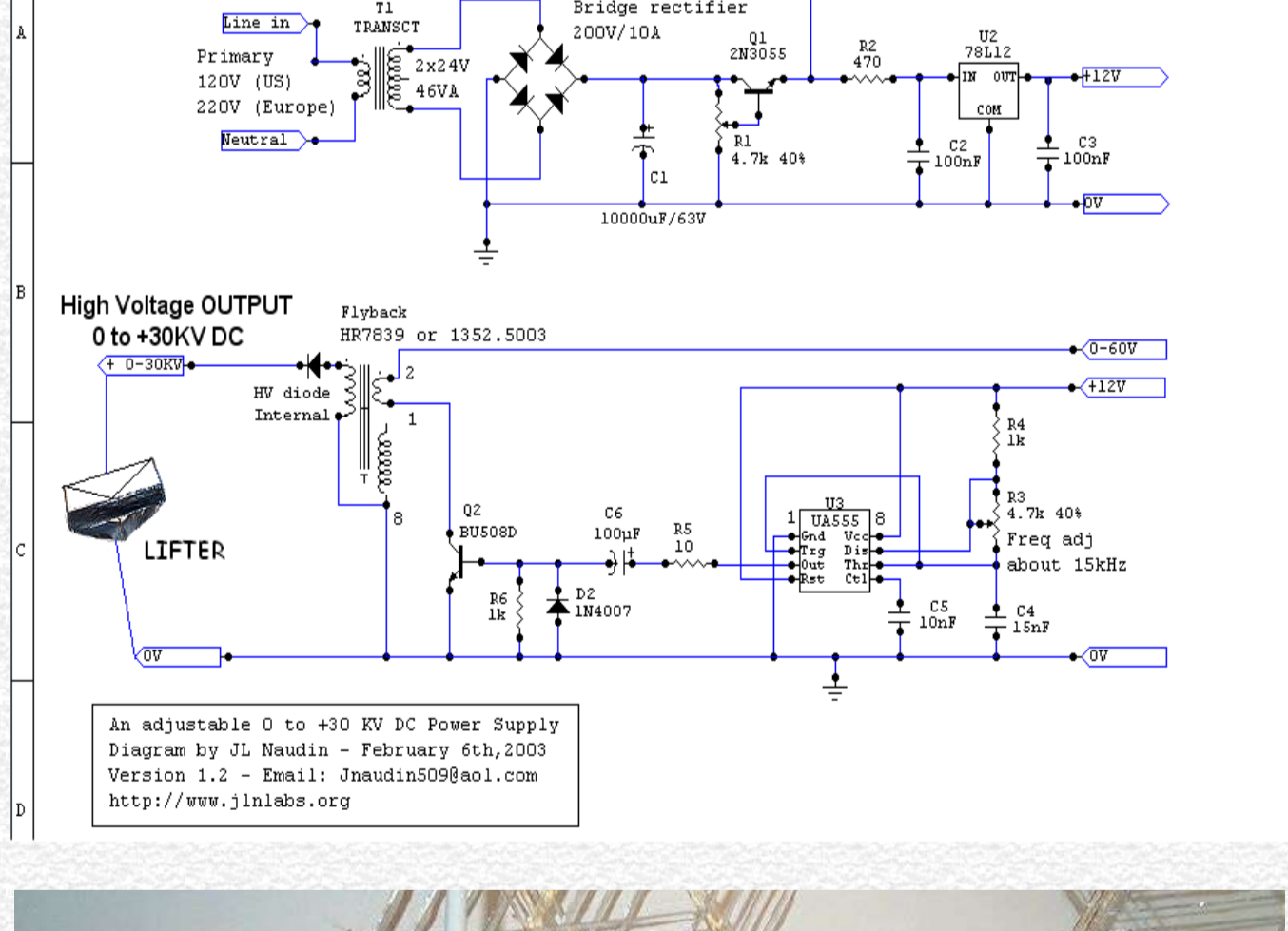
See the HR7839 or 1352.5003 FlyBack transformer diagram



An adjustable Power Supply for the LW-HVPS  
Diagram by JL Naudin - Feb 2003  
Email: JNaudin509@aol.com  
http://www.jlnlabs.org  
Ref: Conrad électronique  
T1: 7345 765-15  
Q1: 0150 997-15  
R1: 0445 657-15  
D1: 0501 115-15  
C1: 0471 917-15



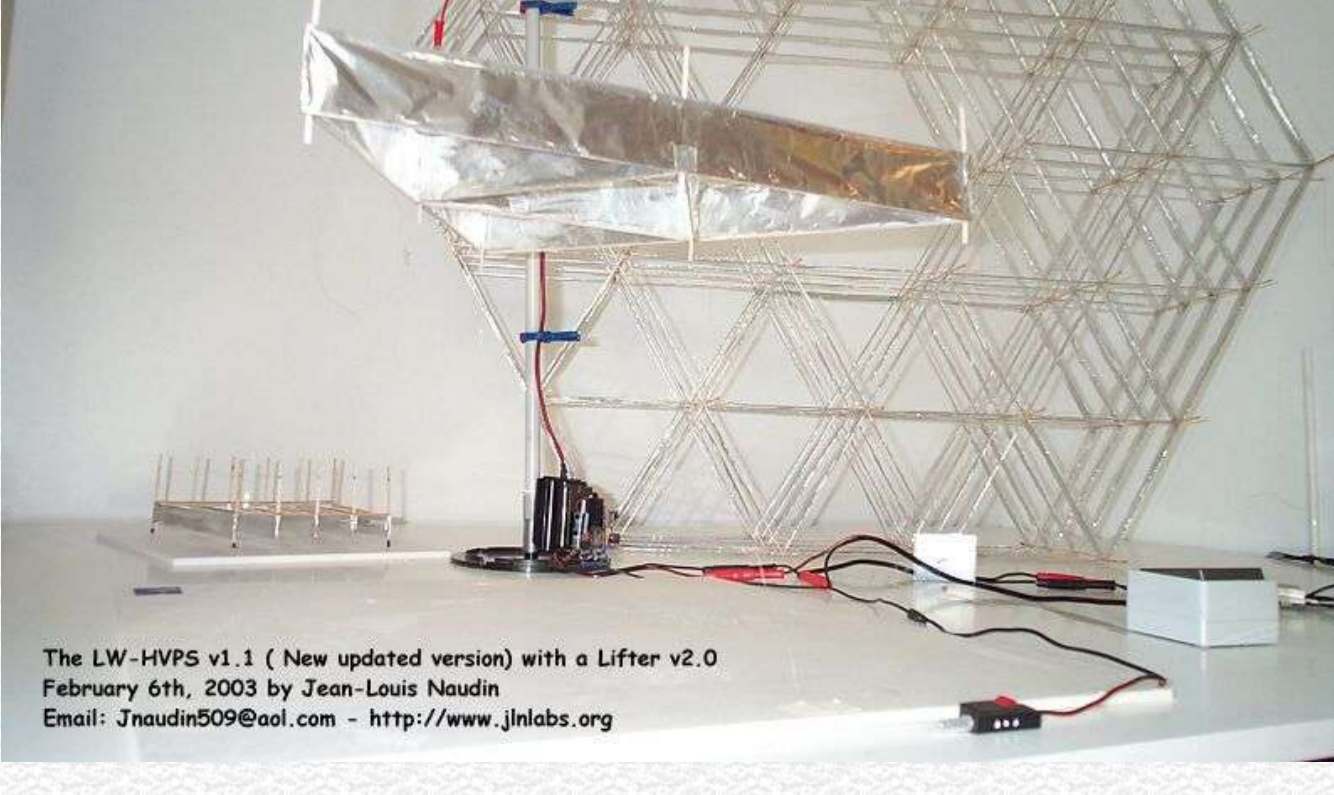
The Basic Transdimensional's Lifter experiment  
by Jean-Louis Naudin - Oct 16th, 2001  
Email: JNaudin509@aol.com - http://go.to/jlnlabs



An adjustable 0 to +30 KV DC Power Supply  
Diagram by JL Naudin - February 6th, 2003  
Version 1.2 - Email: JNaudin509@aol.com  
http://www.jlnlabs.org



The LW-HVPS v1.1 under test  
New updated version from January 30th, 2003 by Jean-Louis Naudin  
Email: JNaudin509@aol.com - http://www.jlnlabs.org



The LW-HVPS v1.1 (New updated version) with a Lifter v2.0  
February 6th, 2003 by Jean-Louis Naudin  
Email: JNaudin509@aol.com - http://www.jlnlabs.org

**BE CAREFUL, USE EXTREME CAUTION !!!** this device use High Voltage, ALWAYS switch off the input and discharge the output to the ground through 10k/2W resistor before touch it. These plans are not intended for the inexperienced. User of this document should be very careful and experienced in High-Voltage electronics to try anything out ! If you do it the risk of any results is just yours. I take no responsibility of anything that might happen.

**ATTENTION !!!, Faites preuve d'une extrême prudence.** Vous manipulez ici de la Haute-Tension, TOUJOURS arrêter puis déconnecter votre alimentation ou le moniteur et décharger la sortie Haute Tension à travers une résistance de 10Kohms/2W avant toute manipulation. Les plans et les conseils présentés ici, ne sont pas destinés à des débutants. Vous devrez procéder avec soin et prudence et avoir l'habitude de manipuler de la Haute-Tension avant d'envisager une telle expérience ! Si vous décidez de réaliser cette expérience, ceci est à votre propre risque et je décline toute responsabilité en ce qui concerne les éventuels dommages matériels ou physiques causés.