## **DHR TURBO** © 2008 Carlos Mergulhão Driver transistors mount on main **REV. JULY 5, 2008** heatsink with the output transistors 100nF 1000μF SCHEMATIC BY TODD A. JOHNSON 100V 100V +70VDC 2R2 2R2 68R 1R 5W 100nF 2200µF 220nF 2R2 100V 100V 1R 5W 3K3 .5W Diode string must be thermally 16V/1W 100nF coupled to main heatsink 2R2 4K7 2SC4793 3K3 .5W 1R 5W 33R 2R2 4.7nF 270R 220µF 3K6 100nF 2R2 100V 1R 5W 2.2µF 16V or Film 100nF 10μF 16V 1N4002 BC556 100R 100R х4 1R 5W 1μΗ x2 1μF 100R $\mathfrak{M}$ 33K 47nF 100V 470pF 330R 200R 10pF 1R 5W (@100R) bias adjust 820R 220µF 1R 5W Ó 220nF 270R 2R2 10R .5W 1R 5W 2R2 BC546 BC546 5W 39pF 2SC4793 2SA1837 2R2 1R 5W This transistor needs 100R 2R2 Individual heatsink (@75R) 82R 1R 5W offset adjust 2200uF 220nF 68R 2R2 -70VDC **Notes & Tweaks:** Output transistors are 2SA1943/2SC5200 or equivalent Driver transistors would be better if they were same device as output transistors. 100nF 1000µF Diode string would be better if they were same device as output transistors. (Wired Base to Emitter.) 100V Output Coil is 20 turns of 1mm (AWG 18) wire.

Small signal transistors can be either BC556/546 or 2N5401/5551 Output rail capacitors can be 470µF to 2200µF. Bigger is probably better.

Adjust bias to 35-40mA, then tweak until voltage across 1R output emitter resistors are 1mV or slightly less.