"Polarity less DC cable connection for your Hand Held Transceiver"

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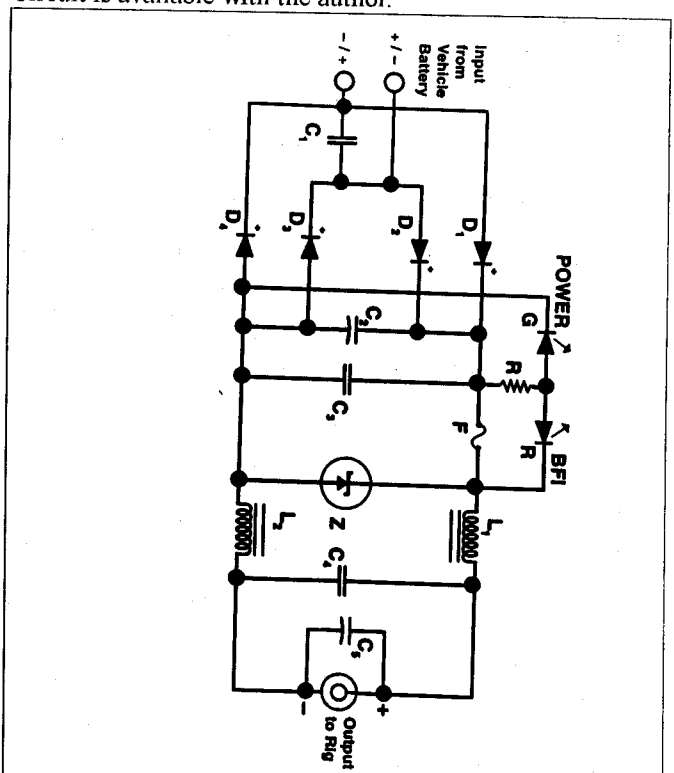
It is very useful circuit for Radio Amateurs, while taking external DC supply from mobile battery. This userfriendly circuit gives noise filtering, DC High Voltage protection, Blown fuse indication and Polarity input correction.

Main advantage of this circuit is Polarity Corrector; when connecting a reverse polarity to this circuit, the output polarity to rig is polarised automatically. Because some vehicles are negative or positive body connection or taking supply from battery, reverse connection may occur due to absent mind or ignorance. If the polarity of DC output to rig is changed it may go to OFF or damaged. But adding this circuit in between battery and rig; The rig is ON even reverse polarity input: L_1, L_2, and C_3 to C_5 gives very good noise filtering. R &LED forming BFI (Blown Fuse Indicator) when F blows OFF, LED turns ON. Z forming high voltage DC protection i.e., if D.C. input more than 15 volt then Z clamp the over voltage and F blows OFF. Normally hand held rigs consumes 1.3 to 1.4 A at 13.8 V DC for 5 W VHF RF output. This circuit gives upto 2 A max. Almost all hand held rigs input DC is 4.5V to 16 V; but some types are 4.5 V to 15 V. In that case change Z 15V to14V. Assembled Circuit is available with the author.



SPECIFICATION & FEATURES	SPECIFICATION & FEATURES
Blown fuse / power indicator	D_1 to D_4 - 1N5402
Polarity less input	Z - 15 V, 3W
LC noise filter	LED - R/G Bi-Colour
High voltage DC protection	C_1 to C_4 - 0.1 uF/ 200 V
Upto 14 V DC input	C_2 - 100 uF/ 35 V
Current capacity 2 A max.	C_3 - 0.22 uF/ 200 v
Fixed output polarity	C_5 - 10 uF/35 v Tantalum
Compact	L_1,L_2 - 8T/24 SWG on round T Core
Suitable for all Hand Held Rigs.	R - 820 Ohms 1/4 W
	F -2 A SB