



APPALACHIAN SEARCH AND RESCUE CONFERENCE, INC.

P.O. BOX 440  
NEWCOMB STATION  
CHARLOTTESVILLE, VIRGINIA 22901

COMMUNICATIONS STANDARD 1.0  
12 VOLT D.C. POWER "JONES PLUGS"

© 1NOV84 GLHarrison  
Revision 1 Page 1/2

A JOINT SPECIAL TECHNICAL RESCUE STANDARD

PURPOSE: To standardize and promote interchangeability and inter-connection of "12 Volt D.C." automotive-type powered devices among emergency personnel and organizations.

ELECTRICAL: "12 Volts", ranging from 11 to 15 Volts direct current, but typically 13.8 Volts, usually from automobiles or auto-type batteries or supplies, at up to 7.5 Amps typical (10 Amps maximum continuous).

STANDARD: 2-pin "Jones Plug" as specified and illustrated herein.

<u>SOURCES AND PARTS:</u>	Cord Male	Cord Female	Chassis Male	Chassis Female
Radio Shack:	274-201	274-202	...	274-203
TRW Cinch:	P-302-CCT	S-302-CCT	P-302-AB	S-302-AB

(TRW versions recommended as they have metal shells and many more varieties are available. Call local electronics suppliers.)

CONNECTION AND ASSEMBLY: Solder (!) and insulate each connection.

MALE (PINS) for Loads (radios, lights, equipment...)

FEMALE (HOLES) for Sources (battery, power supply...)

NARROW for "Hot", +12 Volts, (typically) Red wires

WIDE for "Ground", -12 Volts, (typically) Black wires

Secure the wires on cable versions using the strain-relief clamp, tightened with a buffer of tape or tubing to avoid cutting.

SAFETY: Always fuse-protect with rating appropriate to whichever is least Amp value of specific device/load, specific source, or wire size, or a maximum of 10 Amps. Use high-temperature auto wire, especially in rough service. Lamp (zipcord) wires may be used in light duty applications. Long cords use larger wires to avoid voltage losses ( $I^2R$  "drops").

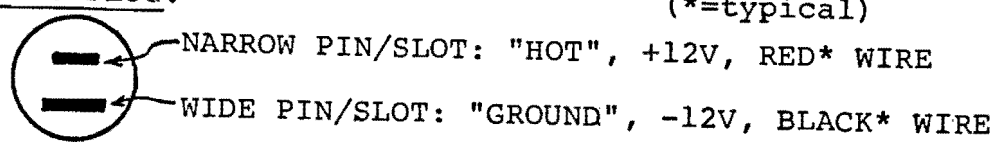
WIRE SIZE AWG: 16      14      12      10

MAX AMPS:            7      15      20      30

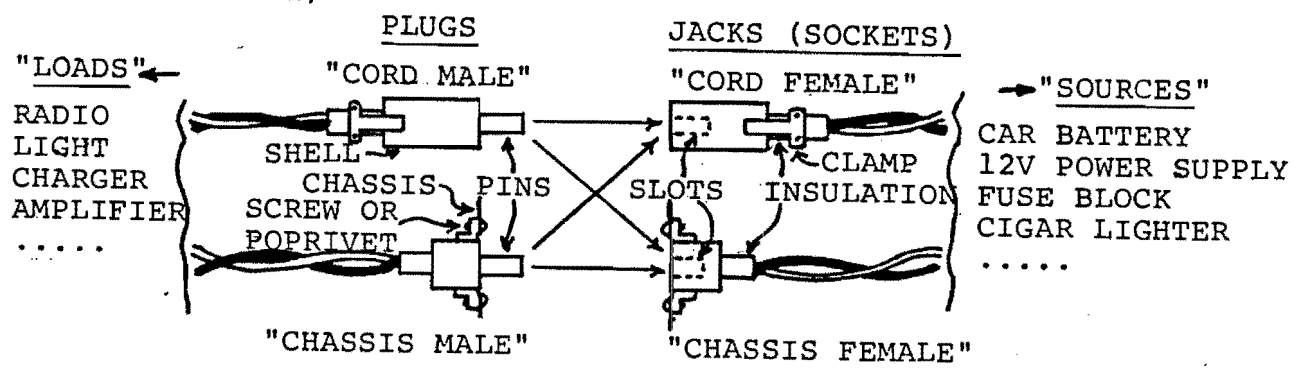
SUGGESTIONS: Welcome! c/o G.L.Harrison, Box 1584, Leesburg, VA 22075

2-PIN JONES PLUG:

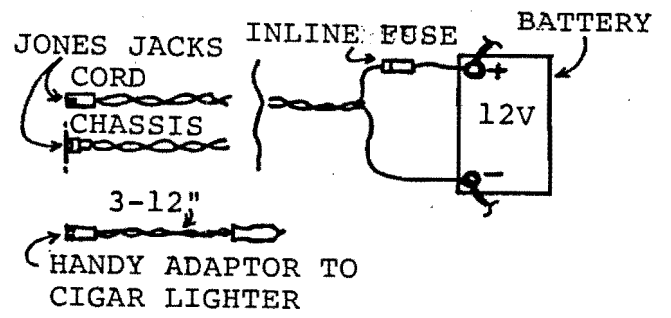
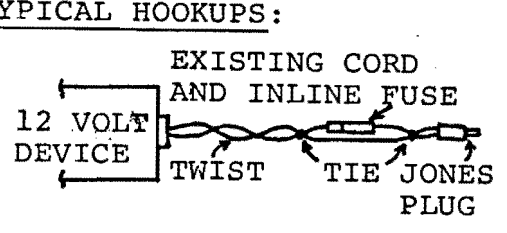
(\* = typical)



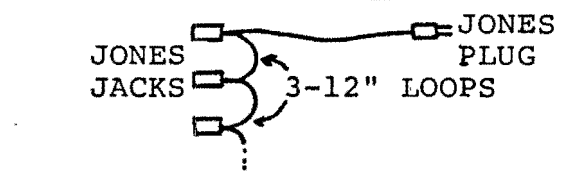
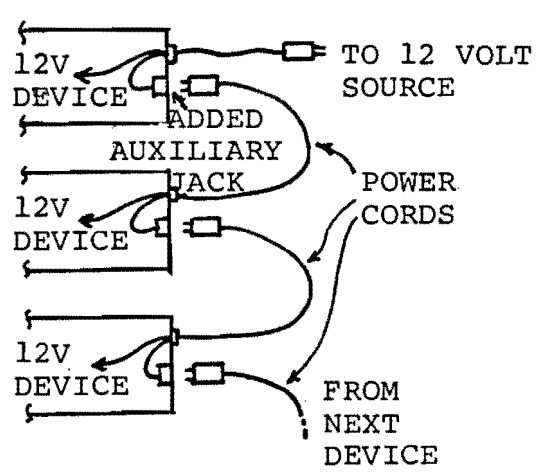
(END VIEW)



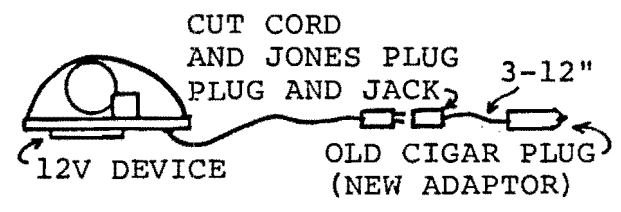
TYPICAL HOOKUPS:



"DAISY CHAIN" DEVICES AND CORDS (PROMOTE VERSATILITY)



SIMPLE CONVERSION, CIGAR TO JONES



TYPICAL JUNCTION BOX:

