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

A JOINT SPECIAL TECHNICAL RESCUE STANDARD

PURPOSE: To standardize and promote interchangability and interconnection 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.

SOURCES AND PARTS: 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)

NARROW PIN/SLOT: "HOT", +12V, RED* WIRE
WIDE PIN/SLOT: "GROUND", -12V, BLACK* WIRE

END VIEW

"LOADS"
RADIO
LIGHT
CHARGER
AMPLIFIER

"CORD MALE"
SHELL
CHASSIS-PINS
SCREW OR
POP-RIVET

"SOURCES"
CAR BATTERY
12V POWER SUPPLY
FUSE BLOCK
CIGAR LIGHTER

"CORD FEMALE"
CLAMP
SLOTS
INSULATION

"CHASSIS MALE"
"CHASSIS FEMALE"

TYPICAL HOOKUPS:
EXISTING CORD
AND INLINE FUSE
12 VOLT
DEVICE
TWIST
TIE JONES
PLUG

"DAISY CHAIN" DEVICES AND CORDS (PROMOTE VERSATILITY)

12V DEVICE
ADD ED
AUXILIARY
JACK
POWER
CORDS

FROM
NEXT
DEVICE

TYPICAL JUNCTION BOX:
PILOT
LIGHT
ON-OFF
SWITCH
ALUMINUM
BOX
FUSE
"5-WAY"
BINDING
POSTS
FEMALE
JONES
JACKS
TO
PLUG

RED
BINDING POSTS
FUSE SWITCH
PILOT
LIGHT
BLACK
FEMALE
JACKS
CORD
MALE
PLUG

SIMPLE CONVERSION, CIGAR TO JONES

CUT CORD
AND JONES PLUG
PLUG AND JACK
3-12"