

CORD EOC Comms **Standard DC Power Connector**

(Based on Information from ARES/RACES files)

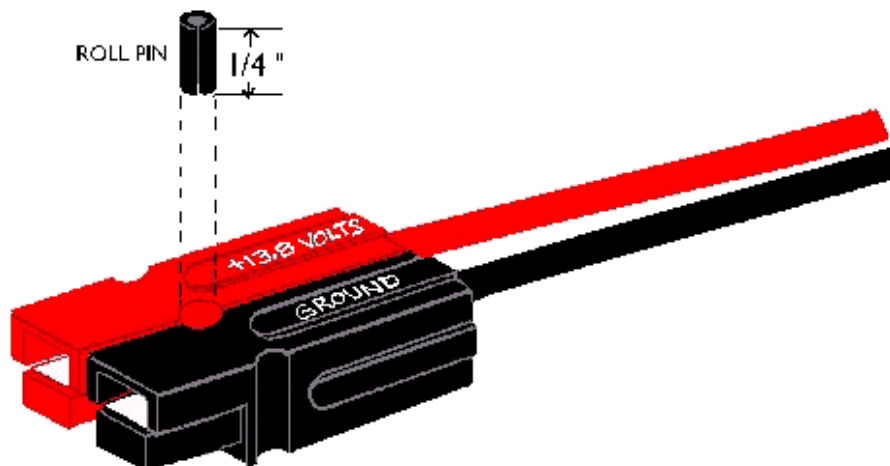
(High Current — 30A)

Anderson Powerpole®

For years hams have used "Molex" connectors as a standard to connect their radios and other equipment to power sources. The Molex connector had the drawback of being limited to about 10 amps, and were often used well beyond their ratings.

Central Okanagan Reg. Dist. (CORD) EOC Comms has now standardized on the 30-ampere Anderson Powerpole® for DC power connections. They are genderless, meaning the supply and load connectors are the same, reducing the number of parts required (but be careful you don't connect two different supplies!).

Either the 15-ampere or 30-ampere sizes may be used, and both sizes mate with each other. The 30A connector is preferred as it is compatible with both. The plastic housings are the same for both sizes. The barrel area (which holds the wire) of the 15-amp silver-plated contact is smaller than that of the 30-amp contact, but the contact area is the same. The connectors dovetail together into a compact unit.



Housings should be mated according to the diagram above, viewing from the contact side (opposite the wire side), tongue down, hood up, RED on the LEFT, BLACK on the RIGHT. Use a 3/32-inch-diameter roll pin, 1/4-inch long, to keep the housings from sliding apart.

Highly conductive silver-plated copper contacts allow minimal contact resistance at high currents. Self-wiping action on make and break keeps conducting surfaces clean. Contact dents keep connectors mated in high-vibration applications and provide quick-break, snap action upon disconnect.

Non-corrosive stainless-steel leaf springs maintain constant contact pressure — ideal for frequent connect/disconnect cycles and intermittent overloading. Durable, high impact-resistant, polycarbonate housing with UL94V-2 flammability ratings comes in many colors for circuit traceability and coding.

Identical connector halves are genderless, making assembly quick and easy and reducing the number of parts stocked. Molded-in dovetails allow for a customized harness in a variety of configurations. When the connectors are disconnected, no metal parts are exposed.

The 30-ampere contacts are designed for 12-16 AWG wire. The contacts can be soldered or crimped to wires. Inexpensive crimpers (costing about \$20 at major home centers or online) can be used. After a contact has been attached to a wire, it should be installed into the housing so that the housing spring mates with the underside of the contact.

To remove a contact from the housing, use Anderson insertion/extraction tool #111038G2. You may also substitute a very small blade (e.g., a jeweler's screwdriver) to depress the spring, allowing the contact to be removed.

Here are the Anderson part numbers:

Recommended »»	30 A	Complete	Housing	Contact	
	Black Red	Connector #1330G4 #1330	Only #1327G6 #1327	Only #1331 #1331	

Single pole connector

Kits, as the one shown (Red & Black shells, two contacts, and ¼" roll pin) are available.

The connectors can be panel mounted with clamp receptacles, consisting of two aluminum plates (Anderson part #1462G1), notched to hold the plastic housings when they are dovetailed together.

The plastic housings come in other colors also. Red and black are suggested for standard DC connectors (red as positive and black as negative). The housings have mating channels on all four sides, permitting 3, 4, or more contacts in one housing.

Cut-away Detail of Connector

Molded-in dovetails lock modules into multipole units

If broken under load arcing is confined to tip, a non-conducting area

Detent keeps connectors mated and provides quick break snap action upon disconnect

Stainless steel leaf spring provides constant contact pressure



Rugged lightweight polycarbonate housing

Wiping action on make and break keeps conducting surfaces clear

Low resistance silver-plated copper contacts

Material compiled by Norm – VE7BZC, Communications Coordinator CORD EOC