

# TI2006-313

## Cobra Power Aviation DC Cable Assembly



Power Anytime, Anywhere

The Tesla™ Cobra™ Power Aviation DC Cable Assembly is constructed from a rugged combination of advanced composite materials and corrosion-resistant alloys. It features Tesla's Cobra™ DC Aviation plug and DC Connector with T-handle lock. The result is a weatherproof cable assembly that will withstand the harshest battlefield conditions and other extreme environments. Incorporating state-of-the-art electronic control through a Power On/Off switch, the Cobra™ Power Aviation DC Cable Assembly can provide safe and efficient power transfer of up to 3000 peak amps — no more damage or injury to equipment, plugs and personnel.

### Features:

- State-of-the-art electronic control
- Reliable switching up to 3000 peak amps
- 500 amps continuous
- UV, fuel, fungus, water, and oil resistant
- Exceeds MIL-STD-810G
- Tested to withstand 50 G of force
- Easy component replacement
- Manufactured by Tesla™



Tesla™ Industries, Inc.  
www.teslainsd.com ♦ www.tesla1.com  
Email: tesla1@teslainsd.com  
**Headquarters:** (302) 324-8910  
101 Centerpoint Blvd. New Castle, DE 19720  
**Western Regional Office:** (775) 622-8801  
9475 Double R Blvd. Suite 2, Reno, NV 89521



The **POWER**  
Of  
**RED**™



# Features and Benefits

## Power Control

The TI2006-313 is equipped with a POWER ON/OFF switch (shown in Figure 1) which controls reliable switching of up to 3000 peak amps. A “Power On Indicator” LED, located next to the switch, indicates that there is an electric current going through the cable assembly. Once the LED is illuminated, power can be transferred from the ground power unit to the mechanized vehicle.

## Rugged, Durable, Reliable

Made from virtually indestructible composite materials, the plug housing won't crack, melt, blister, dry-rot or disintegrate. This, in conjunction with corrosion resistant conductors, and control electronics housed in a durable enclosure (shown in Figure 2) insures that the Cobra Power DC Cable Assembly will still be in the field long after other plugs have failed.

## Internal Cable Connections

Unlike connections that are molded directly into the plug housing, easily accessible lugs allow for direct termination inside of the plug. Additionally, compression grommets and bushings provide strain relief. This unique combination of protection eliminates potential shocks from exposed wiring due to cable stretching and splicing.

## Weatherproof Construction

Through a series of strategically placed seals and bushings, the Tesla™ Cobra Power Aviation DC Cable Assembly is hermetically sealed to lock out rain, snow, sand or any other form of damaging debris.

## Replaceable Contacts

Manufactured from highly conductive alloys, the contacts are specially tapered and have memory to maximize contact surface area and to minimize deformity over time. Once installed, contacts are hermetically sealed within the plug.

## Insertion/Extraction Tools

The Cobra DC Aviation Plug can be easily repaired by replacing the contacts using the Insertion/Extraction Tool. The tool and replacement contacts can be ordered through Tesla™ Customer Service at (302) 324-8910.



Figure 1: Power ON/OFF Switch and Indicator



Figure 2: Electronics Control Enclosure

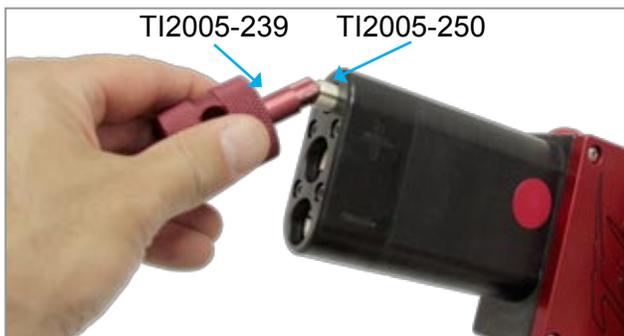
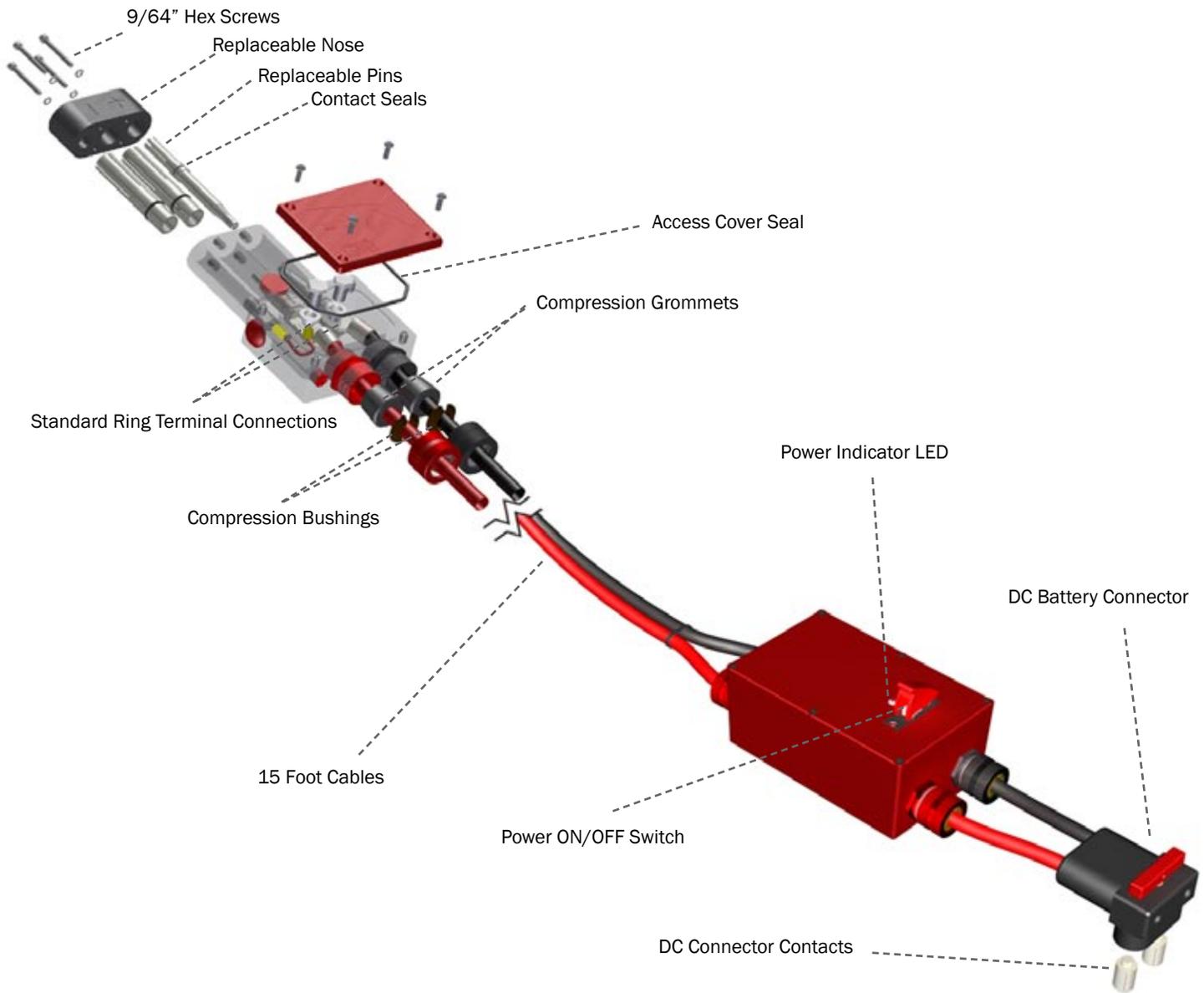


Replaceable Nose: TI2004-341



A - Insertion/Extraction Tool: TI2005-239  
B - Positive/Negative Contacts: TI2005-251  
C - Three Slotted Connector: TI2005-250

# Components - Exploded View



## REPLACING CONTROL PIN:

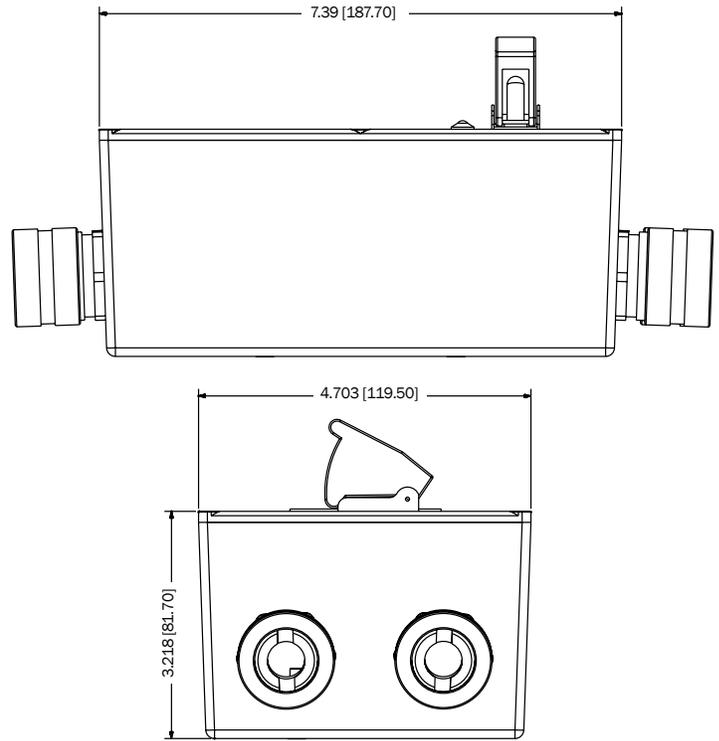
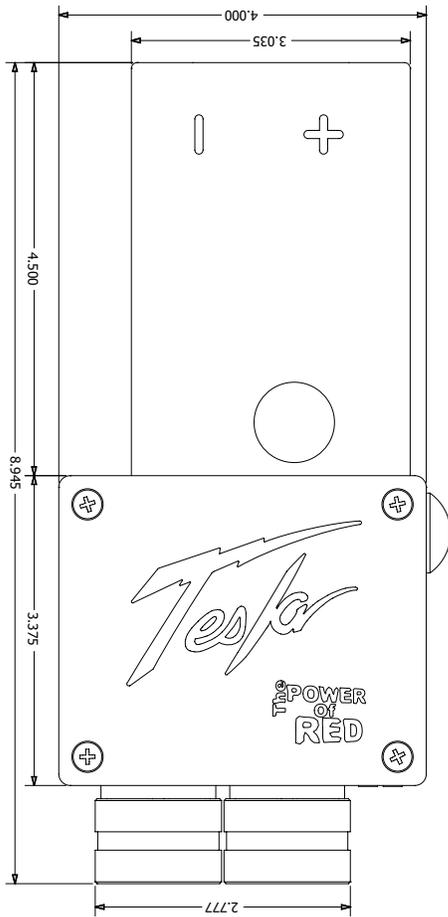
1. Use Insertion/Extraction Tool (TI2005-239) using the smaller end to remove the pin by inserting and turning counterclockwise.
2. Install new pin (TI2005-250) using same tool and screw in the clockwise.



## REPLACING POWER PIN:

1. Use Insertion/Extraction Tool (TI2005-239) using the larger end to remove the pin by inserting and turning counterclockwise.
2. Install new pin (TI2005-251) using same tool and screw in the clockwise.

# Dimensions and Technical Specifications



\* All dimensions are in inches [millimeters]

## Technical Specifications:

Input Voltage Range	12 - 32 VDC
Peak Current	3000 A
Rated Current	1500 A
Power Consumption (Disengaged)	170 mA
Power Consumption (Engaged)	500 mA
Inrush Current (@ 28 Vdc)	3.8 A @ 130 mS
Air Gap-leakage Path	0.355" (9 mm)
Protection Class	IP28C
Test Voltage Dielectric	5000 Vdc
Operating Temperature	-25° to 60° C (-32° to 140° F)
Storage Temperature	-40° to 85° C (-40° to 185° F)
Cable Length	15' 1/0
Weight	19.6 lbs. (8.89 kg)
Warranty	2 years (3 years optional)

