

TI2006-312

Cobra Power NATO

DC Cable Assembly



Power Anytime, Anywhere

The Tesla™ Cobra Power NATO DC Cable Assembly is constructed from a rugged combination of advanced composite materials and corrosion-resistant alloys. It features Tesla's Cobra NATO plug and DC Connector with T-handle lock. The result is a weatherproof NATO 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 NATO 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™



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The POWER
Of RED™



Features and Benefits

Power Control

The TI2006-312 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.



Figure 1: Power ON/OFF Switch and Indicator

Rugged, Durable, Reliable

Made from virtually indestructible composite materials, the plug housing won't crack, melt, blister, dry-rot or disintegrate. In addition, the control electronics are housed in a durable enclosure (shown in Figure 2). Together these features insure that the Tesla™ Cobra Power NATO DC Cable Assembly will still be in the field long after other cables have failed.



Figure 2: Electronics Control Enclosure

Internal Cable Connections

Unlike slave cables that are molded directly into the plug housing, easily accessible lugs allow for direct termination inside of the plug (See Figure 3). 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.



Figure 3: Easily accessible terminal lugs

Weatherproof Construction

Through a series of strategically placed seals and bushings, the Tesla™ Cobra Power NATO 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 resistant to damage and corrosion. Once installed, contacts are hermetically sealed within the plug as shown in Figure 4.

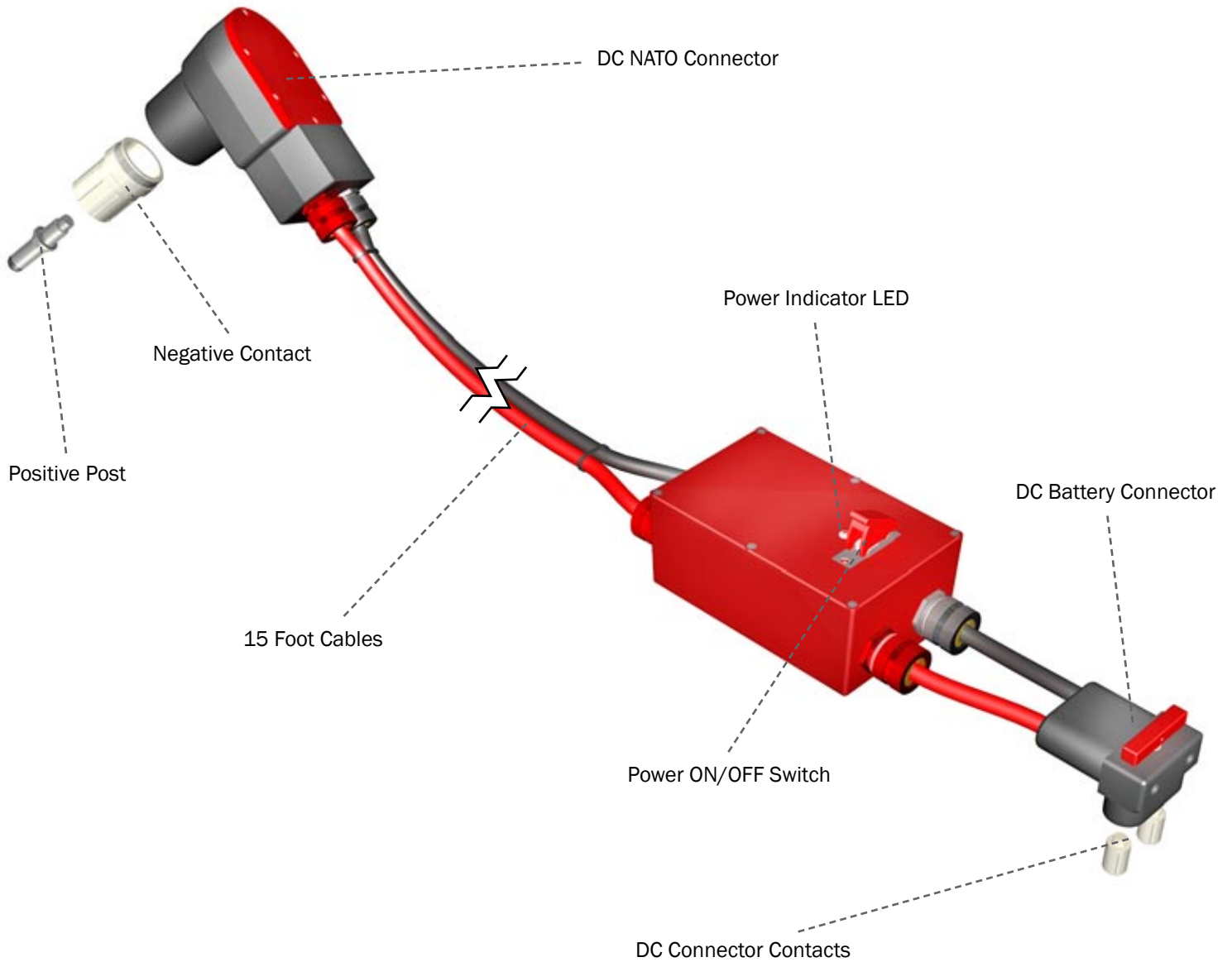


Figure 4: Sealed and easily replaceable contacts

Insertion/Extraction Tools

Contacts can be easily replaced “in-the-field” without discarding the entire plug using the Insertion/Extraction Tools. The tools and contact replacements can be ordered through Tesla™ Customer Service at (302) 324-8910.

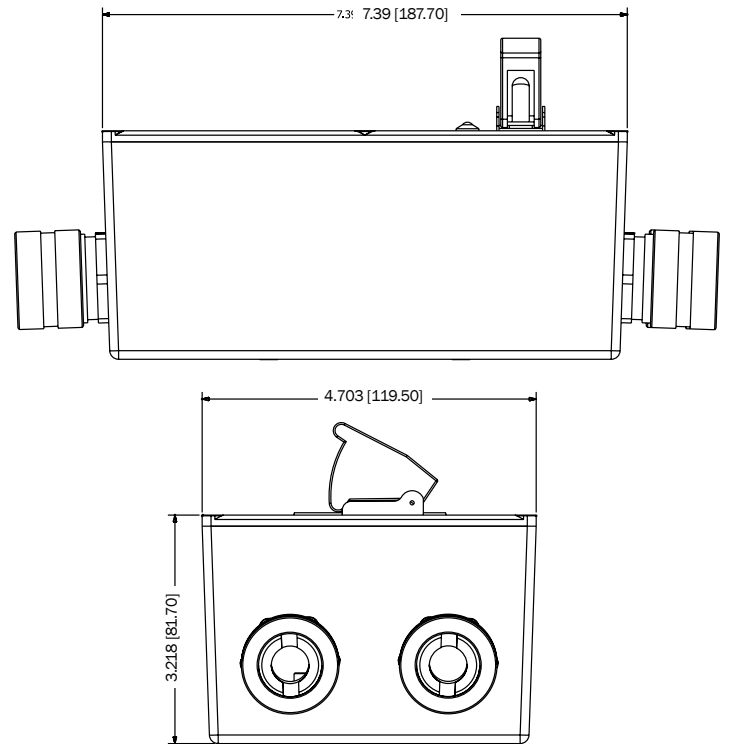
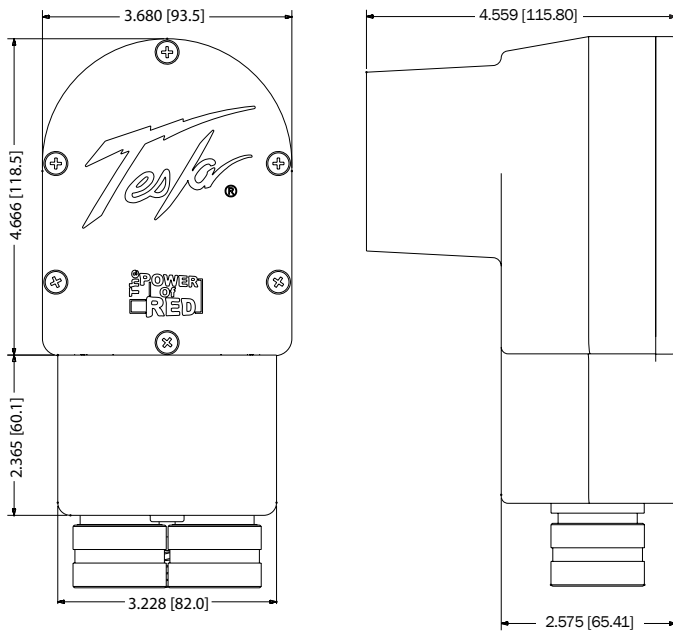
Components - Exploded View



Accessories

- A. Cobra NATO Plug Negative Insertion/Extraction Tool: TI2005-126
NSN: 5120-01-523-8761
- C. Cobra NATO Plug Negative Contact: TI2005-121
NSN: 5999-01-525-0582
- C. Cobra NATO Plug Positive Post: TI2004-444
- D. DC Connector Insertion/Extraction Tool: TI2005-488
- E. DC Connector Replacement Contacts: TI2005-490

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' 10"
Weight	20 lbs. (9.07 kg)
Warranty	2 years (3 years optional)



Field Tested

To prove its toughness and dependability, the Cobra NATO Plug was subjected to the harshest abuse. The photo above shows the NATO plug can withstand the weight of a 70 ton M1 Abrams tank. Even after this severe punishment, the plug was still fully functional.