



## ARCO Zeus Alternator Installation Guide 2025

### Wiring Connection Instructions



(Note: Ground point location may differ based upon housing.)

### Positive Output Terminal

Must be connected via properly sized cable to the battery or batteries being charged. Cable size is determined by alternator output & length of cable run (Torque setting 11Nm / 8.11 lb-ft).

### Ground Terminal

Must be connected via properly sized cable to the main ground point or batteries being charged.

**\*Note\*** Isolated Ground unit connected to dedicated isolated ground post (Torque setting 24Nm/17.1 ft-lbs). Case Ground pad M8 x 1.25 mm socket head cap screw (Torque setting 27.3Nm/ 20lb-ft). Do not use with Isolated Ground unit.

Alternator Thru Bolts tighten the 4 thru bolts in a star pattern (Torque 8.47-9.03Nm/ 75-80 in/lb).

### ARCO Zeus IE (Internal/External) Alternator

ARCO Zeus IE (Internal/External) alternators are designed and recommended for use with our Zeus high energy Bluetooth alternator regulator, the Zeus IE Alternator utilizes both an Internal regulator and a field wire connection. If battery loads are relatively small and your engine is running frequently, the alternator's internal regulator may be sufficient to support your electrical needs without external regulation. If your vessel utilizes larger battery banks or the engine's duty cycle is less frequent, the Zeus IE Alternator combines and works seamlessly with ARCO Zeus high energy Bluetooth alternator regulator.

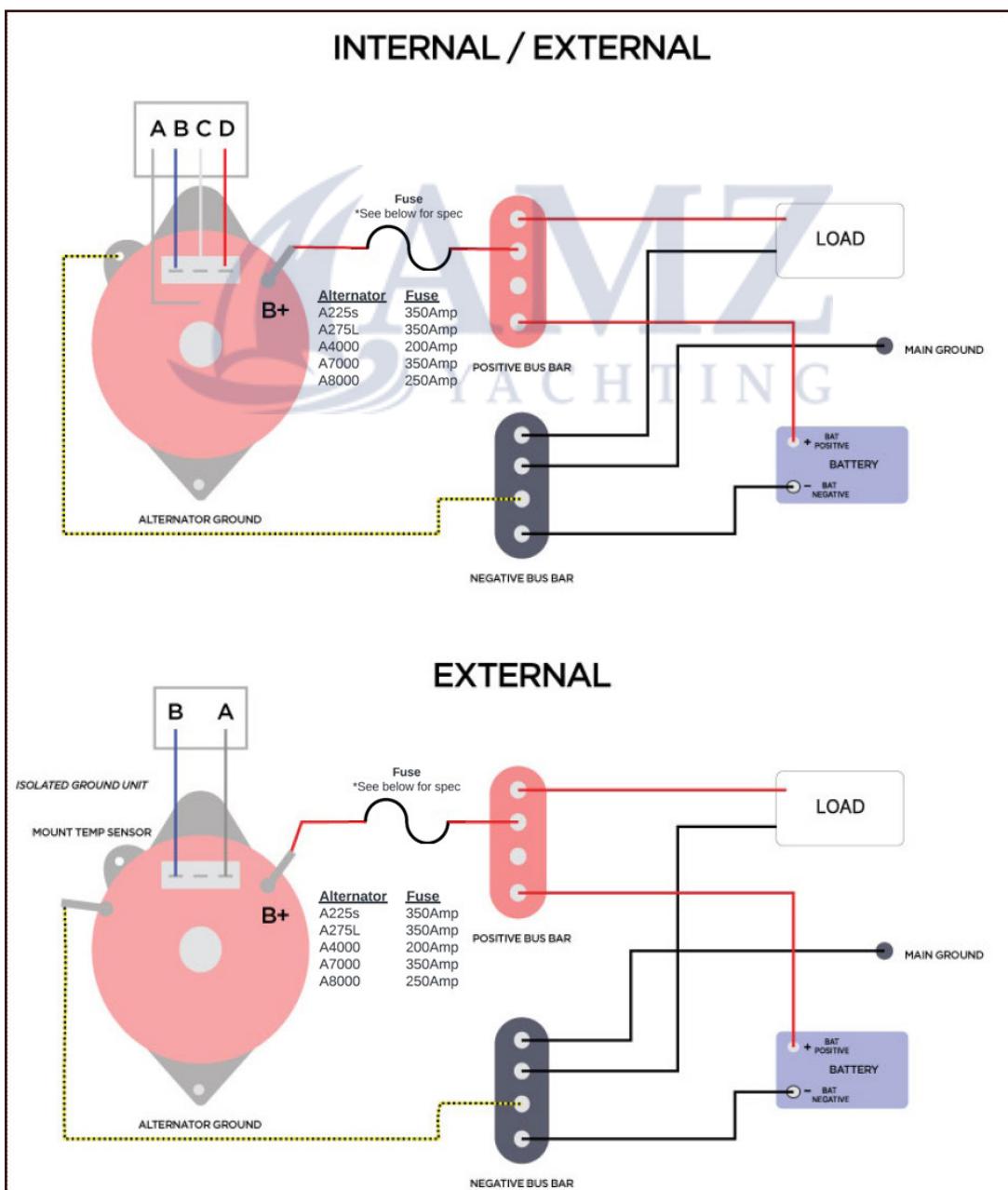
**\*Note\*** The waterproof male connector with pins is included in a bag within the alternator box. This can be pinned out to connect your system wiring to the alternator for a waterproof connection. If you are not sufficiently experienced with charging system upgrades, we recommend consulting with a certified technician prior to installation.

## Internal/External (IE)

- A Grey Wire (Stator Output)** Connect to Tach Input.
- B Blue Wire (Field)** Connect to External Regulator field wire.
- C White Wire (Ignition Wire)** Only used when using internal regulator connected to keyed on power source.
- D Red Wire (Sense Wire)** Connect to B+ post or dedicated Battery sense wire.

## External Regulator (EX)

- A Grey Wire (Stator Output)** Connect to Tach Input.
- B Blue Wire (Field)** Connect to External Regulator field wire.



# **Step by Step: Crimping Weather Pack Connectors/Terminals: Wire Gauge 16 AWG**

## **A) Prepare the wire**

Start by measuring the length of wire needed, and then use a wire cutter to cut your wire to the desired length. Another vital part entails stripping the wire on the end where your terminal is crimped. The length of the stripped portion must match the length/depth of your terminal barrel. This can easily be done using a wire stripper.

## **B) Insert the wire seal**

Insert your wire weather pack seal and slip it over the wire's insulation where the stripping ends. Ensure the seals flush with the exposed conductor.

## **C) Position the weather pack terminal pin on the crimping tool's dies**

Position the barrel of the terminal into the jaws of the crimping tool's die set and slightly squeeze the handles to hold the connector into place. However, ensure you use the proper jaws matching the size of the terminal.

## **D) Insert the stripped wire into the connector**

The next step is to insert the stripped end of the wire into the terminal positioned on the crimping tool. It's crucial you align your wire seal with the terminal's barrel: the small tabs of connectors should be on the wire, and larger ones should be positioned over the seal. This should allow you to complete the crimping.

## **E) Crimp the connector**

Squeeze the handles of your crimping tool to close its jaws and completely crimp the terminal on the conductor. Also, crimp the tabs on the seal to ensure you have a secure crimp. A good crimping tool should have a ratcheting mechanism that releases and allows the tool to open once a crimping cycle is complete.

## **F) Seal blanking plug**

Insert the provided seal blanking plugs in to open positions 3 and 4 of the female plug to prevent water ingress

## **G) Double-check the connection**

It's important you verify the quality of the crimped connection. Start by physically inspecting the crimp. You can also do a pull test to ensure you have a tight and complete crimp.

### **Parts List**

7. Aptiv 12186568 4P FM BLK CONN ASSY 150 SERIES

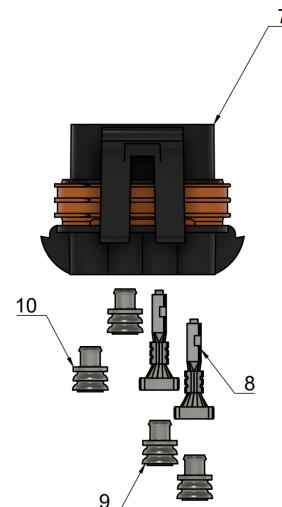
14 AMPS x 1

8. Aptiv 12048074-L FEMALE 150 SERIES TIN

CBL RANG 2.80-2.03MM (16 awg) x 4

9. Aptiv 15324973 Single wire seal x 4

10. Aptiv 12059168 Seal Blanking Plug x 2



## Temperature Sensor Mount Points

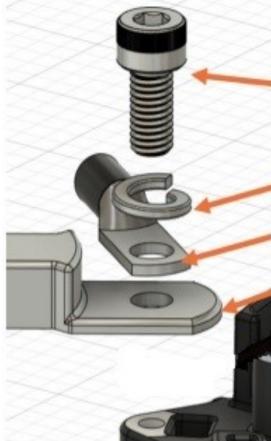
All ARCO Zeus high output alternators have a specific mounting point for the alternator temperature sensor. This ensures accurate temperature control of the alternator when used with the Zeus external regulator. Please read the information below and choose the appropriate temperature sensor mounting location for your unit.

### Rear Housing Mounting Location

#### Isolated Ground



#### Case Ground



1. M8x1.25x 16mm Socket head screw (supplied)  
(Torque setting 27.3Nm 20lb-ft.)
2. M8 lock washer (supplied)
3. Alternator temperature sensor
4. Dedicated ground cable lug

Refer to the illustration above to mount the alternator temperature sensor.

For **Isolated Ground** units this is a dedicated mount for the temperature sensor only. Do not connect the ground cable to this mount. (Torque setting 27.3Nm 20lbs-FT)

For **Case Ground** units this mounting point is shared with the ground cable which should be mounted in the same order as illustrated above. (Torque setting 27.3Nm 20lbs-FT)

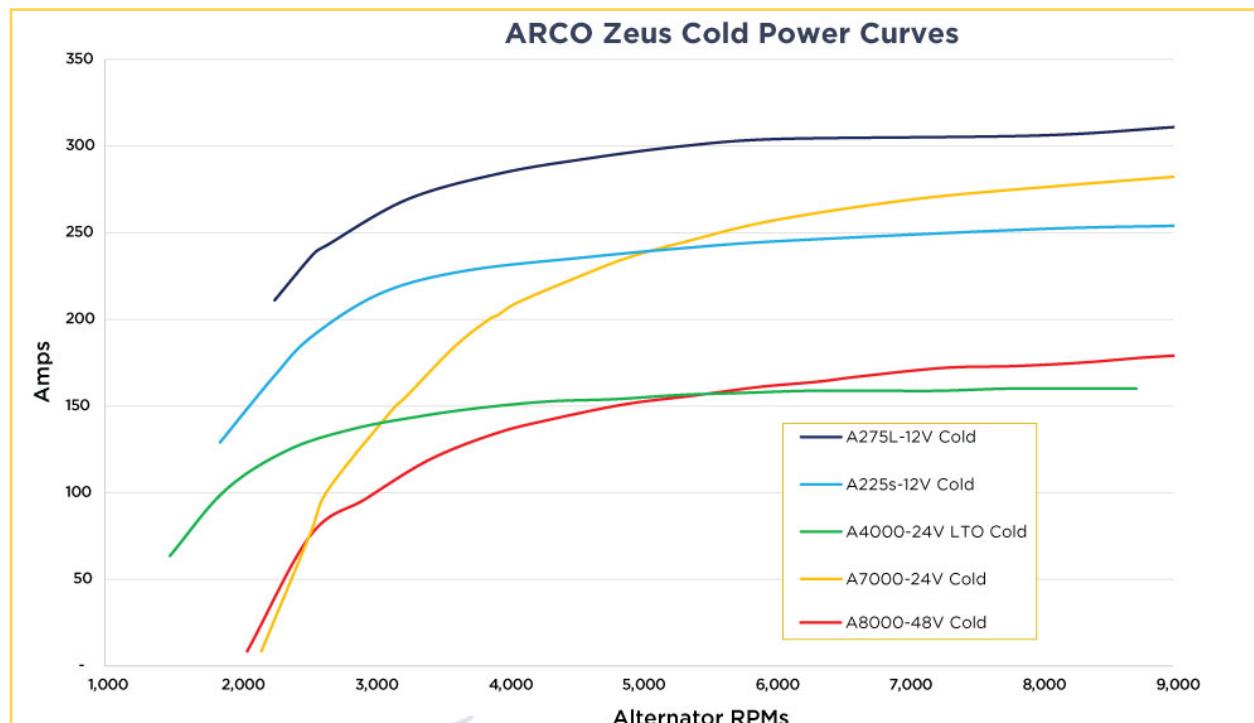
#### Dedicated Temperature Sensor Mount



Dedicated Temperature Sensor mounting point - this is for the temperature sensor only and must not be used as a ground cable mounting point. 10-32, 5/16 Drive bolt (Torque setting 30in-Lbs 3.4Nm)

## The Highest Output In Their Class

Cold curve representation of expected power output for the Zeus Alternator Series.



## GET AN ADDITIONAL YEAR OF WARRANTY ON YOUR ZEUS ALTERNATOR FOR FREE.

Register your ARCO Zeus High Output Alternator within 30 days of purchase and receive an **additional year of parts warranty**.

**[ARCOMARINE.COM/ARCO-PRODUCT-REGISTRATION](http://ARCOMARINE.COM/ARCO-PRODUCT-REGISTRATION)**

- Offer valid on ARCO Zeus High Energy products registered within the first 30 days of purchase.
- Extended 1 year warranty offer valid for ARCO Zeus High Output Alternators.
- Additional year of product warranty terms is reflective of standard product warranty terms and conditions within the ARCO Assurance Warranty Program.
- Proof of purchase and serial number are required at time of warranty claim.