

Worksman Cycles proudly presents the ultimate electric bicycle...

# Ace American

## Electric Motorbikes



Worksman Cycles has long been the bike of choice for both gas and electric motorbike conversions. Our legendary, classically designed frame lends itself to the look, feel, and ride of the fabulous motorized creations of the past. Now, for the first time ever, Worksman Cycles is promoting the leader of the custom electric bike market. Ace American. Their unique style, artistic design, electric kit quality, and craftsmanship are unmatched, and we are proud to present these rideable works of art on behalf of Ace American!

Ace American LLC uses the incredible **Phoenix II 3640 Motor System** standard on all ACE Motorbikes. It uses a dependable, powerful 36 volt 40 amp controller. These kits have been known to exceed 35,000 miles! It includes a light-weight motor, sensorless technology, a lighted power indicator, a twist-grip throttle, and controller - all with incredible reliability and power. While you can pedal with **Phoenix II** systems, they are NOT pedal-assist. **Phoenix II** systems will power themselves without help from the rider, even up hills.

### *How it Works:*

The major components of the system consist of a battery pack, a controller with lighted display, a twist throttle, and a hub motor. All major components are connected to the controller, the "brain" of the system. The controller's basic operation is similar to an electric light dimmer. It adjusts the amount of power going to the motor based on the throttle setting. *Brushless* hub motors are very efficient. Inside, there are three separate windings. Each winding is responsible for turning the wheel one-third of the way around. While there used to be sensors inside the motor to tell the controller which winding to apply power to, now the controller does all the work! There is nothing inside the motor that can be damaged, other than bearings! This allows the energy to be more focused, and changing windings is all electronic. done completely by the controller. There is no physical connection between the stationary part of the motor and the moving part of the motor, so there is no theoretical limit to their life. Brushed motors work differently. Power is transferred to the motor by brushes making contact with the moving part of the motor. This means that brushes must be replaced periodically, which can be expensive and can cause down-time. All **Phoenix II** motors are brushless, so the only fixed cost of owning one is battery replacement and the occasional tire, tube, and brake replacement. Yes, you will go through more brake pads with a power system installed on a bike with rim brakes, but all **Phoenix II** motors are available with optional disc brakes! Disc brakes require less adjustment, and less brake pad replacements.

System	Volts	Amps	Watts	Top Speed
<b>3625</b>	<b>36V</b>	<b>25A</b>	<b>900W</b>	<b>26mph</b>

## **Ace American works with the world's leading manufacturers of the highest-quality Lithium Iron Phosphate or LiFePO4 battery products.**

### **What exactly is LiFePO4?**

A lithium iron phosphate (LiFePO4) battery, also called a LFP battery, is a type of rechargeable battery, specifically a lithium-ion battery, which uses the LiFePO4 chemistry as a cathode material. With using phosphate as a cathode material, LiFePO4 is the safest and the most enviro-friendly chemistry make-up of lithium-ion batteries. The safety characteristics of using phosphate as the cathode material makes them far more advanced than other cathode materials such as nickel cobalt, polymer, and cobalt oxide. LiFePO4, batteries are able to withstand high temperatures without deteriorating, and if they are abused, LiFePO4 is not prone to thermal runaway and will not burn as other Lithium-ion batteries will.

Along with paramount safety characteristics, LiFePO4 batteries have a long cycle life (2000+ cycles) which actually lowers the cost of ownership, and they are only 1/3 the weight of Lead-Acid (Pb or LA) and less than 2/3 the weight of nickel-metal hydride (NiMH) batteries. More great characteristics of these batteries are that they do not have a memory. That's right, no memory effect! In addition, performance is not affected by extreme temperatures, from as low as -20°C~70°C (-4°F~150°F). Long shelf life and no maintenance!

We all use and take for granted the benefits of lithium-ion energy storage systems in our cell phones, notebooks, PDA's, appliances and other devices. With the various recalls by the US Consumer Protection Commission that have brought to light the potential hazards of lithium-ion batteries, LiFePO4 technology is the Lithium-ion technology of the future. LiFePO4, technology employs natural phosphate-based material and provides a superb culmination of performance, safety, cost, reliability and also is enviro-friendly. LiFePO4 is an advanced technology for Lithium-ion batteries that is a better battery for a better and greener world!

### **Warranty: WARRANTY IS THROUGH ACE AMERICAN MOTORBIKES, NOT WORKSMAN CYCLES.**

- Cells come with a 12 month/1 year warranty from date of shipping against defects in quality. If you use your cells without a proper BMS\*, your cells are not covered under Ace's warranty.
- PCM products come with a 12 month/1 year warranty from date of shipping against defects in quality.
- Battery chargers all come with a 6 month warranty from date of shipping.
- All accessories offered come with a 6 month warranty from date of shipping against defects in quality.
- Ace guarantees their battery packs with a 12 month/1 year warranty against defects in quality.
- Regardless of skill level, expertise or qualifications, a disassembled or inspected battery will not be warranted.
- If any tampering or modification of battery is performed, the battery will not be warranted

### **Satisfaction Guarantee:**

Ace Motorbikes will do their best to see that you are satisfied with their products and service. If a product purchased from Ace proves to be defective, they will be responsible for its repair or replacement, if possible.

### **36V 12Ah LiFePO4 Battery Pack (Battery Pack is assembled and tested.)**

- 12 38140S
- 50A Nominal 100A Maximum PCM/BMS
- Anderson Power Pole connectors for load
- Nickel plated copper bus bars
- Heat shield between PCM/BMS and cells
- All wire connections are soldered
- Wrapped in PVC heat shrink (Only available on standard size listed)
- With 36V5A charger
- **REGEN CAPABLE**

**SPECIFICATIONS AND CHARACTERISTICS:**

<b>Item</b>	<b>12 cell 36V12Ah Battery Pack</b>
Max Motor Watt Capabilities	1200W
Recommended Motor Wattage	400W~600W
Voltage	36V
Capacity	12Ah
Weight	5.21kg/11.48lbs.
Dimensions	243x172x98mm/9.5x6.8x3.8inches
Recommended Charge Voltage	43.8V
Recommended Charging Current	<24A
Recommended Max Discharge	36A
Max Discharge Current Available	120A
PCM Discharge Cut-off Protection	130~150A



Even though these are Direct Drive Motors and no pedaling is required, Ace advises a rolling start to ease the strain on the motor and battery.

\*A "BMS" is short for "Battery Management System", which is a small computer engineered specifically for those particular cells. It is the "brain" of the battery pack. It links them together for optimal use and it also protects them from excessive strains which could normally destroy the average battery.

**Standard Features and Pricing**

**Base Price: \$3725**

Ace Motorbikes come standard with some features shown in the pictures above, including:

- Leather saddle
- Kickstand
- Suspension fork

Options at no extra cost:

- Frame, tank & fender color: Red, Blue, Green, Yellow, Orange, Purple, Black, White, Cream
- Tire Color: Cream, Black, or White Wall
- Seat Color: Honey Brown or Black

Additional Options:

Chrome-plated tank	\$350	Chrome-plated rear fender	\$200
Double-Coil Saddle	\$35	Handlebar bag	\$125 (Matches seat color chosen)
Painted Sprocket	\$35	Painted rims	\$165 (Black w/silver edge standard)
Painted fork legs	\$85	MORE POWER (48v/1920w)	\$150 (Increases speed also.)



For additional information, please contact Worksman Cycles!  
 Worksman Cycles 94-15 100<sup>th</sup> Street Ozone Park, NY 11416

**SEE THE ORDER FORM BELOW FOR FULL ORDERING AND SHIPPING INFO!**

[cycles@worksman.com](mailto:cycles@worksman.com)

[www.worksman.com](http://www.worksman.com)

Phone: 718-322-2000 or 800-962-BIKE

# ACE MOTORBIKE ORDER FORM

Ordering your custom Ace Motorbike is easy. Simply print and fill out this form, and mail it to Worksman Cycles at the address below with your check or Money Order.

NAME: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY: \_\_\_\_\_ STATE: \_\_\_\_\_ ZIP: \_\_\_\_\_

PHONE: (\_\_\_\_\_) \_\_\_\_\_ - \_\_\_\_\_ EMAIL: \_\_\_\_\_

## MAKE CHECKS PAYABLE TO ACE AMERICAN LLC.

**Base Price: \$3725.00**

### Standard "No-Charge" Features:

Paint Color: \_\_\_\_\_ (Red, Blue, Green, Yellow, Orange, Purple, Black, White, Cream)

Tire Color: \_\_\_\_\_ (Black, Cream, or Whitewall)

Seat Color: \_\_\_\_\_ (Honey Brown or Black)

### Options Selected: *(Check space on left side and add options together in TOTAL section.)*

<input type="checkbox"/>	Matching painted sprocket	\$35	(Standard sprocket is silver plated)
<input type="checkbox"/>	Matching painted fork	\$85	(Standard fork is black)
<input type="checkbox"/>	Matching rims	\$165	(Standard rims have black surface, silver sides)
<input type="checkbox"/>	Chrome-plated tank:	\$350	(Standard tank is matching painted)
<input type="checkbox"/>	Chrome-plated rear fender:	\$200	(Standard fender is matching painted)
<input type="checkbox"/>	Double-Coil Saddle	\$35	(Standard saddle has no springs)
<input type="checkbox"/>	Handlebar bags:	\$125	(Matches seat color chosen)
	<b>TOTAL:</b>	<b>\$_____</b>	

### Shipping Information:

Ace Motorbikes ship mostly assembled in large crates. They ship via motor freight, not UPS or Fedex Ground. Prices above are FOB Matawan, NJ 07747.

Cycles ship fully assembled in a wooden crate: 60" x 36", 150 pounds

### Grand Total:

\$3725 + Options total (\$\_\_\_\_\_) + Shipping (\$385) = \$\_\_\_\_\_



New York City, New Jersey, and Eastern Pennsylvania customers: Please call for shipping quote before sending order and check. All other customers please add \$385 for shipping.

Mail payment to:  
Ace American LLC c/o Worksman Cycles  
94-15 100<sup>th</sup> Street  
Ozone Park, NY 11416

**MAKE CHECKS PAYABLE TO "ACE AMERICAN LLC",  
NOT WORKSMAN CYCLES!**

\* Worksman Cycles is not legally affiliated with Ace American LLC. Worksman is simply promoting a product that we believe to be the best electrified Worksman bike available. We want to see Ace succeed, so we are helping to sell their products. Again, all warranty issues are handled directly through Ace American LLC. Modifying a Worksman bike for motorized use voids the Worksman factory warranty. Ace offers their own warranty that applies to this sale. If you have any questions, ask before sending your order and payment.