

# OWNER'S MANUAL AND USER GUIDE BikeMaster® Automatic Battery Maintainer 750MA Part Number 150907

The BikeMaster Charger/Maintainer 750MA is perfect for keeping all of your 12 volt lead acid batteries in top condition, including: Conventional Acid Batteries (Wet), Factory Activated Maintenance-Free Batteries (FA), Absorbed Glass Mat Maintenance-Free Batteries (AGM) and Gel Batteries (Gel Electrolyte).

### **Features and Benefits**

- Fully automatic battery charger with reverse polarity, overcharge and short circuit protection.
- Bulk Charge: Charges at a constant 750mA rated current output until the battery is fully charged (13.6V  $\pm$ 0.2V) and then the charger automatically switches to maintenance mode.
- Maintenance: The battery is constantly monitored. If the battery voltage falls below 12.8V ±0.2V, the Bulk charge mode will restart to charge the battery at a constant 750mA until fully charged, then the charger automatically switches back to maintenance mode.
   The maintenance charging cycle is repeated indefinitely thus allowing the charger to stay connected worry free.
- Red LED light indicates when charging and changes to Green when fully charged.
- Sleek durable composite housing for long service life.
- Includes alligator clip leads and fuse-protected quick disconnect Battery Terminal leads; both of which are color-coded for your safety.



## **IMPORTANT NOTICE**

PLEASE READ AND SAVE THESE INSTRUCTIONS. THIS MANUAL CONTAINS IMPORTANT SAFETY AND OPERATING INSTRUCTIONS. READ ALL WARNINGS AND INSTRUCTIONS BEFORE USE. TO REDUCE THE RISK OF INJURY, ALWAYS FOLLOW THESE INSTRUCTIONS AND THOSE PUBLISHED BY THE BATTERY MANUFACTURER AND THE MANUFACTURER OF ANY EQUIPMENT YOU INTEND TO USE WITH THIS UNIT.

#### **KEEP CHILDREN AWAY:**

THIS UNIT IS NOT FOR USE BY CHILDREN AND SHOULD ONLY BE OPERATED BY ADULTS. ALL VISITORS SHOULD BE KEPT AT A DISTANCE FROM WORK AREA.

## **A CAUTION**

### GENERAL SAFETY INSTRUCTIONS:

- Before connecting the charger/maintainer to your battery or to a GFCI (Ground Fault Circuit Interrupter) 120V AC outlet, read all instructions and warnings provided with the battery charger/maintainer.
- This equipment employs parts that produce arcs or sparks. Therefore, if used in a garage or enclosed area, the charger/maintainer unit MUST be placed not less than 18 inches above the battery. Keep all cords and the charger/maintainer unit away from heat, liquids, gaseous or explosive atmospheres and sharp edges.
- Do not operate this unit in a closed area or restrict ventilation in any way.
- Only use attachments recommended for use specifically with this product.
- Do not operate the charger if it has received a sharp blow, direct hit of force, been dropped or otherwise damaged in any way.
- Do not disassemble the charger.
- Never allow battery acid to come in contact with this unit.
- When not in use, store indoors in a dry place-out of reach of children.
- Do not use the charger for any job except that for which it is intended.
- NEVER attempt to charge a damaged battery.
- NEVER attempt to jump start or charge a frozen battery.

### **PERSONAL SAFETY PRECAUTIONS:**

- Someone should be within the range of your voice or close enough to come to your aid when working near a lead acid battery.
- Be extra cautious to reduce risk of dropping a metal tool onto a battery. It may spark or short circuit electrical parts that may cause an explosion.
- Remove personal metal items such as rings, bracelets, necklaces and watches when working with a lead acid battery. A lead acid battery can produce a short circuit current high enough to weld a ring, or similar metal object, causing a severe burn.
- To reduce risk of electrical shock, disconnect the unit from any power source prior to any
  maintenance or cleaning. Pull the cord by the plug rather than the cord when disconnecting
  the unit from the power source. Never carry the unit by the cord or yank it to disconnect from
  receptacle. NEVER submerge this unit in liquids; do not expose it to rain, snow or use when wet.
  Keep clear of all liquids when in use.

## SURFACE MOUNT INSTALLATION:

NOTE: The following surface mount installation instructions are intended to be used as a general guide. Your specific requirements may be different. Mounting hardware is not included. DO NOT make any electrical connections to the charger or batteries until the following steps are completed: Installation steps:

- 1. Mount the charger as far away from the intended charging location of the battery as the DC electrical cord (battery charging cables between charger and battery) permits while in use. Allow for free air ventilation with a minimum of 8 inches of clear, unobstructed space around, in front or above the charger. Be sure to place the charger in an accessible area where all indicators are viewable.
- 2. Do not install charger on carpeted, upholstered, vinyl or varnished areas or above the intended charging location of the battery.
- 3. Using the charger as a template, use a small awl or pencil to mark the position of each mounting hole.
- 4. Use an appropriate drill bit to drill pilot holes in the marked locations as described in step 3.
- 5. Position the charger over the mounting holes and secure by installing quality hardware that meets your application requirements (mounting hardware not included).
- 6. Run your cables away from sharp objects and secure them in place with plastic cable ties. Coil excess cable; do not cut or shorten the length of the cables. Keep clear of moving objects such as drawers and doors that can damage the wires.

# CONNECTING TO A BATTERY SAE QUICK DISCONNECT PLUG

 Connect the eyelets of the SAE quick disconnect to the proper battery terminals using the existing battery hardware. RED+, BLACK-

2. The plug end of the connector may be placed in a location where it can be accessed easily for connecting the charger to the battery. Be sure that the connector and cable are secured away from sharp edges, moving parts and high temperature components.



### **ALLIGATOR CLIPS**

- 1. Open all battery compartments and ventilate for at least 15 minutes. Connect the alligator clips directly to the corresponding battery posts. RED+, BLACK-
- 2. Be sure the alligator clips are not making contact with any part of the motorcycle that is made of metal. This will cause a short that could damage the motorcycle, charger or battery.



# PERIODIC MAINTENANCE GUIDE Monthly inspection and Maintenance:

- Clean and tighten all battery connections.
   Follow the battery manufacturer's instructions for cleaning.
- Monitor and maintain proper levels of distilled water in each battery. Follow the battery manufacturer's instructions for adding distilled water.
- Visually inspect all wiring for cuts and abrasions.
   A qualified mechanic should perform repairs when needed.
- Visually inspect that the battery case, caps and terminals are free from any visible damage.
   Replace the battery if damage such as dents, cracks or bulging is visible to the case or if terminals are crushed or broken. Tighten or replace caps as needed.

## CHARGER/MAINTAINER MAINTENANCE

#### Before each use:

- Visually inspect all electrical cords and connections. Confirm cords are in good condition with no bare wires exposed; plugs and blades are in good condition and not bent out of place. NEVER touch exposed wires. Do not use if damage is visible.
- Check all mounting hardware. Tighten or replace as required.
- Check to be sure the charger/maintainer is free from other damage and is completely dry. Do not use a damaged or wet charger/maintainer.

### **TROUBLE SHOOTING GUIDE**

- Be sure the charger/maintainer is connected to a GFCI (Ground Fault Circuit Interrupter) 120V AC outlet. Check AC power at the 120V AC outlet. Make sure all connections and GFCI (Ground Fault Circuit Interrupter) has not tripped. Using a meter or 120V AC test light, verify that AC power is present at the outlet or at the end of the extension cord (if using).
- Check that all charger cables are installed to the correct terminal polarities and that all connections are clean and tight.
- With the AC power removed and the engine off, check the charge level of the battery with a DC meter or tester. If there is no charge level indication for the battery, check the battery with a hydrometer to determine if it has one or more bad cells.
- With the charger on, read DC voltage at the battery. If the reading is less than 13V DC proceed with the following:
- a. Disconnect AC power at the GFCI (Ground Fault Circuit Interrupter) 120V AC outlet.
- b. Remove battery lead from the battery.
- c. Reconnect AC power and read DC voltage across the output cable. If output voltage is approximately 13.3V DC the charger is okay. The battery should be tested with a hydrometer with the charger and engine off to determine if the battery has one or more bad cells.
- d. After the above checks are made and it is determined that there is no DC voltage output reading or it is less than 13.0 volts, contact your nearest BikeMaster retailer for product service.



### **CHARGING BATTERIES**

## **A** CAUTION

LOCATE CHARGER AS FAR AWAY FROM THE BATTERY AS DC ELECTRICAL CABLE (CABLE FROM CHARGER TO BATTERY) PERMITS. NEVER PLACE CHARGER DIRECTLY ABOVE BATTERY BEING CHARGED. NEVER ALLOW BATTERY ACID TO DRIP ON CHARGER. DO NOT OPERATE BATTERY IN A CLOSED-IN AREA OR RESTRICT VENTILATION IN ANY WAY. DO NOT PLACE ANY OBJECTS ON TOP OF THE CHARGER.

### SAFETY PRECAUTIONS PRIOR TO CHARGING BATTERIES:

NOTE: ALWAYS disconnect the power cord from the GFCI (Ground Fault Circuit Interrupter) 120V AC outlet before connecting or disconnecting the charger to the battery.

- If the battery needs to be removed from vehicle to charge, follow the vehicle manufacturer's instructions. Make sure all vehicle accessories are off, as not to cause an arc.
- Be sure the area around the charger and batteries is well ventilated while the battery is being charged. Gases can be forcefully blown away using a piece of cardboard or other nonmetallic material as a fan.
- If applicable, add distilled water in each cell until the electrolyte reaches the specified level by the battery manufacturer. This helps purge excessive gases from cells. Do not attempt to add distilled water to batteries without removable caps.
- Carefully follow the manufacturer's charging instructions. Study all manufacturers' precautions, such as removing or not removing cell caps while charging, in addition to rates of charge.

### **EXTENSION CORD USE**

If an extension cord must be used, insure that cord is industrial grade/heavy duty U.L. approved and grounded. Check extension cord before use for damage, bent prongs, cuts and bare wires. Replace it if damaged.

### CHARGER/MAINTAINER USER INSTRUCTION

- 1. Open all battery compartments and ventilate for at least 15 minutes before applying AC power to your charger. While charging your batteries, make sure to keep your battery compartment open allowing for free air ventilation.
- 2. Follow battery manufacturer's recommendations for battery cell caps, (loosen caps if applicable).
- 3. Plug the AC power cord into a nearby 120V AC GFCI (Ground Fault Circuit Interrupter) protected outlet before connecting the charger to a battery.
- 4. Connect the charger to the battery using either the SAE connector or the alligator clips. See the "Connecting to a battery" section for instructions.
- 5. The LED indicator will turn solid red when connected to AC power and a battery, indicating it is now in the charging process. If the LED is green then the battery is already fully charged.
- 6. Charge the battery until the LED indicator turns solid green. This indicates that the charging process is complete, your battery is fully charged and it is now being maintained. The BikeMaster battery charger/maintainer can remain plugged into AC power and connected to your battery. The unit will automatically maintain a full charge for long periods of storage.
- 7. When you are ready to use your vehicle:
  - a. Disconnect the charger from the battery.
  - b. Disconnect the charger from AC power.

# **A WARNING**

RISK OF EXPLOSIVE GASES: WORKING IN THE VICINITY OF A LEAD ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL BATTERY OPERATION. FOR THIS REASON, IT IS OF THE UTMOST IMPORTANCE THAT EACH TIME BEFORE USING THE BATTERY MAINTAINER YOU READ THIS MANUAL AND FOLLOW ALL SAFETY AND OPERATING INSTRUCTIONS. NEVER SMOKE OR ALLOW A SPARK IN THE VICINITY OF THE ENGINE, BATTERY OR CHARGER/MAINTAINER. FAILURE TO FOLLOW ALL SAFETY AND OPERATING INSTRUCTIONS MAY RESULT IN PROPERTY DAMAGE, ELECTRIC SHOCK, FIRE, SERIOUS INJURY OR DEATH.

BURST HAZARD: USE THE UNIT FOR CHARGING OR MAINTAINING A CONVENTIONAL LEAD-ACID (WET), FACTORY ACTIVATED MAINTENANCE FREE (MF), ABSORBED GLASS MAT MAINTENACE FREE (AGM) OR GEL (GEL ELECTROLYTE) BATTERY ONLY. DO NOT USE THE UNIT FOR CHARGING DRY-CELL BATTERIES THAT ARE COMMONLY USED WITH HOME APPLIANCES. THESE BATTERIES MAY BURST RESULTING IN PROPERTY DAMAGE, ELECTRIC SHOCK, FIRE, SERIOUS INJURY OR DEATH.

CONTACT WITH BATTERY ACID MAY CAUSE BLINDNESS AND/OR SEVERE BURNS. HAVE PLENTY OF WATER AND SOAP NEARBY IN CASE ACID COMES IN CONTACT WITH SKIN, CLOTHES OR EYES. BE AWARE OF FIRST AID PROCEDURES IN CASE OF ACCIDENTAL CONTACT WITH BATTERY ACID. WEAR COMPLETE HAND, EYE AND CLOTHING PROTECTION. AVOID TOUCHING EYES WHILE WORKING WITH A BATTERY. IF BATTERY ACID CONTACTS SKIN OR CLOTHING, WASH IMMEDIATELY WITH SOAP AND WATER. IF ACID ENTERS THE EYE(S) IMMEDIATELY FLUSH EYE(S) WITH RUNNING COLD WATER FOR AT LEAST 10 MINUTES AND GET MEDICAL ATTENTION IMMEDIATELY.

DO NOT USE ATTACHMENTS THAT ARE NOT SPECIFICALLY RECOMMENDED FOR USE WITH THIS UNIT. THE USE OF IMPROPER OR UNSAFE ATTACHMENTS MAY RESULT IN PROPERTY DAMAGE, ELECTRIC SHOCK, FIRE, SERIOUS INJURY OR DEATH.

DO NOT DISASSEMBLE THE CHARGER. IMPROPER HANDLING OR INCORRECT ASSEMBLY MAY RESULT IN PROPERTY DAMAGE, ELECTRIC SHOCK, FIRE, SERIOUS INJURY OR DEATH.

