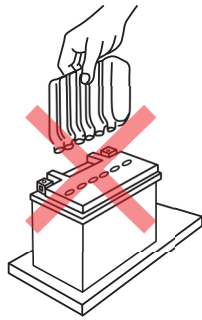
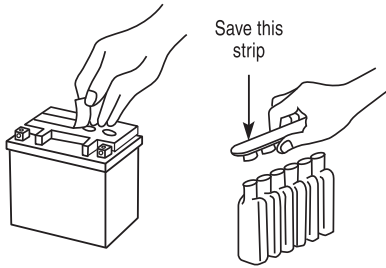


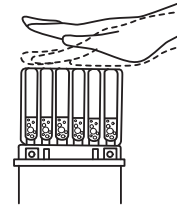
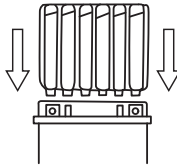
ACTIVATION AND CHARGING SEALED MAINTENANCE FREE BATTERIES (YT & KT TYPES)

1. Place the battery on a level surface. Battery must be out of the vehicle.

2. Remove electrolyte container from vinyl bag. Pull off the strip of caps. **Put the strip aside- you'll use this later as the battery sealing plug.** Use only the dedicated container that comes with the battery. It contains the proper amount of electrolyte for your specific model - important to service life and operation. Do not pierce or otherwise open the sealed cells of the electrolyte container. Do not attempt to separate individual cells.



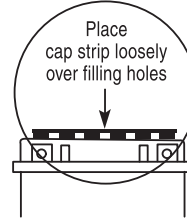
3. Place electrolyte container, sealed top of the cells down, into the filler ports of the battery. Hold the container level, push down to break the seals. You'll see air bubbles as the ports fill. **Do not tilt the electrolyte container.**



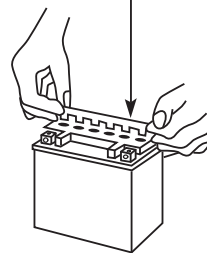
4. Check the electrolyte flow. **Keep the container in place for 20 minutes or longer until it empties completely.** If no air bubbles are coming up from the filler ports, or if container cells haven't emptied completely, tap the container a few times. Don't remove the container from the battery until it's empty. The battery requires all the electrolyte from the container for proper operation. Make sure the electrolyte container empties completely.



5. Remove the container. **For batteries 3-12 AH, let stand for at least 30 minutes. For batteries greater than 12 AH, allow the battery to stand a minimum of 1 HOUR.** This allows the electrolyte to permeate into the plates for optimum performance.



Strip of caps (battery plugs)
Press down horizontally with both hands



6. After filling and before charging the filling procedure is completed.

Newly activated sealed batteries require an initial charge. During charging, place the cap strip loosely over the filling holes as shown in drawing.

7. After charging is completed, allow the battery to stand for a minimum of 4 hours to allow the electrolyte to absorb inside the battery. After the 4 hour stand, press the strip of caps down firmly with both hands to seat the caps (don't pound or hammer). The battery is sealed. **Never remove the strip of caps, nor any water or electrolyte.**

WHEN A BATTERY NEEDS AN INITIAL CHARGE

Condition Requiring Initial Charge	At low temperatures (lower than 0°C or 32°F)	Battery has been stored under high temperature and humidity.	Aluminum seal sheet has been removed or broken (When you did not hear air-sucking sound as you removed the sheet).	Battery older than 2 years or more after manufacture.
Charging Method	Charge time using standard current 2-3 hours	Charge time using standard current 15-20 hours		

Charging Method:

Charge at 12V with current and time as stated below

STD: 1.2A X 5h~10h

CHARGING INSTRUCTIONS FOR NEWLY ACTIVATED SEALED MAINTENANCE FREE BATTERIES

These batteries are a sealed VRLA construction - which means:

NEVER REMOVE THE SEALING STRIP AFTER CHARGING IS COMPLETED!

If the battery gets very hot to the touch, cease charging and allow battery to cool down.

CHECK VOLTAGE USING A VOLTMETER. READINGS FOR A CHARGED, NEWLY ACTIVATED BATTERY SHOULD BE 12.8V OR HIGHER AFTER FOR A TWO HOUR REST PERIOD FOLLOWING CHARGE. (REST REQUIRED TO LOSE SURFACE CHARGE.)



CAUTION: ALWAYS WEAR PROTECTIVE EYE GEAR WHEN WORKING AROUND BATTERIES

ACTIVATING HIGH PERFORMANCE CONVENTIONAL (YB TYPE) AND CONVENTIONAL BATTERIES (6N & 12N TYPES)

STANDARD BATTERY (6N TYPES, 12N TYPES, AND YB TYPES)

PREPARATION FOR ACID FILLING

Take off sealing tube (usually red color attached to vent) and remove filling plugs-right before filling with electrolyte. Replace the short sealing tube pulled off from battery vent elbow with a long exhaust tube.

FILLING ELECTROLYTE (ACID)

Fill battery with electrolyte (dilute sulfuric acid) with a specific gravity of 1.265 at 68°F. Fill to UPPER LEVEL as indicated on battery. Electrolyte should have a

temperature between 60 and 86°F. before filling. Leave battery standing at least 30 min. after filling. Acid level may have fallen during standing. Refill acid to UPPER LEVEL before starting charge.

CHARGING

Place battery on charge for 3 to 5 hours at approximately the current equivalent to 1/10th of its rated capacity. The battery can take a quick charge at a higher current up to the maximum current of 3/10th of capacity. However, a quick charge can only be taken by surface area of the battery plates, while lower current can charge the battery uniformly. If electrolyte

level has fallen after charging, fill with clean drinking water to UPPER LEVEL. After water is added, continue charging 1 to 2 hours to mix water with acid. After charging, replace filling plugs firmly, wash off acid spillage with water and dry battery case. Make sure the battery terminals are completely clean of any acid substances.

Do not use sealed tube (red tube) once battery is filled with acid. Using sealed tube (red tube) after acid filling may cause explosion.

BATTERY MAINTENANCE FOR 6N, 12N and YB TYPES

Periodic battery maintenance should be performed whether or not a starting problem has occurred. The following procedures will help prevent premature

1. CHECK ELECTROLYTE LEVEL (not required for sealed maintenance free batteries). If the electrolyte level is below the tops of the plates in any cell (or the lower level line) refill with clean drinking or distilled water to upper level line.

NOTE: Low electrolyte level may be a malfunction in the charging system.

2. Keep the battery clean of all acid spillage and dirt, especially around the terminal area.

3. Keep the exhaust tube free of any kink or dirt build-up.

4. If the vehicle is not used frequently the battery will require additional recharging. Specific charging rates or times vary because of the following:

(A) Battery's electrical capacity

(B) Temperature of the electrolyte

(C) Battery state of charge at the start of charging

(D) Battery age and condition

(E) Type of charger

5. Check the specific gravity of acid or the voltage of the battery to make sure it is at a 100% charged condition. If not, additional charging is required. See charts below for battery test readings using either a hydrometer or a voltmeter.

SPECIFIC GRAVITY READING USING A HYDROMETER				
STATE OF CHARGE	ELECTROLYTE TEMPERATURE			
	80°F		40°F	
	YB TYPES	6N & 12N TYPES	YB TYPES	6N & 12N TYPES
100%	1.275	1.265	1.290	1.280
75%	1.225	1.215	1.240	1.230
50%	1.175	1.165	1.190	1.180
25%	1.135	1.125	1.150	1.140

BATTERY VOLTAGE READING USING A VOLTMETER			
STATE OF CHARGE	YT & KT TYPES	YB TYPES	6N & 12N TYPES
100%	13.0 Volts	12.7 Volts	12.6 Volts / 6.3 Volts
75%	12.8	12.5	12.4 6.2
50%	12.5	12.2	12.1 6.1
25%	12.2	12.0	11.9 6
0%	12.0 or less	11.9 or less	11.8 or less 5.9