



BATTERY OWNER'S MANUAL

Thank you for purchasing this AUTOBACS automotive battery. You have chosen another quality product from Japan's leading car parts and accessories brand. To ensure this product provides you with many years of reliable service, please read this manual carefully before installing the battery in your vehicle.

WARNING

- Refer to the Instruction Manual. Always follow the instructions contained in this manual and those provided in your vehicle owner's manual. Incorrect use of this battery may result in overheating, explosion or acid leak resulting in serious injury.
- Wear Eye Protection. Shield eyes, face and wear protective gloves when handling this battery. Explosion or acid leak may result in serious injury and loss of eyesight.
- Keep out of Reach of Children. Incorrect use of this battery may result in explosion or acid leak resulting in serious injury.
- Explosive Material. Highly explosive hydrogen and oxygen gases produced when charging.
- No Open Flame. Keep away from sparks, flames and lit cigarettes. Do not short circuit battery terminals. Short circuit or loose connections can cause sparks that may result in explosion. Discharge any static electricity buildup by touching metal car body before handling battery. Do not use dry cloth to wipe battery due to risk of static charge. Use a damp cloth only.
- Corrosive Substance. Electrolyte contains sulfuric acid that can cause blindness and serious injury. Do not contact with skin, eyes or clothing.
 - If contact with eyes immediately flush eyes continuously with running water. Seek medical assistance immediately.
 - If swallowed immediately rinse mouth with water. Do not induce vomiting. Seek medical assistance immediately. Give water and milk as much as can be comfortably consumed.
 - If contact with skin immediately flush body and clothes with large amounts of water. Seek medical assistance immediately.
- Do not connect electrical equipment directly to battery. Risk of melted cable and fire.
 - Do not attempt to modify or disassemble the battery.
 - Do not tip the battery.
 - Immediately stop using the battery if it emits an unusual smell, leaks electrolyte, shows signs of deformation or otherwise appears abnormal.

CAUTION

CORRECT USAGE

This battery is designed for use in passenger vehicles with internal combustion engines. It is not designed for use in agricultural machinery, construction equipment, marine vessels, electric vehicles, welding machines etc. Do not allow battery to become wet. Do not use or store battery in an airtight container.

STORAGE

Store battery in a cool, dry and well ventilated area. Do not store in dusty conditions and keep away from wind, rain and direct sunlight. Keep the battery out of reach of children. Store away from sources of heat, fire or other sources of ignition. Do not short circuit. Avoid storing in cold areas that may result in freezing of electrolyte.

TRANSPORTATION

Do not tip, tilt or turn battery upside down. Do not drop or subject battery to strong shock or impact. Battery is heavy and should be handled with care. Lift carefully to avoid injury to back or damage to property. Do not shake the battery.

REPLACEMENT BATTERY

Check and confirm the replacement battery terminal positions are the same as the original battery. Check and confirm the replacement battery terminal sizes and battery size is correctly matched to your vehicle. The replacement battery should be the same size as the original battery installed in your vehicle. Installing an incorrect size battery may result in damage to battery, damage to vehicle and risk fire. If the vehicle has two (2) batteries installed then both batteries should be replaced at the same time. Check and confirm the replacement battery is not leaking electrolyte and has no signs of damage, deformation or any other defects.

REMOVAL & INSTALLATION

PRECAUTION

Check your vehicle owner's manual prior to disconnecting the battery. Some electrical systems such as audio and power windows may reset and require security code and/or recalibration. Before handling the battery, discharge any static electricity by touching a metallic section of the vehicle body. Wear eye protection and protective gloves whenever handling the battery.

REMOVAL

- Turn off all vehicle electrical systems such lights, car radio, climate control etc.
- Turn off engine and remove the key from the ignition.
DO NOT ATTEMPT TO CHANGE THE BATTERY WITH ENGINE RUNNING.
- First disconnect the Negative Terminal (-) then disconnect the Positive Terminal (+).
- Remove the battery retaining bracket to remove the battery from the vehicle. Battery is heavy and care must be taken to keep upright when lifting.

INSTALLATION

- Check and confirm the Negative Terminal (-) and the Positive Terminal (+) are correctly matched to your vehicle. If necessary, clean the cable terminals with a wire brush or sand paper to remove any oxidation.
- Without removing the protective battery terminal caps, install the new battery into the battery tray. Refit the battery retaining bracket(s). Battery should be firmly secured but do not overtighten brackets as this can damage the battery.
- Remove Positive Terminal (+) cap and connect the positive cable battery clamp. Tighten the battery clamp securely and refit the battery clamp cover if present.
- Remove the Negative Terminal (-) cap and connect the negative cable battery clamp. Tighten the battery clamp securely.

* Check and confirm tools and work equipment are not left inside the engine bay.

BATTERY DISPOSAL

Be aware used batteries may hold residual charge. Do not dispose of batteries in household waste. Protect the environment by recycling used batteries at an approved recycling depot.

CARE & MAINTENANCE

STATUS INDICATOR

The status indicator provides a quick and easy way to check the charging state of your battery.



CLEANING THE BATTERY

Use a damp cloth to clean the battery. Do not use a dry cloth due to risk of static electricity discharge. Do not use benzene, thinners, gasoline or any other organic solvents or detergents for cleaning.

FITTINGS & TERMINALS

Periodically check that the battery retaining bracket(s) and battery terminal clamps are secure. Check and retighten the fasteners as required.

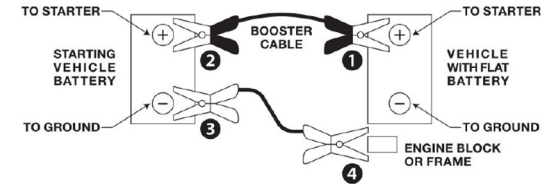
IN CASE OF FLAT BATTERY

JUMP STARTING WITH JUMPER CABLES

Ensure that the vehicle providing the jump start uses the same voltage (e.g. 12V or 24V) as the vehicle with the flat battery. Follow the instructions in the owner's manual for each vehicle at all times. Check and confirm there are no signs of damage on the jumper cables or on either battery. Wear eye protection and protective gloves. Park both vehicles close to each other however they must not touch. Switch off all electrical accessories (lights, climate control, radio etc.) in the vehicle with the flat battery. Switch off ignition in both vehicles.

Important:

- * Some vehicles have dedicated jump start connections in the engine compartment. In this case, the booster cables must be connected to the jump start connections and not directly to the battery.
- * Ensure jumper cables cannot come into contact with radiator fan or any other moving parts in the engine bay.
- * Do not stretch or pull the jumper cables. Bring vehicles closer together if necessary.



- Connect one end of the red jumper cable to the Positive (+) terminal of the flat battery. The Positive (+) will usually have a red plastic cover on it. Pull back the cover to access the terminal.
- Connect the other end of the red jumper cable to the Positive (+) terminal of the battery providing the jump start.
- Connect one end of the black jumper cable to the Negative (-) terminal of the battery providing the jump start.
- Connect the other end of the black jumper cable to an unpainted, solid metal component of the engine. Do not connect the other end of the black jumper cable directly to the battery terminal as this can cause sparks and risk explosion.
- Check and confirm the vehicles are not in gear. Start the engine in the vehicle providing the jump start then start the engine in the vehicle with the flat battery.
- Disconnect the jumper cables in the reverse sequence to when connected.

RECHARGING USING A BATTERY CHARGER

Check and confirm there are no signs of damage on the battery. Wear eye protection and protective gloves. Follow the instructions detailed in the REMOVAL & INSTALLATION of this manual to disconnect the battery. First disconnect the Negative Terminal (-) then disconnect the Positive Terminal (+).

- Ensure the battery is charged in a well ventilated area. If the battery is to be removed from the car for charging, be aware battery is heavy and take care when lifting to keep upright.
- Follow the instructions detailed in the battery charger owner's manual.
- Place the battery charger away from the battery to be charged. Battery charger must be connected to the battery before it is connected to the AC wall outlet.
- With battery charger switched OFF, and AC cord removed from wall outlet, first connect the Positive (+) battery terminal then connect the Negative (-) battery terminal.
- Charge the battery in accordance with the battery charger owner's manual without exceeding the maximum charge current shown in Table.1. Immediately stop charging if the battery electrolyte exceeds 55°C (131°F).

Battery Size	Max. Charge Current (Amps)
B19 (B20)	3.5
B24	4.5
D23	5.0
D26	6.5
D31	8.0
LN0	4.4
LN1	5.5
LN2	6.2
LN3	7.4
LBN3	7.5
LN4	9.0
LN5	10.0
LN6	11.0

Table 1. Observe maximum charge current for battery size



株式会社オートバックスセブン
AUTOBACS SEVEN CO., LTD.

NBF Toyosu Canal Front, 6-52,
Toyosu 5-Chome, Koto ku,
Tokyo 135-8717, JAPAN



www.autobacs.co.jp/global/products