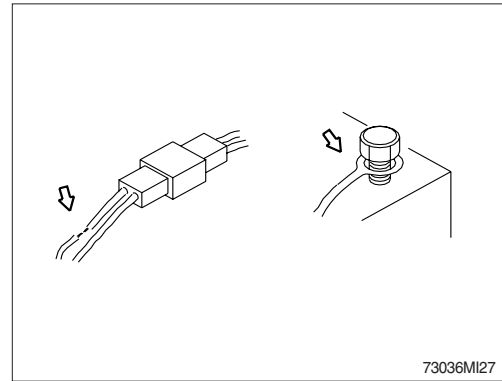


10. ELECTRICAL SYSTEM

1) WIRING, GAUGES

Check regularly and repair loose or malfunctioning gauges when found.



2) BATTERY

(1) Clean

① Wash the terminal with hot water if it is contaminated, and apply grease to the terminals after washing.

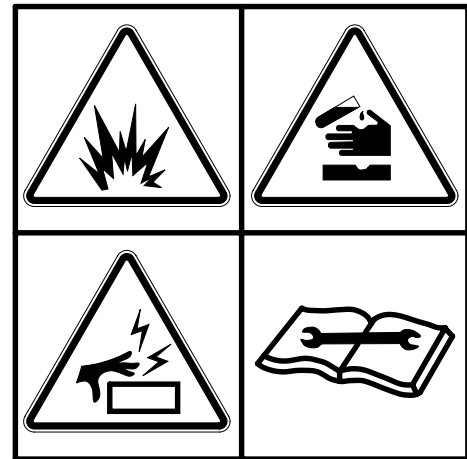
▲ Battery gas can explode. Keep sparks and flames away from batteries.

▲ Always wear protective glasses when working with batteries.

▲ Do not stain clothes or skin with electrolyte as it is acid.

Be careful not to get the electrolyte in eyes.

Wash with clean water and go to the doctor if it enters the eyes.



(2) Recycle

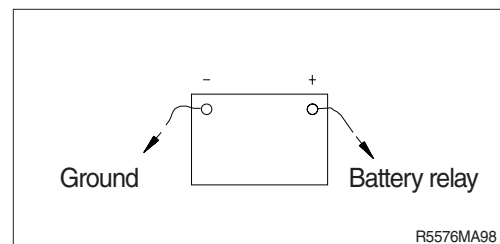
Never discard a battery.

Always return used batteries to one of the following locations.

- A battery supplier
- An authorized battery collection facility
- Recycling facility

(3) Method of removing the battery cable

Remove the cable from the ground connection first (⊖ terminal side) and reconnect it last when reassembling.



3) STARTING THE ENGINE WITH A BOOSTER CABLE

Keep following order when you are going to start engine using booster cable.

(1) Connection of booster cable

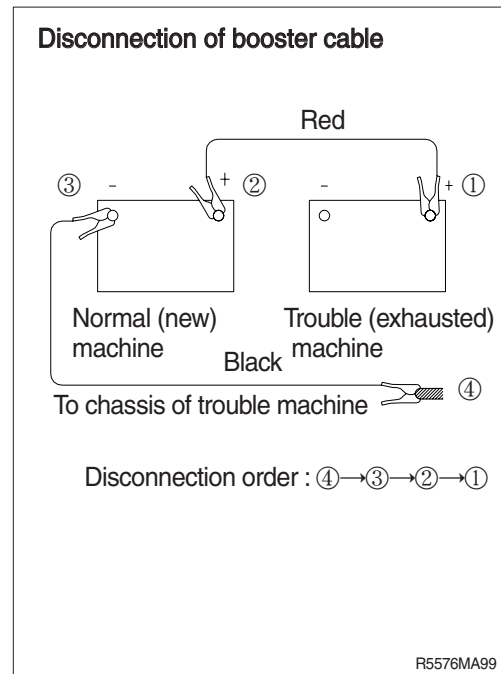
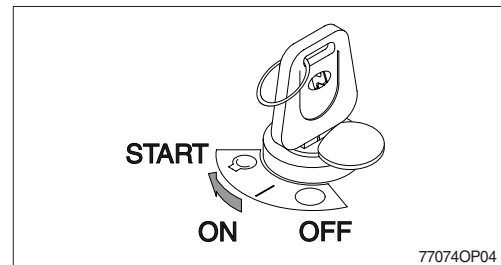
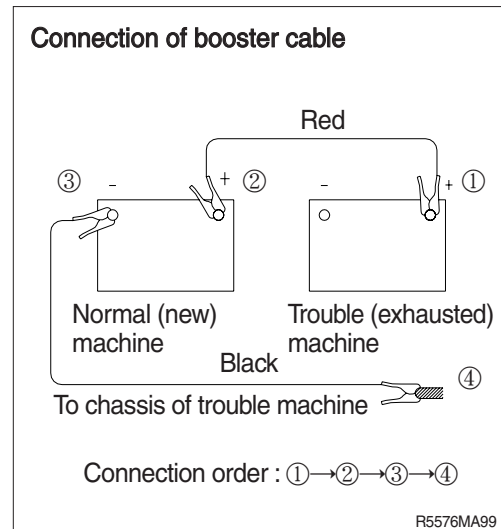
- ※ Use the same capacity of battery for starting
- ① Connect the red terminal of booster cable to the battery(+) terminal between exhausted and new battery.
- ② Connect the black terminal of the booster cable to the battery(-) terminal between exhausted and new battery.
- ※ Keep firmly all connection, the spark will be caused when connecting finally.

(2) Starting the engine

- ① Start engine with starting key.
- ② If you can not start it by one time, restart the engine after 2 minutes.

(3) Taking off the booster cable

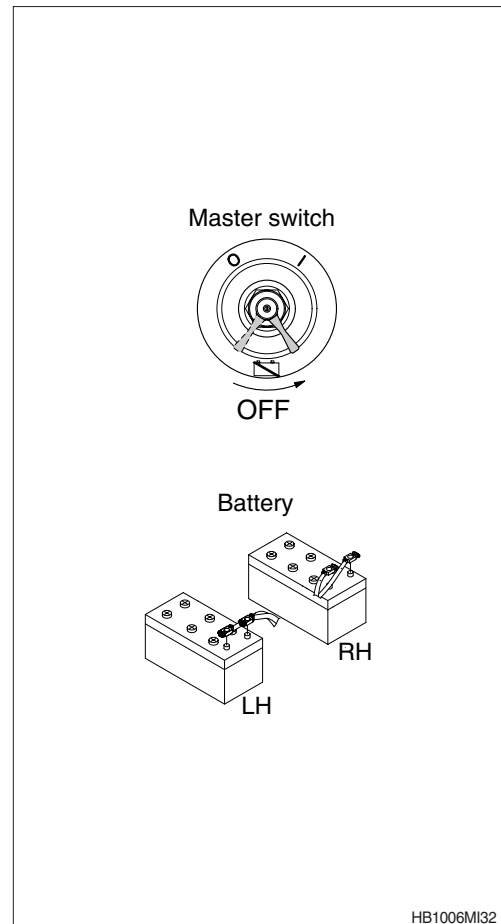
- ① Take off the booster cable black).
- ② Take off the booster cable (red) connected to the (+) terminal.
- ③ Run engine with high idle until charging the exhausted battery by alternator, fully.
- ▲ **Explosive gas is generated while using the battery or charging it. Keep away flame and be careful not to cause the spark.**
- ※ **Charge the battery in the well ventilated place.**
- ※ **Place the machine on the earth or concrete. Avoid to charge the machine on the steel plate.**
- ※ **Do not connect (+) terminal and (-) terminal when connecting booster cable because it will be shorted.**



4) Welding repair

Before start to welding, follow the below procedure.

- (1) Shut off the engine and remove the starting switch.
 - (2) Disconnect ground cable from battery by master switch.
 - (3) Before carrying out any electric welding on the machine, the battery cables should be disconnected and the connectors pulled out of the electronic control units (alternator, dashboard etc).
 - (4) Connect the earth (ground) lead of the welding equipment as close to the welding points as possible.
- ※ **Do not weld or flame cut on pipes or tubes that contain flammable fluids. Clean them thoroughly with nonflammable solvent before welding or flame cutting on them.**
- ▲ **Do not attempt to welding work before carry out the above.**
If not, it will caused serious damage at electric system.



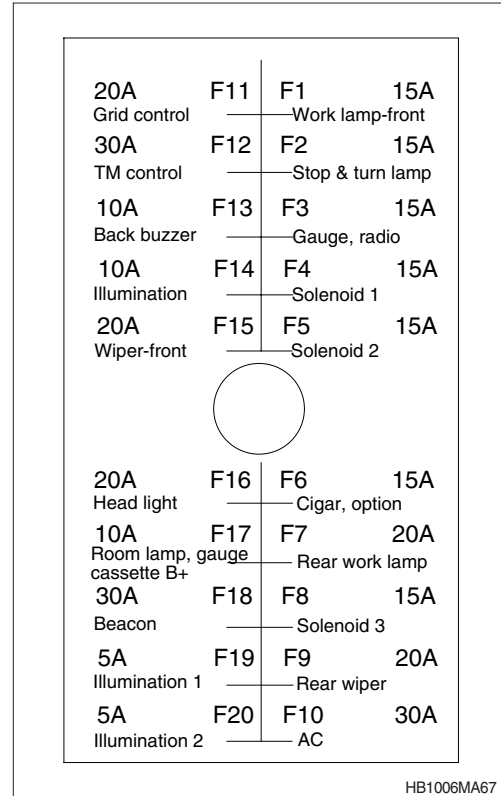
5) FUSES

- (1) The fuses protect the electrical parts and wiring from burning out.
- (2) The fuse box cover indicates the capacity of each fuse and circuit it protects.

※ Replace a fuse with another of the same capacity.

▲ Before replacing a fuse, be sure to turn OFF the starting switch.

Fuse No.	Circuit	Fuse rating
F1	Front work lamp	15A
F2	Stop & turn lamp	15A
F3	Gauge, radio	15A
F4	Solenoid 1	15A
F5	Solenoid 2	15A
F6	Cigar, option	15A
F7	Rear work lamp	20A
F8	Solenoid 3	15A
F9	Rear wiper	20A
F10	AC	30A
F11	Grid control	20A
F12	TM control	30A
F13	Back buzzer	10A
F14	Illumination	10A
F15	Wiper-front	20A
F16	Head light	20A
F17	Room lamp, gauge, cassette B+	10A
F18	Beacon	30A
F19	Illumination 1	5A
F20	Illumination 2	5A

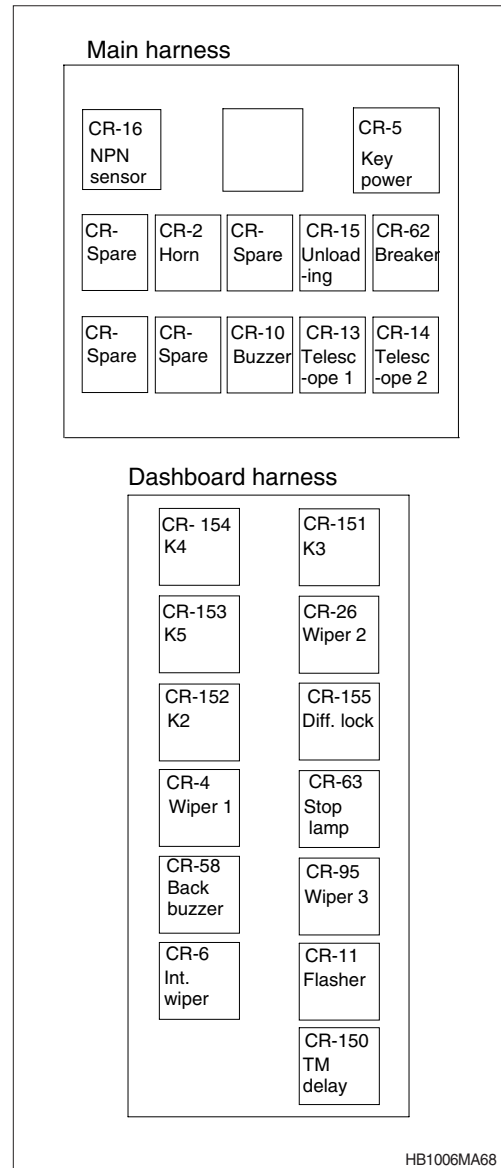


6) RELAYS

The relays listed below are located in the side console underneath cover.

※ All the relays are shown including optional equipment relays. Your machine may not be equipped with all the relays shown.

Location	Relay No.	Circuit
MAIN HARNESS	CR-2	Horn
	CR-5	Key power
	CR-10	Buzzer
	CR-13	Telescope 1
	CR-14	Telescope 2
	CR-15	Unloading
	CR-16	NPN sensor
	CR-62	Breaker
DASH BOARD	CR-4	Wiper 1
	CR-6	INT wiper
	CR-11	Flasher
	CR-26	Wiper 2
	CR-58	Back buzzer
	CR-63	Stop lamp
	CR-95	Wiper 3
	CR-150	TM delay
	CR-151	K3
	CR-152	K2
	CR-153	K5
	CR-154	K4
	CR-155	Differential lock



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