

EXIDE[®]

BATTERY CHARGER

DIAGNOSTIC POWER SUPPLY

WSC 720



USER GUIDE

12 V/24 V Lead acid batteries 40-500 Ah

GB

THANK YOU FOR CHOOSING THIS CHARGER FROM EXIDE TECHNOLOGIES

Your WSC720 is a quality product from Exide Technologies.

WSC720 is designed to be user friendly, and contains the latest in charging technology that will optimize battery performance and service life.

WSC720 will ensure fully recharged batteries and also act as a power supply for diagnosis during car service.

Read the safety instructions and user guide carefully. If you follow the instructions, you will benefit from a high-performance charger and power supply that will give excellent service for many years to come. Discarded packaging can be recycled.

For more information about Exide and our products, please visit:
www.exide.nu (Swedish)

Best regards
Exide Technologies

GETTING STARTED

1. Connect the charger's red cable clamp to the battery's positive terminal post (+), and the black cable clamp to the battery's negative terminal post (-).
2. Connect the charger's mains plug to a grounded power socket.
3. Select the correct function by pressing the "Mode"-button.

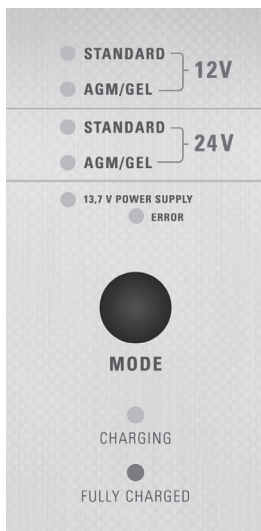
Charging:

- Choose voltage: 12 V or 24 V
- Choose battery technology: Standard or AGM/Gel

Power Supply:

- 13,7 V Power Supply
OBS! This function is only for 12 V-system

4. When the LED for the select mode is green, the battery is fully charged. Remove the mains plug and the cable clamps.
5. If wrong voltage, or polarity, is chosen, the charger will not start.



INFORMATION

- WSC720 is a powerful charger for service stations.
- WSC720 can be used for:
 1. As a battery charger for 12 V and 24 V batteries
 2. To maintain voltage in 12 V and 24 V systems
 3. As Power Supply for 12 V system
- In charge modes (12 V and 24 V) WSC720 will initially charge the battery, and then, with a constant current charging (float charge) as long as it is connected, maintain full charge.
- In the charge modes (12 V and 24 V), WSC720 will also maintain system voltage, functioning as a Diagnostic Power Supply, giving up to 70 A.
- In "13,7 V Power Supply" WSC 720 will act as a Power Supply for 12V equipment. This mode will give a current up to 70 A useful as:
 - Power Supply at replacement of 12 V batteries
 - Power Supply in 12 V systems
 - Power Supply for diagnosis
- WSC720 is equipped with a temperature compensator, which will give best possible charging independently of temperature.

WSC720 USER GUIDE

1. Read the safety notes and adhere to the stated precautions.
2. Connect the red cable clamp to the battery's positive terminal post (+), and the black cable clamp. The position of the cables, see page 11.
3. Connect mains plug to an earthed power socket.
4. If the cables are incorrectly connected, or if wrong system voltage (12 V or 24 V) is chosen, the red LED will illuminate to indicate a fault. If so, check the connection and adjust accordingly.
5. WSC720 will start charging in the mode last used. If necessary, press the "Mode" button repeatedly until desired mode is selected.

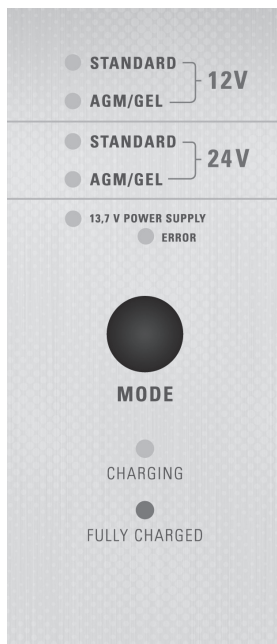
Mode:

- For 12 V batteries: Charging of Standard or AGM/Gel see page 6*
- For 24 V batteries: Charging of Standard or AGM/Gel see page 6*
- For 12 V systems: Voltage and Power Supply, 13.7 V

Indication:

- If WSC720 is correctly connected, the yellow LED flashes for around 4 seconds when the LED will stop flashing and will change to a constant yellow.
- In the "13.7 V Supply" mode, the green LED lights while the function is connected.

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6. The LED will show a constant yellow until the charge is complete, then the LED changes from yellow to green.
7. When charging is complete first the mains plug should be removed and then the cable clamps.
8. If the cables are left in place there will be a continual maintenance of charge at 13,7 V, otherwise stop the charging according to the instruction.

Facts about Batteries:

- * Batteries are either AGM/GEL or Standard type.
- AGM/GEL are valve-regulated batteries, where the electrolyte (the acid) is absorbed or is in gel form, and are often clearly marked AGM or GEL.
- Other batteries are standard batteries.

SAFETY INSTRUCTIONS

- WSC720 has been constructed to charge 12 V lead acid batteries or to act as a power supply for 12 V equipment. Do not use the charger for other purposes.
- WSC720 is constructed for indoor purpose and must be protected from moisture.
- Do not use WSC720 if its cables, terminal clamps or casing are damaged.
- Batteries emit explosive gases while they are charging. It is therefore important to ensure good ventilation and avoid sparks and naked flames in the vicinity of the battery.
- Be careful and avoid metallic contact between the clamps.
- Use protective eyewear when working with batteries.
- Battery acid (electrolyte) is corrosive. If eyes or skin come into contact with the acid, rinse immediately with copious amounts of water, and contact a doctor immediately.
- Never charge a frozen battery.
- Terminate the charging if the battery gets hot.
- Never position WSC720 above the battery during charging.
- Do not cover WSC720.
- Note that in the “13.7 V Supply” mode the charger provides a constant output voltage of 13.7 V that in certain circumstances may cause sparking.
- WSC720 is protected against overheating. If the ambient temperature is too high, the charging current is reduced.
- During the charge, the charger may intermittently provide a 15.5 V charge voltage. Ensure that no equipment which may be damaged by this voltage level is connected to the battery during charging.

FUNCTIONS:

- WSC720 must be connected to the battery as described in the User Guide. After it is connected, it will charge the battery and maintain it fully charged with constant voltage charging (float charge) as long as it is connected to the mains power.
- Don't keep WSC720 connected to the battery without mains connected. This will in the long term discharge the battery.
- WSC720 is fully automatic and is programmed for advanced charging of lead-acid batteries between 40 and 500 Ah.
- If the 24 V mode is selected, the battery voltage must be higher than 15.8 V. If not, the red LED will indicate a fault.
- Security functions will reduce over charging, by terminating the charge, especially if the batteries are larger than 500 Ah.
- WSC720 can be used as a Power Supply by pressing the "Mode" button to 13.7 V Power Supply. In this mode WSC720 will provide a voltage of 13.7 V and max. 70 A.
- "13.7 V Power Supply is to be used for Power Supply in 12 V electrical systems and for continuous charging, float charge, of 12 V batteries.
- For maintaining voltage in 24 V systems, Mode "24 V charging" shall be used.
- WSC720 is equipped with temperature compensation. The thermal sensor is integrated in the negative, black, terminal clamp.
- Thanks to our temperature compensation, the common problems involved in insufficient charging in cold weather and overcharging at high temperatures are eliminated.
- The charging curve consists of five steps that are adapted to battery technology.
- In order to minimize the risk of overcharging an incorrect type of battery, WSC720 is equipped with a cut-out function that interrupts the process after 7 h and the fault is shown by the LED shining a constant red. NOTE: This alarm can be triggered when charging batteries that have capacities exceeding the recommended battery size, or in connection with other

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equipment drawing current (parallel loads) being connected to the battery during charging.

- Batteries will be damaged when charged at high temperatures. For this reason, WSC720 features a safety function that terminates charging when the temperature is too high, approx. 50°C. This is shown by the LED shining a constant red.

FAULT INDICATIONS AND TROUBLE SHOOTING

1.	Fault: The red LED lights when the charger cables are connected to the battery terminals.
	Probable cause 1: If the cable clamps are incorrectly connected to the battery, the polarity reversal protection will be activated and charging will not start.
	Action: Check that the charger is connected using the correct polarity.
	Probable cause 2: Wrong voltage mode for charging. 12 V for a 24 V system.
	Action: Adjust the voltage Mode.
	Probable cause 3: Wrong voltage mode for charging. 24 V for a 12 V system.
	Action: Adjust the voltage Mode.
Probable cause 4: A voltage below 15.8 V in a 24 V electrical system.	
Action: Please try to use Mode "13.7V Power Supply" for a short while (max. 10 minutes) on each of the batteries in the 24V-system. In order to avoid unbalanced batteries, it is highly important that all batteries are charged exactly the same time.	

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2. Fault: Charging does not start, i.e. the lamp continues to shine, and the yellow LED does not change to the steady yellow light.

Probable cause: The battery voltage is too low, less than 7 V, to start the charger. This may be because the battery is worn or faulty or has been completely discharged.

Action: Try to connect the 13.7 V Supply mode for a short while (max. 10 min). Restart charging. This usually works if the battery is really heavily discharged, but otherwise in good condition. Please be careful with the connection of the terminal clamps.

3. Fault: Charging started normally, but did not complete. The red LED illuminates and charging is terminated.

Probable cause 1: Defective battery. The battery has a fault that does not permit it to be charged, e.g. a short circuit.

Action: Replace the battery.

Probable cause 2: Parallel load. If a piece of equipment that drains current is connected to the battery, there is a risk that the capacity of the charger is not sufficient to charge the battery within the time constraints that are built into the charger for safety reasons.

Action: If possible, disconnect the parallel load and repeat charging, or purchase a larger charger suitable to cater for both the needs of the charge and parallel load drain.

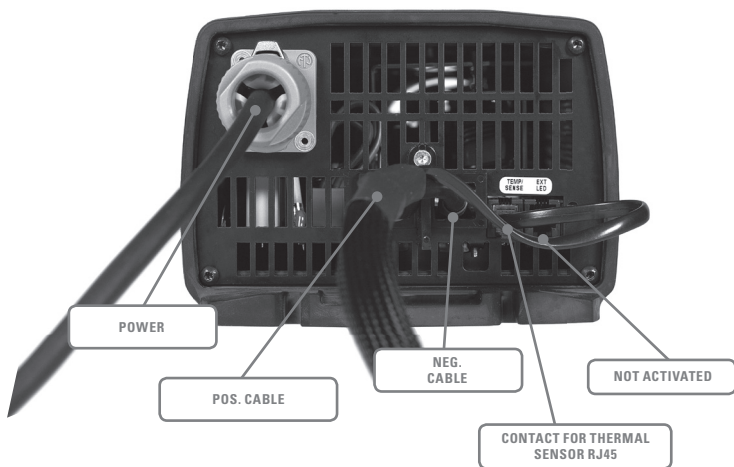
Probable cause 3: Battery is too large. The battery is larger than the recommended size for the charger, which means that the charge could not be completed within the time constraints that are built into the battery for safety reasons.

Action: Repeat charging.

Probable cause 4: The high temperature cut-out that monitors the battery temperature has been triggered. The reason for the high temperature could be that the battery has an internal fault, or that the ambient temperature is high.

Action: If charging is carried out at room temperature, the high temperature is probably caused by a battery fault or wear. The battery should be replaced. If charging is taking place at a high ambient temperature, charging may be resumed when the battery has cooled to room temperature.

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MAINTENANCE / ACCESSORIES

- The charger is fully maintenance-free.
- Opening the charger will invalidate the guarantee.
- Don't use WSC720 if the mains cable is damaged. Replace the cable. Do not use the charger if its cables, terminal clamps or casing are damaged.
- The plastic parts of the clamps are exchangeable. NB! Make sure that the red clamp is attached to the positive cable and that the black clamp to the negative.
- The case may be cleaned using a soft, damp cloth and a mild detergent. The charger must be disconnected from the mains when being cleaned.

The product is not suitable for use by persons who lack knowledge or experience, unless they are supervised by, or have received information about how to use the product from a person who is responsible for their safety.

Do not allow children to play with any part of the product.

MODEL EXIDE WSC720

WSC720 is a primary-switched computer-controlled charger and a Power Supply

Input voltage	190 - 255 VAC, 45 - 400 Hz Between 90-190 VAC reduced power. 90VAC gives 50% power.
Back current	$\leq 2,5$ mA/12 V, ≤ 5 mA/24 V
Charging voltage 12 V FV	13,7 - 15,5 VDC at 25°C
Charging voltage 24 V FV	27,4 - 31,0 VDC at 25°C
Charging voltage 12 V VR	13,7 - 14,4 VDC at 25°C
Charging voltage 24 V VR	27,4 - 28,8 VDC at 25°C
Charging voltage Supply	13,7 VDC
Charging current 12 V	Max. 70 A
Charging current 24 V	Max. 60 A
Ambient temperature	-25 / +50 °C
Cooling	Fan
Type of charge	$IU_1U_2U_3U_4$ A fully automatic technology adapted charging profile in five steps, alt. 13,7V Power Supply / float charge.
Lead acid battery types	Standard and AGM/Gel
Battery capacity	40 - 500 Ah
Dimensions (LxWxH)	258 x 136 x 89 mm
International Protection rating	IP20, (IP21 for horizontal placement)
Protection class	1, earthed
Weight	2,3 kg without cables and 4,5 kg with cables

CE MANUFACTURER'S DECLARATION

Product: Battery charger EXIDE WSC720

Manufacturer:

EXIDE Technologies, Bultgatan 40A, Kungälv, Sweden and
Primepower AB, Idavägen 11, Växjö, Sweden

The manufacturer guarantees that the unit complies with the relevant standards. Tested and approved by Intertek Semko.

LVD-Standard

EN 60335-2-29:2004 + A11:97 (IEC335-2-29:2002 modified)
EN 60335-1:2002 + A11:2004#A1:2004-A12:2006+A2006
EN50366:2003 + A1:2006

EMC-Standard

EN 61000-6-2
EN 61000-6-3
EN 61000-3-2
EN 61000-3-3

WARRANTY

We guarantee that this product is constructed to the highest quality specifications, and manufactured to the best industrial standard. If the product should prove to be faulty or has damage that can be related to manufacture or distribution, the mandatory guarantee rights apply.

The guarantee (NL 2010, 2 years) will no longer be valid if the charger has not been handled correctly, or opened or repaired by any other than Exide Technologies or its authorized representatives.

Exide Technologies is not responsible for other costs than those stated above, i.e. no potential consequential costs. Nor is Exide Technologies liable under any other warranty than this one.