CONGRATULATIONS

To the purchase of your new professional switch mode battery charger. This charger is included in a series of professional chargers from CTEK SWEDEN AB and represents the latest technology in battery charging.

HOW TO CHARGE

1. Connect the charger to the battery.
2. Connect the charger to the wall socket. The power lamp will indicate that the mains cable is connected to the wall socket. The error lamp will indicate if the battery clamps are incorrectly connected. The reverse polarity protection will ensure that the battery or charger will not be damaged.
3. Press the MODE-button to select charging program.

SMALL BATTERY PROGRAM
NORML BATTERY PROGRAM

Continue to press the MODE-button to combine charging program with charging options.

AGM AGM OPTION
RECOND RECOND OPTION

Press the MODE-button several times until the desired combination of charging program and options are lit.

4. Follow the 8-step display through the charging process. The battery is ready to start the engine when STEP 4 is lit. The battery is fully charged when STEP 7 is lit.
5. Stop charging at any time by disconnecting the mains cable from the wall socket.
### CHARGING PROGRAMS

Settings are made by pressing the MODE-button. After about two seconds the charger activates the selected program. The selected program will be restarted next time the charger is connected.

The table explains the different Charging Programs:

<table>
<thead>
<tr>
<th>Program</th>
<th>Battery Size (Ah)</th>
<th>Explanation</th>
<th>Temp range</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Small battery program</strong></td>
<td>1.2–14Ah</td>
<td>Use for smaller batteries.</td>
<td>-20°C–+50°C (-4ºF–122ºF)</td>
</tr>
<tr>
<td><strong>Normal battery program</strong></td>
<td>14–160Ah</td>
<td>Use for WET batteries, Ca/Ca, MF, GEL batteries and many AGM batteries.</td>
<td>-20°C–+50°C (-4ºF–122ºF)</td>
</tr>
<tr>
<td><strong>AGM option</strong></td>
<td>14–160Ah</td>
<td>Use for charging most AGM batteries like Optima and Odyssey.</td>
<td>-20°C–+50°C (-4ºF–122ºF)</td>
</tr>
<tr>
<td><strong>RECOND option</strong></td>
<td>14–160Ah</td>
<td>Use to return energy to the empty WET and Ca/Ca batteries. Recond your battery once per year and after deep discharge to maximise lifetime and capacity. The RECOND program adds STEP 6 to the normal battery program.</td>
<td>-20°C–+50°C (-4ºF–122ºF)</td>
</tr>
</tbody>
</table>

### ERROR LAMP

If the error lamp is lit, check the following:

1. Is the chargers positive lead connected to the battery’s positive pole?
2. Is the charger connected to a 12V battery?
3. Has charging been interrupted in STEP 1, 2 or 5?

   Restart the charger by pressing the MODE-button. If charging is still being interrupted, the battery...
   **STEP 1:** ...is seriously sulphated and may need to be replaced.
   **STEP 2:** ...can not accept charge and may need to be replaced.
   **STEP 5:** ...can not keep charge and may need to be replaced.

### POWER LAMP

If the power lamp is lit with a:

1. **STEADY LIGHT**
   The mains cable is connected to the wall socket.

2. **FLASHING LIGHT**
   The charger has entered the energy save mode. This happens if the charger isn’t connected to a battery in 2 minutes.

### READY TO USE

The table shows the estimated time for empty battery to 80% charge.

<table>
<thead>
<tr>
<th>Battery Size (Ah)</th>
<th>Time to 80% Charged</th>
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<tbody>
<tr>
<td>2Ah</td>
<td>2h</td>
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<tr>
<td>8Ah</td>
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<tr>
<td>20Ah</td>
<td>4h</td>
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<tr>
<td>60Ah</td>
<td>12h</td>
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<td>110Ah</td>
<td>26h</td>
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### Charging Programs and Options Combinations

<table>
<thead>
<tr>
<th>Voltage (V)</th>
<th>Current (A)</th>
<th>DESULPHATION</th>
<th>SOFT START</th>
<th>BULK</th>
<th>ABSORPTION</th>
<th>ANALYSE</th>
<th>RECOND</th>
<th>FLOAT</th>
<th>PULSE</th>
</tr>
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<tr>
<td>15.8V</td>
<td>0.8A until 12.6V</td>
<td>Increasing voltage to 14.4V, 0.8A</td>
<td>Declining current 14.4V</td>
<td>Checks if voltage drops to 12V</td>
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<td>15.8V</td>
<td>5A until 12.6V</td>
<td>Increasing voltage to 14.4V, 5A</td>
<td>Declining current 14.4V</td>
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**Time limit:**
- Max 8h
- Max 20h
- Max 8h
- 3 minutes
- 2h or 6h
- 10 days

Charge cycle restarts if voltage drops.
CONNECT AND DISCONNECT THE CHARGER TO A BATTERY

INFO
If the battery clamps are incorrectly connected, the reverse polarity protection will ensure that the battery and charger are not damaged.

For batteries mounted inside a vehicle
1. Connect the red clamp to the battery’s positive pole.
2. Connect the black clamp to the vehicle chassis remote from the fuel pipe and the battery.
3. Connect the charger to the wall socket
4. Disconnect the charger from the wall socket before disconnecting the battery
5. Disconnect the black clamp before the red clamp.

Some vehicles may have positively earthed batteries.
1. Connect the black clamp to the battery’s negative pole.
2. Connect the red clamp to the vehicle chassis remote from the fuel pipe and the battery.
3. Connect the charger to the wall socket
4. Disconnect the charger from the wall socket before disconnecting the battery
5. Disconnect the red clamp before the black clamp.

STEP 1 DESULPHATION
Detects sulphated batteries. Pulsing current and voltage, removes sulphate from the lead plates of the battery restoring the battery capacity.

STEP 2 SOFT START
Tests if the battery can accept charge. This step prevents that charging proceeds with a defect battery.

STEP 3 BULK
Charging with maximum current until approximately 80% battery capacity.

STEP 4 ABSORPTION
Charging with declining current to maximize up to 100% battery capacity.

STEP 5 ANALYSE
Tests if the battery can hold charge. Batteries that can not hold charge may need to be replaced.

STEP 6 RECOND
Choose the Recond program to add the Recond step to the charging process. During the Recond step voltage increases to create controlled gassing in the battery. Gasing mixes the battery acid and gives back energy to the battery.

STEP 7 FLOAT
Maintaining the battery voltage at maximum level by providing a constant voltage charge.

STEP 8 PULSE
Maintaining the battery at 95–100% capacity. The charger monitors the battery voltage and gives a pulse when necessary to keep the battery fully charged.

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SAFETY

- The charger is designed for charging only for batteries according to the technical specification. Do not use the charger for any other purpose. Always follow battery manufacturers recommendations.
- Never try to charge non rechargeable batteries.
- Check the charger cables prior to use. Ensure that no cracks have occurred in the cables or in the bend protection. A charger with damaged cord must be returned to the retailer. A damaged mains cable must be replaced by a CTEK representative.
- Never charge a damaged battery.
- Never charge a frozen battery.
- Never place the charger on top of the battery when charging.
- Always provide for proper ventilation during charging.
- Avoid covering the charger.
- A battery being charged could emit explosive gasses. Prevent sparks close to the battery. When batteries are reaching the end of their lifecycle internal sparks may occur.
- All batteries fail sooner or later. A battery that fails during charging is normally taken care of by the chargers advanced control, but some rare errors in the battery could still exist. Don’t leave any battery during charging unattended for a longer period of time.
- Ensure that the cabling does not jam or comes into contact with hot surfaces or sharp edges.
- Battery acid is corrosive. Rinse immediately with water if acid comes into contact with skin or eyes, seek immediate medical advice.
- Always check that the charger has switched to STEP 7 before leaving the charger unattended and connected for long periods. If the charger has not switched to STEP 7 within 50 hours, this is an indication of an error. Manually disconnect the charger.
- Batteries consume water during use and charging. For batteries where water can be added, the water level should be checked regularly. If the water level is low add distilled water.
- This appliance is not designed for use by young children or people who cannot read or understand the manual unless they are under the supervision of a responsible person to ensure that they can use the battery charger safely. Store and use the battery charger out of the reach of children, and ensure that children cannot play with the charger.

TECHNICAL SPECIFICATIONS

| Model number | 1075 |
| Rated Voltage AC | 220–240VAC, 50–60Hz |
| Charging voltage | 14.4V, AGM 14.7V, RECOND 15.8V |
| Min battery voltage | 2.0V |
| Charging current | 5A max |
| Current, mains | 0.6A (at full charging current) |
| Back current drain* | <1Ah/month |
| Ripple ** | <4% |
| Ambient temperature | -20°C to +50°C, output power is reduced automatically at high temperatures |
| Charger type | 8 step, fully automatic charging cycle |
| Battery types | All types of 12V lead-acid batteries (WET, MF, Ca/Ca, AGM and GEL) |
| Battery capacity | 1.2–110Ah up to 160Ah for maintenance |
| Dimensions | 168 x 65 x 38mm (L x W x H) |
| Insulation class | IP65 |
| Weight | 0.6kg |
| Temperature Compensation | Built in charge voltage compensation according to ambient temperature. |

*) Back current drain is the current that drains the battery if the charger is not connected to the mains. CTEK chargers has a very low back current.

**) The quality of the charging voltage and charging current is very important. A high current ripple heats up the battery which has an aging effect on the positive electrode. High voltage ripple could harm other equipment that is connected to the battery. CTEK battery chargers produce very clean voltage and current with low ripple.
LIMITED WARRANTY
CTEK SWEDEN AB, issues this limited warranty to the original purchaser of this product. This limited warranty is not transferable. The warranty applies to manufacturing faults and material defects for 5 years from the date of purchase. The customer must return the product together with the receipt of purchase to the point of purchase. This warranty is void if the battery charger has been opened, handled carelessly or repaired by anyone other than CTEK SWEDEN AB or its authorised representatives. One of the screw holes in the bottom of the charger is sealed. Removing or damaging the seal will void the warranty. CTEK SWEDEN AB makes no warranty other than this limited warranty and is not liable for any other costs other than those mentioned above, i.e. no consequential damages. Moreover, CTEK SWEDEN AB is not obligated to any other warranty other than this warranty.

SUPPORT
CTEK offers a professional custom support: www.ctek.com. For latest revised user manual see www.ctek.com. By e-mail: info@ctek.se, by telephone: +46(0) 225 351 80, by fax +46(0) 225 351 95.