

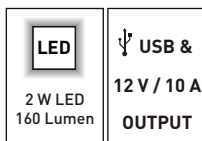
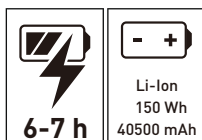
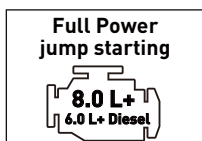
# KRAFTWERK®

FAVORITE TOOLS SINCE 1979

## Instruction Manual

### Multifunctional mini jump starter SMART PRO

Art. 31319



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This manual will explain how to use the unit safely and effectively. Please read and follow these instructions and precautions carefully.

## IMPORTANT SAFETY INSTRUCTIONS

### SAVE THESE INSTRUCTIONS WARNING – RISK OF EXPLOSIVE GASES

WORKING IN THE VICINITY OF A LEAD-ACID BATTERY IS DANGEROUS. BATTERIES GENERATE EXPLOSIVE GASES DURING NORMAL OPERATION. IT IS IMPORTANT THAT YOU FOLLOW THESE INSTRUCTIONS EACH TIME YOU USE THE UNIT.

**To reduce the risk of battery explosion, follow these instructions and those published by the battery manufacturer and the manufacturer of any equipment you intend to use in the vicinity of a battery. Review cautionary markings on these products and on the engine.**

- 1.1 Read the entire manual before using this product. Failure to do so could result in serious injury or death.
- 1.2 Keep out of reach of children.
- 1.3 Don't use the device clip to clamp the hands.
- 1.4 Do not expose the unit to rain or snow.
- 1.5 Use only recommended attachments. Use of an attachment not recommended may result in a risk of fire, electric shock or injury to persons or damage to property.
- 1.6 To reduce the risk of damage to the electric plug or wire, please don't pull the charger wire when disconnecting the unit.
- 1.7 Do not operate the unit with damaged cables or clamps.
- 1.8 Do not operate the unit if it has received a sharp blow, been dropped or otherwise damaged in any way. Take it to a qualified service person.
- 1.9 Do not disassemble the unit. Take it to a qualified service person when service or repair is required. Incorrect reassembly may result in a risk of fire or electric shock.  
**WARNING! RISK OF EXPLOSIVE GASES**
- 1.10 To reduce the risk of a battery explosion, follow these instructions and those published by the battery manufacturer and the manufacturer of any equipment you intend to use in the vicinity of the battery. Review the cautionary markings on these products and engines.
- 1.11 Do not set the unit on flammable materials, such as carpeting, upholstery, paper, cardboard, etc.
- 1.12 Never place the unit directly above battery being jumped.
- 1.13 Do not use the unit to jump start a vehicle while charging the internal battery.

## PREPARATIONS BEFORE USAGE

**WARNING! RISK OF EXPLOSIVE GASES.  
A SPARK NEAR THE BATTERY MAY CAUSE  
A BATTERY EXPLOSION. TO REDUCE THE  
RISK OF A SPARK NEAR THE BATTERY:**

- 2.1 NEVER smoke or allow a spark or flame in the vicinity of a battery or engine.
- 2.2 Remove personal metal items such as rings, bracelets, necklaces and watches when working with a lead-acid battery. A lead-acid battery can produce a short-circuit current high enough to weld a ring to metal, causing a severe burn.
- 2.3 Be extra cautious, to reduce the risk of dropping a metal tool onto the battery.
- It will cause spark or short-circuit the battery or other electrical part that may cause an explosion.
- 2.4 Do not permit the internal battery of the unit to freeze. Never charge a frozen battery.
- 2.5 To prevent sparking, NEVER allow clamps to touch together or contact the same piece of metal.
- 2.6 Consider having someone nearby to come to your aid when you work near a lead-acid battery.
- 2.7 Have plenty of fresh water, soap and baking soda nearby for use, in case battery acid contacts your eyes, skin, or clothing.

- 2.8 Wear complete eye and body protection, including safety goggles and protective clothing. Avoid touching your eyes while working near the battery.
- 2.9 If battery acid contacts your skin or clothing, immediately wash the area with soap and water. If acid enters your eye, immediately flood the eye with cold running water for at least 10 minutes and get medical attention right away.
- 2.10 If battery acid is accidentally swallowed, drink milk, the whites of eggs or water. DO NOT induce vomiting. Seek medical attention immediately.
- 2.11 Neutralize any acid spills thoroughly with baking soda before attempting to clean up.

## PREPARATIONS BEFORE USAGE

**WARNING! RISK OF CONTACT WITH BATTERY ACID. BATTERY ACID IS A HIGHLY CORROSIVE SULFURIC ACID.**

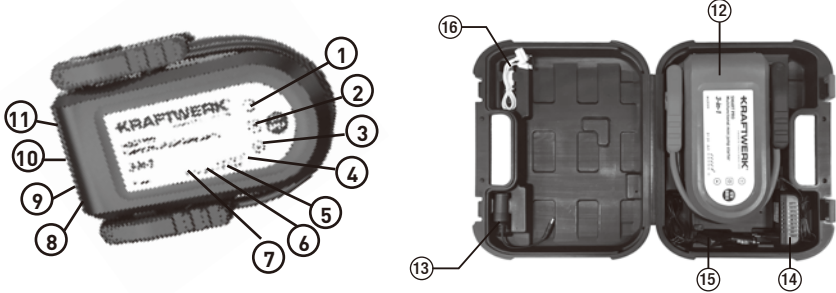
- 3.1 Make sure the area around the battery is well ventilated while the unit is in use.
  - 3.2 Clean the battery terminals before using the jump starter. During cleaning, keep airborne corrosion from coming into contact with your eyes, nose and mouth.
  - 3.3 Determine the voltage of the battery by referring to the vehicle owner's manual and make sure that the output voltage is 12 V.
  - 3.4 Make sure that the unit's cable clamps make tight connections.
- Use baking soda and water to neutralize the battery acid and help eliminate airborne corrosion. Do not touch your eyes, nose or mouth.

## THE STEPS TO CONNECT A BATTERY

**WARNING! A SPARK NEAR THE BATTERY MAY CAUSE A BATTERY EXPLOSION. TO REDUCE THE RISK OF A SPARK NEAR THE BATTERY:**

- 4.1 Attach the output cables to the positive and negative terminal as indicated below. Never allow the output clamps to touch each other.
- 4.2 Position the DC cables to reduce the risk of damage by the hood, door and moving or hot engine parts. NOTE: If it is necessary to close the hood during the jump starting process, ensure that the hood does not touch the metal part of the battery clips or cut the insulation of the cables.
- 4.3 Stay clear of fan blades, belts, pulleys and other parts that can cause injury.
- 4.4 Check the polarity of the battery posts. The POSITIVE (POS, P, +) battery post usually has a larger diameter than the NEGATIVE (NEG, N, -) post.
- 4.5 Before turning on device, connect the POSITIVE (RED) clamp from the unit to the POSITIVE (POS, P, +) of the battery. Connect the NEGATIVE (BLACK) clamp from the unit to the NEGATIVE (NEG, N, -) of the battery first. Then start the device, that means completing the preparatory work before the start.
- 4.6 After the start procedure, first remove the NEGATIVE (BLACK) clamp from the unit of the NEGATIVE (NEG, N, -) of the battery first and then take off the POSITIVE (RED) of the unit of the POSITIVE (POS, P, +). extreme.

## FEATURES




No.	Description	No.	Description	No.	Description
1	Light button	7	Temperature alarm indicator	13	DC port connector
2	Jump start button	8	USB port	14	AC wall charger
3	12 V / USB button	9	12 V / 10 A DC output port	15	DC car charger
4	Jump start function indicator	10	LED Light	16	USB connector
5	Battery indicator	11	Charger input port		
6	Alarm indicator	12	Mini jump starter		

## CHARGING METHODS

**IMPORTANT! AFTER PURCHASE, CHARGE IMMEDIATELY FOR SIX HOURS AT LEAST BEFORE THE FIRST TIME USE. AFTER EACH USE, CHARGE IT AT ONCE. AND CHARGE IT EVERY 3-6 MONTHS, TO KEEP THE INTERNAL BATTERY FULLY CHARGED AND PROLONG BATTERY LIFE.**

- 6.1 To reduce the risk of electric shock, unplug the unit's wall charger from the outlet before attempting any maintenance or cleaning. Simply turning off the controls will not reduce this risk.
- 6.2 When charging the device battery, work in a well ventilated area and do not restrict the ventilation in any way.
- 6.3 **CHECK THE LEVEL OF THE DEVICE BATTERY**

To check the internal battery's charge level, make sure the unit is turned OFF, then press the  button. The battery indicator **5** will be on showing the battery's percent of charge. A fully charged internal battery will have five LEDs be on.

Only one LED being flashing if the power is below 5 percent, please charge the device battery fully.

### 6.4 CHARGE THE INTERNAL BATTERY USING THE AC WALL CHARGER

**WARNING! USE ONLY THE CHARGER INCLUDED WITH THE UNIT TO CHARGE THE INTERNAL BATTERY. USING ANY OTHER CHARGER WILL DAMAGE THE UNIT. DURING THE CHARGING PROCESS, DO NOT USE THE DEVICE TO START THE CAR.**

**FIRST STEP:** Plug one end of the AC wall charger into the unit's input socket **8**.

**SECOND STEP:** Insert the other end of the wall charger to a 100 V~240 V electrical wall outlet. The battery indicator **5** will be on with a flash. When the battery is completely charged, five leds will be on without a flash. Completing charging may take 5-6 hours.

**THIRD STEP:** When the battery is fully charged, disconnect the wall charger from the AC outlet, and then unplug the wall charger from the unit.

## 6.5 CHARGE THE INTERNAL BATTERY USING THE DC CARCHARGER

While driving, you may also use the 12 V DC car charger(included) to charge the unit.

**WARNING! DON'T USE THE DC CAR CHARGER FOR A LONG TIME BUT IT CAN BE USED IN EMERGENCY. DURING THE CHARGING PROCESS, AVOID USING THE UNIT TO START THE CAR.**

**FIRST STEP:** Make sure the car is running.

**SECOND STEP:** Plug one end of the 12 V DC charger into the unit's input socket **8**.

**THIRD STEP:** Insert the other end of the DC charger to into the vehicle's accessory outlet (lighter socket). The battery indicator **5** will be on with a flash. When the battery is completely charged, the five LEDES will be on without flash.

**FOURTH STEP:** When the battery is fully charged, disconnect the charger from the unit, then from the lighter socket of the vehicle.

**NOTE:** Completely disconnect the charger cable when the engine is not running.


# VEHICLE STARTING OPERATION INSTRUCTIONS

## 7.1 CONVENTIONAL STARTING PROCESS (THE CAR HAS A BATTERY, AND THE BATTERY IS UNDER VOLTAGE)

### 7.1.1 PREPARATIONS BEFORE STARTING

1. Turn off the vehicle ignition switch and the power equipment.
2. Plug the power clamp connector into the discharge clip interface **11** for emergency power supply.
3. Lay the power clamp connector away from any fan blades, belts, pulleys and other moving parts.

### 7.1.2 STARTING PROCESS

**FIRST STEP:** Connect the POSITIVE (RED) clamp to the vehicle POSITIVE battery post and connect the NEGATIVE (BLACK) clamp to the vehicle NEGATIVE battery post. Next, press .

**SECOND STEP:** When the green light **4** is on, it's ready to turn on the vehicle ignition switch to start the car.




#### NOTES:

- The time for starting the car shall not exceed 5 seconds.


● If you need to start the car again, please wait 1 minute. During the time, the yellow light **4** will be on. After the yellow light turns to green light, the car can be started again.

**THIRD STEP:** Once the car started, remove the BLACK clamp FIRST and then remove the RED clamp, one by one.

### 7.1.3 NOTES:

- If the clamps are in reverse direction, after pressing , an audio alarm will sound, the **4** turns red, alarm indicator **6** turns red and flicker. Press  and disconnect the clamp. Then restart the starting process.
- Press the  first, and then connect the clamp, an audio alarm will sound, the **4** turns red, alarm indicator **6** turns red and flicker. Disconnect the clamp. Then you can restart the starting process.
- Recharge the unit as soon as possible after each use.

## 7.2 JUMP START PROCESS

If the vehicle's battery voltage is below 4.8V or the vehicle has no battery, connect the power clip connector first, and then press , the indicator **4** turns yellow and flicker. There is a manual start procedure to enable the jump start function.


### 7.2.1 PREPARATIONS BEFORE STARTING

1. Turn off the vehicle ignition switch and the power equipment.
2. Plug the power clamp connector into the discharge clip interface **11** for emergency power supply.
3. Lay the power clamp connector away from any fan blades, belts, pulleys and other moving parts.

### 7.2.2 MANUAL STARTING PROCESS:

**FIRST STEP:** connect the unit's POSITIVE (RED) clamp to the vehicle POSITIVE battery post and connect the NEGATIVE (BLACK) clamp to the vehicle NEGATIVE battery post.

**WARNING! THIS OVERRIDES A SAFETY FEATURE.** It will energize the clamps and cause sparking if they are touched together. If the clamp connections are reversed, damage to the unit, battery and possibly the car's electrical system will occur.


**SECOND STEP:** Press and hold  for 5 seconds. When the indicator **4** turns green, it's ready to turn on the vehicle ignition switch to start the car.

#### NOTES:

- The time for starting the car shall not exceed 5 seconds.
- If you need to start the car again, please wait 1 minute. During the time, the indicator **4** is yellow.

**THIRD STEP:** After the successful start, take the black clamp and red clamp by turns and then pack up the device.

## DC POWER SUPPLY METHOD


**IMPORTANT INDICATOR! THE FUNCTION IS USED FOR MOST DC ACCESSORIES THAT ARE EQUIPPED WITH A 12 V ACCESSORY PLUG. THE SUPPLY CURRENT IS LESS THAN OR EQUAL TO 10A. 12 V / 10 A DC POWER CONTROL BUTTONS ARE .**

### 8.1 12 V/10 A DC POWER OPERATING PROCESS


**First step:** Plug the 12 V / 10 A DC power connector into the unit's 12 V / 10 A DC Output interface.

**Second step:** Plug the appropriate 12 V port charger into the output port of 12 V / 10 A DC power connector.

**Third step:** Plug the unit into the 12 V port charger and turn on the unit (if required).

**Fourth step:** Press  on the unit to unlock the 12 V / 10 A function of DC power supply. When the battery indicator **5** is lighted, it can supply power.


**FIFTH STEP:** When finished, turn off the DC device (if required) and disconnect the device.

Press  and turn off the 12 V / 10 A function of DC power supply.


#### NOTE:

- Ensure that the charging device is in a shut down state before charging.
- As soon as the 12 V / 10 A output is no longer needed for charging the power will shut down automatically and the light **5** turns off.
- After the 12 V / 10 A DC power supply finish sending current, recommend to charge the device immediately.
- During operating the 12 V / 10 A DC power supply of the device, charging the device can extend its running time but delay the charging time.
- After turn-on the 12 V / 10 A output the light **5** turns on. When press the button again the 12 V / 10 A output turns off and the light **5** turns off as well.

## USING THE USB PORT

**IMPORTANT INDICATOR! THE FUNCTION IS USED FOR MOST DC ACCESSORIES THAT ARE EQUIPPED WITH A 5 V ACCESSORY PLUG. THE SUPPLY CURRENT IS LESS THAN OR EQUAL TO 2 A. USB POWER CONTROL BUTTONS ARE .**

### 9.1 USB POWER OPERATING FLOW

**FIRST STEP:** Press  on the unit to start the USB power function. The battery indicator 5 is lighted.

**SECOND STEP:** Plug one end (male head) of the USB power connector into the USB interface of the unit.

**THIRD STEP:** Plug the other end (micro) of the USB power connector into your unit (turn the unit on, if necessary).


**Fourth step:** When finished using the USB port, turn off the device (if necessary) and

unplug the device. If the battery indicator 5 is still on, please press  to turn off the USB function.

#### Note:

- As soon as the USB output is no longer needed for charging the power will shut down automatically and the light 5 turns off.
- After the USB power supply is used, recommend to charge the device immediately.
- During operating the USB power supply of the device, charging the device can extend its running time but delay the charging time.
- After turn-on the USB output the light 5 turns on. When press the button again the USB output turns off and the light 5 turns off as well.

## FLASHLIGHT USING METHODS

**IMPORTANT INDICATOR! THE INTEGRATED FLASHLIGHT OF THE DEVICE HAS THE FUNCTIONS AS LIGHTING, WARNING AND HELP. FLASHLIGHT CONTROL BUTTONS ARE  BUTTONS.**

### 10.1 FLASHLIGHT OPERATING PROCESS PRESS :

Once time: Steady light;

Second time: Strobe light for warning and help function;

Third time: The light turns off.

#### Note:

- If the light is turned on for 8 hours, the light turn off automatically.
- During operating the light, the charging time of the device will extend.



## DISPLAY MESSAGES

Item	Display content	Equipment Status
1	Battery indicator <b>5</b> flicker at the end	Battery voltage is low
2	Battery indicator <b>5</b> flicker, alarm indicator <b>6</b> turn red and light flicker (Start Jump Start, find the battery voltage high, Jump Start function indicator <b>4</b> turn red)	Battery voltage is high
3	Temperature alarm <b>7</b> turn red and flicker	Battery temperature is high
4	Jump start function indicator <b>4</b> turns yellow and flicker	Connected clamp is under low-voltage
5	Jump start function indicator <b>4</b> turns red, alarm indicator <b>6</b> turns red and flicker	Connected clamp is under high-voltage
6	Jump start function indicator <b>4</b> turns red, alarm indicator <b>6</b> turns red and flicker	Clamps are reversed
7	Jump start function indicator <b>4</b> turns red, alarm indicator <b>6</b> turns red and flicker	Short circuit of clamp
8	Jump start function indicator <b>4</b> turns red, alarm indicator <b>6</b> turns red and flicker	Operation procedure error of clamp
9	Temperature alarm <b>7</b> turn blue and flicker	Charger temperature is too low
10	Battery indicator <b>5</b> flicker, alarm indicator <b>6</b> turn red and light flicker	Charger voltage is too high
11	Battery indicator <b>5</b> flicker, alarm indicator <b>6</b> turn red and light flicker, jump start function indicator <b>4</b> turns red	In charging process, the clamp is under current
12	Jump start function indicator <b>4</b> turns green	Jump start prepares to start
13	Jump start function indicator <b>4</b> turns green and light flicker	Car started with success
14	Jump start function indicator <b>4</b> turns yellow	Wait 1 minute
15	Jump start function indicator <b>4</b> turns red, alarm indicator <b>6</b> turns red and flicker	Waiting time for start exceeded

## MAINTENANCE INSTRUCTIONS

- 12.1** After use and before performing maintenance, unplug and disconnect the unit.
- 12.2** Use a dry cloth to wipe all battery corrosion and other dirt or oil from the battery clamps, cords, and the outer case.
- 12.3** Do not open the unit, as there are no user-serviceable parts; any servicing should be performed by qualified service personnel.

## STORAGE INSTRUCTIONS

- 13.1** Before long term storage, make sure that the device is fully loaded, that is, when the battery indicator **5** is all lighted.
- 13.2** Storage environment: the temperature range is -20 ~ 60°C, dry and ventilated.
- 13.3** Never discharge the battery completely.
- 13.4** Charge it after each use.
- 13.5** Charge at least once every 3 to 6 months if not in frequent use, to prevent over-discharge.

## SPECIFICATIONS

<b>Weight</b>	<b>2.5 kg</b>
<b>Product Dim</b>	<b>276 x 196 x 65 mm</b>
<b>Ternary Lithium Battery</b>	<b>40500 mAh (150 Wh)</b>
<b>Battery Cycle Life</b>	<b>500 Times(80% DOD)</b>
<b>Instant Amp</b>	<b>900 A for 20 Milliseconds</b>
<b>Cranking Amp</b>	<b>600 A (on 5 Seconds than need to stop 1 Minute)</b>
<b>Using Cycles</b>	<b>18 times</b>
<b>Charger Spec</b>	<b>14 V / 2 A</b>
<b>USB Output</b>	<b>5 V / 2 A</b>
<b>LED Light</b>	<b>2 W / 160 Lm</b>
<b>Full Charging Time</b>	<b>6~7 hours</b>
<b>Cigar Lighter</b>	<b>12 V / 10 A</b>
<b>Operating Temperature Range</b>	<b>0°C~45°C (Continuous Charge Temperature )</b> <b>-20°C~60°C (Continuous Discharge Temperature)</b>
<b>Storage Temperature Range</b>	<b>-20°C~60°C</b>



Waste electrical products should not be disposed of together with household waste. Please recycle where designated facilities exists. Check with your local authority or retailer for recycling advice.

- The battery must be removed from the appliance before it is scrapped.
- The appliance must be disconnected from the main power supply when removing the battery.
- The battery must be disposed of safely.

## **WARRANTY**

We do not take responsibility for any damage caused by misuse or any use that is not in compliance with the safety standards described herein.

## **CUSTOMER SERVICES**

Contact your local importer or your specialized dealer to obtain address of our service department.

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**FROM DATE OF PURCHASE RECEIPT  
2 YEAR GUARANTEE  
ON MATERIAL OR PRODUCTION DEFECTS**

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FAVORITE TOOLS SINCE 1979

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