



**This unit must be fully  
charged every 3 to 4 months  
whether used or not**

**ATD-5932**  
**RECHARGEABLE 12/24 VOLT JUMP START**  
**WITH SWITCHABLE DC POWER SUPPLY**  
**OWNERS MANUAL**

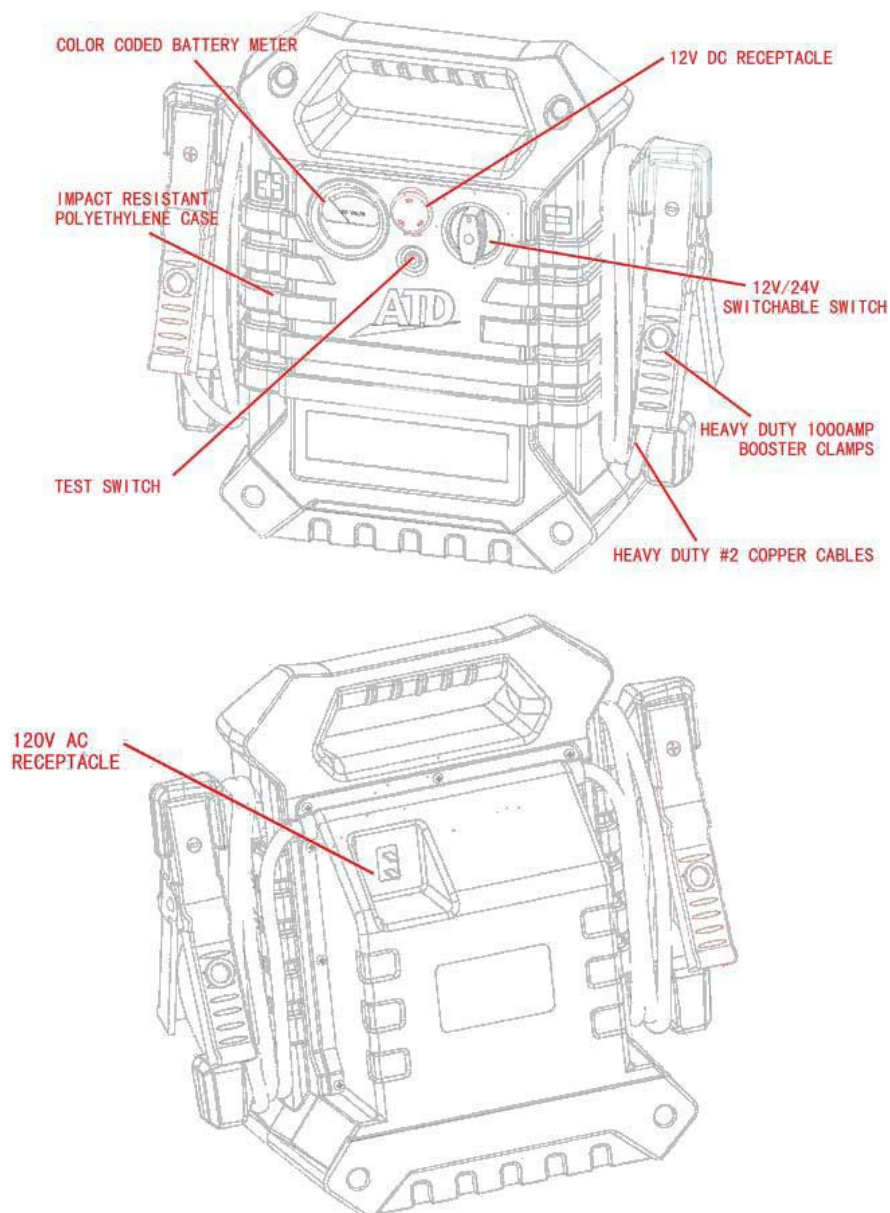


**Made in China**

**To ATD Specifications**

## FEATURES:

- 1500 PEAK AMPERES/400 AMPERES STARTING POWER FOR 24V, 3000 PEAK AMPERES/700 AMPERES STARTING POWER FOR 12V.
- STARTS CARS, TRUCKS, RECREATIONAL VEHICLES AND BOATS WITHOUT THE NEED OF A HOST VEHICLE OR AC POWER CORDS.
- 12V DC CIGARETTE LIGHTER SOCKET WITH OVERLOAD PROTECTION PROVIDES POWER FOR UTILITIES AND APPLIANCES THAT USUALLY PLUG INTO A VEHICLE OR BOAT 12V DC CIGARETTE LIGHTER SOCKET.
- PROVIDES UP TO 50-HOURS OF DC POWER WHEN USED WITH 12V DC APPLIANCES.
- ALLOWS 12V DC APPLIANCES TO BE USED IN REMOTE SITES AND/OR IN EMERGENCIES WHEN COMMERCIAL POWER IS NOT AVAILABLE.
- SOLID-STATE, AUTOMATIC OPERATION AND CIRCUIT PROTECTION.
- REQUIRES NO MAINTENANCE FOR OPTIMUM OPERATION.
- SEALED, MAINTENANCE-FREE, HEAVY-DUTY BATTERY IS SAFE TO USE AND TRANSPORT.
- THIS SYSTEM CAN BE STORED IN ANY POSITION WITHOUT RISKING ACID LEAKAGE.
- HEAVY-DUTY #2 INDUSTRIAL TYPE WELDING CABLES CAN CARRY MORE AMPERAGE THAN SIMILAR UNITS.
- COLOR CODED AND EASY TO READ BATTERY CONDITION METER.
- DC POWER CORD ALLOWS RECHARGING FROM 12V DC CIGARETTE LIGHTER SOCKET.
- MOLDED HIGH-IMPACT CASE IS TOUGH AND DURABLE.
- THE BUILT-IN RECHARGING CIRCUITRY HAS AN AUTOMATIC CUT-OFF TO PREVENT OVER CHARGING.
- HAS A BUILT-IN 120V AC 1000MA RECHARGING CIRCUITRY.



## **INTRODUCTION**

YOUR POWER PACK UNIT IS DESIGNED AS A COMPACT, DURABLE AND PORTABLE JUMP START SYSTEM FOR VEHICLES AND BOATS. THIS SELF-CONTAINED SYSTEM WILL START MOST VEHICLES AND BOATS WITHOUT THE NEED FOR A HOST VEHICLE OR 120V AC POWER SUPPLY. THIS SYSTEM CAN ALSO BE USED AS A SAFE, PORTABLE SOURCE OF 12V DC ELECTRIC POWER IN REMOTE LOCATIONS AND/OR IN EMERGENCIES. THE POWER PACK UNIT HAS AN EASY-TO-READ, COLOR-CODED BATTERY METER THAT INDICATES CHARGE LEVEL. A 12V DC CIGARETTE LIGHTER-TYPE SOCKET IS PROVIDED FOR USE WITH APPLIANCES THAT WOULD OPERATE FROM A VEHICLE CIGARETTE LIGHTER. THIS ALLOWS MAXIMUM PORTABILITY AND UTILITY WHEN YOUR POWER PACK UNIT IS USED IN REMOTE LOCATIONS.

FOR MAXIMUM CONVENIENCE, YOUR POWER PACK UNIT CAN BE RECHARGED FROM A 120V AC POWER SOURCE. THE BUILT-IN RECHARGING CONTROL CIRCUITRY HAS AN AUTOMATIC CUT-OFF TO PREVENT OVERCHARGING. A RED TEST SWITCH SHOWS THE BATTERY CONDITION ON THE METER. A COVERED CIGARETTE LIGHTER TYPE 12V DC SOCKET IS PROVIDED.

**NOTE: 12V/24V SWITCHABLE SWITCH ONLY CONTROLS POWER TO THE 2 BATTERY CLAMPS. WE SUGGEST YOU KEEP THIS SWITCH IN THE "OFF" POSITION FOR ALL OPERATIONS OTHER THAN JUMP STARTING A CAR.**

## **WARNINGS & CAUTIONS**

**ALWAYS** WEAR EYE PROTECTION WHEN WORKING ON OR AROUND LEAD-ACID BATTERIES.

**IF SPLASHED WITH BATTERY ACID: IMMEDIATELY** WASH AFFECTED AREA SUCH AS FACE AND PARTICULARLY THE EYES WITH CLEAN WATER. CONTINUE WASHING AREA, FACE AND EYES UNTIL MEDICAL HELP ARRIVES.

### **CAUTION**

1. TO AVOID POSSIBLE DAMAGE THAT MAY SHORTEN THE UNITS' WORKING LIFE, PROTECT THIS UNIT FROM DIRECT SUNLIGHT, DIRECT HEAT, AND /OR MOISTURE.
2. THIS SYSTEM IS DESIGNED TO BE USED ON VEHICLES OR BOATS WITH 12-VOLT OR 24-VOLT ELECTRICAL SYSTEMS ONLY.
3. THIS SYSTEM IS NOT DESIGNED TO BE USED AS A REPLACEMENT FOR A VEHICULAR BATTERY.

### **WARNING**

LEAD-ACID BATTERIES GENERATE HYDROGEN GAS DURING NORMAL OPERATION. MORE GAS IS GENERATED WHEN THE BATTERY IS CHARGING. HYDROGEN GAS IS:

- 1. EXPLOSIVE**
- 2. POISONOUS TO BREATHE**
- 3. HIGHLY FLAMMABLE**

### **CAUTION**

TO AVOID AN EXPLOSION AND/OR THE POSSIBILITY OF BEING SPLASHED WITH BATTERY ACID:

- NEVER ALLOW USING 24V SETTING TO START VEHICLES OR BOATS WITH 12V ELECTRICAL SYSTEM.
- NEVER ALLOW THE RED AND BLACK CLAMPS TO TOUCH EACH OTHER NOR TO BOTH TOUCH THE SAME METAL OBJECT.
- ONLY ATTEMPT TO JUMP START A VEHICLE OR BOAT IN A WELL VENTILATED AREA.
- ALWAYS CONNECT THE RED (+) CLAMP TO THE POSITIVE (+) BATTERY TERMINAL FIRST.
- DO NOT CONNECT THE BLACK (-) CLAMP TO THE NEGATIVE (-) BATTERY TERMINAL.
- DO CONNECT THE BLACK (-) CLAMP TO A NON-MOVING METAL PART ON THE ENGINE.
- CIGARETTE LIGHTER SOCKET IS FOR 12V DC APPLIANCES ONLY.
- MUST BE FULLY CHARGED EVERY 3 MONTHS WHETHER USE OR NOT.

## RECOMMENDATIONS FOR GETTING THE MOST FROM YOUR NEW POWER PACK UNIT:

### RECHARGING

1. FOR MAXIMUM BATTERY LIFE, WE RECOMMEND THAT YOUR POWER PACK UNIT BE KEPT FULLY CHARGED AT ALL TIMES. IF THE BATTERY IS ALLOWED TO REMAIN IN A DISCHARGED STATE, BATTERY LIFE MAY BE SHORTENED. TABLE I SHOWS THE RELATIONSHIP OF THE FREQUENCY OF USE BETWEEN RECHARGING AND THE EXPECTED NUMBER OF CHARGE/RECHARGE CYCLES.

**TABLE I. - BATTERY LIFE**

<i>NUMBER OF JUMP-STARTS BETWEEN RECHARGING</i>	<i>DISCHARGE AND RECHARGE CYCLES</i>
1	1000+
5	700+
10	500+

2. THE TIME REQUIRED TO FULLY RECHARGE YOUR POWER BOOSTER AFTER JUMP-STARTING AN ENGINE IS A FUNCTION OF HOW MANY JUMP-STARTS ARE PERFORMED BETWEEN RECHARGING SESSIONS. TABLE II SHOWS THE APPROXIMATE RECHARGING TIMES YOU CAN EXPECT.

**TABLE II. - RECHARGING TIMES VS. JUMP-STARTS**

<i>NUMBER OF JUMP-STARTS</i>	<i>RECHARGING TIME (IN HOURS)</i>	<i>NUMBER OF JUMP-STARTS</i>	<i>RECHARGING TIME (IN HOURS)</i>
1	8	4	32
2	16	5	40
3	24	6	48

3. WE RECOMMEND THAT YOU CHECK THE CHARGE IN YOUR POWER PACK UNIT BY DEPRESSING THE RED PUSH-BUTTON SWITCH. THE METER WILL SHOW THE BATTERY CHARGE.

### CHARGING USING THE 120V CHARGER:

#### **CAUTION: USE 12V SETTING FOR RECHARGING THE BATTERY**

1. PLACE THE 12V/24V SWITCHABLE SWITCH IN "12V" POSITION FOR RECHARGING THE BATTERY.
2. ONE OF THE POWER CORDS FURNISHED WITH OUR POWER BOOSTER HAS A STANDARD 120V AC PLUG AT ONE END AND A SOCKET AT THE OTHER END. PLUG THE SOCKET INTO THE JACK AT THE BACK OF THE UNIT AND 120V AC PLUG INTO WALL OUTLET, CHARGING IS IN PROGRESS.
4. CONTINUE TO CHARGE UNTIL THE VOLTMETER INDICATES FULL CAPACITY IN GREEN AREA WHEN THE TEST BUTTON IS PRESSED.

#### ***IMPORTANT: DO NOT STOP CHARGING BEFORE THE METER INDICATES FULL CAPACITY IN GREEN AREA .***

AT THIS POINT, ONCE THE CHARGER IS DISCONNECTED, THE VOLTAGE WILL SLOWLY SETTLE BACK TO READ 100%. THIS IS QUITE NORMAL AND INDICATES THAT THE BATTERY IS AT FULL CAPACITY.

**NOTE:** TO FULLY CHARGE A BATTERY COULD TAKE UP TO 72 HOURS, DEPENDING UPON THE STATE OF DISCHARGE. THE UNIT CAN REMAIN PLUGGED INTO THE POWER SOCKET INDEFINITELY AS THE INTERNAL PCB HAS INCORPORATED AN AUTOMATIC "FLOAT CHARGING CIRCUIT" WHICH WILL NOT ALLOW AN OVERCHARGE CONDITION OR DAMAGE TO THE BATTERY.

## 12V DC CHARGING

YOUR NEW POWER PACK UNIT IS EQUIPPED WITH A RECEPTACLE THAT WILL ALLOW YOU TO RE-CHARGE THIS SYSTEM FROM THE 12V DC CIGARETTE LIGHTER SOCKET IN YOUR VEHICLE OR BOAT. WE RECOMMEND THAT YOU USE THE 12V DC RECHARGING PROCEDURE ONLY WHEN IT IS NECESSARY AS CONTINUED USE OF THE 12V DC RECHARGING PROCEDURE MAY SHORTEN THE SYSTEM'S LIFE.

TO USE THE 12V DC RECHARGING SYSTEM:

1. INSERT THE POWER CORD WITH THE 12V DC CIGARETTE LIGHTER PLUG INTO THE 12V DC CIGARETTE LIGHTER RECEPTACLE IN YOUR VEHICLE OR BOAT.
2. INSERT THE PLUG AT THE OTHER END OF THIS POWER CORD INTO THE RECEPTACLE ON THE FRONT PANEL OF YOUR POWER BOOSTER.

### **OPERATION**

*TO USE YOUR POWER PACK UNIT AS A 12V DC POWER SOURCE:*

1. LIFT UP THE COVER OF THE 12V DC CIGARETTE LIGHTER RECEPTACLE.
2. INSERT THE 12V DC CIGARETTE LIGHTER PLUG FROM THE APPLIANCE INTO THE 12V DC CIGARETTE LIGHTER RECEPTACLE.

**Note:** 12V/24V switchable switch can be left in "off" position.

**TABLE III. WILL GIVE YOU AN IDEA OF WHAT OPERATION TIME YOU CAN EXPECT WHEN STARTING FROM A FULLY CHARGED SYSTEM.**

**TABLE III. POWER PACK UNIT AS A 12V DC POWER SOURCE**

APPLIANCE TYPE	ESTIMATED POWER CONSUMPTION (IN WATTS)	ESTIMATED USAGE TIME (IN HOURS)
FLUORESCENT LIGHTS, CELL PHONES	4	30
RADIOS, FANS, DEPTH FINDERS	9	21
CAMCORDERS, VCR'S, SPOTLIGHTS	15	12
ELECTRIC TOOLS, BILGE PUMPS	24	7
ELECTRIC COOLERS	48	3
AIR COMPRESSORS, CAR VACUUMS	80	1.5

WHEN USING YOUR POWER PACK UNIT AS A 120 V AC POWER SOURCE WITH A POWER INVERTER, TABLE IV WILL GIVE YOU AN IDEA OF WHAT OPERATION TIME YOU CAN EXPECT WHEN STARTING FROM A FULLY CHARGED SYSTEM.

**TABLE IV. POWER PACK UNIT AS A 12V DC POWER SOURCE WITH POWER INVERTER**

APPLIANCE TYPE	ESTIMATED POWER CONSUMPTION (IN WATTS)	ESTIMATED USAGE TIME (IN HOURS)
SPOTLIGHTS, SUMP PUMPS, & VCR'S	100	1.5
FAXES, TV'S SMALL APPLIANCES	150	1
COMPUTERS, PRINTERS	200	0.75
MEDIUM POWER TOOLS, BLENDERS	250	0.5

## **JUMP-STARTING:**

### **CAUTION: CHECK TO BE SURE WHICH ELECTRIC SYSTEM YOUR VEHICLE OR BOAT HAS: 12V OR 24V**

FOR OPTIMUM PERFORMANCE, WHEN USING YOUR POWER PACK UNIT TO JUMP START A VEHICLE OR BOAT, PLEASE READ AND FOLLOW THESE STEP-BY-STEP INSTRUCTIONS:

1. SWITCH THE ENGINE OF THE VEHICLE OR BOAT TO BE JUMP-STARTED TO "OFF".
2. CONNECT THE RED (+) "ALLIGATOR" CLAMP TO THE RED (+) POSITIVE BATTERY TERMINAL.
3. CONNECT THE BLACK (-) "ALLIGATOR" CLAMP TO A NON-MOVING METAL PART OF THE ENGINE, **NOT** TO THE (-) NEGATIVE BATTERY TERMINAL.
4. TURN POWER PACK UNIT SWITCHABLE SWITCH TO "12V" OR "24V" ACCORDING TO THE ELECTRIC SYSTEM.
5. SWITCH THE VEHICLE OR BOAT IGNITION TO "ON".
6. WAIT MINUTE OR TWO TO LET THE SYSTEM CHARGE SOME.
7. SWITCH THE VEHICLE OR BOAT IGNITION TO "START" FOR NO MORE THAN 5 TO 6 SECONDS.
8. IF THE VEHICLE OR BOAT ENGINE DOES NOT START, WAIT AT LEAST 3-MINUTES BEFORE TRYING AGAIN.

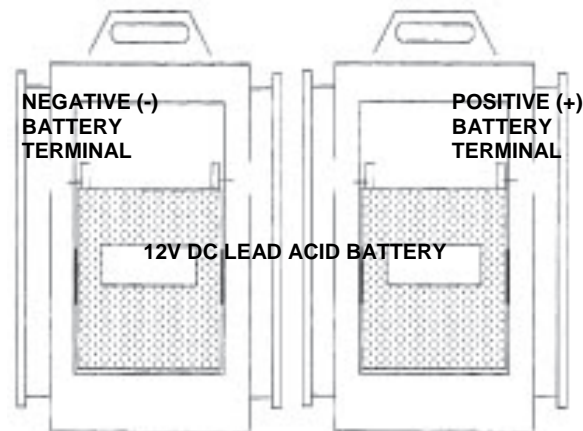
### **UNDER NO CIRCUMSTANCES ALLOW THE RED AND BLACK CLAMPS TO TOUCH EACH OTHER OR A COMMON CONDUCTOR**

1. ONCE THE ENGINE IS RUNNING, DISCONNECT THE BLACK (-) CLAMP FIRST AND RETURN THIS CABLE TO ITS STORED POSITION ON THE POWER PACK UNIT.
2. DISCONNECT THE RED (+) CLAMP AND RETURN THIS CABLE TO ITS STORED POSITION ON THE POWER PACK UNIT.
3. AS SOON AS POSSIBLE, CONNECT YOUR POWER PACK UNIT SYSTEM TO 120-VAC AND RECHARGE.

### **BATTERY REPLACEMENT**

#### **CAUTION: TWO BATTERIES MUST BE REPLACED AT THE SAME TIME.**

**FIGURE 2.** SHOWS A BACK VIEW OF YOUR POWER PACK UNIT WITH THE COVER AND THIRTEEN(13) SCREWS REMOVED. TO REPLACE THE BATTERY FOLLOW THESE STEPS:



**FIGURE 2.** - REAR VIEW OF THE POWER PACK UNIT SHOWING THE BATTERY COMPARTMENT

1. UNSCREW AND REMOVE THE THIRTEEN (13) "PHILLIPS" (CROSS-HEAD) SCREWS THAT HOLD THE REAR COVER IN PLACE ON THE BACK OF YOUR POWER PACK UNIT.
2. LIFT OFF THE COVER PLATE TO EXPOSE THE BATTERY COMPARTMENT.
3. LIFT OFF THE TWO (2) FIXED BLOCKS.
4. LIFT THE BATTERIES OUT OF THE BATTERY COMPARTMENT.
5. DETACH THE #2 JUMPER CABLES AND THE RED AND BLACK WIRES FROM THE BATTERY TERMINALS.
6. ENSURE THAT THE REPLACEMENT BATTERIES ARE ORIENTED WITH THE LABEL OUT.
7. ENSURE THAT THE RED #2 JUMPER CABLE AND RED RECHARGING WIRE ARE ATTACHED TO THE POSITIVE (+) BATTERY TERMINAL (ALSO MARKED WITH RED). ATTACH THE #2 JUMPER CABLES AND WIRES TO THE BATTERY TERMINALS.
8. TAKING CARE NOT TO DAMAGE THE CIRCUIT BOARD, SLIDE THE NEW BATTERIES IN POSITION.
9. REPLACE THE BATTERY COMPARTMENT COVER AND SECURE IN PLACE WITH THE THIRTEEN (13) "PHILLIPS" (CROSS- HEAD) SCREWS.

## SPECIFICATIONS

ITEM # ..... ATD-5932

STARTING VOLTAGE ..... 12V/24V SWITCHABLE

BOOST POWER ..... 400 CRANKING AMPERES FOR 24V, 900 CRANKING AMPERES FOR 12V

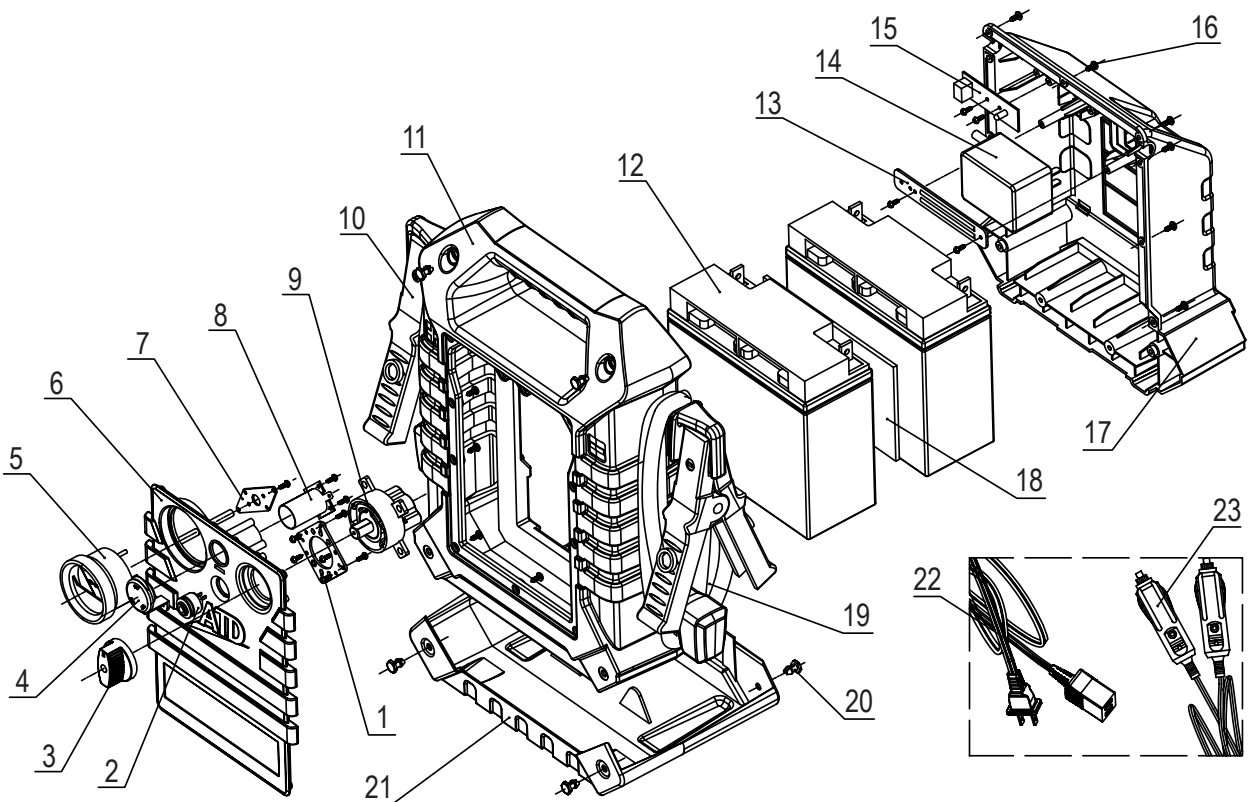
BATTERY TYPE ..... SEALED, LEAD- ACID, RECHARGEABLE,  
MAINTENANCE-FREE, 12V DC, 18-AMPEREHOURS, 2PCS

PEAK AMPERE POWER ..... 12V-3000AMPS, 24V-1500AMPS

BOOSTER CABLES ..... 84" #2 AWG WELDING WITH 1000 AMP "ALLIGATOR" CLAMPS

DIMENSIONS : ..... 40 x 37 x 19 CM

# ATD-5932



ITEM#	ORDERING PART#	DESCRIPTION
1	PRT5928-01	FIXING BOARD, ON/OFF SWITCH
2	PRT5928-02	TEST SWITCH
3	PRT5932-03	KNOB, ON/OFF SWITCH
4	PRT5928-04	COVER, CIGARETTE
5	PRT5928-05	VOLTMETER
6	PRT5928-06	FRONT PANAL
7	PRT5928-07	FIXING BOARD, VOLTMETER
8	PRT5928-08	CIGARETTE LIGHTER SOCKET (INNER)
9	PRT5932-09	ON/OFF SWITCH
10	PRT5932-10	CLAMP, RED & BLACK WITH 2GA CABLE
11	PRT5928-11	CASE
12	ATD5902	BATTERY, 12V/18AH (X2)

ITEM#	ORDERING PART#	DESCRIPTION
13	PRT5932-13	FIXING BOARD, CHARGER
14	PRT5932-14	TRANSFORMER, 110V 1000MA
15	PRT5932-15	PCB
16	PRT5928-14	SCREW
17	PRT5932-17	BACK COVER
18	PRT5932-18	STICKER, BATTERY
19	PRT5932-10	CLAMP, RED & BLACK WITH 2GA CABLE
20	PRT5928-16	SCREW
21	PRT5932-21	RUBBER BASE
22	PRT5932-22-23	AC&DC POWER CORDS
23	PRT5932-22-23	AC&DC POWER CORDS