AUTOOL EM365

AUTOOL EM365 Flash Reprogramming Power Supply and Car Battery Charger User Manual

Model: EM365

1. Introduction

The AUTOOL EM365 is a versatile automotive power supply designed for various battery-related tasks. It functions as a flash reprogramming power supply, a car battery charger, a battery maintainer, and a jump starter. This device provides stable voltage and current for critical vehicle operations such as ECU reprogramming and diagnostics, while also offering solutions for battery charging, repair, and emergency starting.
This manual provides detailed instructions for the safe and effective use of your AUTOOL EM365. Please read it thoroughly before operation and retain it for future reference.

2. Safety Information

WARNING: Failure to follow these safety instructions may result in electric shock, fire, or serious injury.

- Always wear eye protection and protective clothing when working with batteries.
- Ensure the work area is well-ventilated to prevent the accumulation of explosive gases.
- Keep the device away from flammable materials, moisture, and extreme temperatures.
- Do not operate the device if it is damaged or if the cables are frayed.
- Connect the battery clamps correctly: positive (+) to positive, negative (-) to negative. Avoid short-circuiting.
- Disconnect the power supply from the AC outlet before making or breaking battery connections.
- Keep children and unauthorized personnel away from the device during operation.
- Refer to your vehicle's owner's manual for specific battery and charging instructions.

3. Product Components

The AUTOOL EM365 package includes the following items:

Image 3.1: AUTOOL EM365 unit with included accessories.

- AUTOOL EM365 Main Unit
- Battery Clamps (Red for Positive, Black for Negative)
- AC Power Cable
- User Manual

Image 3.2: Labeled components of the AUTOOL EM365 unit.

Key components include the HD Color Display, Output Terminal, Power Switch, Power Input Interface, Cooling Fan, Return Button, Stop Button, OK Button, Right Button, Left Button, and Emergency Stop Button.

4. Setup and Connection

1. **Placement:** Place the EM365 on a stable, dry, and well-ventilated surface. Ensure adequate clearance around the cooling fans.
2. **Power Connection:** Connect the AC power cable to the power input interface on the EM365, then plug the other end into a suitable AC power outlet (110V/220V ±25%, 50Hz/60Hz).
3. **Battery Connection:**
    - Connect the red positive (+) clamp to the positive (+) terminal of the vehicle battery.
    - Connect the black negative (-) clamp to the negative (-) terminal of the vehicle battery or a suitable chassis ground point away from the battery.
    - Ensure connections are secure to prevent arcing.
4. **Power On:** Turn on the power switch on the EM365 unit. The HD color display will illuminate.

5. Operating Modes

The EM365 offers several operating modes to suit different automotive needs.

5.1 Programming Power Mode

This mode provides a stable and adjustable voltage source (10.8-16V) with up to 150A current, essential for ECU reprogramming and diagnostic work. It prevents voltage drops that can corrupt vehicle modules during critical procedures.

Image 5.1: Programming Power Mode interface showing adjustable and fixed voltage options.

- Select 'Programming Power' from the main menu.
- Choose between 'Adjustable Mode' (10.8-16V) or 'Fixed Mode' (14V).
- Adjust the voltage as required using the navigation buttons.
- Confirm settings to begin stable power supply.

5.2 Vehicle Display Mode

This mode provides an uninterruptible power supply, automatically restarting in case of power failure. It is ideal for maintaining stable power during vehicle showroom displays or battery replacements, ensuring continuous operation of vehicle electronics.

Image 5.2: EM365 providing stable power for a vehicle display.

5.3 Car Jump Starter

The EM365 can provide a 400A starting current to jump-start car engines up to 3.0T displacement.

Image 5.3: Connecting the EM365 for emergency vehicle starting.

- Ensure the EM365 is connected to the vehicle battery as described in Section 4.
- Select 'Forced Start' or 'Jump Start' mode.
- Attempt to start the vehicle engine.
- Once the engine starts, disconnect the clamps in reverse order (negative first, then positive).

5.4 Battery Repair Function

This function helps repair batteries that have been deeply discharged or suffered severe power loss, potentially extending their lifespan.

Image 5.4: Battery Repair function in progress.

- Connect the EM365 to the battery.
- Select the 'Battery Repair' mode.
- The device will automatically analyze and attempt to repair the battery. Monitor the display for progress.

5.5 Fast Charging Mode

For lead-acid batteries, the EM365 can provide up to 40A current for in-vehicle charging and up to 20A for off-vehicle charging.

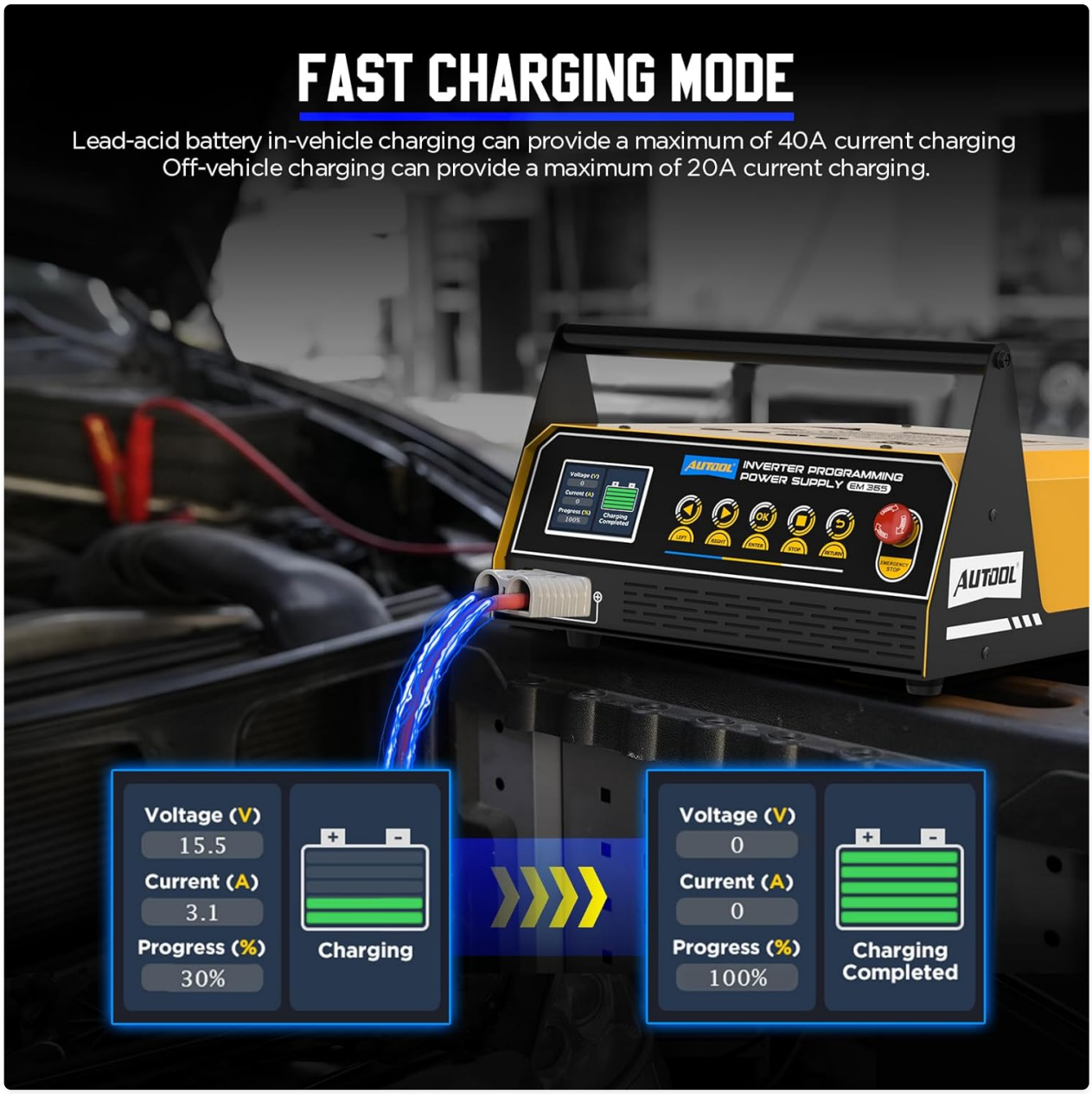


Image 5.5: Fast Charging Mode display indicating voltage, current, and progress.

- Connect the EM365 to the battery.
- Select 'Fast Charging' mode.
- The device will automatically detect the battery type and initiate charging.

5.6 Multi-Stage Smart Charging

The EM365 employs a multi-stage charging process to optimize battery charging efficiency and prevent overcharging.

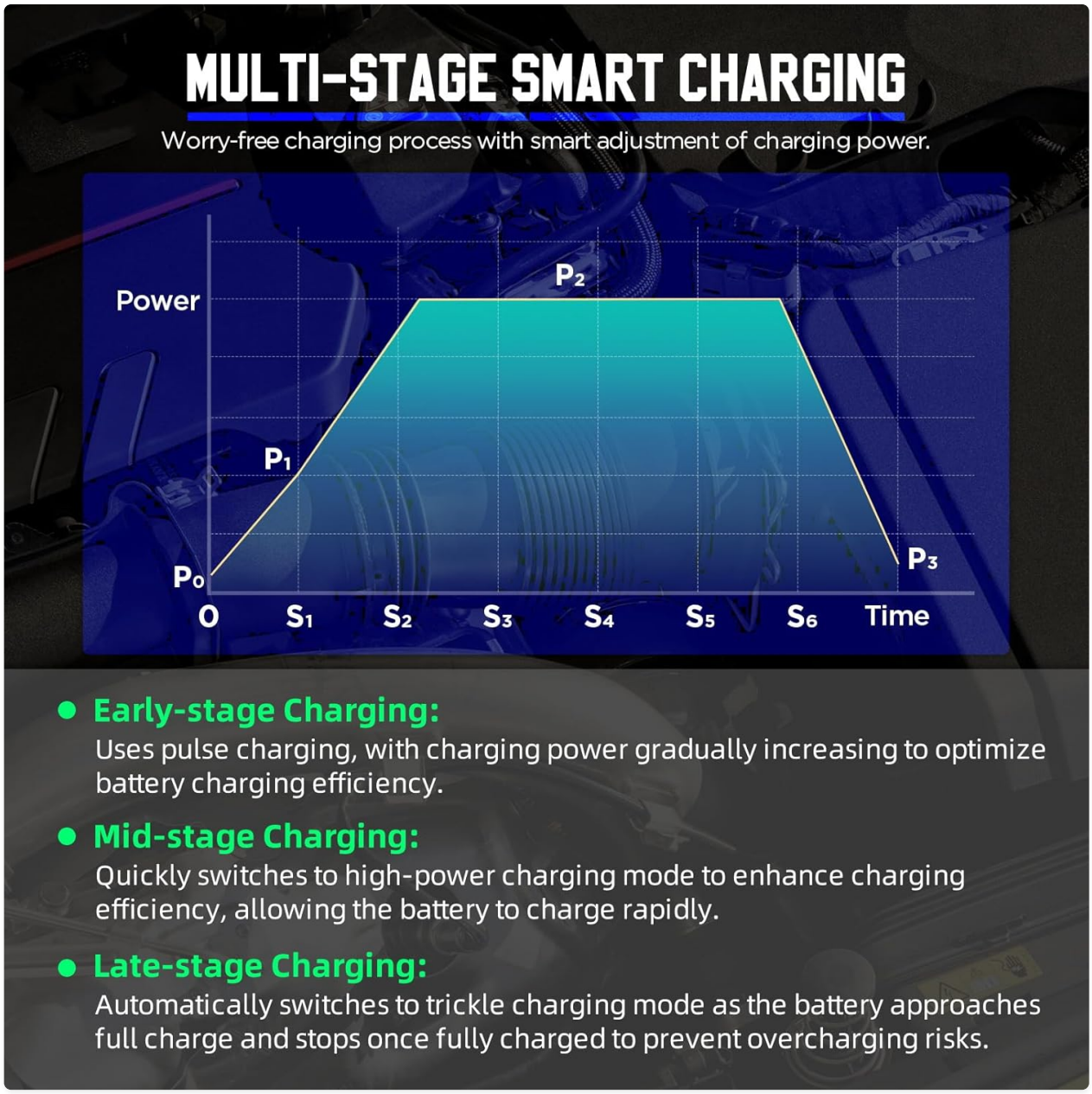


Image 5.6: Multi-stage charging curve showing power over time.

- **Early-stage Charging:** Charging power gradually increases to optimize battery charging efficiency.
- **Mid-stage Charging:** Quickly switches to high-power charging mode to enhance efficiency, allowing the battery to charge rapidly.
- **Late-stage Charging:** Automatically switches to trickle charging mode as the battery approaches full charge and stops once fully charged to prevent overcharging risks.

6. Features and Protections

6.1 Display and Interface

The EM365 features a 2.8-inch high-definition color screen for clear display of operation data. Key operations are simple and quick to use.

6.2 Construction and Durability

The unit uses high-quality components and an outer shell capable of withstanding both high and low temperatures, with an IP21S protection rating.

6.3 Cooling System

A high-speed cooling fan ensures powerful cooling, allowing the equipment to operate for extended periods without overheating.

6.4 Cables

The device includes a 3-meter pure copper cable with fully insulated battery clips, offering high conductivity and stability.

Image 6.1: Overview of key product details and features.

6.5 Compatible Battery Types

The EM365 is compatible with various 12V battery types:

- Regular Automotive (Flooded)
- AGM (Flat Plate and Spiral)
- EFB
- Gel Cell

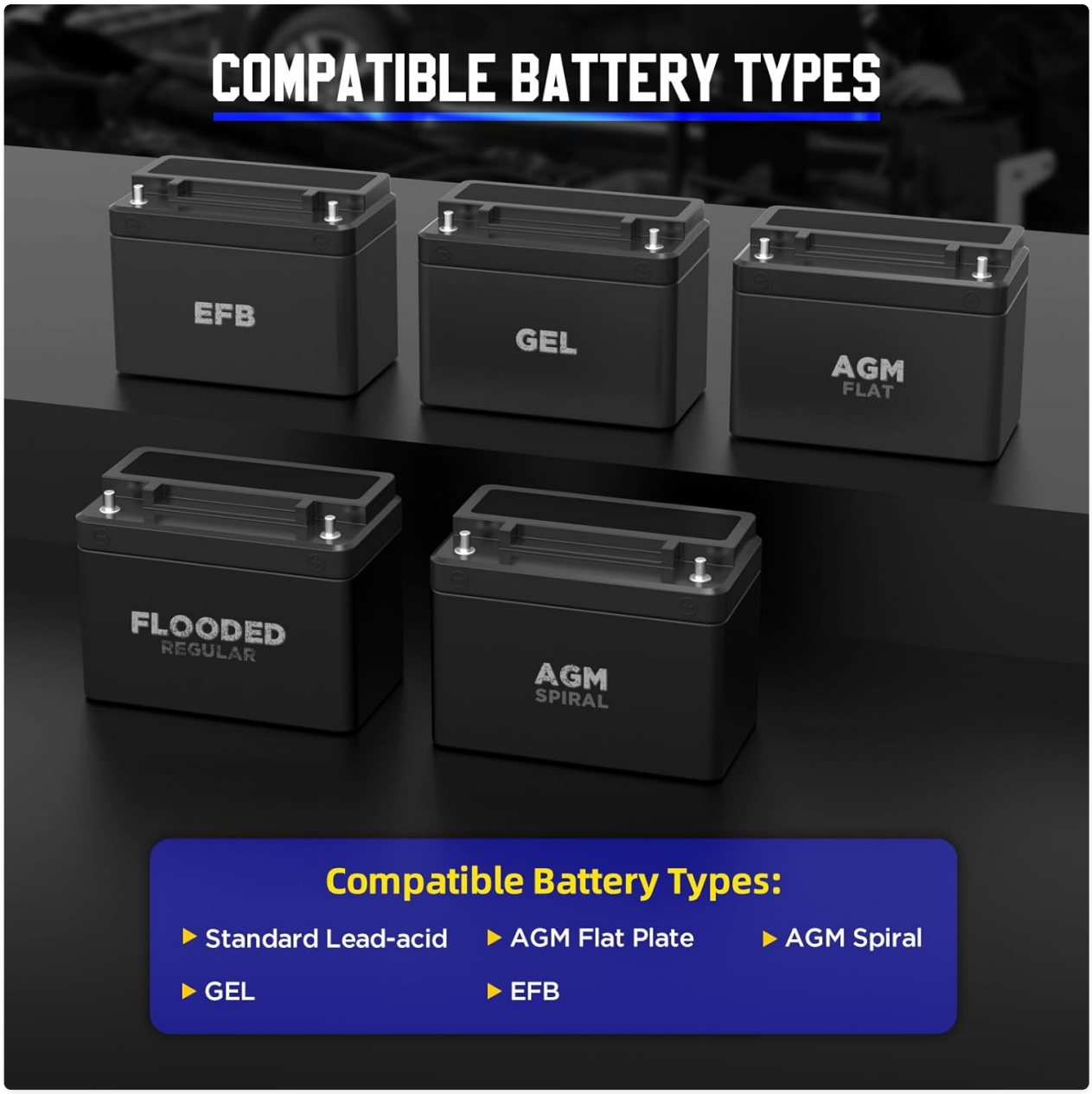


Image 6.2: Visual representation of compatible battery types.

6.6 Multiple Protection Functions

The device incorporates a smart alarm system with comprehensive protection features for both the equipment and the connected vehicle:

Image 6.3: Nine safety protections including Emergency Stop and Reverse Polarity Protection.

- Emergency Stop
- Short Circuit Protection
- Overheat Protection
- Overvoltage Protection
- Undervoltage Protection
- Reverse Polarity Protection
- No-load Protection
- Output Overcurrent Protection
- Output Overvoltage Protection

7. Maintenance

- **Cleaning:** Wipe the exterior of the device with a soft, dry cloth. Do not use abrasive cleaners or solvents.
- **Storage:** Store the EM365 in a cool, dry place away from direct sunlight and moisture when not in use.
- **Cable Inspection:** Regularly inspect the power cable and battery clamps for any signs of damage, wear,

or corrosion. Replace if necessary.

- **Ventilation:** Ensure the cooling fan and vents are free from dust and debris to maintain proper airflow.

8. Troubleshooting

If you encounter issues with your AUTOOL EM365, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
Device does not power on.	No AC power, power switch off, internal fuse blown.	Check AC outlet, ensure power switch is on, contact support if fuse is suspected.
No output voltage/current.	Incorrect mode selected, poor battery connection, safety protection activated.	Verify mode, check battery clamp connections, reset device if protection is active.
Overheat warning.	Blocked ventilation, prolonged high-load operation.	Ensure vents are clear, allow device to cool down, reduce load if possible.
Reverse polarity warning.	Battery clamps connected incorrectly.	Immediately disconnect and reconnect clamps correctly (red to positive, black to negative).

For issues not listed here or if problems persist, please contact AUTOOL customer support.

9. Specifications

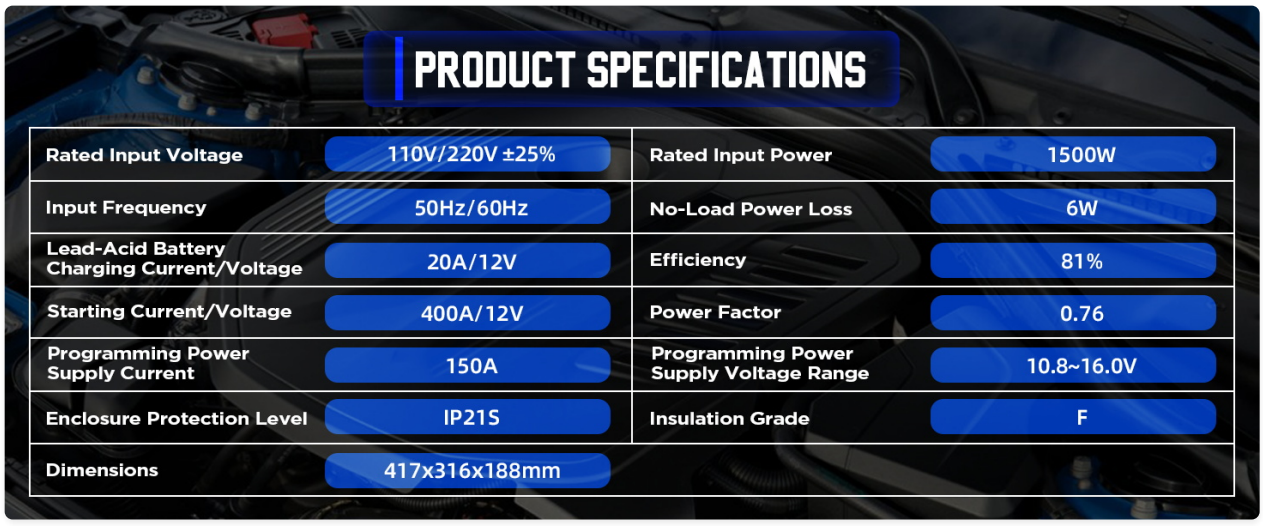


Image 9.1: Detailed product specifications for the EM365.

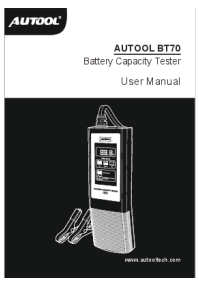
Parameter	Value
Rated Input Voltage	110V/220V ±25%
Input Frequency	50Hz/60Hz
Rated Input Power	1500W
No-Load Power Loss	6W
Efficiency	81%

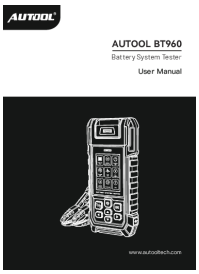
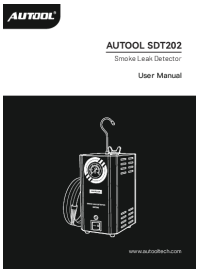
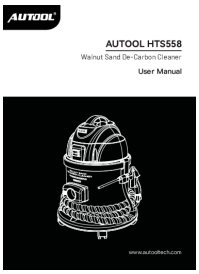
Parameter	Value
Power Factor	0.76
Lead-Acid Battery Charging Current/Voltage	20A/12V
Starting Current/Voltage	400A/12V
Programming Power Supply Current	150A
Programming Power Supply Voltage Range	10.8-16.0V
Enclosure Protection Level	IP21S
Insulation Grade	F
Dimensions	417x316x188mm (approx. 16.4 x 12.4 x 7.4 inches)
Item Weight	22 pounds

10. Warranty and Support

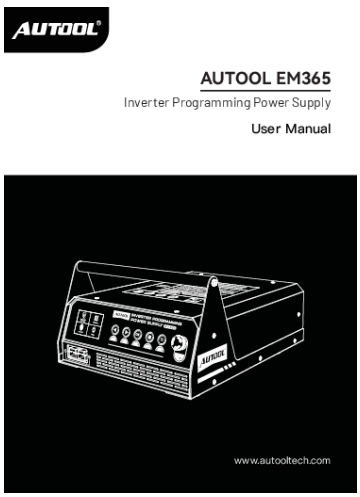
AUTOOL provides a 3-year warranty for the EM365 against manufacturing defects. If the EM365 has any defect, AUTOOL will provide a new replacement or parts until satisfaction. Lifetime product support is also offered.
For any needs or inquiries, please contact AUTOOL customer support. They aim to respond within 24 hours.
For further assistance, visit the official AUTOOL store:AUTOOL Official Store

Related Documents - EM365

	AUTOOL BT70 Battery Capacity Tester User Manual - Guide to Testing 12V & 24V Car Batteries Comprehensive user manual for the AUTOOL BT70 Battery Capacity Tester. Learn how to test 12V and 24V lead-acid car batteries, understand voltage readings, status indicators, safety precautions, and maintenance for optimal performance.
	AUTOOL BT360 Battery System Tester User Manual Comprehensive user manual for the AUTOOL BT360 Battery System Tester, detailing its functions, technical parameters, operation, and maintenance. Learn how to test vehicle batteries, cranking systems, and charging systems accurately.

	[AUTOOL BT-660 Battery Conductance Tester User Manual] User manual for the AUTOOL BT-660 Battery Conductance Tester, detailing its specifications, usage instructions for battery, cranking, and charging tests, data review, printing, and export functions. It helps diagnose vehicle starting and charging system faults.
	[AUTOOL BT960 Battery System Tester User Manual - Features and Operation] Comprehensive user manual for the AUTOOL BT960 Battery System Tester. Covers lead-acid and lithium battery testing, cranking, charging, load tests, voltage/current measurement, safety, and operation. Visit www.autooltech.com for more.
	[AUTOOL SDT202 Smoke Leak Detector User Manual] User manual for the AUTOOL SDT202 Smoke Leak Detector. Provides detailed instructions for operation, maintenance, and troubleshooting of this automotive diagnostic tool, designed for efficient leak detection in vehicles.
	[AUTOOL HTS558 Automotive Walnut Sand De-Carbon Cleaner User Manual | AUTOOL Tech] User manual for the AUTOOL HTS558 automotive walnut sand de-carbon cleaner, detailing its features, operation, maintenance, and safety guidelines for effective engine intake system cleaning.

Documents - AUTOOL – EM365



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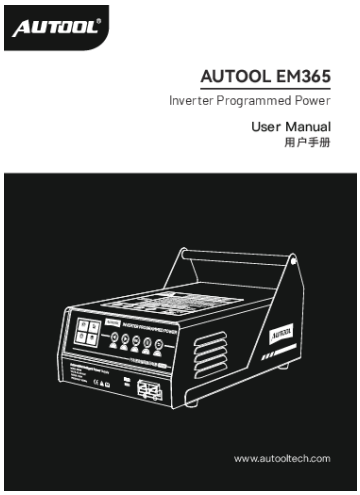

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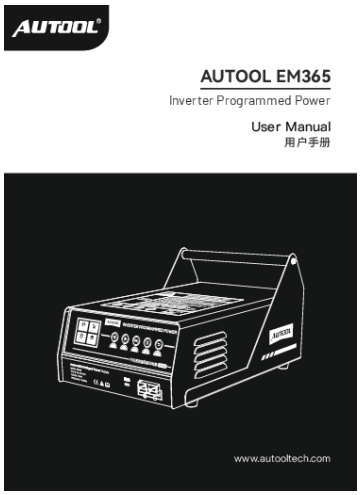

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