

Please note this is not a jump start device!

#### FEATURES

- ★ Designed for charging all types of 12V lead-acid batteries including; Wet (Flooded), Gel, MF (Maintenance-Free), CA (Calcium), EFB (Enhanced Flooded Battery), and AGM (Absorption Glass Mat) batteries
- ★ Suitable for charging battery capacities from 2 to 400Ah (12V), 50 to 400Ah (24V) and maintaining all battery sizes
- ★ 20A booster enables a fast charge within 300 seconds
- ★ Temperature controlled
- ★ Supplied with 1.7 meter DC and 0.5 meter battery clamp connectors

#### 1. SAFETY

##### WARNING:

The user must read and understand all of the product safety information prior to using the JEFBATCHG15-1224

Dynamo 15A Battery Charger - 12/24V.



- The JEFBATCHG15-1224 has been designed for charging all 6V and 12V lead-acid batteries including; Wet (Flooded), Gel, MF (Maintenance-Free), CA (Calcium), EFB (Enhanced Flooded Battery), and AGM (Absorption Glass Mat) batteries.
- Do not use this product to charge any products outside of its intended use.
- Before using the charger carefully read the battery manufacturers specification, precautions and recommended rates of charge. Jefferson do not assume any liability for misuse of this charger.
- Batteries contain explosive gases. Charging should be carried out in a well ventilated area and cool area away from sources of heat flames and sparks.
- Indoor use only. This charger must not be used outside in rain or snow conditions.
- Disconnect the mains cable. Before making or breaking the connection to the battery terminals, remove the plug from the power supply.
- Connect the charger carefully. Make sure the red clamp is attached to the battery positive terminal. The black clamp attaches to the negative. Do not reverse the clamps or allow them to touch each other.
- Refer to the vehicle manufacturers information. Follow these instructions fully to make sure no damage occurs to the vehicle or its equipment.
- Do not cover the charger. Allow air to circulate around the charger to prevent over heating.
- The charger is equipped with a time-lag fuse inside. Over-heating will trip the fuse to prevent damage and will not reset until sufficiently cooled.
- Do not use the charger within the vehicle. Stand it on a level firm surface to prevent damage to the charger or vehicle.
- Do not tamper with this product. Repairs and maintenance must be carried out by an authorised service agent. Do not modify this product in any way.
- Wear approved safety goggles (not safety glasses) and latex/nitrile gloves. Before charging a maintenance type battery the electrolyte (battery acid) must be filled to the maximum marked levels. Never use tap water. Distilled water or electrolyte must be used.
- Never attempt to charge non-rechargeable batteries. Only charge lead acid batteries within the voltage and amp hour capacities of the charger.
- Never attempt to charge a frozen battery.
- Never attempt to charge a damaged or distorted battery.
- Keep out of the reach of children.

#### 3. CHARGING MODES

JEFBATCHG15-1224 Dynamo 15A Battery Charger - 12/24V, has seven modes: Standby, 12V/2A, 12V/4A, 12V/6A, 12V/8A, 12V/10A, 12V/15A, 24V/3.5A, 24V/7.5A, and 12V BOOST. Confirm the appropriate charge mode for your battery before using this charger.

##### Using 12V BOOST charge

BOOST Mode is the advanced mode that require your full attention before selecting. To operate BOOST, the charger must be connected to a 12V lead-acid battery with the battery clamps connected. For optimal results, allow BOOST to complete the 5 minute charge. After the 300 second boost, the digital display will show "000" and you are ready to start your vehicle (whether FULL light is illuminated or not). If unsuccessful when starting your vehicle, let the battery rest for 15 minute and try boost again. Most vehicles will start with one boost. Do not use the BOOST feature more than twice within a 24 hour period. If two boosts cannot successfully start your vehicle, replace your vehicle battery.

### 3. CHARGING MODES (CONTINUED)

| Mode     | DISPLAY | POWER (Light) | BOOST (Light) | Explanation  |
|----------|---------|---------------|---------------|--|
| Standby  | -----   | Blink         |               | Not charging or providing any power. If you want charging to pause, press ON/OFF button and it will enter STANDBY Mode.    |
| 12V/2A   | 02A     | Illuminated   |               | Connected to 12V battery, it can turn into 2A by pressing CURRENT button. This mode is recommend for 2-60AH batteries.     |
| 12V/4A   | 04A     | Illuminated   |               | Connected to 12V battery, it can turn into 4A by pressing CURRENT button. This mode is recommend for 2-120AH batteries.    |
| 12V/6A   | 06A     | Illuminated   |               | Connected to 12V battery, it can turn into 6A by pressing CURRENT button. This mode is recommend for 10-180AH batteries.   |
| 12V/8A   | 08A     | Illuminated   |               | Connected to 12V battery, it can turn into 8A by pressing CURRENT button. This mode is recommend for 20-240AH batteries.   |
| 12V/10A  | 10A     | Illuminated   |               | Connected to 12V battery, it can turn into 10A by pressing CURRENT button. This mode is recommend for 40-300AH batteries.  |
| 12V/15A  | 15A     | Illuminated   |               | Connected to 12V battery, it can turn into 15A by pressing CURRENT button. This mode is recommend for 50-400AH batteries.  |
| 24V/3.5A | 3.5A    | Illuminated   |               | Connected to 24V battery, it can turn into 3.5A by pressing CURRENT button. This mode is recommend for 14-115AH batteries. |
| 24V/7.5A | 7.5A    | Illuminated   |               | Connected to 24V battery, it can turn into 7.5A by pressing CURRENT button. This mode is recommend for 25-200AH batteries. |
| BOOST    | FAST    | Illuminated   | Illuminated   | Connected to 12V battery, it can enter BOOST Mode by pressing BOOST button. It takes 5 minutes to charge.                  |

### 4. SPECIFICATION

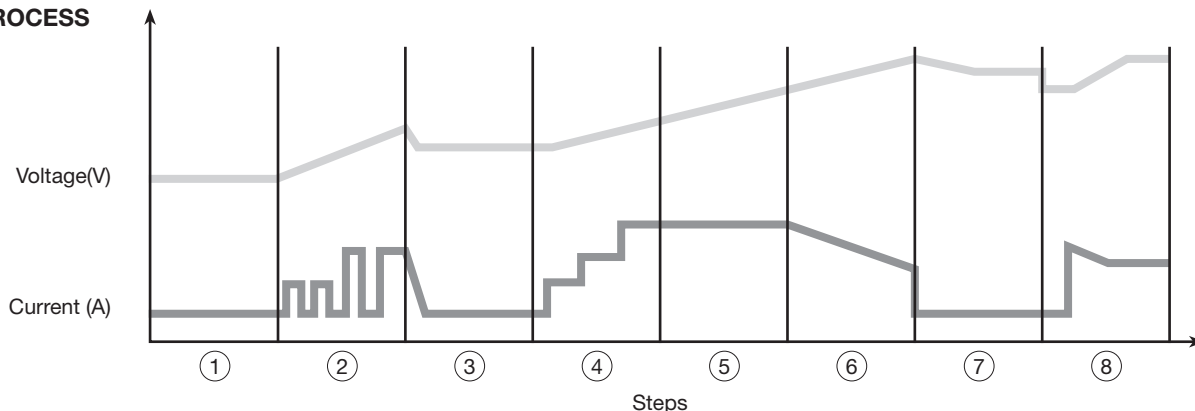
|                      |  |
|----------------------|--|
| AC Input:            | 220-240VAC, 50-60Hz, 2.5A  |
| DC Output:           | 12V DC 2A/4A/6A/8A/10A/15A;<br>24V DC 3.5A/7.5A;<br>(300 seconds boost charge) |
| Efficiency:          | 85% Approx   |
| Power:               | 350W Max   |
| Back Current Drain:  | <5mA   |
| Ambient Temperature: | 0°C ~ +40°C  |
| Charger Type:        | 8 steps, Full-automatic Charging Cycle   |
| Battery Type:        | All Types of 12V&24V Lead-acid Batteries                                       |
| Battery Capacity:    | 2-400Ah (12V), 14-200Ah (24V),<br>Maintains All Battery Sizes                  |
| Housing Protection:  | IP20   |
| Refrigeration:       | Natural Convection   |
| Dimensions:          | 230 x 240 x 155mm  |
| Weight:              | 1.7Kg  |

### 5. CONNECTING THE BATTERY

1. Identify polarity of battery posts. The positive battery terminal is typically marked by these letters or symbol (POS,P,+). The negative battery terminal is typically marked by these letters or symbol (NEG,N,-).
2. Do not make any connections to the carburettor, fuel lines, or thin metal parts.
3. Identify if you have a negative or positive grounded vehicle. This can be done by identifying which battery post (NEG or POS) is connected to the chassis.
4. For a negative grounded vehicle (most common): connect the RED POSITIVE jumper clamp first to the positive battery terminal, then connect the BLACK NEGATIVE jumper clamp to the vehicle chassis or negative battery terminal (the vehicle chassis is the common choice).
5. For a positive grounded vehicle: connect the BLACK NEGATIVE jumper clamp first to the negative battery terminal, then connect the RED POSITIVE jumper clamp to the vehicle chassis or positive battery terminal (the vehicle chassis is the common choice).
6. When disconnecting, disconnect in the reverse sequence, removing the negative first (or positive first for positive ground systems).

**NOTE:** If battery clamps are incorrectly connected to battery terminals, the INCORRECT POLARITY WARNING light will illuminate. Reverse the orientation of the battery clamps.

#### 6. CHARGING PROCESS



| Step            | Explanation  |
|-----------------|--|
| 1. Diagnosis    | Check if battery has connected with the charger and also check battery voltage   |
| 2. Desulphation | If battery voltage is too low, programs automatically generate pulsing current to remove sulphate, up to 5 hours           |
| 3. Analyse      | Check if the battery voltage reaches to the threshold after desulphation, and charging begins if the battery voltage is OK |
| 4. Soft Start   | Charge with echelon constant current   |
| 5. Bulk         | Charge with constant maximum current until battery voltage is reached to the threshold                                     |
| 6. Absorption   | Provide gradually declining current charge for maximum battery voltage   |
| 7. Analyse      | Test if the battery can hold charge  |
| 8. Maintenance  | Continuously monitor the battery, and charging current will intelligently adapt to the variable battery voltage            |

**NOTE:** After full charging cycle, use the battery to start the vehicles engine. If the engine does not start then the battery has depleted its storage capacity and needs to be replaced. Consider hiring a professional to examine the vehicle itself for mechanical faults before purchasing a replacement battery.

#### 7. CHARGING TIME

Different battery capacity and residual voltage would affect the charging time. Following data is only for reference (when discharge 12V lead-acid battery to 9V, with 5A discharge current).

| Battery Size /Ah | Approx. Time to charge in hours (12V) |       |       |       |       |       | Approx. Time to charge in hours (24V) |       |
|------------------|---------------------------------------|-------|-------|-------|-------|-------|---------------------------------------|-------|
|                  | 2A                                    | 4A    | 6A    | 8A    | 10A   | 15A   | 3.5A                                  | 7.5A  |
| 4                | 2                                     | 1     | ----- | ----- | ----- | ----- | -----                                 | ----- |
| 14               | 7                                     | 3.5   | 2.3   | 1.8   | ----- | ----- | -----                                 | ----- |
| 25               | 12.5                                  | 6     | 4.2   | 3.5   | 2.5   | ----- | -----                                 | ----- |
| 30               | 15                                    | 7.5   | 5     | 4     | 3     | 2     | 15                                    | 7.5   |
| 40               | 20                                    | 9     | 6.7   | 5.5   | 4     | 2.7   | 18                                    | 9.5   |
| 50               | 25                                    | 10    | 8.3   | 6.5   | 5     | 3.4   | 20                                    | 10.5  |
| 60               | 30                                    | 12.5  | 10    | 8     | 6     | 4     | -----                                 | 16.5  |
| 100              | -----                                 | 15    | 16.7  | 12.5  | 10    | 6.7   | -----                                 | 25    |
| 120              | -----                                 | 26    | 20    | 15    | 12    | 8     | -----                                 | ----- |
| 180              | -----                                 | ----- | 30    | 22    | 18    | 12    | -----                                 | ----- |
| 230              | -----                                 | ----- | ----- | 30    | 23    | 15.3  | -----                                 | ----- |
| 300              | -----                                 | ----- | ----- | ----- | 30    | 20    | -----                                 | ----- |
| 400              | -----                                 | ----- | ----- | ----- | 35    | 25    | -----                                 | ----- |

## LIMITED WARRANTY STATEMENT

Jefferson Professional Tools & Equipment, or hereafter "Jefferson" warrants its customers that its products will be free of defects in workmanship or material. Jefferson shall, upon suitable notification, correct any defects, by repair or replacement, of any parts or components of this product that are determined by Jefferson to be faulty or defective.

This warranty is void if the equipment has been subjected to improper installation, storage, alteration, abnormal operations, improper care, service or repair.

### Warranty Period

Jefferson will assume both the parts and labour expense of correcting defects during the stated warranty periods below.

All warranty periods start from the date of purchase from an authorised Jefferson dealer. If proof of purchase is unavailable from the end user, then the date of purchase will be deemed to be 3 months after the initial sale to the distributor.

#### 1 Year

- Jefferson Dynamo 15A Battery Charger - 12/24V (JEFBATCHG15-1224).

#### 90 Days

- All replacement parts purchased outside of the warranty period

**Important:** All parts used in the repair or replacement of warranty covered equipment will be subject to a minimum of 90 days cover or the remaining duration of the warranty period from the original date of purchase.

### Warranty Registration / Activation

You can register and activate your warranty by visiting the Jefferson Tools website using the following address:

**www.jeffersontools.com/warranty** and completing the online form.

Online warranty registration is recommended as it eliminates the need to provide proof of purchase should a warranty claim be necessary.

### Warranty Repair

Should Jefferson confirm the existence of any defect covered by this warranty the defect will be corrected by repair or replacement at an authorized Jefferson dealer or repair centre.

### Packaging & Freight Costs

The customer is responsible for the packaging of the equipment and making it ready for collection. Jefferson will arrange collection and transportation of any equipment returned under warranty. Upon inspection of the equipment, if no defect can be found or the equipment is not covered under the terms of the Jefferson warranty, the customer will be liable for any labour and return transportation costs incurred. These costs will be agreed with the customer before the machine is returned.

**NOTE:** \* Jefferson reserve the right to void any warranty for damages identified as being caused through misuse \*

### Warranty Limitations

Jefferson will not accept responsibility or liability for repairs made by unauthorised technicians or engineers. Jefferson's liability under this warranty will not exceed the cost of correcting the defect of the Jefferson products.

Jefferson will not be liable for incidental or consequential damages (such as loss of business or hire of substitute equipment etc.) caused by the defect or the time involved to correct the defect. This written warranty is the only express warranty provided by Jefferson with respect to its products.

Any warranties of merchantability are limited to the duration of this limited warranty for the equipment involved.

### Claiming Warranty Coverage

The end user must contact Jefferson Professional Tools & Equipment: **(Tel: +44 (0) 1244 646 048)** or their nearest authorised Jefferson dealer where final determination of the warranty coverage can be ascertained.

#### Step 1 - Reporting the Defect

##### Online Method:

Visit our website [www.jeffersontools.com/warranty](http://www.jeffersontools.com/warranty) and complete the Warranty Returns form. You can complete the form online and submit it to us directly or download the form to print out and return by post.

##### Telephone Method:

Contact your Jefferson dealer or sales representative with the following information:

- Model number
- Serial number (usually located on the specification plate)
- Date of purchase

A Warranty Returns form will be sent to you for completion and return by post or fax, together with details of your nearest authorised Jefferson repair centre. On receipt of this form Jefferson will arrange to collect the equipment from you at the earliest convenience.

#### Step 2 - Returning the Equipment

It is the customer's responsibility to ensure that the equipment is appropriately and securely packaged for collection, together with a copy of the original proof of purchase. Please note that Jefferson cannot assume any responsibility for any damage incurred to equipment during transit. Any claims against a third party courier will be dealt with under the terms & conditions of their road haulage association directives.

**NOTE:** Jefferson will be unable to collect or process any warranty requests without a copy of the original proof of purchase.

#### Step 3 - Assessment and Repair

On receipt, the equipment will be assessed by an authorised Jefferson engineer and it will be determined if the equipment is defective and in need of repair and any repairs needed are covered by the warranty policy. In order to qualify for warranty cover all equipment presented must have been used, serviced and maintained as instructed in the user manual.

Where repair is not covered by the warranty a quotation for repair, labour costs and return delivery will be sent to the customer (normally within 7 working days). Note: If the repair quotation is not accepted Jefferson Professional Tools & Equipment will invoice 1 hour labour time at £30 per hour plus return carriage costs (plus VAT).

In cases where no fault can be found with the equipment, or, if incorrect operation of the equipment is identified as the cause of the problem, a minimum of 1 hour labour at £30 per hour plus carriage costs will be required before the equipment will be despatched back to the customer.

Any equipment repaired or replaced under warranty will normally be ready for shipment back to the customer within 7 working days upon receipt of the equipment at an authorised Jefferson Repair centre (subject to part availability). Where parts are not immediately available Jefferson will contact you with a revised date for completion of the repair.

### General Warranty Enquiries

For any further information relating to Jefferson warranty cover please call:

**+44 (0) 1244 646 048** or send your enquiry via email to [warranty@jeffersontools.com](mailto:warranty@jeffersontools.com)

#### Disclaimer:

*The information in this document is to the best of our knowledge true and accurate, but all recommendations or suggestions are made without guarantee. Since the conditions of use are beyond their control, Jefferson Tools® disclaim any liability for loss or damage suffered from the use of this data or suggestions. Furthermore, no liability is accepted if use of any product in accordance with this data or suggestions infringes any patent. Jefferson Tools® reserve the right to change product specifications and warranty statements without further notification. All images are for illustration purposes only.*

## EC DECLARATION OF CONFORMITY

We, Jefferson Professional Tools & Equipment, as the authorised European Community representative of the manufacturer, declare that this equipment conforms to the requirements of the following Directives:

2014/30/EU - Electromagnetic compatibility

Signed By: Stephen McIntyre  Date: 4th July 2018

### Name and address of manufacturer or authorised representative:

Jefferson Tools, Herons Way, Chester Business Park,  
Chester, United Kingdom, CH4 9QR

Telephone: +44 (0)1244 646 048

Fax: +44 (0)1244 241 191

Email: [enquiries@jeffersontools.com](mailto:enquiries@jeffersontools.com)

[www.jeffersontools.com](http://www.jeffersontools.com)