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Optimate O-118

OptiMate USB O-118 Motorcycle USB-C Charger User Manual

Smart In-Line 3300mA Charger with Standby Mode and Vehicle Battery Monitor

INTRODUCTION

The OptiMate USB O-118 is a sophisticated in-line 3300mA USB-C charger designed specifically for motorcycles. It features a standby mode to prevent battery drain and an integrated vehicle battery monitor for optimal power management. This manual provides essential information for the proper installation, operation, and maintenance of your O-118 charger.

Key features include:

- Powerful 3300mA USB-C port for efficient device charging.
- Long 80-inch (200cm) cable for flexible mounting options.
- Includes O-31 battery lead for universal compatibility with motorcycle batteries.
- Weatherproof design with built-in protection for automatic power management.
- LED indicator for real-time battery status monitoring.

PACKAGE CONTENTS

Verify that all components are present in your package:

- OptiMate USB O-118 In-line USB-C Charger Unit
- O-31 Battery Lead with 10A Fuse
- USB-C Cable (integrated)
- Rubber Cap for USB-C Port
- Cable Ties (typically two yellow ties)



Figure 1: Complete OptiMate USB O-118 package contents, including the main charger unit, battery lead, and integrated USB-C cable.

SETUP AND INSTALLATION

Follow these steps for proper installation of your OptiMate USB O-118 charger:

1. **Connect to Battery:** Attach the O-31 battery lead's ring terminals to your motorcycle's battery terminals. Ensure the red terminal connects to the positive (+) post and the black terminal connects to the negative (-) post.
2. **Secure Fuse:** The O-31 battery lead includes an in-line 10A fuse. Ensure it is properly seated and protected.

3. **Connect Charger Unit:** Connect the O-31 battery lead to the main O-118 charger unit. The connectors are designed to be weatherproof.
4. **Mounting:** Route the 80-inch (200cm) USB-C cable to your desired charging location (e.g., handlebar, tank bag, pannier). Use the provided cable ties to secure the cables and prevent snagging or interference with moving parts.
5. **Protect USB-C Port:** When not in use, always cover the USB-C port with the integrated rubber cap to protect it from water and dust.



Figure 2: The OptiMate USB O-118 unit with its integrated USB-C port and the connection point for the battery lead. Note the protective rubber cap for the USB-C port.



Figure 3: The USB-C end of the OptiMate O-118, demonstrating how the included cable ties can be used to secure the cable for neat and safe routing on the motorcycle.

OPERATING INSTRUCTIONS

The OptiMate USB O-118 features intelligent power management to protect your motorcycle's battery.

Automatic Operation:

The charger automatically activates when the vehicle's battery voltage rises above approximately 13.3V, indicating the engine is running or the battery is being charged by the vehicle's alternator. It will automatically turn off when the voltage drops below this threshold or after approximately one hour of inactivity (no charging activity detected), entering a standby mode to prevent battery drain.

Battery Monitor LED Indicator:

The O-118 unit includes an LED indicator that provides real-time feedback on your motorcycle's battery status. Refer to the diagram below for interpretation:



O-108-118-UP1-241024

Vsens ✓ USB 17 W / 1.4A @ 12V ✗ USB < 0.02W / 2mA @ 12V

EN: Waterproof 3300mA USB charger with vehicle battery voltage sensing ; automatically turns on when vehicle is running & switches to low power stand-by mode (and no USB charging) one hour after vehicle has been parked.

FR: Chargeur USB étanche 3300 mA avec détection de tension de la batterie du véhicule ; s'allume automatiquement lorsque le véhicule est en marche et passe en mode veille d'économie d'énergie (et pas de charge USB) une heure après le stationnement du véhicule.

DE: Wasserdichtes 3300-mA-USB-Ladegerät mit Fahrzeugbatteriespannungserkennung; schaltet sich automatisch ein, wenn das Fahrzeug läuft, und wechselt eine Stunde nach dem Abstellen des Fahrzeugs in den energiesparenden Standby-Modus (und ohne USB-Ladung).

NL: Waterdichte 3300mA USB-lader met detectie van de accuspanning van het voertuig; schakelt automatisch in wanneer het voertuig rijdt en schakelt over naar de energiebesparende stand-bymodus (zonder USB-opladen) één uur nadat het voertuig is geparkeerd.

IT: Caricabatteria USB impermeabile da 3300 mA con rilevamento della tensione della batteria del veicolo; si accende automaticamente quando il veicolo è in funzione e passa alla modalità stand-by di risparmio energetico (senza ricarica USB) un'ora dopo che il veicolo è stato parcheggiato.

ES: Cargador USB impermeable de 3300 mA con detección de voltaje de la batería del vehículo; se enciende automáticamente cuando el vehículo está en marcha y cambia al modo de espera de ahorro de energía (y sin carga USB) una hora después de que el vehículo haya sido estacionado.

SV: Vattentät 3300mA USB-laddare med fordonsbatterispänningsavkänning; slås på automatiskt när fordonet är igång och växlar till energisparläge (och ingen USB-laddning) en timme efter att fordonet har parkerats.

JP: 車両バッテリー電圧を感知する防水 3300mA USB 充電器。車両が走行すると自動的にオンになり、車両が駐車してから 1 時間後に省エネのスタンバイモード (USB 充電なし) に切り替わります。

12.8V LFP (Li-Ion / LiFePO4) 12V AGM STD (flooded)



STAND-BY ✓ 3300mA

EN USB charging active when vehicle battery voltage is higher than 13.4V or 1 hour after vehicle has been parked. Stand-by: AGM / LFP LED blinks; indicates vehicle battery can start the engine.

FR L'USB est actif lorsque la tension de la batterie du véhicule dépasse 13,4V, et s'éteint 1h après que la batterie soit descendue en dessous de 13,4V. Veille : la LED AGM/LFP clignote ; indique que la batterie du véhicule peut démarrer le moteur.

DE USB ist aktiv, wenn die Spannung der Fahrzeugbatterie über 13,4 V steigt. Schaltet sich 1 Stunde nach Absinken der Batteriespannung unter 13,4 V aus. Standby: AGM/LFP-LED blinkt; zeigt an dass die Fahrzeugbatterie geladen ist und der Motor gestartet werden kann.

NL USB-opladen actief wanneer de accuspanning van het voertuig hoger is dan 13,4 V, of 1 uur nadat het voertuig is geparkeerd. Stand-by: AGM/LFP-led knippert; geeft aan dat de accu van het voertuig de motor kan starten.

IT Ricarica USB attiva quando la tensione della batteria del veicolo è superiore a 13,4 V o 1 ora dopo che il veicolo è stato parcheggiato. Stand-by: il LED AGM/LFP lampeggia; indica che la batteria del veicolo può avviare il motore.

ES La carga por USB se activa cuando el voltaje de la batería del vehículo es superior a 13,4 V o 1 hora después de que el vehículo se haya estacionado. En espera: el LED AGM/LFP parpadea; indica que la batería del vehículo puede arrancar el motor.

SV USB-laddning aktiv när fordonets batterispänning är högre än 13,4V, eller 1 timme efter att fordonet har parkerats. Standby: AGM / LFP LED blinkar; indikerar att fordonets batteri kan starta motorn.

JP バッテリー電圧が 13.4V 以上の場合、USB がオンになり、バッテリー電圧が 13.4V 以下の場合、1 時間後に電源オフになります。スタンバイモード: AGM/LFP の LED が点滅している場合、エンジン始動に十分な電圧レベルである事を示しています。

OptiMATE
USB
3300mA Vsens

THIS PACKAGE CONTAINS / DIESES PAKET ENTHÄLT

CE PAQUET CONTIENT/ QUESTO PACCHETTO CONTIENE

SEALED USB CHARGER with stand-by mode
Chargeur USB étanche avec mode veille
Versiegeltes USB-Ladegerät mit Standby
Gesloten USB-lader met stand-bymodus
Carica USB sigillata con modalità stand-by
Cargador USB sellado con modo de espera
Förseglad USB-laddare med standby-läge
スタンバイモードを備えた密閉型USB充電器

RANGE / GAMME / PALETTE / ASSORTIMENT / GAMMA / GAMA SORTIMENT / 製品範囲

108 USB-A 5V 3300mA

12.8V 12V SAE

150cm / 60"

108KIT USB-A 5V 3300mA

12.8V 12V M6 - 1/4" 1/4" - M6

50cm / 20" 150cm / 60"

118 USB-C 5V 3300mA

12.8V 12V M6 - 1/4" 1/4" - M6

50cm / 20" 150cm / 60"

PREMIUM USB 3YR WARRANTY



OptiMate is a registered trademark of **tecMATE™**
TecMate (International) S.A., Tienen, Belgium, EU.
TecMate North America, ON, Canada.
www.tecmate.com
TecMate Japan Co., Tokyo, Japan
www.tecmate.co.jp



Figure 4: The OptiMate USB O-118 packaging, which includes a visual guide for the LED battery monitor. This diagram shows the voltage ranges for different battery states (e.g., AGM/Flooded, LiFePO4) and the corresponding LED indications.

Battery Monitor LED States (Typical 12V Lead-Acid Battery)

LED Indication	Battery Voltage (Approx.)	Status
Green LED On	> 12.7V	Battery Good / Fully Charged
Yellow LED On	12.4V - 12.7V	Battery Discharged / Needs Charging
Red LED On	< 12.4V	Battery Critically Discharged
No LED On (Standby)	< 13.3V (after 1 hour of inactivity)	Charger in Standby Mode

Note: The exact voltage thresholds may vary slightly depending on the battery type (e.g., AGM, Flooded, LiFePO4) as indicated on the product packaging diagram.

The OptiMate USB O-118 is designed for durability and minimal maintenance. However, regular checks can ensure its longevity and optimal performance:

- **Cleanliness:** Periodically wipe the unit and cables with a damp cloth to remove dirt and grime. Avoid using harsh chemicals.
- **Connections:** Ensure all connections (battery terminals, charger unit connection) remain secure and free of corrosion.
- **Cable Integrity:** Inspect the cables for any signs of wear, cuts, or damage. Replace the unit if significant damage is found.
- **USB-C Port Cap:** Always ensure the rubber cap for the USB-C port is properly sealed when not in use to maintain its weatherproof rating.

TROUBLESHOOTING

If you encounter issues with your OptiMate USB O-118, refer to the following common problems and solutions:

Problem	Possible Cause	Solution
No LED indication / Charger not activating.	<ul style="list-style-type: none">◦ Battery voltage too low.◦ Loose or corroded battery connections.◦ Blown 10A fuse in O-31 battery lead.◦ Charger in standby mode.	<ul style="list-style-type: none">◦ Start motorcycle engine to raise voltage above 13.3V.◦ Check and clean battery terminals; ensure secure connections.◦ Inspect and replace fuse if necessary.◦ This is normal behavior; charger will activate when voltage is sufficient.
Device not charging when connected.	<ul style="list-style-type: none">◦ Charger not active (in standby or low voltage).◦ Faulty USB-C cable or device.◦ USB-C port obstructed by debris.	<ul style="list-style-type: none">◦ Ensure motorcycle engine is running or battery voltage is high enough.◦ Test with a different USB-C cable and/or device.◦ Carefully inspect and clean the USB-C port.
Battery drains quickly after installation.	<ul style="list-style-type: none">◦ Incorrect wiring (e.g., reversed polarity).◦ Faulty unit (rare).	<ul style="list-style-type: none">◦ Double-check battery connections (red to +, black to -).◦ Contact customer support if problem persists after verifying connections.

SPECIFICATIONS

Attribute	Detail
Brand	Optimate
Model Number	O-118
Manufacturer	TecMate
Power Source	Battery Powered (12V Motorcycle Battery)

Attribute	Detail
Output	USB-C, 3300mA (3.3A)
Cable Length	200cm / 80 inches
Dimensions (L x W x H)	4.53 x 0.98 x 0.59 inches (approx. for main unit)
Item Weight	5.3 ounces
Safety Certification	CE
First Available Date	August 8, 2023

WARRANTY AND SUPPORT

The OptiMate USB O-118 comes with a **3-year warranty**, as indicated on the product packaging. For warranty claims, technical support, or further inquiries, please contact TecMate, the manufacturer of OptiMate products. You can find more information and support resources on the official OptiMate website:

[Visit OptiMate Website](#)