



Maplin Electronics

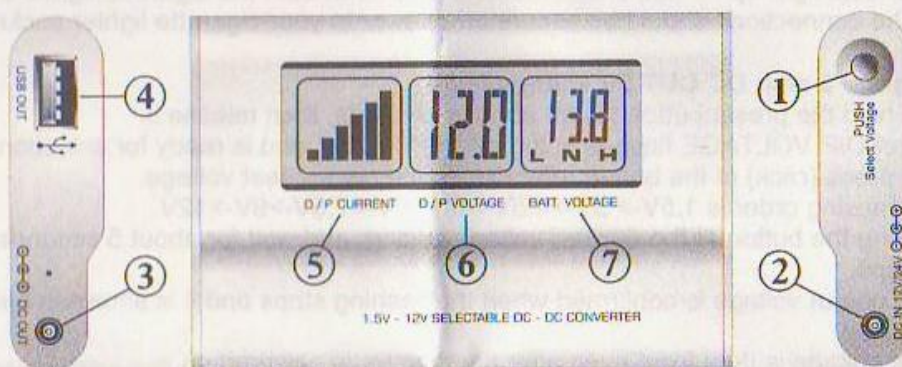
3A Digital Car Power Adaptor – Order Code A79GW User Manual

Introduction

This digital adaptor uses micro-processor control to protect your car battery from over-discharge, ensuring your battery is not depleted to such a level that your car won't start. The 3 amp DC output voltage is digitally selected and displayed to ensure you are able to select exactly the voltage your device requires.

The 5V standard USB power output can be used simultaneously with the 3 amp DC output. The LCD shows your car's current battery voltage level, the currently selected output voltage and current consumption of the device that is attached. It is suitable for use in trucks and cars and can be used with many portable consumer electronics devices, such as the Sony PSP, portable DVD players, MP3 players and mobile phones.

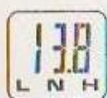
Controls and Indications



- 1. Preset Button**
Used to set the preset voltage of DC output and to set the colour of the backlit LCD display.
- 2. DC Input Socket**
For connection to your car's cigarette lighter socket with accessory A.
- 3. DC Output Socket**
3 amp output with selectable output voltages as follows: 1.5 / 3 / 4.5 / 5 / 6 / 7.5 / 9 / *12V
*12V output selection can only be used in conjunction with a 24V input system, such as those found in a truck. (See B7 Remarks)
- 4. USB Output Socket**
Standard USB DC power 5V, 500mA output. Can be used to charge or power portable consumer electronics devices and mobile phones.
- 5. "O/P CURRENT" LCD**
Shows the current that is being drawn by the device using the DC output socket (3.) Each bar on the display represents 0.5 amps, with a full load of 3 amps being indicated by a full display of 6 bars.
- 6. "O/P VOLTAGE" LCD**
Shows the currently selected output voltage for the DC output socket (3).
- 7. "BATTERY VOLTAGE" LCD**

Indications of LCD

Battery voltage display shows your current car/truck battery voltage level.



BATT. VOLTAGE

L= Low
N=Normal
H=High

12V system
less than 11.5V
11.5 ~ 13.0V
greater than 13.0V

24V system
less than 23.0V
23.0 ~ 26.0V
greater than 26.0V



O / P VOLTAGE

The middle LCD window shows your selected output voltage.



O / P CURRENT

The left LCD window shows current level used by devices plugged in to the DC output socket (3).

Each bar represents 0.5 amps - so a full load output current of 3 amps is represented by 6 bars.

Operation Procedures

A. Powering up the adaptor

1. Insert the accessory A connector cable in to DC input socket (2) and insert the cigarette lighter plug in to your vehicle's cigarette socket whilst your vehicle's electrical power is on.
2. The LCD should light up - if not, check the connections at both the cigarette lighter plug and the adaptor. The connections should be secure and power to your cigarette lighter socket must be present.

B. Presetting the 3 amp DC OUT (3) voltage level

1. Press and hold the preset button (1) for about 3 seconds, then release it.
2. The value of O/P VOLTAGE flashes in the middle window, and is ready for selection.
3. One quick press (click) of the button will move to the next preset voltage. The cyclic moving order is 1.5V-> 3V->4.5V->5V->6V->7.5V->9V->12V.
4. Stop pressing the button at the desired voltage setting, and wait for about 5 seconds until the flashing stops.
5. The preset output voltage is confirmed when the flashing stops and it is shown in the middle window display.
6. This preset voltage is then fixed even after the adaptor is powered off.

Note:

7. The 12V output selection is only available when used with a 24V input battery system (such as a truck). It does not work with 12V battery systems (ie. cars).
When the 12V output preset is selected in conjunction with a 12V battery system, the middle window of LCD will keep on flashing and there will be no output voltage at the 3A connector socket.

WARNING !!!

Ensure you connect up "DC OUT" with the correct polarity

C. Preparation for plugging in (powering) your equipment.

1. Ensure that you establish whether your electronics equipment requires a centre POSITIVE or a centre NEGATIVE polarity. Choosing the incorrect polarity can cause permanent and irreversible damage to your electronics equipment.

To assist you with this, most devices have the following markings on or near the power input socket showing the voltage required by the device and the required polarity.



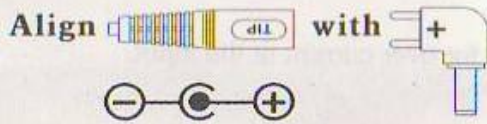
When the centre is linked to a + sign, (like the image on the left, above) the device requires a centre POSITIVE polarity.

When the centre is linked to a - sign, (like the image on the right, above) the device requires a centre NEGATIVE polarity.

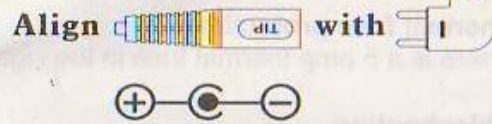
2. Setting the chosen polarity for the output plug.

- There is only one engraved marking on the cable socket it is **TIP**
- Each of the supplied output plugs has two engraved markings, + and - sign just above pins.
- Align the cable socket marked **TIP** to the plug tip marked with a + symbol for a centre-positive polarity.
- Align the cable socket marked **TIP** to the plug tip marked with a - symbol for a centre-negative polarity.

FOR CENTER POSITIVE SETUP



FOR CENTER NEGATIVE SETUP



3. Select the correct voltage for your device before connecting – selecting a voltage that is too high or too low for your device can also cause irreversible and permanent damage to your equipment.
4. Double check the polarity and voltage settings of the adaptor and your device prior to connection.

1. **DO NOT** use this connector if you are not sure of the polarity or required voltage of your device.
2. **DO NOT** use this adaptor for equipment that consumes more than 3000mA (3 amps).
3. **DO NOT** use this adaptor whilst starting the vehicle – voltage surges may occur at the cigarette lighter socket in your vehicle
4. **DO NOT** cover the adaptor or place it near sources of heat.

D. Using the USB power output

The USB output is made to the USB power standard of 5Vdc and 0.5A (500mA).

You can power up or charge portable devices such as MP3 players which are supplied with USB power connectors for getting DC power from a PC.

Select the correct phone charger plug to fit your mobile phone.

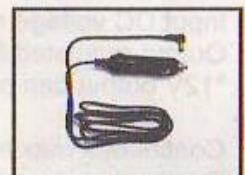
REMARKS:

**NOT ALL MOBILE PHONES CAN BE CHARGED BY THE USB SOCKET.
SOME NEWER MODELS REQUIRE A HIGHER VOLTAGE THAN THE 5V USB.
PLEASE CHECK YOUR MOBILE PHONE MANUAL PRIOR TO USE.**

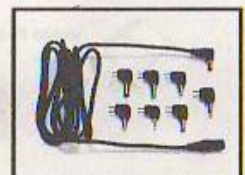
E. Changing the backlight colour of LCD

1. Disconnect power to the adaptor by removing the cigarette plug.
2. Press and hold the preset button (1) and at the same time reconnect power to adaptor.
3. When the LCD is lit up again, release the preset button.
4. Quickly press the preset button to change the backlight colour.
5. When desired colour is found, disconnect power to adaptor as in 1.
The last displayed colour will be the newly selected backlight colour.

(A)



(B)



Included Accessories:

- (A) DC input cable (1.5M) with cigarette plug.
- (B) DC output cable (1.5M) with 7 pieces of common plugs (polarity reversible).
- (C) One spare 5 amp fuse for cigarette plug.

Safe-guarding your battery

This unique function protects your car battery from over-discharged by current draining portables. You will not be left stranded with a flat battery.

The micro-processor keeps on checking the battery voltage and charge state of your car (12V system) or your truck (24V system).

When it detects your battery has dropped to a critically low level, the LCD backlight first changes to flashing red and a warning buzzer will sound. All outputs (3A DC output and USB) are cut off.

Protection

A. Short circuit & overload protection

When the DC output or the USB is shorted circuited or draws more than the maximum current the current limiting protection will be activated to limit the output current.

B. Over voltage (output) protection and buzzer warning

This is to protect voltage sensitive expensive portable devices from high DC output voltage.

When the actual output voltage is approximately 1 volt higher than the preset value for DC output, the LCD backlight will turn red and the buzzer will alarm. Both the main output and USB output will be cut off.

C. Thermal fuse protection

There is a 5 amp thermal fuse in the cigarette plug for over current at the input.

Troubleshooting

1. LCD is not on

POSSIBLE CAUSES:

- No DC power from the cigarette lighter socket. Check with the cigarette lighter if it works.
- Cigarette lighter socket may be loose.
- Contact metal strips are not in contact with socket.
Check spring action of metal strip and turn plug slowly until LCD turns on.
- Cigarette plug fuse has blown - replace the 5 amp fuse.
Hold the top metal sleeve and turn the plastic body anti-clockwise to get to the fuse.

2. LCD is on, but connected equipment is not powered.

POSSIBLE CAUSES:

- Check that the connected equipment has been turned on.
- Check voltage and polarity settings.
- Check connection to the connected equipment is secure.

3. Selected 12V has no output and middle LCD window keep on flashing

This output setting of 12V cannot be used for 12V battery.

Specifications:

Input DC voltage range : 11 to 32V

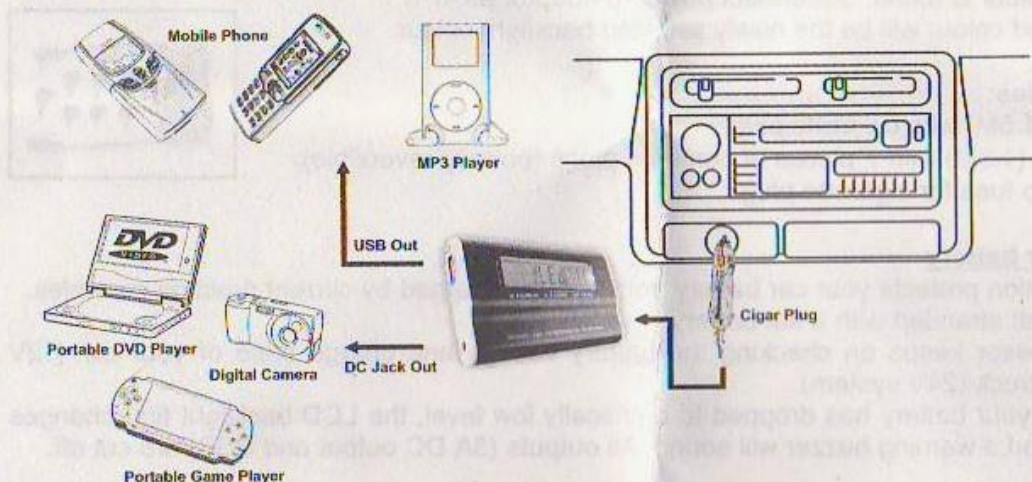
Output regulated DC voltage selection : 1.5/ 3 /4.5/5/ 6/ 7.5/9/ 12V* dc

*12V output can only be used for 24V battery system, it will not work in 12V battery system.

Continuous maximum DC output current 3000 mA

Continuous maximum current from USB port: 500 mA

Both the DC output and USB port can operate at the same time giving a total current of 3500mA



Rev. 1.0 08/2007
7673-5203-2240