

**A99-14CRG
(P/N: 41034G-02)
Four Bay Charging Unit
USER MANUAL**

Cautions and Warnings

READ AND SAVE THESE INSTRUCTIONS. Follow the instructions in this installation manual. These instructions must be followed to avoid damage to this product and associated equipment. Product operation and reliability depends on proper usage.



DO NOT INSTALL ANY DAVID CLARK COMPANY PRODUCT THAT APPEARS DAMAGED. Upon unpacking your David Clark product, inspect the contents for shipping damage. If damage is apparent, immediately file a claim with the carrier and notify your David Clark product supplier.



ELECTRICAL HAZARD - Disconnect electrical power when making any internal adjustments or repairs. All repairs should be performed by a representative or authorized agent of the David Clark Company.



STATIC HAZARD - Static electricity can damage components. Therefore, be sure to ground yourself before opening or installing components.



LI-POLYMER - This product is used with Li-Polymer batteries. Do not incinerate, disassemble, short circuit, or expose the battery to high temperatures. Battery must be disposed of properly in accordance with local regulations.

Overview

The A99-14CRG is a four-bay battery charger designed for 3.7V Li-Polymer batteries (P/N 40688G-90) used with the David Clark 9900-series Wireless System. Each battery is charged independently of the others and up to four batteries may be charged at a time. Charge status is indicated by a multi-color LED next to each battery bay. The A99-14CRG is designed for home or office use only and is not intended to be used outside or anywhere excessive moisture or temperature extremes may exist. Not suitable for marine or other corrosive environments without appropriate protective measures. Power cable is required and must be purchased separately. See Accessories for available power options.

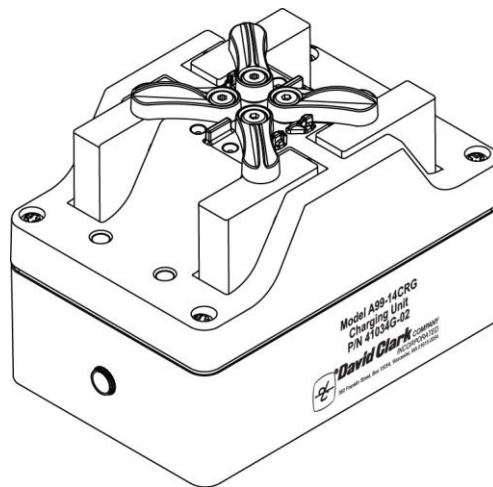


Figure 1

Mounting Options

The included mounting kit provides two methods of mounting the A99-14CRG. The rubber feet can be used for portable/desk use. The mounting brackets can be used for permanent installation. See **Figure 2**.

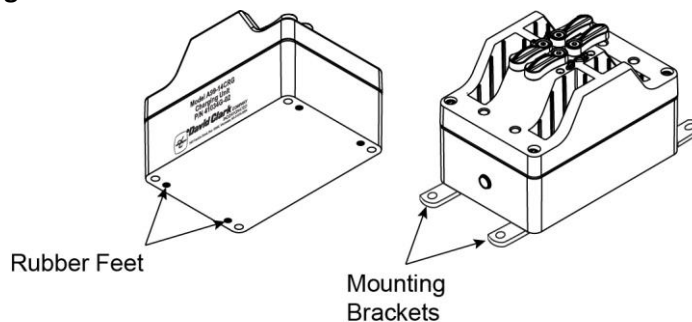


Figure 2

Operation

- **CAUTION!** Use only David Clark supplied power adapters with this device. The charger will not function with other power adapters and damage to the charger may occur. See **Accessories** for available power options.

1. Connect power adapter to your AC outlet using appropriate line cord or DC power source.
2. Plug barrel connector into the A99-14CRG.
3. Insert batteries as shown in **Figure 3**. Take care to insert batteries correctly, so as to ensure battery terminals and the electrical connections inside the battery bay make contact.
4. Engage battery holder over batteries to ensure integrity of terminal connections, as shown in **Figure 3**.

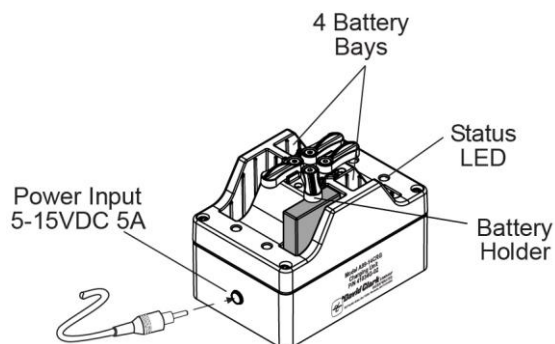


Figure 3

5. To remove batteries
 - a. Disengage battery holder from top of battery
 - b. Pull straight up as shown in **Figure 4**.

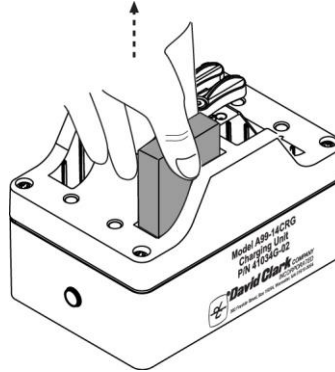


Figure 4

Charge Cycle

A completely discharged battery will come to a full charge in approximately 3 – 4 hours. There are three charge states indicated below in **Table 1**.

Table 1

LED	Description
Orange	Charge in progress
Green	Charge complete
Red	Error

Charge Status Indication

Charge status for each battery is indicated by the LED next to each charge bay. **Table 2** below lists each state:

Table 2

LED	Description
Off	Battery not present or no power to charger
Orange – Solid	Charging
Green – Solid	Charge Complete
Red – Flash	Battery too cold (<0°C) or too warm (>45°C)

Error/Protection States

Li-Polymer batteries must be charged in a specific way to prevent damage or fire. The A99-14CRG is designed to charge these batteries correctly and also monitors the temperature of each battery to ensure safe charging.

Each battery has a thermistor inside it which allows the A99-14CRG to monitor the temperature of the battery at all times. In addition, the A99-14CRG has a thermal monitoring device on the circuit board. Together these devices ensure that safe conditions are maintained throughout the charging process.

Battery too cold

If the thermistor indicates that the battery temperature is below 0°C, charging is suspended until the temperature rises above 0°C. The LED will flash red.

Battery too warm

If the thermistor indicates that the battery temperature is above 45°C, charging is suspended until the temperature falls below 45°C. The LED will flash red.

Internal temperature too warm

If the on-board thermal monitor indicates a high temperature, the charge rate of all four bays is cut to 650mA. This is an attempt to prevent any further temperature rise which could result in charging being halted completely. There is no change in LED status indication during this condition.

Troubleshooting

No Status LED	<ul style="list-style-type: none">• No battery inserted into bay• Battery inserted incorrectly (see Figure 1)• Power Supply not connected to charger• Line cord not connected to power supply• Line cord not connected to AC mains• Disconnect and reconnect Line cord
Red Status LED	<ul style="list-style-type: none">• See Error/Protection States section above• Discard/recycle damaged batteries

Accessories

- C99-14AC1 (P/N 41090G-14): AC line cord and power adapter for North/Central/South America (110 VAC)
- C99-14AC2 (P/N 41090G-15): AC line cord and power adapter for Europe, Middle East, Africa and Asia/Pacific (250 VAC)
- C99-14DC1 (P/N 41090G-16): DC cable for mobile/vehicle applications (5-15VDC, 5A)
- C99-14DC2 (P/N 40688G-98): DC converter/cable kit for mobile/vehicle applications (8-28VDC, 5A)

Specifications

Input Voltage:	5 to 15 VDC
Input Current:	5 A (max)
Output Voltage:	4.2 VDC
Output Current:	850mA per battery (max), 4A total (max)
Operating Temperature:	0°C (32°F) – 38°C (100°F)
Product Dimensions:	12 cm X 8 cm X 9 cm (4.75 in X 3.25 in X 3.5 in)
Charge Bays:	4
Battery Compatibility:	Li-Polymer 3.7V, 2260mAh (P/N: 40688G-90)