

CH409A/E/U



Respironics Dual Smart Charger Instructions for use

The CH409 is a dual smart charger, and is capable of automatically charging both single, and dual smart battery packs. It works only with the single, and dual Respironics series smart battery packs.

What's in the box?

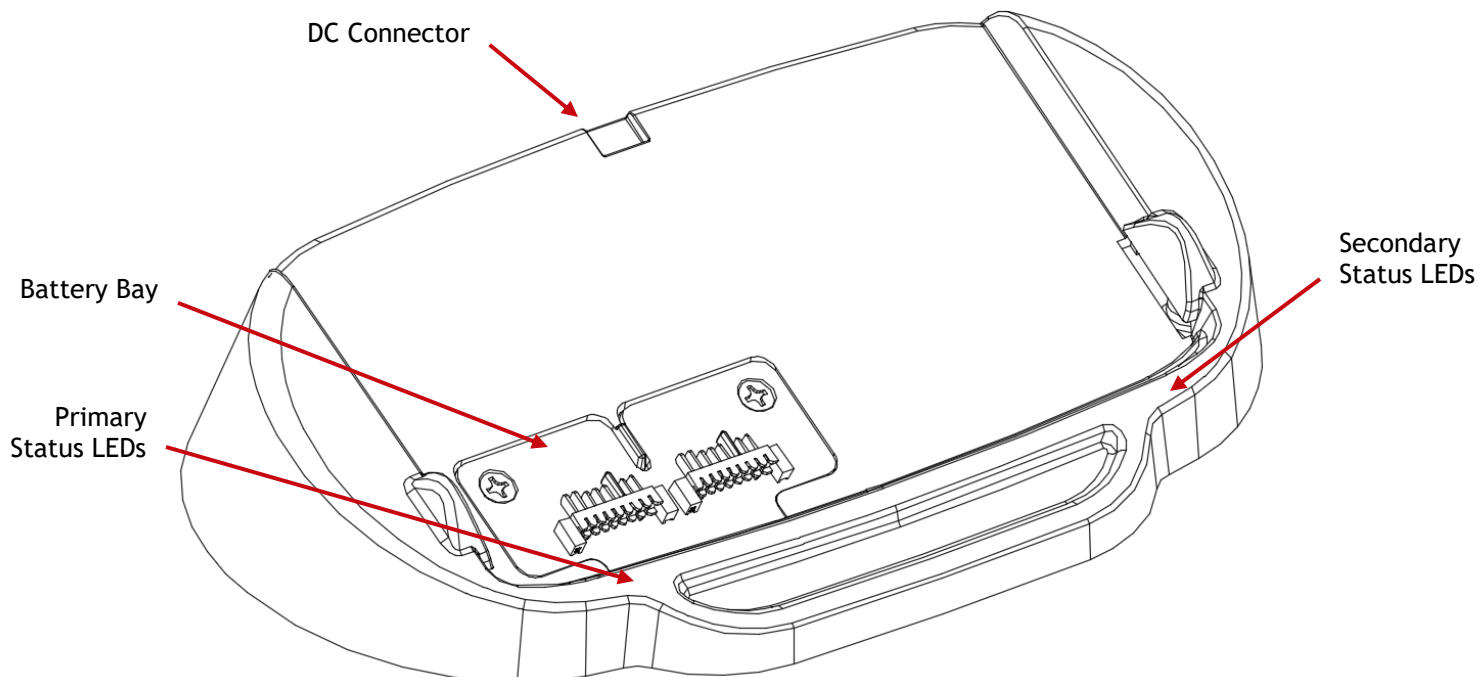
1. One CH409 Dual Smart Charger.
2. One 60W 24VDC 2.5A power supply with universal mains input.
 - N. American chargers (CH409A) are packed with a US 3-pin mains cord
 - European chargers (CH409E) have a European 2-pin + ground recess mains cord
 - UK chargers (CH409U) are packed with a UK 3-pin mains cord

Safety:

1. Do not expose the charger or power supply to water or liquids.
2. Do not open the charger or power supply case, no user serviceable parts are inside.
3. Use only the manufacturer's power supply
4. Place the charger in a cool spot, away from external heat sources.

Using your Charger:

Place the charger on a flat, level surface away from sources of heat and moisture. Plug the DC connector from the power supply into the back of the charger, and connect the power supply to the mains AC supply using the power cord provided. All LEDs will illuminate for two (2) seconds on power up.



Charging:

Place a battery into the battery bay ensuring that the connector is fully engaged. The LEDs in the corresponding status window will provide status information and the charger will automatically begin charging.

LED Indication:

The status of the battery/charger is indicated by the LEDs visible in the corresponding status window:

* Green flashing:	Charge in process
● Green solid:	Charge complete
● Red solid:	Error

Recharge Time:

The time given below is for a full charge from 0% to 100% state of charge.

Battery Chemistry	Battery Model	Recharge Time (hours)
Li-ion	L08D379B34	3 - 4
	L16D378B34	

What are the SMBus and the SBS?

The Smart Battery System defines the parameters that are stored by an SBS-compliant battery. These parameters include full battery status and fuel gauging information. The System Management Bus is the language by which these parameters are communicated between the battery, the charger and the host device.

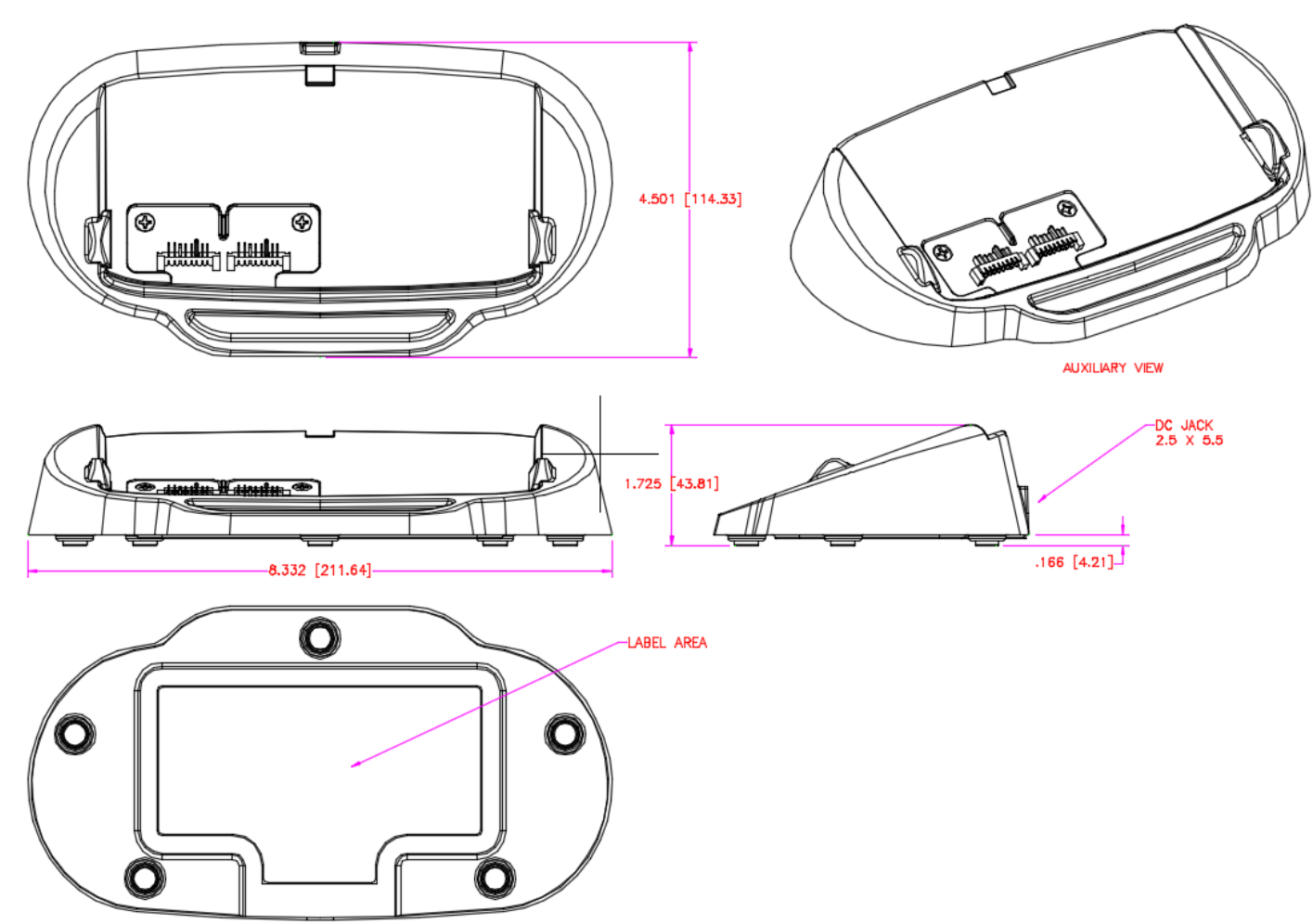
How does the charger know what charge to deliver?

Each charger unit is capable of sensing and delivering an appropriate charge to all Respironics Series battery packs. Upon inserting the battery into the charger, the battery communicates to the charger over the SMBus telling the charger what type of cell chemistry it is and what type of charge regime it needs. The charger then configures its output to provide the charge regime requested by the battery. If no SMBus communications are issued from the battery, the charger interrogates the thermistor/resistor I.D. pin on the battery terminal and delivers an appropriate charge.

Compatibility:

The CH409 is only compatible with Respironics L08D379B34 and L16D378B34 smart battery packs. For optimum results we recommend using only Respironics brand batteries.

CR03H205A/E/U/X Specification Summary	
Weight:	0.22kg / 7.84oz
Height:	43.81mm / 1.725"
Length:	211.64mm / 8.332"
Width:	114.33mm / 4.501"
Mating Connector:	AMP/TYCO 787615-1, 787614-1 and 787613-1
Communications Compliances:	System Management Bus Rev 1.1, Smart Battery Data Specification Rev 1.1 and Smart Battery Charger Specification Rev 1.1 compliant
Power Supply:	100-240VAC, 24V, 2.5A DC, 115x53x38mm, 310g / 11oz UL listed, CE Compliant
Mains Cord:	CH409A - 110V N. American 3-pin connector CH409E - 220V European 2-pin connector with ground recess CH409U - 240V UK 3-pin connector



NOTE: Dimensions in inches [mm].