

ACOUSTIC RECHARGEABLE BATTERY SYSTEM (PN 18970)



ATS sells a battery charger that can charge up to 4 rechargeable battery packs at a time. The battery charger specifications are listed below:

Size (L x W x H): | 13.5" x 6.5" x 13" (34.3cm x 16.5cm x 33cm)

Voltage input | 90 ~ 132 VAC

Battery is not allowed to charge below 0°C

Weight | 22.2 lbs (10 kg)

Operating Temperature | 0°C to +45°C*

Storage Temperature | -40°C to +85°C*

CHARGING

Pre-Current Charge Current 2.5 Amp DC

Fast Charge Current 25 Amp DC

OPERATION

Automatically starts charging when battery is connected, and AC power is applied to charger. Start; Pre-Current Charge to determine battery condition, then switches to Fast Charge Current.

DISPLAY INDICATORS

State of Charge Display

4 - LED display indicating battery state of charge. (See LED Display table on next page for complete details.)

Mode Display

Mode indicates if charge is optimal for storage or normal use.

Also serves as an error code. (See LED Display Table on next page for complete details.)

LED Display Table operation/Fault table (see next page)

STORAGE MODE

With a discharged battery connected to charger, press Storage button.

Battery will only charge to 50% capacity for long term battery storage (12 months).

After 12 months, it is recommended to cycle Storage mode again if battery is to remain in storage.

Battery Charger LED Display Table

State	SOC 1	SOC 2	SOC 3	SOC 4	MODE
No battery, Normal charge mode	OFF	OFF	OFF	OFF	OFF
No battery, Storage charge mode	OFF	OFF	OFF	OFF	OFF
Battery detected, Evaluation in progress or Pre-charging (both)	FLASH	OFF	OFF	OFF	ON
Battery detected, Fast Charging Normal Mode, 0~25%	FLASH	OFF	OFF	OFF	FLASH
Battery detected, Fast Charging Normal Mode, 26~50%	ON	FLASH	OFF	OFF	OFF
Battery detected, Fast Charging Normal Mode, 51~75%	ON	ON	FLASH	OFF	OFF
Battery detected, Fast Charging Normal Mode, 76~100%	ON	ON	ON	FLASH	OFF
Battery detected; Normal charge mode complete	ON	ON	ON	ON	OFF
Battery detected, Fast Charging Storage Mode, 0~25%	FLASH	OFF	OFF	OFF	ON
Battery detected, Fast Charging Storage Mode, 26~50%	ON	FLASH	OFF	OFF	ON
Battery detected, Storage charge mode complete, 26~50%	ON	ON	OFF	OFF	ON
Battery detected, Storage charge mode complete, 51~75%	ON	ON	ON	OFF	ON
Battery detected, Storage charge mode complete, 76~100%	ON	ON	ON	ON	ON
Battery detected; Fault detected	OFF	OFF	OFF	OFF	See fault display

Battery Charger Fault LED Display Table

State	Name	Description
1 x 250ms blink every 5 seconds	Pre-charge mode timeout	Battery has been charging at pre-charge current limit for more than 10 hours.
2 x 250ms blinks every 5 seconds	Fast charge mode timeout	Battery has been charging at fast charge current limit for more than 10 hours.
3 x 250ms blinks every 5 seconds	Battery over temperature	Battery temperature is too high to charge as measured by the thermistor.
4 x 250ms blinks every 5 seconds	Battery under temperature	Battery temperature is too low to charge as measured by the thermistor.
5 x 250ms blinks every 5 seconds	Over charge voltage	Charger output current is higher than control settings.
6 x 250ms blinks every 5 seconds	Over charge current	Charger output voltage is higher than control settings.

7.0 ADDENDUM: RECHARGEABLE BATTERY PACK (ATS PN 19421)



BATTERY PACK SIZE

Diameter	2.9" Max (7.4 cm)
Length	11.5" (29.2 cm)

WEIGHT

Operating Voltage range	2.5VDC to 4.2VDC
Nominal Capacity	140,800 mAh / 516.7 Wh
Maximum Discharge Current	2 Amps DC
Maximum Charge Current	30 Amps DC
Cycle Life (Charge/Discharge)	500
Connectors	
Charge connector	D-SUB PLUG 7Pos (2 Power, 5 Data)
SR3001 connector	30 Amps DC
	(D-SUB connector to receiver 4 Pos connector)

SHELF LIFE

12 Months*	*Note: If batteries are to be in storage longer than 12 months, it is recommended to cycle the battery in storage mode for another 12 months of shelf life.
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TEMPERATURE RATINGS

Charging	0°C to +45°C *Battery is not allowed to charge below 0°C
Operating (Discharge)	-20°C to +60°C
Storage	-20°C to +60°C



 **ATS**
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