

Holder and Charging Specifications NiCD, NiMH and Li-Poly

Item no 530360, 532360, 530188, 532188 (Reference doc 311-1159)

Kenwood NX-200, NX-300, TK-3180, TK-5220, TK-5310, TK-5320

Features & Benefits

- Always keep your battery fully charged
- Made of high grade ABS plastic
- Charges Li-Ion or Li-Poly batteries
- Works in 12 and 24 volt vehicles
- Rapid and trickle charges radio
- LED Red to Green charging status indicator
- Custom fit to hold device securely
- Designed and manufactured in Sweden
- Allows one-handed insertion and removal of radio
- You can charge just the battery alone in the holder
- Works with or without belt clip on back of radio
- Charging cable attached to holder providing dock type connection
- Attach to ProClip Vehicle or Pedestal mounts
- Can also be attached directly to any flat surface, dashboard, console wall, or any type of mounting bracket

Holder Specifications item no 530360 – Charging Holder with Cigarette Lighter Plug

Material	Rugged thermal resistant black ABS plastic (FT103)
Dimensions (W x H x D)	69 x 105 x 46 mm
Weight	138 g / 0.30 lbs
Cable Length	50 cm
Attachment	AMPS hole pattern

Holder Specifications item no 532360 – Charging Holder for Hard Wire Installation

Material	Rugged thermal resistant black FT-140 ABS plastic
Dimensions (W x H x D)	69 x 105 x 46 mm
Weight	118 g / 0.26 lbs
Cable Length	142 cm
Attachment	AMPS hole pattern

Holder specifications item no 530188 – Charging Holder with Cigarette Lighter Plug

Material	Rugged thermal resistant black ABS plastic (FT103)
Dimensions (W x H x D)	63 x 85 x 29 mm
Weight	134 g / 0.29 lbs
Cable Length, total	106 cm
Attachment	AMPS hole pattern

Holder specifications item no 532188 – Charging Holder for Hard Wire Installation

Material	Rugged thermal resistant black ABS plastic (FT103)
Dimensions (W x H x D)	63 x 85 x 29 mm
Weight	134 g / 0.29 lbs
Cable Length, total	110 cm
Attachment	AMPS hole pattern

Charging Specifications

Ni-based

Ni-based batteries are charged with a constant current. The charging starts when the battery is inserted into the holder or at power-on if the battery voltage and temperature is within valid limit.

The normal charging termination is based on the rate of temperature rise. For safety the controller also monitors maximum temperature, cell voltage and time. After termination the charger enters trickle charge which puts a small amount of charge into the battery to maintain the charge due to relative high self discharge.

Battery Chemistry	NiCd and NiMH batteries
Compatible batteries	KNB-50NC, KNB-31A, KNB-32N, KNB-41NC, KNB-54N
Input Voltage	11-30 V
Output Voltage NiCd, NiMH	7.5 V
Timer for Max. Charging Time	Yes
Max. Charging Time	2-3 hours depending on battery capacity
Rapid Charge	1A +/- 5%
Trickle Charge	4 mA
LED Charging Indicator	LED Red to Green indicator
Temperature Control	NTC-resistor in battery required
Operating Temperature	-40° C to + 50° C / -40° F to 122° F (can be restricted by battery chemistry)
EMI/RFI	CE, E, FCC Part 15 Class B, ICES-003 Class B
Environmental	RoHS Compliant
Electrical Testing	ISO 7637 and SAE J1455
Input Transient Protected	Withstands +150V & -450V. A 2,5A fuse is mounted on the incoming supply.
Output Short Circuit Protected	The charger will supply a maximum current of 1 A which protects both the charger and the connected equipment. The current limit is set to standards of the producer and shall not be higher.

Lithium-based

Lithium charging is based on CVCC (Constant Voltage Constant Current). The charging procedure is as follows:

If the battery is empty or has low charge a constant current charges the battery until the cell voltage reaches 8,4V. The LED emits red light. Hereafter the charge continues until the current goes down to 0A. The battery is now full and stays fully charged. A special designed voltage controller is monitoring that the cell voltage is within limit. The LED emits green light.

If the battery is used without disconnecting the charger, current is supplied directly resulting in a fast recovery.

Battery Chemistry	Li-ion and Li-Poly batteries
Compatible batteries	KNB-47L, KNB-48L, KNB-33L, KNB-43L, KNB-48LEX

Input Voltage	11-30 V
Charging Voltage	8.4 V
Timer for Max. Charging Time	Automatic, stops at 8.4 V
Max. Charging Time	2-3 hours depending on battery capacity
Rapid Charge	1 A +/- 5%
Trickle Charge	0 to 50 mA
LED Charging Indicator	LED Red to Green indicator
Temperature Control	Controlled by battery
Operating Temperature	-40° C to + 50° C / -40° F to 122° F (can be restricted by battery chemistry)
EMI/RFI	CE, E, FCC Part 15 Class B, ICES-003 Class B
Environmental	RoHS Compliant
Electrical Testing	ISO 7637 and SAE J1455
Input Transient Protected	Withstands +150V & -450V. A 2,5A fuse is mounted on the incoming supply.
Output Short Circuit Protected	The charger will supply a maximum current of 1 A which protects both the charger and the connected equipment. The current limit is set to standards of the producer and shall not be higher.