

Battery Chargers and Equipment

MASTERVOLT

Charge Master Series

- MasterBus compatible
- The 3 step charging technology guarantees fast and complete charging
- The cos phi 1 regulation gets the most out of limited generator capacity
- CE, E-mark, ABYC A-31, SAE J1171/ ISO 8846 ignition protected
- -25°C to 60°C, derating >40°C
- IUoUo, automatic three step charge for Gel/ AGM/ Wet/ Lithium Ion
- 2 year manufacturer warranty
- 90-265V 50/60Hz



12V SYSTEM



24V SYSTEM

Item Number	Battery Outlets	Output Rating Amps	Battery Capacity (Ah)	Dimensions in" (mm) HxWxD	Weight in lbs. (kg)	Price
* denotes 180-265V ONLY						
12V Systems						
43011000*	1	10	25-100	7.1(180) x 4.8(122) x 2(51)	2.2(1)	\$305.91
44010250	3	25	50-250	9.2(234) x 5.2(132) x 2.4(61)	4(1.8)	\$414.22
44010350	3	35	70-350	11.5(292) x 8.3(211) x 5.2(132)	9(4)	\$614.17
44010500	3	50	100-500	11.5(292) x 8.3(211) x 5.2(132)	9(4)	\$755.81
24V Systems						
43020600*	1	6	25-70	7.1(180) x 4.8(122) x 2(51)	2.2(1)	\$374.93
44020200	3	20	40-200	11.5(292) x 8.3(211) x 5.2(132)	9(4)	\$672.50
44020300	3	30	60-300	11.5(292) x 8.3(211) x 5.2(132)	9(4)	\$881.97
44020800	1+2@10A	80	160-800	17(432) x 11(279) x 5.9(150)	18(8)	\$2,397.19
44021000	1+2@10A	100	200-1000	17(432) x 11(279) x 5.9(150)	18(8)	\$3,101.80

Charge Master Plus Series

- Revival mode: automatically revives even fully depleted batteries.
- Multi voltage: charge 12 V starter battery in a 24 V system, without additional components.
- Priority Charge: redirect available power to the lowest battery, for faster charging.
- Smart Input: charge all three batteries from one single alternator for continuous charging on the go.
- Multicharger with two outputs, one in/output, DC-DC converter, current limiter and VSR.
- 80-275V 35-70Hz
- Combine Lithium Ion, Gel or AGM, and large or small battery banks on a single battery charger.
- Charges multiple batteries while being underway.
- Extended specifications: offers 20% more output at 14.4 V and 80% charging power at 60°C.
- Safe Charge: quickly recognize the State of Charge for extended battery life.
- Very wide operating range of 80-275 V AC, 35-70 Hz.
- Compact, easy to connect and quick to install.
- MasterBus compatible



CHARGE MASTER PLUS

Item Number	Battery Outlets	Output Rating	Battery Capacity	Dimensions in"(mm) HxWxD	Weight in lbs. (kg)	Price
12VDC						
44310750	3	75	320-800 Ah	15.1(384) x 9.8(249) x 5.0(127)	13(5.9)	\$1,407.62
44311000	3	100	400-1000 Ah	15.1(384) x 9.8(249) x 5.0(127)	13(5.9)	\$1,824.31
24VDC						
44320400	3	40	160-400 Ah	15.1(384) x 9.8(249) x 5.0(127)	13(5.9)	\$1,074.61
44320600	3	60	200-500 Ah	15.1(384) x 9.8(249) x 5.0(127)	13(5.9)	\$1,482.50

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ChargeMaster Plus CZone

- MasterBus, CZone and NMEA communication.
- Multicharger with two outputs, one in/output, DC-DC converter, current limiter and VSR.
- Combine Lithium Ion, Gel or AGM, and large or small battery banks on a single battery charger.
- Charges multiple batteries while being underway.
- Extended specifications: offers 20 % more output at 14.4 V and 80 % charging power at 60 °C.
- Safe Charge: quickly recognize the State of Charge for extended battery life.
- Very wide operating range of 80-275 V AC, 35-70 Hz.
- Compact, easy to connect and quick to install.



24 VOLT

Item Number	Battery Outlets	Output Rating	Battery Capacity	Dimensions in" (mm) HxWxD	Weight in lbs. (kg.)	Price
12VDC						
44310755	3	75A	320-800 Ah	15.1(384) x 9.8(249)x 5(127)	13(5.9)	\$1449.82
44311005	3	100A	400- 1000 Ah	15.1(384) x 9.8(249)x 5(127)	13(5.9)	\$1,879.02
24VDC						
44320405	3	40A	160-400 Ah	15.1(384) x 9.8(249)x 5(127)	13(5.9)	\$1,106.83
44320605	3	60A	200-500 Ah	15.1(384) x 9.8(249)x 5(127)	13(5.9)	\$1,526.97
44320805	3	80A	160-800 Ah	—	—	\$2,157.45
44321105	3	110A	200-1000 Ah	—	—	\$2,791.61

Mass Series

- Designed for the most difficult conditions
- Suitable for every type of battery, also charges entirely empty batteries
- Full power at temperatures of up to 45°C
- Reliable charger/supply for GMDSS
- Certified by Germanisch Lloyd, Lloyd, Bureau Veritas, connections in accordance with CE, ABYC A-31 and IEC60945
- Type approval for application in safety zones A, B, and C
- Supplies your system without battery (except model 43011000)
- IUoUo, automatic three step charge for Gel/ AGM/ Wet/ Lithium Ion
- Nominal Input Voltage: 230 volt, 50/60 Hz.
- 2 year manufacturer warranty



24 VOLT MASS SERIES

Item Number	Battery Outlets	Output Rating Amps	Battery Capacity (Ah)	Dimensions in" (mm) HxWxD	Weight in lbs. (kg.)	Price
24V Systems						
40020256	1+1@3Amp	25	50-250	12.8(325) x 8.7(221) x 4.4(112)	7.3(3.3)	\$1,347.82
40020506	1+1@3Amp	50	100-500	13.4(340) x 10.3(262) x 5.1(130)	10.1(4.6)	\$1,974.64
40020756	1	75	150-750	16.5(419) x 12.5(318) x 5.1(130)	17(7.7)	\$3,007.75
40021006	1	100	200-1000	16.5(419) x 12.5(318) x 5.1(130)	17(7.7)	\$3,890.97

Battery Chargers and Equipment

MASTERVOLT + BLUE SEA SYSTEMS

Mass Series



TOUCH SCREEN



MASTERBUS



COMMUNICATION PORT



MASTERLINK

Item Number	Description	Price
Charger Options		
77030100	Communication port between MasterBus and the USB port of your PC; makes possible reading and configuration of your MasterBus system on PC when combined with Masterview System software	\$215.00
70403105	MasterLink MICCC inverter/charger advanced battery monitor	\$772.01
77010310	Easyview 5" touchscreen control panel	\$397.42
77020110	MasterShunt 500	\$310.45

Pacific Gen. 2 Series

- Universal line voltage 90-265 volt AC 45-65 Hz.
- Field serviceable AC input power protection
- Selective float moves each battery individually to float voltage ending absorption period to prevent overcharging
- Charge coordination works with Blues Seas Systems ACRs to properly charge batteries with shore power at the dock or alternator power underway
- Extensive suite of diagnostic screens
- UL 1236 marine
- CE marked and CSA C22.2 No.107.2-01 standards
- Ignition protected: SAE 1455, SAEJ1171 and ISO 8846
- 5 year manufacturer warranty



7531



7520

Item Number	Amps	Volts DC	Output	Dimensions in" (mm) HxWxD	Price
7531	25	12	3	13.03(331) x 8.46(215) x 4.30(109)	\$632.50
7532	40	12	3	13.03(331) x 8.46(215) x 4.30(109)	\$805.01
Item Number	Description	Volts DC	Dimensions in" (mm) HxWxD	Price	
Charger Options					
7520	Battery charge (LED) remote display	12	3.01(76) x 4.15(105) x .95(24)	\$126.99	

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Marinco

- 28210 has: Sense-Send senses the power needs of each battery and sends correct charge regardless of serial or parallel output connections
- Waterproof with an IP65 rating
- 2 LED charge indicator
- Ignition and short circuit protected
- 90-265 volt, 50/60 Hz.
- 12 or 24 volt DC output
- Meets UL, CSA, ABYC, USCG, FCC & new CEC regulations



28210



28220

Item Number	Banks	Amps	Battery Type	Dimensions in "(mm) HxWxD	Price
28210	2	10	Flooded and AGM	5.5(140) x 7.8(198) x 2.4(61)	\$236.80
28220	2	20	Gel, AGM, Flooded	7(178) x 9.6(244) x 2.9(74)	\$394.08

Newmar PT Series

PT Series

- Smart circuitry provides three stage charging: bulk, absorption, and float
- Gel-Cell/ Flooded Lead-acid/ AGM battery type switch selects optimum charge/float voltages
- Multiple isolated output banks: ammeter indicates total output current
- Current limiting prevents damage from overloading
- Charger status clearly displayed with LED and/or audible indicators or optional remote panel
- Can power loads without a battery in line
- CE Certified & EN 60335-2-29/ EN 60335-I
- Ignition protected: USCG CFR 183.410
- 2 year manufacturer parts warranty



PT SERIES

Item Number	Output Volts	Input VAC (50-60 Hz.)	Amp/ Amp Hours	Dimensions in "(mm) HxWxD	Compliance Ref.	Price
PT Series						
PT-14W	12	85-264	14/ 28-140	11.2(284) x 7.7(196) x 4.8(122)	CG, CE, ABS	\$541.16
PT-25W	12	90-132 OR 180-264	25/ 50-250	11.2(284) x 7.7(196) x 4.8(122)	CG, ABS	\$664.00
PT-40U	12	90-264	40/ 80-400	13.9(353) x 9.5(241) x 4.8(122)	CG, CE, ABS	\$1,070.70
PT-80	12	90-264	80/ 160-800	17.5(445) x 12(305) x 7.2(183)	CE, ABS	\$1,743.00
PT-24-13W	24	90-132 OR 180-264	13/ 26-130	11.2(284) x 7.7(196) x 4.8(122)	CG, ABS	\$664.00
PT-24-20U	24	85-135 OR 170-270	20/ 40-200	13.85(352) x 9.6(244) x 4.8(122)	CG, CE, ABS	\$1,067.38
PT-24-45U	24	90-264	45/ 90-450	14.8(376) x 9.6(244) x 5.4(137)	EN, CE, ABS	\$1,746.32
PT-24-60W	24	207-253	60/ 120-600	17.5(445) x 12(305) x 7.2(183)	EN, CE, ABS	\$2,292.00
PT-24-95U	24	90-264	95/ 180-950	17.5(445) x 12(305) x 7.2(183)	EN, CE, ABS	\$2,693.00
PT-32-25W	32	104-125	25/ 50-250	13.8(351) x 9.9(251) x 5(127)	EN, CE, ABS	\$2,113.18

Item Number	Description	Price
Accessories		
RP	Remote Panel, works on all PT chargers except: PT-24-60W and PT-32-25W	\$158.61
TCS-12/24	Temperature Sensor for all PT chargers except: PT-7, PT-24-60W, PT-32-25W 7 PT-24-95W, P, F (ONLY FOR U)	\$101.26
TP	Temperature sensor for PT-24-60W, PT-32-25W, and PT-24-95W ONLY	\$115.00

Images are representative of products listed and may not be actual product.

Battery Chargers and Equipment

VICTRON

Victron Skylla & Centaur Series

Skylla TG Series

- Charge voltage can be precisely adjusted to suit any sealed or unsealed battery system
- Charging process takes place in accordance with IUoUO characteristic and charges more rapidly than other processes
- Can be used as a power supply
- 2 isolated outputs, the second limited to approximately 4 amp and with a slightly lower output voltage, intended to top up a starter battery
- Voltage sense facility so the battery always receives the correct charge voltage
- Input voltage: 230 volt AC voltage range: 185-264 volt DC



SKYLLA TG SERIES

Centaur

- Universal 90-265 volt AC, 45/65 Hz. input voltage range
- Three outputs that each can supply the full output current
- Three stage charging, with temperature compensation
- Charges at bulk rate until the output has reduced to 70% of the rated amp, at which a 4 hour timer begins; after the timed period the charger switches to float rates
- Dip switch available to select the optimum charge/float voltages for flooded lead acid, gel-cell or AGM batteries



CENTAUR SERIES

Skylla-i Series

- Features 3 isolated outputs. All outputs can supply the full rated output current
- Next to a CAN bus (NMEA2000) interface, a rotary switch, DIP switches and potentiometers are available to adapt the charge algorithm to a particular battery and its conditions of use
- The storage mode kicks in whenever the battery has not been subjected to discharge during 24 hours
- The Skylla-i is provided with a voltage sense facility so that the battery always receives the correct charge voltage.



SKYLLA-I SERIES

Item Number	Output Volts	Amps	Dimensions in "(mm) HxWxD	Battery Capacity	Price
Skylla TG Series					
SDTG2400503	24	50	14.4(366) x 9.9(250) x 5.8(147)	150-500	\$1,079.00
SDTG24050300	24	50	14.4(366) x 9.9(250) x 5.8(147)	150-500	\$1,604.00
SDTG2401003	24	100	16(406) x 9.9(250) x 5.9(150)	500-100	\$2,132.00
Centaur Series					
Centaur 12/20	12	20	14(356) x 8.5(216) x 4.3(109)	80-200	\$373.00
Centaur 12/30	12	30	14(356) x 8.5(216) x 4.3(109)	120-300	\$427.00
Centaur 12/40	12	40	16.8(427) x 9.4(239) x 5.3(135)	160-400	\$527.00
Centaur 12/50	12	50	16.8(427) x 9.4(239) x 5.3(135)	200-500	\$559.00
Centaur 12/60	12	60	16.8(427) x 9.4(239) x 5.3(135)	240-600	\$601.00
Centaur 12/80	12	80	19.9(505) x 10(254) x 5.2(132)	320-800	\$982.00
Centaur 24/30	24	30	14(356) x 8.5(216) x 4.3(109)	120-300	\$714.00
Centaur 12/100	12	100	19.9(505) x 10(254) x 5.2(132)	400-1000	\$1,242.00
Centaur 24/40	24	40	19.9(505) x 10(254) x 5.2(132)	160-400	\$933.00
Centaur 24/60	24	60	19.9(505) x 10(254) x 5.2(132)	240-600	\$1,067.00
Skylla TG Series					
SKI024080002	24	80	16(406) x 9.9(251) x 5.9(150)	400-800Ah	\$1617.00
SKI024100002	24	100	16(406) x 9.9(251) x 5.9(150)	500-1000Ah	\$1964.00

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FR Series

- Reliable Ferro-Resonant technology
- Full cutoff when full charge reached – no “trickle” charge
- No boiling or dehydration
- Models available for 50/60 Hz
- Designed for quiet operation
- Drip proof cabinet
- Current limited and ignition protected
- Input 120 or 240 volt AC
- Automatic reset DC breaker
- AC fuse protection
- Front panel controls and indicators
- Indicators/controls include ammeter, manual/automatic selector switch, full charge and “On” indicator lights
- J in item number denominates 50/60 Hz
- 2 year manufacturer warranty
- Any of the sentry charger models listed below can be built to charge AGM batteries.
- When ordering a charger to work for AGM batteries add a “M” to the model number. Sample (SFR126M/3X)
- Part SFR1220/3X can NOT charge AGM batteries.



FR SERIES

Item Number	Amps	Banks	Dimensions in "(mm) HxWxD	Output Volts	Price
SFR1220/3B	20	3	14.5(368) x 13.25(337) x 6(152)	12	\$1,950.00
SFR1240/3X	40	3	14.5(368) x 13.75(349) x 6(152)	12	\$1,998.00
SFR1260/3X	60	3	16.25(413) x 13.75(349) x 7.25(184)	12	\$2,070.00
SFR2440/3X	40	3	16.25(413) x 13.75(349) x 7.25(184)	24	\$2,105.00
SFR2440/3XJ	40	3	16.25(413) x 13.75(349) x 7.75(184)	24	\$2,705.00
SFR2460/3XJ	60	3	16.25(413) x 13.75(349) x 7.75(197)	24	\$2,710.00
SFR2460/4XJ	60	4	16.25(413) x 13.75(349) x 7.75(197)	24	\$2,850.00
SFR3230/3X	30	3	16.25(413) x 13.75(349) x 7.25(184)	32	\$2,340.00

Item Number	Description	Price
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FR Series Replacement Parts

4030575	Cooling fan for FR1220, FR1240, FR1260, FR2425	\$78.00
40904-00	Fuse holder A.C.	\$18.00
42101-00	115VAC pilot light amber	\$9.00
42102-00	115VAC pilot light red	\$9.00
40403-03	Resonant capacitor 3 MFD	\$48.00
40403-05	Resonant capacitor 5 MFD	\$39.00
40403-10	Resonant capacitor 10 MFD	\$39.00
FR12NX	Control 4-Bank 115/230 12V	\$270.00
FR24NX	Control 4-Bank 115/230 24V	\$270.00
FR32NX	Control 4-Bank 115/230 32V	\$285.00

True Charge2 Series

- Wide voltage range operation (90-135 volt AC, 47-63 Hz)
- Parallel stacking feature allows two chargers to work together to combine the output current
- Drip proof design
- Settings for AGM, flooded or gel lead-acid batteries
- Power factor corrected, temperature compensated during charging
- Automatic 21 day top-up program
- Durable and corrosion resistant chassis
- CSA E60335-2-29, CE Marked
- Ignition protected rated UL1564 and UL1236, including the Marine Supplement, drip test
- Ingress protection rated IP32 per EN/IEC 60529
- 2 year manufacturer warranty



TRUE CHARGE2 SERIES



REMOTE PANEL

Item Number	Banks	Amps	Dimensions in "(mm) HxWxD	Output Volts	Price
804-1220-02	3	20	2.8(71) x 6.7(170) x 9.8(249)	12	\$403.00
804-1240-02	3	40	2.8(71) x 6.7(170) x 9.8(249)	12	\$523.00

Item Number	Description	Price
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Accessories

808-0232-01	Temperature sensor	\$42.00
808-8040-01	Remote panel	\$100.00

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Battery Chargers and Equipment

DOLPHIN

Premium Series

- New robust and compact casing
- 3 completely isolated battery outputs
- Digital management with up-to-date microcontroller
- 4 charging programs including one for lithium ion iron phosphate with integrated BMS
- Full power at temperatures up to 50° C
- Automatic weekly equalisation for all charging programs
- Automatic 115/230 volt switchover (12 volt 25 amp, 12 volt 40 amp & 24 volt 20 amp only)
- Night mode: silent-without fan (12 volt 25 amp, 12 volt 40 amp & 24 volt 20 amp only)
- Conformal coating of PCB to prolong the life of the battery charger



PREMIUM SERIES

Item Number	Output	Battery Capacity	Dimensions in"(mm) HxWxD	Price
Premium Series				
99020	12V-25A	50-250 Ah	4.75(121) x 13.88(353) x 3.75(95)	\$489.00
99030	12V-40A	80-400 Ah	4.75(121) x 13.88(353) x 3.75(95)	\$759.00
99040	24V-20A	40-200 Ah	4.75(121) x 13.88(353) x 3.75(95)	\$839.00
99050	12V-60A	n/a	9.44(240) x 4.21(107) x 10.79(274)	\$905.00

Dolphin Series

- Can operate up to 65° C without de-rating
- Internal diode isolator without voltage drop
- Solid casing in aluminum, mounting by 4 easily accessible screws
- Integrated control panel, LED display indicating the charging curve as well as anomalies and faults
- Automatic switchover: equipped with three isolated outputs, automatic switchover 115 volt / 230 volt / 60Hz.
- Conformal coating of PCB to prolong the life of the charger
- Using built in CAN BUS J1939 interface



PRO SERIES

Item Number	Output	Battery Capacity	Dimensions in"(mm) HxWxD	Price
Pro Series				
99507	12V-70A	120-70 Ah	16.72(425) x 16.17(410) x 5.98(152)	\$1,320.00
99501	12V-90A	180-900 Ah	13.4(340) x 14.2(361) x 4.9(124)	\$1,602.00
99502	24V-40A	80-400 Ah	13.4(340) x 14.2(361) x 4.9(124)	\$1,278.00
99503	24V-60A	120-600 Ah	13.4(340) x 14.2(361) x 4.9(124)	\$1,373.00
99504	24V-100A	200-1000 Ah	13.4(340) x 14.2(361) x 7.5(191)	\$2,461.00

Item Number	Description	Price
Accessories		
99047	Temperature sensor adjusts the charging voltage depending on battery temperature	\$62.00

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Pro Nautic Series

- Automatically senses and distributes up to full capacity to any one bank or combination of all banks
- Up to 12 performance & precision 4 stage charging profiles: charge, condition, auto maintain, and recondition
- Automatic dockside power mode for 12 volt DC lighting and appliances
- Conservation energy mode
- Automatically programs conditioning time based on discharge state of batteries
- Remote temperature probe included
- Meets marine spec ULc 1236, CE marked, CTick, FCC class B, CEDC, and ABYC approved



DIGITAL DISPLAY AND CONTROL REMOTE



PRONAUTIC P SERIES

Item Number	Output Voltage	Amps	Dimensions LxWxH in "(mm)	Weight lbs(kg)	Price
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Pro Nautic P Series

100-260 Autoarranging AC input Voltage, 50/60 cycle, 3 banks

63120	12	20	10.25(260) x 8.50(215) x 3.50(89)	5(2.2)	\$546.20
63130	12	30	10.25(260) x 8.50(215) x 3.50(89)	5(2.2)	\$668.13
63140	12	40	10.25(260) x 8.50(215) x 3.50(89)	5(2.2)	\$718.45
63150	12	50	12.25(311) x 8.50(215) x 3.50(89)	7(3.1)	\$919.99
63160	12	60	12.25(311) x 8.50(215) x 3.50(89)	7(3.1)	\$1,135.89
63170	24	20	10.25(260) x 8.50(215) x 3.50(89)	5(2.2)	\$735.98
63180	24	30	12.25(311) x 8.50(215) x 3.50(89)	7(3.1)	\$1,152.56

Item Number	Description	Price
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Accessories

63106	Remote temperature sensor	\$17.23
63100	Digital display and control remote	\$141.62

Battery Chargers and Equipment

REGULATORS + CENTERFIELDER

Balmar

- Dual models can control two alternators on single engine
- Presets for gel, AGM, and flooded types
- Advanced time & voltage adjustments
- Amp manager & equalization functions
- Bright LED alphanumeric display and easy to navigate programming mode increase user friendliness
- Belt load manager allows user to reduce maximum regulator field output in 5% increments to ensure that belts are protected from undue wear
- MC regulators have special programming for systems with voltage sensitive halogen lighting
- ARS items designed for single alternator use
- MC units designed to specifically control two alternators



ARS-5-H



MC-TS-B



MC-TS-A

Item Number	Amps	Volts	Bat. Eq.	Dual Alt.	Dimensions in "(mm) HxWxD	Price
Alternator Regulators						

H item numbers come equipped with harness

ARS-5-H	9	12	No	No	4.1(104) x 3.2(81) x 1.5(38)	\$418.00
MC-612 -DUAL-H	15	12	Yes	Yes	4.8(122) x 3.2(81) x 1.5(38)	\$526.00
MC-614-H	15	12	Yes	Yes	4.8(122) x 3.2(81) x 1.5(38)	\$459.00
MC-624-H	15	24	Yes	Yes	4.8(122) x 3.2(81) x 1.5(38)	\$540.00

Item Number	Sensor Type	Price
Temperature Sensors		

MC-TS-B	Battery	\$67.99
MC-TS-A	Alternator	\$53.99

Centerfielder

- For use with max charge regulators only
- Eliminates alternator "chatter" by unifying power output to a single battery bank
- Provides field current from a single regulator to both port and starboard alternators when both engines are in use
- Adjustable for 12 volt or 24 volt operation
- NOT suitable for systems utilizing internally regulated alternators
- 1 year limited manufacturer warranty



CENTERFIELDER

Item Number	Volts	Fusing	Wiring Included	Price
CF-12/24-II	12/24	15A ATC	Fused 12 AWG power wires (2)	\$310.00

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The following definitions are derived from the American Boat and Yacht Council standards and are meant to be for reference only.

Bulk Charge: This is initiated at power up and provides the charger's full-rated current to the battery bank until a predetermined voltage level is attained and/or a certain time has passed. This mode provides a rapid recharge.

Absorption Charge (also called acceptance charge): This stage immediately follows the bulk charge mode. It maintains the battery voltage at the bulk charge voltage level; the current decreases as the battery accepts its final charge. This mode continues for a given time or until a predetermined current level is reached.

Float Charge: This stage is designed to hold the battery at a safe, lower voltage while providing up to the charger's full-rated amperage to accommodate DC load requirements. Most units will remain in this mode until the AC power is cycled off and then on again, or battery voltage drops to a predetermined level due to excessive load.

Equalization: This feature can be found in some linear and multi-stage chargers. It is important that the voltage and time of this cycle be very well controlled so that its primary purpose of removing residual sulfate, bringing all flooded battery cells to an equal potential and mixing of the electrolyte occurs without damaging the battery. This mode of charging is not recommended for SVR batteries.

Note: Different manufacturers have different philosophies regarding the operation of these four stages. This includes the amount of time the charger stays in the bulk mode or if a certain DC load demand will trigger the charger to return to the bulk mode. Careful consideration should be given to these important characteristics, based on the anticipated application. Due to the frequencies involved, electrical interference can be an issue and may show up in radios or televisions if the charger is not properly installed.