



KUSSMAUL

ELECTRONICS CO., INC.

CHARGER SYSTEM KITS



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PUMP PLUS 1000

AIR COMPRESSOR / BATTERY CHARGER

AUTOMATIC, SINGLE OUTPUT BATTERY CHARGER

OUTPUT TO BATTERIES, 15 AMPERES MAXIMUM

3 AMP BATTERY SAVER FOR RECHARGEABLE HAND LIGHTS

MAINTAINS AIR PRESSURE IN THE VEHICLE'S BRAKE SYSTEM

BAR GRAPH BATTERY CONDITION DISPLAY

MAY BE OPERATED AS A D.C. COMPRESSOR FROM THE BATTERY OR SWITCHED SO THAT COMPRESSOR WILL ONLY RUN WITH A.C. POWER APPLIED



MODEL #091-9-1000

The Pump Plus 1000 is a small air compressor and a completely automatic battery charger. The compressor is a standard Auto Pump. The automatic charger maintains 1 bank of batteries with a maximum output current of 15 amps. The 3 amp Battery Saver powers accessories and removes their load from the battery whenever A.C. power is applied to the charger.

The Pump Plus 1000 charger senses the batteries in the vehicle and recharges exactly as much as required. When the batteries are fully charged, all charging stops. The state of charge of the batteries is indicated on a remotely located bar graph display whenever power is applied to the vehicle. The Battery Saver contained in the Pump Plus 1000 charger is a 3 ampere power supply with a relay to remove the accessory loads from the battery and connect them to the power supply when the charger is energized with A.C. power. This permits the charger to recharge the batteries without supplying the accessory load.

A Selector Switch is provided on the charger to operate the compressor either as a D.C. compressor or as an A.C. compressor. In either switch position the compressor operates from the vehicle's battery. When "D.C." is selected, the compressor operates whenever the pressure switch senses low system pressure. This is useful when parking the vehicle away from the 120 volt input power. For those operators who wish to limit compressor operation to the times when the

shore line is connected to the vehicle, the Selector Switch should be placed in the "A.C." position. This will operate the compressor when the A.C. power is available, but shuts off the compressor when the shore line is removed. In either switch position the compressor is operated by the vehicle's battery.

PUMP PLUS 1000 SPECIFICATIONS

SPECIFICATIONS: BATTERY CHARGER

- Input:** 120 volts, 50/60 Hz., 3.5 amps
- Output:** 12 VDC, @ 15 amps. max.
- Voltage Sense:** remote, electronic, no sense wires required.
- Battery Saver:** Output Voltage 12 VDC Output Current 3 amps
- Indicators:** Power - indicates input power applied
- Battery Saver - indicates Battery Saver load exceeds 3 amps.
- Bar Graph - remotely located, indicates state of charge of batteries
- Weight:** 16 pounds
- Warranty:** 3 Years
- Outline Drawing :** 004

SPECIFICATIONS: AIR COMPRESSOR

- Input:** 12 volt DC @ 12 amps
- Output:** .30 SCFM @ 80 PSI, .35 SCFM @ 60 PSI
- Motor Type:** Permanent Magnet, .10 H.P.
- Weight:** 6 pounds
- Warranty:** 1 Year
- Outline Drawing :** 013

PUMP PLUS 1200

AIR COMPRESSOR / HIGH OUTPUT BATTERY CHARGER

**AUTOMATIC, SINGLE
OUTPUT BATTERY CHARGER**

**OUTPUT TO BATTERIES, 40
AMPERES MAXIMUM**

**MAINTAINS AIR PRESSURE
IN THE VEHICLE'S BRAKE
SYSTEM**

**BAR GRAPH BATTERY CONDITION
DISPLAY**

**MAY BE OPERATED AS A D.C. COMPRES-
SOR FROM THE BATTERY OR SWITCHED
SO THAT COMPRESSOR WILL ONLY RUN
WITH A.C. POWER APPLIED**



MODEL #091-9-1200

The Pump Plus 1200 is a small air compressor and a completely automatic battery charger. The compressor is a standard Auto Pump. The automatic charger maintains 1 bank of batteries with a maximum output current of 40 amps.

The Pump Plus 1200 charger senses the batteries in the vehicle and recharges exactly as much as required. When the batteries are fully charged, all charging stops. The state of charge of the batteries is indicated on a remotely located bar graph display whenever power is applied to the vehicle.

A Selector Switch is provided on the charger to operate the compressor either as a D.C. compressor or as an A.C. compressor. In either switch position the compressor operates from the vehicle's battery. When "D.C." is selected, the compressor operates whenever the pressure switch senses low system pressure. This is useful when parking the vehicle away from the 120 volt input power. For those operators who wish to limit compressor operation to the times when the shore line is connected to the vehicle, the Selector Switch should be placed in the "A.C." position. This will operate the compressor when the A.C. power is available, but shuts off the compressor when the shore line is removed. In either switch position the compressor is operated by the vehicle's battery.

PUMP PLUS 1200 SPECIFICATIONS

SPECIFICATIONS: BATTERY CHARGER

Input: 120 volts, 60 Hz., 10 amps

Output: 12 VDC, @ 40 amps. max.

Voltage Sense: remote, electronic, no sense wires required.

Indicators: Power - indicates input power applied

Bar Graph - remotely located, indicates state of charge of batteries

Weight: 21 pounds

Warranty: 3 Years

Outline Drawing : 002

SPECIFICATIONS: AIR COMPRESSOR

Input: 12 volt DC @ 12 amps

Output: .30 SCFM @ 80 PSI, .35 SCFM @ 60 PSI

Motor Type: Permanent Magnet, .10 H.P.

Weight: 6 pounds

Warranty: 1 Year

Outline Drawing : 013

PUMP PLUS 2000

AIR COMPRESSOR / BATTERY CHARGER

AUTOMATIC, DUAL INDEPENDENT BATTERY CHARGER

**OUTPUT TO BATTERIES, 15 AMPERES
MAXIMUM**

**BATTERY SAVER FOR
RECHARGEABLE HAND LIGHTS**

**MAINTAINS AIR PRESSURE IN THE
VEHICLE'S BRAKE SYSTEM**

**DUAL BAR GRAPH BATTERY CONDITION
DISPLAY**

**MAY BE OPERATED AS A D.C.
COMPRESSOR FROM THE BATTERY OR
SWITCHED SO THAT COMPRESSOR WILL
ONLY RUN WITH A.C. POWER APPLIED**



MODEL #091-9-2000

The Pump Plus 2000 is a small air compressor and a completely automatic, dual independent output, battery charger. The compressor is a standard Auto Pump. The automatic charger maintains 2 sets of batteries under independent control with a maximum output current of 15 amps. The 3 amp Battery Saver powers accessories and removes their load from the battery whenever A.C. power is applied to the charger.

The Pump Plus 2000 charger independently senses the two sets of batteries in the vehicle and recharges each one exactly as much as required. When the batteries are fully charged, all charging stops. The state of charge of the two sets of batteries is indicated on a remotely located bar graph display whenever power is applied to the vehicle. The Battery Saver contained in the Pump Plus 2000 charger is a 3 ampere power supply with a relay to remove the accessory loads from the battery and connect them to the power supply when the charger is energized with A.C. power. This permits the charger to recharge the batteries without supplying the accessory load.

A Selector Switch is provided on the charger to operate the compressor either as a D.C. compressor or as an A.C. compressor. In either switch position the compressor operates from the vehicle's battery. When "D.C." is selected, the compressor operates whenever the pressure switch senses low system pressure. This is useful when parking the vehicle away from the 120 volt input power. For those operators who

wish to limit compressor operation to the times when the shore line is connected to the vehicle, the Selector Switch should be placed in the "A.C." position. This will operate the compressor when the A.C. power is available, but shuts off the compressor when the shore line is removed. In either switch position the compressor is operated by the vehicle's battery.

PUMP PLUS 2000 SPECIFICATIONS

SPECIFICATIONS: BATTERY CHARGER

Input: 120 volts, 50/60 Hz., 3.5 amps
Output: Two independent outputs, 12 VDC, @ 15 amps. max.
Voltage Sense: remote, electronic, no sense wires required.
Battery Saver: Output Voltage 12 VDC Output Current 3 amps
Indicators: Power - indicates input power applied
 Battery Saver - indicates Battery Saver load exceeds 3 amps.
 Bar Graph - dual bar graph, remotely located, indicates state of charge of batteries
Weight: 16 pounds
Warranty: 3 Years
Outline Drawing : 004

SPECIFICATIONS: AIR COMPRESSOR

Input: 12 volt DC @ 12 amps
Output: .30 SCFM @ 80 PSI, .35 SCFM @ 60 PSI
Motor Type: Permanent Magnet, .10 H.P.
Weight: 6 pounds
Warranty: 1 Year
Outline Drawing : 013

SAVE MONEY WITH A KIT

CHARGER SYSTEM KITS

AUTO CHARGE KITS



INDICATOR



AUTO CHARGE



AUTO EJECT 20WP
specify cover color

AUTO CHARGE KIT

The Auto Charge Kit includes an Automatic Battery Charger and an Auto Eject 20WP 20 amp automatic power line disconnect. 15 amp Auto Eject may be substituted in kit, specify so when ordering. For installation in ambulances or locations where rear of Auto Eject is protected from the weather. This Kit provides a complete vehicle charging system at an affordable price.

PART NUMBER	DESCRIPTION	CHARGER	INDICATOR	AUTO EJECT
091-56-12-KIT	Auto Charge 1000 Kit	Auto Charge 1000	Remote Bar graph	Auto Eject 20WP
091-39-12-KIT	Auto Charge 2000 Kit	Auto Charge 2000	Remote Bar graph	Auto Eject 20WP
091-53-12-KIT	Auto Charge 1200 Kit	Auto Charge 1200	On Charger	Auto Eject 20WP
091-53-12-REMOTE-KIT	Auto Charge 1200 Remote Kit	Auto Charge 1200 Remote	Remote Bar graph	Auto Eject 20WP
091-66-12-KIT	Auto Charge D Kit	Auto Charge D	Remote Bar graph	Auto Eject 20WP
091-74-12-KIT	Auto Charge D2 Kit	Auto Charge D2	Remote Bar graph	Auto Eject 20WP
091-35/10-KIT	Auto Charge 35/10 Kit	Auto Charge 35/10	Remote Bar graph	Auto Eject 20WP
091-20/20-KIT	Auto Charge 20/20 Kit	Auto Charge 20/20	On Charger	Auto Eject 20WP
091-89-12-KIT	Auto Charge 4000 Kit	Auto Charge 4000	Remote Bar graph	Auto Eject 20WP

AUTO CHARGE SUPER KITS



INDICATOR



AUTO CHARGE



SUPER AUTO EJECT 20AMP
specify cover color

AUTO CHARGE SUPER KIT

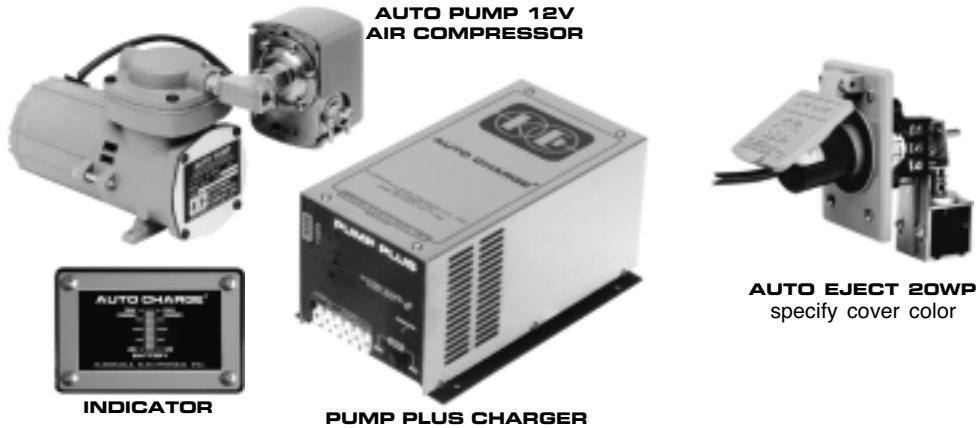
The Auto Charge Super Kit includes an Automatic Battery Charger and a Super Auto Eject 20 amp automatic power line disconnect. 15 amp Auto Eject may be substituted in kit, specify so when ordering. This Kit provides a complete vehicle charging system at an affordable price. Back Wire option for Auto Eject is Available, just add a -BW to the end of the Kit part number.

PART NUMBER	DESCRIPTION	CHARGER	INDICATOR	AUTO EJECT
091-56-12-S-KIT	Auto Charge 1000 Super Kit	Auto Charge 1000	Remote Bar graph	Super Auto Eject 20
091-39-12-S-KIT	Auto Charge 2000 Super Kit	Auto Charge 2000	Remote Bar graph	Super Auto Eject 20
091-53-12-S-KIT	Auto Charge 1200 Super Kit	Auto Charge 1200	On Charger	Super Auto Eject 20
091-53-12-REMOTE-S-KIT	Auto Charge 1200 Remote Super Kit	Auto Charge 1200 Remote	Remote Bar graph	Super Auto Eject 20
091-66-12-S-KIT	Auto Charge D Super Kit	Auto Charge D	Remote Bar graph	Super Auto Eject 20
091-74-12-S-KIT	Auto Charge D2 Super Kit	Auto Charge D2	Remote Bar graph	Super Auto Eject 20
091-35/10-S-KIT	Auto Charge 35/10 Super Kit	Auto Charge 35/10	Remote Bar graph	Super Auto Eject 20
091-20/20-S-KIT	Auto Charge 20/20 Super Kit	Auto Charge 20/20	On Charger	Super Auto Eject 20
091-89-12-S-KIT	Auto Charge 4000 Super Kit	Auto Charge 4000	Remote Bar graph	Super Auto Eject 20
091-168-12-S-KIT	Auto Charge SD150 Super Kit	Auto Charge SD150	Remote Bar graph	Super Auto Eject 20

SAVE MONEY WITH A KIT

CHARGER / 12V COMPRESSOR SYSTEM KITS

PUMP PLUS KITS

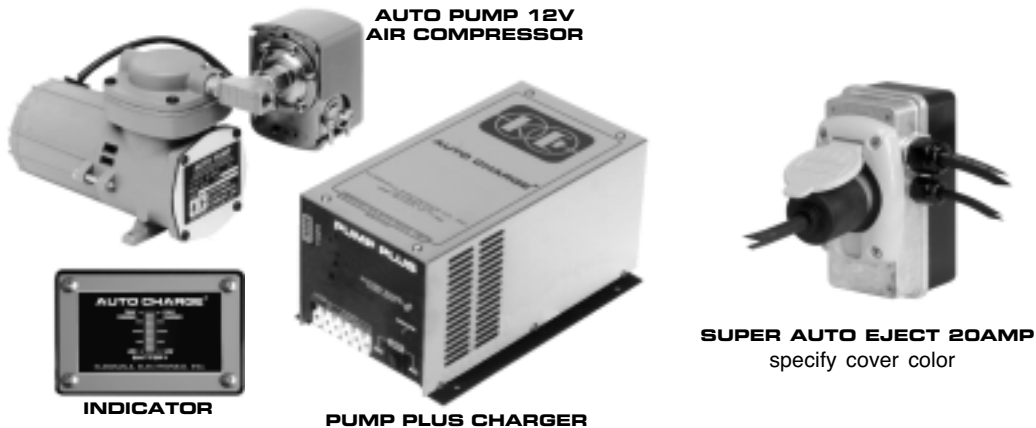


PUMP PLUS KIT

The Pump Plus Kit includes an Automatic Battery Charger, 12 volt Air Compressor system, and an Auto Eject 20WP 20 amp automatic power line disconnect. 15 amp Auto Eject may be substituted in kit, specify so when ordering. For installation in ambulances or locations where rear of Auto Eject is protected from the weather. This Kit provides a complete vehicle charging system at an affordable price.

PART NUMBER	DESCRIPTION	CHARGER	AUTO PUMP	INDICATOR	AUTO EJECT
091-9C-HO-KIT	Pump Plus HO Kit	Pump Plus HO	091-9 Auto Pump 12v	Remote L. E. D.	Auto Eject 20WP
091-9-1000-KIT	Pump Plus 1000 Kit	Pump Plus 1000	091-9 Auto Pump 12v	Remote Bar graph	Auto Eject 20WP
091-9-2000-KIT	Pump Plus 2000 Kit	Pump Plus 2000	091-9 Auto Pump 12v	Remote Bar graph	Auto Eject 20WP
091-9-1200-KIT	Pump Plus 1200 Kit	Pump Plus 1200	091-9 Auto Pump 12v	Remote Bar graph	Auto Eject 20WP
091-9-DPP-KIT	Auto Charge D Pump Plus Kit	Auto Charge D Pump Plus	091-9 Auto Pump 12v	Remote Bar graph	Auto Eject 20WP

PUMP PLUS SUPER KITS



PUMP PLUS SUPER KIT

The Pump Plus Super Kit includes an Automatic Battery Charger, 12 volt Air Compressor system, and a Super Auto Eject 20 amp automatic power line disconnect. 15 amp Auto Eject may be substituted in kit, specify so when ordering. This Kit provides a complete vehicle charging system at an affordable price. Back Wire option for Auto Eject is Available, just add a -BW to the end of the Kit part number.

PART NUMBER	DESCRIPTION	CHARGER	AUTO PUMP	INDICATOR	AUTO EJECT
091-9C-HO-S-KIT	Pump Plus HO Super Kit	Pump Plus HO	091-9 Auto Pump 12v	Remote L. E. D.	Super Auto Eject 20
091-9-1000-S-KIT	Pump Plus 1000 Super Kit	Pump Plus 1000	091-9 Auto Pump 12v	Remote Bar graph	Super Auto Eject 20
091-9-2000-S-KIT	Pump Plus 2000 Super Kit	Pump Plus 2000	091-9 Auto Pump 12v	Remote Bar graph	Super Auto Eject 20
091-9-1200-S-KIT	Pump Plus 1200 Super Kit	Pump Plus 1200	091-9 Auto Pump 12v	Remote Bar graph	Super Auto Eject 20
091-9-DPP-S-KIT	Auto Charge D Pump Plus Super Kit	Auto Charge D Pump Plus	091-9 Auto Pump 12v	Remote Bar graph	Super Auto Eject 20

Section 10: Charger System Kits



SAVE MONEY WITH A KIT

CHARGER / 120V COMPRESSOR SYSTEM KITS

Section 10: Charger System Kits

AUTO CHARGE PUMP KITS



INDICATOR



AUTO CHARGE



* AUTO PUMP 120 VOLT AIR COMPRESSOR

AUTO CHARGE PUMP KIT

The Auto Charge Pump Kit includes an Automatic Battery Charger and 120 volt Air Compressor system. This Kit provides a complete vehicle charging system at an affordable price.

PART NUMBER	DESCRIPTION	CHARGER	AUTO PUMP	INDICATOR
091-11-12-B1	Auto Charge 11 Pump Kit	Auto Charge 11	091-9B-1 Auto Pump 120v	On Charger
091-56-12-B1	Auto Charge 1000 Pump Kit	Auto Charge 1000	091-9B-1 Auto Pump 120v	Remote Bar graph
091-39-12-B1	Auto Charge 2000 Pump Kit	Auto Charge 2000	091-9B-1 Auto Pump 120v	Remote Bar graph
091-53-12-B1	Auto Charge 1200 Pump Kit	Auto Charge 1200	091-9B-1 Auto Pump 120v	On Charger
091-53-12-REMOTE-B1	Auto Charge 1200 Remote Pump Kit	Auto Charge 1200 Remote	091-9B-1 Auto Pump 120v	Remote Bar graph
091-66-12-B1	Auto Charge D Pump Kit	Auto Charge D	091-9B-1 Auto Pump 120v	Remote Bar graph
091-74-12-B1	Auto Charge D2 Pump Kit	Auto Charge D2	091-9B-1 Auto Pump 120v	Remote Bar graph
091-20/20-B1	Auto Charge 20/20 Pump Kit	Auto Charge 20/20	091-9B-1 Auto Pump 120v	On Charger
091-35/10-B1	Auto Charge 35/10 Pump Kit	Auto Charge 35/10	091-9B-1 Auto Pump 120v	Remote Bar graph
091-89-12-B1	Auto Charge 4000 Pump Kit	Auto Charge 4000	091-9B-1 Auto Pump 120v	Remote Bar graph
091-168-12-B1	Auto Charge SD150 Pump Kit	Auto Charge SD150	091-9B-1 Auto Pump 120v	Remote Bar graph

* All kits available with (091-9HP) Auto Pump HP in place of (091-9B-1)Auto Pump AC

WHEN POSSIBLE BUY A KIT AND SAVE

SAVE MONEY WITH A KIT

CHARGER / 120V COMPRESSOR SYSTEM KITS

AUTO CHARGE PUMP WP KITS



INDICATOR



AUTO CHARGE



**AUTO PUMP 120 VOLT
AIR COMPRESSOR**



AUTO EJECT 20WP
specify cover color

AUTO CHARGE PUMP WP KIT

The Auto Charge Pump WP Kit includes an Automatic Battery Charger, 120 volt Air Compressor system, and an Auto Eject 20WP 20 amp automatic power line disconnect. 15 amp Auto Eject may be substituted in kit, specify so when ordering. For installation in ambulances or locations where rear of Auto Eject is protected from the weather. This Kit provides a complete vehicle charging system at an affordable price.

PART NUMBER	DESCRIPTION	CHARGER	AUTO PUMP	INDICATOR	AUTO EJECT
091-11-12-B1-KIT	Auto Charge 11 Pump WP Kit	Auto Charge 11	091-9B-1 Auto Pump 120v	On Charger	Auto Eject 20WP
091-56-12-B1-KIT	Auto Charge 1000 Pump WP Kit	Auto Charge 1000	091-9B-1 Auto Pump 120v	Remote Bar graph	Auto Eject 20WP
091-39-12-B1-KIT	Auto Charge 2000 Pump WP Kit	Auto Charge 2000	091-9B-1 Auto Pump 120v	Remote Bar graph	Auto Eject 20WP
091-53-12-B1-KIT	Auto Charge 1200 Pump WP Kit	Auto Charge 1200	091-9B-1 Auto Pump 120v	On Charger	Auto Eject 20WP
091-53-12-REMOTE-B1-KIT	Auto Charge 1200 Remote Pump WP Kit	Auto Charge 1200 Remote	091-9B-1 Auto Pump 120v	Remote Bar graph	Auto Eject 20WP
091-66-12-B1-KIT	Auto Charge D Pump WP Kit	Auto Charge D	091-9B-1 Auto Pump 120v	Remote Bar graph	Auto Eject 20WP
091-74-12-B1-KIT	Auto Charge D2 Pump WP Kit	Auto Charge D2	091-9B-1 Auto Pump 120v	Remote Bar graph	Auto Eject 20WP
091-20/20-B1-KIT	Auto Charge 20/20 Pump WP Kit	Auto Charge 20/20	091-9B-1 Auto Pump 120v	On Charger	Auto Eject 20WP
091-35/10-B1-KIT	Auto Charge 35/10 Pump WP Kit	Auto Charge 35/10	091-9B-1 Auto Pump 120v	Remote Bar graph	Auto Eject 20WP
091-89-12-B1-KIT	Auto Charge 4000 Pump WP Kit	Auto Charge 4000	091-9B-1 Auto Pump 120v	Remote Bar graph	Auto Eject 20WP

AUTO CHARGE PUMP SUPER KITS



INDICATOR



AUTO CHARGE



**AUTO PUMP 120 VOLT
AIR COMPRESSOR**



SUPER AUTO EJECT 20AMP
specify cover color

AUTO CHARGE PUMP SUPER KIT

The Auto Charge Pump Super Kit includes an Automatic Battery Charger, 120 volt Air Compressor system, and a Super Auto Eject 20 amp automatic power line disconnect. 15 amp Auto Eject may be substituted in kit, specify so when ordering. This Kit provides a complete vehicle charging system at an affordable price. Back Wire option for Auto Eject is Available, just add a -BW to the end of the Kit part number.

PART NUMBER	DESCRIPTION	CHARGER	AUTO PUMP	INDICATOR	AUTO EJECT
091-11-12-B1-S-KIT	Auto Charge 11 Pump Super Kit	Auto Charge 11	091-9B-1 A.P. 120v	On Charger	S. Auto Eject 20
091-56-12-B1-S-KIT	Auto Charge 1000 Pump Super Kit	Auto Charge 1000	091-9B-1 A.P. 120v	Bar graph	S. Auto Eject 20
091-39-12-B1-S-KIT	Auto Charge 2000 Pump Super Kit	Auto Charge 2000	091-9B-1 A.P. 120v	Bar graph	S. Auto Eject 20
091-53-12-B1-S-KIT	Auto Charge 1200 Pump Super Kit	Auto Charge 1200	091-9B-1 A.P. 120v	Bar graph	S. Auto Eject 20
091-53-12-REMOTE-B1-S-KIT	Auto Charge 1200 Remote Pump SK	Auto Charge 1200 R.	091-9B-1 A.P. 120v	On Charger	S. Auto Eject 20
091-66-12-B1-S-KIT	Auto Charge D Pump Super Kit	Auto Charge D	091-9B-1 A.P. 120v	Bar graph	S. Auto Eject 20
091-74-12-B1-S-KIT	Auto Charge D2 Pump Super Kit	Auto Charge D2	091-9B-1 A.P. 120v	Bar graph	S. Auto Eject 20
091-20/20-B1-S-KIT	Auto Charge 20/20 Pump Super Kit	Auto Charge 20/20	091-9B-1 A.P. 120v	On Charger	S. Auto Eject 20
091-35/10-B1-S-KIT	Auto Charge 35/10 Pump Kit	Auto Charge 35/10	091-9B-1 A.P. 120v	Bar graph	S. Auto Eject 20
091-89-12-B1-S-KIT	Auto Charge 4000 Pump Super Kit	Auto Charge 4000	091-9B-1 A.P. 120v	Bar graph	S. Auto Eject 20
091-168-12-B1-S-KIT	Auto Charge SD150 Super Kit	Auto Charge SD150	091-9B-1 A.P. 120v	Bar graph	S. Auto Eject 20