

XT II™ 21

Chemicals
Equipment
Programs
Process



21" High Performance Battery Burnisher • Exclusive Computer Controlled Technology

The next generation of battery burnisher! The XT II™ utilizes new state-of-the-art technologies to outperform traditional battery and propane burnishers. A precision onboard computer controller is synchronized with a powerful maintenance free motor to deliver the high level burnish response today's high speed floor finishes demand. Featuring easy-to-use controls and a "smart" watering system, the XT II™ is user friendly and increases productivity.

Applications

- Dry burnishing
- Restorative burnishing

Features

- Performance of a propane (Without the safety concerns and high maintenance costs)
- Onboard computer controller (Provides constant speed and torque)
- Maintenance free motor (No carbon brushes to replace)
- Smart watering system (For safer and easier battery maintenance)
- Easy-to-use controls (Requires less training; increases productivity)



Easy-to-use controls

Warranty

3 Year*

*Please refer to Betco Equipment Price/Product Guide for complete equipment warranty information.

Authorized Betco Distributor



CLICK TO ORDER PARTS

shop.monsterjanitorial.com

Specifications

Burnish path.....	21"
Pad size	21"
Motor	Maintenance free, rated at 5 hp
Computer controller	Onboard, provides constant speed and torque
Pad pressure.....	60 lbs.
Pad speed.....	7,074 fpm, measured at outer diameter of pad
RPM.....	Approx. 1500
Pad driver	Exclusive Flex Lock III
Pad center lock	Threaded, for easy installation
Noise level.....	71 dB
Volts	36-volt system
Batteries	(3) 12-volt
Battery maintenance	Smart watering system
Run time.....	2 - 2.5 hours
Battery charger.....	Included
Rear charger port.....	Yes
Battery gauge	Yes
Key switch	Yes
Main power light.....	Yes, red
Length	54"
Width	22"
Height	42"
Weight	330 lbs.
Wheels.....	(2) 6" heavy duty non-marking
Casters	(2) 3" heavy duty non-marking
Productivity.....	24,000 sq. ft./hour

Available In

XT II™ 21 – 21" Battery Burnisher: Item #E12346-00

Literature Item #E12346-92

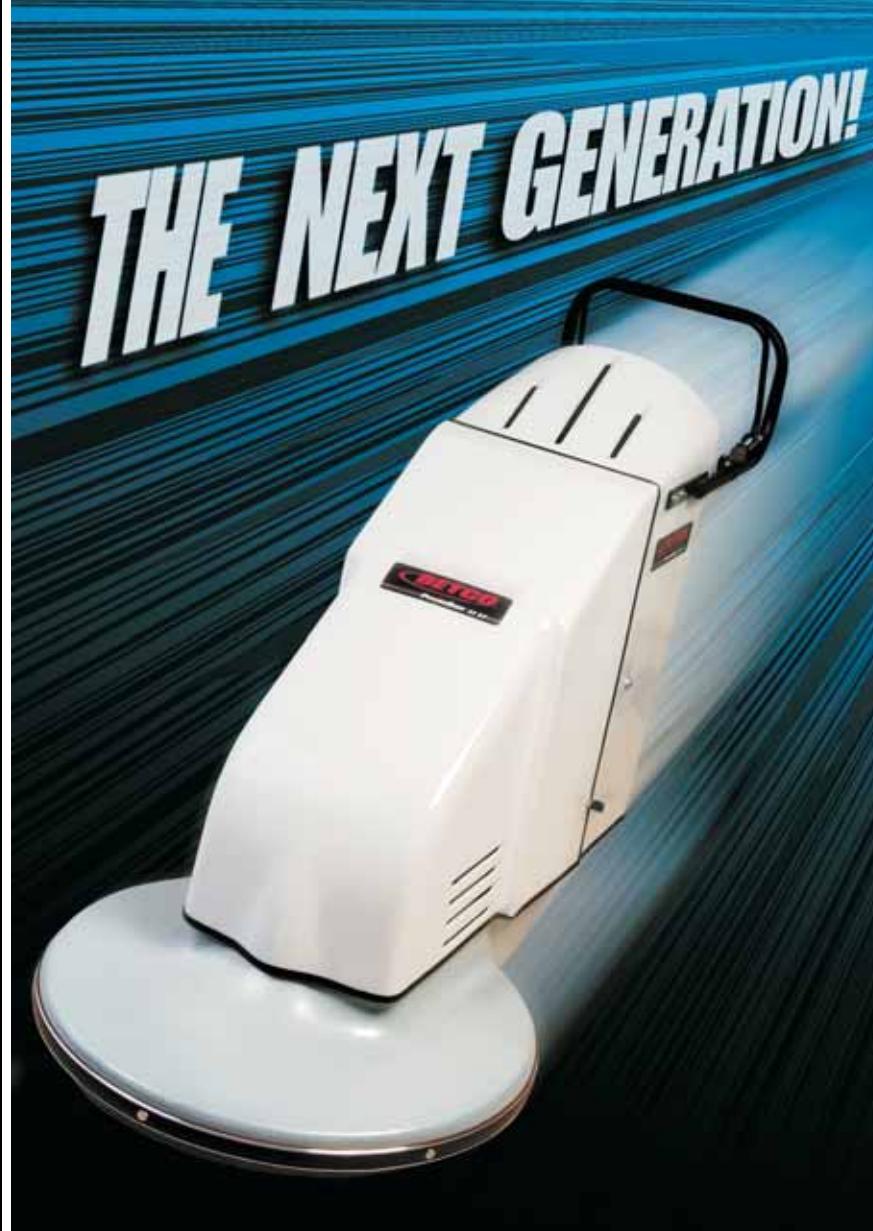
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XT II™

*Fast, Powerful
Battery Burnisher.*

**Re-Charge
Your Floor
Maintenance!**



- Outperforms traditional battery burnishers.
- Safer, quieter and less costly than propane burnishers.
- Perfect for any facility.

XT II™

High Performance Battery Burnishers • Computer Controlled Technology

The next generation of high speed burnishers! Utilizing new state-of-the-art technologies, the XT II™ battery burnishers outperform traditional battery and propane burnishers every time. A precision onboard computer controller is synchronized with a powerful maintenance-free motor to deliver the high level burnish response demanded by today's high speed floor finishes.



Low Profile Design



User Friendly Controls

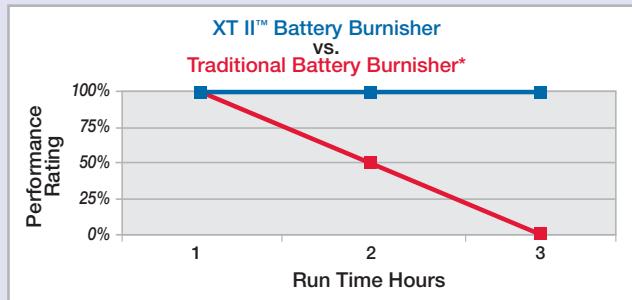


Smart Watering System

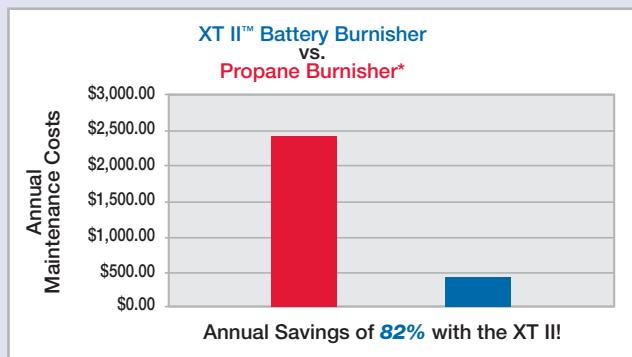
Features and Benefits

- Computer controller delivers consistent performance.
- Safer and more cost effective than propane burnishers.
- High productivity results up to 36,000 sq. ft./hour.
- User-friendly controls. Easy to train and operate.
- Low 71 dB noise level.
- Maintenance-free high power motor and smart watering system for batteries.
- Low profile design allows burnishing in tight areas.
- Available in 21" and 27" models.

Outperforms Traditional Battery Burnishers



More Cost Effective than Propane Burnishers



* This information is presented based on our research which we believe to be correct and objective.
No guarantee is expressed or implied.

POWERBUFF®

XT II™ 21 – 21" Battery Burnisher

Item #E12346-00

Operator's Manual Parts Schematic



Chemicals

Equipment

Programs

Process

BETCO®



XT-2I
THREE YEAR LIMITED WARRANTY

PowerBuff, Inc. warrants new machines to be free from defects in material and workmanship under normal use and service to the original purchaser. This warranty period is subject to the conditions stated below.

BATTERY AND BATTERY CHARGER WARRANTIES

Battery warranty is for one year on a pro rated basis. Battery warranty is void if the batteries are not maintained at the proper level. Battery charger is warranted for one year.

EXCLUSIONS

This warranty does not cover normal wear and maintenance items including, but not limited to: belts, gaskets, wheels, casters, and routine adjustments. This warranty does not cover damage or failure which is the result of misuse, negligent operation, handling or repair, or which is the result of modification or repair by any person other than an authorized PowerBuff, Inc. service representative.

LIMITATIONS

STATED WARRANTIES ARE IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED. PowerBuff's liability under this warranty is limited to repair of the product and/or replacement parts and is given to purchaser in lieu of all other remedies, including incidental and consequential damages.

WARRANTY DETAIL AND CLAIM PROCEDURES

PowerBuff, Inc. warrants to buyer that for the applicable shipment, such material will be free from defects in material and workmanship or failure to meet specifications, (a defect) appears in the material; then seller will, at its option, either repair or replace the defective goods without charge or credit or refund the purchase price of the defective material, provided that:

- 1) The defect appears within the applicable warranty period.
- 2) Buyer notifies seller in writing of the claimed defect promptly after buyer knows or reasonable should know of the claimed defect.
- 3) Seller's examination if the material discloses that the claimed defect actually exists.

Buyer shall follow seller's instruction regarding return of defective material, and no material will be accepted for repair, replacement, credit, or refund without the written authorization of and in accordance with seller's instructions. In the case of any such return, buyer shall bear the risk if in-transit loss or damage; and shall prepay all transportation charges to seller. Repaired or replacement material will be shipped prepaid by seller, and buyer shall bear the risk of in-transit loss or damage. The replaced material shall become the seller's property.

XT-21 GENERATION II

Specifications

ITEM	Description / information
Power Supply.....	36 Volt (3 - 12Volt Batteries)
Charger.....	36 Volt - 20 Amp
Motor.....	High Horsepower, - maintenance free
Controller.....	Computer controlled
Run Time.....	2 - 2.5 Hours at constant speed & torque
Productivity.....	24,000 Square feet/hour
Wheels.....	Colson 6" Wheels - non marking
Caster.....	Duel 3" casters
Smart Watering System	Quick-fill, On-board Watering System
Pad Driver.....	Powerbuff Exclusive "Flex Loc" 21"
Pad speed.....	7,074 FPM Constant
Weight.....	330 lbs
Dimensions.....	54" Length 22" Width 42" Height
Warranty.....	Three Year Limited

SAFETY INSTRUCTIONS

Hazard Level	Explanation or Description of Hazard Level
DANGER	Failure to follow safety instructions labeled DANGER could result in severe injury or death to the machine operator or others.
WARNING	Failure to follow safety instructions labeled WARNING could result in injury to the machine operator or others. Also, machine or property damage could occur.
CAUTION	Failure to follow safety instructions labeled CAUTION could result in damage to the machine or damage to other property.

- DANGER** *This manual contains important information about your machine. Read and understand all instructions before operating the machine. Failure to read and follow the instructions could result in injury to the person operating the machine or injury to others. Damage to the machine or other property could occur if instructions are not followed.*
- DANGER** Do not operate this machine around any solvents, thinners, or other flammable liquids or materials. Electrical sparks can cause a fire or even an explosion.
- DANGER** Do not smoke around the machine. Also, keep all sparks and flames away from the batteries. The batteries generate gases that can cause an explosion.
- DANGER** Special care needs to be used when working on or near the batteries. Wear eye protection. Do not lay tools on batteries, as they may short out battery terminals. Do not wear metal jewelry, as it may short out battery terminals.
- DANGER** Charging batteries can be dangerous. Be aware that the battery charger may have a relatively low voltage output, but the current output is very high and therefore dangerous. Do not operate the charger if any parts of the charger or charger cords are damaged. Do not stand on a wet floor when connecting or disconnecting charger to the power outlet or to the machine.

Safety Instructions are continued on the next page →

SAFETY INSTRUCTIONS (continued from previous page)

DANGER Battery acid is dangerous. Wear eye and face protection, hand protection, and body protection when working on and around batteries. If you get acid on your skin, wash off immediately. If you get acid on your clothing, remove clothing and wash any skin that was in contact with the clothing. Baking soda mixed with water will help to neutralize the acid on your skin.

DANGER The machine is very heavy, so be very careful when loading, transporting, and unloading the machine.

WARNING Keep all body parts, clothing, and objects away from moving parts.

WARNING Operate machine from the rear, not from the side.

WARNING Disconnect a wire to the batteries before working on the machine.

WARNING Do not operate machine with charger plugged in.

WARNING Do not operate machine with any parts damaged or missing.

WARNING Do not operate close to stairs, loading docks, or other drop-offs. Do not park machine in such a manner that it could roll, forward or backward, off a drop-off.

WARNING Authorized personnel must perform maintenance and repairs. Do not alter or modify the machine, unless authorized by the manufacturer.

WARNING Do not expose the electrical components to water or excessive moisture.

WARNING Always put caution signs around the areas that are being cleaned.

WARNING Do not use machine as a "ladder". Do not use machine as a "forklift" to push stuff around. Do not ride or let anyone ride on the machine.

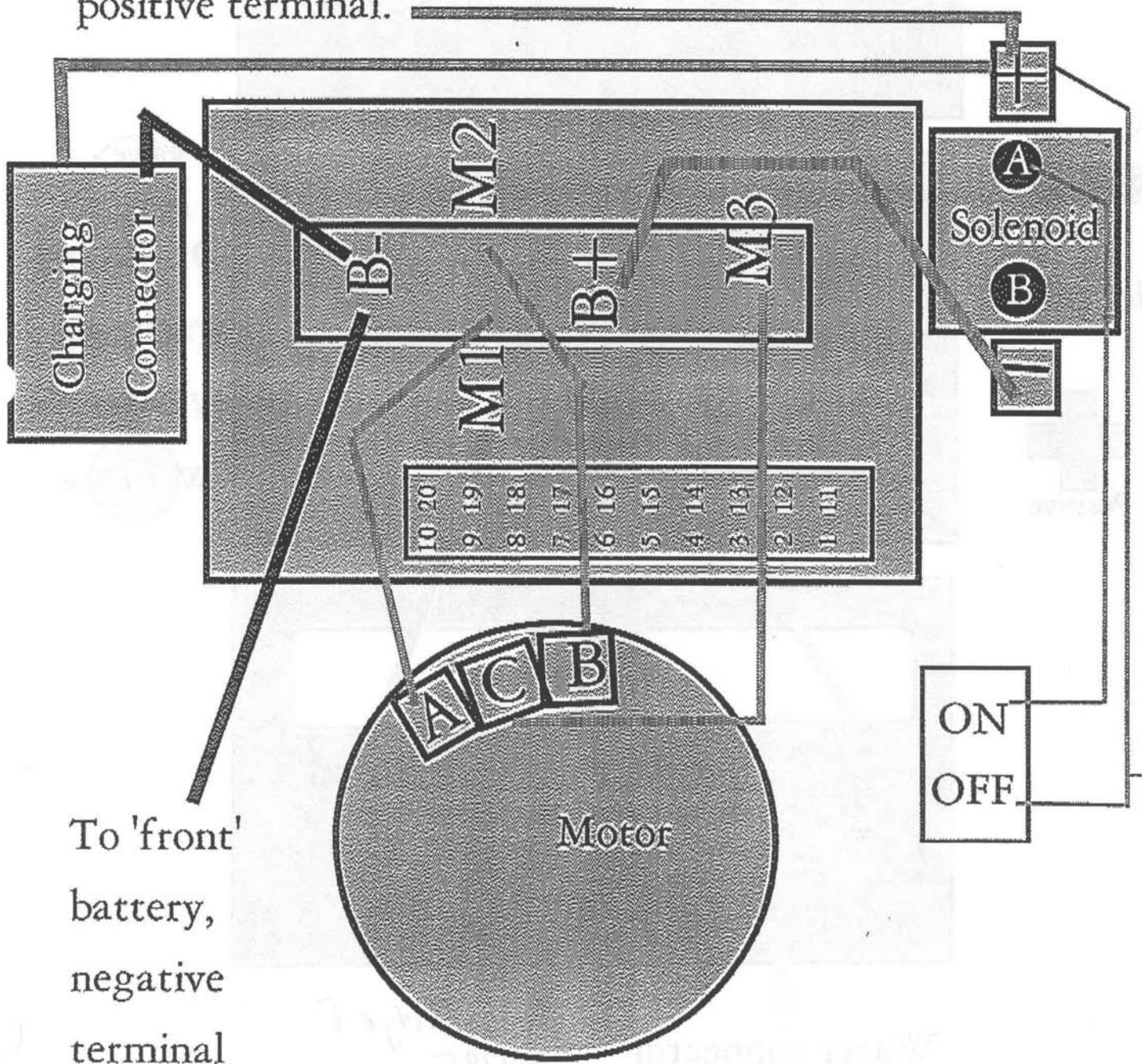
CAUTION Your machine warranty may be voided if parts other than PowerBuff parts are used.

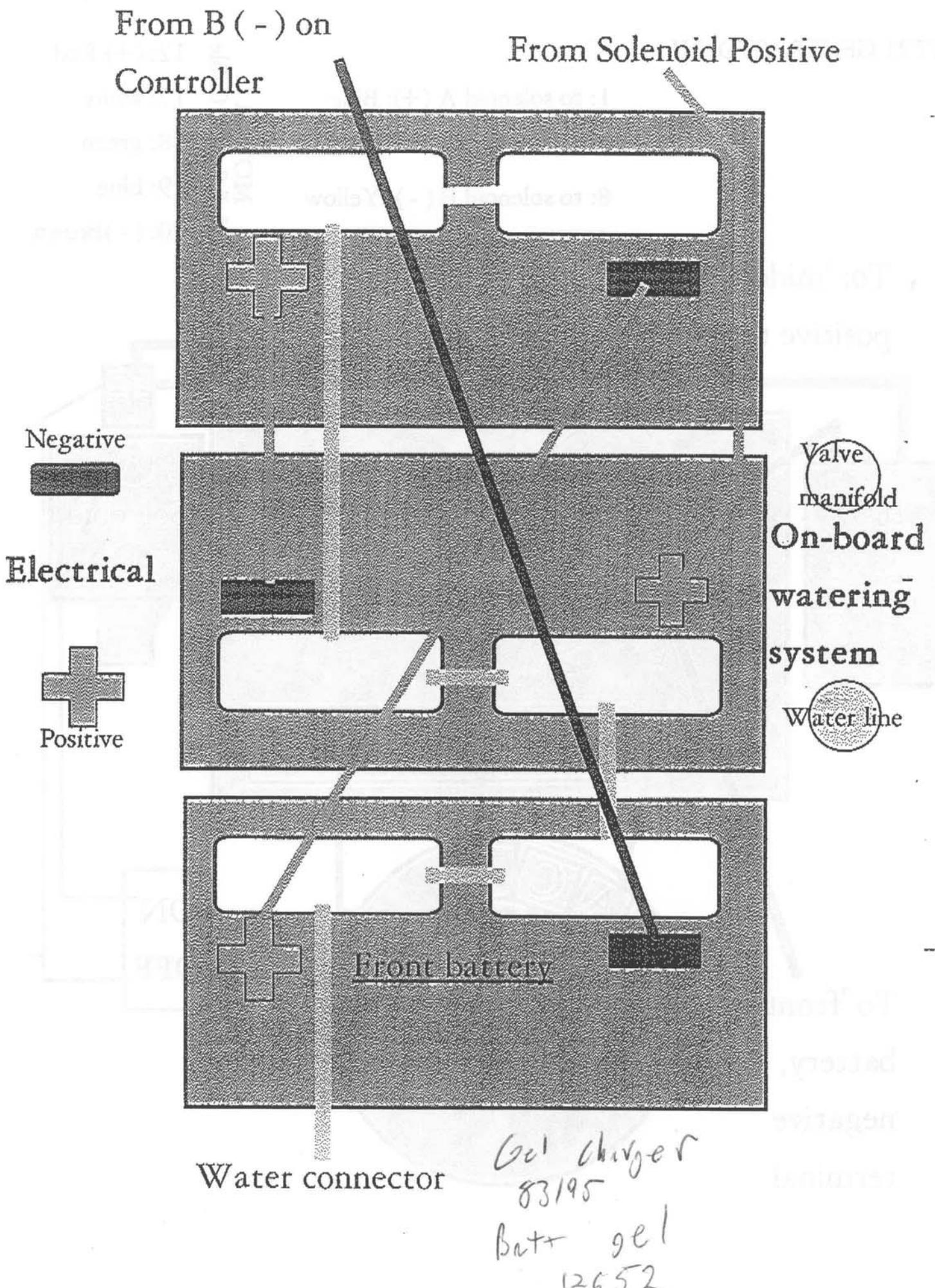
XT21 GENERATION II

- 1: to solenoid A (+): Blue
- 3: to safety switch: Green
- 8: to solenoid B (-): Yellow

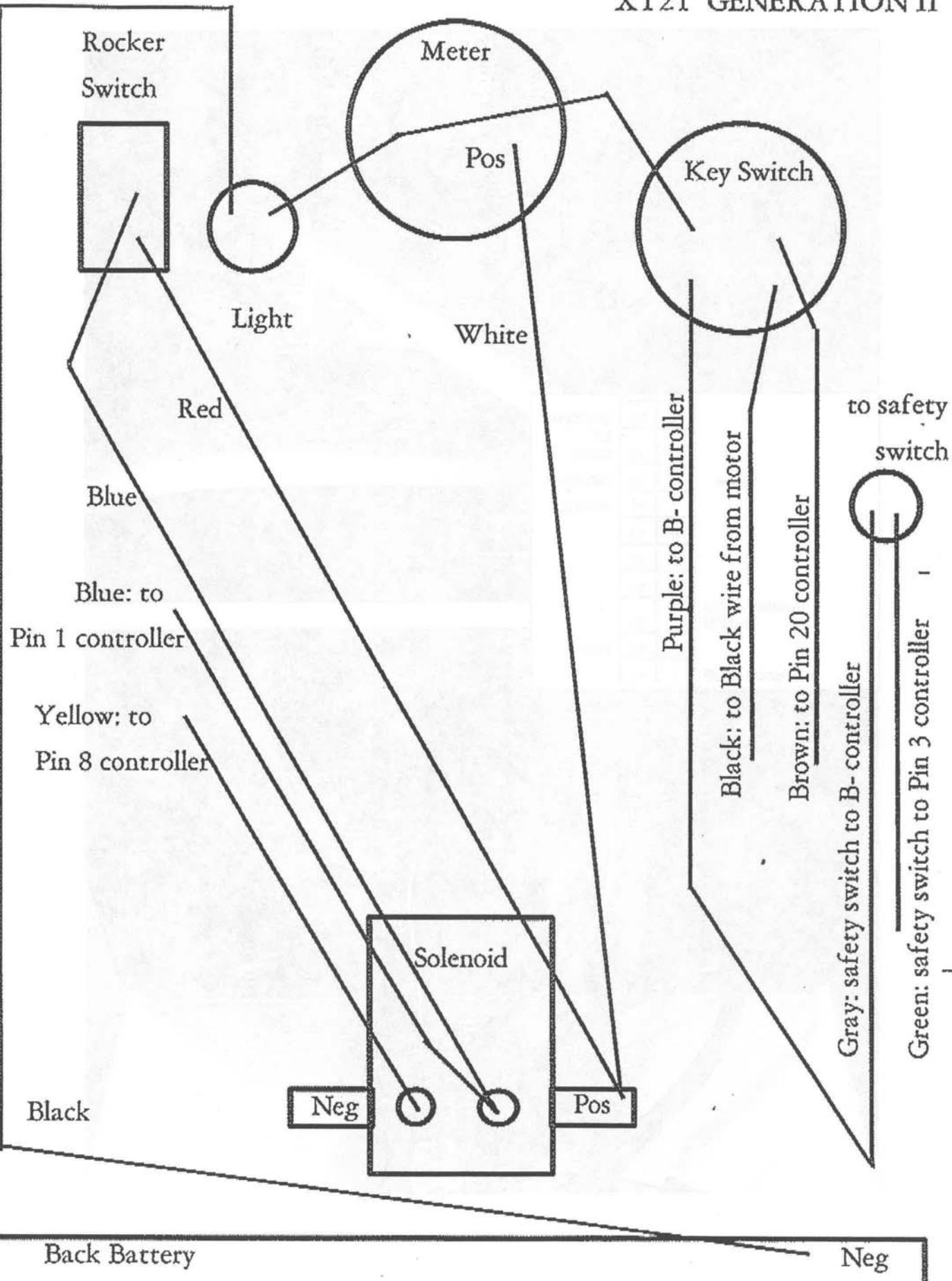
MOTOR Hall Sensor Cable
12: (+) Red
17: white
18: green
19: blue
20: (-) Brown

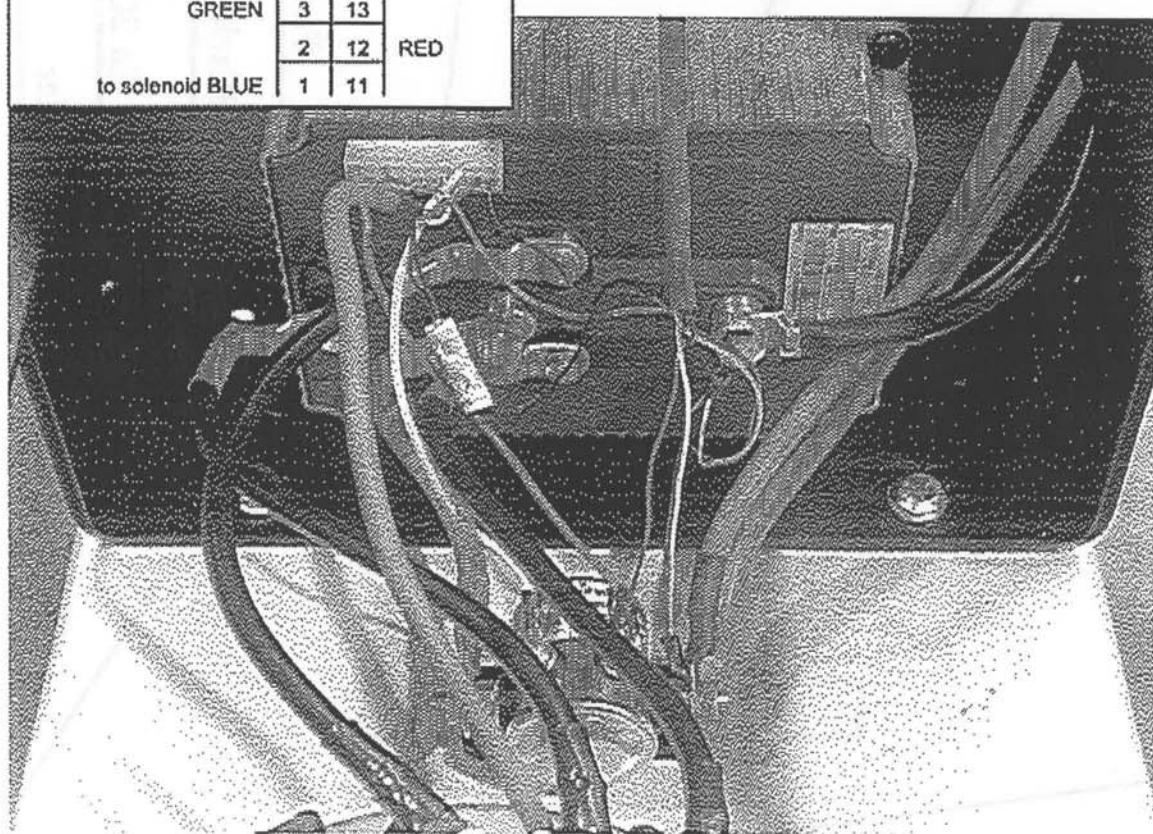
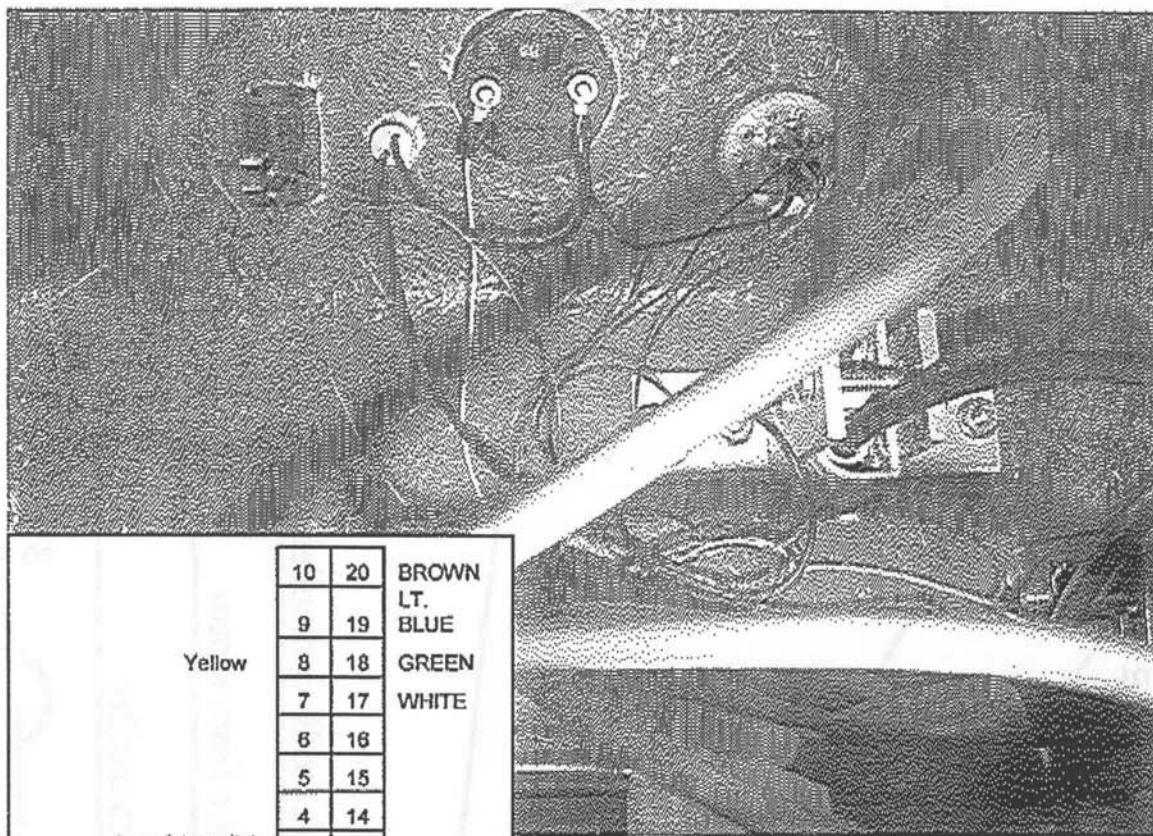
To: 'middle' battery,
positive terminal.





XT21 GENERATION II

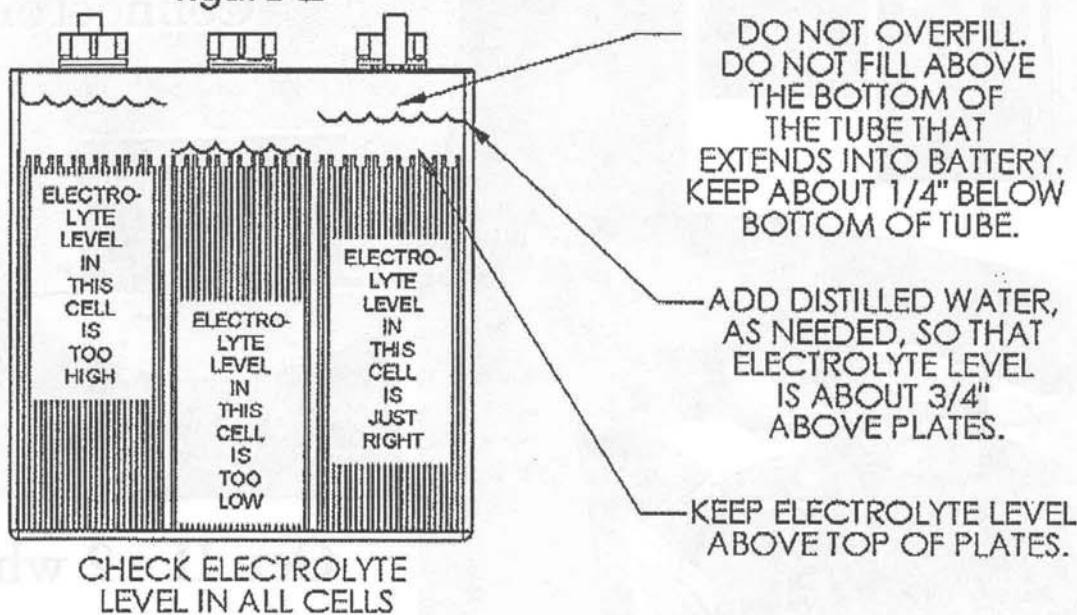




BATTERY MAINTENANCE

- To receive the longest life from the batteries, charge them when they have between 25% and 50% of a full charge.
- Do not allow batteries to remain in a discharged state for very long, as this shortens the total battery life.
- Be aware that a discharged battery will freeze easily.
- Check the electrolyte level weekly. Top off with distilled water as shown in figure 2. Do not overfill. Make sure that all plugs are tight.
- Make sure battery connections are tight and free from corrosion. A baking soda and water solution and a wire brush are helpful when cleaning battery connections. Keep caps on when cleaning batteries, so that electrolyte is not contaminated.

figure 2



!!! BATTERIES ARE DANGEROUS !!!
READ THE SAFETY INSTRUCTIONS
IN THE FRONT OF THIS MANUAL
FOR SPECIFIC WARNINGS

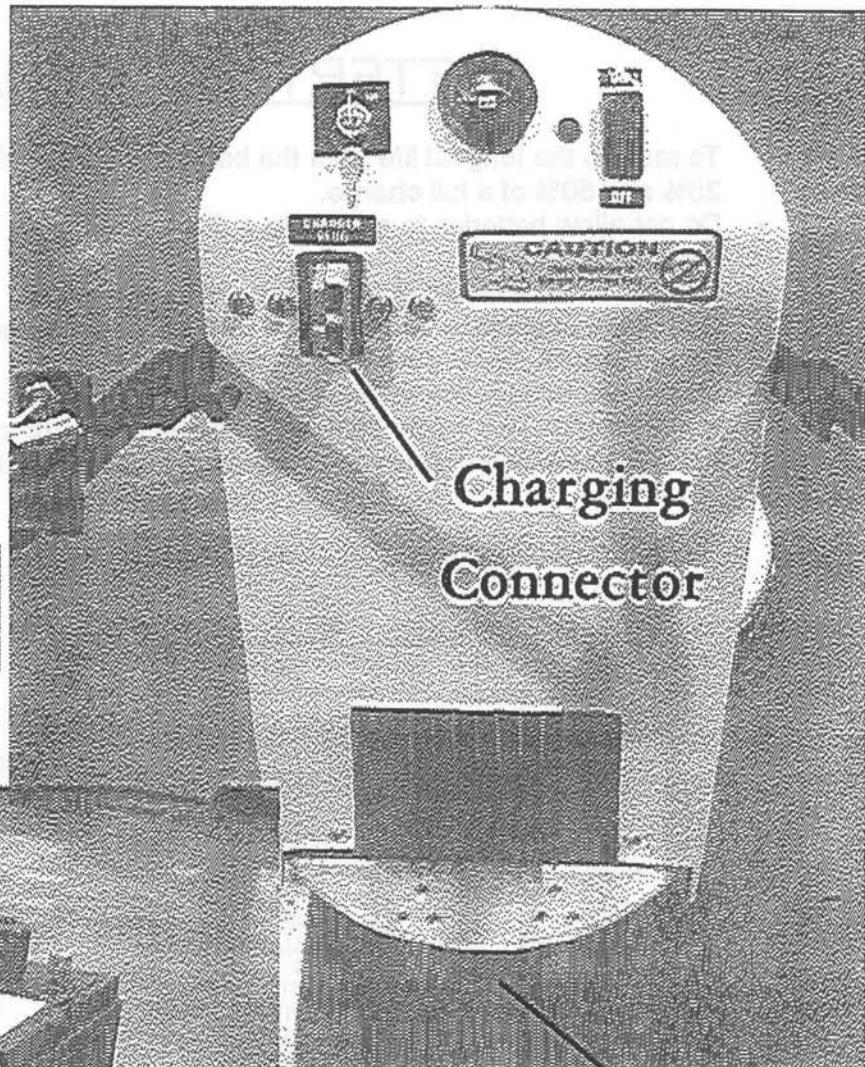
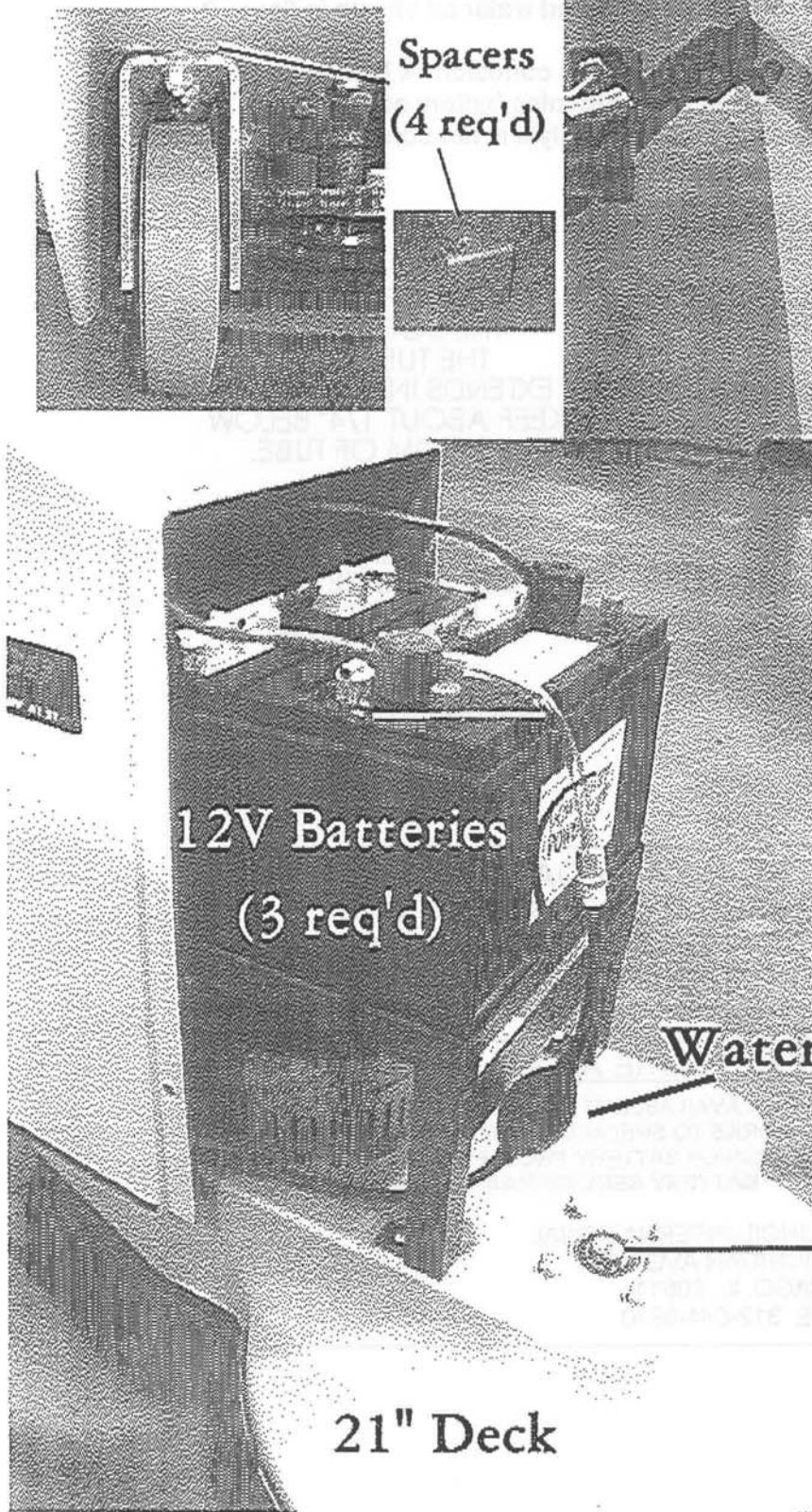
IF YOU WOULD LIKE TO LEARN MORE ABOUT BATTERIES

THERE IS A VERY INFORMATIVE PUBLICATION AVAILABLE. IT COVERS SUBJECTS SUCH AS BATTERY TERMS AND HOW A BATTERY WORKS TO SPECIFIC GRAVITY TESTING WITH A HYDROMETER AND DIAGNOSIS OF BATTERY PROBLEMS.
YOU CAN OBTAIN A COPY OF THE "BATTERY SERVICE MANUAL" FROM

BATTERY COUNCIL INTERNATIONAL
401 N. MICHIGAN AVENUE
CHICAGO, IL 60611
PHONE 312-644-6610

XT21

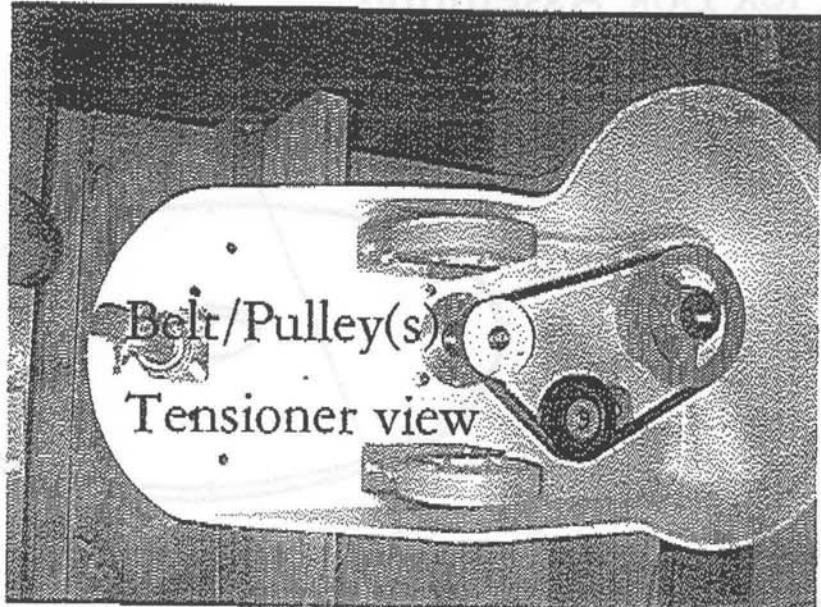
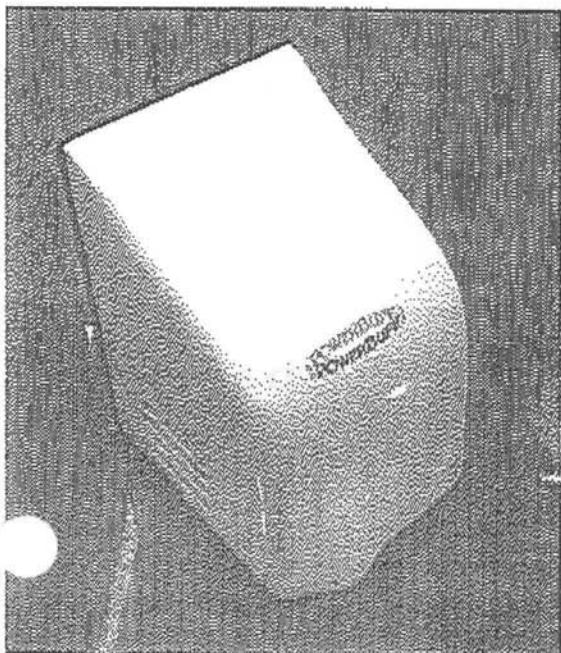
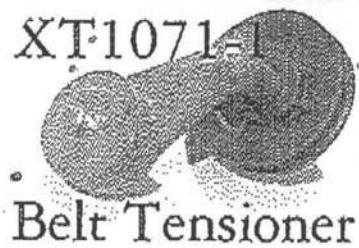
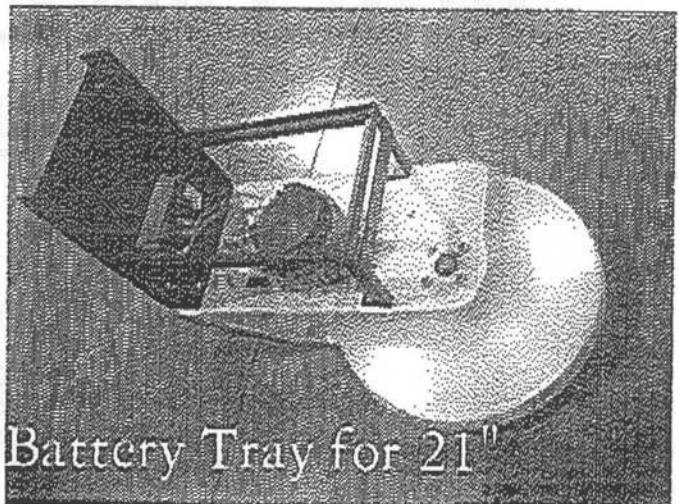
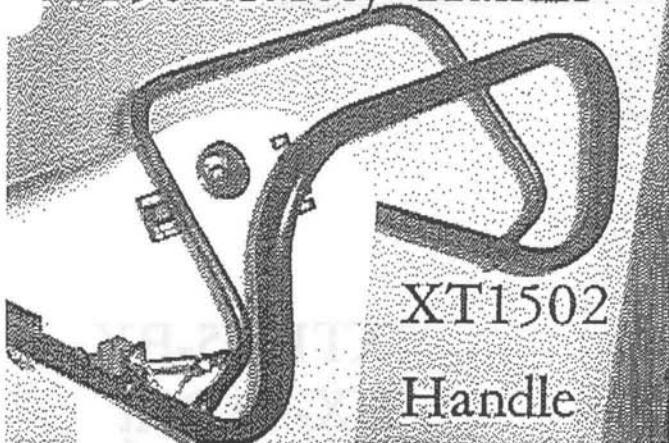
GENERATION II



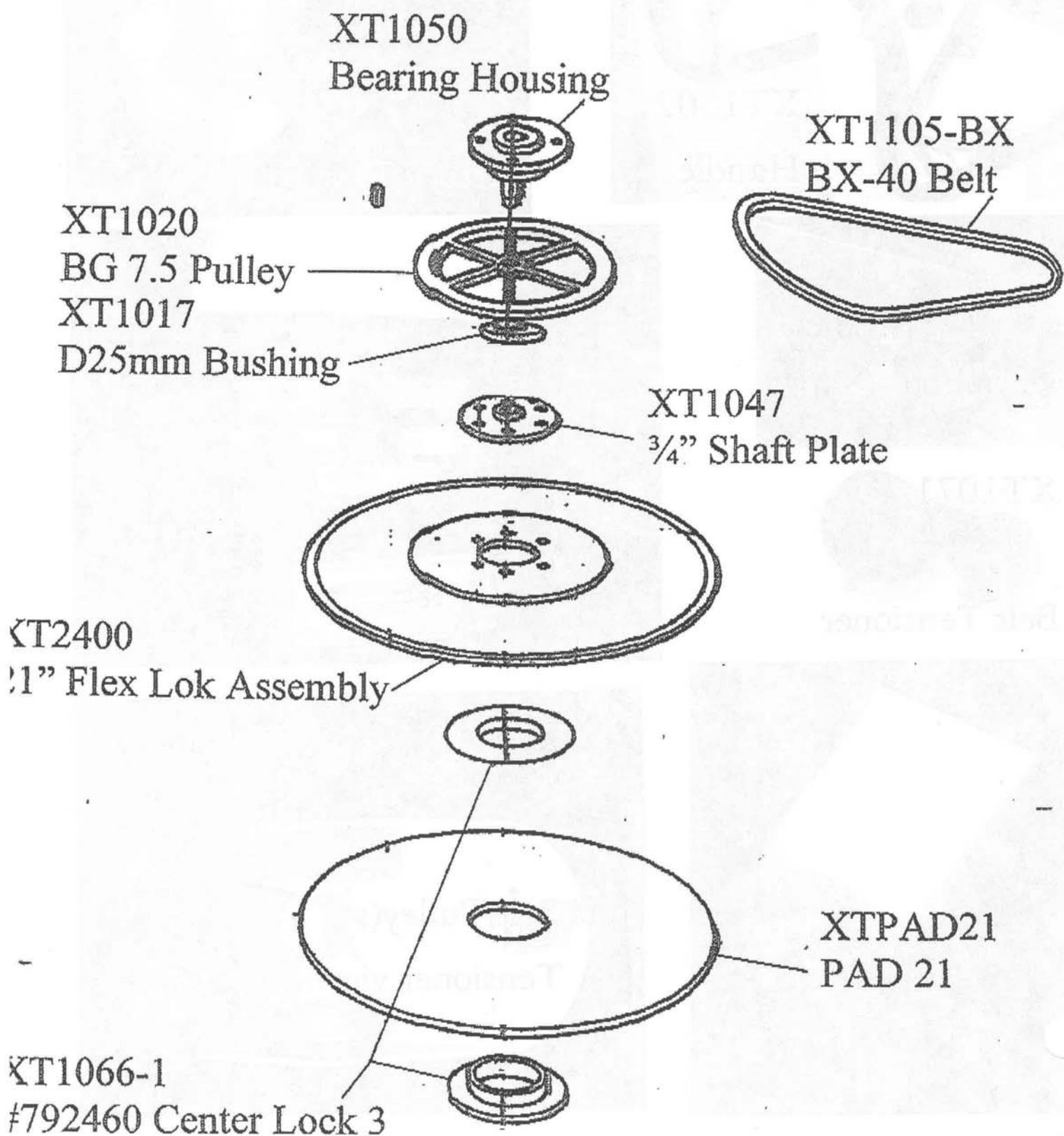
Gen II - 2 wheels

Additional Information / views

XT1504 Safety Handle



Drive Pulley & Flex-Lok Assembly



XT-21 II HI-PERFORMANCE BATTERY BURNISHER

Part #	Description	Component Quantity
E011281	21" DURACOAT DECK	1
E012217	7/16 ZINC LOCK WASHER	4
E012218	7/16 SAE G8 FLAT WASHER	5
E010459	SM. BELT TENSIONER/FS0111	1
E011051	3/8-16X1.25 BOLT - HH	9
E011504	3/8 LOCK WASHER	5
E012401	BG 7.5 D PULLEY	1
E012295	BC 35 1 PULLEY	1
E010107	BX40 BELT	1
E012365	ADJUSTABLE WHEEL BRACKET	2
E012247	5/16-18 x 1 1/4 BOLT	8
E011498	5/16 FLAT WASHER	16
E012285	6" WHEEL w/BUSHING	2
E012224	5/16 JAM NUTS	4
E012225	5/16-18 X 2 1/2 UNC GR 8 ALLOY	2
E012197	AXIAL AIR GAP BRUSHLESS MOTOR	1
E011136	3/8 SAE FLAT WASHER	8
E012248	1/4-20x1 BOLT	2
E012193	BATTERY TRAY w/HEAT SINK	1
E011050	3/8-16X1.00 BOLT-HH	4
E012250	18 GA. GREEN WIRE	2
E012251	18 GA. YELLOW WIRE	3
E012210	MOLEX PIN (#35C5062)	2
E012204	EDGE TRIM (#75001309)	11
E012199	CONTROLLER	1
E012219	1/4 20x1 UNC GR 5 HHCS	4
E012209	MOLEX (20) PIN CONNECTOR	1
E012210	MOLEX PIN (#35C5062)	7
E011230	SOLENOID (36VOLT)	1
E011651	16-14GA TERMINAL	4
E010878	SB175A CONN.#4 GRAY DISCONNECT	1
E012254	FEMALE QUICK SLIDE #5068	12
E012255	FEMALE QUICK SLIDE #5067	10
E011767	BATTERY, 12 VOLT, 140AH(C20)	3
E012220	NYLON CABLE TIE,AF523	1
E012194	HANDLE	1
E011497	3/8 USS FLAT WASHER	6
E012196	SAFETY SHUT-OFF HANDLE	1
E011298	PB PALLETS W/ SUPPORT BLOCK	1
E012212	CHARGER PLUG LABEL	1
E012239	ON LABELS	1
E012240	OFF LABELS	1
E012205	21" MACHINE SHROUD (SET)	1
E011240	36 volt charger for AS3200, XT	1
E012189	REVERSE BUTTON	1
E012215	RED KILL SWITCH (#091130-02)	1
E011529	ROCKER SWITCH	1
E010865	36 VOLT SYSTEM GAUGE	1

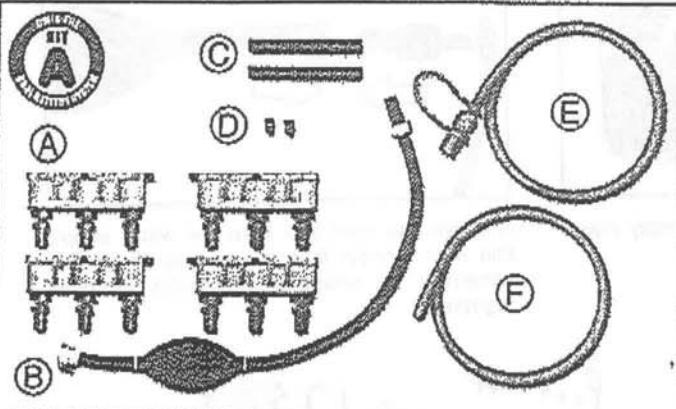
E010462	3" SWIVAL CASTER	1
E012235	REVERSE & REMOVE PAD DRIV. LAB	1
E012284	HOUSING COMPLETE / OLD STYLE	1
E011565	HANDLE RETURN SPRING	1
E011294	SHIPPING BOX	1
E010250	21" FLEX LOK ASSEMBLY	1
E012221	1/6 ALUM OVAL SLEEVE	1
E012202	36 V QUIKFILL WATERING SYST (f	1
E012236	CAP (BLACK) #CCF-1-10-14	2
E011886	PLASTIC POLY HINGE(1 1/2" BLK)	1
E011837	6 GA. x 7 LUG TO LUG	1
E011139	6 GA. x 15" "LUG TO LUG"	3
E011553	3/64 x 6" LANYARD 7 x 7 GAL AC	1
E010705	BUMPER GUARD (RED)	5
E012243	3/8-16 SPINLOCK NUT	4
E011090	5/16-18 SS HEX NUT	2
E010130	RIVET, AAP68	4
E011192	1/4-20X1.00 PHMS PHIP SCREW	2
E012242	1/4-20 UNC SPINLOCK NUT	6
E012214	300V MULTICONDUCTOR CABLE	3
E012260	RED RIGHT TERMINAL COVER	3
E012261	BLACK RIGHT TERMINAL COVER	3
E012486	1/4 - 20 x 1" Stud, black plas	2
E010269	1/4-20 UNC ELASTIC LOCKNUT	2
E011627	3/8" CONVOLUTED LOOM	12
LOLABE	Labor Rate for Equipment	3.5
O00OHE	OH Rate for Equipment	3.5
E012400	D25MM BUSHING / QT25MM	1
E012290	KEY	1
E012291	SWITCH	1
E010550	LABEL,ON/OFF	1
E011889	BRACKET FOR ANDERSON PLUG	2
E012512	RECTANGULAR GROMMET	1
E012513	POWER (RED) LIGHT	1
E012514	STAGIC STRIP (1"x 9")	1
E012517	CENTER LOK II (R) RH SET BLACK	1
E012518	16 ga. BATTERY PLATFORM FOR XT	1
E011192	1/4-20X1.00 PHMS PHIP SCREW	4
E010355	21" AQUA BURNISHING PADS(5/CS)	1



Qwik-Fill On-board Battery Watering System Installation and Operation

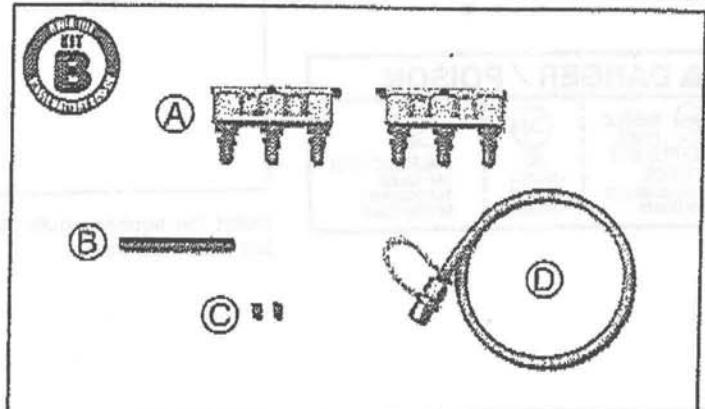


Page Contents



Kit A includes: QUIT # - 12202

- A. 4 valve manifolds.
B. 1 squeeze bulb filler assembly.
C. 2 sets of manifold jumpers.
- D. 2 red end caps (1 extra).
E. 6' water supply line with dust cap.
F. 8' battery-to-battery tubing.

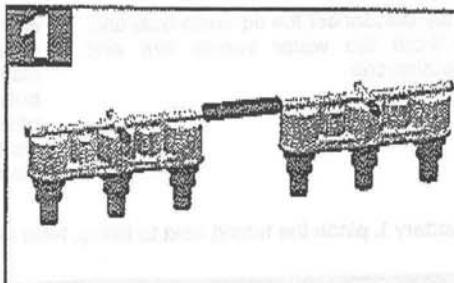


Kit B includes:

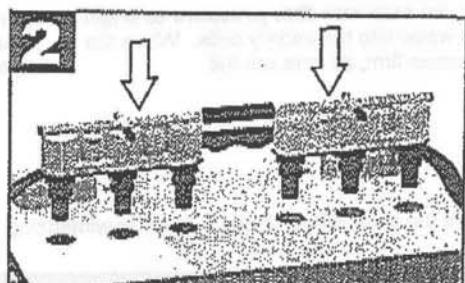
- A. 2 valve manifolds.
B. 1 set of manifold jumpers.
- C. 2 red end caps (1 extra).
D. 8' water supply line with dust cap.

Installation

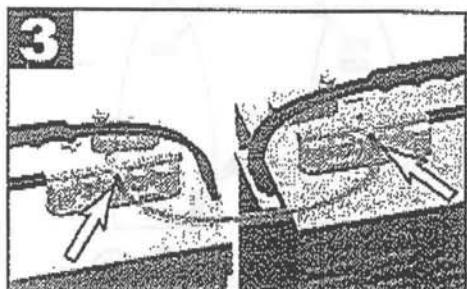
Important: Prior to initial installation, inspect the existing battery water level. If it has been neglected and the level is extremely low, manually fill each cell so all plates are covered, but only fill to the bottom of each well. Then charge the batteries, before installing and using Qwik-Fill to top off. Topping off a battery that has been neglected and then charging can cause the water level to expand during the charging process resulting in the loss of electrolyte. Once Qwik-Fill is installed, monthly topping off after charging will prevent an extremely low water level to occur.



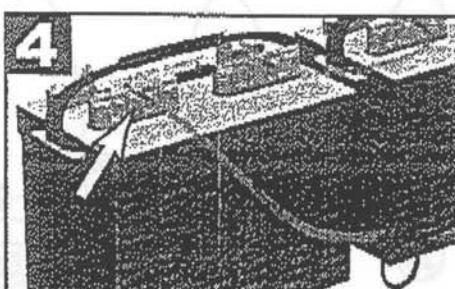
Join two manifolds together as shown using the appropriate size manifold jumper for your battery group size. The manifold jumpers are marked and can be easily cut with a utility knife or a pair of scissors.



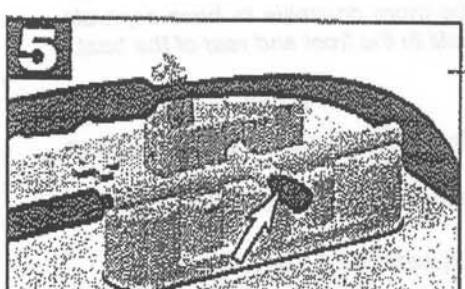
Carefully remove your battery's existing caps and insert a manifold assembly into each battery. Press each assembly firmly in place so that it fits flush with the battery top.



Link multiple batteries together using the clear battery-to-battery tubing. If the batteries are separated by several feet, allow the tubing to span batteries.



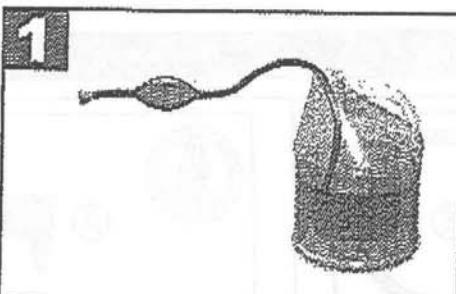
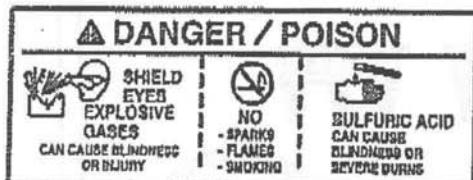
Connect the water supply line to one end of the battery "chain". The 6' of tubing supplied may be cut to the desired length or if a longer length is required 20' of 1/4" ID flexible tubing is available in the Qwik-Fill accessory pack. (sold separately)



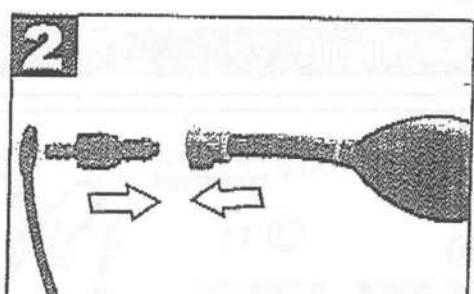
Cover the remaining barb with a red end cap and installation is complete.

Operation

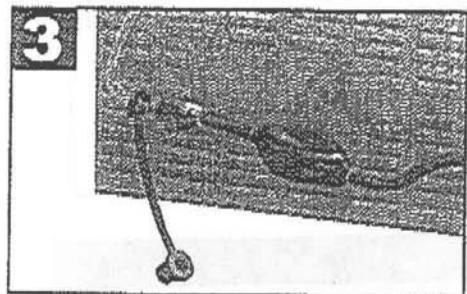
Important: Batteries should only be filled after charging.



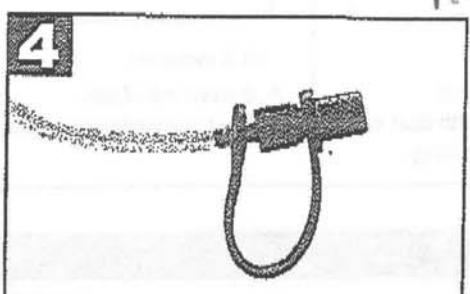
Insert the squeeze bulb filler assembly into a jug of distilled water.



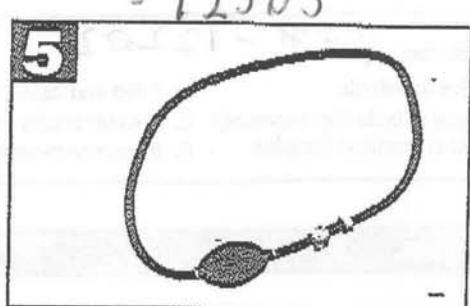
Remove the dust cap from the water supply line and connect it to the squeeze bulb filler assembly by snapping the quick couplers together.



Squeeze the bulb with **firm pressure** to begin pumping water into the battery cells. When the bulb becomes firm, all cells are full.



Immediately disconnect the squeeze bulb filler assembly from the water supply line and replace the dust cap.



Any water remaining in the squeeze bulb filler assembly may be pumped back into the distilled water jug. One end of the squeeze bulb assembly may be inserted into the other to keep the line clean and to provide a convenient way to hang the filler in a safe place between uses.

Note:

To remove the clear tubing (if needed, or for winterizing your battery), pinch the tubing next to fitting, twist and pull straight off.

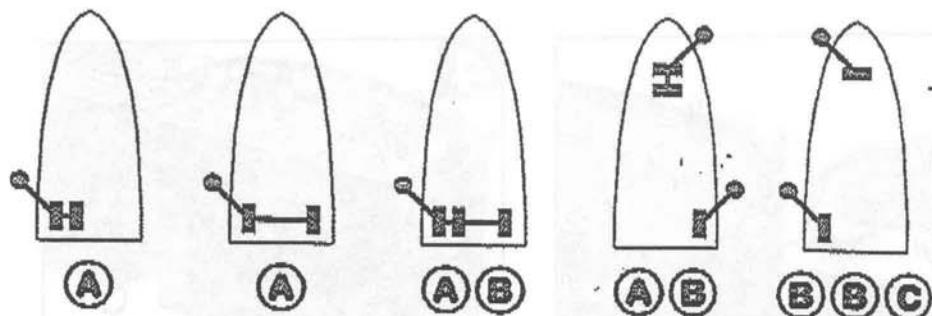
Typical Installation Configurations

The diagrams below show typical battery arrangements and how they might be plumbed with Qwik-Fill. The letters below each diagram indicate which Qwik-Fill Kits would be required for that configuration.

Note: Although the tubing between batteries can be up to a distance of 20', it may be more desirable to have separate fill points in the front and rear of the boat.

Qwik-Fill Kits

- (A) Dual Battery On-board Watering System
- (B) Single Battery On-board Watering Add-on
- (C) Squeeze Bulb Filling Kit



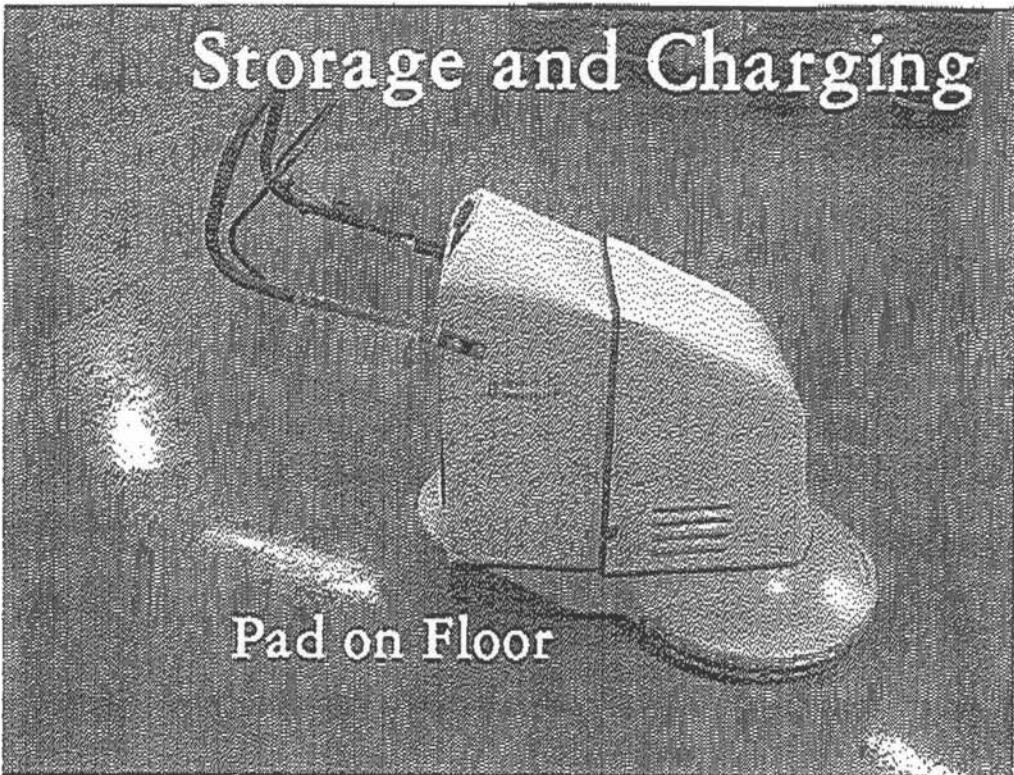
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FOR MORE INFORMATION ON QWIK-FILL, VISIT WWW.FLOW-RITE.COM

Flow-Rite Controls, Ltd.
3412 Louzma Drive, S.E.
Grand Rapids, MI 49546



U
P
R
I
G
H
T

Storage and Charging



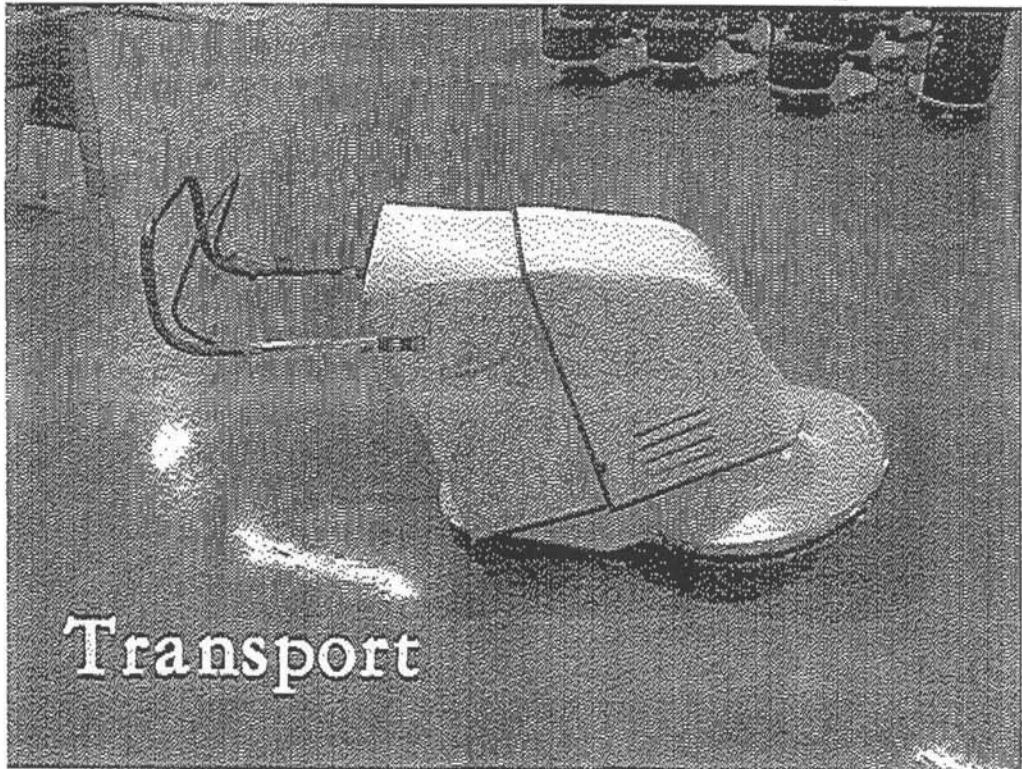
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Store Machine in Upright Position Only

Tilt Machine Back for Changing Pads

and Transport Only

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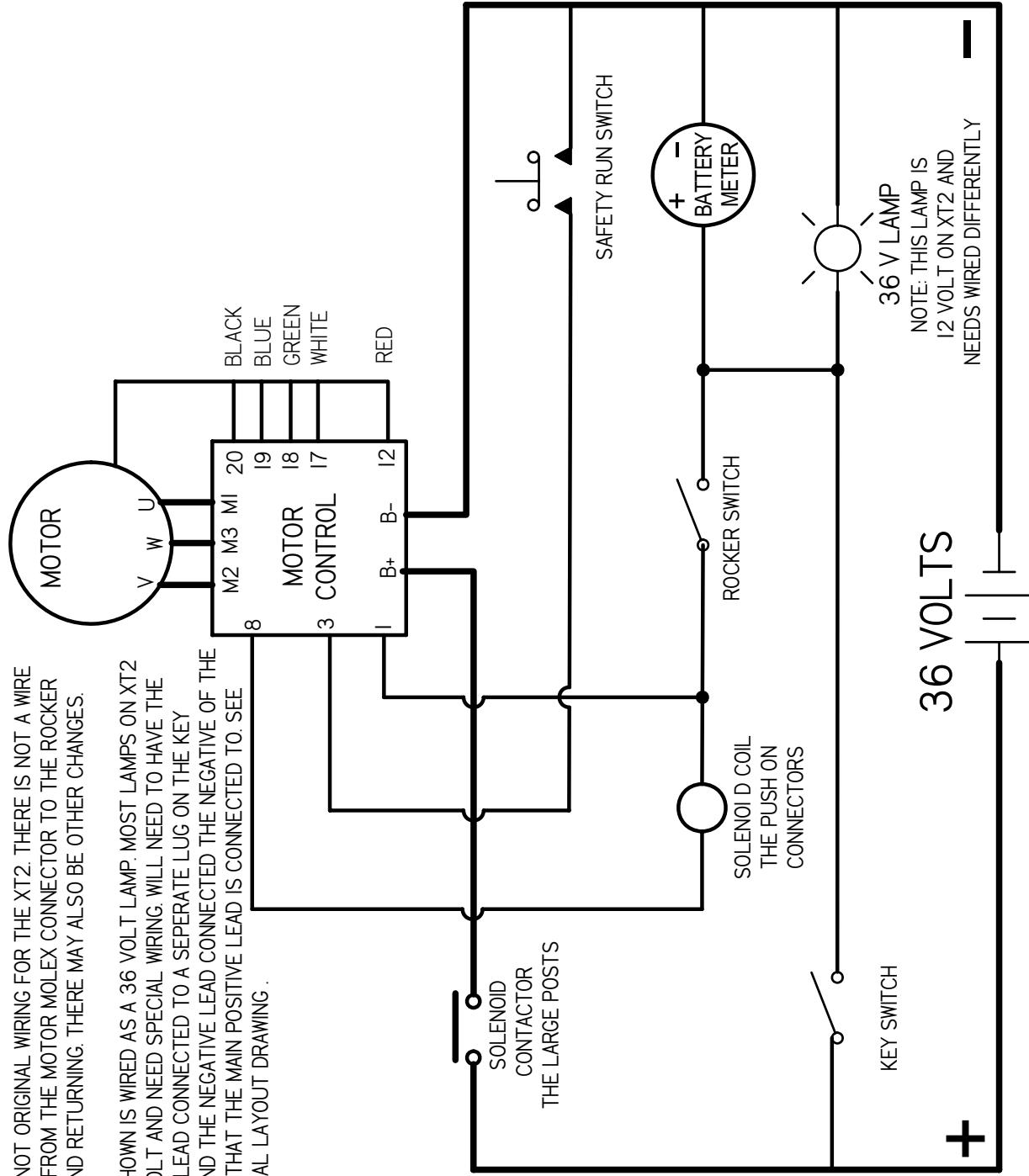


ELECTRICAL LADDER DIAGRAM

XT2 2I updated 5/9/07

- THIS IS NOT ORIGINAL WIRING FOR THE XT2. THERE IS NOT A WIRE RUNNING FROM THE MOTOR MOLEX CONNECTOR TO THE ROCKER SWITCH AND RETURNING. THERE MAY ALSO BE OTHER CHANGES.

- LAMP SHOWN IS WIRED AS A 36 VOLT LAMP. MOST LAMPS ON XT2 ARE 12 VOLT AND NEED SPECIAL WIRING. WILL NEED TO HAVE THE POSITIVE LEAD CONNECTED TO A SEPERATE LUG ON THE KEY SWITCH AND THE NEGATIVE LEAD CONNECTED THE NEGATIVE OF THE BATTERY THAT THE MAIN POSITIVE LEAD IS CONNECTED TO. SEE ELECTRICAL LAYOUT DRAWING .



XT GEN 2 WIRING DIAGRAM (NEW CONFIGURATION)

UPDATED BY STEVE YOUNTS 4/17/07

