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Owner's Manual

Electric Trackless Train

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IMPORTANT INFORMATION

PURCHASER'S RESPONSIBILITY

Please read the entire operations manual and inspect all equipment before using the electric trackless train. Purchaser should take full responsibility for assuring that the equipment is in good working order. Please contact us at the number or email address above if you have any questions about the working order of the items prior to use. Purchaser understands that the Kid-Steam electric trackless train must be operated with at least one adult operator. Purchaser agrees to assume all risks when allowing others to operate Purchaser's electric trackless train.

These risks may be caused by Purchaser's own actions or inactions, the actions or inactions of others, participating or not participating in the activity, the condition in which the activity takes place, or the negligence of others. There may be additional risks, including social and economic loss, either known or unknown to Purchaser, not readily foreseeable, and Purchaser fully accepts and assumes responsibility for all such risks, losses, costs, or damages incurred as a result of Purchaser's participation in handcar riding activity.

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B. Ge	eneral Information
Product Overview	KidSteam trackless trains come with a locomotive, coal car, passenger car and caboose. Our train turn radius is less than 18 feet which outperforms most products in the market. Our trains come in a two car and four car set(caboose,2 passenger cars, coal car). They are powered by a 48v electrical system that uses 24 2v forklift batteries.
Normal Operating Crew	1 Driver
Minimum Operating Crew	1 Driver (Please check with your local State for local regulatory requirements)
Passenger Weight	Less than 225 lbs. Max total weight per train: 1,900lbs
Number of Passenger Cars	Maximum number of 5 train cars
Unit Capacity	4-8 per car
Seat Capacity	18-24
Normal Cycle Capacity	18-24 per train
Cycle Time Loading Time Unloading Time Ride Time Cycles per Hour Hourly Capacity	0:30 0:30 5:00 10 180-240

aral Info

Standard Ride Length: The standard ride length for the electric trackless train is between five to seven minutes in length. This time provides for a good balance between patron enjoyment and profit making capability.

Locomotive Electrical		ver:3Kw/4.08hp
	-Voltage:48	8 volts
	-24 2v trac	ction batteries,5VBS,250Ah@20hrs. 25A output
	-Charger: 4	48V /45A full automatic
	-Electric Co	ontroller: Curtis48V300A
	-Forward - -Front head -Signal Blir	5

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General Information

Locomotive Braking System	 Driving Brake: Dual-Circuit Hydraulic System Parking brake: When engaged the train motor will not engage
Locomotive Specifications	Locomotive Wheelbase: 2940mm(115.7 inches) Locomotive Height: 1920mm (75.6 inches) Locomotive Width: 840mm (33 inches)
Car Specifications	Passenger Car Wheelbase: 1380mm(54.3 inches) Passenger Car Height: 1705mm (67.1 inches) Passenger Car Width: 920mm (36.2 inches)
	Caboose Car Wheelbase: 1380mm(54.3 inches) Caboose Car Height: 1755mm(69.1 inches) Caboose Car Width: 920mm (36.2 inches)
	Coal Car Wheelbase: 1380mm(54.3 inches) Coal Car Height: 1105mm(43.5 inches) Coal Car Width: 960mm (37.8 inches)
Distributor	Kid Steam 5231 Shadywood Ln Dallas, Texas 75209 Phone (866) 597-0656 Fax (214) 594-2212 Email: sales@kid-steam.com
Rider Restriction	Rider must be able to support them selves in the seat. Rider must be at least 3 years of age to ride alone.
Last Revision	July 30 th , 2010

С.

General Safety

Ride Access:	Should be controlled by driver at all times or with the help of an additional ride operator (check with your local State for regulations.) Fencing should be used in public venues to control access (the ride entrance; accessibility may also be gained through the exit.) Under no circumstances should the train be operated without at least one operator driver.
Ride Safety Signs	Safety signs can be purchased with your Kid Steam electric trackless train; these signs shall be placed in the appropriate places based on the instructions and the graphics on the sign. These signs should be in place at all times. Additional signage may be required in certain states.
Height Restriction:	Min <mark>imu</mark> m height 35" tall -least three years of age. Maximum height 74" in passenger cars. No max height in coal car
Medical Recommendation:	Riders with the following conditions should not ride: Recent surgery or illness. Back, neck, or bone injury.
Physical Restriction:	Riders must be able to independently maintain an upright seated position and have head and neck control during the ride. Rider must fit within the seat and have all appendages within the confines of the car or they are too large
In-climate Weather:	Do not operate during rain or during the approach of thunderstorms. Do not operate in winds greater than thirty miles an hour. Operations during the summer; operators should check ride surfaces exposed to the sun to ensure that they have not become to hot for patrons to ride. Cars should be kept in the shade while not in use. Operations during the winter; operators should check that ride surfaces are above
	33-degrees Fahrenheit.
Patron/Rider Proximity to ride	Patrons / Riders not riding in a car should not be within 3 feet of the train during operation. Under no circumstances should a rider or patron cross the path of the train during operation.
Driver Requirements	KidSteam recommends that the customer only hire drivers that are licensed car drivers with insurance that are in good standing with their respective State. We recommend that the customers take into account car driving safety records when looking to hire a qualified electric trackless train driver. Under no circumstances should they allow someone to drive that does not have a valid drivers from their respective State. All drivers should read the operations manual.
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С.	General Safety			
Driver Daily Requirements	KidSteam recommends that the customer require the electric trackless train driver to fill out and sign on a daily basis a daily checklist similar to the one found in this document. This will help to ensure that the train is always in good working order prior to the start of the operation and to ensure the institution of good driving and safety practices.			
Driving Safely	 KidSteam recommends that the driver constantly be aware of their surrounds while operating the electric trackless train. The driver should inform patrons of the: Safe conduct rules prior to starting the train. Ensure all doors shut prior to starting train Ensure that all patrons are sitting Check all mirrors prior to starting Avoid sudden start or breaking Should not drive at high speed 			
Operating on Slopes	KidSteam recommends that the driver take extra care when driving on a slope. The driver should drive straight up or down the slope not side to side or at an angle.			

Warning

Driving at an angle up or down a slop may cause un-hitching or make it difficult to control the train always drive straight up or down a slope slowly.

Do not attempt to drive up a slope greater than 4%.



General Safety

Safe Conduct Rules (Rental)

Some states require that in public venues or for rentals that all guests are to follow safe conduct rules. Example Ohio Statue (As of 2/1/2006): "Any guest in violation of posted safety rules and regulations is guilty of a minor misdemeanor on the first offense and a misdemeanor of the fourth degree for any subsequent violation. The safety of our guests and coworkers is the most important concern. An action by a guest that blatantly violates a posted safety rule or purposefully endangers themselves or others while on a ride cannot be tolerated. If such an action is witnessed, appropriate corrective action must be taken immediately." Please check with your State regulatory authority to understand these state specific laws.

Patron / Rider / Parental Responsibility Riders and Parents have a responsibility to exercise good judgment and act in a responsible manner while using this product and to obey oral, written or sign warnings prior to, during participation or both. Parents and Rental companies have a duty to properly use all safety procedures, equipment and signage.

WARNINGS AND CAUTIONS

Read Operations Manual and Battery Charger Manual



D.

WARNING

Read and understand operator's manual before using this toy. Failure to follow operating instructions could result in personal injury or damage to equipment.

OPERATIONS HAZARD - Pre-Start / Ride Restrictions

<u> Warning</u>

To prevent serious injuries the following pre-start procedures should be conducted:

- Pre-start inspections must be preformed prior to each use, to insure safe operation.
- Train should not be operated during periods of extreme heat, extreme cold, thunder and lightening, or intense sunshine.
- During operation if you hear any unusual noise or the train does not appear to be running properly, immediately stop operation, and inspect for cause.

To Prevent Serious Injuries these restrictions should be followed:

- Minimum recommended riders height is 35 inches
- Recommended riders ages minimum 3-years old. Riders must be able to independently maintain an upright seated position. Riders younger must ride with an adult



While conducting these preliminary checks the driver should ensure that the key has been taken out of the ignition to avoid any possible starting hazards. In addition the parking brake should always be deployed when the train is setting idle. This is whether the train is in operation or prior to operation.

WARNINGS AND CAUTIONS

Battery Charging

D.

BATTERY RECHARGE PROCEDURES:

READ CAREFULLY ALL THE BATTERY CHARGING PROCEDURES AND THE CHARGER PROCEDURES BEFORE CHARGING THE BATTERY. FAILURE TO FOLLOW PROPER PROCEDURE CAN LEAD TO BATTER EXPLOSION AND CREATE SIGNIFICANT RISK OF INJURY



- RAISE HOOD OF TRAIN WHILE CHARGING TO ALLOW GAS TO ESCAPE
- CHARGE LOCOMOTIVE IN A WELL VENTILATED SPACE TO REDUCE THE CONCENTRATION OF HYDROGEN GAS
- CORRECTLY CONNECT THE CHARGER CIRCUIT

Battery Charging - Add Distilled Water





Locomotive Specification

Туре	KID-10				
Passenger	24 kids OR 18 adults and kids				
capacity					
Weight(not including battery)	Approximately 1,715	öKgs (778 lbs)			
Dimension	10500*1160*1920 mr	n(34.4ft X 3.8ft X	6.3ft)		
Max. speed	8Km/h (5 mph)	Brake distance	≤3.5M(≤11.5ft)		
Turning Radius	≥3.5m (≥11.5ft)				
Range (theoretical)	90Km (55 Miles)				
Loco Tire	4.00-8	Car Tire	4.10/3.50-6		
Electric motor	DC traction motor X	DC traction motor XQ-3-3.1			
Battery	3D-250AH				
Controller	CURTIS Electronic Control System				
Accelerator	Continuously Variable Transmission				
Charger	CZB3J				
Chassis	High-strength material shaped, metal welded frame				
Body	High-strength composite material				
Control panel	Ignition switch, electricity meter, turn light indicator				
Rear axle	Efficient gear transmission differential				
Brake system	Central hydraulic brake system				
Steering	One-stage rack and pinion steering, automatic gap compensation,				
system	three-pivot steering structure				
Standard	Rear view mirror, head light, turning light, brake light, brass bell and				
equipment	microphone				
Options	Protective net, leat	Protective net, leather seats, smoke generator			

MAIN CONTROL PANEL:

Make sure that the train is in neutral before starting and the parking break is up. The train is in neutral when the transmission switch is neither switched up " \uparrow " (forward) or down (backward) " \downarrow ".



1. 2. 3. 4. 4. Transmission switch

1. Blinkers - Left & Right 2. Front light on train 3. Train horn 4. Transmission Switch-Forward - Neutral - Reverse

When engaging the transmission switch, just like in a real manual transmission car do not try to switch from forward and reverse with the train in motion.

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<u> Warning</u>

MOVING THE SWITCH TOO QUICKLY OUT OF NEUTRAL BETWEEN GEARS WILL CAUSE CONTACT DAMAGE. THIS WILL CAUSE A FAILURE IN THE SWITCH .

Once the train is brought to a stop in either forward or reverse, the switch should be placed in neutral. If you wish to change directions wait a few moments within neutral prior to engaging back into forward or reverse gear.



MOVING THE SWITCH TOO QUICKLY OUT OF NEUTRAL BETWEEN GEARS WILL CAUSE CONTACT DAMAGE. THIS WILL CAUSE A FAILURE IN THE SWITCH .

TURN ON THE TRAIN:

To start the locomotive place the key in the ignition and turn until the circuit is connected and the panel turns on. Always make sure that the transmission is in neutral and the parking brake is deployed. When the parking brake is on the transmission will not engage (added safety feature)



Ignition On



Parking brake deployed

ACCELERATOR AND BRAKE PEDALS:



BRAKE PEDAL - ACCELERATOR PEDALS

Once the ignition switch has been turned on you may choose your gear: forward or reverse. Depress the parking brake button and lower the brake. This will engage the transmission. Depress the accelerator pedal gently and the locomotive will begin to move. The locomotive will go slower or faster based on how far you depress the accelerator pedal.



SPEED UP GRADUALLY. DEPRESSING THE ACCELERATOR TO THE FLOOR MAY CAUSE DAMAGE TO THE DIFFERENTIAL AND IS UNSAFE. DO NOT ACCELERATE QUICKLY .

If you lift up on the pedal the locomotive will slow as if you were in 1st gear in a car when it is going to fast for that gear. The driver will feel a dragging sensation as if the transmission is dragging. This is normal for an electric powered motor.

POWER CAPACITY METER (electricity meter):



METER READ OUT - AT IDLE - NOT MOVING

The meter should read 100% after charging the battery. The red lights on the gauge will be all the way up to 100%. The battery should not be recharged until it reaches a reading of less than 70% at idle.



RECHARGING THE BATTERIES PRIOR TO REACHING 70% POWER WILL REDUCE USEFUL LIFE OF YOUR BATTERIES. YOUR KIDSTEAM ELECTRIC TRACKLESS TRAIN CONTAINS BATTERIES THAT WILL LAST BETWEEN 1,000 - 1,500 CHARGES. CHARGING AT 70% IS THE SAME AS CHARGING AT 95% MEANING 1 CHARGE. DO NOT WASTE CHARGES.

METER READ OUT - UNDER POWER - TOWING PATRONS

If the red lights dip below 30% or move towards 0% while under power it is time to recharge your batteries. Although the battery gauge at idle still shows power (maybe 50-60%) you have lost the pulling power of the batteries and they must be recharged immediately.



IF THE METER READ OUT - UNDER POWER REACHES A LEVEL BELOW 30% TO 0%. YOU MUST RECHARGE THE BATTERIES IMMEDIATELY. THE LOCOMOTIVE WILL BEGIN TO LABOR WHILE PULLING A LOAD, THIS IS A SIGN THAT YOU MUST IMMEDIATELY RECHARGE THE BATTERIES.

BATTERY RECHARGE PROCEDURES:

READ CAREFULLY ALL THE BATTERY CHARGING PROCEDURES AND THE CHARGER PROCEDURES BEFORE CHARGING THE BATTERY. FAILURE TO FOLLOW PROPER PROCEDURE CAN LEAD TO BATTER EXPLOSION AND CREATE SIGNIFICANT RISK OF INJURY



- EQUIPMENT
- DO NOT SMOKE NEAR BATTERY CHARGING AREA
- RAISE HOOD OF TRAIN WHILE CHARGING TO ALLOW GAS TO ESCAPE
- CHARGE LOCOMOTIVE IN A WELL VENTILATED SPACE TO REDUCE THE CONCENTRATION OF HYDROGEN GAS
- CORRECTLY CONNECT THE CHARGER CIRCUIT

CHARGER OUTLET AND PLUG:



CHARGER OUTLET



CHARGER PLUG

When starting the charging process make sure the protective cover over the outlet is removed. Then follow the steps below:

- Connect the charger with the battery's charging plugs;
- Connect to grid power supply
- Set the charging select switch (generally set in auto position)
- Charger executes 10 sec. time delay inspection, during which, the indicating lamp will flash; after that, the charger starts automatically; at the same time, run lamp is on;
- After completion, the charger shuts down automatically, the completion lamp is on;

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🕂 Warning

DO NOT USE AN UNATHORIZED CHARGER WITHOUT FIRST CONTACTING KIDSTEAM. THIS MAY DAMAGE YOUR ELECRTICAL SYSTEM AND IN SOME CASES CAUSE A HAZARD.

CHARGER OUTLET PLUG



RAISE LOCOMOTIVE HOOD. THIS WILL AVOID THE CONCENTRATION OF HYDROGEN GAS WITHIN THE LOCOMOTIVE. CHARGE THE LOCOMOTIVE IN A WELL VENTILATED AREA TO ELIMINATE THE RISK OF FLAMMABLE GAS CONCENTRATION.



 DO NOT UNPLUG THE CHARGING PLUG WHILE CHARGING. THIS COULD RESULT IN BATTERY EXPLOSION

F. PERIODIC MAINTENANCE SCHEDULE

KidSteam Electric Trackless Train Periodic Maintenance Chart

We recommend for the best performance of the train that the customer follow the maintenance schedule below. Please contact KidSteam for information about qualified mechanics in your area.

Please ensure that if you are to attempt any maintenance on the electric train that you always have the ignition switch turned off and the parking brake engaged.

C=Check CA=Check R=Replace S=Service CL=Clear and Lubricate L=Lubricate

- Free c	Maintenance	Before operation	Monthly	Semi - Annual	Annual	Bi- Ennial	Every 4 years
Freq.	Action	every Operation	20 hrs 100mi 160km	125 hrs 600mi 1000km	1200mi 2000km	500hrs 2500mi 4000km	1000hrs 5000mi 8000km
	-Charge battery	S	S	S	S	S	S
	-Clean around battery. -Check tightness of screw	S	S	S	S	S	S
Before	-Brake system	С	CA	CA	CA	CA	CA
Operation	-Steering system	С	С	С	С	С	С
	-Tires (pressure, pattern thickness & surface condition of tire)	С	CA	CA	CA	CA	CA
	-Body / chassis	С	C	C	C	C	C
	-Tightness of screw	С	С	С	С	С	С
Every	-Level of electrolyte		С	С	С	С	С
month	-Battery contact points		С	С	С	С	С
	-Pedal system		CL				
Every six	-Insulated wire appearance			С	С	С	с
months	Shock absorber oil leak Spring is damaged			С	С	С	С

F. PERIODIC MAINTENANCE SCHEDULE

			Monthly	Semi -		Bi-	Every 4
	Maintenance	Before operation		Annual	Annual	Ennial	years
Freq.	Action	every	20 hrs	125 hrs	1200mi	500hrs	1000hrs
		Operation	100mi	600mi	2000km	2500mi	5000mi
		1	160km	1000km		4000km	8000km
		15 E					

-	-Discharge test		S	S	S
	-Add pole protective	\$353	S	S	S
	agent	\$ 3 A	5	J	J
	-Thickness of	1436	-		c
	brake block & rear axle		C	C	C
	-Direction				
	clearance		СА	CA	CA
-	adjust the		CA	CA	CA
Every year	wheel				
	-Tightness of				
	wheel screws		C	С	C
	-Bearings of			U U	C
	front wheel				
	-Level of gear				
	oil in the		C	С	C
	gearbox		L	L L	L
	-Leak or not				
_	Adjust brake		C A		C A
	system		СА	CA	CA
Every four	Gear oil in the				R
	gearbox				Γ
years	leaks, <mark>adj</mark> if necessary			la la	CA

Bearings: Apply lubricant to all accessible bearings. Rotate bearings. Turn the car over, on to its other side. Repeat lubricating and rotating all bearings. Remove excess lubricant with a paper towel or rag. Properly dispose of all oily papers and/or rags. Place car back into service or storage. Damaged or deteriorated components should be repaired or replaced.

Hitch:

F. PERIODIC MAINTENANCE SCHEDULE

Electrical Hookup:

Fiberglass: Your passenger cars are made with a fiberglass finish. These pieces can be kept clean and bright with the use of a fiberglass cleaner and/or polish. Follow all cleaner and polish manufacturer's warnings and directions for use and disposal. Care should be used to prevent polish from contacting aluminum and/or rubber components. Damaged or deteriorated components should be repaired or replaced.

Transportation: KidSteam recommends the use of professional transportation companies to move your electric trackless train from site to site. To prevent possible damage to transport vehicle, and personal injury (up to and including possible death and permanent disfigurement) to occupants of transport vehicle, occupants of other vehicles, and pedestrians and bystanders, all transported components must be securely fastened to the transport vehicle during transport.

The use of forklift and other automated lifting tools to move the train will likely cause fiberglass damage.

The cars should be moved onto transportation vehicles and de-vanned by rolling them on/off the van or flatbed trailer. The locomotive should be driven onto the van or flatbed trailer. The use of a proper loading dock is recommended by KidSteam.

The locomotive should not be attempted at any time to be moved with a forklift in or out of a vehicle.

The locomotive and passenger cars should be properly tied down, blocked and secured so that the load does not move and create damage or personal injury.

Always use safe lifting procedures when trying to load or unload a KidSteam electric trackless train.

Warning Labels: Warning labels are attached to each car for your safety and protection, and the safety and protection of others. Should your warning labels become damaged or deteriorated, they must be replaced; replacements can be ordered at by sending an email to quality@kid-steam.com.

Decals: Decals may be attached to, or provided with your handcar for decoration. Should your decals become damaged or deteriorated, they can be replaced; replacements can be ordered at quality@kid-steam.com. We do not recommend attaching any other decals or stickers to the car/s.

G.

SAFE RIDING RULES

- CONSTANT RIDE SUPERVISION REQUIRED- The ride operator should watch the riders at all times throughout the ride cycle. Watch for any riders that may be riding in an unsafe manner that could cause harm to themselves, other riders or an operator. The ride operator must correct any unsafe actions immediately.
- PROPER CLOTHING: Make sure your riders are not wearing any loose-fitting clothes that can fall outside the car during operation. Loose belts, scarves, etc., can get caught on passing items.
- RIDER BODY POSITION WITHIN CAR Riders should always ride entirely within car. Rider must not do any of the following which may cause injury:
 - Lean outside of the car from side to side
 - Attempt to open door
 - Attempt to climb out of the car windows
 - Attempt to reach outside the car or touch passing structures outside the cars
 - Stand up within the cars. Riders must be seated at all times
- LOADING CARS -The ride operator should make sure that all riders understand the safe riding rules:
 - Loading Handcar- this should only be done when cars are at a complete stop and the locomotive has been stopped and parking brake applied
 - Instruct rider to the loading area and clearly indicate which vehicle they are to ride.
 - Instruct rider to secure loose articles being aware of long hair, scarves or other items that can fall out or get left in the cars.
 - Instruct rider to sit at all times in the car.
 - Remove the Riders from the Car
 - Once the train has come to a complete stop, instruct riders to exit the cars. The ride operator should open each door. The riders should be instructed to sit down until the driver opens the doors.
 - Encourage the exiting riders to move out of the unload area quickly, to keep down confusion and increase the safety of the operation. If a patron is waiting for someone in another car, ask them to stand outside the exit area.



SAFE RIDING RULES

- Amusement Environment:
 - Amusement operators should develop their own procedures to meet company and state guidelines. KidSteam may know of similar installations and will provide the customer with contact names so that they may discuss directly with the ride operator.
 - KidSteam does not recommend the procedures but simply is providing them as examples of known operating parameters at different venues. Customers should contact these locations directly to discuss which operating procedures work best for them:
 - Riders leave the station after loading one at a time
 - Riders only travel around the course one time
 - Riders below 3 years of age should be accompanied by an adult
 - Ride operators may help the riders into and out of the cars

H. RECOMMENDED EMERGENCY PROCEDURES

Kidsteam recommends that the owner/operator have an SOP (standard operating procedure) detailing general safety procedures and specific emergency procedures in case of an accident. The information below is provided as a guideline, your actual procedures should be developed with the input of your safety department, insurance company and legal counsel.

- \circ In case of an accident the attendant should first stop the ride immediately.
- Attendant should go to the patron who is injured and quickly assess the situation, call for first aid if required and have the parent/guardian come into the restricted area
- The rest of the patrons and riders should be removed from the area and the ride closed until patron checked out, first aid arrival if required and proper documentation can be filled out on the accident
- The attendant should ask for assistance if required from any adults in the area. Especially those whom may have witnessed the accident.
- Obtain statement of accident/incident report that includes the following data:
 - General Information: (Name of Injured Party, Age ,Parent or Legal guardian's name, Address, Employer)
 - Incident information (Date of incident, Time of incident, City)
 - Description of Accident/Incident
 - Describe the injured party's mental status at the time of the accident: Confused, Calm, Panicked, Aggressive, Other
 - Describe environment/general atmosphere around incident
 - \circ Describe location of the site where the incident occurred
 - Describe the weather conditions (if outdoors)
 - Describe events leading up to the incident
 - Describe incident
 - o Describe what happened after the incident took place
 - Contributions to Incident
 - o Did the injured party contribute to the incident
 - \circ $\;$ In your opinion, did anyone else contribute to the incident in any way
 - In your opinion, did equipment contribute to the incident in any way?
 - Was any First Aid given or required?
 - Did the Injured Party refuse first aid or evacuation?
 - Is this a re-injury of an old condition

I. RECOMMENDED EMERGENCY PROCEDURES

- Does the injured Party take any medication or have any allergies?
- Has the Injured Party participated in this activity before, or been at this location before?
- In your opinion, were sufficient warnings, instructions, and information provided?
- Do you have any pictures or video of the events leading up to the incident, the incident, or events immediately after the incident?
- Describe how you think this type of incident might be avoided in the future
- Is the Injured Party currently covered by medical insurance?
 - Policy #
 - Phone:
 - Name of person making statement
 - Relationship to Injured Party
 - Get signature

A copy of the incident report should be filed per local/federal regulations and a copy sent to <u>incidentreporting@kid-steam.com</u> with a local contact name at the customer so that KidSteam may respond back to the customer with feedback and forward to CPSC or local authorities with the appropriate information.

GLOSSARY OF TERMS

Adjustment, proper. Any components modified, regulated or corrected to within manufacturer or operator standards to ensure proper or intended operation.

Alignment, proper. Any two or more components aligned or calibrated to within tolerances specified by manufacturer or operator standards to ensure proper operation, i.e. electric motor, gearbox and drive shaft. **As Needed.** That procedure or spare part that is performed or replaced only when necessary.

Car. See Vehicle.

Check. See Inspect.

Condition, proper. Any ride or ride components that do not display excessive wear or deterioration as defined by manufacturer's recommendations or operators standards.

Daily. A specific procedure performed every operating day.

Entrance. Area designed to control guest entrance into loading area.

Excessive wear. Any operational-related erosion or fraying that exceeds manufacturer's recommendations or operator standards and that may create an unsafe or improper operational environment.

Exit. Area designed to control guest exit from ride area.

Fastener. Any of a number of bolts, screws, nails or other holding devices intended to connect two or more components together.

Function, proper. See **Operation**, proper.

Inspect. To examine (visually, physically or otherwise) a ride or ride component per manufacturer or operator standards, to ensure safe and proper operation.

Loading Area. Section of track designated as area to load riders on to handcar.

Lubrication, proper. That ride component that contains the correct amount of lubricant as specified by the manufacturer or by operator standard to ensure proper operation.

Monthly. A specific procedure performed approximately every 30 operating days.

Operation, proper. Any ride or ride components that function as intended by the manufacturer.

Operator Supervisor. Designated trained operator that continuously ensures that the ride is operated safely to the safety procedures defined in the manual. The operator is present at all times during operation.

Physical/Physical Check. To examine or observe primarily by lifting, grasping, pulling, or other exertion. Usually used in conjunction with a visual inspection.

Queue Line. Path guests follow to enter ride.

Security, proper. That which is fastened, locked, or anchored in such a way as to conform to minimum operational or manufacturer's standards.

Signage. Any independent signs or instructions within a ride that have been fastened with rivets, screws or other types of fasteners. The term generally does not include decals.

Sound Check. Examination to detect abnormal noises by listening closely to the operation of the ride. Tightness, proper. That which is affixed in such a way as to not be affected by vibration and conform to minimum operational or manufacturer's standards.

Unload Area. Section of track designated as area for riders to stop and exit handcars from, usually the same location on track as the loading area.

Vehicle (car). A blanket term that describes any mode of guest movement or transport on a non-water ride. Can encompass many different types, such as cars, pods or gondolas. **Visual/Visual Check.** To examine or observe primarily by sight.

Weekly. A specific procedure performed approximately every 5-7 operating days

Appendix A: DAILY CHECKLIST

Daily Inspection Check Sheet-Electric Trackless Train

This sheet is supplemented by additional information in the Daily Procedures Manual

Initials	Item	Description of Inspection Criteria (must be completed before operation)		
		Locomotive		
	1.	Check electric meter: Below 70% or 50%?		
	2.	Check tires for proper inflation		
	3.	Check mirrors for alignment		
	4.	Check horn / light / blinkers / forward-reverse switches		
	5.	Check brake pedal		
	6.	Check parking brake		
	7.	Lheck accelerator		
	8.	Check battery connections		
	10.	Check water level		
	11.	Check tire pressure		
	12.	Check for proper operation of PA system		
	13.	Check proper operation of the radio /speakers		
	14.	Check proper operation of steering		
		Passenger cars		
	1.	Check trailer hitch, safety chains, electrical cable attachments.		
	4.	Check netting between cars		
	5. Check doors/latches			
	6.	Check tire inflation		
	7.	Check for fiberglass damage		
	8.	Sanitize Cars / Wipe Down Inside		
	9. Check for proper condition of seats. (remove foreign objects)			
	10.	Check that steel flooring is properly attached		
	11.	Check temperature of all parts that come in contact with child.		
	12.	Check for loose or missing fasteners.		
		Fencing / Station Area (Mall / Festival Operations)		
	1.	Walk route prior to operating		
	2.	Check for proper signs / not removed		
	3.	Check for proper installations of stanchions		
	4.	Check to ensure no obstructions in path / Remove document obstructions		
	6.	Open Kiosk(station)		
	7.	Fill out checklist and place in binder		
	8.	Prepare daily tracking form		
	9.	Account for petty cash		
	10.	Check hand sanitizer		
	11.	Open for business		

 Sefore passengers may ride, this sheet must be signed by the inspector identifying it is ready

 to operate.

 nspector's Signature:

 Date:

Date:

)perator's Signature:

Appendix B: DAILY CHECKLIST DETAILS

KidSteam may have arranged with a third party locally for qualified maintenance support. These companies can also apply a protectant to your electrical connections throughout the train that will reduce maintenance and prolong the life of your components. Please contact KidSteam for more details.



While conducting these preliminary checks the driver should ensure that the key has been taken out of the ignition to avoid any possible starting hazards. In addition the parking brake should always be deployed when the train is setting idle. This is whether the train is in operation or prior to operation.

a. BATTERY

a1. Proper battery charge: The battery should not be charged unless the gauge reads less than 70% power. Charging the battery with more than 70% will ruin the battery over time. The batteries on the KidSteam Electric Locomotiveless Train should last upwards to 1,000-1,5000 charges. Each time the battery is charged is 1 charge. Whether the battery was charged at 95% or below 70%.

The battery should never be allowed to run down below 30% on the power gauge. This can lead to battery damage.

THE BATTERIES SHOULD BE CHARGED WHEN THE GAUGE IS BETWEEN 30%-70% THIS WILL LEAD TO OPTIMUM BATTERY LIFE.

a2. Check the water level of the batteries both prior and after charging. If the water is below the copper sheet, distilled water should be added.

- The water level is too low if the water is below the level of the copper sheet within the battery cell
- Only add distilled water to the batteries.
- Water should be added so that it is just covering the copper sheet
 After charging: The liquid level should be above 6-12mm above the copper sheet. If the liquid level is not enough, carefully add more distilled water.

Warning

- Charging the battery creates a process called "electrolysis of water" which releases explosive hydrogen gas.
- Charging batteries should not be done near pilot lights, food preparation or in areas where people may smoke.
- Charging batteries shall be done in a well ventilated area.
- When charging people should avoid contact with the batteries or the emitted gas. Please avoid skin, eye or contact with clothing.

Appendix B: DAILY CHECKLIST DETAILS

Liquid Density Chart: Water Level Indication

F C INDICATION

120	48.9	1.244
110	43.3	1.248
100	37.8	1.252
90	32.2	1.256
80	26.7	1.260
70	21.1	1.264
60	15.6	1.268
50	10	1.272
40	4.4	1.276
30	-1.1	1.280

A Warning

To prevent too much water from being added and the boiling over; water should always be added after battery is charged.

a3. Ensure that the battery connections are not corroded. If they contain some corrosion it can be cleaned with soda.

a4. Check battery case and ensure that the batteries are properly seated and balanced in the compartment. If the battery become unbalanced or are not properly seated this may cause

b. TIRE CHECKS

b1. Check tire pressure

Prior to daily operation please check the pressure of the tires. Proper inflation will ensure longer life prior to replacement.

Tire Type	BAR	PSI
Locomotive	Max:7.2	105
Tire		
	Optimum: 5	73
Coach	Max: 3.5	50
Tires		
	Optimum: 2.5	35

Appendix B: DAILY CHECKLIST DETAILS

b2. Check tire wear condition

Use a tire gauge and check the thickness of the tread. If there is less than 1mm of tread please replace the tire immediately. Also look for foreign material that is lodged in the tire that might case a flat during operation.

c. STEERING WHEEL SYSYTEM



Prior to each daily operation turn steering column and ensure that it is properly working. Ensure that no strange sounds are occurring when the steering column is turned. If any strange sounds are heard, the operator should open the hood and repeat the steps to ensure that the steering column is properly attached to the front wheel column and operating properly. If the steering rod attached to the front wheel does not look like it is operating properly please call KidSteam immediately and do not operate the electric train locomotive.

d. PEDAL OPERATION



d1. Brake Pedal

Prior to daily operation always check the brake pedal operation. Check that brakes are working properly and feel firm when they are depressed and reset themselves when released.

d2. Accelerator Pedal

Check accelerator pedal prior to daily operations. Ensure that the ignition is turned off and the emergency brake is deployed when testing. Test for proper attachment and flexibility and release.

e. BODY AND CHASSIS CHECK

Check the body and chassis around the train daily prior to operation to ensure that there is no damage or missing parts that might lead to accidents or injury.

- e1. Check door latches
- e2. Check proper netting attachement
- e3. Check proper hookups of hitches
- e4. Check inside cars to ensure no foreign materials left on the seats

Appendix C: INSPECTION SUPPLEMENT

Daily Inspection Procedures (ASTM 4.1.4): Kid Steam Electric Trackless Train

This section has been written as a supplement to the daily inspection sheet and checklist details for this ride. It is intended as a tool to provide information for training and as a reference, but is not intended to be all inclusive.

Please note: There is no official Lockout point on this ride due to its method of operation. Care should be taken to advise anyone in the area that you are inspecting and running the ride.

Fencing / Station Signage Section :

- 1. Fencing: Check for proper fence placement. Check to ensure that the appropriate type of approved safety barrier is installed at your venue. These barriers should meet ASTM amusement ride specifications. Also check with your local State regulations for more details.
- 2. Fencing: Check for any sharp edges on fencing and gates. Check safety fence and entrance and exit gates for any sharp edges. Remove and replace damaged fence and gates or fence and gates with sharp edges. Fencing and gates should be smooth to the touch of your hand with no rough spots. Repair/replace as necessary.
- **3. Ride Area: Check for proper ride signage placement.** Verify that signs are legible, positioned correctly, no sharp edges, and attached securely.
- 4. Minimum Safe Distance from obstructions: KidSteam recommends that no obstructions exist within 36 inches (minimum recommended; customer must review with ASTM for their unique application and local regulations) on either side of the operation of the electric trackless train.
- 5. Use of ASTM Safety Fencing and Minimum distance from trackless train operation: KidSteam recommends to customers that they adhere to ASTM requirements for safety fencing around commercial ride applications and that a minimum of 36 inches exists between the fencing and and operations. Please refer to applicable ASTM or State guidelines for specific requirements.



Inspect that safety fencing between cars are installed. DO NOT OPERATE WITHOUT THIS FENCING. THIS IS TO PROTECT CHILDREN FROM ENTERING BETWEEN CARS WITHOUT THE KNOWLEDGE OF THE DRIVER.

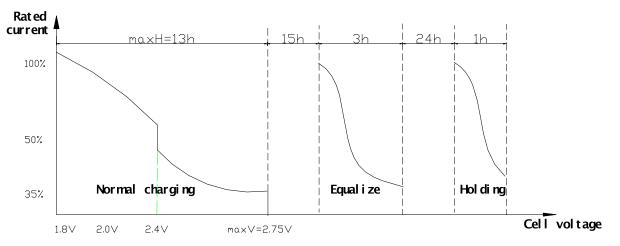
Appendix C: INSPECTION SUPPLEMENT

Train Cars:

- 1. Car: Check for proper entrance and exit doors functioning. Check entrance and exit doors for smooth opening and closing. Inspect to ensure that latches are intact with no damage. Remove and replace damaged latches.
- 2. Car: Check for proper functioning door latches. Check entrance and exit door to ensure that latches are working properly and doors stay latched when closed. Make sure latches are not bent and fit into the proper position when the doors are closed and secure. Repair/replace as necessary.
- **3.** Cars: Check temperature of all parts that come in contact with children especially when operating outdoors. Inspect all parts that come in contact with child (seat back, seat, handle and deck); if hot to touch allow to cool down. Do not leave cars in direct sun all day without riders.
- 4. Cars: Check for rough edges within reach within reach of children in cars. Check for loose items left by patrons. Inspect metal flooring and ensure that is properly affixed to the floor. Ensure that no loose items have been left in the cars that can harm children.
- 5. Cars: Check for proper hitch attachment. Inspect each car hitch connection. Ensure that safety chains are attached. Ensure that safety fencing between cars is attached
- 6. Cars: Check for loose or missing fasteners. Check vehicle for loose or missing fasteners. Check to ensure all fasteners do not cause any possible injury to riders. Repair/replace as necessary.
- 7. Cars: Inspect wheels for excessive wear and proper fit on Locomotive. Inspect wheels to ensure that there is no excessive wear and that the wheels fit properly on the rail Locomotive without excessive sideward movement.

Preview

CZB3J series auto-charger uses micro-processor chip technology to provide intelligent charging and simple operation. The charger works automatically according to a built in program that also shuts off the charger when the charging is completed.



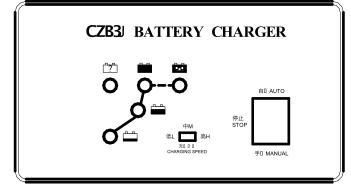
Charger Functionality

- Wa curves for charging: the charging current reduces as battery voltage raises
- Automated charging completion according to charging time, quantity, voltage rising rate
- LED displays charging status and fault warnings
- \circ $\,$ Conforms to battery function and automated fault detection
- o Manual and automated charging options
- Adjust charging speed, auto-equalize charge, hold charge
- o Time-delay feature
- Over heating protection
- Automatic charger shut-off when unit is disconnected for any reason.

A Warning

Do not block charger ventilation holes Do not charge in a damp site: relative humidity <85% Do not charge in an extremely cold or hot environment (<+40 $^{\circ}$ C and > - 10 $^{\circ}$ C) Do not charge in dusty area Do not try to charge in high altitude above 2,000M Do not modify charger wire length Do not use different rated input voltage Do not mix the connecting wire polarities "+", "-" this will cause damage to the output fuse and will trip the over current switch causing the stopping of charging, damaging the charger with the possibility of injuring persons in the area

OPERATING PANEL DESCRIPTIONS



-Run Lamp: Indicates charger is charging . Flash indicates charger is in over-heat protection.

-Capacity Lamp: Indicates battery has been charged with 60%-70% of its capacity.

-Completion Lamp: Indicates charging is completed and shut down.

-Equalizing -Holding Lamp: Indicates in equalizing state: Flash indicates in holding state.

-Fault lamp: Indicates battery disconnected: Flash indicates battery unmatched - fault issue.

-Charging speed switch: Generally set in the "M" position. Charging speed is related to the amount of charging current, the user can select according to the amount of battery's capacity and needed charging time.

-Charge style switch: Auto -Stop - Manual charging dial (middle position of the switch is for stop state.)

-It is recommened that you use the Auto Charge selection.

-If battery is under-charged or aged, then select the manual-style.

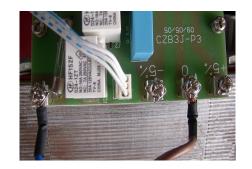
-If battery is old and not charging properly call KidSteam, do not try to charge

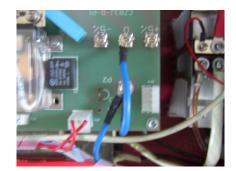
Charger can adjust to some degree of differences in input voltage (Please consult an authorized dealer or electrician before trying this)

The charger can be adjusted to the input voltage available to make charging more efficient The user can adjust the power supply input lines terminal:

-Generally use the "0" terminal = Input Voltage Neutral

-Raise grid voltage "+5%" terminal, (remove the wire from "0" terminal and connect to "+5%" terminal)
-Lower grid voltage "-5%" terminal (remove the wire from "0" terminal and connect to "-5%" terminal)
Adjusting positions is on the PCB inside the charger, refer to following pictures. The left
picture is for 160×200×300 & 240×260×350 size chargers and right picture is for 280×310×430 size).





Auto-equalizing charging -After charging is completed the charger will shut itself off after an equalization period that make take a number of hours.

Holding charging -After the completion of equalizing charging if the battery is still kept connecting with the charger and grid power supply, then 24 hours later, charger will enter into an auto-hold charge mode again.

Fault and Trouble Shooting Analysis

(Must be maintained by professional electric experts!)

	Fault	Trouble shooting Guide
1	lamp not on	No connecting to power; connect to power
2	Fault lamp is lit	Battery is disconnected connect the battery correctly
3	Fault lamp is flashing	Battery is not matched or fault replace with matched battery
4	Run lamp Flash	Fan not working /Grid Over Voltage- Adjust "+5%" or set speed switch to "L"
5	Under charged	Grid is under voltage adjust the switch to "-5%"

N. PROBLEMS AND SOLUTIONS GUIDE

TBD	TBD	TBD

