

ELECTRA MOTORSPORTS



AMB **I-T**
IDENTIFICATION & TIMING



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ELECTRA KART RS

Single Seater

Electra Motorsports introduced the RS model in 2001, with design goals of creating the best handling, performing, and lightest electric kart available. Innovative design features make the RS superior to any kart currently available. All this has made the RS model the best selling electric kart ever. This kart is now available with the permanent magnet motor to offer better efficiency and battery life with regenerative braking.

Chassis Physical Specifications

Weight	490 lb.
Length	77 inches
Width	51 inches
Height	40 inches
Turn Radius	8 foot
Tire Front	10 x 5.0-5
Tire Rear	11 x 5.0-5
Rims Front	5.0 x 5"
Rims Rear	6.0 x 5"
Max. Driver Weight	450 lbs
Min. Driver Weight	50 lbs
Min. Driver Height	54 inches



Optional Upgrades

- Adjustable seat
- Differential
- Permanent Magnet Motor
- Kart graphics package including individual numbers
- Race control system
- High or low backed seat
- Special order colors

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ELECTRA KART RS

The Electra-Kart RS is the result after years of testing. Computer designed chassis incorporating laser cut parts, superior welding standards and proven electronics have made the Electra-Kart the number one choice of customers and the best selling electric kart ever.

The RS conforms to the newly adopted ASTM F 24.60 guidelines adopted by most states.

CHASSIS

- Tube frame design using 4130 chrome moly round tubing in main frame rails and front bumper
- Combination rectangular & square tubing in boxed, triangulated construction for maximum strength
- All chassis parts computer designed and laser cut to replicate extreme accuracy
- Mig welded in clamp down jig that will decrease any distortion
- Frame powder painted for durability

BODY

- Body work made from gel coated fiberglass and ABS plastic (Custom colors available)
- Standard XL seat to accommodate most large drivers
- Seats adjustable 8 inches. (Optional)

BUMPERS: ABSORPTION SYSTEM

- Absorption by 2.5" wide urethane impact buffers placed around the kart
- Impact absorption by ¾" x 4.5" flex guard
- Fully enclosed bumper system

BRAKES

- Self Adjusting
- Stainless steel braided hose
- Synthetic brake fluid

DRIVELINE

- Steel primary drive sprockets
- Polychain GT 36mm kevlar belts
- Aluminum Secondary Drive

AXEL

- 1.25" 4130 chrome moly live axel
- CNC billet aluminum differential (Optional—Highly recommended)

AUTO CHARGE PICK-UP

- Conductive pickup pad installed at rear of kart for use with the "Automated Charge" Rail System (optional)

BATTERIES

- 12 Volt 50 AH EVT Batteries
- Immobilized Electrolyte-Non Spillable
- Completely sealed valve regulated construction
- Safety- as tested hydrogen gas emission is 60% less than allowable under U.S. MIL SPEC.# MIL-B-8565 in severe temperature & overcharge conditions
- UL Rated and recyclable

MOTOR

- 15 hp series wound motor
- Acceleration 0-35 mph in 4 sec
- 48 volts DC nominal voltage
- UL rated
- *Optional Upgrade: Permanent Magnet Motor (Not UL)

CONTROLLER

- 400 amp max output
- 36-48 volt
- UL rated
- *Controller with Permanent Magnet Motor Not UL Rated

ELECTRICAL

- 48 volt system
- All electrical connectors & components are UL listed
- All 4 batteries individually fused
- All control wire individually fused
- Floating positive and negative (no chassis ground)

RACE CONTROL SYSTEM

- Pit speed adjustable from 0 to 5 mph
- Three speeds fully adjustable
- An emergency stop feature for all karts
- All karts can be controlled individually

SAFETY FEATURES

- Brake will shut down controller
- External mounted disconnect switch
- Internal main shut off switch disconnects all power to the string of batteries
- Four point adjustable seat belts
- Comfortable foam headrest (low seat)
- Color-coded Red brake pedal & Green power pedal
- Race Control system controls speed & shut off

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ELECTRA KART JR

Junior Kart

Electra Motorsports introduced the JR model in 2001 to fill the need for a well built Junior model for 6 to 11 year olds. The kart is designed to allow easy steering and drivability. The optional adjustable seats, with 8 inches of travel, enable this kart to accommodate all sizes of junior drivers.

Chassis Physical Specifications

Weight	420 lb.
Length	65 inches
Width	47 inches
Height	34 inches
Turn Radius	8 foot
Tire Front	10 x 5.0-5
Tire Rear	11 x 5.0-5
Rims Front	5.0 x 5"
Rims Rear	6.0 x 5"
Max. Driver Weight	200 lbs
Min. Child Weight	50 lbs
Min. Child Height	45 inches



Optional Upgrades

- Adjustable seat
- Differential
- Kart graphics package including individual #'s
- Race control system
- Special order colors

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ELECTRA KART JR

Incorporating design features from the RS design, EMS built the junior kart to withstand the abuse from beginner drivers. This kart is designed to last and uses most components used in our very successful adult karts. This allows the use of time tried parts and makes parts interchangeable when necessary.

The JR conforms to the newly adopted ASTM F 24.60 guidelines adopted by most states.

CHASSIS

- Tube frame design using 4130 chrome moly round tubing in main frame rails and front bumper
- Combination rectangular and square tubing in boxed, triangulated construction for maximum strength
- All chassis parts computer designed and laser cut to replicate extreme accuracy
- Mig welded in clamp down jig that will decrease any distortion
- Frame powder painted for durability

BODY

- Body work made from gel coated fiberglass and ABS plastic (Custom colors available)
- High back seat to accommodate most most juniors
- Seats adjustable 8 inches. (Optional)

BUMPERS: ABSORPTION SYSTEM

- Absorption by 2.5" wide urethane impact buffers placed around the kart
- Impact absorption by ¾" x 4.5" flex guard
- Fully enclosed bumper system

BRAKES

- Self Adjusting
- Stainless steel braided hose
- Synthetic brake fluid

DRIVELINE

- Steel primary drive sprockets
- Polychain GT 36mm kevlar belts
- Aluminum Secondary Drive

AXEL

- 1.25" 4130 chrome moly live axel
- CNC billet aluminum differential (Optional—Highly recommended)

AUTO CHARGE PICK-UP

- Conductive pickup pad installed at rear of kart for use with the "Automated Charge" Rail System (Optional)

BATTERIES

- 12 Volt 50 AH EVT Batteries
- Immobilized Electrolyte-Non Spillable
- Completely sealed valve regulated construction
- Safety- as tested hydrogen gas emission is 60% less than allowable under U.S. MIL SPEC.# MIL-B-8565 in severe temperature and overcharge conditions
- UL Rated and recyclable

MOTOR

- 15 hp series wound motor.
- Acceleration 0-35 mph in 4 sec
- 48 volts DC nominal voltage
- UL rated
- *Optional Upgrade: Permanent Magnet Motor (Not UL)

CONTROLLER

- 400 amp max output 9 (Regulated output)
- 36-48 volt
- UL rated
- *Controller with Permanent Magnet Motor Not UL Rated

ELECTRICAL

- 48 volt system
- All electrical connectors and components are UL listed
- All 4 batteries individually fused
- All control wire individually fused
- Floating positive and negative (no chassis ground)

RACE CONTROL SYSTEM

- Pit speed adjustable from 0 to 5 mph
- Three speeds fully adjustable
- An emergency stop feature for all karts
- All karts can be controlled individually

SAFETY FEATURES

- Brake will shut down controller
- External mounted disconnect switch
- Internal main shut off switch disconnects all power to the string of batteries
- Four point adjustable seat belts
- Color-coded Red brake pedal & Green power pedal
- Race Control system controls speed & shut off

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ELECTRA KART 2X

Two Seater

Electra Motorsports introduced the Two-Seater to fill a demand from existing and new customers for a kart that could allow adult and child to share the karting experience. Using the same footprint as the RS, the 2X can be used on the track at the same time and using the same Auto Charge system.

Chassis Physical Specifications

Weight	500 lb.
Length	77 inches
Width	51 inches
Height	40 inches
Turn Radius	8 foot
Tire Front	10 x 5.0-5
Tire Rear	11 x 5.0-5
Rims Front	5.0 x 5"
Rims Rear	6.0 x 5"
Max. Driver Weight	450 lbs
Min. Driver Height	54 inches
Min. Passenger Weight	50 lbs
Min. Passenger Height	36 inches



Optional Upgrades

- Differential
- Kart graphics package including individual numbers
- Race control system
- Special order colors

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ELECTRA KART 2X

Using the excellent handling and performing RS chassis as basis, EMS incorporated an enclosed body and bench seat.

The 2X conforms to the newly adopted ASTM F 24.60 guidelines adopted by most states.

CHASSIS

- Tube frame design using 4130 chrome moly round tubing in main frame rails and front bumper
- Combination rectangular and square tubing in boxed, triangulated construction for maximum strength
- All chassis parts computer designed and laser cut to replicate extreme accuracy
- Mig welded in clamp down jig that will decrease any distortion
- Frame powder painted for durability

BODY

- Body work made from gel coated fiberglass (Custom colors available)
- Bench with durable, long lasting urethane cushions

BUMPERS: ABSORPTION SYSTEM

- Absorption by 2.5" wide urethane impact buffers placed around the kart
- Impact absorption by ¾" x 4.5" flex guard
- Fully enclosed bumper system

BRAKES

- Self Adjusting
- Stainless steel braided hose
- Synthetic brake fluid

DRIVELINE

- Steel primary drive sprockets
- Polychain GT 36mm kevlar belts
- Aluminum Secondary Drive

AXEL

- 1.25" 4130 chrome moly live axel
- CNC billet aluminum differential (Optional—Highly recommended)

AUTO CHARGE PICK-UP

- Conductive pickup pad installed at rear of kart for use with the "Automated Charge" Rail System (optional)

BATTERIES

- 12 Volt 50 AH EVT Batteries
- Immobilized Electrolyte-Non Spillable
- Completely sealed valve regulated construction
- Safety- as tested hydrogen gas emission is 60% less than allowable under U.S. MIL SPEC.# MIL-B-8565 in severe temperature and overcharge conditions
- UL Rated and recyclable

MOTOR

- 15 hp series wound motor.
- Acceleration 0-35 mph in 4 sec
- 48 volts DC nominal voltage
- UL rated
- *Optional Upgrade: Permanent Magnet Motor (Not UL)

CONTROLLER

- 400 amp max output
- 36-48 volt
- UL rated
- *Controller with Permanent Magnet Motor Not UL Rated

ELECTRICAL

- 48 volt system
- All electrical connectors and components are UL listed
- All 4 batteries individually fused
- All control wire individually fused
- Floating positive and negative (no chassis ground)

RACE CONTROL SYSTEM

- Pit speed adjustable from 0 to 5 mph
- Three speeds fully adjustable
- An emergency stop feature for all karts
- All karts can be controlled individually

SAFETY FEATURES

- Brake will shut down controller
- External mounted disconnect switch
- Internal main shut off switch disconnects all power to the string of batteries
- Four point adjustable seat belts (two sets)
- Color-coded Red brake pedal & Green power pedal
- Race Control system controls speed & shut off

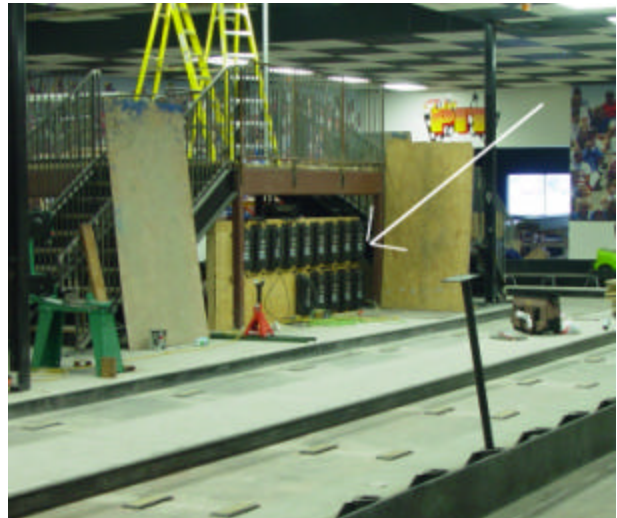
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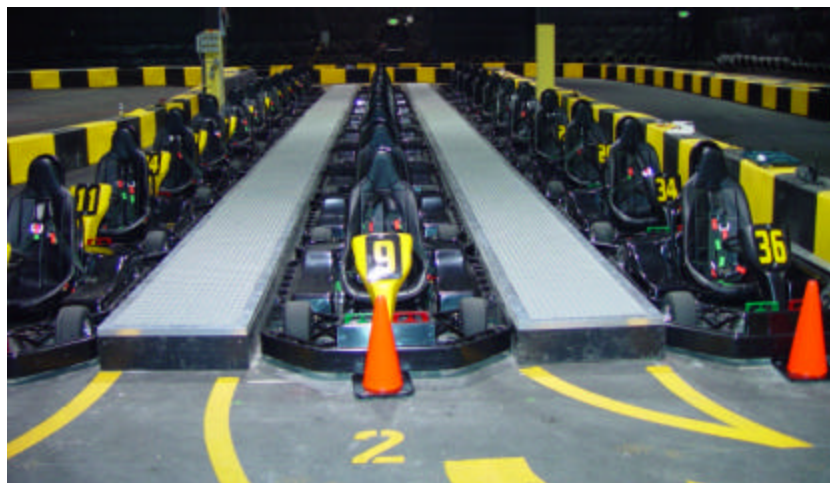
Chargers

The Electra Motorsports charger will aggressively and reliably charge your karts at optimum levels. Designed to handle the rapid charging needed in electric karts, electronics are programmed with battery life in mind. Fully automatic, chargers turn on automatically charge to predetermined perimeters, do an equalizing finish charge and switch off. The chargers electronic smart system turns off when kart is completely charged and senses automatically the presence of arriving or departing kart on charge pads.



Auto Charge System

EMS pioneered and perfected the auto charge system in 1997. The floor surface mounted pit lane provides the recharging stations for the karts. This innovative and extremely functional system makes the operation of an electric track very simple. These rails are an indispensable ingredient to your successful operations, using less manpower, and providing immediate charging for faster turn around.

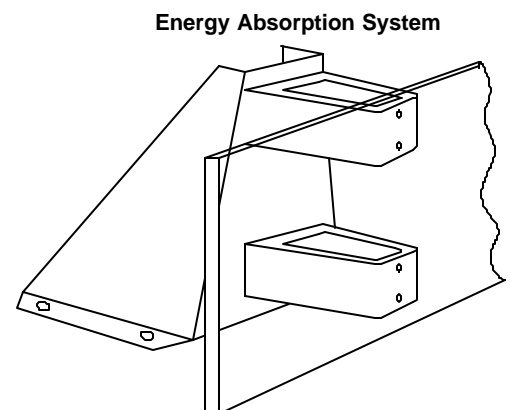
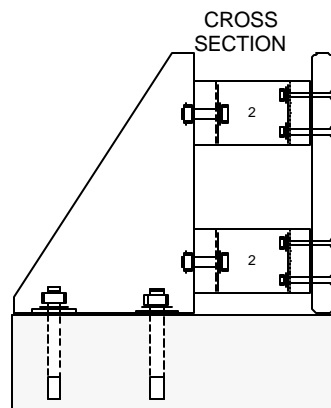
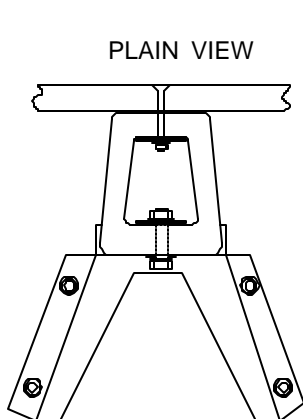


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Energy Absorption System

EMS developed the energy absorption system as a superior alternative to the old car tires and steel band systems which, aside being dangerous are expensive to maintain. This system is the ultimate track barrier system allowing high impact or low impact, depending on the track design. The system can be used outdoors as well as indoors. Track barrier system is possibly the most important aspect of your track beside your choice of go-kart.



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Radio Control System

One of the added benefits of battery operated karts is the ability to finely adjust the output of the motor. This allows us to offer different speeds for drivers of various abilities. The EMS RC system offers more features than any other system currently available. With more adjustable speeds and LED's that will let race control know what speed the kart is in, this system allows total control of your electric kart track.



HANDHELD TRANSMITTER

Description: The handheld transmitter allows total control of any or all karts

Features include:

- Emergency stop will stop all karts or individual karts
- Individual kart control
- LCD screen prompts commands
- LED shows power on
- Lithium Iron batteries for handheld use
- Plug in charger

ALSO AVAILABLE: TRANSMITTER TABLE-MOUNT UNIT



REMOTE CONTROL RECEIVER

Description: The remote control receiver is mounted on each kart and controlled by the transmitter. This RC will interface with any electric powered kart

Features include:

- Four fully adjustable speeds from 0 mph to full speed
- For LED'S showing state of charge
- Four different colored LED's show speed kart is currently using
- Easy access to speed adjusters next to each LED
- Plug in receptacle allows speeds to be checked or replicated in seconds
- Manual override in event of any failures, kart can still be run in all pre-set speeds

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