



## **CRE-2110E Outdoor Elite Curve - Custom Curved Rail Stairlift** **Technical Specifications**

Rev 2: 05-22-2014  
ILS-01123

**MODEL NUMBER:** CRE-2110E  
**ETL-Intertek C-US Listed:** Control Number 4004689

**PERFORMANCE STANDARDS:**

**ANSI/ASME: A18.1-1999 (Sec. 7) Safety Standards for Platform Lifts and Stairway Chairlifts**  
**ANSI/ASME: A18.1-2003 (Sec. 7) Safety Standards for Platform Lifts and Stairway Chairlifts**  
**ANSI/ASME: A18.1-2005 (Sec. 7) Safety Standards for Platform Lifts and Stairway Chairlifts**  
**ANSI/ASME: A18.1-2008 (Sec. 7) Safety Standards for Platform Lifts and Stairway Chairlifts**  
**ANSI/ASME: A18.1-2011 (Sec. 7) Safety Standards for Platform Lifts and Stairway Chairlifts**  
**CSA B613 Private Residence Lifts**  
**ANSI/ASME: CSA B44.1/ASME-A17.5 Elevator and Escalator Electrical Equipment**

**APPLICATIONS:** exterior straight staircases, straight with top and bottom overruns and straight with intermediate landing; variety of flat, spiral, and custom staircase configurations on both inside and outside of staircase

**RATED LOAD:** 400 lb (181 kg) maximum

**NUMBER OF PASSENGERS:** 1

**POWER SOURCE:** 24VDC comprised of 2 each 7AH 12 volt sealed maintenance-free lead acid batteries; On/Off power switch to prevent battery drain over lengthy storage periods

**CHARGER:** 120VAC/1.5A, 24VDC/2A continuous monitoring, full primary cut off. ***Charger must be located inside to avoid the elements.*** All exterior wiring is low voltage (24V). No special wiring required.

**DRIVE:** 24VDC direct-drive gear-motor, 2 pole rated .68 HP, 58:1 right-angle self-locking worm gear box, 41.5 RPM on the output shaft of the gear box

**FINAL DRIVE:** integrated 8dp gear rack on rail with a spur gear on the gearbox output shaft

**MOTOR CONTROLLER:** custom 24VDC PWM controller with acceleration ramping

**BRAKING:** dynamic motor braking through motor controller, self-locking worm gear box, and electro-mechanical motor brake

**CALL/SEND CONTROL:** 2.4GHz RF wireless control with interference suppression; momentary switching requiring a user to continuously hold button to control unit; keyed controls standard

**ARMREST CONTROL:** 3-position momentary rocker switch requiring user to continuously hold rocker switch to control unit; switch mounted under armrest; keyed control standard

**SUPPORTS:** clamps anchored to stair tread; normal rail position is 2 1/2" (63.5 mm) above step nose; number of clamps dependent on the length of rail

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**ANGLE:** from 0 to 45 degrees standard, custom to 50 degrees

**SPEED:** maximum top speed is 25 ft/min (0.13 m/s); actual speed varies depending on rider weight and angle of incline

**LENGTH OF TRACK:** custom lengths to 50' (15 m). (Application specific parameters apply for other lengths)

**TRACK CONSTRUCTION:** 5/16" (8 mm) mild steel welded shape, covered gear rack welded to rail; joint with welded side clamp blocks at each rail joint

**TRACK LOCATION:** track designed to contour of stairway and can fit to within 7" - 8" (178–203 mm) of wall or obstruction.

**TRACK EXTENSION:** standard track extension is approximately 6.5" (165 mm) past top step nose and 18 - 20" (457–508 mm) past bottom step nose

**FOOTREST:** folding footrest with safety sensor panel and handle actuator

**SEAT:** padded, folding and swivel with stops at 45° (bottom), 0° (forward), 60° (top), and 90° (top); multiple-position seat height adjustment

**ARMRESTS:** fixed to seat frame; armrest may be individually rotated toward seat back for smaller profile when not in use and to facilitate transfers; armrests have 4" (102 mm) width adjustment

**CANOPY/COVER:** cinch chord weather-resistant removable cover

**SAFETY EQUIPMENT:**

- 1) seat swivel switch allowing operation only when chair is in center position
- 2) carriage and footrest safety switches
- 3) retractable seat positioning belt
- 4) charging light (green) on carriage; charging light (amber) at each end of rail
- 5) 30A manual reset breaker on motor control circuit
- 6) 5A fuse on control circuits
- 7) final end stop bumper at each end of rail
- 8) final limit switch
- 9) full diagnostic user interface PC board

**BATTERY CAPACITY/POWER OUTAGE:**

cycles: variable depending on angle, length of run, ambient temperature and rider weight  
batteries: between 28 and 36 hours if power is disconnected

**WEIGHT OF UNIT:**

100 lb (45 kg) carriage and drive, 50 lb (23 kg) seat and footrest, and 16 lb/ft (23.8 kg/m) rail weight

**TESTING PERFORMED:**

- 1) battery charger UL tested and listed to standard UL1012
- 2) self-locking gear box statically tested with 3200 lb (1451 kg) (8 times rated load) on a 45-degree rail for 5 minutes with no carriage movement; test was performed at manufacturer's location.
- 3) repetitive tests performed to determine power outage cycling
- 4) electrical discharge to ground testing
- 5) recommended environmental operating temperature range: 0°F (-15°C) to 125°F (50°C)

**OPTIONS:**

- 1) mid park and charge

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