

## **CRE-2110 Elite Curve - Custom Curved Rail Stairlift**

### **Technical Specifications**

**MODEL NUMBER:** CRE-2110, CRE-2110C and CRE-2110OS

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

**ETL-Intertek C-US Listed:** Control Number: 4004689

**PERFORMANCE STANDARDS:**

ANSI/ASME: A18.1-1999 (Sec. 4 or 7) Safety Standards for Platform Lifts and Stairway Chairlifts

ANSI/ASME: A18.1-2003 (Sec. 4 or 7) Safety Standards for Platform Lifts and Stairway Chairlifts

ANSI/ASME: A18.1-2005 (Sec. 4 or 7) Safety Standards for Platform Lifts and Stairway Chairlifts

ANSI/ASME: A18.1-2008 (Sec. 4 or 7) Safety Standards for Platform Lifts and Stairway Chairlifts

ANSI/ASME: A18.1-2011 (Sec. 4 or 7) Safety Standards for Platform Lifts and Stairway Chairlifts

ANSI/ASME: A18.1-2014 (Sec. 4 or 7) Safety Standards for Platform Lifts and Stairway Chairlifts

ANSI/ASME: A18.1-2017 (Sec. 4 or 7) Safety Standards for Platform Lifts and Stairway Chairlifts

(CRE-2110C, CRE-2110OS)

CSA B613 Private Residence Lifts

ANSI/ASME: CSA B44.1/ASME-A17.5 Elevator and Escalator Electrical Equipment

**MODEL NUMBER:** CRE-2110G

**RATED LOAD:** 420 lb (190 kg) maximum

**APPLICATIONS:** 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

**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:** 105-230VAC/1.5A, 24VDC/2A continuous monitoring, full primary cut off

**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, electro-mechanical motor brake, and overspeed brake (CRE-2110C and CRE-2110OS).

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

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

**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

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

**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 60 feet (18 m) Maximum. (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

**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 17.5 lb/ft (26 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° 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) overspeed brake freefall locking distance (CRE-2110C and CRE-2110OS only)

**OPTIONS:**

- 6) keyed call/send controls
- 7) keyed controls on chair arm
- 8) commercial package with overspeed safety brake and keyed controls on chair arm (CRE-2110C)
- 9) power swivel seat at top landing (up to 90° of rotation)
- 10) power folding footrest
- 11) mid park and charge
- 12) larger seat
- 13) larger footrest (manual and powered)
- 14) residential overspeed safety brake (CRE-2110OS)