



CRE-2110 Electra-Ride™ III Stairway Elevator Technical Specifications

rev: 07/01/2011
ILS-00905

MODEL NUMBER: CRE-2110 and CRE-2110C
U.S. F.D.A. CLASSIFICATION: Class II
CLASSIFICATION NUMBER: 890.5150
PRODUCT CODE: ILK
CSA C-US Listed: File Number 208135

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
CSA B613 Private Residence Lifts for Persons with Physical Disabilities
ANSI/ASME: CSA B44.1/ASME-A17.5 Elevator and Escalator Electrical Equipment

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

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

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

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 degrees standard, custom to 50 degrees

Bruno Independent Living Aids, Inc., 1780 Executive Drive, P.O. Box 84, Oconomowoc, WI 53066
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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)

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 16 lb (7.25 kg) per foot (meter) 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 performed for FDA 510(k)

OPTIONS:

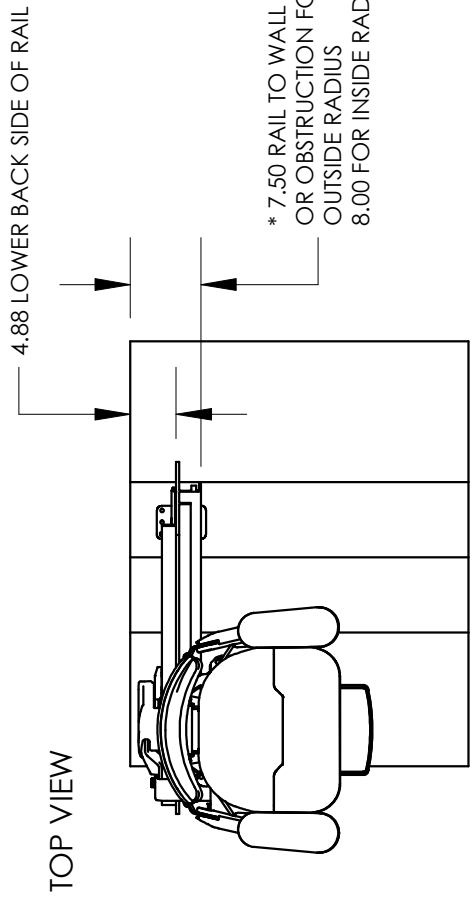
- 1) keyed call/send controls
- 2) keyed controls on chair arm
- 3) commercial package with overspeed safety brake and keyed controls on chair arm
- 4) power swivel seat at top landing (up to 90° of rotation)
- 5) power folding footrest
- 6) mid park and charge
- 7) larger seat
- 8) larger footrest (manual and powered)

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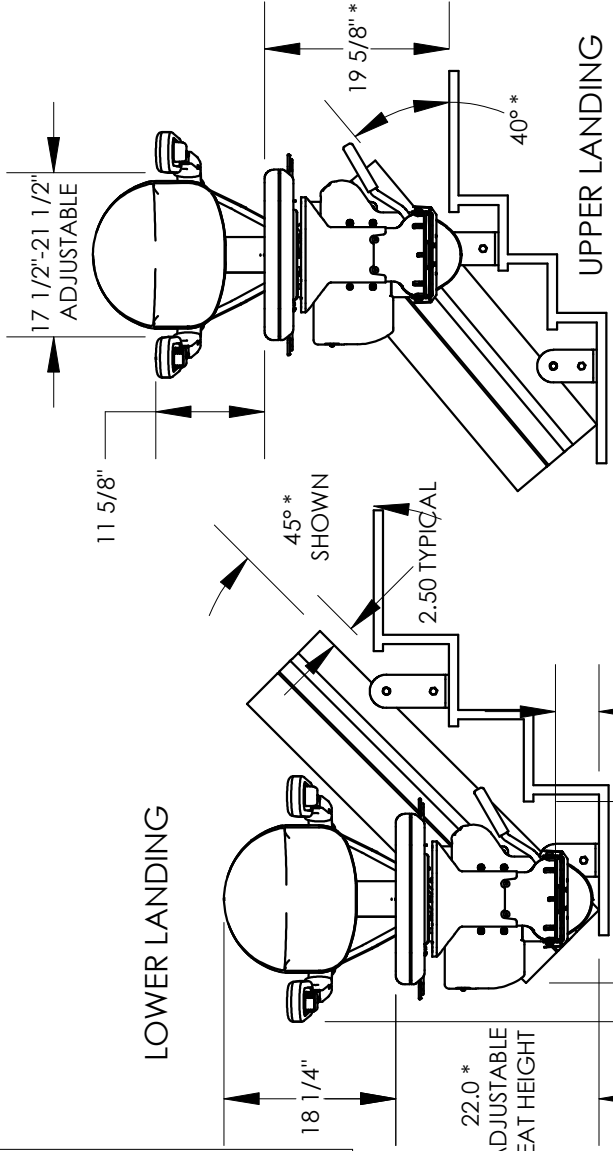
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TECHNICAL DATA/SPECIFICATION

MODEL: CRE-2110 ELECTRA-RIDE III
 RATED LOAD: 400 LBS, ONE PASSENGER
 POWER SOURCE: 24 VOLT DC COMPRISED OF (2) 7 AMP/HR
 12 VOLT SEALED BATTERIES
 110 VOLT AC 1.5 AMP, 24 VOLT DC 2 AMP
 CONTINUOUS MONITORING CHARGER.
 DRIVE: 24 VOLT DC DIRECT DRIVE GEAR-MOTOR, 2 POLE
 RATED .68 HP, 58:1 RIGHT ANGLE SELF LOCKING
 GEARBOX, 41.5 RPM NO LOAD RPM OUTPUT SPEED.
 SUSPENSION: RACK & PINION - INTEGRATED 8DP GEAR RACK
 ON RAIL WITH A SPUR GEAR ON THE OUTPUT
 SHAFT OF THE GEAR BOX.
 BRAKING: DYNAMIC MOTOR BRAKING THROUGH THE MOTOR
 CONTROLLER; SELF LOCKING WORM GEAR, AND
 ELECTRO-MECHANICAL MOTOR BRAKE.
 CONTROLS: CONTINUOUS PRESSURE ROCKER SWITCH LOCATED
 ON THE ARM REST AND WALL MOUNTED CALL/SEND
 CONTROLS LOCATED AT BOTH THE TOP AND BOTTOM
 LANDINGS.
 ANGLES: 0 TO 45 DEGREES (SPECIALS UP TO 50 DEGREES) RIGHT
 OR LEFT HAND ORIENTATIONS.
 FINAL LIMIT SWITCH STANDARD
 OPTIONS:
 1) KEYED CALL/SEND CONTROLS,
 2) KEYED CONTROL ON CHAIR,
 3) COMMERCIAL PACKAGE W/OVERSPEED SAFETY BRAKE.

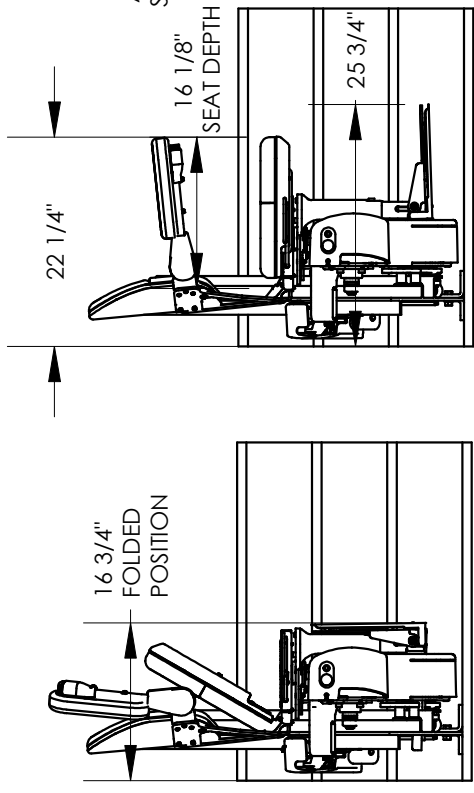


TOP VIEW



ELEVATION VIEWS

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SIDE VIEWS

DIMENSIONS WITH * ARE APPROXIMATE.
 THESE DIMENSIONS MAY VARY BASED ON
 THE SLOPE, RISER HEIGHT, AND CUSTOM
 SEAT ADJUSTMENTS MADE FOR THE USER.

CRE-2110 TECH DRAWING

