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Garaventa - the world's #1 choice for accessibility solutions.

Garaventa has been dedicated to developing safe and reliable accessibility solutions since 1978, and is now an industry leader worldwide. Years of hard work and an uncompromising commitment to quality have enabled us to perfect the internationally renowned Garaventa Stair-Lift. This same committment has led Garaventa to develop the Xpress II inclined platform lift and the Genesis vertical platform lift.

Developed in 1998, the Genesis vertical platform lift incorporates state of the art features with elegant styling and quiet operation. The Genesis is available in a variety of models and configurations with many standard and optional features to choose from. With the development of the Genesis vertical platform lift, Garaventa has taken a significant step towards being able to solve most accessibility challenges for building owners.

In 1999 Garaventa introduced the Xpress II, the next generation inclined platform lift for straight stairways. The sleek and attractive Xpress II can be installed indoors or outdoors and is a cost-effective access solution.

Our expertise in providing accessibility solutions has enabled our design team to take on the most challenging access situations, and develop innovative solutions for schools, places of worship, offices, hotels, airports, subways and a wide range of public and private buildings around the world.

We have built our business on service. Please contact us and let us help solve your access challenges.



©2003 Garaventa. As we are continuously improving our products, specifications outlined in this guide are subject to change without notice.

What is an Inclined Platform Lift?

An inclined platform lift easily transports a passenger in a wheelchair or someone who has difficulty maneuvering stairs up and down a stairway. The lift can be operated independently or by an attendant with an attendant remote control (optional item). Compatible for indoor and outdoor applications, the *Garaventa Inclined Platform Lift* is a versatile, attractive and cost-effective accessibility solution.

Why an Inclined Platform Lift?

No Building Renovations (Modifications)

Inclined platform lifts fit easily into most stairways and do not require specially constructed hoistways.

Preserve Heritage Buildings

Flexibility in design enables Garaventa's designers to adapt an inclined platform lift to virtually any building site with very little or no structural modifications. The availability of many colors and finishes ensures the lift will blend with its environment and preserve the look of a heritage building.

Save Valuable Floor Space

Building floor space, whether a business or a school is valuable. Inclined platform lifts utilize very little of this expensive commodity.

Meet ADA Requirements

Garaventa inclined platform lifts are approved in the ADA Accessibility Guidelines as a means to provide public building access when licensed for independent operation. They may also be used as an accessible means of egress when equipped with an auxiliary standby power system.

Design Assistance

With over 25 years of experience, Garaventa is willing and able to overcome almost any design challenge you face. Please call our Design Hot Line or email us with your accessibility challenge.

Phone: 1-800-663-6556

1+604-594-0422

Email: productinfo@garaventa.ca

(d)

(e)

(a) & (b)

(c)

Custom Finishes

Finishes

Standard Color

The Xpress II rails and loading ramps are made of champagne anodized aluminum. The non-aluminum components of the lift are finished in a durable polyester powder paint coating that is electrostatically applied and baked at 210° C (410° F). Garaventa's standard color, Satin Grey (fine textured), complements a variety of modern and traditional decors (color samples are available upon request). The conveyance cover is made of beige colored high quality ABS/PVC.

Custom Colors (Optional)

Garaventa also offers a choice of colors from the internationally accepted RAL color charts (color samples are available upon request).

The following list of items will be powder coated to the specified RAL color when a custom color is ordered (see picture on right): (a) upper and lower rails, (b) upper rail slot cover, (c) grab bar,

(d) curved arms (if ordered), (e) sensing plate, (f) call stations,

(g) towers (if ordered), (h) handrail.

Optional paint finishes include brass and stainless effects.

ects. Upper Carriage Traveling Cable Cable Motor Motor

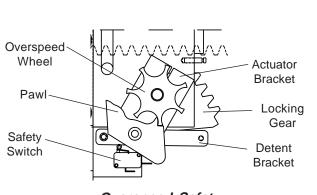
Platform and Drive System

How it Works

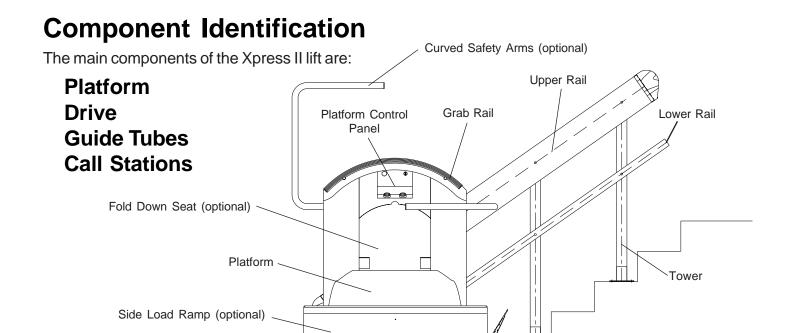
The platform of the Xpress II travels along two custom designed aluminum rails that can be mounted either directly to the wall or to support posts (towers). The upper rail houses a gear rack and a travelling cable while the lower rail provides lateral support. The platform is propelled by means of a carriage mounted rack and pinion drive system.

Overspeed Safety

The Overspeed Safety located in the upper carriage on the platform, consists of a mechanical pawl and electrical cutout switch. In the unlikely event that the lift should descend too quickly, both the mechanical and electrical safety will activate simultaneously and stop the platform from moving.



Overspeed Safety



Platform

Tower Mount Configuration Shown

Platform Sizes

The platform is available in two standard sizes, all with a rated load of 225 kg. (495 lbs.).

- 800 x 1220mm (31 1/2" x 48")

- 800 x 1000mm (31 1/2" x 39 3/8")

For narrower staircases 2 optional platforms are available:

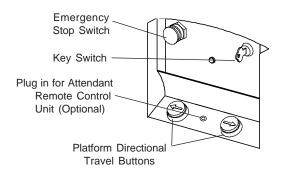
- 725 x 1000mm (28 1/2" x 39 3/8")

- 675 x 1000mm (26 1/2" x 39 3/8")*

*Curved safety arms not available on 675 x 1000mm platform, powered straight arms can be provided.

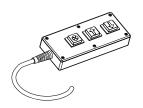
Platform Controls

The durable and vandal resistant platform control panel is mounted to the platform hanger. The standard platform controls consist of two large illuminated *Directional Buttons* for independent operation and an *Emergency Stop Button* (with illumination optional).



Attendant Remote Control Unit

The platform can be equipped with an optional **Attendant Remote Control** that overrides the **Directional Buttons** during attendant operation. The remote control unit can be removed when not required.



Standard Platform Safety Features

Safety Sensing

The platform is equipped with safety sensors listed below. These sensors will automatically stop the lift when activated by 1.8 kg (4 lbs.) of pressure. The platform can then be backed away from the obstruction allowing the object to be removed.

Leading Ramp Sensor

When the platform is called to or from the landing area in the folded up position the leading ramp is sensitive to obstructions.

Under Platform Sensing Plate

The under platform sensing plate detects obstacles underneath the platform.

Bi-Directional Ramp Sensing

The ramps are designed to be obstruction sensitive in the direction of travel on the outside of the ramps as well as from within the platform. The internal ramp sensor prevents a wheelchair from being off-center on the platform deck.

Emergency Stop Button

Located on the platform control panel, this large red button is used to stop the lift in an emergency, (an illuminated stop button with alarm is also available).

Grab Rail

This safety feature increases the ease with which passengers may load and unload from the platform.

Emergency Fold

In an emergency the platform is able to be manually folded and will lock in the folded position.

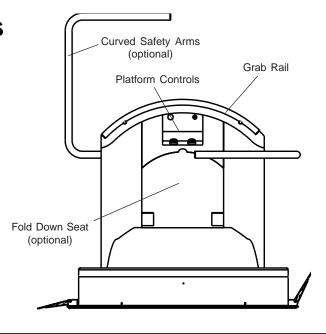
Optional Platform Features

Folding Seat Assembly

Designed for use by semi-ambulatory passengers, the folding seat is equipped with a safety belt.

Curved Safety Arms

Fully automatic curved safety arms are available to further increase the safety of the Xpress II inclined platform lift.



Side Load

Designed for confined lower landing areas, this feature opens a side ramp simultaneously with the end ramp. This allows the passenger to wheel onto the platform diagonally offering easier access.

Auto Fold

This feature will allow the lift to automatically fold, if left unattended for a period of time at a landing. This ensures the stairway remains clear in the event someone forgets the fold the lift. The time delay is adjustable in the field by an authorized Garaventa technician.

Hour Counter

The hour counter enables the owner to determine the amount of time the Xpress II inclined platform lift has been used. This is a helpful tool in determining times for preventive maintenance.

Emergency Battery Lowering

During a power outage this feature allows the lift to be lowered to the bottom landing. The Battery Lowering System is located on the lift inside the platform.

Illuminated Emergency Stop Button and Alarm

The emergency stop button can be illuminated and activate an onboard alarm when required by code.

Change of Direction Time Delay Kit

In applications where a time delay is required when changing directions, either by code or user preference, the lift can be equipped with a variable time delay.

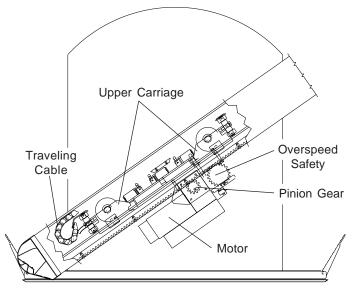
Note: In some areas certain optional features are either not permitted or mandatory depending on local codes. Please consult your local Garaventa representative for clarification.

Drive System

The carriage mounted drive system consists of a .75 H.P. motor, a gearbox, pinion gear and flexible travelling cable.

Mains Power

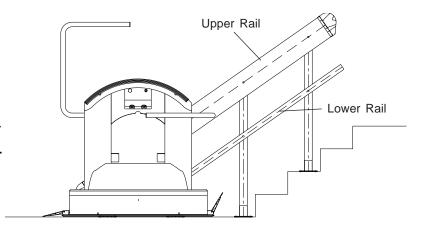
The mains power requirement is 208 to 240 VAC, single phase, on a dedicated 20-amp circuit. A lockable supplementary mains disconnect switch is mounted at the end of the upper rail.



Platform and Drive System

Guide Rails

Two aluminum extrusions make up the guide rail assembly. The upper rail houses the rack that the platform's pinion gear utilizes for travel. The platform is mechanically attrached to this upper rail. The lower rail is used as a guide track for the rollers of the lower carriage assembly. The upper and lower rail heights are based on the stair angle and the platform size. For more information on rail heights see page 14.



Call Stations

Each landing is equipped with a call station. The call station enables the user to unfold the platform with a touch of a button. If the platform is not at their landing the user simply presses the illuminated directional button to bring the platform to their landing.

Call Station Options

To meet customer or code requirements an optional *Emergency Stop Button* and an *Attendant Call Switch* can be added to the call station.

Keyless (optional)

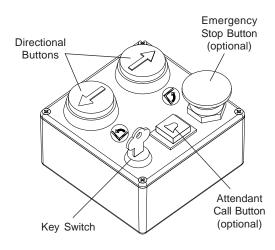
This feature allows the user to operate the lift without a key. The standard key switch on the platform controls and the call stations are removed and plugged.

Remote Fold (optional)

This feature allows the platform to be folded up from any call station should the platform be left folded down.

Mounting Options

The call stations can be mounted on the wall (surface or flush mounted). Flush mount call stations can be pre-wired during the construction or building renovations resulting in a cleaner appearance with no surface wiring. The optional flush call station box dimensions are 120mm (4 3/4") x 120mm (4 3/4") and 55mm (2 1/8") deep.



Additional Safety Options

The Xpress II can be equipped with a number of additional safety features:

Audio Visual Alert

When the lift is in use, a wall mounted strobe light and audible chime cautions pedestrians in the vicinity that the lift is in operation. The volume of the audible chime can be adjusted on site.

Fire Alarm Integration (Fire Service)

Designed to interface with a building's fire safety system and interrupt power to the lift when the fire alarm sounds. This *ensures the lift will not obstruct stairway traffic during evacuation*. If the lift is in use when the alarm sounds, the lift will only allow the passenger to use the constant pressure direction button to travel to the designated landing with the emergency exit.

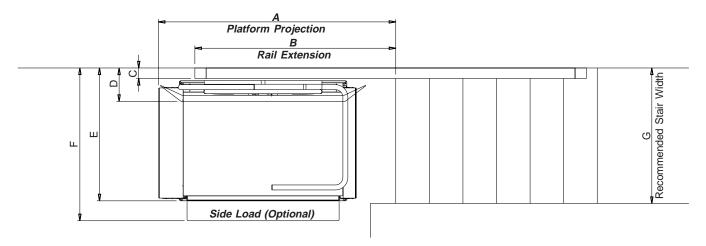
Auxiliary Power

This feature ensures that the *lift continues to operate during a power outage*. The self contained battery unit *can be located up to 4.5 meters (15') away* from the drive system and will *power the lift up to one hour at full capacity*.

Box Size: 597 mm (23 1/2") high x 444 mm (17 1/2") wide x 192 mm (7 5/8") deep

Outdoor Applications

Because most components of the Xpress II are made of anodized aluminum they are already prepared for outdoor use. Any components that are not made of aluminum are zinc plated. If the Xpress II is to be used outdoors or in an extreme environment (e.g. near swimming pools, hot tubs, chemicals, etc.) it is necessary to use stainless steel fasteners and support towers (if required, see Attachment Methods).



Note: Dimension F only applies at lower landing when the side load ramp is in the open position.

Platform Projection and Rail Extensions

Stair Angle	10°	15°	20°	25°	30°	35°	40°	45°	50°		
Dimension A - Platform Projection											
800 x 1000mm Platform	2618	2154	1918	1776	1679	1609	1554	1511	1475		
(31 1/2" x 39 3/8")	103 1/8	84 3/4	75 1/2	69 7/8	66 1/8	63 3/8	61 1/8	59 1/2	58 1/8		
800 x 1220mm Platform	2833	2369	2133	1991	1894	1824	1769	1726	1690		
(31 1/2" x 48")	111 1/2	93 1/4	84	78 3/8	74 5/8	71 3/4	69 5/8	68	66 1/2		
Dimension B - Rail Ext	ension										
800 x 1000mm Platform	2430	1976	1745	1604	1504	1426	1360	1301	1246		
(31 1/2" x 39 3/8")	95 5/8	77 3/4	68 3/4	63 1/8	59 1/4	56 1/8	53 1/2	51 1/4	49		
800 x 1220mm Platform	2538	2086	1855	1714	1614	1536	1470	1411	1356		
(31 1/2" x 48")	99 7/8	82 1/8	73	67 1/2	63 1/2	60 1/2	57 7/8	55 1/2	53 3/8		

Note: These dimensions are based on a first riser height of 190mm (7 1/2"). The platform projection and rail extension will be shorter than indicated for shallow stairs below 25° as they may have shorter first risers, please consult Garaventa.

Stair Width Clearance Dimensions for Different Attachment Methods

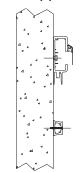
Clearance Width	(;)	I	E	F			3
Dimensions	Rail Protrusion		Platform Folded		Platform Unfolded		Side Load Ramp		Stair Width	
Dimensions	mm	in	mm	in	mm	in	mm	in	mm	in
800 x 1220 mm (31 1/2" x 48') & 800 x 1000 mm (31 1/2" x 39 3/8") Platforms										
Direct Mount	81	3 1/4	260	10 1/4	1020	40 1/8	1175	46 1/4	1040	41
Direct Mount w/ 2" x 8"	119	4 3/4	298	11 3/4	1058	41 5/8	1212	47 3/4	1078	42 1/2
Towers	145	5 3/4	325	12 3/4	1084	42 5/8	1239	48 3/4	1104	43 1/2
725 x 1000 mm (28 1/2"	x 39 3/8") Platfor	ms							
Direct Mount	81	3 1/4	260	10 1/4	945	37 1/4	1100	43 1/4	965	38
Direct Mount w/ 2" x 8"	119	4 3/4	298	11 3/4	983	38 3/4	1137	44 3/4	1003	39 1/2
Towers	145	5 3/4	325	12 3/4	1009	39 3/4	1164	45 7/8	1029	40 1/2
675 x 1000 mm (26 1/2"	x 39 3/8") Platfor	ms							
Direct Mount	81	3 1/4	260	10 1/4	895	35 1/4	1050	41 3/8	915	36
Direct Mount w/ 2" x 8"	119	4 3/4	298	11 3/4	933	36 3/4	1057	41 5/8	953	37 1/2
Towers	145	5 3/4	325	12 3/4	959	37 3/4	1114	43 7/8	979	38 1/2

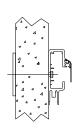
Attachment Methods

The aluminum guide and support rails can be directly mounted to the wall or attached to steel support towers. There are various attachment methods used to support the Xpress II.

Direct Mount Anchored to Solid Walls

- solid concrete (152mm (6") thick minimum)
- concrete block (203mm (8") minimum without reinforcement or 152mm (6") minimum with reinforcement)
- wood support posts located in wall (4" x 6" minimum).
 Locations determined by Garaventa.
- steel support posts located in wall (76mm x 76mm x 6mm wall) (3" x 3" x 1/4") minimum. Locations determined by Garaventa.





Thin Structural Wall (Through-Bolting maybe applied)

Direct Mount to Wall

Direct Mount Anchored to Wood Stud or Thin Block Walls

The upper rail must be attached to a 2" x 8" board that is secured to the wall. For the lower rail, a 2" x 4" board can be used. Each board must be fastened into every available wall stud with minimum two screw fasteners.

Note: Not Suitable for Steel Stud Applications.

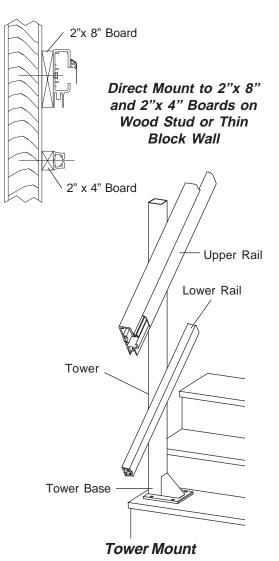
Freestanding Support Towers

Required where there are no existing support walls, or when the lift must be located away from a wall structure.

- · solid concrete stairs/landings
- wood stairs/landings over 76.2mm (3") thick
- concrete steel pan treads (towers must be secured back to the stringer with brackets for extra support)

Open Balustrade (Towers in the core)

In situations where the stairs cannot support freestanding towers and where direct mounting is not feasible, it may be possible to install support towers in the open core. This may also be a solution where there is insufficient clearance with towers on the treads. The towers are fastened to the floor and secured to walls or stringers.





Pedestrian Grab Rail Heights

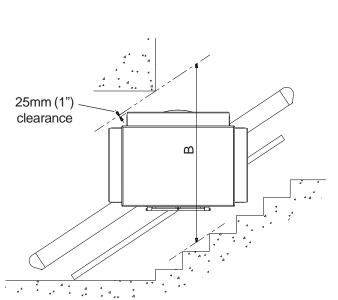
Stair Angle	10°	15°	20°	25°	30°	35°	40°	45°	50°		
Dimension A - Handrail Height											
800 x 1000mm Platform	778	833	895	962	1039	1127	1230	1352	1503		
(31 1/2" x 39 3/8")	30 5/8	32 3/4	35 1/4	37 7/8	40 7/8	44 3/8	48 3/8	53 1/4	59 1/8		
800 x 1220mm Platform	797	862	935	1013	1103	1204	1322	1462	1633		
(31 1/2" x 48")	31 3/8	33 7/8	36 3/4	39 7/8	43 3/8	47 3/8	52	57 1/2	64 1/4		

Overhead Clearances Required

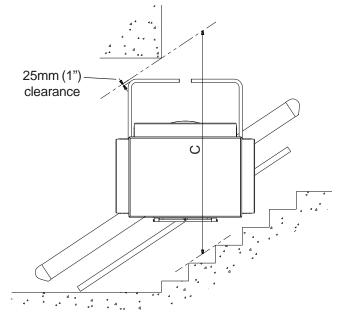
Stair Angle	10°	15°	20°	25°	30°	35°	40°	45°	50°		
Dimension B - Overhead Clearance Platform Folded Up (No Arms)											
800 x 1000mm Platform	1386	1483	1588	1701	1827	1969	2131	2323	2554		
(31 1/2" x 39 3/8")	54 5/8	58 3/8	62 1/2	67	71 7/8	77 1/2	83 7/8	91 1/2	100 1/2		
800 x 1220mm Platform	1424	1542	1668	1804	1954	2123	2316	2543	2816		
(31 1/2" x 48")	56 1/8	60 3/4	65 5/8	71	76 7/8	83 5/8	91 1/8	100 1/8	110 7/8		
Dimension C - Overhead	Clearan	ce Platfo	rm Fold	ed Up (W	ith Arms	5)					
800 x 1000mm Platform	1876	1968	2066	2172	2288	2419	2568	2742	2952		
(31 1/2" x 39 3/8")	73 7/8	77 1/2	81 3/8	85 1/2	90 1/8	95 1/4	101 1/8	108	116 1/4		
800 x 1220mm Platform	1914	2027	2146	2274	2415	2573	2752	2962	3215		
(31 1/2" x 48")	75 3/8	79 3/4	84 1/2	89 1/2	95 1/8	101 1/4	108 3/8	116 5/8	126 5/8		
Dimension D - US Code	for Overh	nead Cle	arance (1	1524mm	(60") abo	ve Platfo	orm)				
800 x 1000mm Platform	1803	1898	1998	2105	2222	2351	2498	2669	2873		
(31 1/2" x 39 3/8")	71	74 3/4	78 5/8	82 7/8	87 1/2	92 1/2	98 3/8	105 1/8	113 1/8		
800 x 1220mm Platform	1842	1957	2078	2208	2349	2505	2683	2889	3135		
(31 1/2" x 48")	72 1/2	77	81 3/4	86 7/8	92 1/2	98 5/8	105 5/8	113 3/4	123 3/8		
Dimension E - Canadian	Code for	r Overhe	ad Clear	ance (15	00mm (5	9") above	e Centerl	ine of PI	atform)		
800 x 1000mm Platform	1691	1740	1792	1848	1909	1977	2131*	2323*	2554*		
(31 1/2" x 39 3/8")	66 5/8	68 1/2	70 1/2	72 3/4	75 1/8	77 7/8	83 7/8	91 1/2	100 1/2		
800 x 1220mm Platform	1710	1770	1832	1900	1973	2123*	2316*	2543*	2816*		
(31 1/2" x 48")	67 3/8	69 5/8	72 1/8	74 3/4	77 5/8	83 5/8	91 1/8	100 1/8	110 7/8		

Note: Please consult the local Garaventa representative for local code requirements.

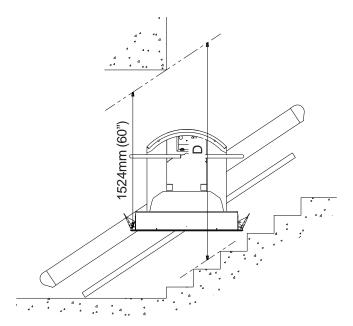
^{*}Platform folded up requires more overhead space than 1500mm (59") above centerline of platform numbers reflect platform requirement.



Overhead Clearances Required For Platform Folded Up (Without Arms)



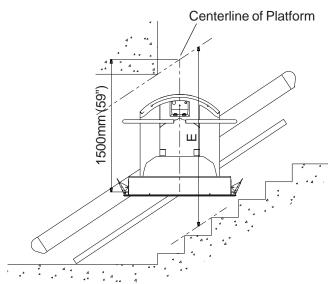
Overhead Clearances Required For Platform Folded Up (With Arms)



Overhead Clearances to Meet US Code Requirements (ASME A18.1b)

1524mm (60") overhead clearance required to any point above the platform deck. Refer to Dimension D in the chart on page 12.

Note: Consult the local representative for status of the new ASME A18.1b code requirements (some areas are exempt).

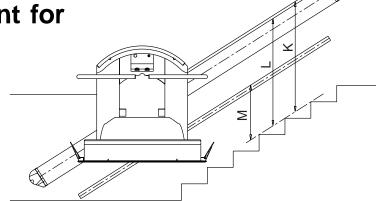


Overhead Clearances to Meet Canadian Code Requirements (CSA B355-2000)

1500mm (59") overhead clearance required to centerline of the platform. Refer to Dimension E in the chart on page 12.

Wall Height Requirement for Direct Mounting

* K dimension is to top of upper rail for placement of 2" x 8" (if required). True wall height is dimension K plus 35mm (1 3/8").



Wall Heights

Stair Angle	10°	15°	20°	25°	30°	35°	40°	45°	50°		
Dimension K - Min. Wall Height for Wall Mount											
800 x 1000mm Platform	740	794	853	918	991	1074	1171	1285	1426		
(31 1/2" x 41 3/8")	29 1/8	31 1/4	33 5/8	36 1/8	39	42 1/4	46 1/8	50 5/8	56 1/8		
800 x 1220mm Platform	759	823	894	968	1055	1151	1263	1395	1556		
(31 1/2" x 48")	29 7/8	32 3/8	35 1/4	38 1/8	41 1/2	45 3/8	49 3/4	54 7/8	61 1/4		
Dimension L - Upper R	ail Heigh	nt									
800 x 1000mm Platform	705	759	818	883	956	1039	1136	1250	1391		
(31 1/2" x 41 3/8")	27 3/4	29 7/8	32 1/4	34 3/4	37 5/8	40 7/8	44 3/4	49 1/4	54 3/4		
800 x 1220mm Platform	724	788	859	933	1020	1116	1228	1360	1521		
(31 1/2" x 48")	28 1/2	31	33 7/8	36 3/4	40 1/8	43 7/8	48 3/8	53 1/2	59 7/8		
Dimension M - Lower F	Rail Heig	ht									
800 x 1000mm Platform	222	273	327	384	448	518	599	693	807		
(31 1/2" x 41 3/8")	8 3/4	10 3/4	12 7/8	15 1/8	17 5/8	20 3/8	23 5/8	27 1/4	31 3/4		
800 x 1220mm Platform	242	302	367	435	511	595	692	803	938		
(31 1/2" x 48")	9 1/2	11 7/8	14 1/2	17 1/8	20 1/8	23 3/8	27 1/4	31 5/8	36 7/8		

Xpress II Loading Diagram

F1: 121 kg (center of gravity of conveyance) 1179N (265 lbf)

F2: 225kg (max. loading capacity) 2207N (495 lbf)

d1: 362mm (15.5") d2: 678mm (26.7")

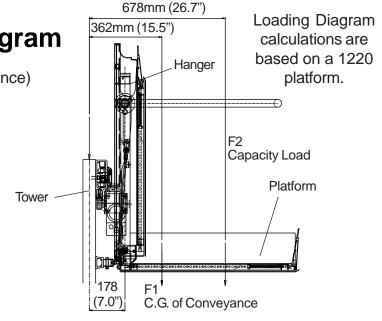
Moment at center of tower

M = Force (F) x distance (d)

M = F1xd1+F2xd2

Maximum Moment

M = 1923.1 kNmm 17022.1 in.lbf



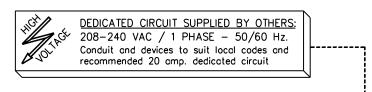
Typical Wiring Layout

Actual wiring and number of conductors may vary depending on options. Some of the options that will affect the wiring include:

- Emergency Stop switches (requires 2 additional conductors to each call station)
- Additional Audio Visual Alerts (requires 2 additional conductors to each A/V)

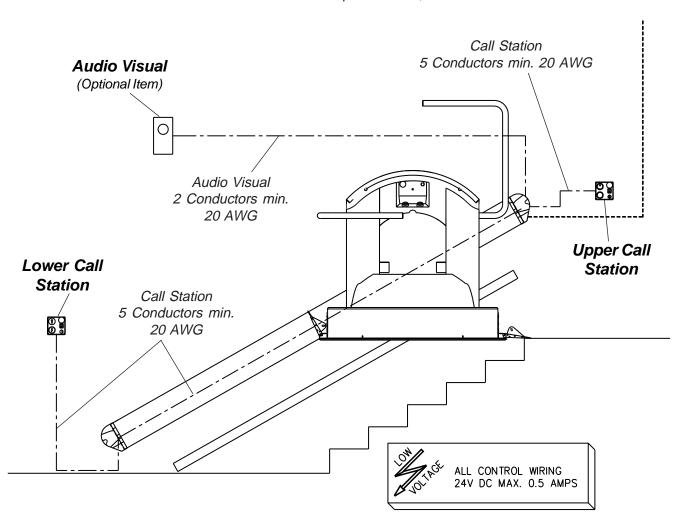
The following options require field wiring by others:

- Attendant Call
- · Fire Service
- Auxiliary Power System
- · and possibly others



Mains Power

2 Conductors plus ground. Wiring size as per local electrical code specifications, loads and distance from source.



Technical Reference of Standard Features

Platform Sizes: 800 x 1220mm (31 1/2" x 48")

800 x 1000mm (31 1/2" x 39 3/8")

725 x 1000mm (28 1/2" x 39 3/8") - optional 675 x 1000mm (26 1/2" x 39 3/8") - optional

Curved Safety Arms: Fully automatic, 32mm (1 1/4") diameter safety arms (optional) Required in

some jurisdictions for code compliance.

Rated Load: 225 kg. (495 lbs.)

Speed: Up: 4m (13ft) per minute, Down: 4.9m (16ft) per minute

Operating Controls:

Call Stations (Std): Constant pressure directional buttons, one touch fold & unfold buttons, 24VDC

power, and keyed operation.

Platform (Std): Constant pressure buttons, 24VDC power, Emergency Stop button (manual

reset) and keyed operation.

Drive System:

Motor: 0.75 H.P. located on the platform

Power Requirements: 208-240 VAC, 50/60 HZ single phase on a dedicated 20 amp. circuit.

Power Transmission: Rack and pinion.

Emergency Use: A handwheel is provided. Auxiliary power system available.

Overspeed Safety: Mechanical overspeed sensor and brake with electrical drive cut-out

protection.

Rail System: Champagne anodized aluminum extrusion with integrally mounted zinc plated

gear.

A variety of optional features and custom modifications are available. For more information about custom features not included in the Xpress II Design and Planning Guide and code requirements for your area consult your local Garaventa representative or Garaventa.

Need Assistance Writing the Specification?

Xpress II specifications will vary from one building site to another based on the stairway configuration, building materials, user requirements and local codes. Your Local Authorized Garaventa Dealer has the expertise to assist and develop an appropriate design specification for your accessibility project.

Authorized Garaventa Dealers can be found Worldwide.

1-800-663-6556 or 1+604-594-0422 or email productinfo@garaventa.ca for the Dealership nearest you.

In addition, professional designers at Garaventa Accessibility are available to answer your technical questions and to assist you with the design and specs.