

Instruction Manual EN 1298-IM-EN

The ALTO MD Large Deck Tower is certified to BS 1139-6:2014

3T - Through The Trapdoor Method

7.4m Long x 2.4m Wide Guide



5.2m Long x 2.4m Wide Guide



3.8m Long x 2.4m Wide Guide



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7.4m Long x 2.4m Wide



Introduction

Please read these instructions carefully and ensure that you fully understand all of the information contained herein. All of the information in this document is vital for the safe utilisation of your Alto Medium Duty Tower in Large Deck tower applications.

All Alto Access products are professional quality engineered equipment designed primarily with safety in mind and meet or exceed all standards, recommendations and guidelines. Used properly, Alto access equipment will keep you safe when working at height.

This manual contains all of the information necessary to correctly assemble your Alto Medium Duty mobile access tower equipment for Large Deck tower applications in accordance with BS 1139-6:2014 and incorporates all of the requirements of the PASMA 3T method of assembly as endorsed by the HSE.

A Risk Assessment and Method Statement must be undertaken before installation commences. This manual should be used in conjunction with your Risk Assessment and Method Statement and in line with the Work at Height Regulations 2005 which place an obligation on employers to eliminate or minimise risks. This manual must be made available to the user/assembler at all pertinent times.

Only competent and qualified personnel should undertake erection, dismantling or alteration, organisation, planning or supervision of mobile access towers. In the case of any doubt, sufficient relevant additional training must be given beforehand to ensure safe use. For further information on the use of mobile access towers consult PASMA (www.pasma.co.uk; Tel +44 (0) 845 230 4041).

For any additional technical information or specific advice please contact the manufacturer Lakeside Industries Limited Tel: +44 1527 500577 or Email: sales@altoaccess.com.

Certifications

The Alto Medium Duty Tower is a mobile access tower certified to EN 1004 Class 3. These instructions cover applications outside the scope of EN 1004, within the scope of BS 1139-6 to ensure that the configuration of the equipment meets the relevant requirements. This tower is manufactured in our ISO 9001 accredited facility. This manual complies with EN 1298-IM-EN.

Maximum Safe Working Loads

The safe working load of the tower is 1,500kg evenly distributed, including its own weight. The maximum leg load imposed by the tower on its supporting surface is 125kg when loaded to its maximum safe working load.

The maximum safe working load of any individual platform within the tower is 324 kg evenly distributed. In case of any queries on loadings, contact your supplier or the manufacturer, Lakeside Industries Limited, for advice on loadings. Tel: +44 1527 500577 or Email: sales@altoaccess.com.

Inspection Care & Maintenance

Alto Access equipment is designed and manufactured to the highest standards in the industry and is stronger, more robust and safer than any comparable competitor product. Properly cared for, it will give a long and productive service life.

All Alto HD equipment should be subjected to the care and maintenance regime specified in the assembly guide supplied with your tower. Never use any equipment which is damaged, has parts missing or is improperly assembled.

Safety

- A risk assessment and method statement must be prepared sufficient to ensure the safe assembly, use and dismantling of a Large Deck tower structure and the elimination or minimisation of all consequent risks.
- Check that all of the necessary components and equipment for the particular tower configuration to be built are on site, undamaged & functioning correctly. Damaged/incorrect components must not be used
- Large Deck tower applications may only be used with 3T Alto towers. Large Deck tower applications may not be created using Advanced Guard Rail (AGR) towers.
- Check that the surface on which the tower is to be located is capable of supporting the tower and its payload.
- Platforms must be installed with vertical distances between them not exceeding 2.1m when assembling and dismantling.
- Towers must always be climbed from the inside using the built in ladders.
- The tower must be levelled when erected using the adjustable legs.
- Two or more persons are required for the safe erection and dismantling of a tower.
- Always comply with the Work at Height Regulations 2005 when erecting, dismantling & using the tower.
- When lifting components, always use reliable lifting equipment and fastening methods and always lift from within the footprint of the tower structure to prevent risk of the tower overturning.

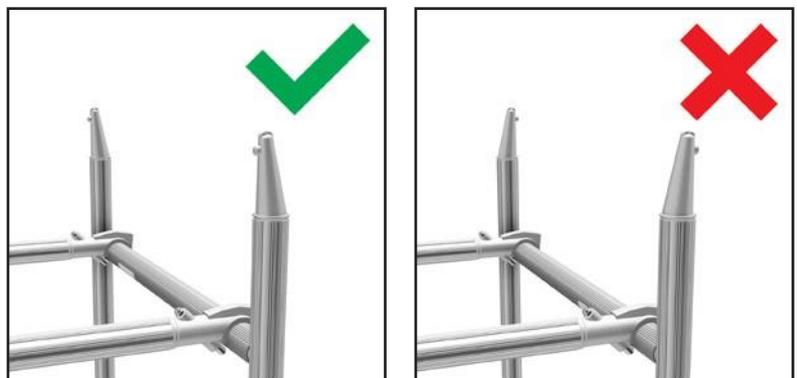
- Beware live electrical installations, cables, moving machinery or other obstructions when erecting, dismantling or using the tower. The tower is a conductive metallic structure.
- Do not use boxes, ladders or other items to gain additional height.
- Do not stand on guard rails for any reason.
- If the tower is to be used in connection with hoisting arrangements, this requires specific advice from the manufacturer to ensure safety. Contact the manufacturer Lakeside Industries Limited for advice on loadings Tel: +44 1527 500577 or Email: sales@altoaccess.com.
- Fit guard rails to all Platforms.
- Fit toe boards to all Working Platforms.
- Every erected tower must be inspected at least every seven days and any tower which has been left unattended should be inspected before use to ensure that:
 - > No components have been removed or relocated incorrectly;
 - > The tower is still vertical; and
 - > No environmental or other factors have arisen which will influence safe use of the tower.
- If it is intended to sheet the structure in any way, contact the manufacturer for advice before installing sheeting. Tel: +44 1527 500577 or Email: sales@altoaccess.com.

Erecting & Dismantling the Tower

All Large Deck tower structures using Alto MD equipment must be built and dismantled in accordance with the step by step instructions set out below and having regard to the working at height regulations and Health & Safety legislation.

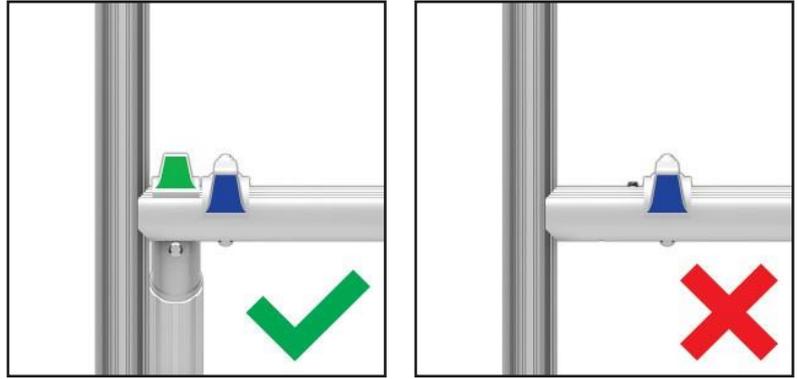
Frames

Frames **must** always be assembled with the offset conical head fitting pointing inwards towards the centre of the tower.

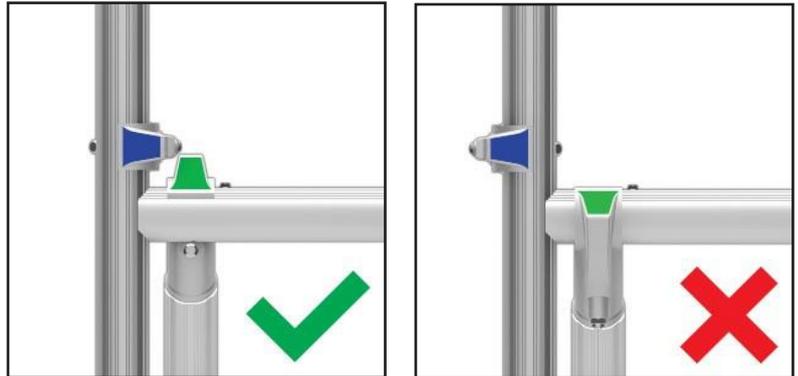


Braces

All braces are fitted with spring loaded pins that automatically lock the brace into position when attached to a tower. Brace hooks **must** be located either over the rung screw heads, between 2 screw heads or between the frame upright and a screw head to prevent lateral movement.



Diagonal braces **must** always be located with the claw opening facing down. Horizontal braces must be located with the claw facing either down (on the rung) or outwards (if on the upright).

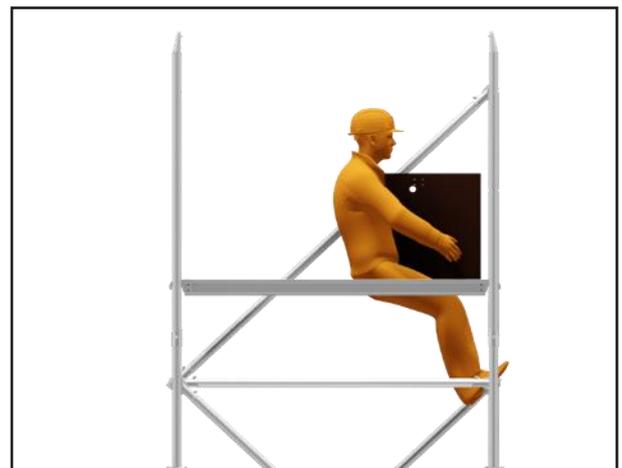


3T method

The “3T” or “through the trapdoor” method is one of the two permitted ways of assembling a tower without the assembler being at risk of falling. This tower is a 3T tower.

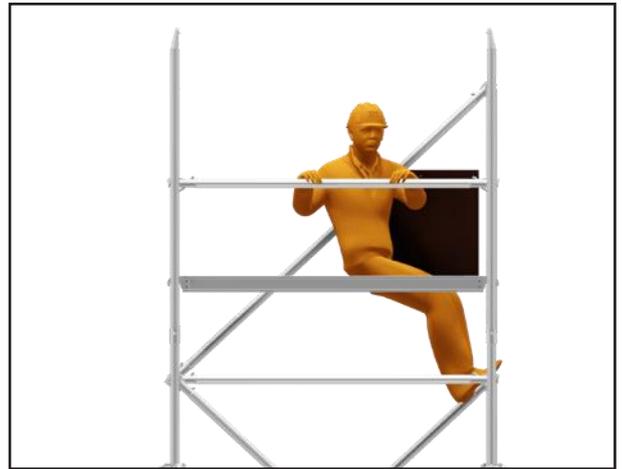
Step 1:

As each new level of platform is installed, the operative takes up a working position in the trap door of the platform, standing on the ladder and leaning back against the edge of the trapdoor aperture.



Step 2:

From this position the operative fits the horizontal braces 500mm and 1000mm above the platform level (i.e. on the first and second available rungs). If the far end of the guardrail braces don't fully engage when they are put in place, the operative fully engages it when first climbing up onto the platform. This process ensures that operatives never have to stand on an unguarded platform.



Signage

The following information shall be prominently displayed at the base of the assembled tower:

The maximum number of working platforms	One
The maximum number of persons permitted on the working platforms	This is 2 persons per platform
The maximum number of persons permitted on the tower during assembly and dismantling	This is 1 person per platform
The maximum safe working load on working platforms	This is: 324kg UDL per platform unit
The maximum safe working load of the tower	This is 1,500kg UDL per assembled tower, including its own weight
The load class of the tower	Class 3

COMPONENT SCHEDULE

7.4m Long x 2.4m Wide MD Large Deck Tower

MEDIUM DUTY SPAN TOWER TO BS 1139-6:2014

Using the 3T (Through The Trapdoor) assembly method

CODE	PART DESCRIPTION	PLATFORM WORKING HEIGHT (m)			
		1.2	2.2	2.7	3.2
2239	125mm Dia. Castor Wheel	12	12	12	12
3076	MD Adj. Aluminium Leg (black collar)	12	12	12	12
3001	MD D/W 4 Rung Frame	3	3	3	6
3003	MD D/W 3 Rung Frame			3	
3004	MD D/W 2 Rung Frame		3		
3005	MD D/W 4 Rung Ladder Frame	3	3	3	6
3006	MD D/W 3 Rung Ladder Frame			3	
3007	MD D/W 2 Rung Ladder Frame		3		
3015	MD 1.6m Horizontal Brace (blue)	12	12	12	16
3017	MD 2.4m Horizontal Brace (yellow)	14	22*	22*	37*
3018	MD 2.4m Diagonal Brace (brown)	2	4	2	8
3083	MD 2.4m x 2 Rung Brace (purple)			6	
3084	MD 2.4m x 1 Rung Brace (grey)		2		
3043	MD 2.4m Platform Beam	4	4	4	4
3019	MD 1.6m Plain Platform	6	6	6	6
3020	MD 2.4m Plain Platform	3	3	4**	3
3022	MD 2.4m Trap Platform	3	3	3	6
3046	MD 1.6m Narrow Plain Platform	2	2	2	2
3025	MD D/W Wooden Toeboard	2	2	2	2
3026	MD D/W Wooden Toeboard inc. return brackets	4	4	4	4
3027	MD 1.6m Linked Wooden Toeboard	4	4	4	4
3028	MD 2.4m Scaffold Toeboard	2	2	2	2
TOTAL SELF WEIGHT OF TOWER (excl. temporary parts)		480 kg	522 kg	541 kg	657 kg
ASSEMBLY GUIDE PAGES		8-13	14-19	20-25	26-31

* 8 additional horizontal braces required for use in the assembly steps only.

** 1 additional plain platform required for use in the assembly steps only.

PLATFORM HEIGHT 1.2 2.2 2.7 3.2

SECTION 1 - END TOWERS

Step 1

Insert the leg & castor assembly into the base of a 4 rung main frame and 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Ensure that the braces are connected from the inside of the tower facing outwards and the frame head fittings are pointing inwards into the tower.

Step 3

Connect one brown diagonal brace to the frames running from the top rung on one frame to the bottom rung on the opposite frame - on the ladder side of the tower only. Keep the diagonal brace as close to the frame uprights as possible.



PLATFORM HEIGHT 1.2 2.2 2.7 3.2

Step 4

Install a 2.4m trap platform and a 2.4m plain platform on the 2nd rung up and engage the wind latches. Ensure that the platforms are both fitted as far over to the non-ladder side of the tower as possible. Now fit one horizontal brace on the same rung, between the edge of the trap platform and the diagonal brace to fill the gap.

Step 5

Next, add 2 horizontal braces as guard rails to the ladder side of the tower only. Using a spirit level, ensure that the framework is completely level by adjusting the legs. Twist the serrated collar above the wheel to adjust up & down.

Step 6

Install a 2.4m platform beam to the side of the tower that has no diagonal brace. Ensure the top tube is in-line with the 2nd horizontal rung up on the frames and the couplers are fully tightened.

Once assembled, repeat step 1-6 for the tower at the opposite end of the structure.



SECTION 2 - CENTRE TOWER

Step 7

Repeat Steps 1 and 2 to form the framework.

Step 8

Install a 2.4m trap platform and a 2.4m plain platform on the 2nd rung up. Ensure that the platforms are both fitted centrally and the wind latches are engaged. Now, fit two horizontal braces on the same rung as the platforms, one on either side of the tower - in the gap between the frame upright and the outside edge of the platform.

Step 9

Install two 2.4m platform beams - one on either side of the tower. Ensure the top tube is in-line with the 2nd horizontal rung up on the frames and the couplers are fully tightened.

Step 10

Using a spirit level, ensure that the framework is completely level.



SECTION 3 - CONNECTING THE TOWERS

Step 11

Position the three towers approximately 1.6m apart and parallel to each other. Ensure that the end towers have the side with the diagonal braces facing outwards & the platform beams facing inwards.

Step 12

Join one of the end towers and the centre tower together using two 1.6m horizontal braces (blue). Connect the braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames.

Step 13

Install four 1.6m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 14

Using a spirit level, adjust the height of the centre tower until the new platforms are horizontal. Repeat steps 12 and 13 at the other end of the structure. Recheck that all the framework is completely level.



SECTION 4 - GUARDRAILS AND TOEBOARDS

Step 15

Working from the ground, install eight 1.6m horizontal braces as guard rails - four in each bridging bay. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals. Ensure that the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical.

Step 16

Working from the platforms, fit 3026 toeboards to the frames of the end towers with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 17

Using 3027 toe boards (1.6m) on the bridges and 3025 toeboards (1.45m) on the centre tower, fit toe boards on each side of the assembled tower, working from one end to the other. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



PLATFORM HEIGHT 1.2 2.2 2.7 3.2

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Step 5

SECTION 1 - END TOWERS

Step 1

Insert the leg & castor assembly into the base of a 4 rung main frame and 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 3

Connect two brown diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 4

Install a trap platform on the 2nd rung up and 4 horizontal braces as guard rails. Using a spirit level, ensure that the framework is completely level by adjusting the legs.



Remove the diagonal brown brace on the non-ladder side of the tower and replace with a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the top horizontal rungs on the frames and the couplers are fully tightened.

Step 6

Working from the platform, install a 2 rung main frame & a 2 rung ladder frame onto the 4 rung frames. Then, on the ladder side only, clip onto the top rung 1 more brown diagonal brace. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 7

From the ground, remove the trap platform and 4 guardrails. Relocate the trap platform onto the 4th rung up and install a 2.4m plain platform next to it. Ensure that the platforms are both fitted as far over to the non-ladder side of the tower as possible and that the wind latches are engaged.

Step 8

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower. From the platform, clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level.

Once assembled, repeat step 1-8 for the tower at the opposite end of the structure.



Step 5

SECTION 2 - CENTRE TOWER

Step 9

Insert the leg & castor assembly into the base of a 2 rung frame and 2 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 10

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 11

Connect two grey diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 12

Using a spirit level, ensure that the framework is completely level.



PLATFORM HEIGHT 1.2 2.2 2.7 3.2

Step 13

Install a 4 rung main frame & a 4 rung ladder frame onto the 2 rung frames. Then, install two 2.4m platform beams - one on either side of the tower. Ensure the top tube of the platform beam is in-line with the 3rd horizontal rung down on the tower and the couplers are fully tightened.

Step 14

Install a 2.4m trap platform and a 2.4m plain platform on the 4th rung up. Ensure that the platforms are both fitted centrally and the wind latches are engaged.

Step 15

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower.

Step 16

Fit two horizontal braces on the same rung as the platforms, one on either side of the tower - in the gap between the frame upright and the outside edge of the platform. Using a spirit level, ensure that the framework is completely level.



SECTION 3 - CONNECTING THE TOWERS

Step 17

Position the three towers approximately 1.6m apart and parallel to each other. Ensure that the end towers have the side with the diagonal braces facing outwards & the platform beams facing inwards.

Step 18

Join one of the end towers and the centre tower together using two 1.6m horizontal braces (blue). Connect the braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames.

Step 19

Install four 1.6m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 20

Using a spirit level, adjust the height of the centre tower until the new platforms are horizontal. Repeat steps 18 and 19 at the other end of the structure. Recheck that all the framework is completely level.



SECTION 4 - GUARDRAILS AND TOEBOARDS

Step 21

Working from the platforms, install eight 1.6m horizontal braces as guard rails - four in each bridging bay. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals & the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical. Now the 2.4m horizontal braces acting as guard rails on the inside faces of the three towers can be removed (8 total).

Step 22

Working from the platforms, fit 3026 toeboards to the frames of the end towers with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 23

Using 3027 toe boards (1.6m) on the bridges and 3025 toeboards (1.45m) on the centre tower, fit toe boards on each side of the assembled tower, working from one end to the other. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



Step 5

SECTION 1 - END TOWERS

Step 1

Insert the leg & castor assembly into the base of a 3 rung main frame and 3 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 3

Connect two purple diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 4

Install a plain platform on the bottom rung. Using a spirit level, ensure that the framework is level.



PLATFORM HEIGHT 1.2 2.2 2.7 3.2

Working from the ground, install a 4 rung main frame & a 4 rung ladder frame onto the 3 rung frames. Then, on the ladder side only, clip a brown diagonal brace onto the 2nd rung down. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 6

On the non-ladder side of the tower, install a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the 5th horizontal rung up on the frames and the couplers are fully tightened.

Step 7

From the platform, install a 2.4m trap platform and a 2.4m plain platform on the 5th rung up. Ensure that the platforms are both fitted as far over to the non-ladder side of the tower as possible and that the wind latches are engaged. The temporary platform at the base can now be removed.

Step 8

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower. From the platform, clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level.

Once assembled, repeat step 1-8 for the tower at the opposite end of the structure.



Step 5

SECTION 2 - CENTRE TOWER

Step 9

Insert the leg & castor assembly into the base of a 3 rung frame and 3 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 10

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 11

Connect two purple diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 12

Install a plain platform on the bottom rung. Using a spirit level, ensure that the framework is level.



Step 13

Install a 4 rung main frame & a 4 rung ladder frame onto the 3 rung frames. Then, fit two 2.4m platform beams - one on either side of the tower. Ensure the top tube of the platform beam is in-line with the 3rd horizontal rung down on the tower and the couplers are fully tightened.

Step 14

Install a 2.4m trap platform and a 2.4m plain platform on the 5th rung up. Ensure that the platforms are both fitted centrally and the wind latches are engaged.

Step 15

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower.

Step 16

Fit two horizontal braces on the same rung as the platforms, one on either side of the tower - in the gap between the frame upright and the outside edge of the platform. The temporary platform at the base can now be removed.

Using a spirit level, ensure that the framework is completely level.



SECTION 3 - CONNECTING THE TOWERS

Step 17

Position the three towers approximately 1.6m apart and parallel to each other. Ensure that the end towers have the side with the extra diagonal brace facing outwards and the platform beams facing inwards.

Step 18

Join one of the end towers and the centre tower together using two 1.6m horizontal braces (blue). Connect the braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames.

Step 19

Install four 1.6m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 20

Using a spirit level, adjust the height of the centre tower until the new platforms are horizontal. Repeat steps 18 and 19 at the other end of the structure. Recheck that all the framework is completely level.



SECTION 4 - GUARDRAILS AND TOEBOARDS

Step 21

Working from the platforms, install eight 1.6m horizontal braces as guard rails - four in each bridging bay. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals & the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical. Now the 2.4m horizontal braces acting as guard rails on the inside faces of the three towers can be removed (8 total).

Step 22

Working from the platforms, fit 3026 toeboards to the frames of the end towers with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 23

Using 3027 toe boards (1.6m) on the bridges and 3025 toeboards (1.45m) on the centre tower, fit toe boards on each side of the assembled tower, working from one end to the other. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



Step 6

SECTION 1 - END TOWERS

Step 1

Insert the leg & castor assembly into the base of a 4 rung main frame and 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 3

Connect two brown diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 4

Install a trap platform on the 3rd rung down and 4 horizontal braces as guard rails on the top 2 rungs of the tower - 2 braces in the centre of the tower and 2 braces nearest the frame upright of the tower.

Step 5

Install a 5th horizontal brace on the top rung of the frames on the opposite side to the guard rails. Using a spirit level, ensure that the framework is level.



PLATFORM HEIGHT 1.2 2.2 2.7 **3.2**

Working from the platform, install a second set of 4 rung frames onto the 1st frames. Then, on the ladder side only, clip a brown diagonal brace onto the 2nd rung down. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 7

On the non-ladder side of the tower, install a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the 3rd horizontal rung down on the frames and the couplers are fully tightened.

Step 8

Fit a 2.4m trap platform & plain platform, 4 rungs above the first platform. Ensure the platforms are both fitted as far over to the non-ladder side of the tower as possible and that the wind latches are engaged.

Step 9

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower. From the platform, clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level.

Once assembled, repeat step 1-9 for the tower at the opposite end of the structure.



Step 6

SECTION 2 - CENTRE TOWER

Step 10

Insert the leg & castor assembly into the base of a 4 rung main frame and 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 11

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 12

Connect two brown diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 13

Install a trap platform on the 3rd rung down and 4 horizontal braces as guard rails on the top 2 rungs of the tower - 2 braces in the centre of the tower and 2 braces nearest the frame upright of the tower.

Step 14

Install a 5th horizontal brace on the top rung of the frames on the opposite side to the guard rails. Using a spirit level, ensure that the framework is level.



PLATFORM HEIGHT 1.2 2.2 2.7 **3.2**

Step 15

Working from the platform, install a second set of 4 rung frames onto the 1st frames. Now, install two 2.4m platform beams - one on either side of the tower. Ensure the top tube of the platform beams are in-line with the 3rd horizontal rung down on the frames and the couplers are fully tightened.

Step 16

Install a 2.4m trap platform and a 2.4m plain platform four rungs above the first platform. Ensure that the platforms are both fitted centrally and the wind latches are engaged.

Step 17

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower.

Step 18

Fit two horizontal braces on the same rung as the platforms, one on either side of the tower - in the gap between the frame upright and the outside edge of the platform. Using a spirit level, ensure that the framework is completely level.



SECTION 3 - CONNECTING THE TOWERS

Step 19

Position the three towers approximately 1.6m apart and parallel to each other. Ensure that the end towers have the side with the extra diagonal brace facing outwards and the platform beams facing inwards.

Step 20

Join one of the end towers and the centre tower together using four 1.6m horizontal braces (blue). Connect two braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames, and two braces in the position just above the 4th rung up from the bottom.

Step 21

Install four 1.6m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 22

Using a spirit level, adjust the height of the centre tower until the new platforms are horizontal. Repeat steps 20 and 21 at the other end of the structure. Recheck that all the framework is completely level.



SECTION 4 - GUARDRAILS AND TOEBOARDS

Step 23

Working from the platforms, install eight 1.6m horizontal braces as guard rails - four in each bridging bay. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals & the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical. Now the 2.4m horizontal braces acting as guard rails on the inside faces of the three towers can be removed (8 total).

Step 24

Working from the platforms, fit 3026 toeboards to the frames of the end towers with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 25

Using 3027 toe boards (1.6m) on the bridges and 3025 toeboards (1.45m) on the centre tower, fit toe boards on each side of the assembled tower, working from one end to the other. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



DISMANTLING INSTRUCTIONS - All Platform Working Heights

The dismantling procedure requires a minimum of 2 operatives to complete the task safely.

Step 1

Remove the toeboards from the whole structure.



Step 2

Reinstate the eight 2.4m guardrails on the inner faces of the three towers.



Step 3

Working from the three towers, unclip the 1.6m guardrails from the bridge sections.



Step 4

Next, remove the bridge platforms. Then the horizontal joining braces.



Step 5

Finally, disassemble the towers by reversing the build sequence.

THE HEIGHT OF SAFETY

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Instruction Manual EN 1298-IM-EN

The ALTO MD Large Deck Tower is certified to BS 1139-6:2014

3T - Through The Trapdoor Method

5.2m Long x 2.4m Wide



Introduction

Please read these instructions carefully and ensure that you fully understand all of the information contained herein. All of the information in this document is vital for the safe utilisation of your Alto Medium Duty Tower in Large Deck tower applications.

All Alto Access products are professional quality engineered equipment designed primarily with safety in mind and meet or exceed all standards, recommendations and guidelines. Used properly, Alto access equipment will keep you safe when working at height.

This manual contains all of the information necessary to correctly assemble your Alto Medium Duty mobile access tower equipment for Large Deck tower applications in accordance with BS 1139-6:2014 and incorporates all of the requirements of the PASMA 3T method of assembly as endorsed by the HSE.

A Risk Assessment and Method Statement must be undertaken before installation commences. This manual should be used in conjunction with your Risk Assessment and Method Statement and in line with the Work at Height Regulations 2005 which place an obligation on employers to eliminate or minimise risks. This manual must be made available to the user/assembler at all pertinent times.

Only competent and qualified personnel should undertake erection, dismantling or alteration, organisation, planning or supervision of mobile access towers. In the case of any doubt, sufficient relevant additional training must be given beforehand to ensure safe use. For further information on the use of mobile access towers consult PASMA (www.pasma.co.uk; Tel +44 (0) 845 230 4041).

For any additional technical information or specific advice please contact the manufacturer Lakeside Industries Limited Tel: +44 1527 500577 or Email: sales@altoaccess.com.

Certifications

The Alto Medium Duty Tower is a mobile access tower certified to EN 1004 Class 3. These instructions cover applications outside the scope of EN 1004, within the scope of BS 1139-6 to ensure that the configuration of the equipment meets the relevant requirements. This tower is manufactured in our ISO 9001 accredited facility. This manual complies with EN 1298-IM-EN.

Maximum Safe Working Loads

The safe working load of the tower is 1,500kg evenly distributed, including its own weight. The maximum leg load imposed by the tower on its supporting surface is 187kg when loaded to its maximum safe working load.

The maximum safe working load of any individual platform within the tower is 324 kg evenly distributed. In case of any queries on loadings, contact your supplier or the manufacturer, Lakeside Industries Limited, for advice on loadings. Tel: +44 1527 500577 or Email: sales@altoaccess.com.

Inspection Care & Maintenance

Alto Access equipment is designed and manufactured to the highest standards in the industry and is stronger, more robust and safer than any comparable competitor product. Properly cared for, it will give a long and productive service life.

All Alto HD equipment should be subjected to the care and maintenance regime specified in the assembly guide supplied with your tower. Never use any equipment which is damaged, has parts missing or is improperly assembled.

Safety

- A risk assessment and method statement must be prepared sufficient to ensure the safe assembly, use and dismantling of a Large Deck tower structure and the elimination or minimisation of all consequent risks.
- Check that all of the necessary components and equipment for the particular tower configuration to be built are on site, undamaged & functioning correctly. Damaged/incorrect components must not be used
- Large Deck tower applications may only be used with 3T Alto towers. Large Deck tower applications may not be created using Advanced Guard Rail (AGR) towers.
- Check that the surface on which the tower is to be located is capable of supporting the tower and its payload.
- Platforms must be installed with vertical distances between them not exceeding 2.1m when assembling and dismantling.
- Towers must always be climbed from the inside using the built in ladders.
- The tower must be levelled when erected using the adjustable legs.
- Two or more persons are required for the safe erection and dismantling of a tower.
- Always comply with the Work at Height Regulations 2005 when erecting, dismantling & using the tower.
- When lifting components, always use reliable lifting equipment and fastening methods and always lift from within the footprint of the tower structure to prevent risk of the tower overturning.

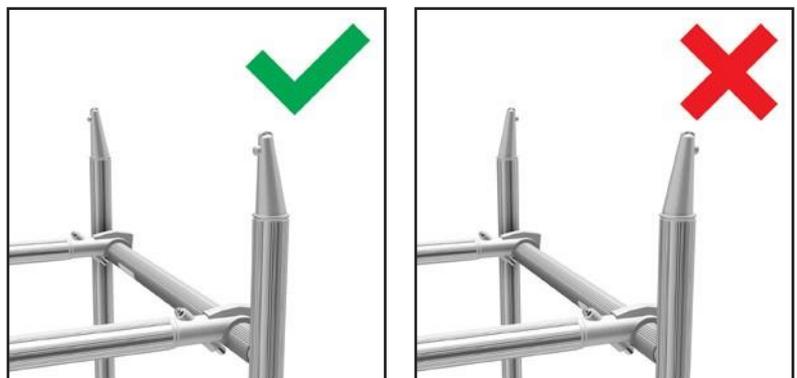
- Beware live electrical installations, cables, moving machinery or other obstructions when erecting, dismantling or using the tower. The tower is a conductive metallic structure.
- Do not use boxes, ladders or other items to gain additional height.
- Do not stand on guard rails for any reason.
- If the tower is to be used in connection with hoisting arrangements, this requires specific advice from the manufacturer to ensure safety. Contact the manufacturer Lakeside Industries Limited for advice on loadings Tel: +44 1527 500577 or Email: sales@altoaccess.com.
- Fit guard rails to all Platforms.
- Fit toe boards to all Working Platforms.
- Every erected tower must be inspected at least every seven days and any tower which has been left unattended should be inspected before use to ensure that:
 - > No components have been removed or relocated incorrectly;
 - > The tower is still vertical; and
 - > No environmental or other factors have arisen which will influence safe use of the tower.
- If it is intended to sheet the structure in any way, contact the manufacturer for advice before installing sheeting. Tel: +44 1527 500577 or Email: sales@altoaccess.com.

Erecting & Dismantling the Tower

All Large Deck tower structures using Alto MD equipment must be built and dismantled in accordance with the step by step instructions set out below and having regard to the working at height regulations and Health & Safety legislation.

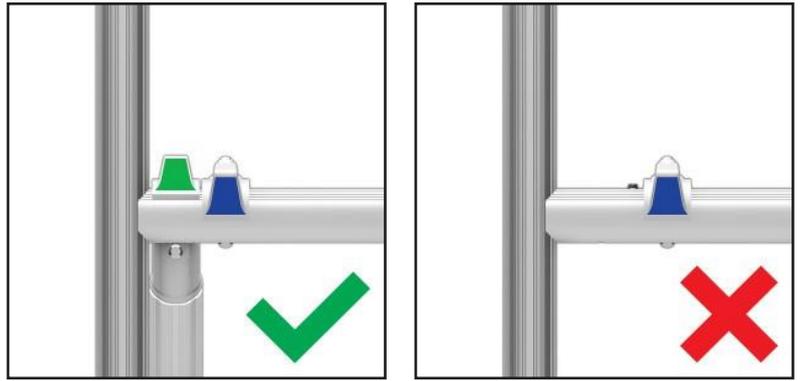
Frames

Frames **must** always be assembled with the offset conical head fitting pointing inwards towards the centre of the tower.

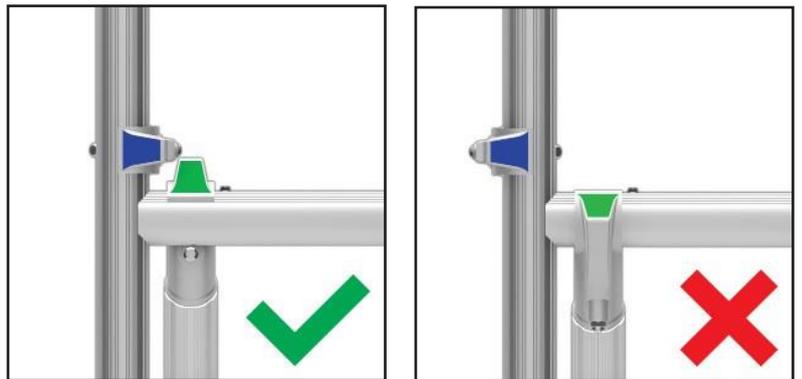


Braces

All braces are fitted with spring loaded pins that automatically lock the brace into position when attached to a tower. Brace hooks **must** be located either over the rung screw heads, between 2 screw heads or between the frame upright and a screw head to prevent lateral movement.



Diagonal braces **must** always be located with the claw opening facing down. Horizontal braces must be located with the claw facing either down (on the rung) or outwards (if on the upright).

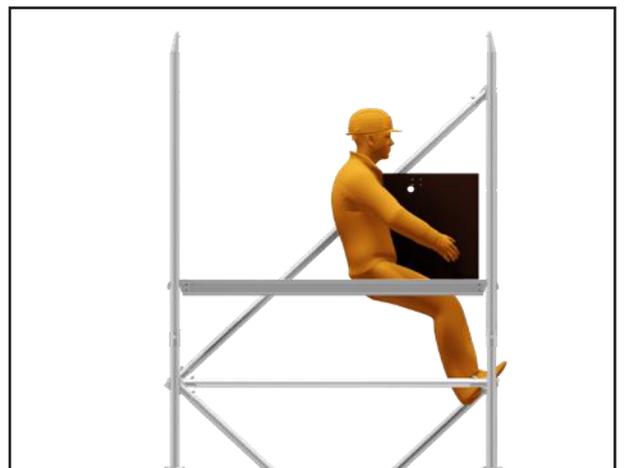


3T method

The “3T” or “through the trapdoor” method is one of the two permitted ways of assembling a tower without the assembler being at risk of falling. This tower is a 3T tower.

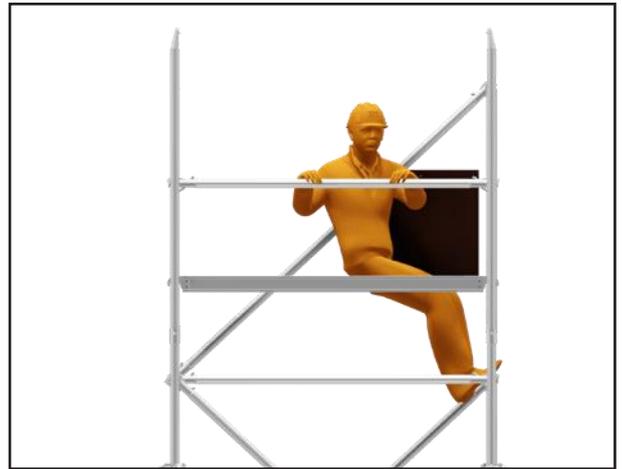
Step 1:

As each new level of platform is installed, the operative takes up a working position in the trap door of the platform, standing on the ladder and leaning back against the edge of the trapdoor aperture.



Step 2:

From this position the operative fits the horizontal braces 500mm and 1000mm above the platform level (i.e. on the first and second available rungs). If the far end of the guardrail braces don't fully engage when they are put in place, the operative fully engages it when first climbing up onto the platform. This process ensures that operatives never have to stand on an unguarded platform.



Signage

The following information shall be prominently displayed at the base of the assembled tower:

The maximum number of working platforms	One
The maximum number of persons permitted on the working platforms	This is 2 persons per platform
The maximum number of persons permitted on the tower during assembly and dismantling	This is 1 person per platform
The maximum safe working load on working platforms	This is: 324kg UDL per platform unit
The maximum safe working load of the tower	This is 1,500kg UDL per assembled tower, including its own weight
The load class of the tower	Class 3

COMPONENT SCHEDULE

5.2m Long x 2.4m Wide MD Large Deck Tower

MEDIUM DUTY SPAN TOWER TO BS 1139-6:2014

Using the 3T (Through The Trapdoor) assembly method

CODE	PART DESCRIPTION	PLATFORM WORKING HEIGHT (m)			
		1.2	2.2	2.7	3.2
2239	125mm Dia. Castor Wheel	8	8	8	8
3076	MD Adj. Aluminium Leg (black collar)	8	8	8	8
3001	MD D/W 4 Rung Frame	2	2	2	4
3003	MD D/W 3 Rung Frame			2	
3004	MD D/W 2 Rung Frame		2		
3005	MD D/W 4 Rung Ladder Frame	2	2	2	4
3006	MD D/W 3 Rung Ladder Frame			2	
3007	MD D/W 2 Rung Ladder Frame		2		
3017	MD 2.4m Horizontal Brace (yellow)	16	20*	20*	32*
3018	MD 2.4m Diagonal Brace (brown)	2	4	2	6
3083	MD 2.4m x 2 Rung Brace (purple)			4	
3043	MD 2.4m Platform Beam	2	2	2	2
3020	MD 2.4m Plain Platform	5	5	6**	5
3022	MD 2.4m Trap Platform	2	2	2	4
3052	MD 2.4m Narrow Plain Platform	1	1	1	1
3026	MD D/W Wooden Toeboard inc. return brackets	4	4	4	4
3028	MD 2.4m Scaffold Toeboard	2	2	2	2
3060	MD 2.4m Linked Toeboard	2	2	2	2
TOTAL SELF WEIGHT OF TOWER (excl. temporary parts)		328 kg	355 kg	386 kg	446 kg
ASSEMBLY GUIDE PAGES		8-11	12-15	16-19	20-23

* 4 additional horizontal braces required for use in the assembly steps only.

** 1 additional plain platform required for use in the assembly steps only.

SECTION 1 - END TOWERS

Step 1

Insert the leg & castor assembly into the base of a 4 rung main frame and 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Ensure that the braces are connected from the inside of the tower facing outwards and the frame head fittings are pointing inwards into the tower.

Step 3

Connect one brown diagonal brace to the frames running from the top rung on one frame to the bottom rung on the opposite frame - on the ladder side of the tower only. Keep the diagonal brace as close to the frame uprights as possible.



PLATFORM HEIGHT 1.2 2.2 2.7 3.2

Step 4

Install a 2.4m trap platform and a 2.4m plain platform on the 2nd rung up and engage the wind latches. Ensure that the platforms are both fitted as far over to the non-ladder side of the tower as possible. Now fit one horizontal brace on the same rung, between the edge of the trap platform and the diagonal brace to fill the gap.

Step 5

Next, add 2 horizontal braces as guard rails to the ladder side of the tower only. Using a spirit level, ensure that the framework is completely level by adjusting the legs. Twist the serrated collar above the wheel to adjust up & down.

Step 6

Install a 2.4m platform beam to the side of the tower that has no diagonal brace. Ensure the top tube is in-line with the 2nd horizontal rung up on the frames and the couplers are fully tightened.

Once assembled, repeat step 1-6 for the tower at the opposite end of the structure.



SECTION 2 - CONNECTING THE TOWERS

Step 7

Position the two towers approximately 2.4m apart and parallel to each other. Ensure that the towers have the side with the diagonal braces facing outwards & the platform beams facing inwards.

Step 8

Join the towers together using two 2.4m horizontal braces (yellow). Connect the braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames.

Step 9

Install four 2.4m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 10

Using a spirit level, adjust the height of one of the towers until the new platforms are horizontal.



SECTION 3 - GUARDRAILS AND TOEBOARDS

Step 11

Working from the ground, install four 2.4m horizontal braces as guard rails. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals. Ensure that the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical.

Step 12

Working from the platforms, fit 3026 toeboards to the frames of the end towers with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 13

Fit two 3060 toe boards to the bridging bay. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



SECTION 1 - END TOWERS

Step 1

Insert the leg & castor assembly into the base of a 4 rung main frame and 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 3

Connect two brown diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 4

Install a trap platform on the 2nd rung up and 4 horizontal braces as guard rails. Using a spirit level, ensure that the framework is completely level by adjusting the legs.



PLATFORM HEIGHT 1.2 2.2 2.7 3.2

Step 5

Remove the diagonal brown brace on the non-ladder side of the tower and replace with a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the top horizontal rungs on the frames and the couplers are fully tightened.

Step 6

Working from the platform, install a 2 rung main frame & a 2 rung ladder frame onto the 4 rung frames. Then, on the ladder side only, clip onto the top rung 1 more brown diagonal brace. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 7

From the ground, remove the trap platform and 4 guardrails. Relocate the trap platform onto the 4th rung up and install a 2.4m plain platform next to it. Ensure that the platforms are both fitted as far over to the non-ladder side of the tower as possible and that the wind latches are engaged.

Step 8

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower. From the platform, clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level.

Once assembled, repeat step 1-8 for the tower at the opposite end of the structure.



SECTION 2 - CONNECTING THE TOWERS

Step 9

Position the two towers approximately 2.4m apart and parallel to each other. Ensure that the towers have the side with the diagonal braces facing outwards & the platform beams facing inwards.

Step 10

Join the towers together using two 2.4m horizontal braces (yellow). Connect the braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames.

Step 11

Install four 2.4m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 12

Using a spirit level, adjust the height of one of the towers until the new platforms are horizontal.



SECTION 3 - GUARDRAILS AND TOEBOARDS

Step 13

Working from the towers, install four 2.4m horizontal braces as guard rails. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals. Ensure that the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical. Now the 2.4m horizontal braces acting as guard rails on the inside faces of the two towers can be removed (4 total).

Step 14

Working from the platforms, fit 3026 toeboards to the frames of the end towers with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 15

Fit two 3060 toe boards to the bridging bay. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



PLATFORM HEIGHT 1.2 2.2 2.7 3.2

SECTION 1 - END TOWERS

Step 1

Insert the leg & castor assembly into the base of a 3 rung main frame and 3 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 3

Connect two purple diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 4

Install a plain platform on the bottom rung. Using a spirit level, ensure that the framework is level.



PLATFORM HEIGHT 1.2 2.2 2.7 3.2

Step 5

Working from the ground, install a 4 rung main frame & a 4 rung ladder frame onto the 3 rung frames. Then, on the ladder side only, clip a brown diagonal brace onto the 2nd rung down. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 6

On the non-ladder side of the tower, install a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the 5th horizontal rung up on the frames and the couplers are fully tightened.

Step 7

From the platform, install a 2.4m trap platform and a 2.4m plain platform on the 5th rung up. Ensure that the platforms are both fitted as far over to the non-ladder side of the tower as possible and that the wind latches are engaged. The temporary platform at the base can now be removed.

Step 8

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower. From the platform, clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level.

Once assembled, repeat step 1-8 for the tower at the opposite end of the structure.



PLATFORM HEIGHT 1.2 2.2 2.7 3.2

SECTION 2 - CONNECTING THE TOWERS

Step 9

Position the two towers approximately 2.4m apart and parallel to each other. Ensure that the towers have the side with the diagonal braces facing outwards & the platform beams facing inwards.

Step 10

Join the towers together using two 2.4m horizontal braces (yellow). Connect the braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames.

Step 11

Install four 2.4m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 12

Using a spirit level, adjust the height of one of the towers until the new platforms are horizontal.



SECTION 3 - GUARDRAILS AND TOEBOARDS

Step 13

Working from the towers, install four 2.4m horizontal braces as guard rails. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals. Ensure that the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical. Now the 2.4m horizontal braces acting as guard rails on the inside faces of the two towers can be removed (4 total).

Step 14

Working from the platforms, fit 3026 toeboards to the frames of the end towers with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 15

Fit two 3060 toe boards to the bridging bay. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



SECTION 1 - END TOWERS

Step 1

Insert the leg & castor assembly into the base of a 4 rung main frame and 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 3

Connect two brown diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 4

Install a trap platform on the 3rd rung down and 4 horizontal braces as guard rails on the top 2 rungs of the tower - 2 braces in the centre of the tower and 2 braces nearest the frame upright of the tower.

Step 5

Install a 5th horizontal brace on the top rung of the frames on the opposite side to the guard rails. Using a spirit level, ensure that the framework is level.



Step 6

Working from the platform, install a second set of 4 rung frames onto the 1st frames. Then, on the ladder side only, clip a brown diagonal brace onto the 2nd rung down. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 7

On the non-ladder side of the tower, install a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the 3rd horizontal rung down on the frames and the couplers are fully tightened.

Step 8

Fit a 2.4m trap platform & plain platform, 4 rungs above the first platform. Ensure the platforms are both fitted as far over to the non-ladder side of the tower as possible and that the wind latches are engaged.

Step 9

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower. From the platform, clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level.

Once assembled, repeat step 1-9 for the tower at the opposite end of the structure.



SECTION 2 - CONNECTING THE TOWERS

Step 10

Position the two towers approximately 2.4m apart and parallel to each other. Ensure that the towers have the side with the diagonal braces facing outwards & the platform beams facing inwards.

Step 11

Join the towers together using four 2.4m horizontal braces (yellow). Connect two braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames, and two braces in the position just above the 4th rung up from the bottom.

Step 12

Install four 2.4m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 13

Using a spirit level, adjust the height of one of the towers until the new platforms are horizontal.



SECTION 3 - GUARDRAILS AND TOEBOARDS

Step 14

Working from the towers, install four 2.4m horizontal braces as guard rails. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals. Ensure that the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical. Now the 2.4m horizontal braces acting as guard rails on the inside faces of the two towers can be removed (4 total).

Step 15

Working from the platforms, fit 3026 toeboards to the frames of the end towers with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 16

Fit two 3060 toe boards to the bridging bay. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



DISMANTLING INSTRUCTIONS - All Platform Working Heights

The dismantling procedure requires a minimum of 2 operatives to complete the task safely.

Step 1

Remove the toeboards from the whole structure.



Step 2

Reinstate the four 2.4m guardrails on the inner faces of the two towers.



Step 3

Working from the two towers, unclip the 2.4m guardrails from the bridge sections



Step 4

Next, remove the bridge platforms. Then the horizontal joining braces.



Step 5

Finally, disassemble the towers by reversing the build sequence.

THE HEIGHT OF SAFETY

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Instruction Manual EN 1298-IM-EN

The ALTO MD Large Deck Tower is certified to BS 1139-6:2014

3T - Through The Trapdoor Method

3.8m Long x 2.4m Wide



Introduction

Please read these instructions carefully and ensure that you fully understand all of the information contained herein. All of the information in this document is vital for the safe utilisation of your Alto Medium Duty Tower in Large Deck tower applications.

All Alto Access products are professional quality engineered equipment designed primarily with safety in mind and meet or exceed all standards, recommendations and guidelines. Used properly, Alto access equipment will keep you safe when working at height.

This manual contains all of the information necessary to correctly assemble your Alto Medium Duty mobile access tower equipment for Large Deck tower applications in accordance with BS 1139-6:2014 and incorporates all of the requirements of the PASMA 3T method of assembly as endorsed by the HSE.

A Risk Assessment and Method Statement must be undertaken before installation commences. This manual should be used in conjunction with your Risk Assessment and Method Statement and in line with the Work at Height Regulations 2005 which place an obligation on employers to eliminate or minimise risks. This manual must be made available to the user/assembler at all pertinent times.

Only competent and qualified personnel should undertake erection, dismantling or alteration, organisation, planning or supervision of mobile access towers. In the case of any doubt, sufficient relevant additional training must be given beforehand to ensure safe use. For further information on the use of mobile access towers consult PASMA (www.pasma.co.uk; Tel +44 (0) 845 230 4041).

For any additional technical information or specific advice please contact the manufacturer Lakeside Industries Limited Tel: +44 1527 500577 or Email: sales@altoaccess.com.

Certifications

The Alto Medium Duty Tower is a mobile access tower certified to EN 1004 Class 3. These instructions cover applications outside the scope of EN 1004, within the scope of BS 1139-6 to ensure that the configuration of the equipment meets the relevant requirements. This tower is manufactured in our ISO 9001 accredited facility. This manual complies with EN 1298-IM-EN.

Maximum Safe Working Loads

The safe working load of the tower is 1,500kg evenly distributed, including its own weight. The maximum leg load imposed by the tower on its supporting surface is 187kg when loaded to its maximum safe

working load.

The maximum safe working load of any individual platform within the tower is 324 kg evenly distributed. In case of any queries on loadings, contact your supplier or the manufacturer, Lakeside Industries Limited, for advice on loadings. Tel: +44 1527 500577 or Email: sales@altoaccess.com.

Inspection Care & Maintenance

Alto Access equipment is designed and manufactured to the highest standards in the industry and is stronger, more robust and safer than any comparable competitor product. Properly cared for, it will give a long and productive service life.

All Alto HD equipment should be subjected to the care and maintenance regime specified in the assembly guide supplied with your tower. Never use any equipment which is damaged, has parts missing or is improperly assembled.

Safety

- A risk assessment and method statement must be prepared sufficient to ensure the safe assembly, use and dismantling of a Large Deck tower structure and the elimination or minimisation of all consequent risks.
- Check that all of the necessary components and equipment for the particular tower configuration to be built are on site, undamaged & functioning correctly. Damaged/incorrect components must not be used
- Large Deck tower applications may only be used with 3T Alto towers. Large Deck tower applications may not be created using Advanced Guard Rail (AGR) towers.
- Check that the surface on which the tower is to be located is capable of supporting the tower and its payload.
- Platforms must be installed with vertical distances between them not exceeding 2.1m when assembling and dismantling.
- Towers must always be climbed from the inside using the built in ladders.
- The tower must be levelled when erected using the adjustable legs.
- Two or more persons are required for the safe erection and dismantling of a tower.
- Always comply with the Work at Height Regulations 2005 when erecting, dismantling & using the tower.
- When lifting components, always use reliable lifting equipment and fastening methods and always lift from within the footprint of the tower structure to prevent risk of the tower overturning.

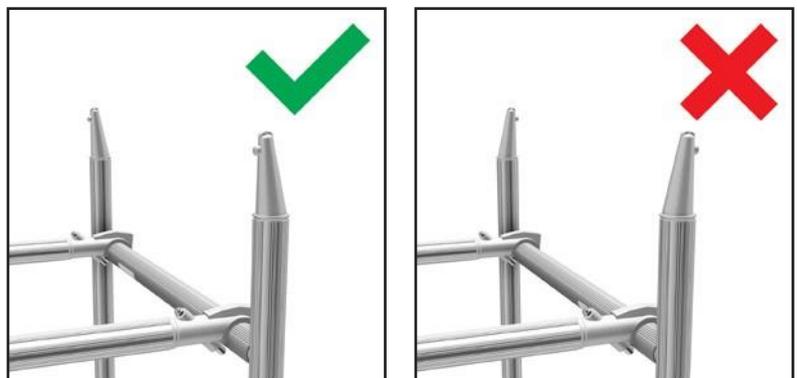
- Beware live electrical installations, cables, moving machinery or other obstructions when erecting, dismantling or using the tower. The tower is a conductive metallic structure.
- Do not use boxes, ladders or other items to gain additional height.
- Do not stand on guard rails for any reason.
- If the tower is to be used in connection with hoisting arrangements, this requires specific advice from the manufacturer to ensure safety. Contact the manufacturer Lakeside Industries Limited for advice on loadings Tel: +44 1527 500577 or Email: sales@altoaccess.com.
- Fit guard rails to all Platforms.
- Fit toe boards to all Working Platforms.
- Every erected tower must be inspected at least every seven days and any tower which has been left unattended should be inspected before use to ensure that:
 - > No components have been removed or relocated incorrectly;
 - > The tower is still vertical; and
 - > No environmental or other factors have arisen which will influence safe use of the tower.
- If it is intended to sheet the structure in any way, contact the manufacturer for advice before installing sheeting. Tel: +44 1527 500577 or Email: sales@altoaccess.com.

Erecting & Dismantling the Tower

All Large Deck tower structures using Alto MD equipment must be built and dismantled in accordance with the step by step instructions set out below and having regard to the working at height regulations and Health & Safety legislation.

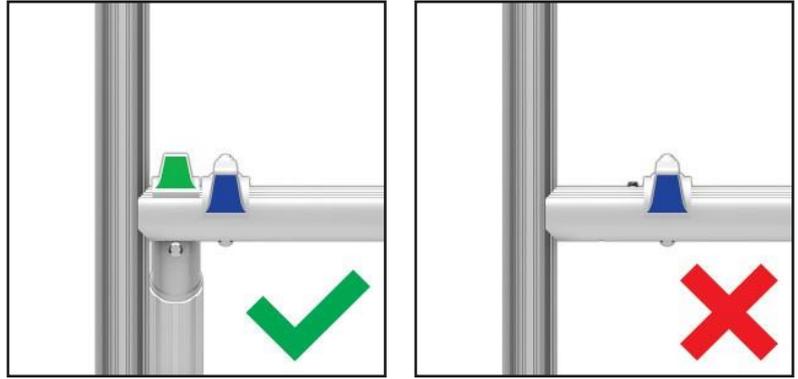
Frames

Frames **must** always be assembled with the offset conical head fitting pointing inwards towards the centre of the tower.

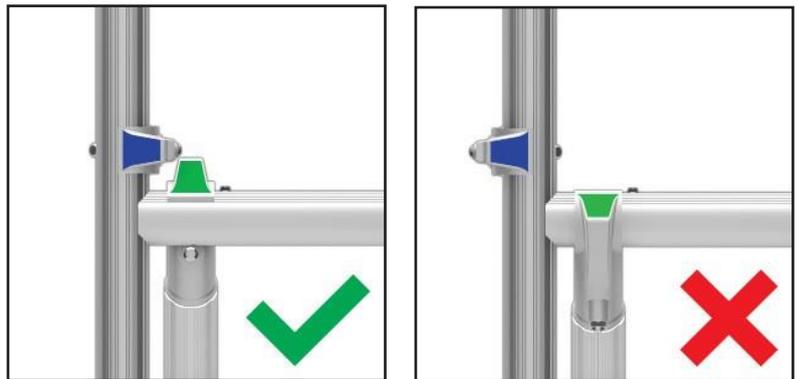


Braces

All braces are fitted with spring loaded pins that automatically lock the brace into position when attached to a tower. Brace hooks **must** be located either over the rung screw heads, between 2 screw heads or between the frame upright and a screw head to prevent lateral movement.



Diagonal braces **must** always be located with the claw opening facing down. Horizontal braces must be located with the claw facing either down (on the rung) or outwards (if on the upright).

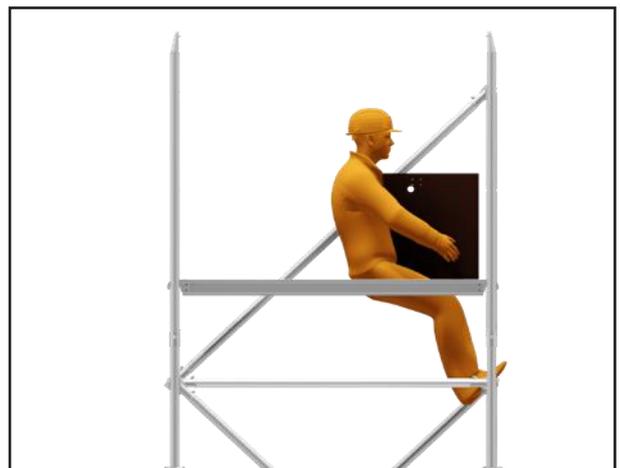


3T method

The “3T” or “through the trapdoor” method is one of the two permitted ways of assembling a tower without the assembler being at risk of falling. This tower is a 3T tower.

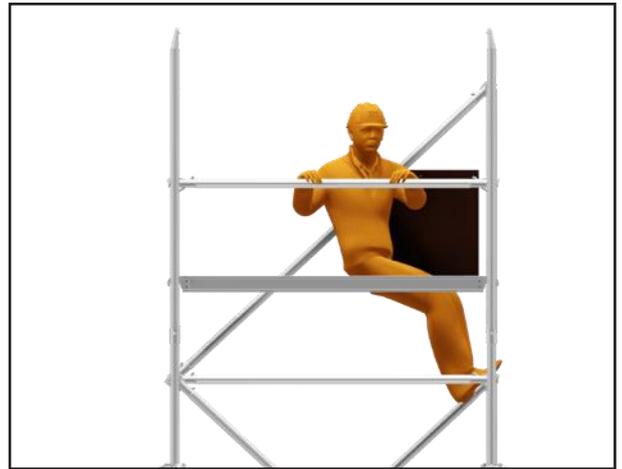
Step 1:

As each new level of platform is installed, the operative takes up a working position in the trap door of the platform, standing on the ladder and leaning back against the edge of the trapdoor aperture.



Step 2:

From this position the operative fits the horizontal braces 500mm and 1000mm above the platform level (i.e. on the first and second available rungs). If the far end of the guardrail braces don't fully engage when they are put in place, the operative fully engages it when first climbing up onto the platform. This process ensures that operatives never have to stand on an unguarded platform.



Signage

The following information shall be prominently displayed at the base of the assembled tower:

The maximum number of working platforms	One
The maximum number of persons permitted on the working platforms	This is 2 persons per platform
The maximum number of persons permitted on the tower during assembly and dismantling	This is 1 person per platform
The maximum safe working load on working platforms	This is: 324kg UDL per platform unit
The maximum safe working load of the tower	This is 1,500kg UDL per assembled tower, including its own weight
The load class of the tower	Class 3

COMPONENT SCHEDULE

3.8m Long x 2.4m Wide MD Large Deck Tower

MEDIUM DUTY SPAN TOWER TO BS 1139-6:2014

Using the 3T (Through The Trapdoor) assembly method

CODE	PART DESCRIPTION	PLATFORM WORKING HEIGHT (m)			
		1.2	2.2	2.7	3.2
2239	125mm Dia. Castor Wheel	8	8	8	8
3076	MD Adj. Aluminium Leg (black collar)	8	8	8	8
3001	MD D/W 4 Rung Frame	1	1	1	2
3003	MD D/W 3 Rung Frame			1	
3004	MD D/W 2 Rung Frame		1		
3005	MD D/W 4 Rung Ladder Frame	1	1	1	2
3006	MD D/W 3 Rung Ladder Frame			1	
3007	MD D/W 2 Rung Ladder Frame		1		
3008	MD S/W 4 Rung Frame	1	1	1	2
3010	MD S/W 3 Rung Frame			1	
3011	MD S/W 2 Rung Frame		1		
3012	MD S/W 4 Rung Ladder Frame	1	1	1	2
3013	MD S/W 3 Rung Ladder Frame			1	
3014	MD S/W 2 Rung Ladder Frame		1		
3015	MD 1.6m Horizontal Brace (blue)	6	6	6	8
3017	MD 2.4m Horizontal Brace (yellow)	10	14*	14*	23*
3018	MD 2.4m Diagonal Brace (brown)	2	4	2	6
3083	MD 2.4m x 2 Rung Brace (purple)			4	
3019	MD 1.6m Plain Platform	3	3	3	3
3020	MD 2.4m Plain Platform	1	1	3**	1
3022	MD 2.4m Trap Platform	2	2	2	4
3046	MD 1.6m Narrow Plain Platform	1	1	1	1
3043	MD 2.4m Platform Beam	2	2	2	2
3026	MD D/W Wooden Toeboard inc. return brackets	2	2	2	2
3027	MD 1.6m Linked Wooden Toeboard	2	2	2	2
3028	MD 2.4m Scaffold Toeboard	2	2	2	2
3047	MD S/W Wooden Toeboard inc. return brackets	2	2	2	2
TOTAL SELF WEIGHT OF TOWER (excl. temporary parts)		275 kg	300 kg	330 kg	385 kg
ASSEMBLY GUIDE PAGES		8-13	14-19	20-25	26-31

* 4 additional horizontal braces required for use in the assembly steps only.

** 1 additional plain platform required for use in the assembly steps only.

SECTION 1 - END TOWER 1

Step 1

Insert the leg & castor assembly into the base of a D/W 4 rung main frame and D/W 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Ensure that the braces are connected from the inside of the tower facing outwards and the frame head fittings are pointing inwards into the tower.

Step 3

Connect one brown diagonal brace to the frames running from the top rung on one frame to the bottom rung on the opposite frame - on the ladder side of the tower only. Keep the diagonal brace as close to the frame uprights as possible.



Step 4

Install a 2.4m trap platform and a 2.4m plain platform on the 2nd rung up and engage the wind latches. Ensure that the platforms are both fitted as far over to the non-ladder side of the tower as possible. Now fit one horizontal brace on the same rung, between the edge of the trap platform and the diagonal brace to fill the gap.

Step 5

Next, add 2 horizontal braces as guard rails to the ladder side of the tower only. Using a spirit level, ensure that the framework is completely level by adjusting the legs. Twist the serrated collar above the wheel to adjust up & down.

Step 6

Install a 2.4m platform beam to the side of the tower that has no diagonal brace. Ensure the top tube is in-line with the 2nd horizontal rung up on the frames and the couplers are fully tightened.



SECTION 2 - END TOWER 2**Step 7**

Insert the leg & castor assembly into the base of a S/W 4 rung main frame and S/W 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 8

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Ensure that the braces are connected from the inside of the tower facing outwards and the frame head fittings are pointing inwards into the tower.

Step 9

Connect one brown diagonal brace to the frames running from the top rung on one frame to the bottom rung on the opposite frame. Keep the diagonal brace as close to the frame uprights as possible.



Step 10

Install a 2.4m trap platform on the 2nd rung up and engage the wind latches. Ensure that the platform is fitted as far over to the non-diagonal brace side of the tower as possible. Now fit one horizontal brace on the same rung, between the edge of the trap platform and the diagonal brace to fill the gap.

Step 11

Next, add 2 horizontal braces as guard rails to the diagonal brace side of the tower only. Using a spirit level, ensure that the framework is completely level by adjusting the legs. Twist the serrated collar above the wheel to adjust up & down.

Step 12

Install a 2.4m platform beam to the side of the tower that has no diagonal brace. Ensure the top tube is in-line with the 2nd horizontal rung up on the frames and the couplers are fully tightened.



SECTION 3 - CONNECTING THE TOWERS

Step 13

Position the two towers approximately 1.6m apart and parallel to each other. Ensure that the towers have the side with the diagonal braces facing outwards & the platform beams facing inwards.

Step 14

Join the towers together using two 1.6m horizontal braces (blue). Connect the braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames.

Step 15

Install four 1.6m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 16

Using a spirit level, adjust the height of one of the towers until the new platforms are horizontal.



SECTION 4 - GUARDRAILS AND TOEBOARDS

Step 17

Working from the ground, install four 1.6m horizontal braces as guard rails. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals. Ensure that the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical.

Step 18

Working from the platforms, fit 3026 and 3047 toeboards to the frames of the double and single width towers respectively, with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 19

Fit two 3027 toe boards to the bridging bay. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



SECTION 1 - END TOWER 1

Step 1

Insert the leg & castor assembly into the base of a D/W 4 rung main frame and D/W 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 3

Connect two brown diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 4

Install a trap platform on the 2nd rung up and 4 horizontal braces as guard rails. Using a spirit level, ensure that the framework is completely level by adjusting the legs.



Step 5

Remove the diagonal brown brace on the non-ladder side of the tower and replace with a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the top horizontal rungs on the frames and the couplers are fully tightened.

Step 6

Working from the platform, install a 2 rung main frame & a 2 rung ladder frame onto the 4 rung frames. Then, on the ladder side only, clip onto the top rung 1 more brown diagonal brace. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 7

From the ground, remove the trap platform and 4 guardrails. Relocate the trap platform onto the 4th rung up and install a 2.4m plain platform next to it. Ensure that the platforms are both fitted as far over to the non-ladder side of the tower as possible and that the wind latches are engaged.

Step 8

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower. From the platform, clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level.



SECTION 2 - END TOWER 2

Step 9

Insert the leg & castor assembly into the base of a S/W 4 rung main frame and S/W 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 10

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 11

Connect two brown diagonal braces to the frames, running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 12

Install a trap platform on the 2nd rung up and 4 horizontal braces as guard rails. Using a spirit level, ensure that the framework is completely level by adjusting the legs.



Step 13

Working from the platform, install a 2 rung main frame & a 2 rung ladder frame onto the 4 rung frames. Then, on one side only, clip onto the top rung 1 more brown diagonal brace. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 14

From the ground, remove the trap platform and 4 guardrails. Relocate the trap platform onto the 4th rung up. Ensure that the platform is fitted as far over as possible to the side of the tower that has only one diagonal brace. Ensure that the wind latches are engaged.

Step 15

From the ground, remove the diagonal brown brace that is on its own on the side of the tower and replace with a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the 4th rung up on the frames and the couplers are fully tightened.

Step 16

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower. From the platform, clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level.



SECTION 3 - CONNECTING THE TOWERS

Step 17

Position the two towers approximately 1.6m apart and parallel to each other. Ensure that the towers have the side with the diagonal braces facing outwards & the platform beams facing inwards.

Step 18

Join the towers together using two 1.6m horizontal braces (blue). Connect the braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames.

Step 19

Install four 1.6m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 21

Using a spirit level, adjust the height of one of the towers until the new platforms are horizontal.



SECTION 4 - GUARDRAILS AND TOEBOARDS

Step 22

Working from the towers, install four 1.6m horizontal braces as guard rails. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals. Ensure that the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical. Now the 2.4m horizontal braces acting as guard rails on the inside faces of the two towers can be removed (4 total).

Step 23

Working from the platforms, fit 3026 and 3047 toeboards to the frames of the double and single width towers respectively, with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 24

Fit two 3027 toe boards to the bridging bay. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



Step 1

Insert the leg & castor assembly into the base of a D/W 3 rung main frame and D/W 3 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 3

Connect two purple diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 4

Install a plain platform on the bottom rung. Using a spirit level, ensure that the framework is level.



Step 5

Working from the ground, install a 4 rung main frame & a 4 rung ladder frame onto the 3 rung frames. Then, on the ladder side only, clip a brown diagonal brace onto the 2nd rung down. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 6

On the non-ladder side of the tower, install a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the 5th horizontal rung up on the frames and the couplers are fully tightened.

Step 7

From the platform, install a 2.4m trap platform and a 2.4m plain platform on the 5th rung up. Ensure that the platforms are both fitted as far over to the non-ladder side of the tower as possible and that the wind latches are engaged. The temporary platform at the base can now be removed.

Step 8

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower. From the platform, clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level.



Step 9

Insert the leg & castor assembly into the base of a S/W 3 rung main frame and S/W 3 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 10

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 11

Connect two purple diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 12

Install a plain platform on the bottom rung. Using a spirit level, ensure that the framework is level.



Step 13

Working from the ground, install a 4 rung main frame & a 4 rung ladder frame onto the 3 rung frames. Then, on one side only, clip a brown diagonal brace onto the 2nd rung down. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 14

On the opposite side of the tower, install a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the 5th horizontal rung up on the frames and the couplers are fully tightened.

Step 15

From the temporary platform, install a 2.4m trap platform on the 5th rung up. Ensure that the platform is fitted as far over to the side of the tower with one diagonal brace. Ensure that the wind latches are engaged. The temporary platform at the base can now be removed.

Step 16

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower, then clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level. **The upper platform of the single width tower is not to be used until the tower has been incorporated into the large deck structure - Steps 18-19. If the single width tower needs to be used freestanding for any reason, stabilisers must be fitted. They may be removed once it is joined to the large deck structure.**



Step 17

Position the two towers approximately 1.6m apart and parallel to each other. Ensure that the towers have the side with the diagonal braces facing outwards & the platform beams facing inwards.

Step 18

Join the towers together using two 1.6m horizontal braces (blue). Connect the braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames.

Step 19

Install four 1.6m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 20

Using a spirit level, adjust the height of one of the towers until the new platforms are horizontal.



Step 21

Working from the towers, install four 1.6m horizontal braces as guard rails. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals. Ensure that the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical. Now the 2.4m horizontal braces acting as guard rails on the inside faces of the two towers can be removed (4 total).

Step 22

Working from the platforms, fit 3026 and 3047 toeboards to the frames of the double and single width towers respectively, with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 23

Fit two 3027 toe boards to the bridging bay. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



Step 1

Insert the leg & castor assembly into the base of a D/W 4 rung main frame and D/W 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 2

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 3

Connect two brown diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 4

Install a trap platform on the 3rd rung down and 4 horizontal braces as guard rails on the top 2 rungs of the tower - 2 braces in the centre of the tower and 2 braces nearest the frame upright of the tower.

Step 5

Install a 5th horizontal brace on the top rung of the frames on the opposite side to the guard rails. Using a spirit level, ensure that the framework is level.



Step 6

Working from the platform, install a second set of 4 rung frames onto the 1st frames. Then, on the ladder side only, clip a brown diagonal brace onto the 2nd rung down. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 7

On the non-ladder side of the tower, install a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the 3rd horizontal rung down on the frames and the couplers are fully tightened.

Step 8

Fit a 2.4m trap platform & plain platform, 4 rungs above the first platform. Ensure the platforms are both fitted as far over to the non-ladder side of the tower as possible and that the wind latches are engaged.

Step 9

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower. From the platform, clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level.



Step 10

Insert the leg & castor assembly into the base of a S/W 4 rung main frame and S/W 4 rung ladder frame. Ensure the spring loaded pin is engaged into the hole in the side of the frames. Ensure all 4 wheels have the brakes applied.

Step 11

Connect the 2 frames together by installing 2 horizontal braces to the uprights of the frames in the area below the bottom rungs. Make sure that the braces are connected from the inside of the tower facing outwards. Make sure that the frame head fittings are pointing inwards into the tower.

Step 12

Connect two brown diagonal braces to the frames running from the top to the bottom rungs, one on each side of the tower. Ensure that the diagonals run in opposite directions. Keep the diagonal brace as close to the frame uprights as possible.

Step 13

Install a trap platform on the 3rd rung down and 4 horizontal braces as guard rails on the top 2 rungs of the tower. Using a spirit level, ensure that the framework is level.



Step 14

Working from the platform, install a second set of 4 rung frames onto the 1st frames. Then, on one side only, clip a brown diagonal brace onto the 2nd rung down. The other end connects to the 3rd rung below on the opposite frame. Diagonal braces always run parallel to the braces below.

Step 15

On the opposite side of the tower, install a 2.4m platform beam. Ensure the top tube of the platform beam is in-line with the 3rd horizontal rung down on the frames and the couplers are fully tightened.

Step 16

Fit a 2.4m trap platform 4 rungs above the first platform. Ensure that the platform is fitted as far over to the side of the tower with one diagonal brace as possible. Ensure that the wind latches are engaged.

Step 17

Using the 3T method, install 4 horizontal braces as guard rails on the top 2 rungs of the tower. From the platform, clip a 5th horizontal brace between the trap platform and diagonal brace to fill the gap. Using a spirit level, ensure that the framework is completely level. **The upper platform of the single width tower is not to be used until the tower has been incorporated into the large deck structure - Steps 19-20. If the single width tower needs to be used freestanding for any reason, stabilisers must be fitted. They may be removed once it is joined to the large deck structure.**



Step 18

Position the two towers approximately 1.6m apart and parallel to each other. Ensure that the towers have the side with the diagonal braces facing outwards & the platform beams facing inwards.

Step 19

Join the towers together using four 1.6m horizontal braces (blue). Connect two braces to the frame uprights at the base of the tower - in the position just above the bottom rung of the frames, and two braces to the frame uprights in the position just above the 4th rung up.

Step 20

Install four 1.6m platforms (3 standard & 1 narrow). The platforms hook onto the top tube of the platform beams. Engage the wind latches on all the platforms.

Step 21

Using a spirit level, adjust the height of one of the towers until the new platforms are horizontal.



Step 22

Working from the towers, install four 1.6m horizontal braces as guard rails. Ensure that the braces are hooked onto the frame uprights just above the frame horizontals. Ensure that the braces are hooked on from the inside facing outwards. Any issues with the brace not fitting will be due to the tower not being level. Check the two uprights of the frames are both vertical. Now the 2.4m horizontal braces acting as guard rails on the inside faces of the two towers can be removed (4 total).

Step 23

Working from the platforms, fit 3026 and 3047 toeboards to the frames of the double and single width towers respectively, with the slots for the end toeboards nearest the end of the tower. The toe boards have angle pieces on the rear that locate around the frame uprights. Fit them by offering the boards up at an angle and lowering them to the horizontal. Fit 3028 toeboards to the ends of tower structure, locating them in the slots provided.

Step 24

Fit two 3027 toe boards to the bridging bay. Again, the toe boards have angle pieces on the rear that locate around the frame uprights by offering the boards up at an angle and lowering them to the horizontal.



DISMANTLING INSTRUCTIONS - All Platform Working Heights

The dismantling procedure requires a minimum of 2 operatives to complete the task safely.

Step 1

Remove the toeboards from the whole structure.



Step 2

Reinstate the four 2.4m guardrails on the inner faces of the two towers.



Step 3

Working from the two towers, unclip the 1.6m guardrails from the bridge sections



Step 4

Next, remove the bridge platforms. Then the horizontal joining braces.



Step 5

Finally, disassemble the towers by reversing the build sequence.

THE HEIGHT OF SAFETY

For further information regarding our range of access products and services, please get in touch with us:

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