# BDSS®



# **ROOM-MATE**

**3T - Through the Trapdoor** 

**USER GUIDE** 

### Introduction

#### Please read this user guide carefully.

Please note that diagrams are for illustrative purposes only. User guides are also available to download from our website at bossaccesstowers.com.

BoSS mobile aluminium towers are light-weight scaffold towers used throughout the building and construction industry for both indoor and outdoor access solutions where a stable and secure platform is required. Ideal for maintenance and installation work or short-term access, the highly versatile towers provide a strong working platform for a variety of heights.

This user guide provides you with step by step instructions to ensure your system is erected easily and safely, using the 3T (Through The Trapdoor) method.

The law requires that personnel erecting, dismantling or altering towers must be competent. Any person erecting a BoSS mobile tower must have a copy of this user guide. For further information on the use of mobile access and working towers consult the PASMA operators code of practice.

If you need further information, design advice, additional user guides or any other help with this product, please contact the manufacturer on +44 (0)1621 745900 or email uk.customercare@wernerco.com.

### Compliances

Following examination by the SP Technical Research Institute of Sweden, the Boss Room-Mate mobile access tower has been issued with a Type Examination Certificate No. 249403 in accordance with the requirements of Ordinance AFS 1990:12 Stallningar, type examination rules SPCR 064 for temporary structures and SS-EN 1004:2005 including appurtenant standards.



User Guide EN 1298-IM-EN

### Preparation and inspection

Inspect the equipment before use to ensure that it is not damaged and that it functions properly. Damaged or incorrect components should not be used.

#### Safe use

- Check that all components are on site, undamaged and that they are functioning correctly - (refer to Checklist and Quantity Schedules). Damaged or incorrect components should not be used.
- Check if the ground on which the mobile access tower is to be erected and moved is capable of supporting the tower.
- The safe working load is 275kgs (606lbs) per platform level, uniformly distributed up to a maximum of 750kgs per tower.
- Towers must always be climbed from the inside during assembly and use.
- It is recommended that towers should be tied to a solid structure when left unattended.
- Adjustable legs should only be used for levelling.

#### Lifting of equipment

- Tower components should be lifted using a reliable lifting material (e.g. strong rope) employing a reliable knot (e.g. clove hitch) to ensure safe fastening. Always lift within the footprint of the tower.
- Assembled mobile towers should not be lifted with a crane or other lifting device.

### Stabilisers / ballast

- Stabilisers or outriggers and ballast weights should always be fitted when specified.
- The Quantity Schedules show the recommended stabilisation. In circumstances where there is restricted ground clearance for stabilisers/outriggers, contact your supplier for advice. Ballast must be of solid materials (i.e. not water or loose sand) and should not be positioned to overload individual legs. Ballast should be secured against accidental removal where practicable, and be supported on the lowest rung of the bottom frame.

#### Movement

- The tower should only be moved by manual effort, and only from the base.
- When moving the tower, beware of live electrical apparatus, particularly overhead, plus wires or moving parts of machinery.
- No person or materials should be on the tower during movement.
- Caution should be exercised when wheeling a tower over rough, uneven or sloping ground, taking care to unlock and lock castors. If stabilisers are fitted, they should only be lifted a maximum of 25mm above the ground to clear ground obstructions.
- The overall height of the tower when being moved, should not exceed 2.5 times the minimum base dimensions, or 4 metres overall height.
- Before use, check the tower is still correct and complete.
- After every movement of the tower use a spirit level to check that it is vertical and level and set the adjustable legs as required.
- Do not move the tower in wind speeds over 7.7 metres per second (17mph).

#### During use

 Beware of high winds in exposed, gusty or medium breeze conditions. We recommend that in wind speeds over 7.7 metres per second (17 mph), cease working on the tower and do not attempt to move it. If the wind becomes a strong breeze, expected to reach 11.3 metres per second (25 mph), tie the tower to a rigid structure. If the wind is likely to reach gale force, over 18 metres per second (40 mph), the tower should be dismantled.

Wind description	Beaufort scale	Beaufort no.	Speed in m.p.h	Speed in m/sec
Medium Breeze	Raises dust and loose paper, twigs snap off	4	8 - 12	4 - 6
Strong Breeze	Large branches in motion, telegraph wires whistle	6	25 - 31	11 - 14
Gale Force	Walking is difficult	8	39 - 46	17 - 21

- Beware of open-ended buildings, which can cause a funnelling effect.
- Do not abuse equipment. Damaged or incorrect components should not be used.
- Raising and lowering components, tools, and/or materials by rope should be conducted within the lower base. Ensure that the safe working load of the supporting decks and the tower structure is not exceeded.
- The assembled tower is a working platform and should not be used as a means of access or egress to other structures.
- Beware of horizontal forces (e.g. power tools) which could generate instability. Maximum horizontal force 20kg.
- Mobile towers are not designed to be suspended please refer to your supplier for advice.
- Do not use boxes or stepladders or other objects on the platform to gain extra height.

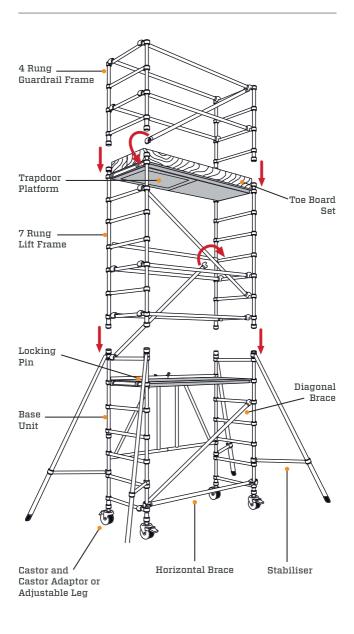
### Ties

- Ties should be used when the tower goes beyond its safe height, beyond the limits of the stabilisers/outriggers, or if there is a danger of instability. They should be rigid, two way ties fastened to both uprights of the frame with load bearing right angled or swivel couplers. Only couplers suitable for the 50.8mm diameter tube of the tower should be used. Ideally, ties should be secured to both faces of a solid structure by means of anchorages.
- The tie frequency may vary depending on the application, but they should, at a minimum, be every 4 metres height.
- For further information on tying-in a tower please contact your supplier.

#### Maintenance - storage - transport

- All components and their parts should be regularly inspected to identify damage, particularly to joints. Lost or broken parts should be replaced, and any tubing with indentation greater than 5mm should not be used and put to one side for manufacture repair. Adjustable leg threads should be cleaned and lightly lubricated to keep them free running.
- Brace claws, frame interlock clips, trapdoor latches and platform wind-locks should be regularly checked to ensure they lock correctly.
- Refer to the BoSS Inspection Manual for detailed inspection and maintenance advice.
- Components should be stored with due care to prevent damage.
- Ensure components are not damaged by excessive strapping forces when transported.

### Components



# Boss Room-Mate

### Quantity schedule

Code	Description No. of rungs to platform	Weight (kgs)	(WH) 2.80m (PH) 0.80m 3 Height 1	3.80m 1.80m 7 Height 2	4.55m 2.55m 10 Height 3	5.55m 3.55m 14 Height 4	6.30m 4.30m 17 Height 5	8.05m 6.05m 24 Height 6
33351300	125mm Castor	2.50	4	4	4	4	4	4
32441300	Castor Adaptor*	0.21	4	4	4	4	4	4
*When used on uneven ground and adjustment is required, 4 adjustable legs must be used which replace the castor adaptors.								
60151400	Base Unit	21.43	1	1	1	1	1	1
60251400	7 Rung Lift Frame	9.80			2	2	4	6
60351400	4 Rung Guardrail Frame	5.60		2		2		
30451100	1.8m Trapdoor Deck	14.35	1	1	2	2	3	4
31251300	1.8m Horizontal Brace (Red)	1.88	3	5	7	9	9	13
31351300	2.1m Diagonal Brace (Blue)	2.06		1	2	4	4	6
30451400	Toe Board Set	10.00	1	1	1	1	1	1
31751300	SP7 Fixed Stabiliser	5.80		4*	4	4		
31851300	SP10 Adjustable Stabiliser	9.87					4	4

\* SP7 Stabiliser only required when Room-Mate is used externally.

# Assembly

### When erecting a BoSS Room-Mate:

- To comply with the Work at Height Regulations, guardrails are positioned in advance of climbing onto a platform to reduce the risk of falling.
- All platforms feature double guardrails on both faces of the tower.
- All guardrails should be 2 and 4 rungs (0.5m and 1.0m) above platforms.
- · Position handrails 4 rungs above platform level.
- Position intermediate handrails 2 rungs above platform level.
- Never stand on an unguarded platform positioned above the second rung of a tower.
  If your risk assessment shows it necessary, you may also need to guardrail platforms at this level.

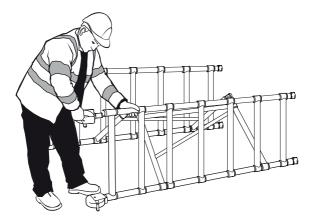


### To dismantle a BoSS Room-Mate:

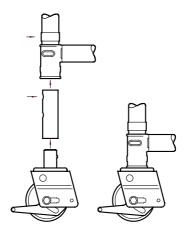
- Remove toe boards, and pass down the tower.
- Unclip farthest end of braces and immediately go to protected trapdoor position on ladder to complete removal.
- Remove upper platforms from protected levels below.
- Pass removed components out of the tower to a colleague.

Mobile Towers - 3T Method Height 1 - platform 0.8m

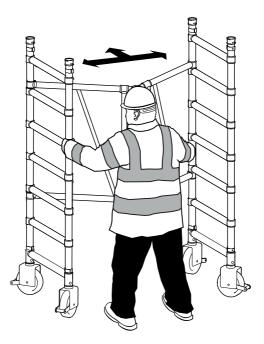
Lay the folded base unit on its side. When using castor adaptors for flat and level ground only, fit four castor adaptors into the bottom of the base unit and then insert four castors into the castor adaptors. The bottom of the base unit may be identified by the bottom end casting - see diagram:



When using adjustable legs for uneven or sloping ground, push four castors into four adjustable legs and then insert the adjustable legs into the bottom of the base unit. The bottom of the base unit may be identified by the bottom end casting - see diagram:



2 Stand the base unit up and push the central hinged frame outwards until flat. Unfold the two end frames. Insert the locking pin into the top centre hinge joint. Lock the castor brakes.



Check the ground is flat and all four castor wheels are in contact with the ground.

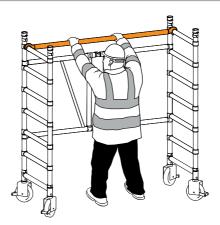
Use a spirit level to check the base unit level. If the ground is uneven or sloping you must fit adjustable legs.

IMPORTANT. Only use the adjustable legs to level the tower and not to gain extra height.

ாலாடு

101

٢





Fit a horizontal brace (red) as a guardrail on the top (7th) rung, on the hinged frame side of base unit.

#### IMPORTANT. Always ensure braces are fully locked in position.



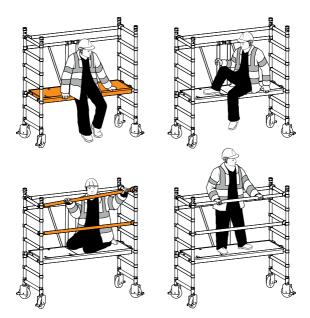
Position a platform on the 3rd rungs of the base unit. Do not position above the 3rd rung.

Engage the wind-locks, underneath the rungs, at both ends of the platform.



**5** Climb onto the platform in the sequence shown. From the seated position, fit horizontal braces as guardrails on the 5th and 7th rungs on the open side of the base unit. Do not stand on the platform until the guardrails are in place.

IMPORTANT Always ensure braces are fully locked in position.



6 If your risk assessment shows it is necessary, fit a set of toe boards to the platform. Check there are no gaps through which any materials could fall and that the trap door opens correctly. The tower is now complete.

IMPORTANT. Never climb up the outside of the base unit. Never overreach – get down and reposition the base unit.

### Platform 1.8m

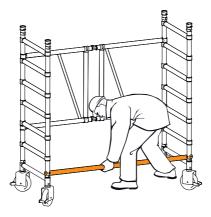
1

Assemble the base unit as shown in steps 1 and 2 on pages 9-10.

2

Fit a horizontal (red) brace between the verticals just above the 1st rung, on the open side of the tower.

#### IMPORTANT. Always ensure braces are fully locked in position.



**3** Position a temporary platform on the 2nd rungs of the tower. Engage the wind-locks underneath the rungs at both ends of the platform.

Fit a four rung guardrail frame to each end of the base unit. Ensure that the 4 rung frame interlock clips are engaged.



BoSS Room-Mate User Guide

### Platform 1.8m

4

Reposition the temporary platform to the 7th rung of the tower. Ensure the wind-locks are engaged, at both ends of the tower.

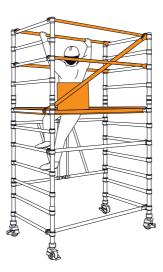
Fit a diagonal brace (blue) on the open side of the tower, between the 7th and 11th rungs. If the tower is being used externally, fit 4 stabilisers to the tower.

Note: Stabilisers omitted on drawing for clarity. Refer to the stabilisers section on page 25 for guidance on positioning stabilisers.

Climb the tower on the inside using the rungs of the end frames. From a protected position within the trapdoor, fit four horizontal braces as guardrails, two and four rungs above the platform (the  $9^{th}$  and  $11^{th}$  rungs of the tower), on both sides of the tower.

IMPORTANT. Always ensure braces are fully locked in position.

NEVER stand on the platform until the guardrail braces are in place.

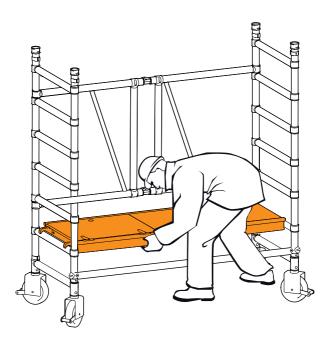


### Platform 2.55m, 4.3m & 6.05m

1

Assemble the base unit as shown in steps 1 and 2 of Height 1 (0.8m) build method. See pages 9 - 10.

2 Position a temporary platform on the 2nd rungs of the tower. Engage the wind-locks, underneath the rungs, at both ends of the platform.



### Platform 2.55m, 4.3m & 6.05m

3

Fit a 7 rung lift frame to each end of the base unit. Ensure the four frame interlock clips are engaged.

Fit a diagonal brace between the  $3^{rd}$  and  $7^{th}$  rungs on the open side of the tower. Fit another diagonal brace in the opposite direction to the lower diagonal, between the  $7^{th}$  and  $11^{th}$  rungs of the tower, as shown.



### Platform 2.55m, 4.3m & 6.05m



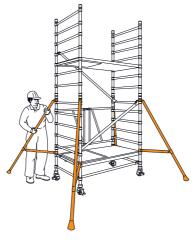
Fit a platform to the 10<sup>th</sup> rungs of the tower.





Fit four stabilisers to the tower.

Refer to Stabilisers Section on page 25 for guidance on positioning stabilisers.



### Platform 2.55m, 4.3m & 6.05m

**6** Climb the tower on the inside using the rungs of the end frame. From the protected trapdoor position, fit four horizontal braces as guardrails, two and four rungs above the platform (the 12<sup>th</sup> and 14<sup>th</sup> rungs of the tower) on both sides of the tower.



**IMPORTANT.** Always ensure braces are fully locked in position.

NEVER stand on the platform until the guardrail braces are in place.

bossaccesstowers.com

### Platform 2.55m, 4.3m & 6.05m

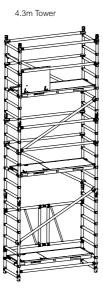
If building to 4.3m & 6.05m Platform height:

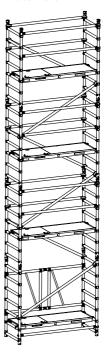
Continue to fit additional pairs of 7 rung lift frames, diagonal braces, horizontal guardrails and trapdoor decks.

DO NOT CLIMB ON TO THE PLATFORM UNTIL GUARDRAILS ARE IN PLACE.

**7** Fit a set of toe boards to the platform (see page 18). Check there are no gaps through which any material could fall and that the trapdoor opens correctly.

The tower is now complete.





6.05m Tower

### Platform 3.55m

For Height 4, the tower must be erected and platform levels repositioned as shown.



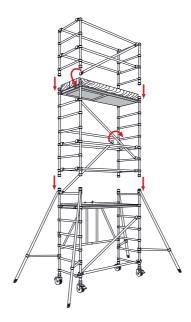
Assemble the base unit as shown in steps 1 and 2 of Height 1 (0.8m) build method. See pages 9 - 10.



Fit a platform to the 10<sup>th</sup> rungs of the tower. Engage the windlocks, underneath the rungs, at both ends of the platform.

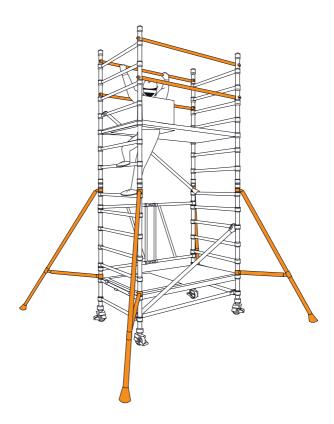


Fit a diagonal brace (blue) on the open side of the tower between the  $1^{\rm st}$  and  $5^{\rm th}$  rungs.



### Platform 3.55m

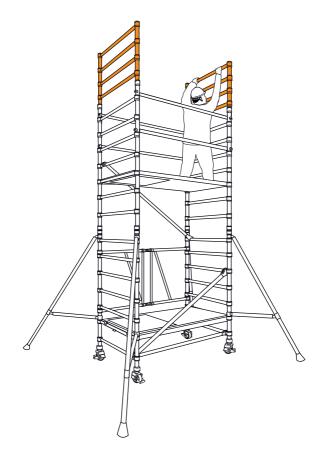
Climb the tower on the inside using the rungs of the end frames. From the protected trapdoor position, fit 4 horizontal braces as guardrails, two and four rungs above the platform (the 12<sup>th</sup> and 14<sup>th</sup> rungs of the tower) on both sides of the tower.



### Platform 3.55m



Fit a 4 rung guardrail frame to each end of the tower. Ensure the frame interlock clips are engaged.



### Platform 3.55m

The platforms must now be repositioned as follows: Whilst standing on the upper deck, unlatch the four guardrail brace hooks furthest from the trapdoor but leave the braces in position. From the protected position of the trapdoor deck, unlatch the remaining four brace hooks and remove the four guardrail braces and then descend immediately to the lower platform.

#### NEVER stand on a platform without guardrails.

Remove the platform from the  $10^{th}$  rungs of the tower. Fit a diagonal brace between  $7^{th}$  and  $11^{th}$  rungs of the tower in the opposite direction to the lower diagonal.

Reposition the deck from the  $2^{nd}$  rung to the  $6^{th}$  rung of the tower and fully guardrail, as shown.



### Platform 3.55m

Fit a diagonal between the  $9^{\text{th}}$  and  $13^{\text{th}}$  rungs of the tower. Fit a deck on the  $14^{\text{th}}$  rungs of the tower. From the protected position of the trapdoor deck, fit a pair of guardrails two and four rungs above the platform ( $16^{\text{th}} \& 18^{\text{th}}$  rungs of the tower). Fit a diagonal between the  $14^{\text{th}}$  and  $18^{\text{th}}$  rungs of the tower, as shown.

Fit toe boards (see instructions page 18).

The tower is now complete.



# Stabilisers and Outriggers

### Stabilisers

Stabilisers are used when the tower is to be moved occasionally, frequent movement will require outriggers.

SP10 and SP15 telescopic stabilisers must always be fully extended. Position the lower clamp so that the lower arm is as close to the horizontal as possible. Adjust the position of the top clamp to ensure the stabiliser foot is in firm contact with the ground. Ensure clamps are secure.

When moving, check for obstructions and lock feet a maximum 25mm off the ground, unlock castors, and move. After moving, check all castors are in ground contact and lock stabiliser feet.

### Outriggers

For information on mobile outriggers please consult your supplier.


For further information about this product or any other products and services, please contact:

The Causeway, Maldon, Essex, CM9 4LJ, United Kingdom ↓ +44 (0)1621 745900 ➡ +44 (0)1621 859845 ■ uk.customercare@wernerco.com ⊕ bossaccesstowers.com

Members of:



PN03302600 ©2017 WernerCo Rev. 10/17