# Assembly Instructions for LIFT System

Lyte Industrial Folding Tower



**3T - Through The Trap Method** 



www.lyteladders.co.uk

#### PLEASE READ THIS CAREFULLY

The LIFT range of products are lightweight scaffold towers used extensively for indoor and outdoor use, due to their inherent collective fall prevention measures.

The LIFT is manufactured, tested & certified to BSEN1004.

These instructions take into account the latest regulations, guidance and all product standards and is intended to give guidance on the best practice for the erection and dismantling of access towers. These instructions must always be used in conjunction with a suitable and sufficient Risk Assessment relative to the project.

Current regulations require that any person erecting towers must be competent and qualified to do so. For full information on the correct erection and use of mobile access towers, consult the PASMA Operators Code of Practice (Revision 12.1).

#### **Safety Notes**

This instruction guide aims to provide the user with step by step instructions to ensure the product is erected safely and correctly using the 3T method, Through The Trap. This method allows the operative to position himself through the trap of the platform and place horizontal braces ahead of him so that collective fall prevention measures are in place before he stands on the platform.

#### **Before erection**

- 1. Ensure that the instruction guide has been read and understood by anyone using the equipment. If in doubt contact your supplier.
- Lyte Industries recommend two competent persons are used to build the range of Lyte Towers. On towers above 4mtrs it is an ESSENTIAL requirement that at least two persons are used.
- Always ensure that the necessary components are available and inspected for damage and wear prior to erection. DAMAGED OR INCORRECT COMPONENTS SHALL NOT BE USED.
- 4. Ensure the ground level is suitably firm and clear of obstruction.
- 5. All tower frames must be lifted on the outside of the tower but only in the effect base area of the stabilisers. It is acceptable to move frames with the aid of a rope, secured with a reliable knot.
- 6. The life of tower components will be increased if proper care is taken of them during handling, errection, transportation and storage. All components should be inspected after storage and transport.
- 7. Stabilisers shall always be fitted when specified.
- 8. Mobile access towers are not designed to be lifted or suspended.

#### Whilst erecting a tower

- Outdoor freestanding towers must not exceed a platform height of 8.2m, for indoor use the maximum platform height is 12.2m. To ensure maximum stability is achieved, stabilisers or outriggers must be fitted at the first available opportunity, usually after the first module is complete. The quantity schedule overleaf illustrates the correct stabiliser units required for each platform height.
- 2. Always take into account the ground conditions i.e. are they capable of withstanding the loads imposed by the scaffolding.
- 3. Ensure the tower is level and vertical.
- 4. Ensure that the tower is not overloaded and that working loads are adhered to.
- 5. The Work at Height Regulations 2005 state that all platforms from which a person is possible to fall a distance liable to cause personal injury must be fitted with guardrails at a minimum height of 950mm above the platform itself. In addition to this, current regulations require intermediate guardrails be fitted to leave a gap no more than 470mm.
- 6. Toe boards are mandatory at all places of work from which it is possible that tools, equipment or other material may fall and is liable to cause personal injury. Their use on intermediate or rest platforms is not compulsory unless a risk assessment identifies a risk.

#### Whilst using the tower

- 1. Do not exceed the safe working load of the tower.
- 2. Ensure that castors are locked and that the Tower is both level and vertical.
- All Lyte Industrial Towers must be climbed from the inside using the frames provided, no other means of access is acceptable.

<b>Beaufort Scale</b>	Description	Air Speed	Action
0	Calm, smoke rises easily	1mph	None required
<3	Leaves & small twigs in constant motion, wind extends light flag	12mph	No immediate action required
4	Moderate breeze, Small branches move	17mph	Cease work
5	Strong breeze, Large Branches bend	25mph	Tie tower to a rigid structure
>6	Walking progress impeded	40mph	Dismantle tower if such conditions are expected

- 4. Beware of high wind conditions; tie the tower to a rigid structure when working outdoors or in exposed conditions. Always refer to Beaufort Scale Force chart below.
- 5. If a tower is left unattended, it must be secured against unauthorised usage or adverse weather conditions.
- 6. Adjustable legs are intended only to level the tower and never to gain additional tower height.
- 7. For linking towers or special applications, always consult your supplier.
- 8. Care must be taken when using power tools, jet washers or other tools that impose side loads. The maximum side load on a freestanding tower is 20kgs.
- 9. It is not permissible to attach bridging between a tower and a building.
- 10. Never jump onto platforms.
- 11. Towers used outdoors shall, wherever possible, be secured to a building or other structure.

#### Before moving a tower

- Towers should only be moved with the utmost caution. Before moving, ensure the route is clear of any obstructions, both at ground level and overhead (particularly overhead cables).
- 2. Never attempt to move a tower with people or materials still on it.
- 3. Ensure the tower height is reduced to 4m when stabilisers are in the correct position. Reduce tower to 2m when stabilisers are in the incorrect position before moving.
- Stabilisers should be left fitted in position, though raised no more than 25mm from the ground.
- 5. Move the tower only by applying manual effort, pushing at the base of the tower.
- 6. NEVER MOVE A TOWER IF WIND LEVELS ARE ABOVE 3 ON THE BEAUFORT SCALE.

#### After moving the tower

- 1. Always inspect the tower after moving and before use.
- 2. Always refer to the instructions in this guide.
- 3. Never throw equipment from the tower, either lower it with a rope or by hand.
- 4. Any components found to be damaged should be isolated, tagged and reported to someone in authority to either have them repaired or removed from service.
- 5. In accordance with current regulations any tower that has been erected must be checked every 7 days (minimum) to ensure that the tower continues to comply with the regulations.

### **LIFT System**



- A Toe Board Set
- B Hatch Deck
- C Diagonal Brace
- D Stabiliser

- E 4, 6, 8 Rung Span Frame
- **F** Horizontal Brace
- G Adjustable Leg
- H Castor

### **Stabilisers**

STABILISERS OR OUTRIGGERS SHALL ALWAYS BE FITTED WHEN SPECIFIED.

- Fix one stabiliser to each corner of the Tower at approx 45 degrees.
- Ensure top clamp is positioned under a rung casting and tighten the clamp as low down as possible.
- For large stabilisers fix the middle clamp and tighten.
- For telescopic stabilisers extend legs until rubber foot makes contact with the ground.
- Lock telescopic leg with attached spring clip.
- Ensure rubber feet are firmly in contact with the ground, by sliding lower clamp upwards and tighten securely. Securely tighten top clamp (and mid clamp where applicable) to provide a rigid base structure.
- When moving the Tower lift and lock each telescopic leg clear of the ground, at a height of no more than 25mm.
- Unlock castors ensuring area is firm and clear of all obstructions both on the ground and above.
- After moving check all castors are firmly on the ground and locked.
- Check that the tower is vertical, then reposition stabilisers as described above.

### **Maximum Safe Working Loads**

The maximum safe working load for the tower is 950kg. This is to include the tower self weight and ballast.

The maximum capacity of each working level is 275kg, regardless of the number of decks. The individual decks have a maximum capacity of 275kg.

Components for LIFT System Weight				
FDLC	125mm Locking Castor	1.20kg		
ALU	Adjustable Leg	0.98kg		
FTGF	4 Rung Frame	3.80kg		
FTSF	6 Rung Frame	5.60kg		
FTSF/8	8 Rung Frame	7.50kg		
HD18	1.8 Hatch Deck	13.40kg		
HB18	1.8m Horizontal Brace	2.05kg		
DB21	2.1m Diagonal Brace	2.20kg		
TBLI8/ALU/SW	Aluminium Toe Board	6.40Kg		
SSU	Standard Stabiliser	3.80kg		
TSU	Telescopic Stabiliser	8.20kg		
FTBU	Folding Base Unit	15.00kg		

#### LIFT System

0.6m System	45.75kg
1.6m System	74.85kg
2.1m System	80.65kg
3.1m System	112.05kg
3.6m System	115.65kg
4.6m System	143.05kg
5.1m System	148.85kg
6.1m System	180.25kg

Weight

### Lift Component Schedule

	0.6m	1.6m	2.1m	3.1m	3.6m	<b>4.6</b> m	5.1m	6.1m
125mm castors (standard)	4	4	4	4	4	4	4	4
150mm castors (For adjustable legs only)	4*	4*	4*	4*	4*	4*	4*	4*
Adjustable legs	4*	4*	4*	4*	4*	4*	4*	4*
Base Unit	1	1	1	1	1	1	1	1
6 rung frame	0	0	2	2	4	4	6	2
8 rung frame	0	0	0	0	0	0	0	4
1.8 hatch deck	1	1	1	2	2	2	2	3
4 rung frame	0	2	0	2	0	2	0	0
1.8m horizontal brace	3	5	5	9	9	9	9	13
2.1m Diagonal brace	0	1	2	3	3	4	5	6
Aluminium Toeboard Set	1	1	1	1	1	1	1	1
Standard Stabiliser	0	4	4	4	4	0	0	0
Telescopic Stabiliser	0	4*	4*	4*	4*	4	4	4

### **0.6m Platform Height**



1. Open base unit and secure joint with locking pin. If you are using the LIFT on uneven ground and have purchased adjustable legs, insert adjustable legs with 150mm castors, as shown. Lock castors.



2. Insert deck on 2nd rung of the tower.

- 3. Fit horizontal braces (ribbed) on the 4th and 6th rungs to act as guardrail.
- 4. Tower is now complete and ready to use.

### **1.6m Platform Height**



- Open base unit and secure joint with locking pin. If you are using the LIFT on uneven ground and have purchased adjustable legs, insert adjustable legs with 150mm castors. Lock castors
- 2. Fit horizontal brace to the 1st rung of the open side of base unit.
- 3. Insert 2 x 4 rung frames as guardrail.
- 4. Fit diagonal brace (smooth) on the front of the tower, from the 3rd to the 7th rung.



### 1.6m Platform Height cont/.



- Insert deck on to the 6th rung of the LIFT system & fit stabilisers if purchased (stabilisers are not required if the tower is being used internally at this platform height).
- 6. Fit 4 x ribbed horizontal braces as guardrail using the 3T method on the 8th and 10th rungs. This method allows the operative to position himself through the trap of the platform and place horizontal braces ahead of him so that collective fall prevention measures are in place before he stands on the platform.
- 7. Fit toe boards and now the tower is complete.

### 2.1m Platform Height

- 4. Fit diagonal brace (smooth) on the front of the tower, from the 3rd to the 7th rung & fit diagonal brace (smooth) on the back of the tower, from the 7th to the 11th rung.
- 5. Insert platform on 8th rung.
- 6. Fit stabilisers
- 7. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 10th and 12th rungs.

8. Fit toe boards. The tower is now complete.

- Open base unit and secure joint with locking pin. If you are using the LIFT on uneven ground and have purchased adjustable legs, insert adjustable legs with 150mm castors. Lock castors.
  - 2. Fit horizontal brace to the 1st rung of the open side of base unit.
  - 3. Insert 2 x 6 rung frames.

## 3.1m Platform Height

- Open base unit and secure joint with locking pin. If you are using the LIFT on uneven ground and have purchased adjustable legs, insert adjustable legs with 150mm castors. Lock castors.
- 2. Fit horizontal brace to the 1st rung of the open side of base unit.
- 3. Insert 2 x 6 rung frames.
- 4. Insert platform on 4th rung.
- 5. Fit diagonal brace (smooth) on the front of the tower, from the 3rd to the 7th rung & fit diagonal brace (smooth) on the back of the tower, from the 7th to the 11th rung.
  - 6. Fit 4 x ribbed horizontal braces as guardrail using the 3t
  - method on the 6th and 8th rungs.
- 7. Fit stabilisers.
- 8. Insert 2 x 4 rung frames as guardrail.
- 9. Fit diagonal brace (smooth) on the front of the tower, from the 11th to the 15th rung.
- 10. Insert platform on 12th rung.
- 11. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 14th and 16th rungs.
- 12. Fit toe boards. The tower is now complete.

### 3.6m Platform Height





- 2. Fit horizontal brace to the 1st rung of the open side of base unit.
- 3. Insert 2 x 6 rung frames.
- 4. Insert platform on 6th rung.
- 5. Fit diagonal brace (smooth) on the front of the tower, from the 3rd to the 7th rung & fit diagonal brace (smooth) on the back of the tower, from the 7th to the 11th rung.
  - 6. Fit stabilisers.
    - 7. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 8th and 10th rungs.

8. Insert 2 x 6 rung frames.

 Fit diagonal brace (smooth) on the front of the tower, from the 11th to the 15th rung

10. Insert platform on 14th rung.

- 11. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 16th and 18th rungs.
- 12. Fit toe boards. The tower is now complete.



2. Fit horizontal brace to the 1st rung of the open side of base unit.

3. Insert 2 x 6 rung frames.

4. Insert platform on 4th rung.

5. Fit diagonal brace (smooth) on the front of the tower, from the 3rd to the 7th rung & fit diagonal brace (smooth) on the back of the tower, from the 7th to the 11th rung.

6. Fit stabilisers.

 7. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 6th and 8th rungs.

8. Insert 2 x 6 rung frames.

### 4.6m Platform Height cont/.



9. Insert platform on 10th rung.

- 10. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 12th and 14th rungs.
- 11. Fit diagonal brace (smooth) on the front of the tower, from the 11th to the 15th rung.
- 12. Insert 2 x 4 rung frames.

- 13. Remove 4 x ribbed horizontal braces as guardrail using the 3t method from the 6th and 8th rungs.
- 14. Remove deck from the 4th rung.
- 15. Fit diagonal brace (smooth) on the back of the tower, from the 15th to the 19th rung.
- 16. Insert platform on 18th rung.
- 17. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 20th and 22nd rungs.
- 18. Fit toe boards. The tower is now complete.

### **5.1m Platform Height**

- Open base unit and secure joint with locking pin. If you are using the LIFT on uneven ground and have purchased adjustable legs, insert adjustable legs with 150mm castors. Lock castors
- 2. Fit horizontal brace to the 1st rung of the open side of base unit.
- 3. Insert 2 x 6 rung frames.
- 4. Insert platform on 4th rung.
- 5. Fit diagonal brace (smooth) on the front of the tower, from the 3rd to the 7th rung & fit diagonal brace (smooth) on the back of the tower, from the 7th to the 11th rung.
- 6. Fit stabilisers.
- 7. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 6th and 8th rungs.
- 8. Insert 2 x 6 rung frames.
- 9. Fit diagonal brace (smooth) on the front of the tower, from the 11th to the 15th rung.
- 10. Insert platform on 12th rung.
- 11. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 14th and 16th rungs.
- 12. Insert 2 x 6 rung frames.
- 13. Fit diagonal brace (smooth) on the back of the tower, from the 15th to the 19th rung.
- 14. Fit diagonal brace (smooth) on the front of the tower, from the 19th to the 23rd rung.

### 5.1m Platform Height cont/.



- 15. Remove 4 x ribbed horizontal braces as guardrail using the 3t method from the 6th and 8th rungs.
- 16. Remove deck from the 4th rung.
- 17. Insert platform on 20th rung.
- 18. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 22nd and 24th rungs.
- 19. Fit toe boards. The tower is now complete.

# 6.1m Platform Height



- Open base unit and secure joint with locking pin. If you are using the LIFT on uneven ground and have purchased adjustable legs, insert adjustable legs with 150mm castors. Lock castors.
- 2. Fit horizontal brace to the 1st rung of the open side of base unit.
- 3. Insert 2 x 8 rung frames.
- 4. Insert platform on 8th rung.
- 5. Fit diagonal brace (smooth) on the front of the tower, from the 3rd to the 7th rung & fit diagonal brace (smooth) on the back of the tower, from the 7th to the 11th rung.
- 6. Fit stabilisers.
- 7. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 10th and 12th rungs.
- 8. Insert 2 x 8 rung frames.
- Fit diagonal brace (smooth) on the front of the tower, from the 11th to the 15th rung. Fit Diangonal Brace (smooth) on the back of the tower, from the 15th to the 19th rung.
- 10. Insert platform on 16th rung.
- 11. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 18th and 20th rungs.

### 6.1m Platform Height cont/.



12. Insert 2 x 6 rung frames.

- 13. Fit diagonal brace (smooth) on the front of the tower, from the 19th to the 23rd rung.
- 14. Fit diagonal brace (smooth) on the back of the tower, from the 23rd to the 27th rung.
- 15. Insert platform on 24th rung.
- 16. Fit 4 x ribbed horizontal braces as guardrail using the 3t method on the 26th and 28th rungs.
- 17. Fit toe boards. The tower is now complete.

#### Are you PASMA qualified?

Here at Lyte we have strengthened our commitment to our customers even further with the introduction of access industry training courses.

We now offer the nationally recognised PASMA and BLMA courses to all our customers.

The Work at Height Regulations 2005 require that the assembly, dismantling or alteration of Mobile Access Towers should only be undertaken by a competent person, or if being trained, under the supervision of a competent person.

PASMA therefore sponsors training courses provided only by authorised training members. Lyte is proud to be one of these members.

The training courses are based on a format and content agreed by all PASMA members and draws upon their collective, first-hand experience. Widely recognised and recommended by safety professionals, it provides successful delegates who pass a written and practical test with a competency certificate and an encapsulated, credit card-sized Photo card.

For more information or to book the training course please contact the Lyte Training Coordinator on 01639 846800.

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