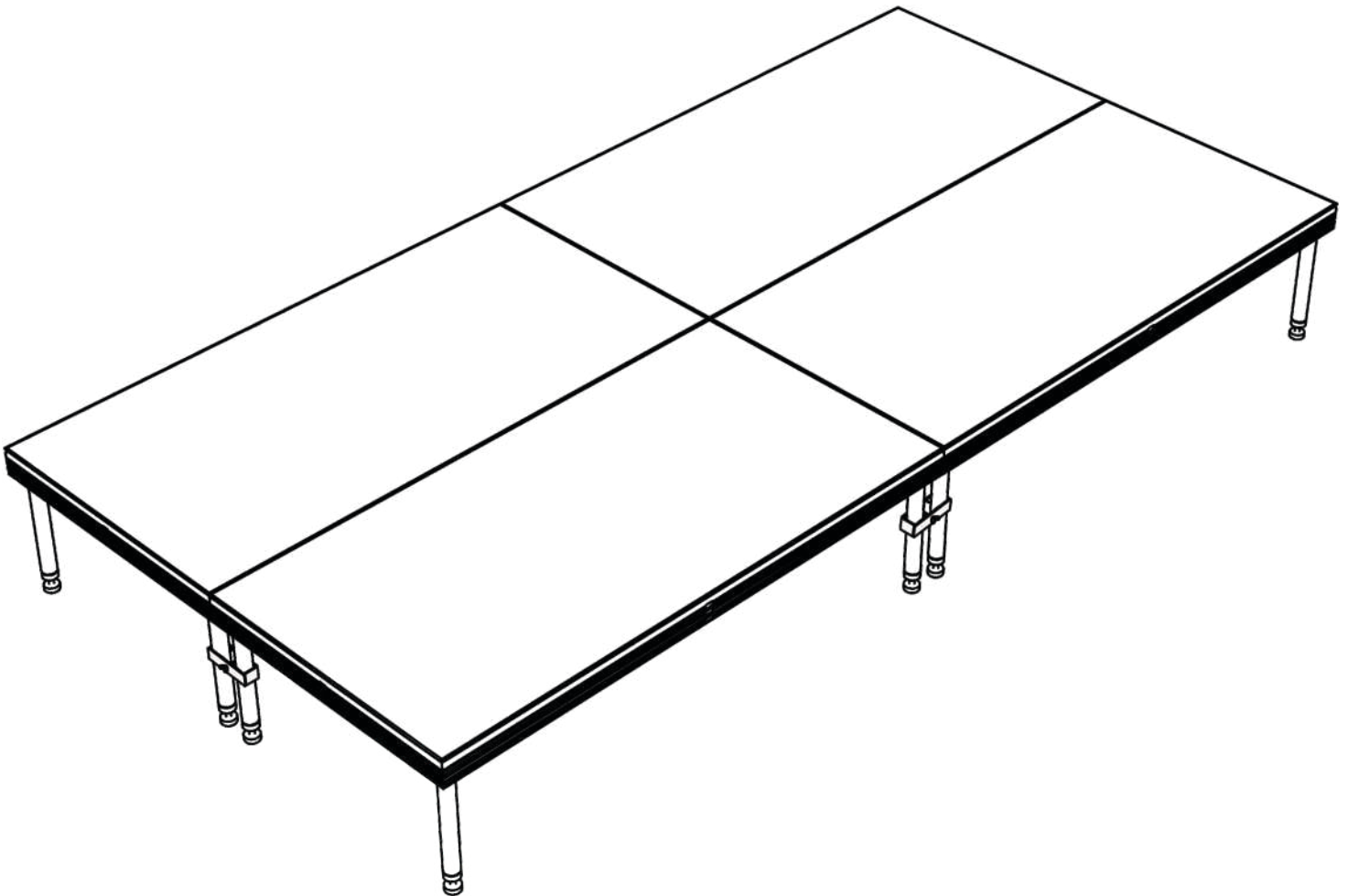


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User Manual for  
**Stage Deck - Leg System**



manufactured by  
 **stageplus™**

## NOTES

## CONTENTS

1. PREFACE .....	2
2. COMPONENTS .....	3
3. TECHNICAL SPECIFICATION .....	4
4. ASSEMBLY INSTRUCTIONS .....	5
5. TRANSPORT, STORAGE & MAINTENANCE .....	6
6. CODES & STANDARDS .....	7
7. HEALTH & SAFETY CONSIDERATIONS .....	7

## 1. PREFACE

Stage Plus, a Stage Audio Works brand, is devoted to the design, development and manufacture of problem-solving products including Stage Decks, Trussing, Roof Structures, Flight Cases, Padded Bag, Snake Boxes and Pre-made Cable.

Products built for industry people by industry people using advanced software, machinery and materials finding a balance between quality, automation and efficiency. Assembly is undertaken by a carefully selected group who have the product quality at heart.

Stage Plus **stage deck** offers durability and use only the highest quality staging hardware available on the market.

All aluminium is of structural grade (6082-T6) and wood toppings are specially sourced European Birch plywood.

This manual was produced for all users of Stage Deck and should be readily available for anyone assembling, disassembling or loading a Stage Deck.

This User Manual can be found, viewed or downloaded at [www.stageplus.co.za](http://www.stageplus.co.za) / [www.stageaudioworks.com](http://www.stageaudioworks.com)

A full and thorough understanding of this manual and its specific information is crucial to the assembly and maintenance of the Stage Deck structure.

There are 2 models based on the 2 versions of Birch Plywood)

- Stage Plus Standard Deck (Painted Birch Ply)
- Stage Plus Pro Deck (Phenolic Birch Ply)

### What is Stage Deck

Stage Deck is a modular stage framework with different types of rigging structures to be used as a raised platform for purposes of live event entertainment.

Stage Deck is raised with 2 types of rigging structures:

**Stage Deck (LS)** - Leg system, using structural grade aluminium (6082-T6) stage legs, handrails and steps as required by local by-laws.

**Stage Deck (SP-360-x)** - 360 scaffolding system as the supporting base platform of the stage decks. Refer to separate user manual and SANS 10085-1 Edition 2 The design, erection, use and inspection of access scaffolding Part 1: Steel access scaffolding.

### NOTE!

- 1 When assembling stage deck, wear appropriate personal protective equipment, ie. rigging gloves, steel toe boots, helmets and other required PPE.
- 2 It is a criminal offence to erect and use scaffolding and stage decking systems which do not comply with the minimum safety standards of the OSH ACT. The Code of Practice: "SANS 10085-1:2004, The design, erection, use and inspection of access scaffolding", (previously called SABS 085-2000) greatly emphasizes the use of trained personnel to erect / maintain scaffolding. This is possibly the most essential factor in preventing accidents.
- 3 Other relevant codes which the customer should comply to: SABS 1169-1978 : specification for TEMPORARY STANDS  
SANS 10295 : PART 1 - permanent suspended access equipment. PART 2 - temporary suspended access equipment  
SANS 10400  
Access for the disabled shall be provided in accordance with Part S of SANS 10400.

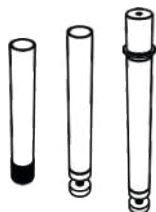
## 2. COMPONENTS

The below components are needed to assemble a Stage Deck - Leg System

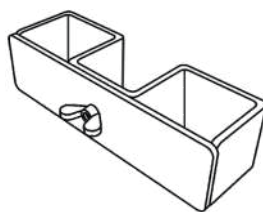
See **Parts Quantity Table** for the quantity of parts needed to assemble the specific size stage.



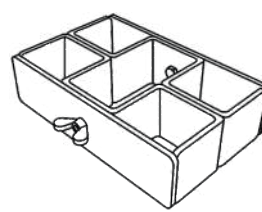
Stage Deck  
(Standard) / (With holes)



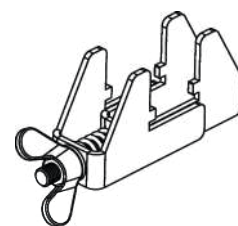
Stage Legs  
(LC), (LA) or (LH)



2-way Stage Leg Clamp



4-way Stage Leg Clamp



Deck Clamp

### Parts Quantity Table

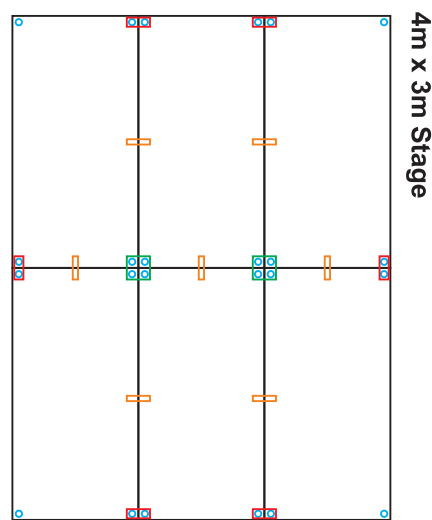
Stage Deck - Parts Quantity to size of Stage									
STAGE SIZE ▶	2 x 2	3 x 2	4 x 2	5 x 2	6 x 2	7 x 2	8 x 2	9 x 2	10 x 2
PARTS ▼	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY
Stage Deck	2	3	4	5	6	7	8	9	10
Stage Leg	8	12	16	20	24	28	32	36	40
2-Way Leg Clamp *	2	4	6	8	10	12	14	16	18
4-Way Leg Clamp *	-	-	-	-	-	-	-	-	-
Stage Deck Clamp *	1	2	3	4	5	6	7	8	9

Stage Deck - Parts Quantity to size of Stage									
STAGE SIZE ▶	2 x 4	3 x 4	4 x 4	5 x 4	6 x 4	7 x 4	8 x 4	9 x 4	10 x 4
PARTS ▼	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY
Stage Deck	4	6	8	10	12	14	16	18	20
Stage Leg	16	24	32	40	48	56	64	72	80
2-Way Leg Clamp *	4	6	8	10	12	14	16	18	20
4-Way Leg Clamp *	1	2	3	4	5	6	7	8	9
Stage Deck Clamp *	3	7	10	13	16	19	22	25	28

Stage Deck - Parts Quantity to size of Stage									
STAGE SIZE ▶	2 x 6	3 x 6	4 x 6	5 x 6	6 x 6	7 x 6	8 x 6	9 x 6	10 x 6
PARTS ▼	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY
Stage Deck	6	9	12	15	18	21	24	27	30
Stage Leg	24	36	48	60	72	84	96	108	120
2-Way Leg Clamp *	6	8	10	12	14	16	18	20	22
4-Way Leg Clamp *	2	4	6	8	10	12	14	16	18
Stage Deck Clamp *	5	12	17	22	27	32	37	42	47

Stage Deck - Parts Quantity to size of Stage									
STAGE SIZE ▶	2 x 8	3 x 8	4 x 8	5 x 8	6 x 8	7 x 8	8 x 8	9 x 8	10 x 8
PARTS ▼	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY	QTY
Stage Deck	8	12	16	20	24	28	32	36	40
Stage Leg	32	48	64	80	96	112	128	144	160
2-Way Leg Clamp *	8	10	12	14	16	18	20	22	24
4-Way Leg Clamp *	3	6	9	12	15	18	21	24	27
Stage Deck Clamp *	7	17	22	31	38	45	52	59	66

### 3m x 4m Stage



- Stage Deck
- Stage leg
- 2-way leg clamp
- 4-way leg clamp
- Deck clamp

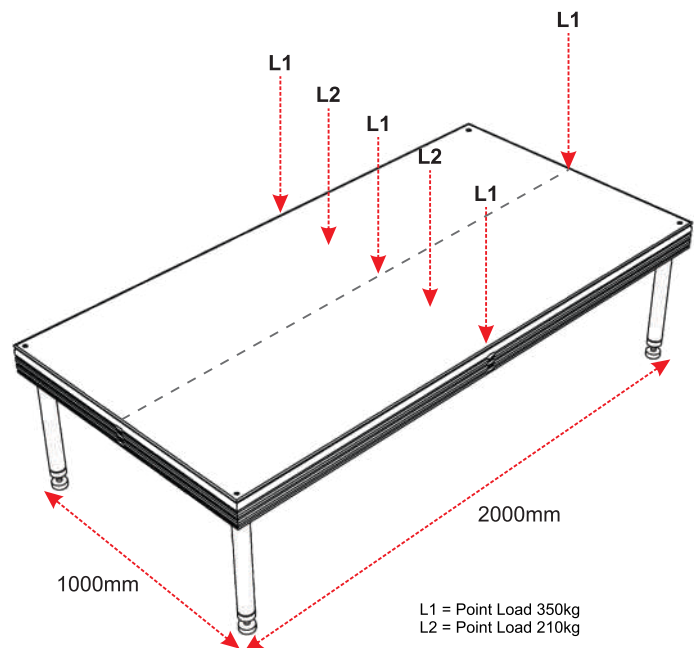
\* Deck clamp used at users preference.

### 3. TECHNICAL SPECIFICATIONS

Loading Types	
Uniformly distributed load	750kg/m <sup>2</sup>
Load Point L1	350kg
Load Point L2	210kg

L = Load Point.

Technical Specifications for Stage Deck	
Frame	Structural Grade Aluminium (6082-T6)
Wood Topping	21mm European Birch Plywood
Treatment	Phenolic / Painted
Legs	Structural Grade Aluminium (6082-T6) Leg Tube: Ø 50.8 x 3.18 mm
Legs with adjustable feet	Structural Grade Aluminium (6082-T6) with adjustable feet
Max. Load	750kg/m <sup>2</sup> (7.50 kN/m <sup>2</sup> )
Deck Weight	Phenolic - 42 kg
Max. Height	1000mm



Stage Plus Stage Decks comply with the 500kg/m<sup>2</sup> guideline of SANS 1169 Edition 2 Temporary stands.

#### Certification, Testing and Inspection:

It is the responsibility of the User to ensure that the stage deck sections are inspected and tested at the appropriate frequency.

It is the User's responsibility to ensure that the stage deck structure is signed off by a structural engineer each time the temporary structure is erected.

All components must be visually checked by the user for damage before and during assembly. Any damage to the members or accessories or cracking should be assessed by a Chartered Structural Engineer, or other competent person, who has adequate experience in the use of structures of this type.

On no account must the structure be used if any significant damage to the members or cracks are found. If in doubt, the User shall contact Stage Plus and seek advice before proceeding.

#### Ground Bearing Capacity:

The stage deck system shall be founded on suitable bearing strata. The bearing pressure on the ground can be derived from the axial load of the stage deck system in service and the area of the leg system. The allowable bearing pressures should be established on site and agreed with the Local and Statutory Authorities.

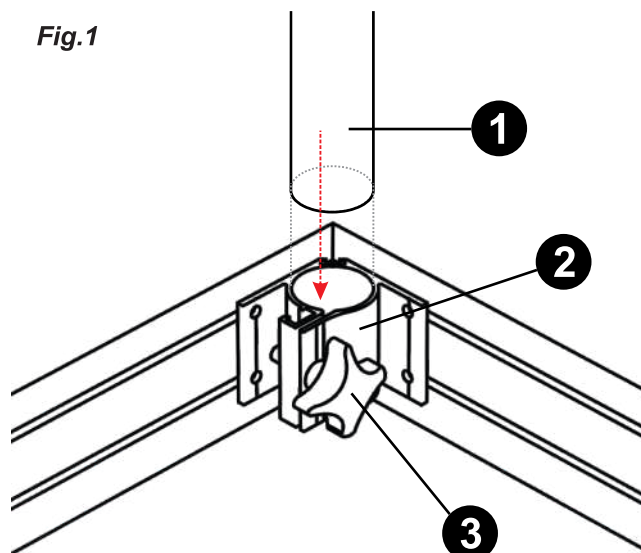
Adequate spreader plates (levelling blocks) shall be used under the legs/jacks as appropriate.

If outdoor, care should be taken when positioning rainwater pipes. They should be located away from the leg bases as changes in moisture content in the ground will change the allowable bearing capacity.

## 4. ASSEMBLY INSTRUCTION

1. Cordon off the area to prevent unauthorised access, particularly on busy sites.
2. Assess ground bearing capacity, do not continue if ground surface is not suitable.
3. Invert the stage deck and insert the required leg type (**Fig.1 item 1**) in the stage deck leg adaptor (**Fig.1 item 2**).
4. Tighten the stage leg to the stage deck leg adaptor by turning the hand wheel (**Fig.1 item 3**).
5. Do this for all 4 leg positions.
6. Invert the assembled stage deck into its upright position as seen in **Fig.2**.
7. Level the assembled stage deck by adjusting the screw jacks of the stage legs, or by securing each leg with levelling wood blocks - see **Fig.2**.

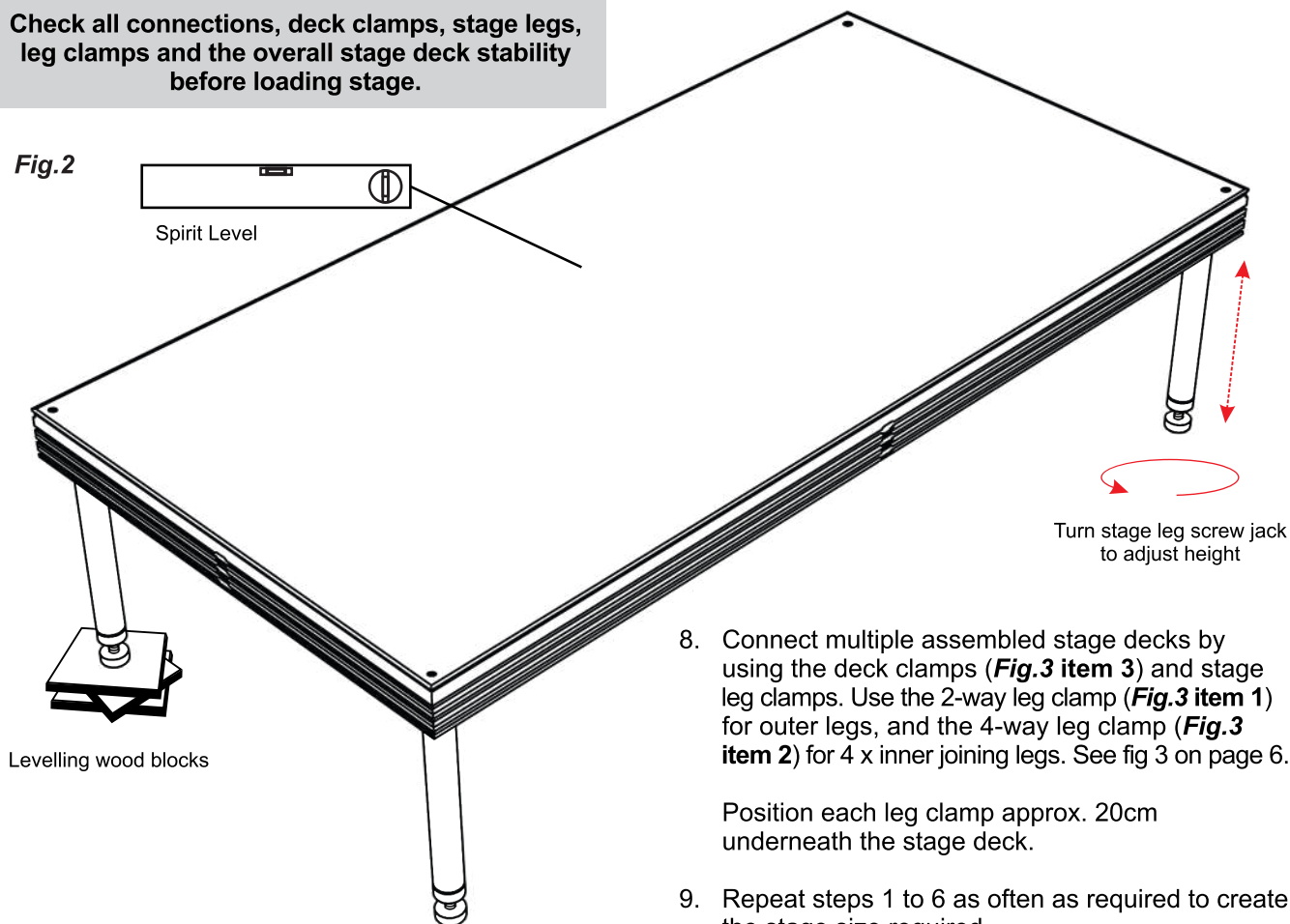
**Fig.1**



### NOTE!

**Check all connections, deck clamps, stage legs, leg clamps and the overall stage deck stability before loading stage.**

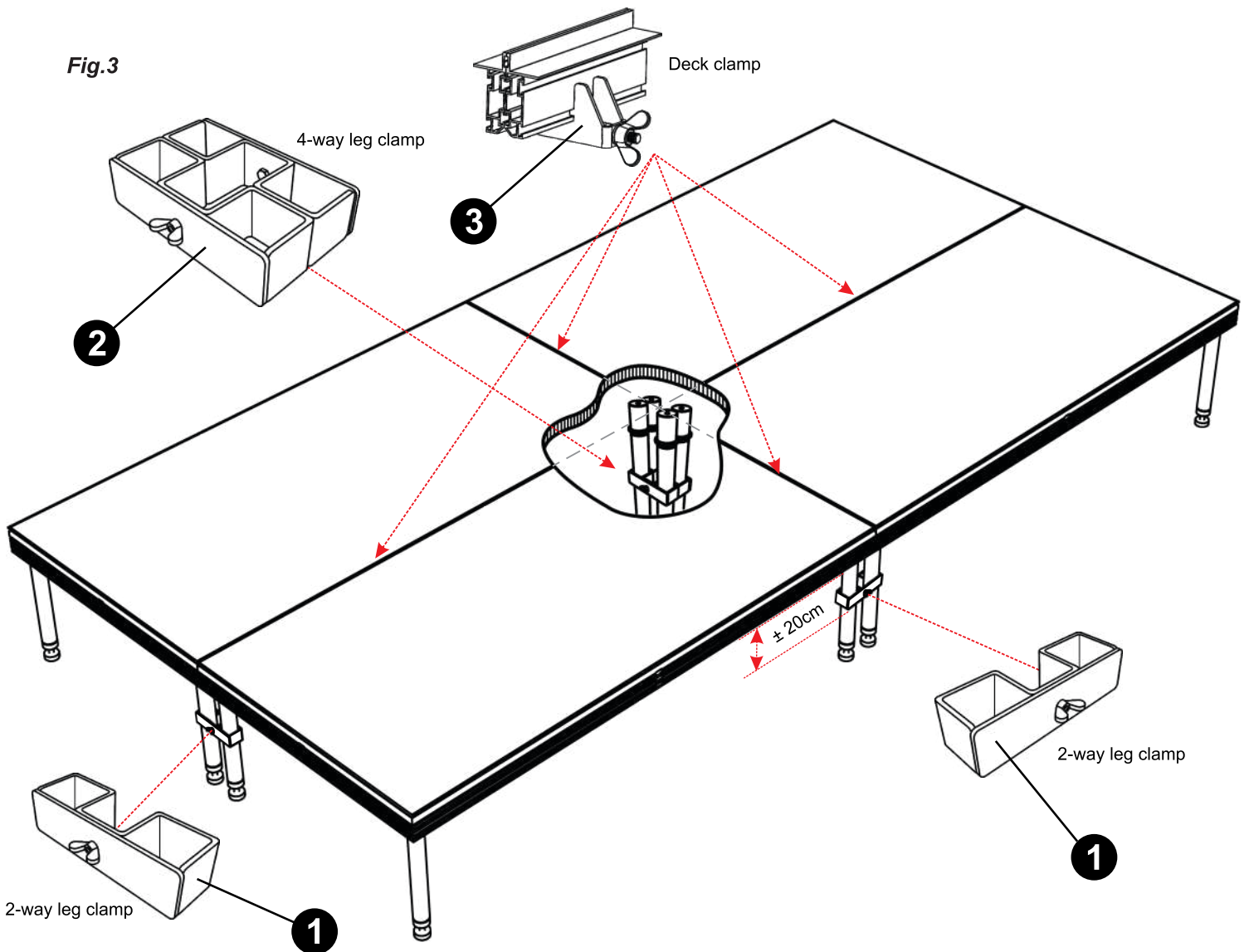
**Fig.2**



8. Connect multiple assembled stage decks by using the deck clamps (**Fig.3 item 3**) and stage leg clamps. Use the 2-way leg clamp (**Fig.3 item 1**) for outer legs, and the 4-way leg clamp (**Fig.3 item 2**) for 4 x inner joining legs. See fig 3 on page 6.

Position each leg clamp approx. 20cm underneath the stage deck.

9. Repeat steps 1 to 6 as often as required to create the stage size required.
10. Connect optional extras, eg. handrails, stairs & stage skirts.
11. Ensure the Stage System is correctly braced.



## 5. TRANSPORT, STORAGE & MAINTENANCE

Components of stage deck should be transported securely at all time. Pallets or dollies are to be used when equipment is transported from one location to another.

Incorrect care during transportation can result in equipment being damaged. Any damaged equipment will adversely affect the workings and structural integrity of the equipment.

Components are to be stored carefully to avoid dust and other environmental debris. This system is to be kept free of dirt and can be maintained and cleaned with warm soapy water. Avoid the use of abrasive cleaning utensils.

For easy handling store stage deck flat, wood to wood and aluminium to aluminium.

### WARNING!

Usage of unapproved accessories can lead to personal injury, equipment damage, and component failure.

This user manual can be found, viewed or downloaded at [www.stageplus.co.za](http://www.stageplus.co.za) / [www.stageaudioworks.com](http://www.stageaudioworks.com)

## 6. CODES & STANDARDS

- SANS 1169 for Temporary Stands.
- Safety at Sports and Recreation Events Act, no. 2 of 2010
- The Disaster Management Act, no. 57 of 2002
- Occupational Health and Safety Act
- DIN EN 1993-1-8:2010-12 (EUROCODE 3)
- DIN EN 1995-1-1:2010-12 (EUROCODE 5)
- DIN EN 1999-1-1:2014-03 (EUROCODE 9)

## 7. HEALTH & SAFETY CONSIDERATIONS

For temporary seating stands the requirements of SANS 1169 and SANS 10400 must be fully comply with in all respects. Where there are discrepancies or ambiguities between the two documents the requirements of SANS 10400 take precedent. The recommendations contained in the report on Temporary Demountable Structures published by the Institution of Structural Engineer's, London, should also be complied with.

1. Fire extinguishers are to be provided at a rate of one (1) per every 100m<sup>2</sup> or part hereof.
2. Fire extinguishers to be placed in easily accessible and visible positions and shall be properly indicated with signage.
3. The carrying capacity of the floor must be designed for the transmitting loads of the legs.
4. The effects of humidity and rain during outdoor use on the wooden topping should be considered by the user.
5. The edges should be clearly marked.