

## Original user manual

## LOW HANGER TUBE



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However continuous improvement of our products is ADMIRAL policy. Therefore product specifications are subject to change without notice. Readers and users are encouraged to notify ADMIRAL of errors and send in suggestions for improvements. All communications will be carefully considered for future printings of this manual and changes to our products.

## 2. SAFETY INSTRUCTIONS

This user manual must be read and understood prior to assembly, setup and servicing. All people using and servicing the LOW HANGER TUBE must familiarize themselves with the safety instructions and user guidelines written in this manual. This manual needs to be accessible for all users at all times.

## 1. INTRODUCTION

The ADMIRAL LOW HANGER TUBE can be used to hang loads vertically from any support structure. They are mostly used in temporary setups in the entertainment industry but can be used for permanent setups in museums, event venues, theaters etc. as well.

In this manual ELL stands for Entertainment Load Limit. Meaning the device has an inherent double safety factor (8:1) and is therefore suitable to suspend loads above persons.

The LOW HANGER TUBE is also designed to meet the German regulation for loads above persons DGUV17/18 (formerly known as BGVc1).

Clamps, couplers and safety cables used to couple and secure the LOW HANGER TUBES to the supporting structure are not included. The user must use certified clamps or couplers with a ELL of at least 200 kg and with minimum safety factor of 8:1 as required for overhead lifting.

ADMIRAL has endeavored to deliver the highest degree of accuracy possible.

### LEGEND

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DANGER: Indicates a hazardous situation which, if not avoided, will result in death or serious injury.

This signal word is to be limited to the most extreme situations.

### <u> W</u>ARNING

WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.

## 

CAUTION: Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.

### NOTICE

NOTICE: Addresses practices not related to personal injury.

### SAFETY INSTRUCTIONS

SAFETY INSTRUCTIONS: Is used for lists of steps, procedures or instructions that might otherwise substitute a DANGER, WARNING or CAUTION notification. Note that equivalent phrases, such as SAFE OPERATION PROCEDURES or SAFE SHUT DOWN PROCEDURE, can be used in place of the words "SAFETY INSTRUCTION".

## 3. SCOPE

The intended use of the LOW HANGER TUBE is to hang static loads of maximum 200 kg at a certain, pre-determined distance underneath a supporting structure.

Loads can be lighting fixtures, video projectors, sound systems and/or equipment.

Any other way of use is considered to be a case of misuse. Solely the user is liable for any damage or injury resulting from such cases.

### 🚹 WARNING

Check local legislation for the application of use.

### 4. LIMITATIONS OF USE

### 🚹 WARNING

Exceeding the limitations of use can severely endanger the audience and users.

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Dynamic factor of lifting must be considered separately.

- The LOW HANGER TUBE can be operated from -20° up to 60° Celsius.
- Do not exceed the maximum ELL (entertainment load limit) stated on the product.
- Make sure the resulting forces on the supporting structure are approved by a competent person before applying the load.
- To determine the maximum suspended load on the product, all imposed loads shall be considered. e.g. the dynamic factor caused by the lifting machinery.
- Sound systems can be suspended but users must check regularly the integrity of the LOW HANGER TUBE as severe vibrations could loosen bolts/knobs.
- The LOW HANGER TUBE must be inspected by a competent person as often as required

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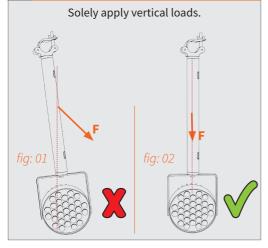
DO NOT lift or load above people without the following precautions:

- Only use certified clamps or couplers which are made for the M10 boltnut connection.
- Use an additional certified, secondary safety cable to both secure the LOW HANGER TUBE to the supporting structure and the load coupled to the LOW HANGER TUBE.
- A LOW HANGER TUBE must be taken out of service immediately if, during use, repair or maintenance damages are discovered.
- Remove people from the area during installation.
- Use solely instructed and/or trained personnel.
- Wear appropriate Personal Protective Equipment (PPE) such as hard hats and gloves during the installation.
- Make sure there is adequate amount of working light during the installation of the product.

but with a minimum of 1 x per year. Records of these inspections must be kept.

- Inspect equipment before every use. A damaged LOW HANGER TUBE shall be taken out of service.
- Outdoor use shall be approved by a competent person and might influence the load capacity. Do not expose the product to full rain or snow. Outdoor use is the sole responsibility of the operator.
- In case of use in the vicinity of saltwater, the product shall be rinsed regularly with fresh water to avoid corrosion.
- It is also imperative to observe the local accident prevention regulations and/or occupational health and safety regulations.
- The support structure, on which the LOW HANGER TUBE is used, must have lightning protection when used outdoors.
- The support structure, on which the LOW HANGER TUBE is used, might need to have electric potential bonding.
- Do not use the LOW HANGER TUBE to guide currents for electric potential bonding.
- Make sure the LOW HANGER TUBE and the supporting structure are dry and free of dirt.
- Use appropriate packaging to transport the products. e.g. a flightcase.
- Solely use by ADMIRAL approved parts to replace damaged or lost parts.
- Do not re-zinc steel components as they might be subject to hydrogene embrittlement.

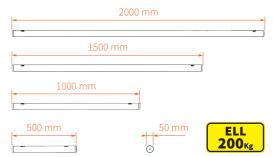
### WARNING



### CAUTION

Do not throw the LOW HANGER TUBE, as it might damage the product.

### 5. TECHNICAL DATA & LOADCHART



### **Technical data**

| RILHT50B                       | RILHT55B  |
|--------------------------------|---|
| 8720094420028                  | 8720094420035   |
| 200 kg                         | 200 kg  |
| aluminium                      | aluminium   |
| 0.7 kg                         | 1.1 kg  |
| 500 x ø 50 mm                  | 1000 x ø 50 mm  |
| sandblasted and                | sandblasted and   |
| anodized black                 | anodized black  |
| RILHT60B                       | RILHT65B  |
| 8720094420042                  | 8720094420158   |
| 200 kg                         | 200 kg  |
| aluminium                      | aluminium   |
| 1.5 kg                         | 1.9 kg  |
| 1500 x ø 50 mm                 | 2000 x ø 50 mm  |
| sandblasted and anodized black | sandblasted and<br>anodized black   |
|                                | 8720094420028<br>200 kg<br>aluminium<br>0.7 kg<br>500 x ø 50 mm<br>sandblasted and<br>anodized black<br>RILHT60B<br>8720094420042<br>200 kg<br>aluminium<br>1.5 kg<br>1500 x ø 50 mm<br>sandblasted and |

### Applicable Directives, Regulations, **Standards and Information Papers**

The following directive is applicable 2006/42/EC

Machinery directive

### The following regulation is used

DGUV regulation 17

Regulations for stages and studios (Formerly known as BGVc1)

### Parts of the following standards and information papers are used

| internation papers are asea |  |  |
|-----------------------------|--|--|
| DGUV Information            | Safety at productions and events for television, radio,  |  |
| 215-313                     | film, theatre,<br>exhibitions: Loads above<br>persons  |  |
|                             | (Formerly known as BGI 810-3)  |  |
| EN 17206:2020               | Lifting and load bearing<br>equipment for stages and<br>other production areas within<br>the entertainment industry  |  |
| BS 7905-1:2001              | Lifting equipment for<br>performance broadcast and<br>similar applications.<br>Part 1 specifications for the<br>design and manufacture of<br>above stage equipment |  |

# 7. EXPLANATION OF THE STICKER



### 6. IDENTIFICATION

Front view Bottom & top view



### LOW HANGER TUBE sticker

- Brand name Ø Batchcode 2 Product name 8 CE Marking ❸ Length eight 4 Article code QR code to online manual 6 Barcode Entertainment Load Limit 🕑 Boltuse
- 6 FAN code

\*Based on the Batch code ADMIRAL is able to trace the date of manufacturing

### LOW HANGER TUBE

- Hole for M10 bolt (use 8.8 quality)
- 2 Two gaps for the safety cable

## 8. ASSEMBLY INSTRUCTIONS

### 🚹 WARNING

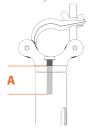
Inspect the LOW HANGER TUBE before use. Make sure all components are in place and in good order. If damaged, mark the item clearly and take out of service\*.

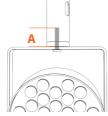
\*See chapter 11 for further instructions!

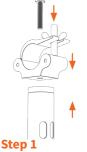
### Note

Use a M10 bolt (8.8 quality) for assembling the LOW HANGER TUBE on a structure or coupler. The length depends on the device (fixture, truss or pipe).

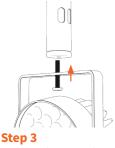
Make sure the bolt is screwed at least 40 mm (**A**) into the LOW HANGER TUBE. The torque setting is approximately 15 Nm.







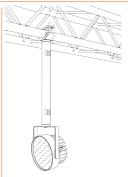
Mount the LOW HANGER TUBE to a coupler.

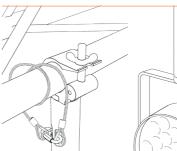


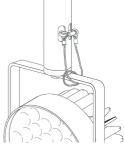
Attach a device to the LOW HANGER TUBE.



Attach the coupler to the supporting structure.







#### Step 4

Secure both ends with an extra safety cable.

### 🚹 WARNING

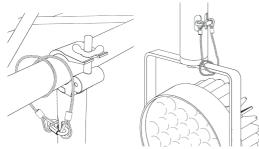
Check the integrity of the LOW HANGER TUBE after severe vibrations caused by sound systems or if the supporting structure was subject to severe movement e.g. due to winds.

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If the LOW HANGER TUBE is used to support loads above people it might be needed to secure the load with an additional safety cable. Make sure this cable is attached with as less slack as possible and has the correct load capacity.

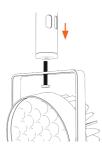
In some countries the use of safety cables is not required if the clamp and the load attached to it can only be released by use of tooling. In that case the bolt/nuts must be fastened with a minimum torque setting of 15Nm and the wingnut must be removed in order to create the condition to comply with this regulation (DGUV 215-313).

## 9. DISASSEMBLY INSTRUCTIONS



### Step 1

Remove the safety cables from both ends.



**Step 2** Remove the attached device from the LOW HANGER TUBE.



## 10. STORAGE

The LOW HANGER TUBE must be stored in a dry, non-aggressive environment.

- Make sure the parts cannot bend.
- Avoid vibrations. Rubbing parts can cause excessive wear and tear.

## 11. MAINTENANCE & REJECTION CRITERIA

### SAFETY INSTRUCTIONS

The LOW HANGER TUBE hardly needs any maintenance under normal use and environmental circumstances. For safety reasons however, all parts must be checked regularly for dirt, damages, loss and corrosion.

The LOW HANGER TUBE shall be checked in compliance with the local law by a competent person. Checking shall take place as often as required but with a minimum of 1x per year. In case of doubt contact ADMIRAL.



### 🚹 WARNING

If damaged, mark the item clearly and take it out of service.

Step 4 Remove the coupler from the LOW HANGER TUBE.

### <u> CAUTION</u>

When replacing parts, only use genuine ADMIRAL components.

- Check all components for damages like cracks, deformations, scratches and corrosion. Damaged and corroded parts shall be rejected and thrown away.
- In general, scratches > 10% of the wall thickness mean the product needs to be rejected from use.
- In general, deformations > 10% of a straight line from the outer surface mean the product needs to be rejected from use.
- Remove all sharp and rough feeling edges and surfaces by using sand paper or a file.
- Check roll pins and welds for cracks. If cracked, replace.
- Inspect that the internal wire thread is in good order.

## 12. WARRANTY

- For a period of 24 months we will repair, free of charge, any damage attributable to faulty materials or workmanship under the condition that the equipment is forwarded, freight paid, to our warehouse or one of the ADMIRAL distributors' warehouses.
- The warranty-period begins with the day of the delivery, proven by a purchase receipt like an invoice or delivery note or their copies.
- The warranty does not cover damage due to transport, negligent handling, overloading the equipment or parts subject to normal wear and tear signs. Nor damages that originate from a case of misuse because of nonobservance of the safety regulations in this instruction manual.
- The warranty will be invalid when other parts than the original ADMIRAL parts have been used or modifications of our design have been made by third parties.
- Warranty repairs do not renew nor extend the warranty-period.
- In case of a claim that falls under the warranty, e.g. a malfunction or spare part requirements, please contact your point of sale or ADMIRAL.
- The manufacturer is not liable for indirect consequential damage and financial loss.
- The manufacturer shall not be liable for any changes made to the LOW HANGER TUBE parts nor for any damage resulting from such changes.

## 13. EC DECLARATION OF CONFORMITY



## EC-DECLARATION OF CONFORMITY FOR MACHINERY (2006/42/EG Annex II)

Rolight Theatertechniek Josink Kolkweg 10 7545 PR Enschede The Netherlands

Herewith declares that:

### ADMIRAL "LOW HANGER TUBE"; all codes starting with RILHT\*\*\*

- is in compliance with the Machinery Directive 2006/42/EC annex II
- the following harmonized standards have been applied (or parts/clauses of): EN 12100-1-2010
- Part/clauses of the following technical regulations , standards and information papers have been used: German DGUV 17-18, German DGUV 215-313, EN 10204:2004, EN 17206 :2020, BS 7905-1 :2001

Enschede, The Netherlands 7-September-2023

Ms. E. Dijk Owner Rolight Theatertechniek b.v.



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