



Balloon Light

BL2000D

OPERATION & MAINTENANCE MANUAL

EN



This manual contains important safety information.
Do not destroy this manual.
This manual must be available to all personnel who operate and maintain this device.



octobre 2014- original instructions

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Foreword

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This manual contains instructions and technical data to cover all routine operation and scheduled maintenance task by operation and maintenance staff. Major overhauls are outside the scope of this manual and should be referred to an authorized Doosan Benelux service department.

Details of approved equipment are available from Doosan Benelux Service Department.

The use of repair parts other than those included within the Doosan Benelux approved parts list may create hazardous conditions over which Doosan Benelux has not control. Therefore, Doosan Benelux cannot be held responsible for equipment in which non-approved repair parts are installed.

Doosan Benelux reserves the right to make changes and improvements to products without notice and without incurring any obligation to make such changes or add such improvements to products sold previously.

This company accepts no responsibility for errors in the translation of this manual from the original English version.

Safety

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General safety instructions

- LIGHTED LAMPS ARE EXTREMELY HOT. Turn off, unplug, and allow unit to cool before touching lamp.
- ALWAYS disconnect your **DOOSAN** Balloon Light before servicing.
- Do Not touch lamp cage until completely cooled.
- Do Not look directly at lighted lamp.
- Do Not operate **DOOSAN** Balloon Light near flammable materials.
- Use a soft cloth or glove when handling lamps. Oils and dirt from skin may damage lamp during operation.
- Do Not operate your **DOOSAN** Balloon Light with damaged electronics or if parts are missing.
- Do Not operate your **DOOSAN** Balloon Light with a damaged envelope or without an envelope.
- All service must be performed by **DOOSAN** authorized service personnel. See Warranty Info for details.
- **DOOSAN** Balloon Light s are designed to operate at heights of at least 5ft (1.5m).
- Do Not operate your stand-mounted **DOOSAN** Balloon Light on an uneven surface or a grade of more than 8 degrees.
- Do Not use the unit if wind speed exceeds 50mph (80km/h).
- Use only recommended stands with the ability to support a 20lb (9kg) **DOOSAN** Balloon Light, and endure wind speeds of 50mph (80km/h) at a height of 16.5ft (5m).

ALWAYS USE CORRECT LAMPS FOR YOUR **DOOSAN** BALLOON LIGHT TO AVOID DAMAGE OR INJURY:

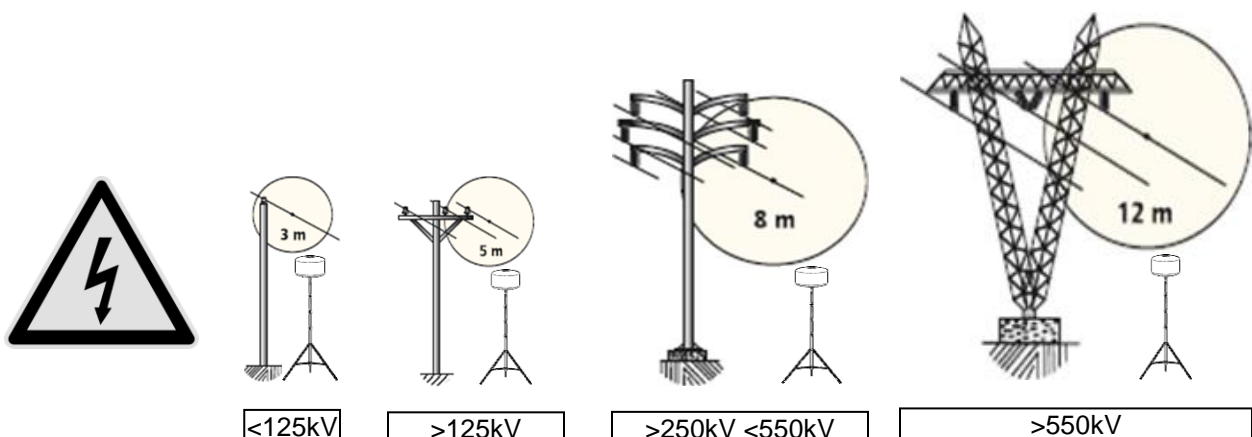
- Your unit is compatible with HA 1000W R7S type lamp or smaller wattage lamps.

WARNING

When using outdoors, basic safety precautions should always be followed to reduce the risk of fire, electrical shock, and personal injury, including the following:

- Use only European plug extension cords connected to the correct electrical source outlets.
- Always use Ground Fault Circuit Interrupter (GFCI) protection when operating your **DOOSAN** Balloon Light in areas near water, and during inclement weather.

Minimum distances near high-voltage lines



Tips To Extend The Life Of Your **DOOSAN** Balloon Light

- Use the included glove when handling lamps to prevent potential damage caused by transfer of oils and dirt to glass.
- Always disconnect power before performing service.
- Do not operate your **DOOSAN** Balloon Light without its envelope or with a damaged envelope.
- Protect yourself and the **DOOSAN** Balloon Light by operating away from walls, projectiles, electrical wires, trees, animals, etc.
- DO NOT LEAVE DEFLATED ENVELOPE UNCOVERED WHEN NOT IN USE.
- Always use the included protective cover when storing your **DOOSAN** Balloon Light. Failure to do so may result in loss of warranty coverage.
- Store your **DOOSAN** Balloon Light in a dry, ventilated area away from heat sources and chemical products.
- Be sure that envelope is completely dry before installing protective cover.
- Do not use chemical solvents to clean the envelope. Use mild soap and water as necessary.
- Do not modify the electrical components or unit structure.
- Do not operate your **DOOSAN** Balloon Light if cable is damaged, twisted, or tangled.

Recommended Generator Capacity

NOTE: When using generator power, ALWAYS start your generator BEFORE plugging in your **DOOSAN** Balloon Light.

Recommended Capacity:

DOOSAN Balloon Light 2 M HA 2x1000W : Single phase 230V 50-60Hz – 3KVA

WARNING: Be sure to avoid phase imbalance when several devices are connected to the same generator.

Safety systems

The **DOOSAN** Lighting Balloons are equipped with a safety thermal switch that turns off the lamps if internal operating temperature rises to unsafe levels.

If lamp starts blinking due to excessive heat, check and clean filter, be sure the fan is running and fresh air is cycling through the unit.

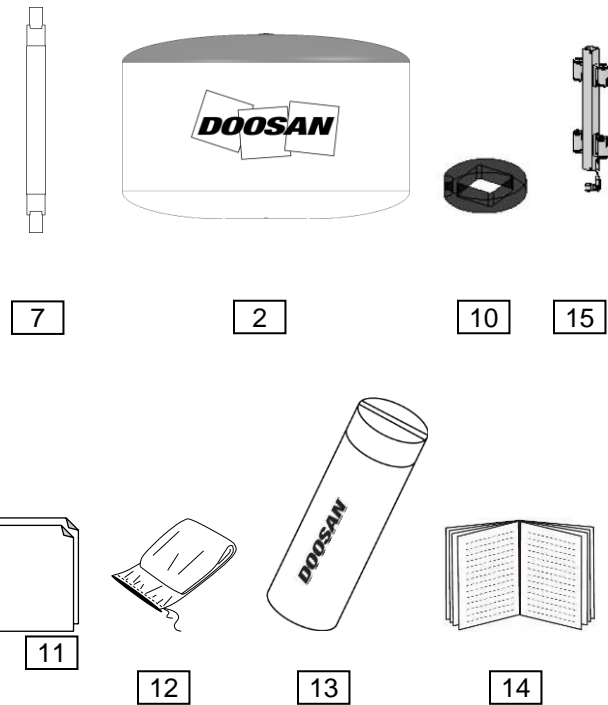
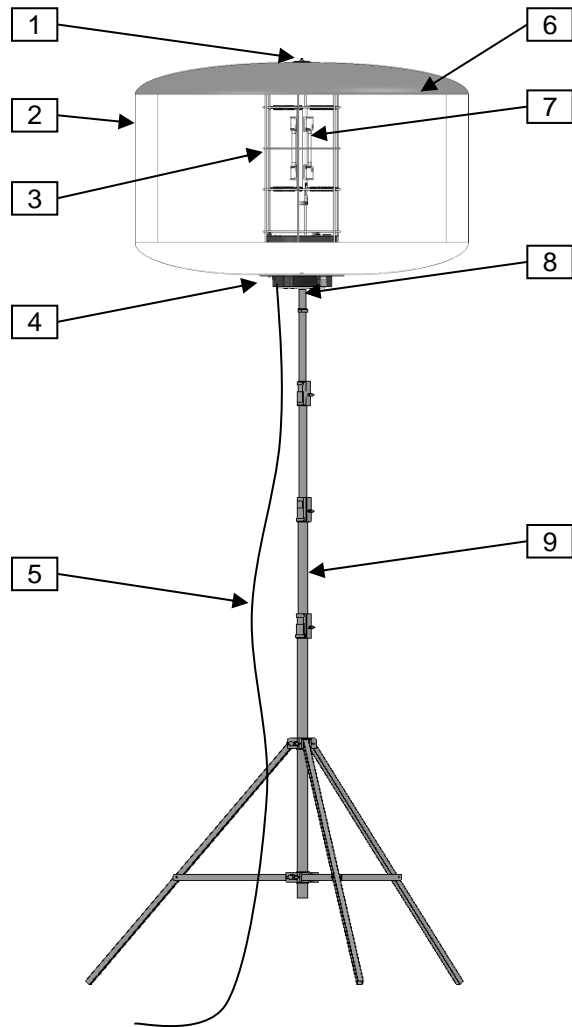
During use, periodically check that your **DOOSAN** Balloon Light is performing correctly.

Operating Instructions

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Overview



	Description
1	Safety Nut
2	Envelope
3	Cage
4	South Pole
5	Power Supply Cable
6	Zipper (not sold seperatley)
7	Bulb - HA 1000W 230V R7S type (x 2)
8	Mounting Foot
9	Stand (Recommended Accessory - Option)
10	Air Filter Kit
11	Repair Kit (2 sheets)
12	Protective Storage Cover
13	Doosan Storage Tube
14	User Manual
15	Lamp Housing (does not include lamps)
18	Accessory Kit (not shown)

Envelope Installation

- **Unpack your new *DOOSAN* Balloon Light envelope.**
 - ⇒ Unfold the envelope on a smooth, clean surface.
 - ⇒ Open the zipper
- **When REPLACING an old envelope, FIRST remove original envelope:**
 - ⇒ Turn unit off and let cool, if currently in use.
 - ⇒ Unplug the *DOOSAN* Balloon Light and open the envelope zipper.
 - ⇒ Unscrew the nut on the top of the envelope. (Fig. 1) Set nut safely aside.
 - ⇒ Pass the cage through the envelope zipper opening.
 - ⇒ Unhook the lamp holder springs (Fig. 2)
 - ⇒ Remove lamp(s) from unit. (See Lamp Replacement Instructions for detailed information on lamp removal.)
 - ⇒ Unplug the ground wire from the cage. (Fig. 3 *black arrow*)
 - ⇒ Unscrew the six(6) nuts on the South Pole Plate inside the envelope. (Fig. 3 *white arrows*)
 - ⇒ Carefully remove the cage from assembly.
 - ⇒ Detach old envelope from assembly by sliding up along lamp assembly.
 - ⇒ Inspect South Pole Plate gasket (Fig. 4) for damage, reset on plate prior to new envelope installation.
 - ⇒ Slide South Pole opening of new envelope over electronic assembly.

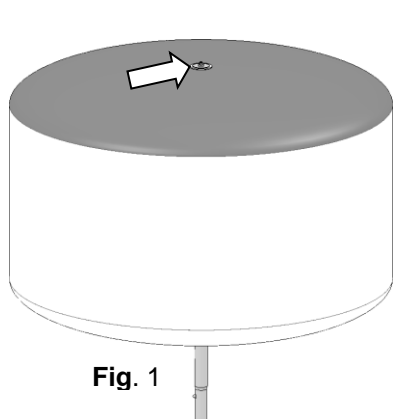


Fig. 1

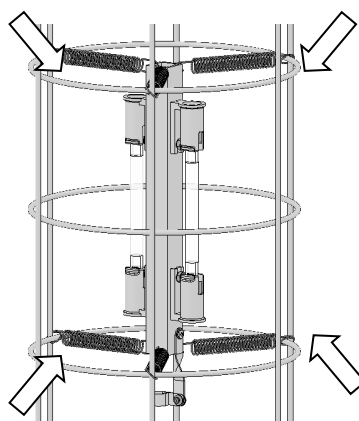


Fig. 2

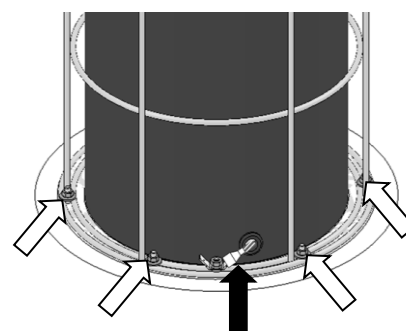


Fig. 3

- **Install your NEW envelope:**
 - ⇒ Position the zipper in front of the ground wire.
 - ⇒ Ensure alignment of envelope holes on South Pole Plate.
 - ⇒ Slide the cage inside the envelope through the zipper opening.
 - ⇒ Align cage on South Pole baseplate with envelope between plate and cage. Be sure to align ground pin with ground wire.
 - ⇒ Reattach ground wire to ground pin on cage.
 - ⇒ Screw the six(6) South Pole Plate nuts onto the cage.
 - ⇒ Reinstall lamp(s). (See Lamp Replacement Instructions for detailed information on lamp removal.)
 - ⇒ Reconnect lamp holder springs (Fig. 2). Be sure to hook springs OVER the cage crossbars.
 - ⇒ Loosely replace the nut on the top of the envelope. Do not tighten until after envelope is fully inflated.
 - ⇒ Close zipper.
 - ⇒ Plug *DOOSAN* Balloon Light into appropriate power source.
 - ⇒ After envelope is fully inflated, tighten top nut.
 - ⇒ You are now ready to work.

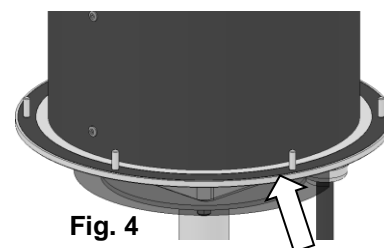


Fig. 4

Lamp Replacement

- **DOOSAN** Balloon Light 2K (HA 2x1000W) – (Fig. 1)

- ⇒ Unplug the **DOOSAN** Balloon Light and open the envelope zipper. (Be sure to let unit cool.)
- ⇒ Using a glove, remove old lamps by applying downward pressure and sliding the top of the lamp out of the top socket, then lifting the lamp up and out of the bottom socket.
- ⇒ Insert new lamps by inserting bottom of lamp into bottom socket, applying downward pressure, and then sliding top of lamp into the top socket of the fixture.
- ⇒ Close the zipper.
- ⇒ Operate unit as usual.

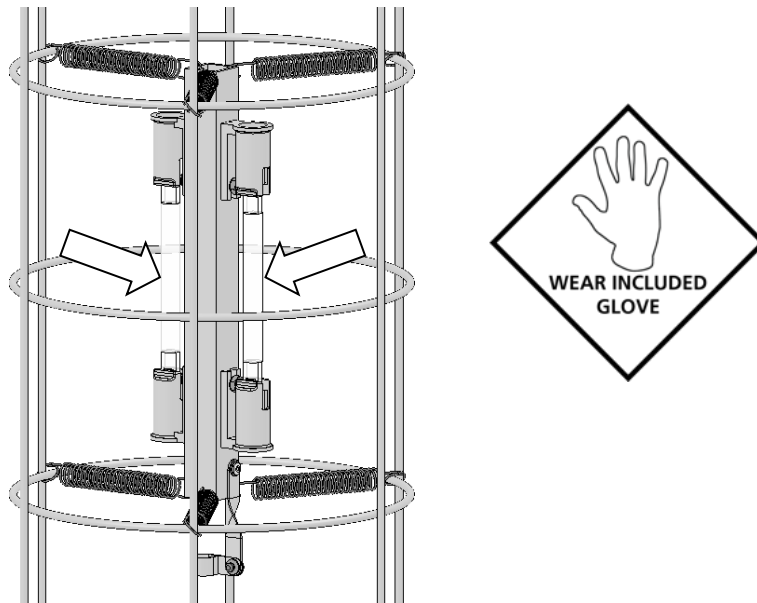


Fig. 1

NOTE: In the event of a lamp breaking inside the balloon, disconnect the electrical power supply and disassemble the envelope (see page 5) to remove the fragments of glass. Be sure to remove all fragments of glass, using a vacuum cleaner to thoroughly clean the electronics and envelope. To prevent injury, **DO NOT** attempt to clear envelope of loose glass fragments with your hands.

Assembly and installation on a stand

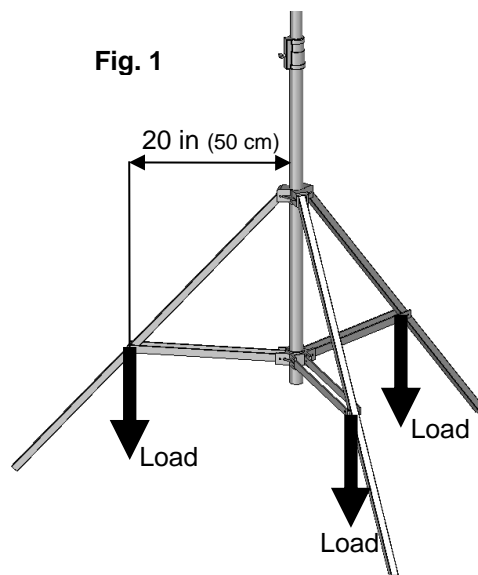
NOTE:

- Always use **DOOSAN**-approved stands designed to work with your **DOOSAN** Balloon Light.
- Always securely tighten all T-Handles to avoid injury.
- Stands are designed for vertical mounting of **DOOSAN** Balloon Light ONLY.

⇒ Using the optional ST201(Fig. 1) stand.

- Unfold the stand.
- Lock the base in place by sliding the stand legs out from the folded position until the support bars are exactly horizontal.
- When using your stands in windy conditions, weights must be placed on each support at 20 in (50 cm) from the center of the stand.
 - Follow this table recommended weighting

Wind speed	Required Weight Per Leg	Total Weight Required
0 – 6 mph (0 - 10 km/h)	N/A	N/A
6 – 12 mph (10 - 20 km/h)	40 lbs (18 kg)	120 lbs (54kg)
12 - 25 mph (20 - 40 km/h)	66 lbs (30 kg)	140 lbs (90 kg)
25 - 37 mph (40 to 60 km/h)	154 lbs (70 kg)	465 lbs (210 kg)
37 - 50 mph (60 - 80 km/h)	265 lbs (120 kg)	795 lbs (360 kg)

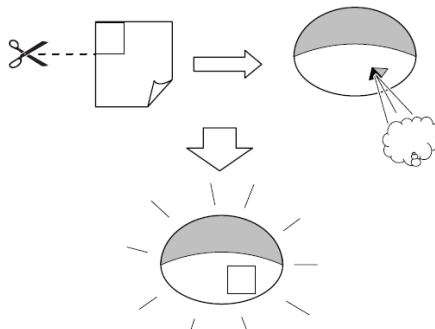


Disassembly

- **Switch off, deflate, and store your *DOOSAN* Balloon Light.**
 - ⇒ Disconnect from power supply and let lamps cool completely.
 - ⇒ Open envelope zipper to complete deflation.
 - ⇒ Remove the *DOOSAN* Balloon Light from stand or mount.
 - ⇒ Insert *DOOSAN* Balloon Light into storage bag and store in included case. (Be sure envelope is dry before storage!)

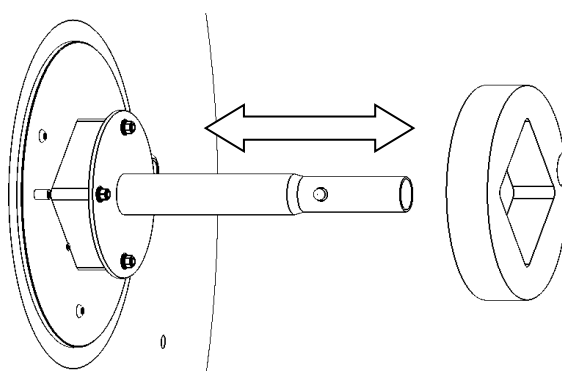
Maintenance

- **Lamp**
 - ⇒ It is important to replace lamps showing signs of wear and tear (cracked lamp, small fragments of glass inside the lamp, or whitened lamp glass). Failure to do so could cause lamp failure, or possibly explosion, resulting in bodily injury and/or damage to the *DOOSAN* Balloon Light.
 - ⇒ To replace a lamp, please refer to “*Assembly (Lamp replacement)*”
- **Envelope**
 - ⇒ A damaged envelope must immediately be repaired or replaced.
 - ⇒ Regularly clean the envelope with mild soap and water. Citrus-based cleaners can be used, although be sure to test a small area before cleaning entire envelope.
 - ⇒ **Patching A Hole**
 - Be sure to thoroughly clean the area to be patched.
 - Cut a square out of the included self-adhesive fabric sheet just large enough to cover the damaged part of the envelope. We recommend at least 1 inch wider and taller than the hole to be patched.
 - Remove the protective film from the adhesive side of the patch material.
 - Carefully place the patch onto the damaged part of the envelope, firmly applying pressure to the areas of contact around the patch edge.



- **Cleaning The Air Filter**

- ⇒ Remove sponge-type air filter, located under the south pole plate, by sliding along the support stand.
- ⇒ Wash it or replace it
- ⇒ Place clean air filter by the same way.



- **Trouble shootings**

Problems	Causes	Solutions
<i>After connecting and inflating the balloon), the balloon remains turned off.</i>	<ol style="list-style-type: none"> 1. Zip is not properly closed. 2. Envelope is pierced. 3. Bulb is not properly installed. 4. Bulb has blown. 	<ol style="list-style-type: none"> 1. Close zip entirely. 2. Repair envelope. 3. place correctly the bulb 4. Replace bulb.
<i>After having connected, fan does not work</i>	<ol style="list-style-type: none"> 1. Unit is not connected. 2. No current in plug. 	<ol style="list-style-type: none"> 1. Connect balloon or ballast to a plug. 2. Check that plug is supplied with current.
<i>After connecting, fan does not work</i>	<ol style="list-style-type: none"> 1. The fan power supplier is out of service 	<ol style="list-style-type: none"> 1. Replace the 12V power supplier or transmit the Balloon Light to your distributor .

Specifications

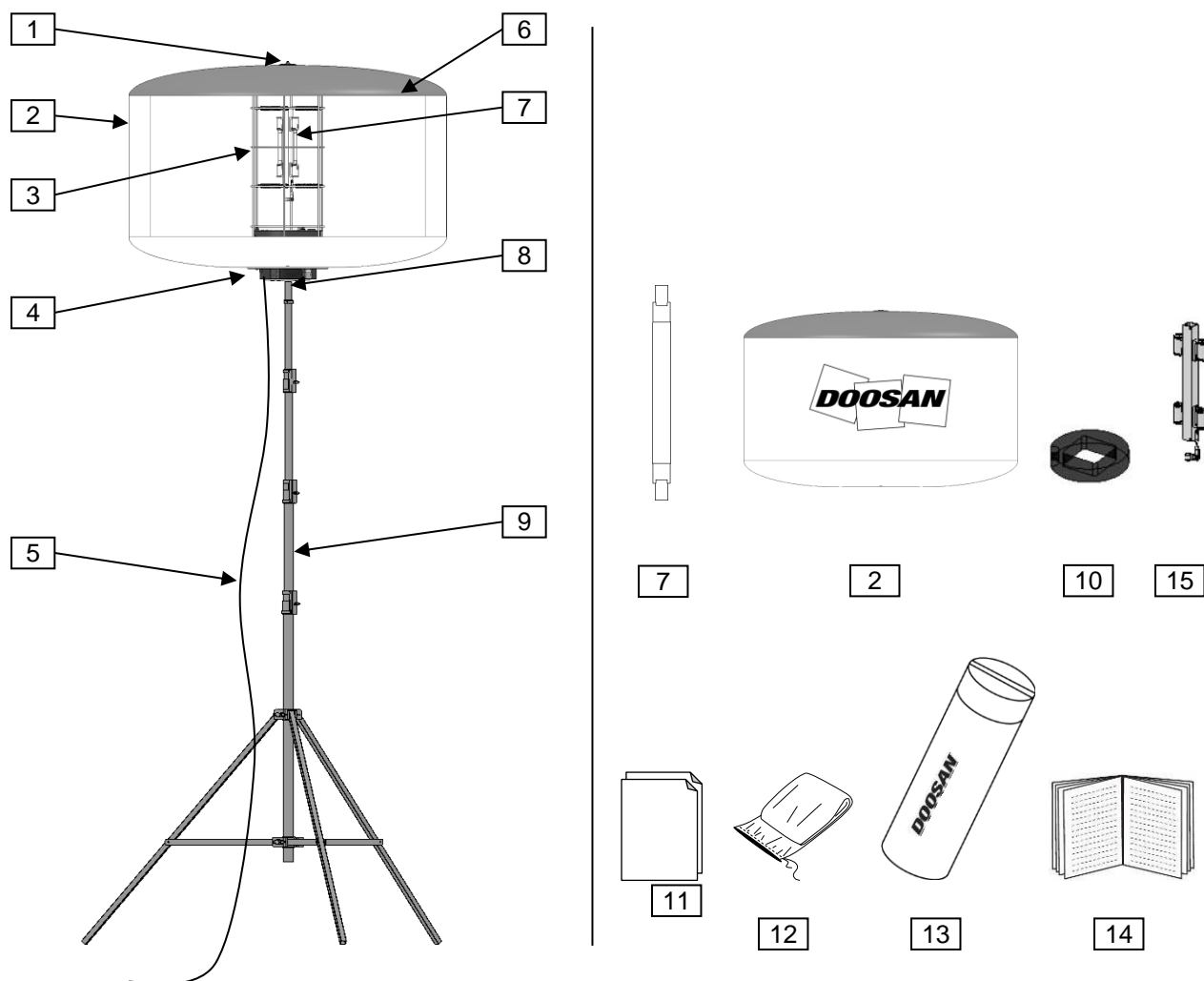
Technical Data Sheet	Units	Balloon Light HA 2x1000W
Power Supply	V Hz	230V 60Hz
Luminous Flux	Lm	54000 Lm
Lamp Quantitiy		2
Power Per Lamp	W	1000 W
Bulb Type		HA
Bulb Socket		R7S
Restrike Type		Hot
Restrike Time		Instant
Ballast Power?		No
Colour Temperature	°K	3200 °K
Average Bulb Life	h	300 h
Protection Type		Pressure Switch
Anti-Vibration System		Yes
Envelope Diameter	in	35.5 in
Envelope Shape		Cylinder
Bulb Luminous Efficacy	Lw/W	27 Lm/W
Weight	Lbs.	11 lbs.
Max Ambient Temperature	°F	113 °F
Power	W	2000 W
Power Generating Unit	kVA	3 kVA

After-Sale Service

In the rare event of any serious problems, please return the balloon to your **DOOSAN** distributor. Be sure to specify your purchase date and serial number for the quickest service.

Warranty

- The envelope is guaranteed against manufacturing defects for a period of 1 year from the date of purchase.
- All other components, except for “consumables” (i.e. Bulbs) are guaranteed for 1 years from the date of purchase against any manufacturing defects and under normal conditions of use.
- In any case of a manufacturing defect or incorrect operation, please return the balloon to your **DOOSAN** distributor.
- Manufacturer WILL NOT cover problems caused due to improper handling by the user. Any modification or adjustment to the envelope or electric equipment that is not specified in this manual, or any use of unapproved tools, components or bulbs is NOT COVERED by this warranty and remains the sole responsibility of the user.



	Description	Part Number
1	Safety Nut	6012021
2	Envelope	1010781
3	Cage	6026053
4	South Pole	1080020
5	Power Supply Cable	6135068
6	Zipper (not sold seperatley)	N/A
7	Bulb - HA 1000W 230V R7S type (x 2)	6120055
8	Mounting Foot	6050135
9	Stand (Recommended Accessory - Option)	P500TA
10	Air Filter Kit	6630053
11	Repair Kit (2 sheets)	1040030
12	Protective Storage Cover	1040430
13	Doosan Storage Tube	6610045
14	User Manual	6563090
15	Lamp Housing (does not include lamps)	1020055
16	Accessory Kit (not shown)	1040417

Internal Parts

