

OPERATION AND PARTS MANUAL



GloBug SERIES GB3LED LIGHTING SYSTEM

Revision #0 (3/18/14)

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THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.

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GB3LED LIGHTING SYSTEM

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NOTICE

Specifications and part numbers are subject to change without notice.

PARTS ORDERING PROCEDURES

Ordering parts has never been easier! Choose from three easy options:

Effective:
January 1st, 2006

www.multiquip.com



Order via Internet (Dealers Only):

Order parts on-line using Multiquip's SmartEquip website!

- View Parts Diagrams
- Order Parts
- Print Specification Information



If you have an MQ Account, to obtain a Username and Password, E-mail us at: parts@multiquip.com.

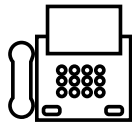
To obtain an MQ Account, contact your District Sales Manager for more information.

Goto www.multiquip.com and click on

Order Parts to log in and save!

Use the **internet** and qualify for a **5% Discount** on *Standard orders* for all orders which include complete part numbers.*

Note: Discounts Are Subject To Change



Order via Fax (Dealers Only):

All customers are welcome to order parts via Fax.

Domestic (US) Customers dial:
1-800-6-PARTS-7 (800-672-7877)

Fax your order in and qualify for a **2% Discount** on *Standard orders* for all orders which include complete part numbers.*

Note: Discounts Are Subject To Change



Order via Phone: Domestic (US) Dealers Call:
1-800-427-1244

Non-Dealer Customers:

Contact your local Multiquip Dealer for parts or call 800-427-1244 for help in locating a dealer near you.



International Customers should contact their local Multiquip Representatives for Parts Ordering information.

When ordering parts, please supply:

- Dealer Account Number
- Dealer Name and Address
- Shipping Address (if different than billing address)
- Return Fax Number
- Applicable Model Number
- Quantity, Part Number and Description of Each Part
- Specify Preferred Method of Shipment:
 - UPS/Fed Ex
 - Priority One
 - Ground
 - Next Day
 - Second/Third Day
 - DHL
 - Truck

NOTICE

All orders are treated as *Standard Orders* and will ship the same day if received prior to 3PM PST.

WE ACCEPT ALL MAJOR CREDIT CARDS!



SAFETY INFORMATION


Do not operate or service the equipment before reading the entire manual. Safety precautions should be followed at all times when operating this equipment. Failure to read and understand the safety messages and operating instructions could result in injury to yourself and others.




SAFETY MESSAGES

The four safety messages shown below will inform you about potential hazards that could injure you or others. The safety messages specifically address the level of exposure to the operator and are preceded by one of four words: **DANGER**, **WARNING**, **CAUTION** or **NOTICE**.


SAFETY SYMBOLS

 **DANGER**

Indicates a hazardous situation which, if not avoided, **WILL** result in **DEATH** or **SERIOUS INJURY**.

 **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

Addresses practices not related to personal injury.

Potential hazards associated with the operation of this equipment will be referenced with hazard symbols which may appear throughout this manual in conjunction with safety messages.

Symbol	Safety Hazard
	Burn hazards
	Electric shock hazards

SAFETY INFORMATION

GENERAL SAFETY

CAUTION

- **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, respiratory protection, hearing protection, steel-toed boots and other protective devices required by the job or city and state regulations.



- **NEVER** operate this equipment when not feeling well due to fatigue, illness or when under medication.



- **NEVER** operate this equipment under the influence of drugs or alcohol.

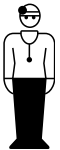


- **ALWAYS** check the equipment for loosened threads or bolts before starting.

- **DO NOT** use the equipment for any purpose other than its intended purposes or applications.

NOTICE

- This equipment should only be operated by trained and qualified personnel 18 years of age and older.
- Whenever necessary, replace nameplate, operation and safety decals when they become difficult read.
- Manufacturer does not assume responsibility for any accident due to equipment modifications. Unauthorized equipment modification will void all warranties.
- **NEVER** use accessories or attachments that are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.
- **ALWAYS** know the location of the nearest fire extinguisher.
- **ALWAYS** know the location of the nearest first aid kit.
- **ALWAYS** know the location of the nearest phone or **keep a phone on the job site**. Also, know the phone numbers of the nearest **ambulance, doctor and fire department**. This information will be invaluable in the case of an emergency.



SAFETY INFORMATION

LIGHTING SYSTEM SAFETY

WARNING

- **NEVER** disconnect any **emergency or safety devices**. These devices are intended for operator safety. Disconnection of these devices can cause **severe injury, bodily harm or even death**. Disconnection of any of these devices will void all warranties.

CAUTION

- **NEVER** attempt service on a running machine.

NOTICE

- To prevent the lighting system from overturning, **NEVER** use in winds that exceed 22 mph (10 m/s).
- The lighting system should only be used in temperatures between 23° to 104°F (-5° to 40° C). Failure to comply with these operating parameters could cause the lamp to malfunction and shorten the ballast life.
- **ALWAYS** keep the lighting system in proper running condition.
- Fix damage to lighting system and replace any broken parts immediately.
- **ALWAYS** store equipment properly when it is not being used. Equipment should be stored in a clean, dry location out of the reach of children and unauthorized personnel.

LAMP SAFETY

WARNING

- **NEVER** attempt to replace lamp with the power on. Always unplug the power cord from the generator or power source when changing the lamp.
- **ALWAYS** allow a sufficient amount of time for the lamp to **cool** before changing. The possibility exists of severe burns.

CAUTION

- **NEVER** use force when installing the lamp. Excessive force could cause the lamp to break, causing bodily harm.

NOTICE

- **NEVER** leave any grease or oil residue on lamp surface when replacing or removing lamp. This can create hot spots, reducing the service life of the lamp.
- **ALWAYS** make sure lamp surface is clean and dry.
- **ALWAYS** replace with MQ recommended type lamp. See parts section of this manual.
- If applicable, **ALWAYS** make sure the lamp guard is installed correctly. **NEVER** deform the lamp guard.
- **NEVER** unplug the lamp's AC power cable during operation.
- **ALWAYS** have a **trained technician** to install and remove lamp or replace any damaged fixture wiring.

TRANSPORTING SAFETY

NOTICE

- When transporting the tripod lighting system, if applicable, always place in **stow position** and place tripod in its carrying case.
- **ALWAYS** remove balloon/lamp assembly from the mast when transporting lighting system. This will prevent damage to the bulb due to vibration.
- **NEVER** leave the balloon/lamp exposed during transport. Exposure to excess wind or rain could damage the balloon's nylon cover.
- **ALWAYS** place balloon inside its protective cover during transport. Be sure the cover is secured tightly around the balloon/lamp assembly.

SAFETY INFORMATION

BALLOON SAFETY

WARNING

- To prevent serious burns, **NEVER** touch or unzip the balloon envelope when the lamp is on.



CAUTION

- **ALWAYS** keep the balloon away from sharp objects and excessive amounts of heat.

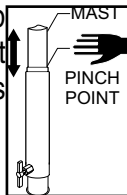
NOTICE

- To prevent balloon deformation, **NEVER** use lighting system in strong winds.
- **DO NOT** place the balloon inside its protective cover until the lamp has had a sufficient amount of time to cool down. This will prevent the balloon's nylon cover from being burned (touching the lamp surface).
- **ALWAYS** place the balloon inside its protective cover after each use. This will prolong the life of the balloon material, keeping it protected from harsh environmental elements.
- Replace balloon immediately if damaged. A damaged balloon will not inflate properly, and may become more damaged by touching the hot lamp surface.
- **DO NOT** use excessive force when zipping and unzipping the balloon. Be gentle with the zipper mechanism. If the zipper is broken, the balloon will become unusable.

MAST SAFETY

CAUTION

- When raising or lowering the mast, keep hands and fingers clear of the various mast sections, this will prevent hands and fingers from getting pinched.
- **NEVER** attach anything to the mast.
- **ALWAYS** lower the mast when not in use, or if high winds or electrical storms are expected in the area.



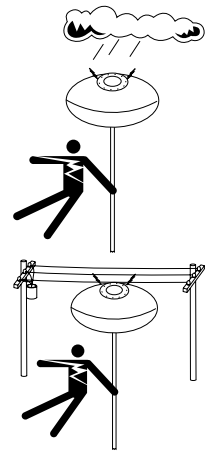
ELECTRICAL SAFETY

DANGER

- Lighting system is equipped with a ground pin on the power plug. For your protection, **ALWAYS** complete the grounding path. **NEVER** insert the AC power plug into a 2-prong receptacle to operate lighting system.

When applying power to the lighting system, **ALWAYS** connect the AC power plug to a 3-prong receptacle that is grounded. The possibility exists of **electrical shock, electrocution and even death** if the lighting system is not grounded.

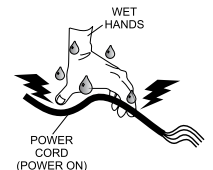
- **NEVER** operate lighting system or handle any electrical equipment while standing in water, while barefoot, while hands are wet or in the rain. A dangerous **electrical shock** could occur, causing **severe bodily harm or even death**.
- **ALWAYS** make sure the area above the lighting system is open and clear of overhead power lines and other obstructions. Contact with overhead power lines or other obstructions could result in equipment damage, **electrical shock, electrocution and even death**.



Power Cord/Cable Safety

DANGER

- **NEVER** let power cords or cables **lay in water**.
- **NEVER** use **damaged** or **worn** cables or cords. Inspect for cuts in the insulation
- **NEVER** grab or touch a live power cord or cable with wet hands. The possibility exists of **electrical shock, electrocution or death**.
- Make sure power cables are securely connected. Incorrect connections may cause **electrical shock** and damage to the lighting system.



NOTICE

- **ALWAYS** make certain that proper power or extension cord has been selected for the job. See Cable Selection Chart in this manual.

SPECIFICATIONS

Table 1. Specifications		
Globug Lighting System		
Model	GB3LED	
Input Voltage	100 VAC	
Frequency	50 Hz/ 60 Hz	
Max. Current	3.3 Amps (100 V @300 W)	
Weight	Lamp Fixture	18.74 lb (8.5 kg)
	Mast	4.85 lb (2.2 kg)
	Tripod	12.13 lb (5.5 kg)
	Balloon Cover	1.32 lb (0.6 kg)
	Cable	1.54 lb (0.7 kg)
	Total	38.58 lb (17.5 kg)
Appropriate Generator	350 W and above	
Lamp		
Lamp Type	LED	
Dimming Control	3 stages: 300W / 200W / 100W	
Total Luminous Flux (lm)	38000 ±7% @300 W	
	28000 ±7% @200W	
	16000 ±7% @100W	
Operation_Enabled Temperature Range	14 to 104°F (-10 to 40 °C)	
Mast		
Number of Stages	2 (with gas assist)	
Maximum Height (Standard)	12.5 feet (3.8 meters)	

DIMENSIONS

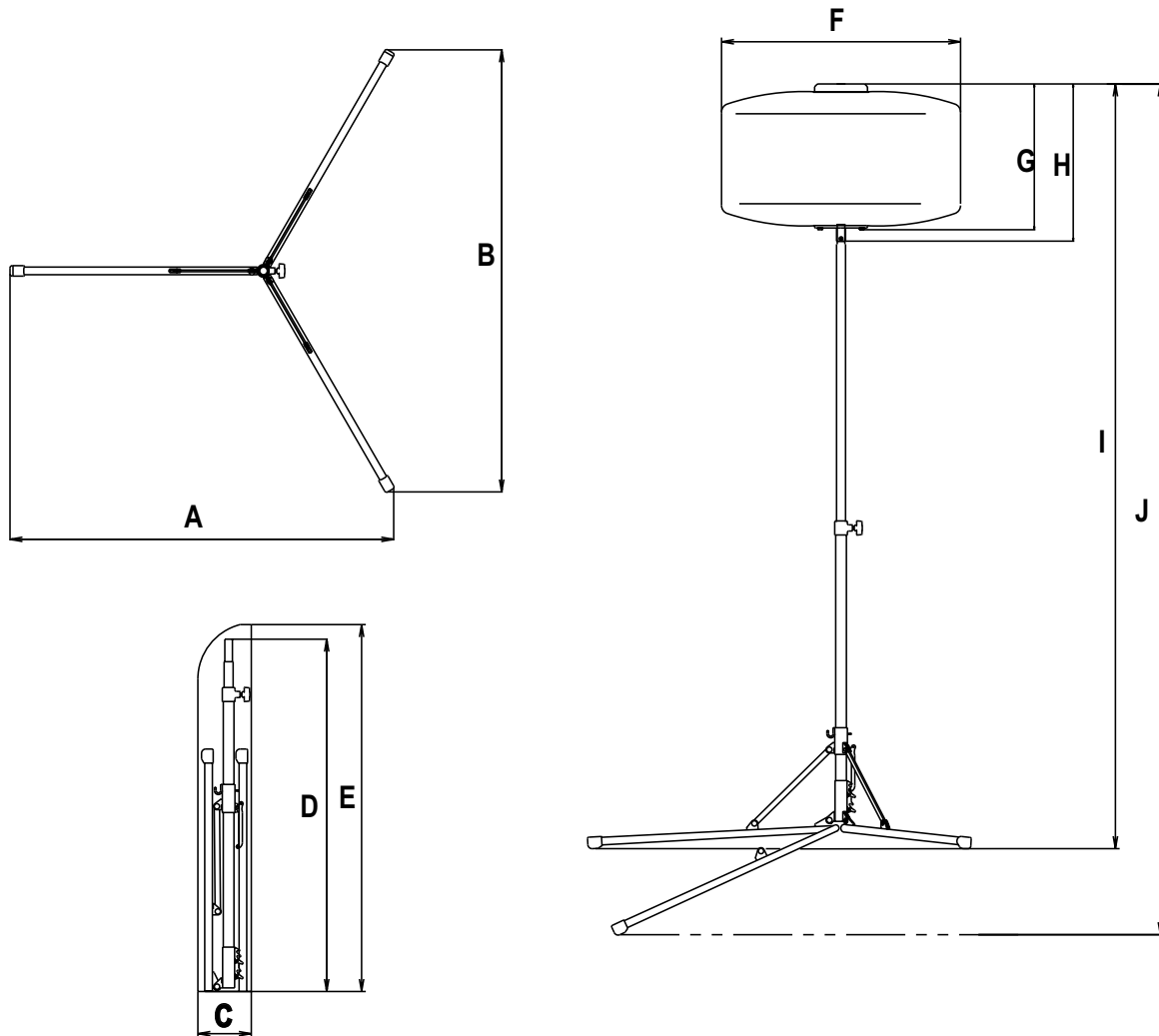
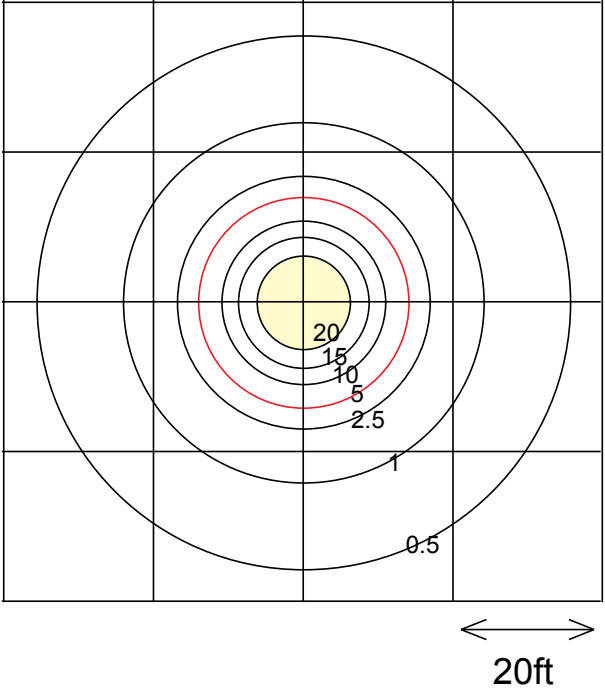


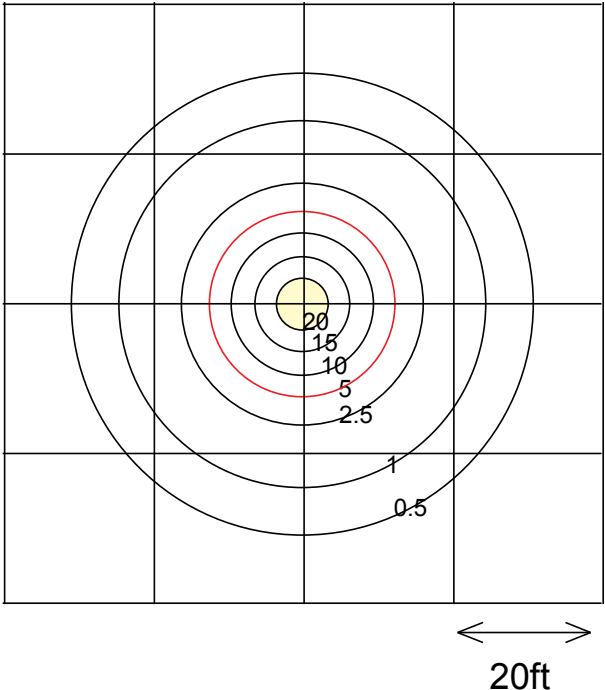
Figure 1. Dimensions (GB3LED)

Table 2. Dimensions			
Reference Letter	Dimension in. (mm.)	Reference Letter	Dimension in. (mm.)
A	Upper Position - 44.7 in. (1,135 mm.) Lower Position - 52.4 in. (1,330 mm.)	F	33.5 in. (850 mm.)
B	Upper Position - 52.2 in. (1,325 mm.) Lower Position - 62.0 in. (1,575 mm)	G	21.1 in. (535 mm.)
C	7.5 in. (190 mm.)	H	23.6 in. (600 mm.)
D	49.6 in. (1,260 mm.)	I	73.2 - 109.1 in. (1860 - 2770 mm.)
E	51.2 in. (1,300 mm.)	J	88.4 - 124.2 in. (2245 - 3155 mm.)

ILLUMINATION RANGE



tripod 1st Stage
Two stage mast



tripod 2nd Stage
Two stage mast

Figure 2. Illumination Range (Foot Candles)

GENERAL INFORMATION

The Multiquip GloBug GB3LED is a general purpose, portable, glare-free lighting systems Typical applications for these types of lighting systems include construction sites, emergency road crews and backyard parties.

LIGHTING

This GloBug lighting system is comprised of LED lamps in a shock-resistant, waterproof LED assembly. The LED assembly has an output of 38,000 lumens. The LEDs have a long operating life of up to 40,000 hours. The lighting system has a 3-stage dimming control (100 W, 200 W, 300 W).

SETUP

The GB3LED lighting system can be set up quickly and easily. Tripod legs can be deployed in one quick easy step and can be adjusted to two different heights.

In addition the unit is equipped with a gas-assist mast lowering system. This system allows the mast to be retracted slowly so that the mast will not fall rapidly when released. This feature reduces the amount of vibration or shock to the lamp.

TRANSPORT

The GB3LED lighting system can be transported (Figure 3) quite easily in two carrying cases.

For ease of service or transport, the lamp assembly is equipped with a quick-disconnect connector that allows the lamp fixture to be removed quickly. This feature is extremely useful during transport of the lighting system. It is always best to remove the lamp and pack it safely so it will not be damaged.

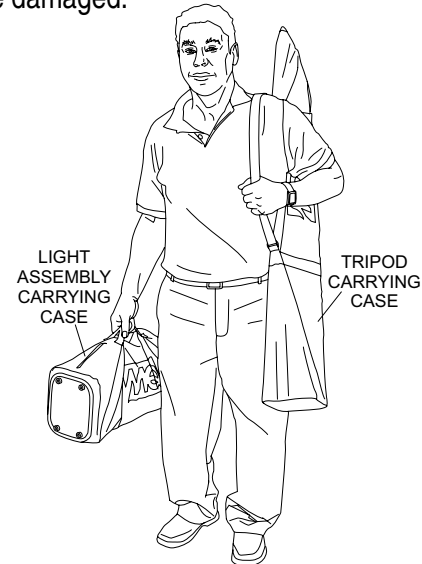


Figure 3. GB3LED Transporting

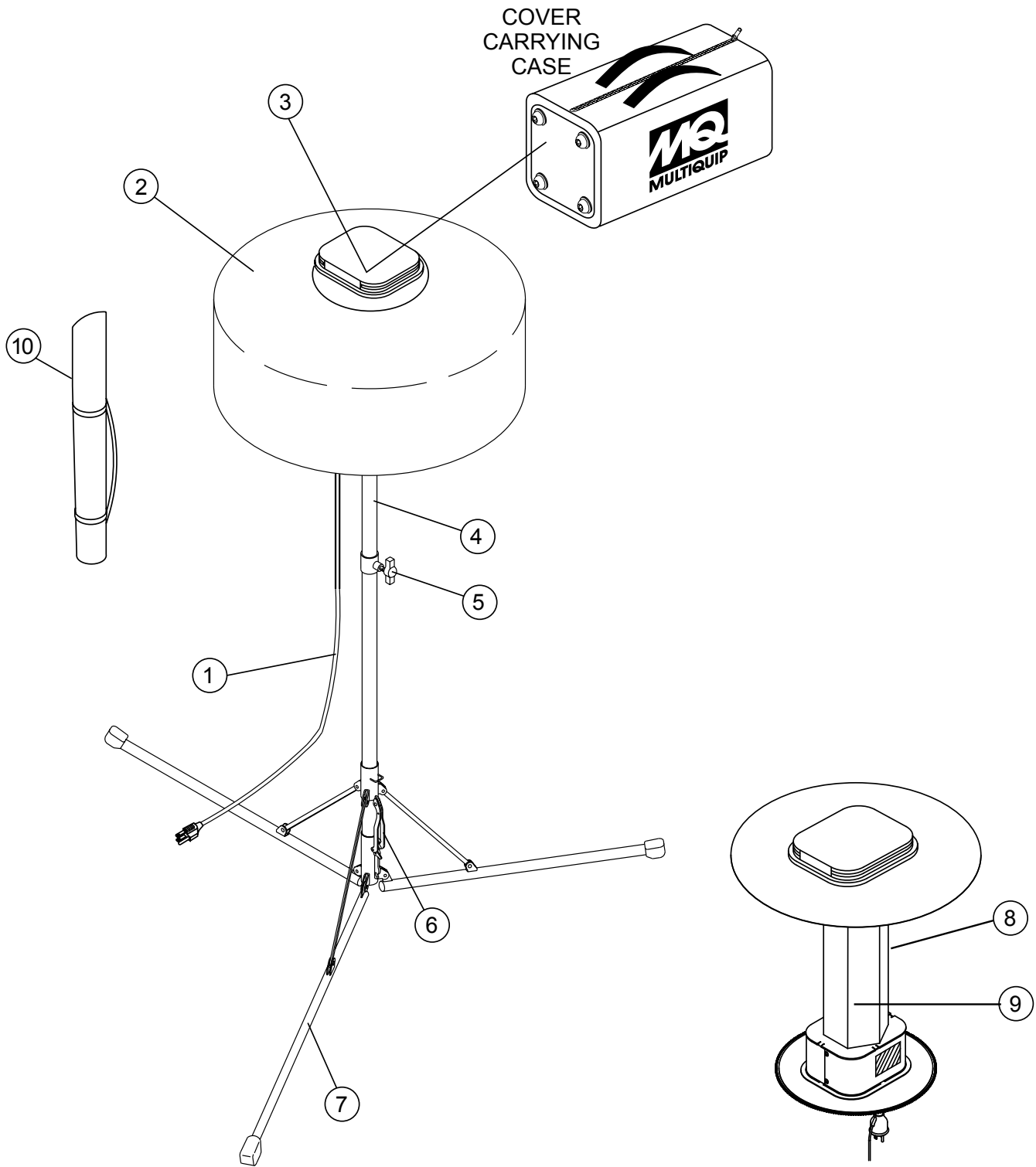


Figure 4. Major Components

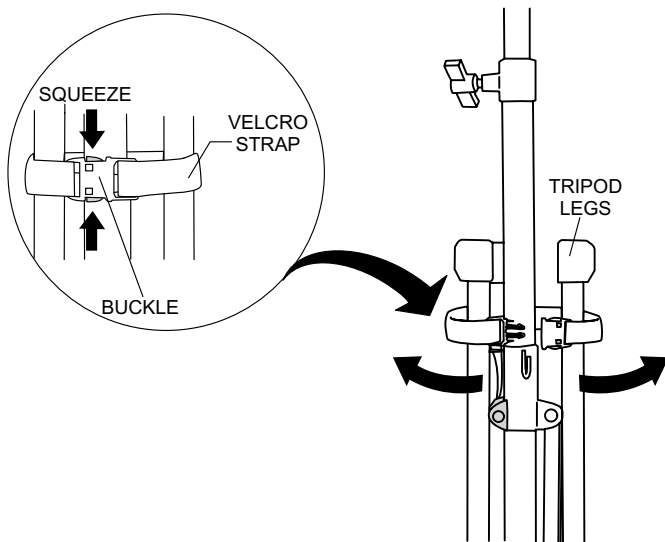
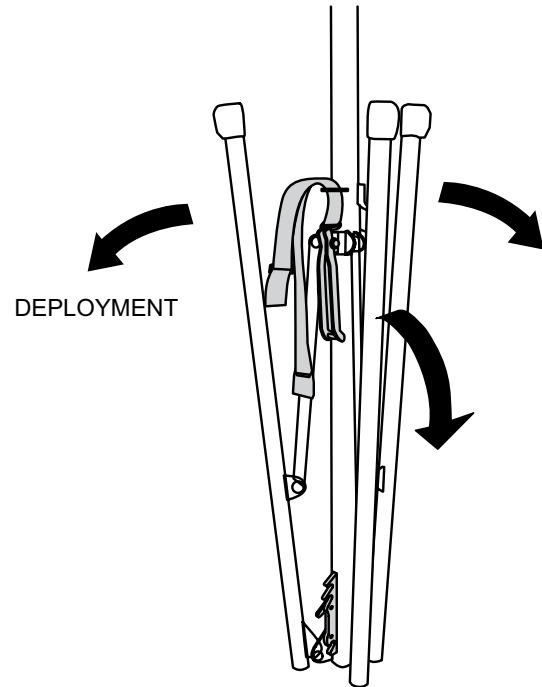
COMPONENTS

Figure 4 shows the location of the components for the GloBug lighting system. The function of each component is described below:

1. **AC Power Cable** — Connect this cable to a 120 VAC, 60 Hz power source.
2. **Balloon** — This balloon is made of heat-resistant polyester, with a diameter of 33 inches (850 mm).
3. **Balloon Cover/Carrying Case** — When zipped, this protective cover acts like a carrying case. The complete lamp assembly is enclosed within the cover-carrying case. Allow a sufficient amount of time for the lamp to cool down before covering balloon. The possibility exists of the balloon getting burned.
4. **Mast** — Two stage gas-assist mast. Maximum mast height is 12.5 ft. (3.81 meters). When raising the mast, always be on the lookout for overhead obstructions.
5. **T-Handle Bolt Lock** — Always tighten this lock to hold the lamp/balloon securely in place before raising mast.
6. **Weight Support Hook** — To add additional weight to the tripod and make the tripod more stable in windy conditions. Place a sandbag or similar weight onto this hook.
7. **Tripod** — Unbuckle velcro strap securing tripod legs (3), push down on any tripod leg until all tripod legs are fully deployed. To place tripod legs in the stowed position, pull upward on velcro strap while pushing down on tripod pole. Pull all legs upward and secure with velcro strap.
8. **Lamp Guard** — This guard (cage) protects the lamp from being hit by objects.
9. **Lamp** — Comprised of LED lamps. The lamps have three stages of brightness: 300W, 200W, and 100W.
10. **Tripod Carrying Case** — Use this case when transporting of the tripod is required. **ALWAYS** store tripod in this carrying case when not in use.

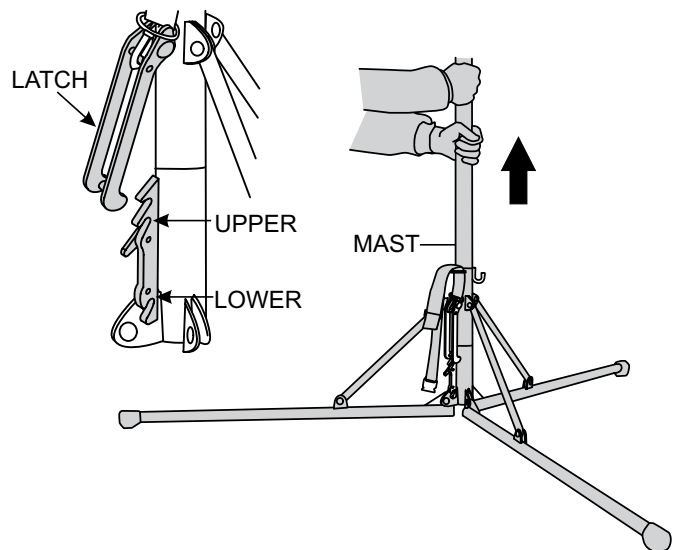
TRIPOD DEPLOYMENT

1. Place the tripod on a firm level surface so that it will not slide or turn over. Make sure there is enough space around the unit for the tripod legs to be deployed.
2. Remove tripod from its carrying case. The tripod legs are secured by a black velcro strap (Figure 5). Squeeze both tabs on each side of buckle to unlock strap and allow tripod legs (Figure 6) to be deployed.

**Figure 5. Velcro Strap (Open)****Figure 6. Tripod Deployment**

3. Next, pull upward on the mast and let the tripod legs deploy. Once the tripod legs have been fully deployed make sure the legs are locked by securing the latch.

The latch (Figure 7) has two positions, upper and lower. Placing the latch in the upper position will provide 1 ft. (305 mm) more height.

**Figure 7. Securing the Tripod**

BALLOON ASSEMBLY PLACEMENT

1. Place balloon assembly (Figure 8) onto mast and tighten Upper T-handle.

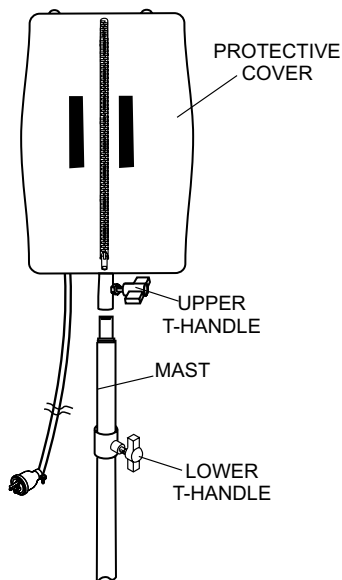


Figure 8. Light Assembly Placement

2. Unsnap the three buttons on the bottom of the balloon. Expose the balloon by pulling down on the velcro tab and unzip the protective cover as shown in Figure 9. Also remove the AC power cord at this time.

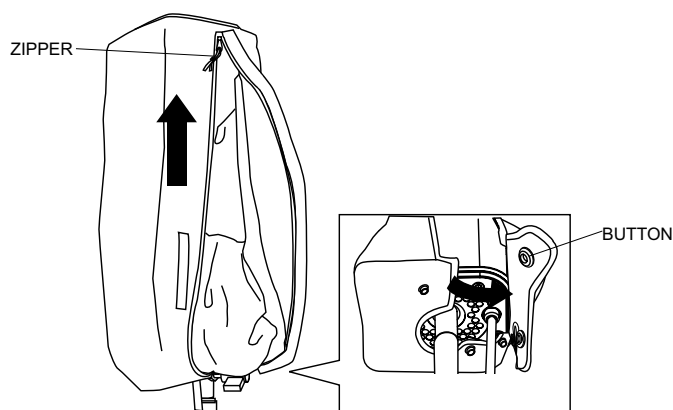


Figure 9. Removing Balloon/AC Power Cord

3. Next, fold the protective cover (Figure 10) into itself and zip.

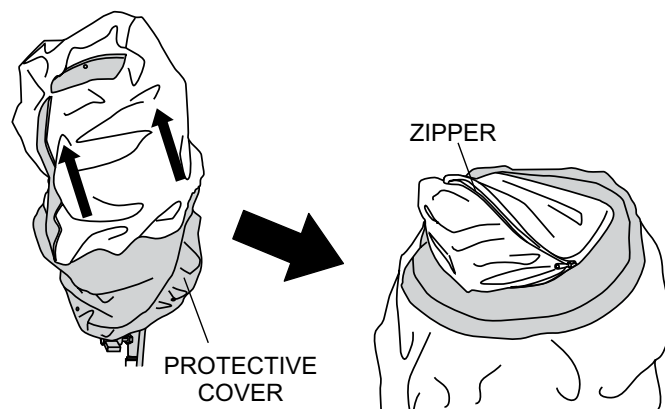


Figure 10. Folding Protective Cover

4. Attach the S-type hook (Figure 11) on the AC power cable onto the washer-eylet located on the bottom plate of the light assembly.

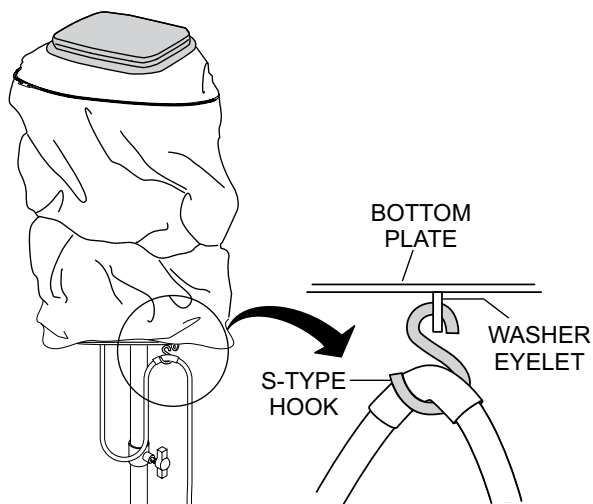
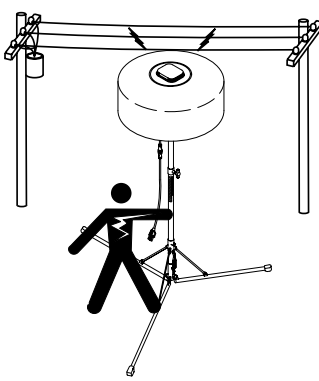


Figure 11. Securing Power Cord

RAISING THE MAST

Before raising the mast, make sure the upper T-handle bolt lock (Figure 12) is securely tightened. This will prevent the balloon/lamp assembly from falling off. In addition make sure that the lamp power cable is connected to the mating end of the 15 ft (4.5 meters) power source cable.

⚠ DANGER




ALWAYS make sure the area above the lighting system is open and clear of overhead power lines and other obstructions. The mast extends in excess of 13 ft. (4 meters) when an optional extension is used. Contact with overhead power lines or other obstructions could result in equipment damage, serious injury or death!

⚠ CAUTION

When raising mast, **ALWAYS** be on the lookout for overhead obstructions such as high voltage power lines. The possibility exists of electrocution, even death! if the lighting system comes in contact with high voltage power lines.

⚠ DANGER



When raising mast, **ALWAYS** be on the lookout for overhead obstructions such as high voltage power lines. The possibility exists of electrocution, even death! if the lighting system comes in contact with high voltage power lines.

5. To improve stability and to prevent tipping of the light unit, place sand bags or similar type weight over the tripod legs or weight hook as shown in Figure 12.

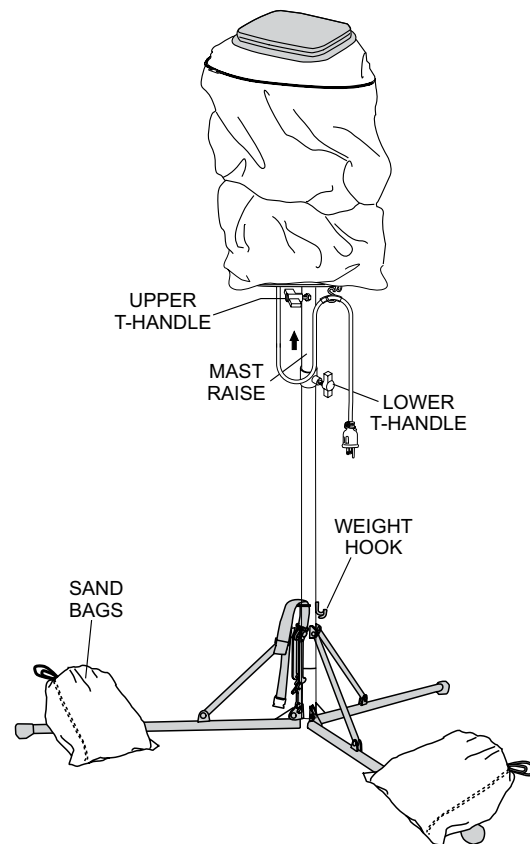


Figure 12. Sand Bags

6. Raise mast to desired height and tighten lower T-handle (Figure 12) securely.

APPLYING POWER

1. Connect the AC power cable to the 120 VAC receptacle on the generator used. See Figure 13.

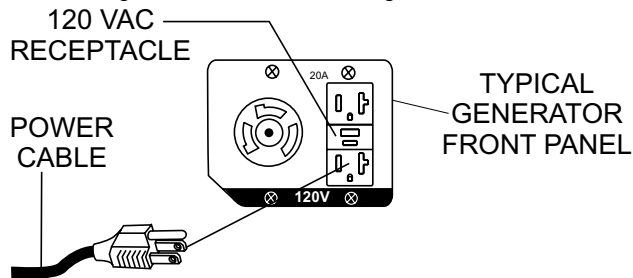


Figure 13. Connecting to Power Source

2. Start the generator as indicated in the generator manual.
3. Turn on the power of the generator. The balloon will start to inflate and the lamp will turn on. at 200 W.

DIMMING THE LAMP

1. Press the dimmer switch to control the brightness of the lamp (Figure 14). The lamp can be turned off or set to 100W, 200W, 300W. The corresponding LED will light red when selected (Figure 15).

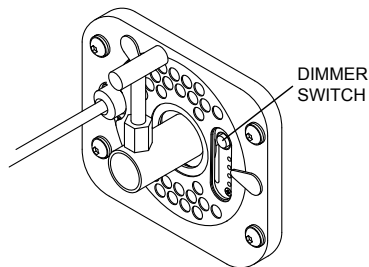


Figure 14. Dimmer Switch

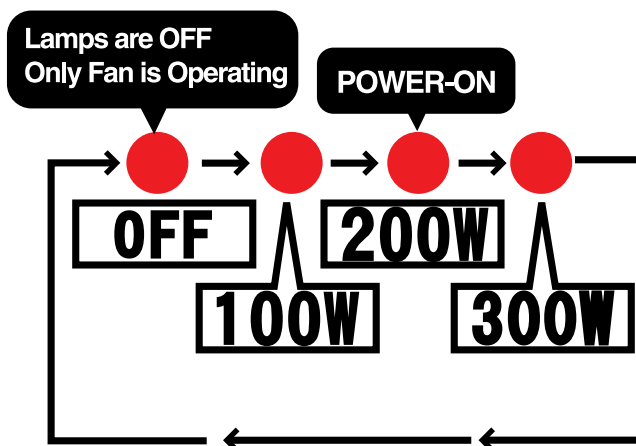


Figure 15. Brightness LED Indicators

2. Zip up the bottom of the balloon completely after use of the dimmer switch.

SILENT MODE

Noise coming from the unit during operation can be eliminated.

1. Press and hold the dimmer switch (Figure 14) for 2 seconds. The blue LED in the center of the switch will flash when in silent mode.
2. To switch back to normal mode, press and hold the dimmer switch for 3 seconds. The blue LED will stop flashing.

NOTICE

The brightness of the lamp can still be adjusted when in silent mode.

When unit is restarted, it will revert to normal mode even if silent mode was selected prior to shutdown.

SHUTDOWN

1. Turn off the power switch of the generator. The balloon should start to deflate and the lamp will turn off.
2. Disconnect the AC power cable from the generator.

STORAGE

1. Loosen the lower T-handle by turning handle counterclockwise (Figure 16). Push down on mast until mast is fully inserted into mast housing. Tighten T-handle fully.

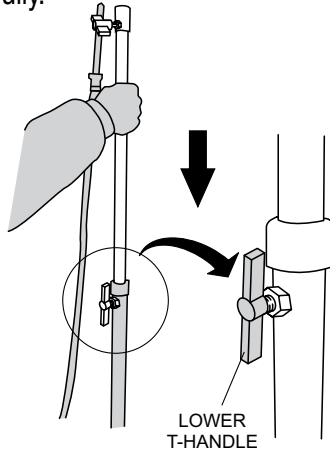


Figure 16. Lowering the Mast

2. Unhook the cable from the washer eyelet.
3. Unzip the zipper on the protective cover (Figure 20), and pull down cover over balloon/lamp assembly.

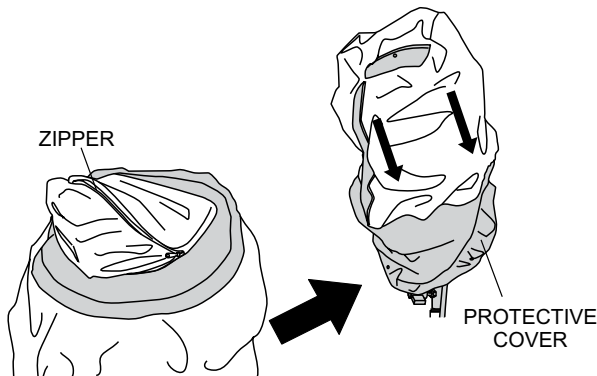


Figure 17. Unzipping the Protective Cover

4. Unhook lamp AC power cable from washer eyelet (Figure 11). Fully zip protective cover and fold velcro tab in place (Figure 18).

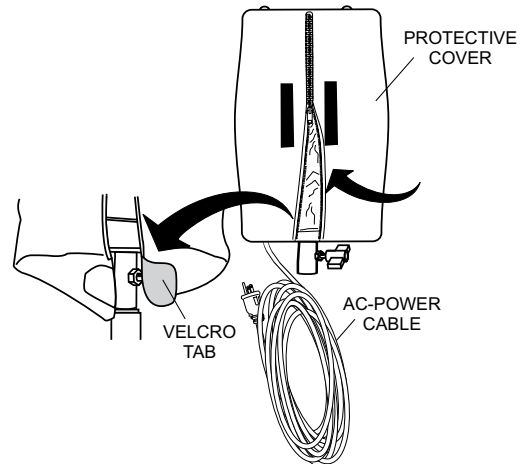


Figure 18. Zipping the Protective Cover

5. Loosen upper T-handle by turning counterclockwise and lift lamp assembly from mast.
6. Store lamp assembly enclosed with its protective cover (Figure 19) in a safe location where it will not be damaged.



Figure 19. Storing Lamp Assembly

OPERATION

7. To retract tripod legs (Figure 20) and place in the stow position, lift up on mast while pulling up on the velcro strap. Continue pulling upward on the mast until the tripod legs are fully retracted and are in the stow position.

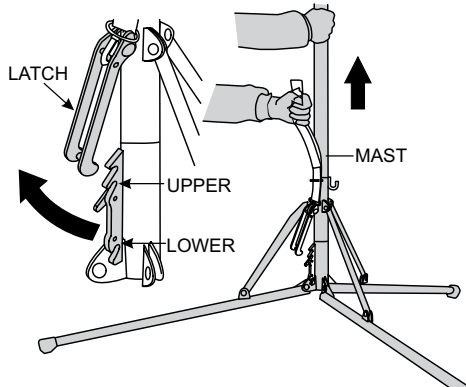


Figure 20. Retracting Tripod Legs

8. Once tripod legs are in the stow position, place velcro strap (Figure 21) around all three tripod legs. Secure tripod legs by inserting the male and female connector ends of the strap into each other.

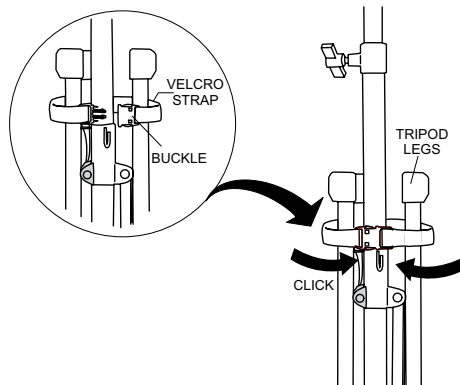


Figure 21. Velcro Strap (Closed)

9. Place tripod (Figure 22) inside protective carrying case.

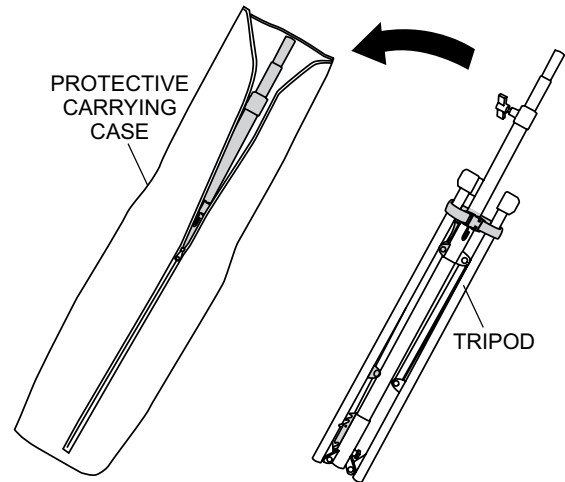


Figure 22. Carrying Case

REPLACING THE LAMP

NOTICE

Contact Multiquip Technical Support Department for assistance in replacing LED lamps.

REPLACING BALLOON ENVELOPE

1. Unzip the zipper (Figure 38) at the top and bottom of the balloon envelope (cover).

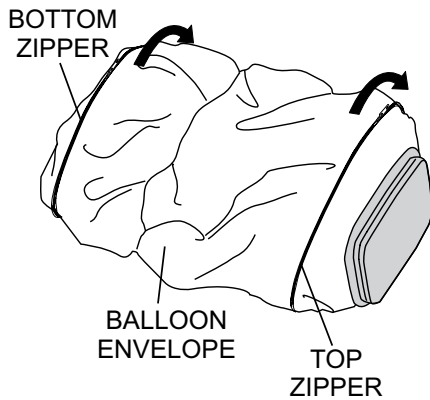


Figure 23. Unzipping the Balloon Envelope

2. Slide the old or worn balloon envelope (Figure 24) over the top of the lamp guard assembly.

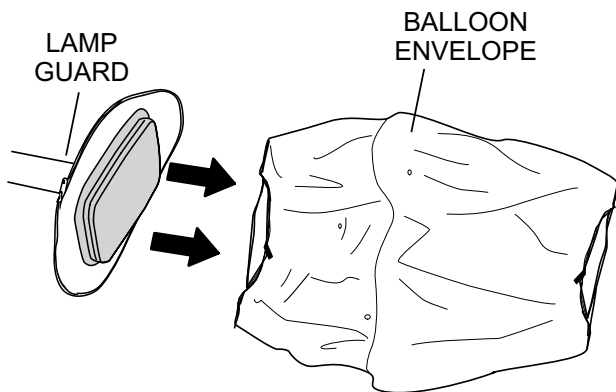


Figure 24. Removing the Balloon Envelope

3. Slide the new balloon (Figure 25) envelope over the top of the lamp guard assembly.

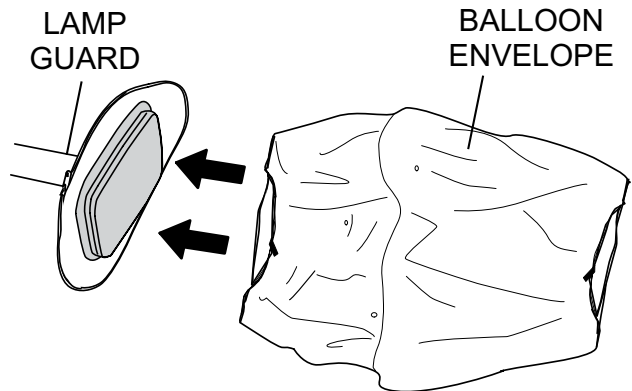


Figure 25. Installing New Balloon Envelope

4. Zip up the zipper (Figure 26) at the top and bottom of the balloon envelope (cover).

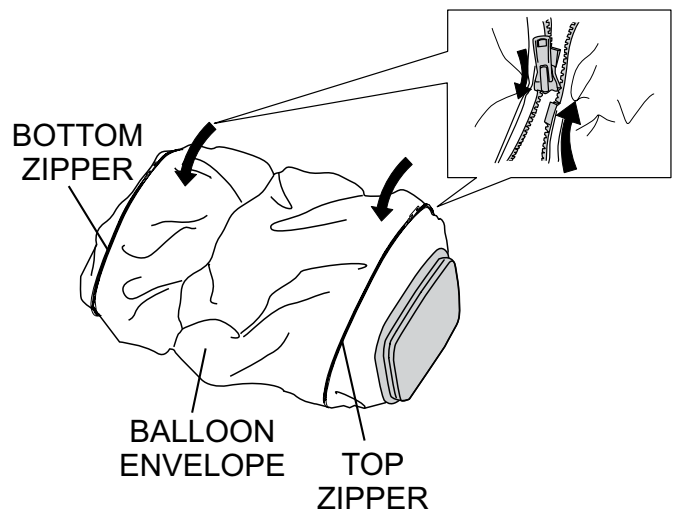


Figure 26. Zipping the Balloon Envelope

FILTER REPLACEMENT

1. Remove the balloon as described in the STORAGE section.
2. Turn the balloon/lamp assembly upside down to access the filter. See Figure 27.

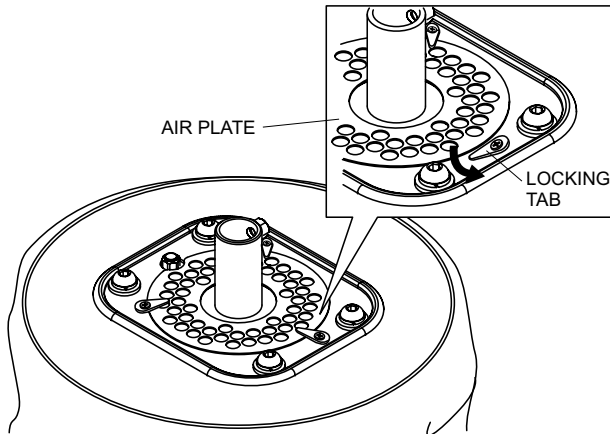


Figure 27. Accessing Filter

3. Turn the three locking tabs outwards to release the air plate. See Figure 27.
4. Remove the air plate and filter. See Figure 28.

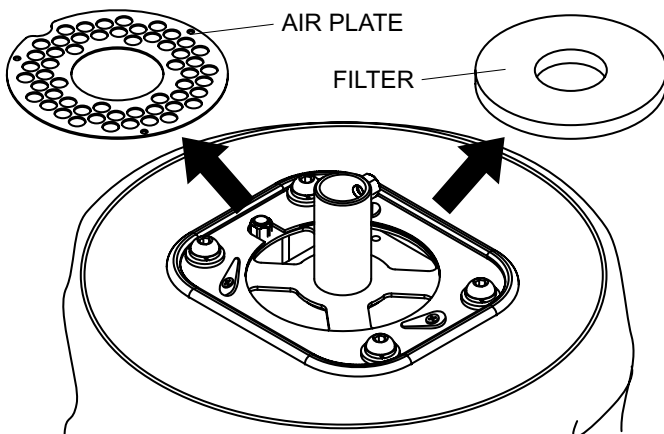


Figure 28. Filter Removal

5. Install a new filter and reinstall the air plate.

6. Turn the three locking tabs inwards to lock the air plate in place. See Figure 29.

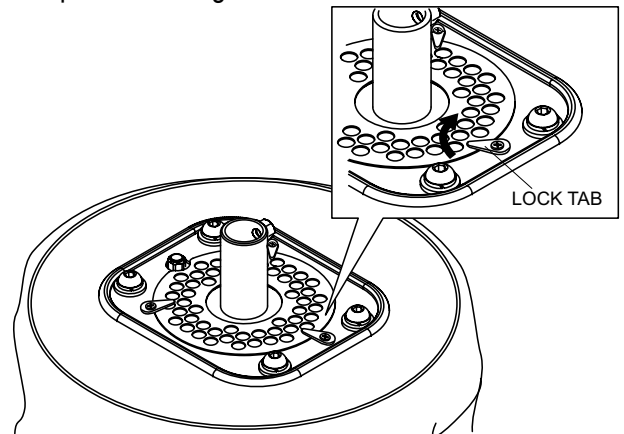


Figure 29. Locking Air Plate

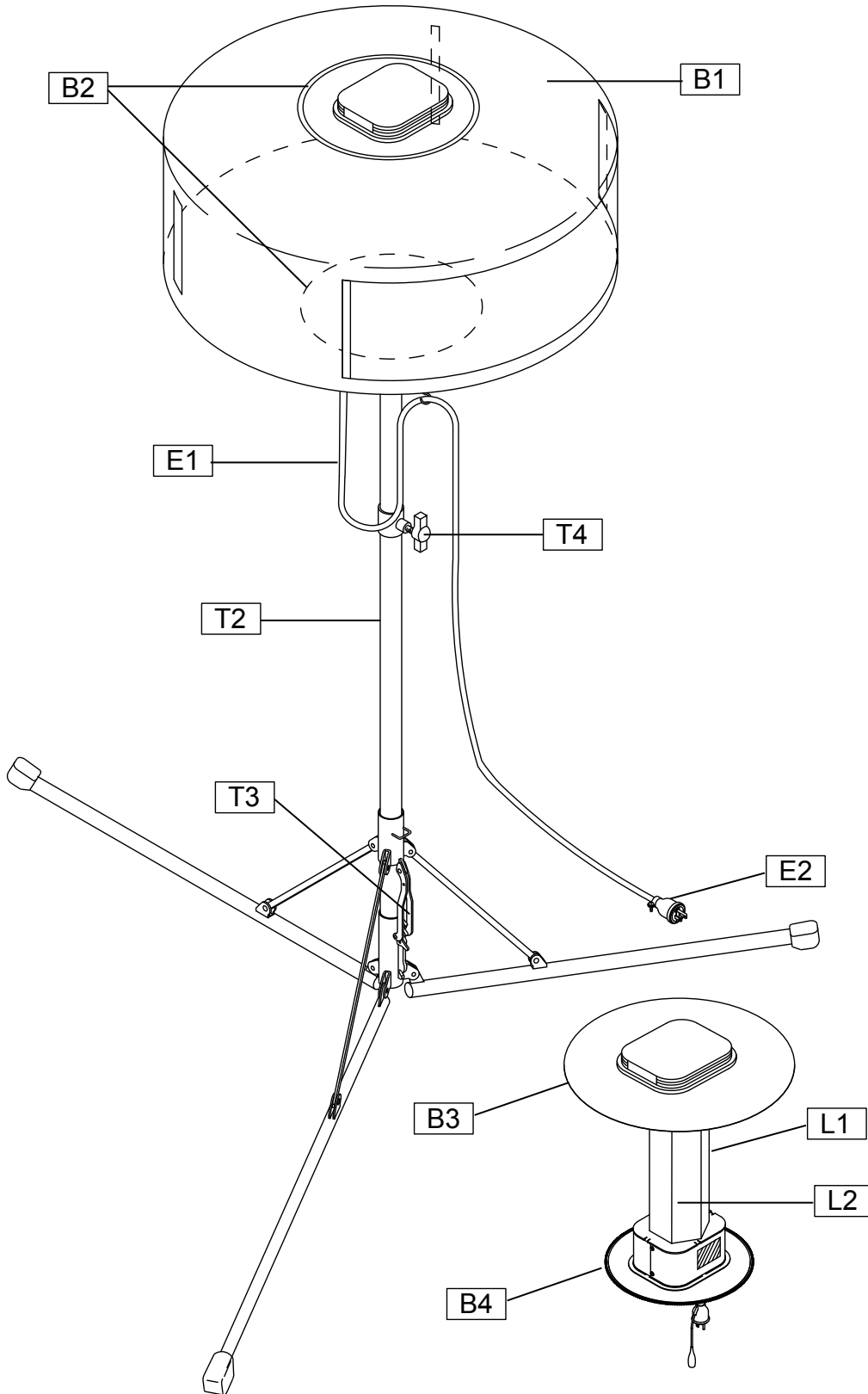


Figure 30. Maintenance Check Points

MAINTENANCE

For a prolonged life cycle an extended quality follow the recommended GloBug lighting system service guidelines as referenced in Figure 30 and Table 3.

Table 3. Periodic Check and Maintenance					
Figure		Part	Check Item	Solution	
Lamp	L1	Lamp Guard	Dirty, rusty or damaged?	Clean/Replace	▲
	L2	LED Lamp	Defective or broken?	Replace	❖
Balloon	B1	Balloon (Envelope)	Ripped or dirty?	Replace	❖
	B2	Zipper	Broken?	Replace	❖
	B3	Fan Motor (Blower)	Not working properly?	Replace	●
	B4	T-Handle bolt (Balloon)	Broken?	Replace	❖
Electric	E1	Power Cable	Defective or worn cable?	Replace.	❖
	E2	Plug	Damaged?	Replace	■
Tripod	T1	Tripod	Damaged or not working properly?	Replace	■
	T2	Mast	Damaged or not working properly?	Replace	■
	T3	Knob	Damaged?	Replace	❖
	T4	T-Handle bolt (Mast)	Damaged?	Replace	❖
❖ - Daily Check ■ - Every 20 Hours ● -Every 100 Hours ▲ - Every 500 Hours					

WIRING DIAGRAM

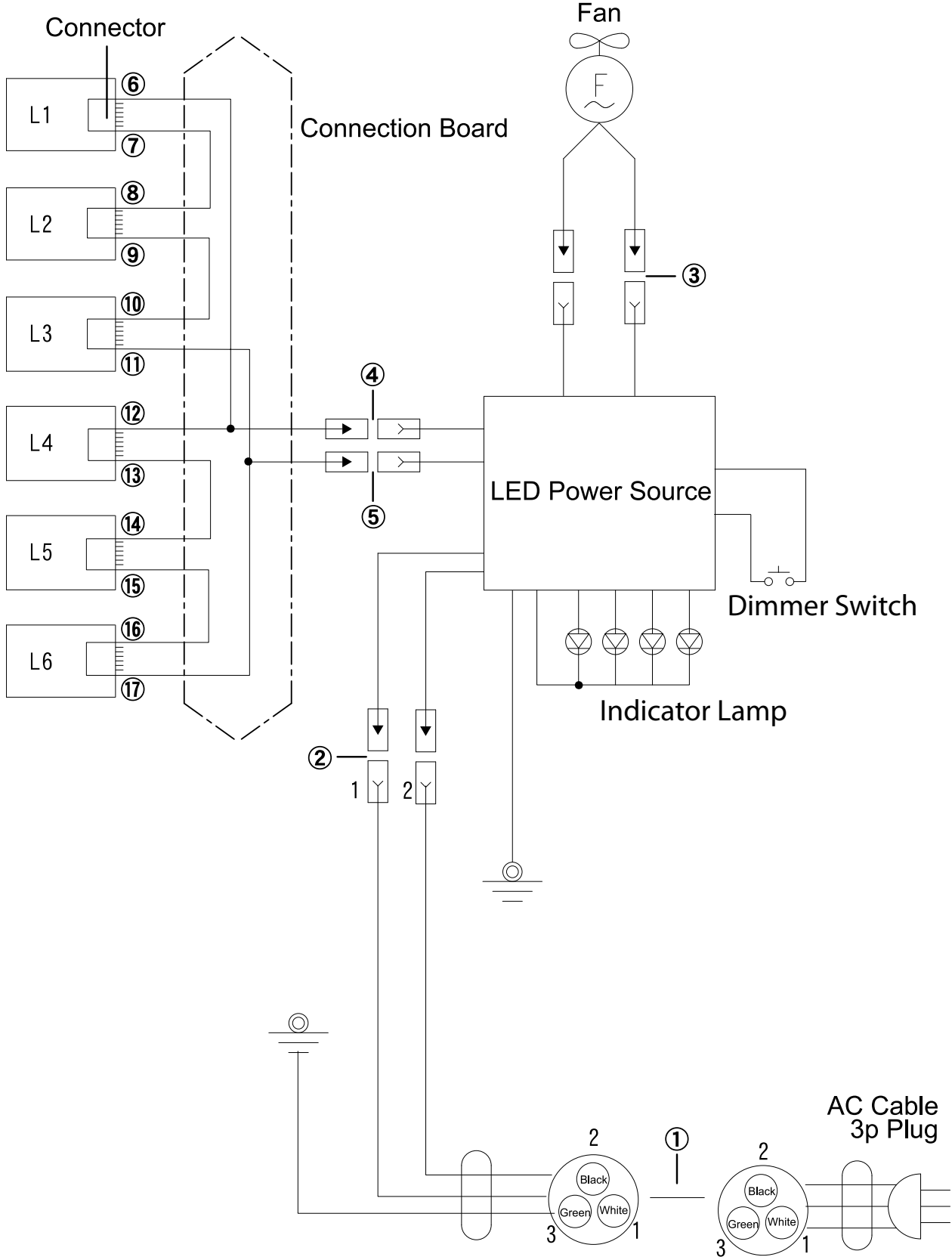


Figure 31. Electrical Wiring Diagram

TROUBLESHOOTING

Troubleshooting		
Symptom	Possible Problem	Solution
Lamp does not light.	Is plug connected?	Plug in correctly.
	Is generator's main switch turned off?	Turn on switch.
	Are any wire cables disconnected?	Connect disconnected wire cable.
	Are any other electric appliances (other than light tower) plugged into power source?	Unplug all other appliances.
	Is generator voltage not normal (standby voltage - 100 ± 5 V)?	Use proper voltage.
Balloon is not inflating.	Is zipper unzipped?	Zip balloon completely.
	Is fan motor not properly operating?	Inspect and repair fan motor if necessary.
	Is balloon torn?	Repair balloon.

EXPLANATION OF CODE IN REMARKS COLUMN

The following section explains the different symbols and remarks used in the Parts section of this manual. Use the help numbers found on the back page of the manual if there are any questions.

NOTICE

The contents and part numbers listed in the parts section are subject to change **without notice**. Multiquip does not guarantee the availability of the parts listed.

SAMPLE PARTS LIST

NO.	PART NO.	PART NAME	QTY.	REMARKS
1	12345	BOLT.....	1	INCLUDES ITEMS W/%
2%		WASHER, 1/4 IN.....		NOT SOLD SEPARATELY
2%	12347	WASHER, 3/8 IN....	1	MQ-45T ONLY
3	12348	HOSE	A/R	MAKE LOCALLY
4	12349	BEARING	1	S/N 2345B AND ABOVE

NO. Column

Unique Symbols — All items with same unique symbol

(@, #, +, %, or >) in the number column belong to the same assembly or kit, which is indicated by a note in the “Remarks” column.

Duplicate Item Numbers — Duplicate numbers indicate multiple part numbers, which are in effect for the same general item, such as different size saw blade guards in use or a part that has been updated on newer versions of the same machine.

NOTICE

When ordering a part that has more than one item number listed, check the remarks column for help in determining the proper part to order.

PART NO. Column

Numbers Used — Part numbers can be indicated by a number, a blank entry, or TBD.

TBD (To Be Determined) is generally used to show a part that has not been assigned a formal part number at the time of publication.

A blank entry generally indicates that the item is not sold separately or is not sold by Multiquip. Other entries will be clarified in the “Remarks” Column.

QTY. Column

Numbers Used — Item quantity can be indicated by a number, a blank entry, or A/R.

A/R (As Required) is generally used for hoses or other parts that are sold in bulk and cut to length.

A blank entry generally indicates that the item is not sold separately. Other entries will be clarified in the “Remarks” Column.

REMARKS Column

Some of the most common notes found in the “Remarks” Column are listed below. Other additional notes needed to describe the item can also be shown.

Assembly/Kit — All items on the parts list with the same unique symbol will be included when this item is purchased.

Indicated by:

“INCLUDES ITEMS W/(unique symbol)”

Serial Number Break — Used to list an effective serial number range where a particular part is used.

Indicated by:

“S/N XXXXX AND BELOW”

“S/N XXXX AND ABOVE”

“S/N XXXX TO S/N XXX”

Specific Model Number Use — Indicates that the part is used only with the specific model number or model number variant listed. It can also be used to show a part is NOT used on a specific model or model number variant.

Indicated by:

“XXXXX ONLY”

“NOT USED ON XXXX”

“Make/Obtain Locally” — Indicates that the part can be purchased at any hardware shop or made out of available items. Examples include battery cables, shims, and certain washers and nuts.

“Not Sold Separately” — Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

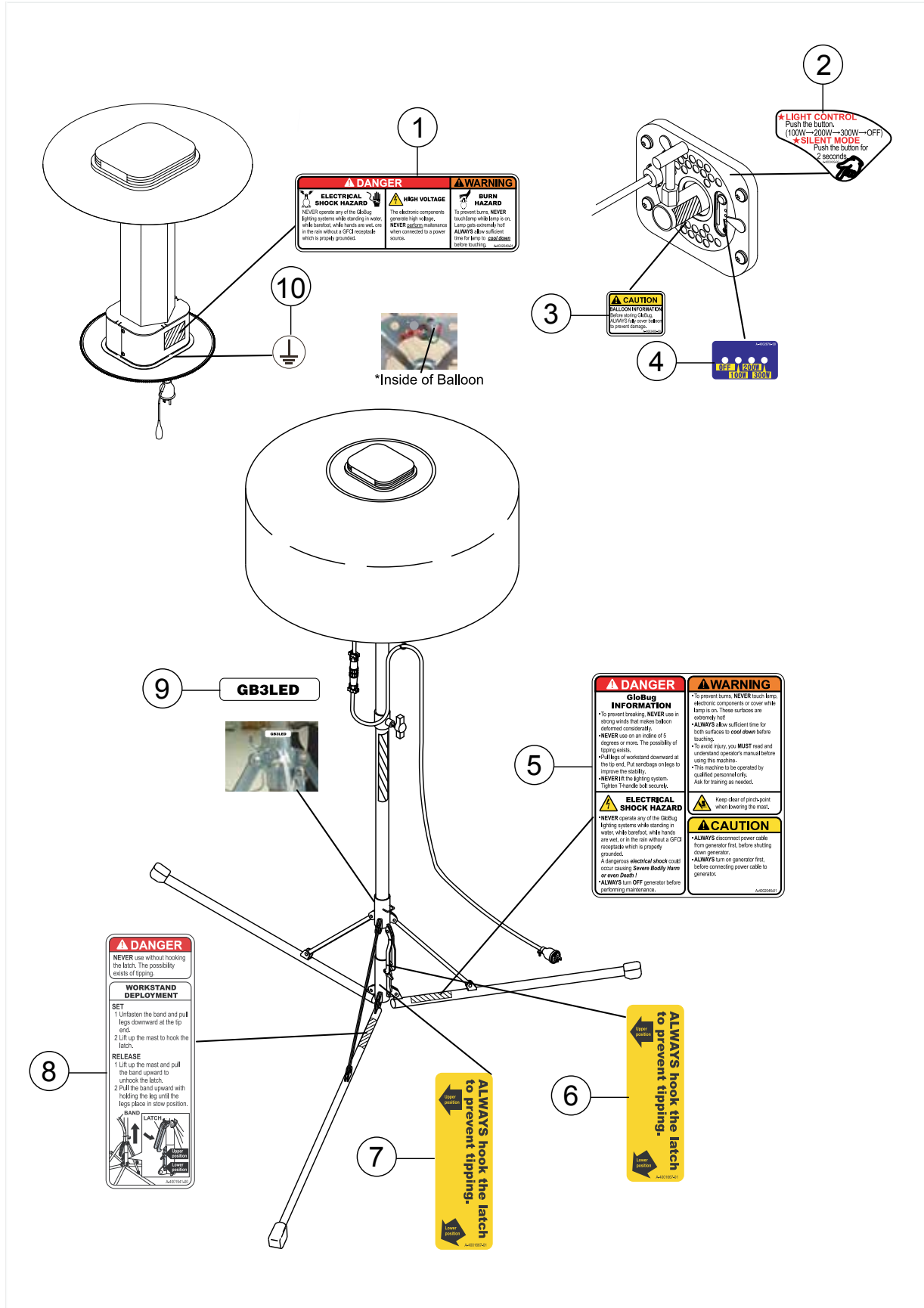
SUGGESTED SPARE PARTS

GLOBUG LIGHTING SYSTEM

1 TO 3 UNITS

Qty.	P/N	Description
3.....	A300260400	LED HEATSINK ASSY
2.....	A100015901	BALLOON CLOTH

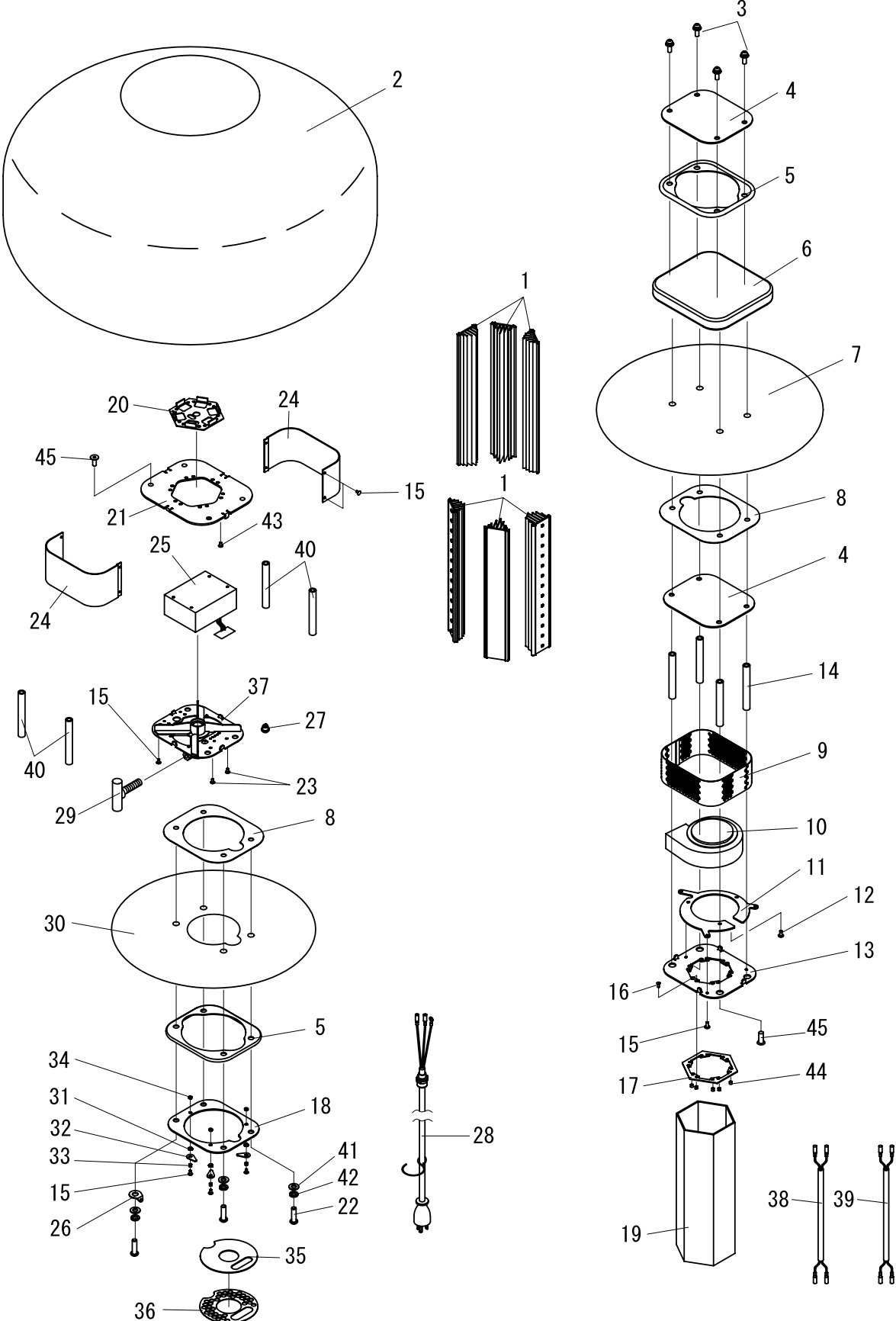
NAMEPLATE AND DECALS



NAMEPLATE AND DECALS

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A400204801	DECAL; ELECTRIC SHOCK, HIGH VOLTAGE, BURN HAZ.	1	
2	A400340900	DECAL; LIGHT CONTROL	1	
3	A400340800	DECAL; DANGER, BALLOON INFORMATION	1	
4	A400287600	DECAL; DIMMER SWITCH LEDS	1	
5	A400204601	DECAL; GLOBUG INFORMATION	1	
6	A400166701	DECAL; HOOK LATCH	1	
7	A400166701	DECAL; HOOK LATCH	1	
8	A400194100	DECAL; DANGER, WORKSTAND DEPLOYMENT	1	
9	A400345200	DECAL; GB3LED	1	
10	A400084300	DECAL; GROUND	1	

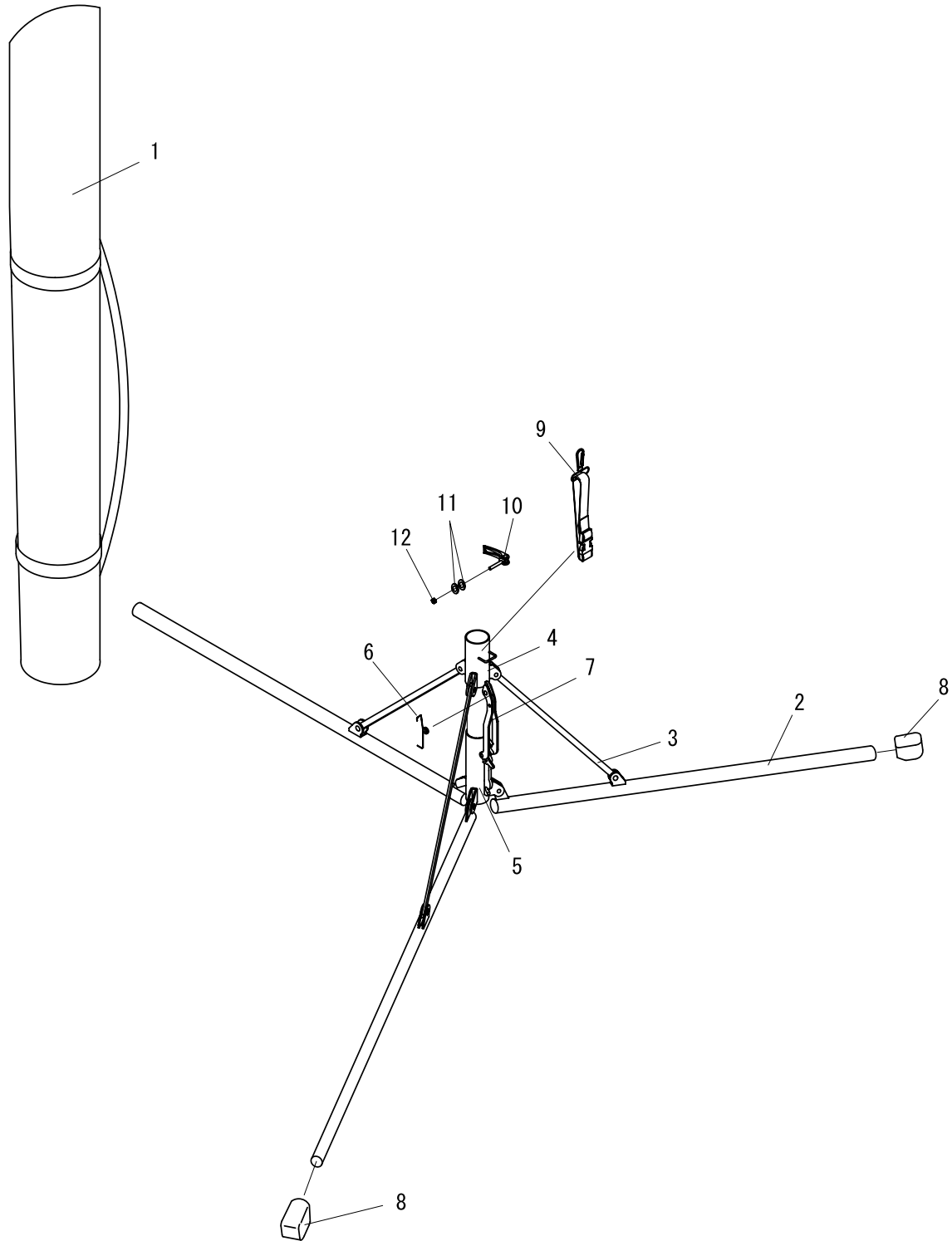
ELECTRICAL ASSY.



ELECTRICAL ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A300260400	LED HEATSINK ASSY	6	
2	A100015901	BALLOON CLOTH CP	1	
3	0014808025	BUTTON SCREW (M8x25)	4	
4	A300257000	PLATE (TOP)	2	
5	A300162400	SEAL (PACKING)	2	
6	A100104600	BALLOON COVER (RED-LED) CP	1	
7	A300160301	SHEET (TOP) CP	1	
8	2214500230	SEAL (FLAT)	2	
9	A300238101	VESSEL (TOP)	1	
10	A300280600	FAN MOTOR ASSY	1	
11	A300281401	PLATE (FAN)	1	
12	0023204006	SCREW (M4x6)	3	
13	A300247701	PLATE (LAMP) TOP	1	
14	A400299600	SPACER (TOP)	4	
15	0024304008	SCREW (M4x8)	15	
16	0023204012	COUNTERSUNK SCREW (M4x12)	12	
17	A400295300	STOPPER (GUARD)	1	
18	A300256700	PLATE (BOTTOM)	1	
19	A300243602	GUARD	1	
20	A300260100	ADAPTER BOARD CP	1	
21	A300249801	PLATE (LAMP)	1	
22	0014708035	BUTTON SCREW (M8x35)	4	
23	0023203005	SCREW (M3x5)	2	
24	A300180600	VESSEL 2	2	
25	A300281200	LED POWER SUPPLY CP	1	
26	2204510110	WASHER	1	
27	A400329900	DIMMING SWITCH CP	1	
28	A300181900	POWER CABLE CP (US)	1	
29	A400209801	KNOB KSM-50-M10x30	1	
30	A300148200	SHEET (BOTTOM)	1	
31	E000119300	WASHER (M4)	3	
32	A400030700	STOPPER (FILTER)	3	
33	E000077500	SPACER	3	
34	0033104000	NUT (M4)	5	
35	A400273800	FILTER	1	
36	A300244600	PLATE (AIR)	1	
37	A200105100	FRANGE CP (LED)	1	
38	A400305000	WIRE (FAN) CP	1	
39	A400331100	WIRE (FAN-VC) CP	1	
40	A400281700	SPACER (BOTTOM)	4	
41	0043108000	WASHER (M8)	4	
42	030208200	SPRING WASHER (M8)	4.....	REPLACES 0043208000
43	0023304015	SCREW & WASHER (M4x12)	12	
44	E000122300	SPACER	12	
45	E000119600	BOLT (M8x20)	8	

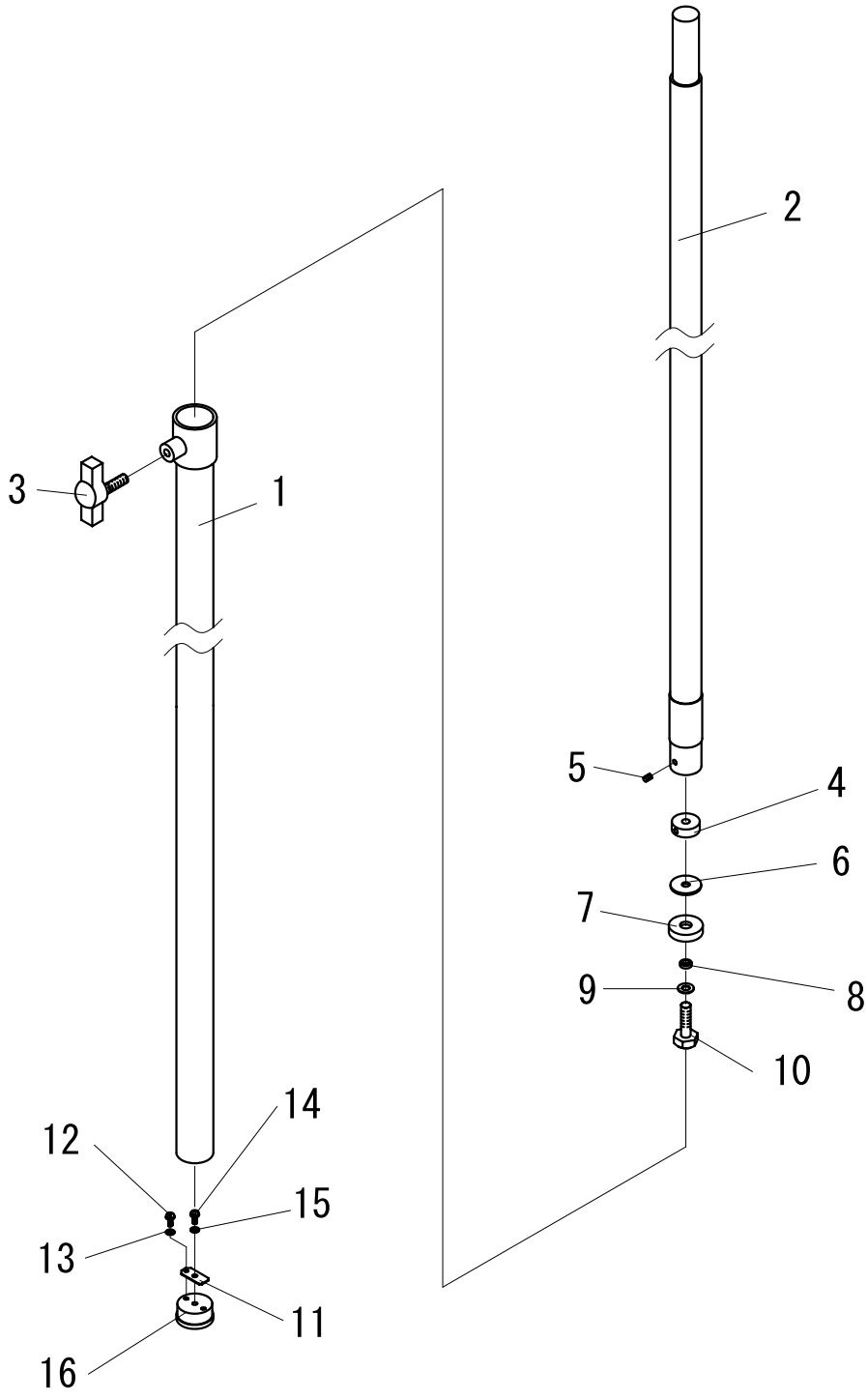
TRIPOD ASSY.



TRIPOD ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A300131500	TRIPOD CASE	1	
2	A300171601	PIPE (BASE)	3	
3	A300113103	STAY	3	
4	A300199600	BASE PIPE 2	1	
5	A300199500	BASE PIPE 1	1	
6	A400205901	SPRING (SHACKLE)	1	
7	A300108700	SHACKLE CP	1	
8	1641000330	RUBBER FOOT	3	
9	A300106500	TRIPOD BAND	1	
10	2212780310	LEVER	1	
11	0043108000	WASHER (M8)	2	
12	0033206000	SELFLOCK NUT (M6)	1	

MAST ASSY.



MAST ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A300200300	FIRST MAST (φ45*1050) ASSY	1	
2	A300200600	SECOND MAST (φ38*1200) ASSY	1	
3	A400187601	KNOB	1	
4	A400229900	BOTTOM PLATE (φ33.6)	1	
5	0024705008	SET SCREW (M5x8)	2	
6	A400092801	WASHER (SECOND MAST)	1	
7	A400200700	RUBBER (MAST)	1	
8	A400110200	WASHER (MAST) 1	1	
9	A400200500	WASHER (M8)	1	
10	0013108030	BOLT (M8x30)	1	
11	A400112700	LEAF VALVE	1	
12	0023104008	SCREW (M4x8)	1	
13	0043104000	WASHER (M4)	1	
14	0023105008	SCREW (M5x8)	1	
15	0043105000	WASHER (M5)	1	
16	A400199700	PLUG	1	

TERMS AND CONDITIONS OF SALE — PARTS

PAYMENT TERMS

Terms of payment for parts are net 30 days.

FREIGHT POLICY

All parts orders will be shipped collect or prepaid with the charges added to the invoice. All shipments are F.O.B. point of origin. Multiquip's responsibility ceases when a signed manifest has been obtained from the carrier, and any claim for shortage or damage must be settled between the consignee and the carrier.

MINIMUM ORDER

The minimum charge for orders from Multiquip is \$15.00 net. Customers will be asked for instructions regarding handling of orders not meeting this requirement.

RETURNED GOODS POLICY

Return shipments will be accepted and credit will be allowed, subject to the following provisions:

1. A Returned Material Authorization must be approved by Multiquip prior to shipment.
2. To obtain a Return Material Authorization, a list must be provided to Multiquip Parts Sales that defines item numbers, quantities, and descriptions of the items to be returned.
 - a. The parts numbers and descriptions must match the current parts price list.
 - b. The list must be typed or computer generated.
 - c. The list must state the reason(s) for the return.
 - d. The list must reference the sales order(s) or invoice(s) under which the items were originally purchased.
 - e. The list must include the name and phone number of the person requesting the RMA.
3. A copy of the Return Material Authorization must accompany the return shipment.
4. Freight is at the sender's expense. All parts must be returned freight prepaid to Multiquip's designated receiving point.

5. Parts must be in new and resalable condition, in the original Multiquip package (if any), and with Multiquip part numbers clearly marked.
6. The following items are not returnable:
 - a. Obsolete parts. (If an item is in the price book and shows as being replaced by another item, it is obsolete.)
 - b. Any parts with a limited shelf life (such as gaskets, seals, "O" rings, and other rubber parts) that were purchased more than six months prior to the return date.
 - c. Any line item with an extended dealer net price of less than \$5.00.
 - d. Special order items.
 - e. Electrical components.
 - f. Paint, chemicals, and lubricants.
 - g. Decals and paper products.
 - h. Items purchased in kits.
7. The sender will be notified of any material received that is not acceptable.
8. Such material will be held for five working days from notification, pending instructions. If a reply is not received within five days, the material will be returned to the sender at his expense.
9. Credit on returned parts will be issued at dealer net price at time of the original purchase, less a 15% restocking charge.
10. In cases where an item is accepted, for which the original purchase document can not be determined, the price will be based on the list price that was effective twelve months prior to the RMA date.
11. Credit issued will be applied to future purchases only.

PRICING AND REBATES

Prices are subject to change without prior notice. Price changes are effective on a specific date and all orders received on or after that date will be billed at the revised price. Rebates for price declines and added charges for price increases will not be made for stock on hand at the time of any price change.

Multiquip reserves the right to quote and sell direct to Government agencies, and to Original Equipment Manufacturer accounts who use our products as integral parts of their own products.

SPECIAL EXPEDITING SERVICE

A \$35.00 surcharge will be added to the invoice for special handling including bus shipments, insured parcel post or in cases where Multiquip must personally deliver the parts to the carrier.

LIMITATIONS OF SELLER'S LIABILITY

Multiquip shall not be liable hereunder for damages in excess of the purchase price of the item with respect to which damages are claimed, and in no event shall Multiquip be liable for loss of profit or good will or for any other special, consequential or incidental damages.

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Effective: February 22, 2006

OPERATION AND PARTS MANUAL

HERE'S HOW TO GET HELP

PLEASE HAVE THE MODEL AND SERIAL
NUMBER ON-HAND WHEN CALLING

UNITED STATES

Multiquip Corporate Office

18910 Wilmington Ave. Tel. (800) 421-1244
Carson, CA 90746 Fax (310) 537-3927
Contact: mq@multiquip.com

Service Department

800-421-1244 Fax: 310-537-4259
310-537-3700

Technical Assistance

800-478-1244 Fax: 310-943-2238

MQ Parts Department

800-427-1244 Fax: 800-672-7877
310-537-3700 Fax: 310-637-3284

Warranty Department

800-421-1244 Fax: 310-943-2249
310-537-3700

CANADA

Multiquip

4110 Industriel Boul. Tel: (450) 625-2244
Laval, Quebec, Canada H7L 6V3 Tel: (877) 963-4411
Contact: jmartin@multiquip.com Fax: (450) 625-8664

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