

OPERATION AND PARTS MANUAL



GloBug 4-Spot MODEL GB43SC LIGHTING SYSTEM (FOR USE WITH MQ SERIES GENERATORS)

Revision #3 (12/15/08)

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publication, visit our website at:
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THIS MANUAL MUST ACCOMPANY THE EQUIPMENT AT ALL TIMES.



WARNING



CALIFORNIA — Proposition 65 Warning

Engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

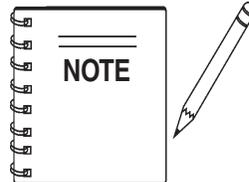
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MQ GLOBUG 4-SPOT LIGHTING SYSTEM

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Specification and part number are subject to change without notice.

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



Order via Internet (Dealers Only):

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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:

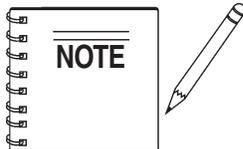
Contact your local Multiquip Dealer for parts or call 800-427-1244 for help in locating a dealer near you.



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

When ordering parts, please supply:

- | | |
|--|--|
| <ul style="list-style-type: none"> <input type="checkbox"/> Dealer Account Number <input type="checkbox"/> Dealer Name and Address <input type="checkbox"/> Shipping Address (if different than billing address) <input type="checkbox"/> Return Fax Number <input type="checkbox"/> Applicable Model Number <input type="checkbox"/> Quantity, Part Number and Description of Each Part | <ul style="list-style-type: none"> <input type="checkbox"/> Specify Preferred Method of Shipment: <ul style="list-style-type: none"> <input checked="" type="checkbox"/> UPS/Fed Ex <input checked="" type="checkbox"/> DHL <input type="checkbox"/> Priority One <input checked="" type="checkbox"/> Truck <input type="checkbox"/> Ground <input type="checkbox"/> Next Day <input type="checkbox"/> Second/Third Day |
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All orders are treated as *Standard Orders* and will ship the same day if received prior to 3PM PST.

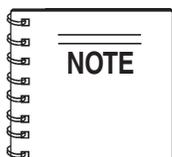
WE ACCEPT ALL MAJOR CREDIT CARDS!



GLOBUG 4-SPOT — SAFETY MESSAGE ALERT SYMBOLS

FOR YOUR SAFETY AND THE SAFETY OF OTHERS!

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.



This Owner's Manual has been developed to provide complete instructions for the safe and efficient operation of the **MQ GLOBUG 4-SPOT**.

Before using this Lighting System, ensure that the operating individual has read and understands all instructions in this manual.

SAFETY MESSAGE ALERT SYMBOLS

The three (3) 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 three words: **DANGER**, **WARNING**, or **CAUTION**.

DANGER

You **WILL** be **KILLED** or **SERIOUSLY** injured if you **DO NOT** follow directions.

WARNING

You **CAN** be **KILLED** or **SERIOUSLY** injured if you **DO NOT** follow directions.

CAUTION

You **CAN** be **INJURED** if you **DO NOT** follow directions.

Potential hazards associated with the **GLOBUG 4-SPOT** operation will be referenced with Hazard Symbols which appear throughout this manual, and will be referenced in conjunction with Safety Message Alert Symbols.

HAZARD SYMBOLS

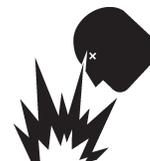
WARNING - Lethal Exhaust Gasses

Engine exhaust gases contain poisonous carbon monoxide. This gas is colorless and odorless, and can cause death if inhaled. **NEVER** operate this equipment in a confined area or enclosed structure that does not provide ample free flow air.



WARNING - Explosive Fuel

Gasoline fuel is extremely flammable, and its vapors can cause an explosion if ignited. **DO NOT** start the engine near spilled fuel or combustible fluids.



DO NOT fill the fuel tank while the engine is running or hot. **DO NOT** overfill tank, since spilled fuel could ignite if it comes into contact with hot engine parts or sparks from the ignition system. Store fuel in approved containers, in well-ventilated areas and away from sparks and flames.

WARNING - Burn Hazards

Engine components can generate extreme heat. To prevent burns, **DO NOT** touch these areas while the engine is running or immediately after operations. Never operate the engine with heat shields or heat guards removed.



CAUTION - Respiratory Hazard

ALWAYS wear approved **respiratory** protection when required.



GLOBUG 4-SPOT — SAFETY MESSAGE ALERT SYMBOLS

CAUTION - Rotating Parts

NEVER operate equipment with covers, or guards removed. Keep fingers, hands, hair and clothing away from all moving parts to prevent injury.



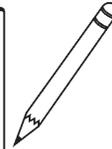
CAUTION - Accidental Starting

ALWAYS place the power source, circuit breakers or **ON/OFF** switch in the **OFF** position, when the generator is not in use, unless connected to transfer switch.



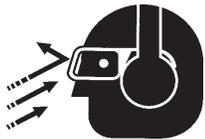
CAUTION - Equipment Damage Messages

Other important messages are provided throughout this manual to help prevent damage to your lighting system, other property, or the surrounding environment.



This lighting system, other property, or the surrounding environment could be damaged if you ***do not*** follow instructions.

CAUTION - Sight and Hearing Hazards



ALWAYS wear approved eye and hearing protection.

CAUTION - Over-Speed Conditions



NEVER tamper with the factory settings of the engine governor settings. Personal injury and damage to the engine or equipment can result if operating speed ranges above maximum allowable.

GLOBUG 4-SPOT — RULES FOR SAFE OPERATION

WARNING - READ THIS MANUAL

Failure to follow instructions in this manual may lead to **Serious Injury** or even **Death**. This equipment is to be operated by trained and qualified personnel only! This equipment is for industrial use only.

The following safety guidelines should always be used when operating the GLOBUG 4-SPOT.

The following safety guidelines should always be used when operating the GLOBUG 4-SPOT:

GENERAL SAFETY

■ **DO NOT** operate or service this equipment before reading this entire manual.



■ This equipment should not be operated by persons under 18 years of age.

■ **NEVER** operate this equipment without proper protective clothing, shatterproof glasses, steel-toed boots and other protective devices required by the job.



■ **NEVER** operate this equipment when not feeling well due to fatigue, illness or taking medicine.



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



■ 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.

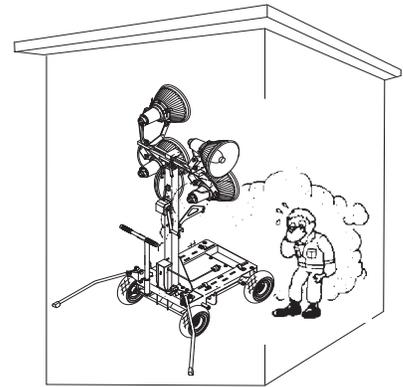
■ **NEVER** use accessories or attachments, which are not recommended by Multiquip for this equipment. Damage to the equipment and/or injury to user may result.

■ **NEVER** touch the hot exhaust manifold, muffler or cylinder. Allow these parts to cool before servicing engine or mixer.



■ **High Temperatures** – Allow the engine to cool before adding fuel or performing service and maintenance functions. Contact with **hot!** components can cause serious burns.

■ The engine of this lighting system/generator requires an adequate free flow of cooling air. **NEVER** operate the generator in any enclosed or narrow area where free flow of the air is restricted. If the air flow is restricted it will cause serious damage to the generator engine and may cause injury to people. Remember the engine of the lighting system/generator gives off **DEADLY** carbon monoxide gas.

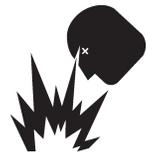


■ **ALWAYS** refuel in a well-ventilated area, away from sparks and open flames.

■ **ALWAYS** use extreme caution when working with **flammable** liquids. When refueling, **stop the engine** and allow it to cool. **DO NOT smoke** around or near the machine. Fire or explosion could result from fuel vapors, or if fuel is spilled on a hot engine.



■ **NEVER** operate the GloBug in an explosive atmosphere or near combustible materials. An explosion or fire could result causing severe **bodily harm** or **even death**.

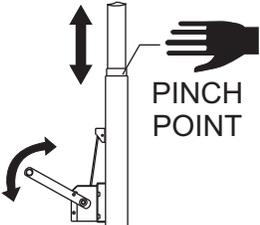


■ Topping-off to filler port is dangerous, as it tends to spill fuel. Wipe up any spilled fuel immediately.

GLOBUG 4-SPOT — RULES FOR SAFE OPERATION

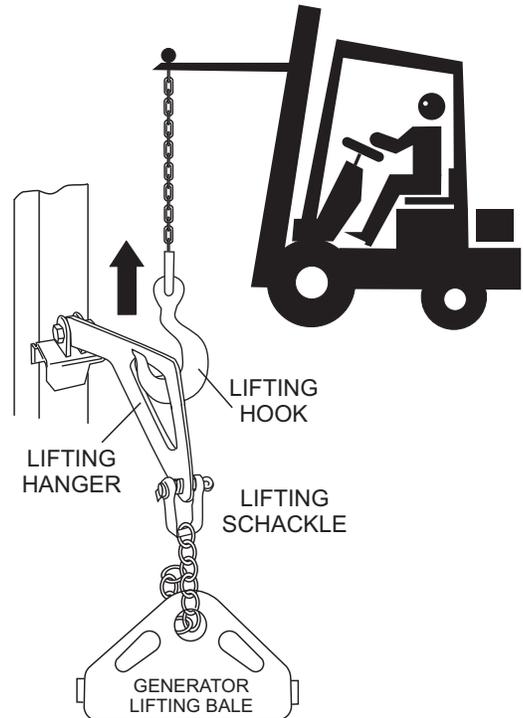
- **ALWAYS** make sure that the GloBug is secure on firm level ground so that it cannot slide or shift around, endangering workers. Also keep the immediate area free of bystanders.
- **ALWAYS** keep area behind GloBug clear of people while raising and lowering mast.
- To prevent the GloBug from overturning, **NEVER** use in winds that exceed 22 mph (10m/s).
- To prevent the GloBug from rolling, **ALWAYS** place the GloBug on a firm flat surface. Surface slant should not exceed 5 degrees.
- To prevent the GloBug from rolling, **ALWAYS** apply the parking brake. For additional safety place chock blocks behind the wheels.
- The GloBug must use a generator that is at least 220 lbs. (100 kg) minimum. This will prevent the GloBug from tipping over.
- The GloBug should only be used in temperatures between 23-104 degrees Fahrenheit (-5 to 40 degrees Celsius). Failure to comply with these operating parameters could cause the lamp to malfunction and shorten the ballast life.
- **NEVER** use the GloBug in *rain, snow* or areas of high humidity that could generate electrical storms.
- Set the GloBug's tire air pressure to 35.5 psi (245kPa). Check daily. Low tire pressure could adversely affect the parking brake.

MAST SAFETY

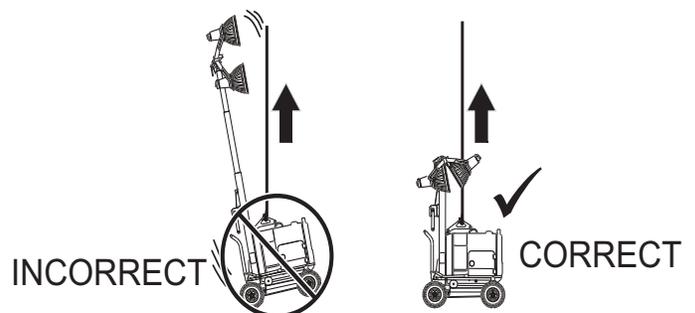
- When raising or lowering the mast, keep hands and fingers clear of the various mast sections, this will prevent hands and fingers from getting pinched.
- 
- When raising the mast and to prevent tipping, **ALWAYS** *deploy outriggers*.
 - **CHECK** the mast and winch cables for wear. If any problem occurs when lower or raising the mast **STOP** immediately! Contact a trained MQ technician for assistance.
 - **NEVER** pivot or retract mast while unit is operating.
 - **NEVER** use the lighting system mast as a crane. **DO NOT** lift anything with the mast.
 - **NEVER** attach anything to the lighting system mast.
 - **ALWAYS** lower the tower when not in use, or if high winds or electrical storms are expected in the area.

LIFTING/TRANSPORTING THE GLOBUG

- **ALWAYS** use the lifting hanger, when lifting of the GloBug is required.



- Use a crane, forklift or suitable lifting device of adequate lifting capability when the lifting of the GloBug is required.
- Make sure the mast is completely lowered before lifting the GloBug.
- When the GloBug is lifted from its correct lifting point, it should lift straight up (not tilted). **DO NOT** attempt to lift the GloBug if its position is tilted while lifting.



GLOBUG 4-SPOT — RULES FOR SAFE OPERATION

- When transporting the GloBug 4-Spot, lower the mast fully. Tighten the lamp adjustment lever and make sure that the lighting unit assembly is fixed to the mast before transporting. This will prevent the light assembly from falling down or being damaged during transport.

LAMP SAFETY AND CARE

- **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 the lamp surface is clean and dry.
- **ALWAYS** replace with MQ recommended type lamp. See parts section of this manual.
- **NEVER** use force when installing a lamp. Excessive force could cause the lamp to break causing bodily harm.
- **NEVER** attempt to replace lamp with the power on. Always unplug the power cord from the generator when changing the lamp.
- **ALWAYS** allow a sufficient amount of time for the lamp to **cool** before changing. The possibility exists of severe burns.
- **ALWAYS** have a **trained technician** to install and remove lamp, or replace any damaged fixture wiring.



DANGER - GloBug High Danger Areas

The **DANGER** items listed below and on the next page are considered **High DANGER** areas and should be adhered to. Failing to understand these areas could result in **Bodily Harm, Electrical Shock, Electrocutation, and even Death!** *Please pay close attention when operating the lighting system.*



DANGER - Grounding the GloBug for Operation

The GLOBUG 4-SPOT is equipped with a **ground terminal** for your protection. **ALWAYS** complete the **grounding path** from the lighting system to an external grounding source.



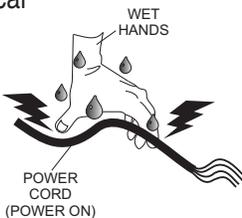
ALWAYS make certain the GloBug is well grounded and securely fastened to a good earth ground (ground rod). The possibility exists of **Electrical Shock, Electrocutation, and even Death** if the GloBug is not grounded.

GLOBUG 4-SPOT — RULES FOR SAFE OPERATION

! DANGER - GloBug Electric Shock Hazards

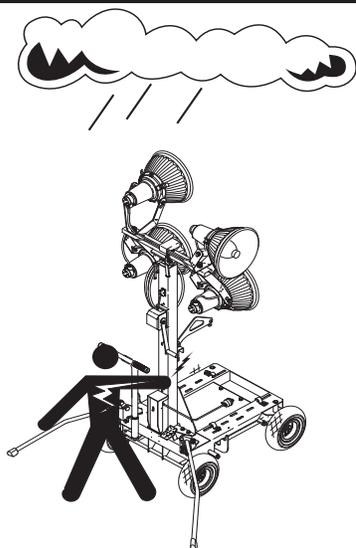
ALWAYS keep electrical cords in good condition. Worn, bare or frayed wiring can cause electrical shock, thus causing **Bodily Harm or even Death**.

NEVER grab or touch a live power cord with wet hands, the possibility exists of **Electrical Shock, Electrocutation, and even Death!**



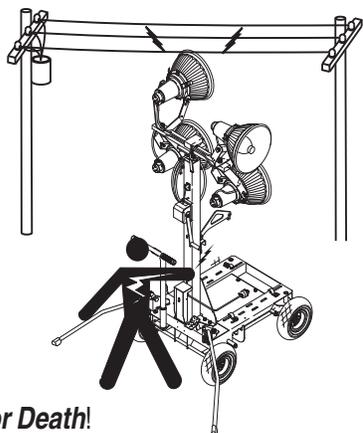
! DANGER - GloBug Electric Shock Hazards

NEVER operate the GloBug or handle any electrical equipment while standing in water, while bare foot, while hands are wet, or in the rain. A dangerous **electrical shock** could occur causing **Severe Bodily Harm or even Death**.



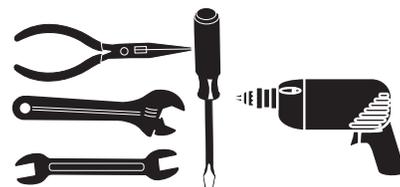
! DANGER - GloBug Overhead Obstructions

ALWAYS make sure the area above GloBug is open and clear of overhead power lines and other obstructions. The tower extends in excess of 16.5 ft. (5 meters). Contact with overhead powerlines or other obstructions could result in equipment damage, **Serious Injury or Death!**



Maintenance Safety

- **NEVER** lubricate components or attempt service on a running GloBug.
- **ALWAYS** allow the GloBug a proper amount of time to cool before servicing.
- Keep the GloBug in proper running condition.
- Fix damage to the GloBug immediately and always replace broken parts.
- **ALWAYS** use the required tool for the job application. Using damaged or worn tools or using tools inappropriate for the required application is very dangerous, and may cause damage to the machine and service personnel. Make sure to use the appropriate tool for the specific job.



Emergencies

- **ALWAYS** know the location of the nearest **fire extinguisher**.
- **ALWAYS** know the location of the nearest **first aid kit**.



- In emergencies **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.

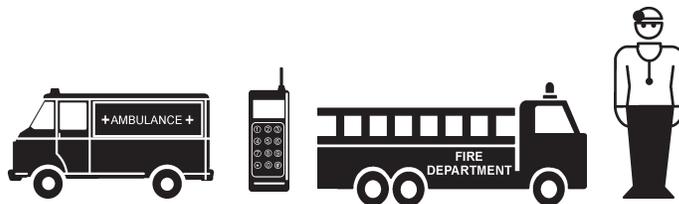


Table 1. Specifications

GloBug 4-Spot	
Model	GB43SC
Input Voltage	120 VAC
Frequency	60 Hz Single-Phase
Max. Current	18 Amps
Wind Stability with Generator	65 mph (80.46 kph)
Weight (less generator)	364 lbs. (165 kg)
Lamp	
Lamp Type	(4) 400 Watt Metal Halide
Lumens	136,000
Mast	
Number of Stages	3
Maximum Height	13.8 ft. (4.2 meters)
Generator	See Specified Generator Manual

GLOBUG 4-SPOT — DIMENSIONS

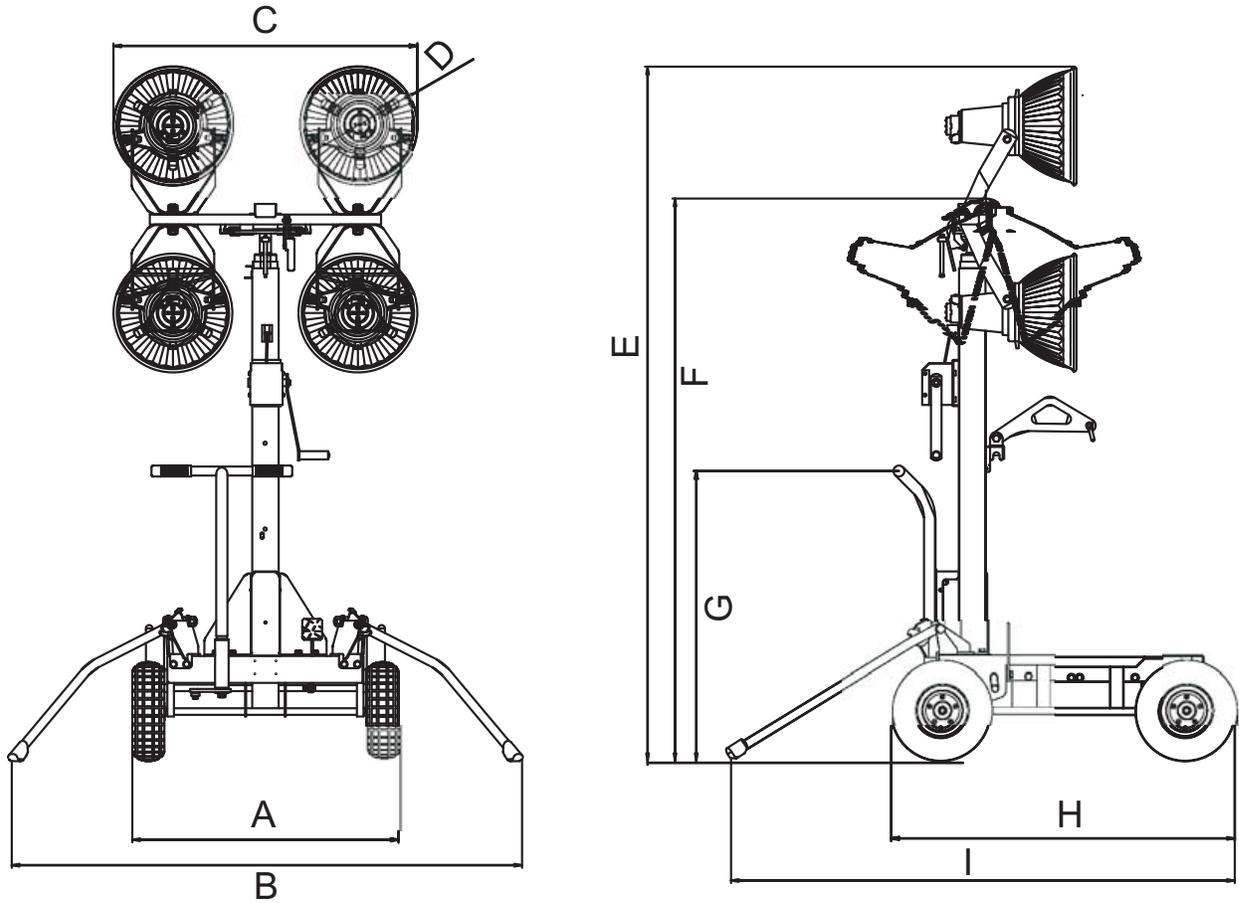


Figure 2. Dimensions

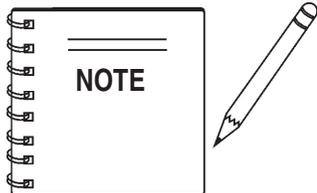
TABLE 2. DIMENSIONS

Reference Letter	Description	Dimension ft. (mm.)	Reference Letter	Description	Dimension ft. (mm.)
A	Wheel Base	2.62 ft. (800 mm.)	F	Height (Mast Stowed Position)	5.58 ft. (1,700 mm.)
B	Width (Outriggers Deployed)	5.25 ft. (1,600 mm.)	G	Height (Steering Handle)	2.88 ft. (878 mm.)
C	Width (Lighting Units)	3.02 ft. (920 mm.)	H	Length (Front to Rear Wheel)	3.41 ft. (1,040 mm.)
D	Diameter (Lighting Unit)	1.18 ft. (360 mm.)	I	Length (Front Wheel to Outrigger)	5.09 ft. (1,550 mm.)
E	Max. Height (Mast Deployed Position)	13.78 ft. (4200 mm.)			

GLOBUG 4-SPOT — GENERAL INFORMATION

The Multiquip GLOBUG 4-SPOT is a general purpose floodlight tower intended for emergency and remote lighting conditions. The GloBug can be powered by a variety of Multiquip's series generators. Power requirements for running the GloBug are 120 VAC, 60 Hz @ 18 amps.

Please read carefully the specified generator manual that will accompany your GLOBUG 4-SPOT. This manual will explain how to operate and maintain the generator.



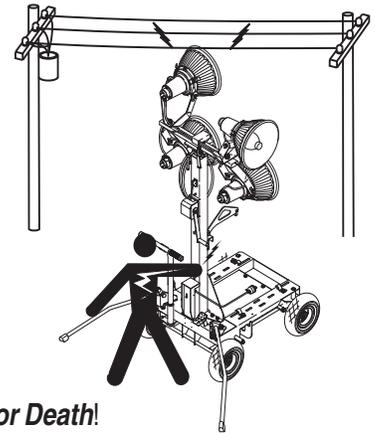
All information related to the generator will be referenced in a separate (supplied) "Operation and Parts Manual". Operation and maintenance of the generator **will not** be referenced in this manual.

The lighting system of Multiquip's GLOBUG 4-SPOT is comprised of four "Metal Halide" 400 watt lamp with an output of 136,000 lumens.

- The GloBug 4-Spot has the following features:
- Stainless steel mast which prevents rust.
- Mast stopper prevents sudden drop of mast.
- Steering wheel for easy cart movement.
- Large-sized pneumatic tires for easy travel even in rough and uneven roads.
- Secure lock-type foot brake.
- Tire bumper for protection.
- Easy to disassemble and service parts.
- Safety winch prevents reverse winding.

DANGER - GloBug Overhead Obstructions

ALWAYS make sure the area above GloBug is open and clear of overhead power lines and other obstructions. The tower extends in excess of 14 ft. (4.3 meters). Contact with overhead powerlines or other obstructions could result in equipment damage, ***Serious Injury or Death!***



GLOBUG 4-SPOT — COMPONENTS

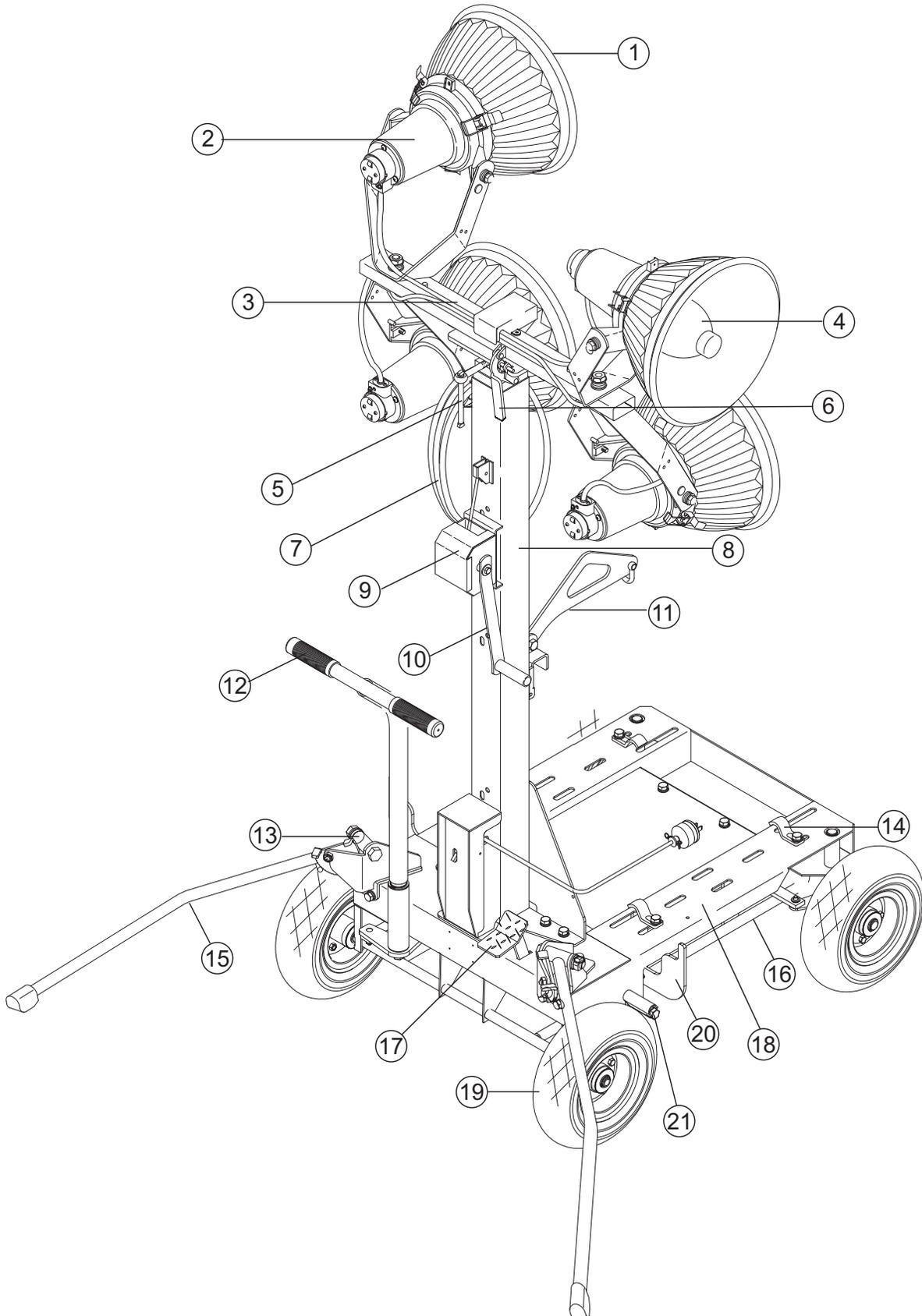


Figure 6. Major Components

GLOBUG 4-SPOT — COMPONENTS

Figure 6 shows the location of the controls and components for the GLOBUG 4-SPOT. The functions of each control is described below:

1. **Reflex Mirror** – Enhances lighting from the bulbs.
2. **Lighting Unit** – Consists of 4 lamps in their sockets.
3. **Lamp Stand** – holds the four lamps of the lighting unit together.
4. **Lamp** – 400 watt metal-halide type lamp. Replace with only MQ recommended type lamp. Always allow a sufficient amount of time for the lamp to **cool down** before changing.
5. **Adjust Lever** – This lever allows the lamp to be positioned up or down. Turn counterclockwise to release lamp and position. Turn clockwise to tighten.
6. **Fold Lever** – Holds the lamp stand in place after adjusting its height.
7. **Lamp Power Cable** – Connects the lamps to the power (generator).
8. **Mast** – This mast is comprised of three separate stages. The mast can be raised in excess of 13.78 feet. (4.2 meters). Again when raising the mast, always be on the lookout for overhead obstructions.
9. **Mast Winch** – Use this winch to raise and lower the mast. Always be on the lookout for overhead obstructions. Keep immediate area free of bystanders and debris when raising the mast.
10. **Winch Handle** – Use this handle to adjust the mast height.
11. **Lift Hanger** – When lifting of the GloBug is required always use a suitable lifting device of adequate lifting capability. **NEVER** stand underneath the GloBug while it is being lifted.
12. **Steering Handle** – The GloBug can be moved in either a forward or reverse direction by pulling back or pushing forward on the T-handle. In addition the front wheels are designed to turn in the opposite direction of the T-handle placement thus allowing the GloBug to turn either left or right.
13. **Counterweight Lever** – Holds the outriggers in place when deployed.
14. **Locking Clamps** – To secure the generator to the GloBug cart platform, place clamps (4) around the pipe frame of the generator. Tighten securely to prevent movement.
15. **Outriggers** – **ALWAYS** deploy the outriggers when raising the mast.
16. **Guide Square Pipe** - frames the generator.
17. **Brake Pedal** – Step on this pedal to apply the brakes. To release the brakes, press down on brake pedal again.
18. **Cart** – Holds the generator that supplies power to the lighting unit.
19. **Tires** – The GloBug 4-Spot uses 4 pneumatic type tires. Replace with only recommended type tire. **NEVER** allow the **rear** tires to go flat. This could adversely affect the braking system. Inflate tires to 35.5 psi (245kPa).
20. **Catcher** – Holds the outrigger in place in the stow position.
21. **Brake Pad** – When the brake pedal is pressed, this pad will strike and hold the rear tires in place. Make sure rear tires are inflated to the correct air pressure.

! CAUTION - Read Manual

Please read this entire manual carefully before attempting to operate the GloBug. Failure to read this manual could cause damage to the GloBug and serious injury to the operator.



GloBug Setup

1. Using the T-handle (Figure 7) place the GloBug on a **firm level surface** so that it will not slide or turn over.

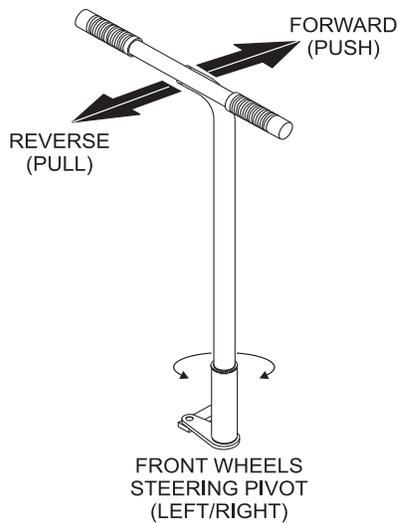


Figure 7. T-Handle (Directional Control)

2. To apply the parking brake (Figure 8), step on the brake pedal and pull back on the T-handle. This will lock the rear wheels. For additional safety use chock blocks to prevent rolling.

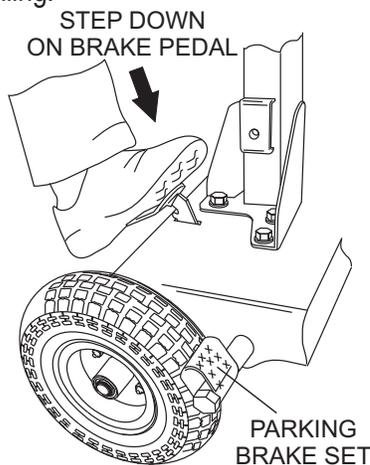


Figure 8. Parking Brake (Set Position)

3. Lift up on each outrigger (2) from its stow position, rotate backwards and place it in the deployed position, as shown in Figure 9. The outriggers will automatically lock in place once they touch the ground,

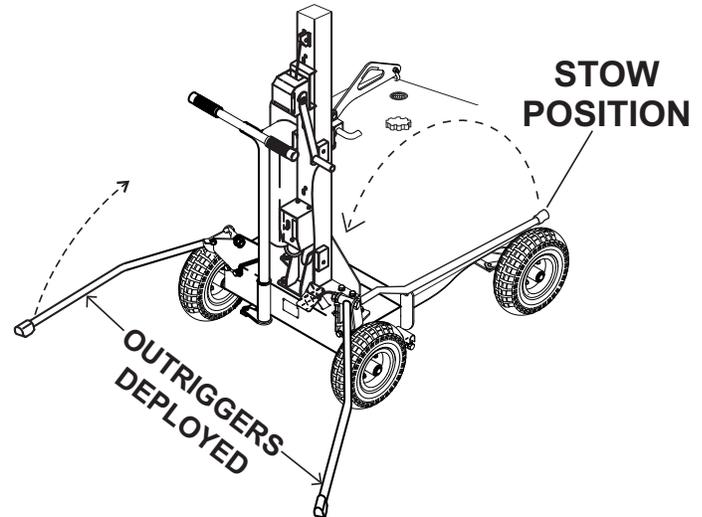


Figure 9. Outriggers (Deployed Position)

Lamp Assembly

1. Screw the lamp into the socket (use 400 watt metal-halide type lamp). Always allow a sufficient amount of time for the lamp to cool down before changing. See Figure 10.

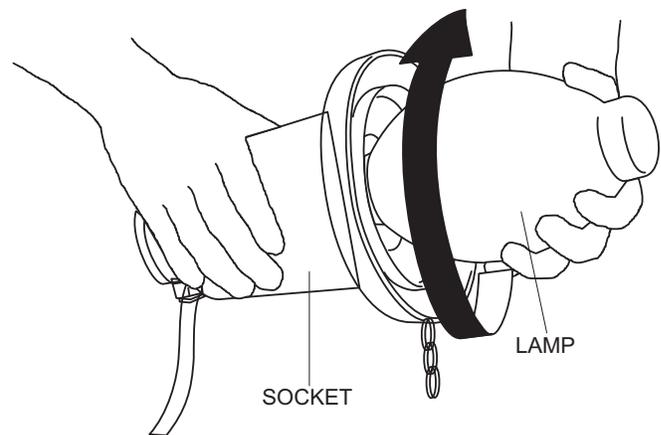


Figure 10. Installing the Lamp

2. Adjust the reflex mirror and the socket together so that the cables of the two upper lighting units are positioned downward and the cables of the two lower lighting units are positioned upwards. See Figure 11.

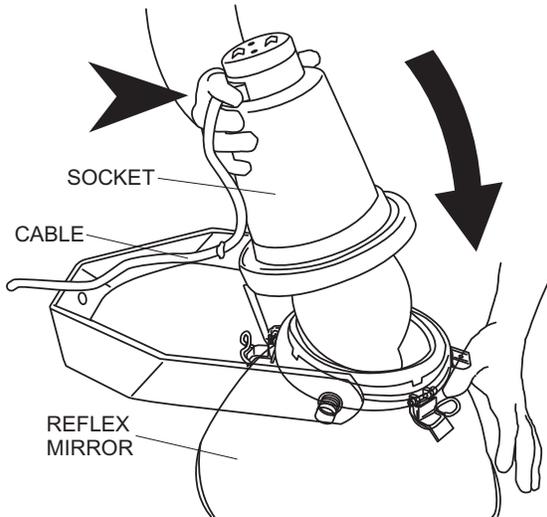


Figure 11. Positioning the Socket

3. Tighten all three latches to secure reflex mirror to the socket. See Figure 12.

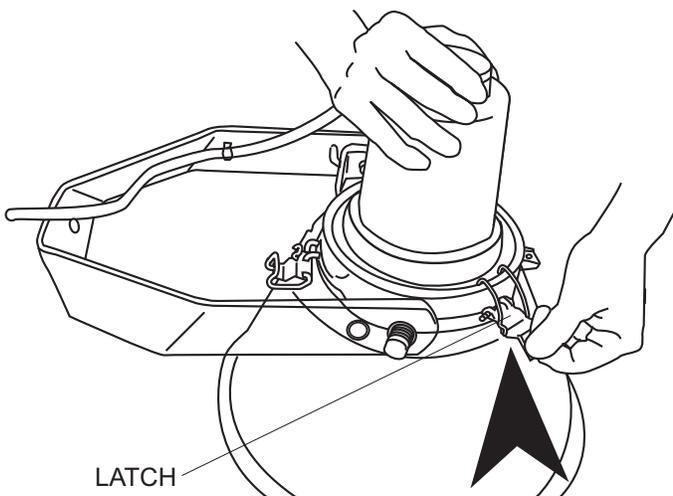


Figure 12. Securing Latch

Raising the Lamp Stand

1. Support the lighting units with one hand and pull up the fold lever with the other hand. The lever will spring up.

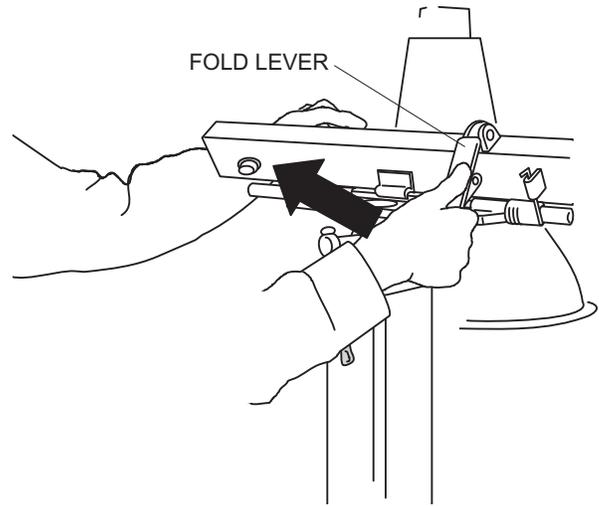


Figure 13. Raising Lamp Stand

2. Push up the lighting unit and push down the fold lever to lock the lamp stand (Figure 14).

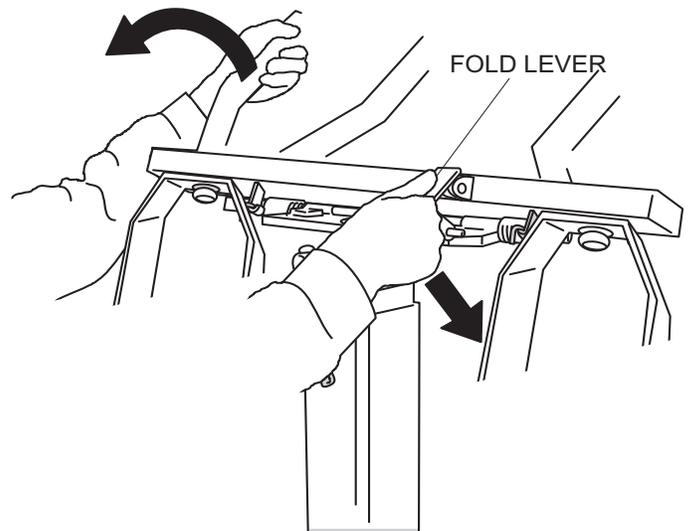


Figure 14. Locking Lamp Stand

CAUTION - FOLD LEVER PINCH POINT

When operating the fold lever, keep hands and fingers clear of the pinch points to prevent injury.

Turning All Lights In One Direction

1. Loosen the adjust lever. Turn the lighting units in the desired direction (Figure 15).

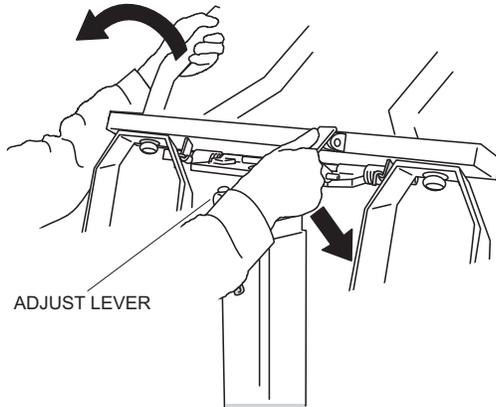


Figure 15. Adjusting Direction of Lighting Units

Turning Lights Individually

1. Hold the arm of the lamp and turn it to the desired direction (Figure 16).

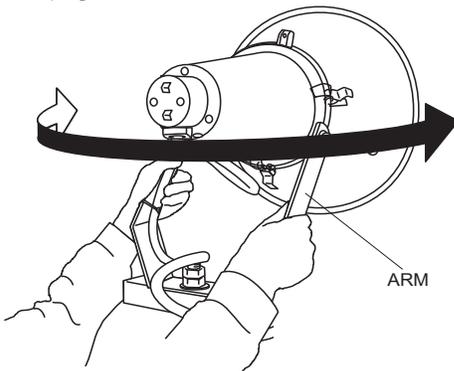


Figure 16. Adjusting Direction of Individual Lamp

Adjusting Angle of the Lights

1. Hold the socket of the lamp and tilt it to the desired direction (Figure 17).

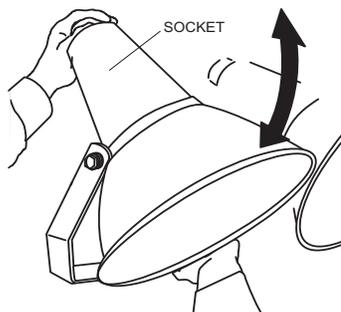
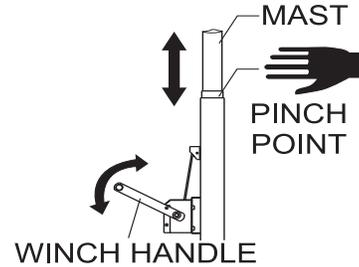


Figure 17. Adjusting Angle of Light

CAUTION - MAST PINCH POINT

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.



Adjusting Height of the Lights

1. Turn the handle of the mast winch clockwise to raise the lighting unit and turn the handle of the mast winch counterclockwise to lower the lighting unit (Figure 18).

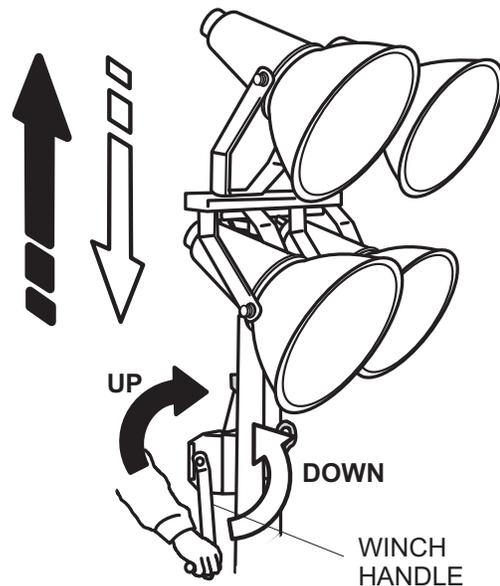


Figure 18. Adjusting Height of Light

DANGER - HIGH VOLTAGE POWER LINES

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 GloBug comes in contact with **high voltage power lines**.



GLOBUG 4-SPOT — OPERATION

! DANGER - HIGH VOLTAGE POWER LINES

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 GloBug comes in contact with **high voltage power lines**.



Applying Power

1. Make sure the generator lamp switch (Figure 19) is in the **OFF** position.

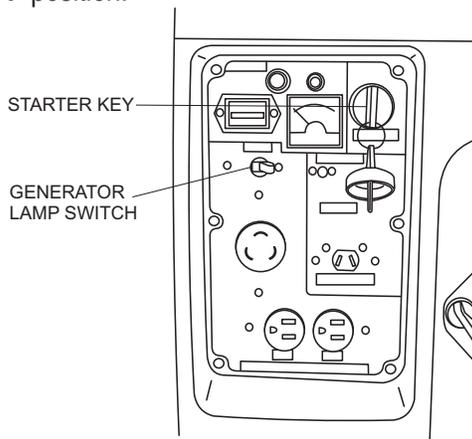


Figure 19. GeneratorLamp Switch

! CAUTION - READ GENERATOR MANUAL

Before attempting to operate the generator, **READ** the entire operation section of the manual. Failure to read manual could cause severe damage to the equipment and bodily harm to the operator.



2. The GloBug has a power requirement of 120 VAC, 60 Hz @ 18 amps. Connect the GloBug 4-Spot AC power cord to the 120 VAC twist-lock receptacle (Figure 20) on the the supplied generator.

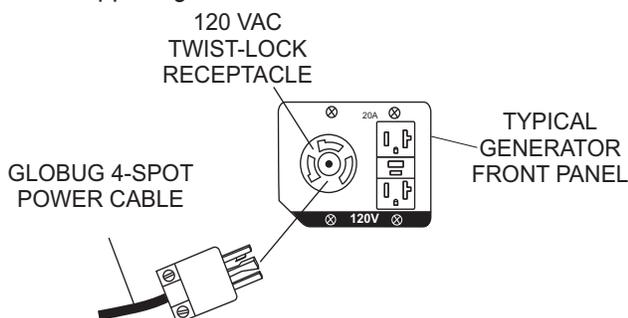


Figure 20. 120 VAC Receptacle

3. Start the generator as referenced in the "Start-up Section" of the supplied generator manual.
4. Leave the engine idling for about 3 minutes to warm it up.
5. Place the generator lamp switch (Figure 19) to the ON position.
6. The lamp should light up and give a fully bright light in about 5 minutes. If the lamp is not on, check all connections and repeat steps 1 through 5. If the lamp still does not come on contact the MQ service department.

Shutdown

1. Place the generator lamp switch (Figure 19) to the OFF position.
2. Disconnect the GloBug 4-Spot AC power cable from the generator.
3. Shutdown generator as referenced in the "Shutdown Section" of the supplied generator manual.

! CAUTION - LAMP COOL DOWN

Allow a sufficient amount of time (15-20 minutes) for the lamp to **cool down** before turning on lighting unit again. Do not touch lamp before cooling down. Lamp surface is very hot and can cause burns (Figure 21).

! CAUTION - GENERATOR DAMAGE

DON NOT shut down generator engine with the lamp switch on. This could cause damage or break the generator.

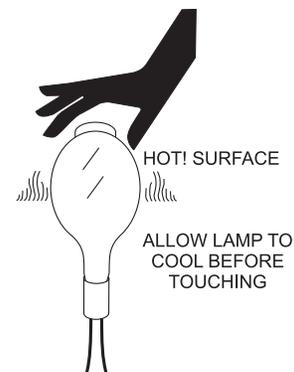


Figure 21. Hot Lamp Surface

Preparation of Lighting Unit For Storage

1. Using the mast winch (Figure 18), **lower the mast fully.** Turn winch handle counterclockwise to lower mast.
2. Set the lighting units facing the front (Figure 22).

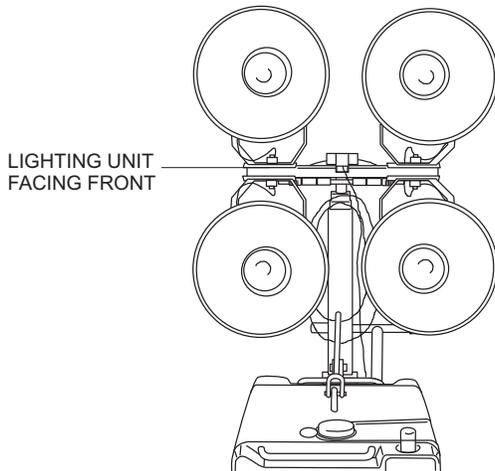


Figure 22. Lighting Unit Facing Front

3. Holding the lighting unit with one hand, pull up the fold lever with the other hand (Figure 23).

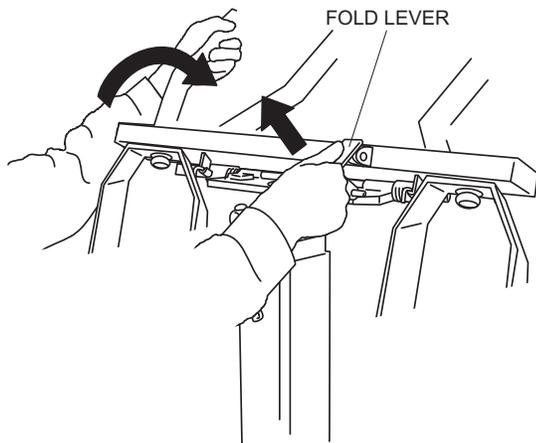


Figure 23. Fold Lever

4. Push down the lighting unit (Figure 24). Some force is required when pushing down because of the installed springs.

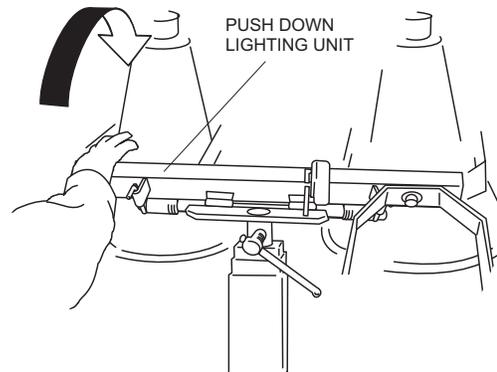


Figure 23. Pushing Down Lighting Unit

5. After lighting unit has been completely pushed down, push down fold lever (Figure 24) to lock the lamp stand in place.

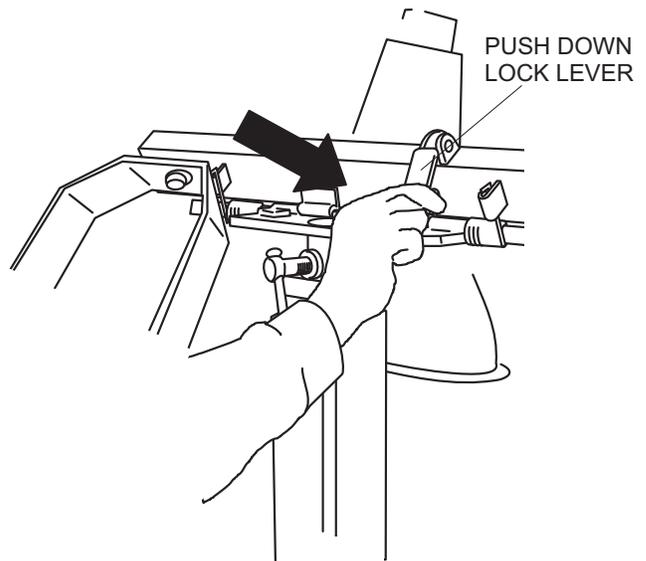


Figure 24. Locking Lamp Stand

- To unlock outriggers, push downward on the counterweight lever indicated by arrow (Figure 25). Grab hold of outrigger, pull upward, push down and place in stow position (Figure 26).

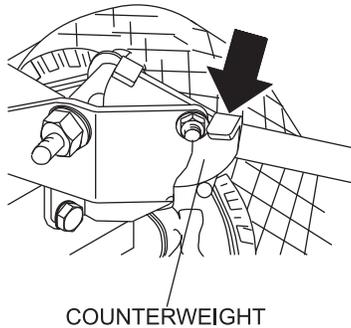


Figure 25. Outriggers (Released)

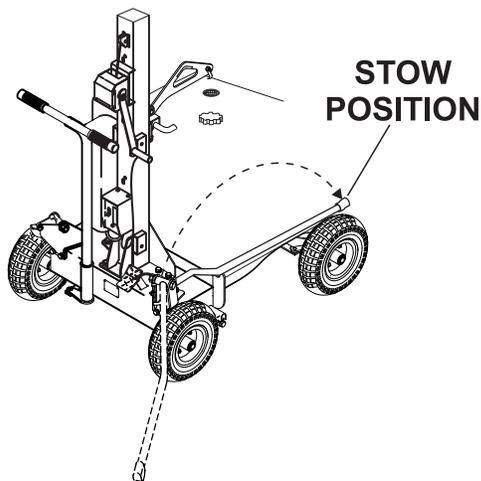


Figure 26. Outriggers (Stow Position)

- Press down on the top of the brake pedal (Figure 22) and hold, then release. This action will dis-engage the brake mechanism and allow the GloBug to be moved.

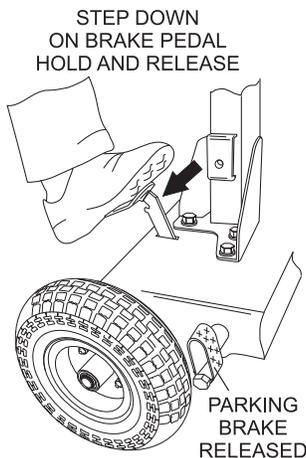


Figure 22. Parking Brake (Release Position)

Storage

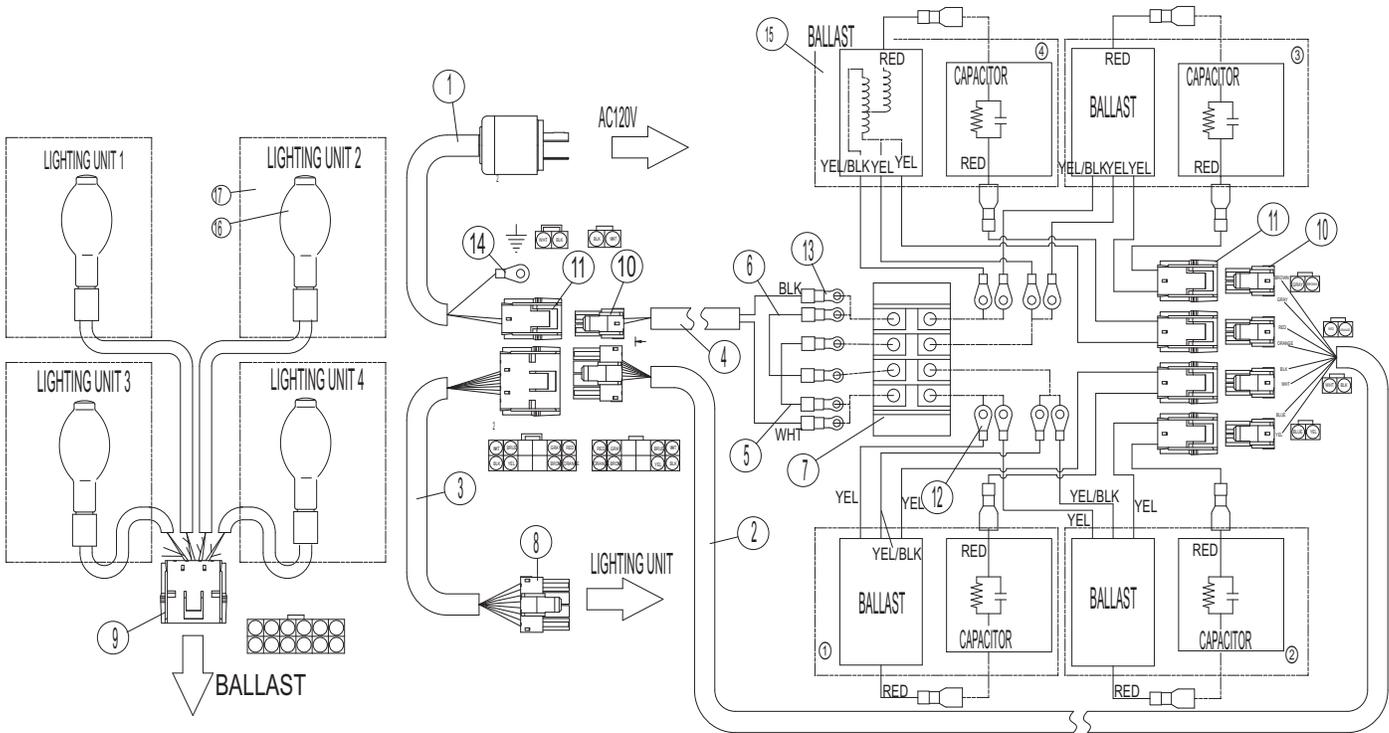
- Wipe dirt or foreign matter that may have accumulated on the GloBug 4-Spot during operation. Use a mild detergent to clean the unit. **DO NOT** spray the engine with water.
- Avoid storing the GloBug 4-Spot in areas that can be exposed to rain, harsh elements, and high humidity.
- Place the GloBug 4-Spot in a clean dry location away from dirt and debris.

! CAUTION - READ SAFETY GUIDELINES

Before performing any maintenance procedures, be sure to **READ** the lamp, balloon, and general safety guidelines in this manual. Failure to **read** and **understand** these safety guidelines could cause severe equipment damage and bodily harm.

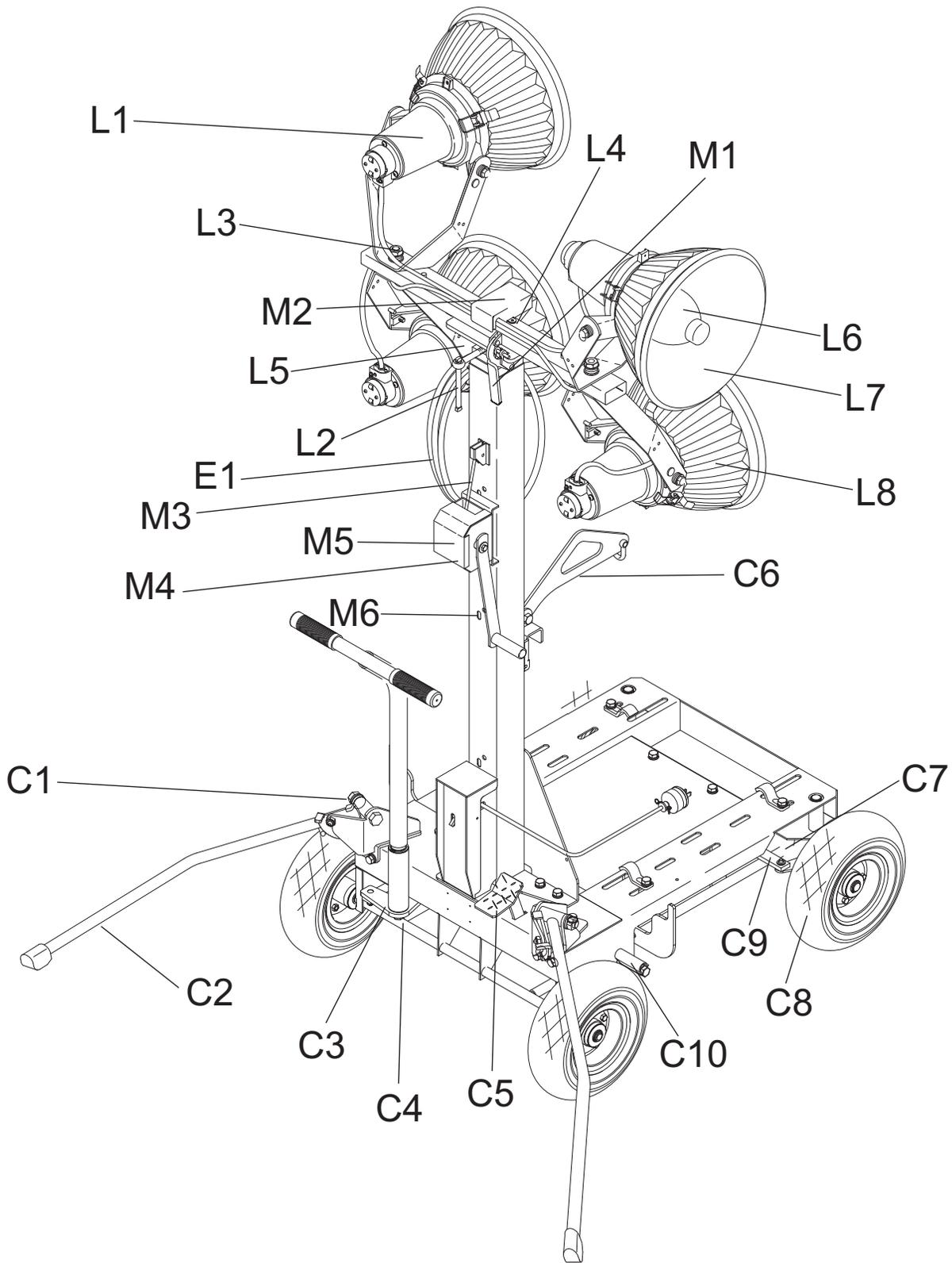


GLOBUG 4-SPOT — MAINTENANCE (WIRING DIAGRAM)



17	1311001002	LIGHTING UN AY
16	E000031700	LAMP
15	E000069800	BALLAST A (400 W)
14	1367020430	TERMINAL R2-4
13	E000034400	TERMINAL TMEV2-4S
12	E000047600	TERMINAL TMEV1.25-3S
11	E000044800	RECEPTACLE HOUSING 2
10	E000044900	PLUG HOUSING 2
9	1407021030	RECEPTACLE HOUSING 12
8	1407020930	PLUG HOUSING 12
7	E000031600	TERMINAL
6	A400082000	CABLE (JUMPER-BLACK) CP
5	A400081900	CABLE (JUMPER-WHITE) CP
4	A300069900	CABLE (JOINT-43SC-USA) CP
3	A300069501	CABLE (LAMP-43SC-USA) CP
2	A300069601	CABLE (BALLAST-43SC-USA) CP
1	A300069700	CABLE (LAMP-43SC-USA) CP
REF. DESC	PART NUMBER	DESCRIPTION

GLOBUG 4-SPOT — MAINTENANCE



GLOBUG 4-SPOT — MAINTENANCE

For a prolonged life cycle an extended quality follow the recommended GloBug 4-Spot service guidelines as referenced in Table 3.

TABLE 3. PERIODIC CHECK AND MAINTENANCE

FIGURE	PART	CHECK ITEM	SOLUTION		
Lamp	L1	Lamp Base	Lamp base loose?	Screw in securely.	❖
	L2	Pin Contact	Pin contact loose or disconnected?	Tighten or connect securely.	■
	L3	Nut	Nut not too loose or not too tight?	Tighten correctly.	❖
	L4	Hinge for Lamp Stand	Hinge does not move smoothly?	Apply grease.	●
	L5	Pivot for Lamp Stand	Pivot does not turn smoothly?	Apply grease.	●
	L6	Lamp	Lamp burned or broken?	Replace.	❖
	L7	Front Glass	Front glass dirty?	Wipe off dirt.	❖
	L8	Reflex Mirror	Reflex mirror dirty or broken?	Wipe off dirt or replace.	❖
Mast	M1	Fold Lever	Fold lever does lock and unlock properly?	Repair.	●
	M2	Mast Sliding Surface	Mast sliding surface does not slide smoothly?	Apply grease.	❖
	M3	Wire Rope	Damaged?	Apply grease or replace.	❖
	M4	Wire Rope End	Is wire end damaged (caulking)?	Replace.	❖
	M5	Winch	Defective winch brake ?	Repair or replace.	❖
	M6	Safety Stop	Safety latch defective?	Repair or replace.	▲
Cart	C1	Counter-Weight	Does not move smoothly?	Spray grease.	●
	C2	Outriggers	Does not move smoothly?	Spray grease.	●
	C3	T-handle and Wheels	Loose links?	Tighten securely.	■
	C4	Bolt for Handle	Loose bolt?	Tighten securely.	■
	C5	Brake Pedal	Linkage not working smoothly?	Check, spray grease	❖
	C5	Brake Pedal	Notch worn-out?	Replace.	❖
	C6	Hanger	Loose installation?	Fasten securely.	■
	C7	Front Wheel Pivot	Does not turn smoothly?	Check, apply grease.	●
	C8	Tires	Tire pressure not 35.5 psi (294 kPa)?	Adjust.	❖
	C9	Link for Front Shaft	Linkage does not move smoothly?	Spray grease.	●
C10	Brake	Does not work properly?	Adjust.	❖	
Electric	E1	Power Cable	Defective or worn cable?	Replace.	❖
	E2	Non-load Voltage	Is generator output not 125 VAC?	Adjust or replace generator.	●
❖ - Daily Check ■ - Every 20 Hours ● - Every 100 hours ▲ - Every 500 hours					

GLOBUG 4-SPOT — TROUBLESHOOTING (LAMPS)

Practically all breakdowns can be prevented by proper handling and maintenance inspections, but in the event of a breakdown, please take a remedial action following the diagnosis based on the Lamp Troubleshooting (Table 4) information shown below.

If the problem cannot be remedied, please leave the unit just as it is and consult or company's service department.

TABLE 4. LAMP TROUBLESHOOTING

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Lamp does not light.	Are couplers not securely connected?	Connect coupler correctly.
	Is generator lamp switch turned off?	Turn on switch.
	Is lamp loose?	Screw lamp securely into socket.
	Are connectors not properly connected?	Connect disconnected contactor.
	Are any other electric appliances (other than light tower) plugged into power source?	Unplug all other appliances.
	Is generator voltage not normal (non-load voltage - 120 VAC)?	Repair or replace generator.
	Is model of lamp not compatible?	Use genuine MQ lamp.
	Is lamp not cool enough to light again? (Interval of 20 to 30 minutes is required before turning on lamp again)	Wait for lamp to cool down.
Lamp only lights for a short time.	Is generator voltage not normal (non-load voltage - 120 V)?	Repair or replace generator.
	Is ambient temperature too high (more than 104 °F (40 °C))?	Move lamp where there is proper ventilation.

GLOBUG 4-SPOT — TROUBLESHOOTING (MAST)

Practically all breakdowns can be prevented by proper handling and maintenance inspections, but in the event of a breakdown, please take a remedial action following the diagnosis based on the Mast Troubleshooting (Table 5) information shown below.

If the problem cannot be remedied, please leave the unit just as it is and consult or company's service department.

TABLE 5. MAST TROUBLESHOOTING

SYMPTOM	POSSIBLE PROBLEM	SOLUTION
Mast cannot be raised.	Is cable caught in mast?	Set cable free.
	Is end of wire rope disconnected from winch?	Connect wire rope to winch.
	Does surface of mast not slide smoothly?	Apply grease to sliding surface of mast.
	Is winch handle being turned in the wrong direction?	Operate correctly.
Mast keeps coming down.	Is winch latch defective?	Replace part if not functioning properly.
	Is dram shaft loose?	Tighten dram shaft and check its operation.
The mast cannot be lowered.	Does surface of mast not slide smoothly?	Apply grease to sliding surface of mast.
	Is brake disk of winch held tight?	Holding winch handle securely, remove the latch and lower mast slowly (Repair).
	Is safety stopper not working correctly?	Winch up mast a little and lower mast by putting a load on it (Repair).

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.

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 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.



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 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.

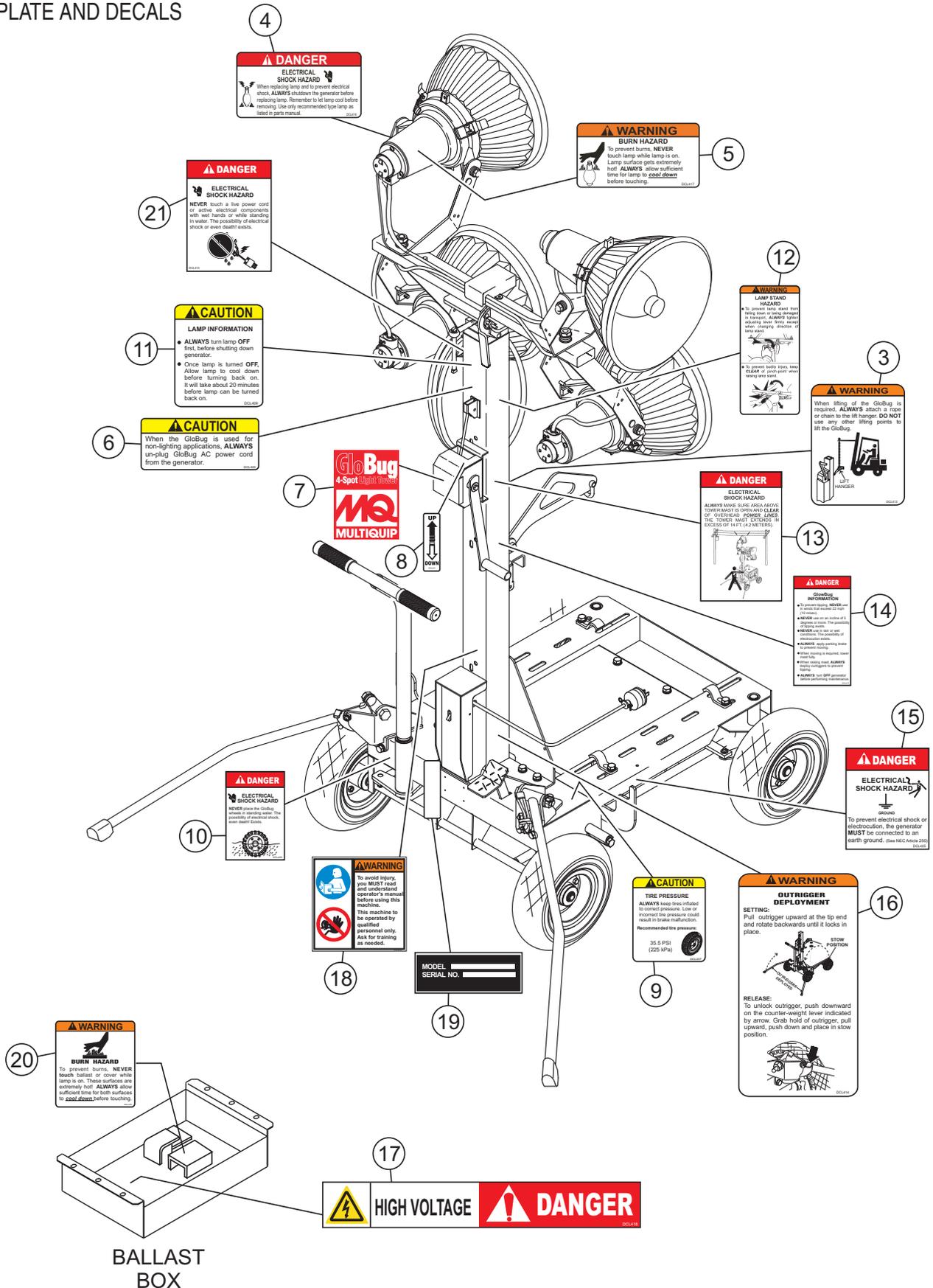
"Not Sold Separately" - Indicates that an item cannot be purchased as a separate item and is either part of an assembly/kit that can be purchased, or is not available for sale through Multiquip.

***GLOBUG 4-SPOT
1 TO 3 UNITS***

Qty.	P/N	Description
3	E000031700	BULB
1	A300069800	BALLAST ASSY
1	E000032000	CAPACITOR
1	1311100161	MIRROR/LENS

GLOBUG 4-SPOT — NAMEPLATE AND DECALS

NAMEPLATE AND DECALS



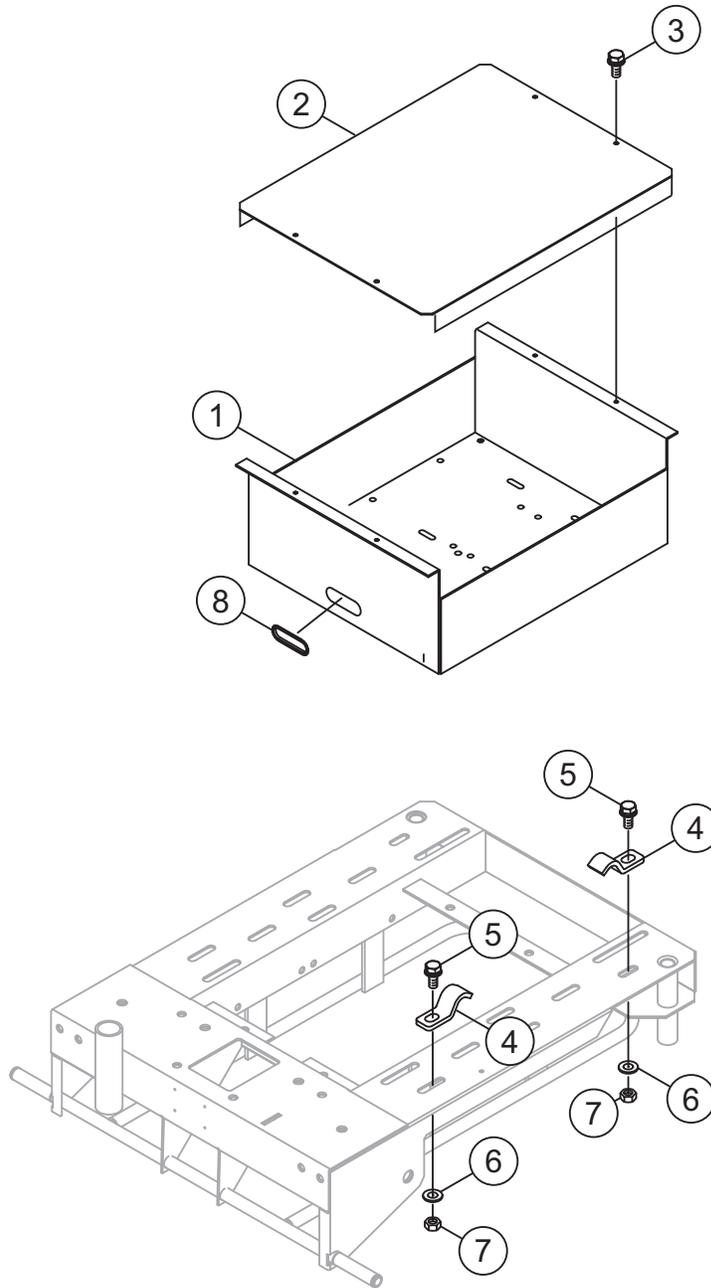
GLOBUG 4-SPOT — NAMEPLATE AND DECALS

NAMEPLATE AND DECALS

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
3	DCL412	DECAL; WARNING, LIFT HANGER	1	
4	DCL416	DECAL; DANGER, ELECTRICAL SHOCK HAZ.	1	
5	DCL417	DECAL; WARNING, BURN HAZARD (LAMP)	1	
6	DCL402	DECAL; CAUTION, REMOVE POWER CORD	1	
7	DCL428A	DECAL; MQ LOGO	1	
8	DCL401	DECAL; WINCH UP/DOWN	1	
9	DCL407	DECAL; CAUTION, TIRE PRESSURE	1	
10	DCL400	DECAL; DANGER, ELECTRICAL SHOCK (TIRES)	1	
11	DCL409	DECAL; CAUTION, LAMP INFORMATION	1	
12	DCL406A	DECAL; WARNING, ADJ. LEVER HAZARD	1	
13	DCL403A	DECAL; DANGER ELECTRIC SHOCK (GLOBUG)	1	
14	DCL411	DECAL; DANGER, GLOBUG INFORMATION	1	
15	DCL405	DECAL; DANGER, ELECTRICAL SHOCK (GND)	1	
16	DCL414	DECAL; WARNING, OUTRIGGER DEPLOYMENT	1	
17	DCL418	DECAL; DANGER, HIGH VOLTAGE	1	
18	35137	DECAL; WARNING, READ MANUAL	1	
19		NAMEPLATE	1 CONTACT MQ PARTS DEPT.
20	DCL415	DECAL; BURN HAZARD (BALLAST)	1	
21	DCL410	DECAL; DANGER, ELECTRICAL SHOCK (CORDS)	1	

GLOBUG 4-SPOT — BASE PLATE ASSY.

BASE PLATE ASSY.



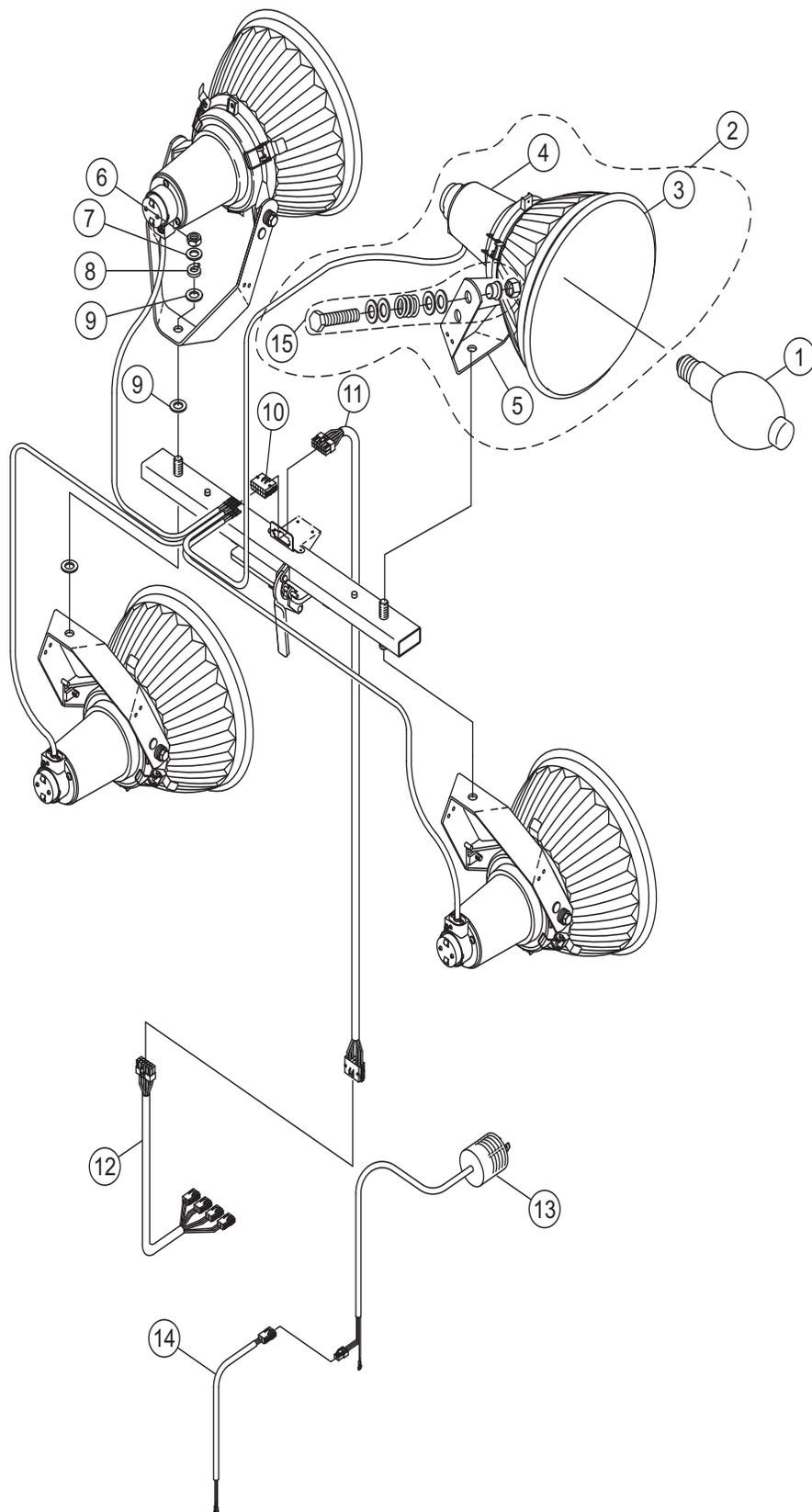
GLOBUG 4-SPOT — BASE PLATE ASSY.

BASE PLATE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A100030203	BOX (BALLAST) CP	1	REPLACES P/N A100030201
2	A100030101	COVER (BALLAST)	1	REPLACES P/N A100030100
3	0010510025	BOLT AND WASHER (M10 X 25)	4	
4	A400041101	STOPPER	4	REPLACES P/N A400041100
5	0010512025	BOLT AND WASHER (M12 X 25)	4	
6	0040112000	WASHER (M12)	4	
7	0030112000	NUT (M12)	4	
8	E000032100	FREE BRUSH	1	

GLOBUG 4-SPOT — ELECTRICAL ASSY.

ELECTRICAL ASSY



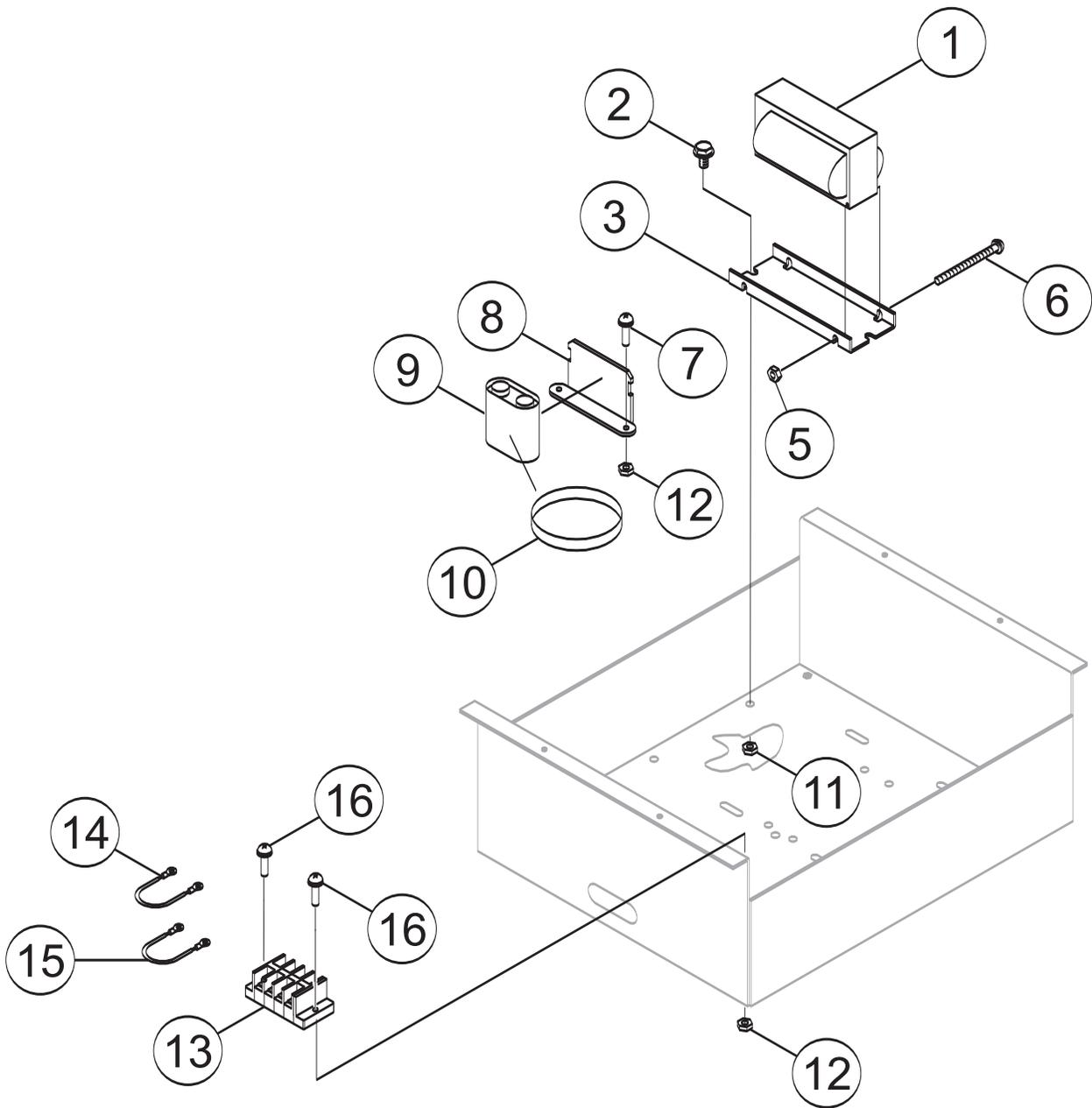
GLOBUG 4-SPOT — ELECTRICAL ASSY.

ELECTRICAL ASSY

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	E000031700	LAMP	4	
2	E000048100	LIGHTING UNIT ASSY	4.....	INCLUDES ITEMS W/ #
3#	1311100161	MIRROR/LENS	4	
4#	1311300161	LIGHT SOURCE TUBE	4	
5#	1311200162	ARM (LIGHTING UNIT)	4	
6	0031116000	NUT (M16)	4	
7	0040116000	WASHER (M16)	4	
8	1042000230	SPRING	4	
9	1502180110	WASHER	8	
10	1407021030	RECEPTACLE HOUSING	1	
11	A300069501	CABLE (LAMP) CP	1.....	REPLACES P/N A300069500
12	A300069601	CABLE (BALLAST) CP	1.....	REPLACES P/N A300069600
13	A300069700	CABLE (MAIN) CP	1	
14	A300069900	CABLE (JOINT) CP	1	
15#	E000012300	BOLT SET, CHR-50	8	

GLOBUG 4-SPOT — BALLAST ASSY.

BALLAST ASSY



GLOBUG 4-SPOT — BALLAST ASSY.

BALLAST ASSY

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A300069800	BALLAST ASSY	4	
2	0013505015	BOLT AND WASHER (M5X 15)	8.....	REPLACES P/N 0010506025
3	A300060801	HOLDER (BALLAST)	4.....	REPLACES P/N A300060800
5	0030105000	NUT (M5)	8	
6	0020305065	SCREW AND WASHER (M5 X 65)	8	
7	0020304012	SCREW AND WASHER (M4 X 12)	4	
8	A400078900	HOLDER (CAPACITOR)	2	
9	E000032000	CAPACITOR	4	
10	E000031800	CLAMP	4	
11	0010505015	NUT (M5)	8.....	REPLACES P/N 0030106000
12	0030104000	NUT (M4)	6	
13	E000031600	TERMINAL	1	
14	A400081900	CABLE (JUMPER-W)	1	
15	A400082000	CABLE (JUMPER-B)	1	
16	0020304020	SCREW AND WASHER (M4 X 20)	2	

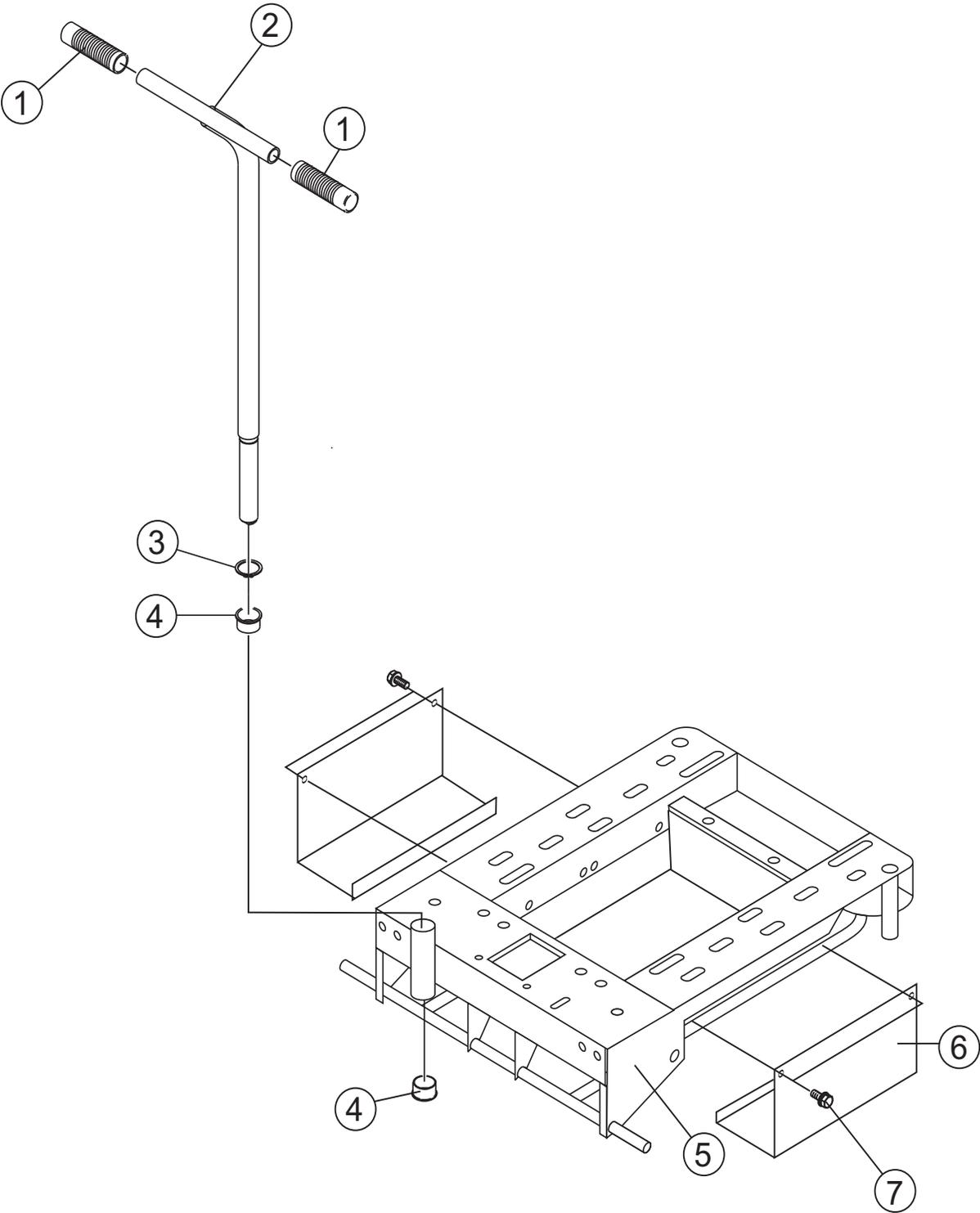
GLOBUG 4-SPOT — MAIN MAST ASSY.

MAIN MAST ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A100028102	FIRST MAST	1	S/N G5000028 AND BELOW
1	A100028105	FIRST MAST	1	S/N G5000029 AND ABOVE
2	0010510025	BOLT AND WASHER (M10x25)	9	
3	1011000701	WINCH HM-G103	1	
4	1642001430	GROMMET	1	
5	0040112041	WASHER (12dx40Dx3.2t)	1	
6	A200029800	SWITCH COVER	1	S/N G5000028 AND BELOW
6	A200036500	SWITCH COVER	1	S/N G5000029 AND ABOVE
7	0020304012	SCREW & WASHER (M4x12)	3	S/N G5000028 AND BELOW
7	0020304012	SCREW & WASHER (M4x12)	5	S/N G5000029 AND ABOVE
8	2002500430	BOLT (SUPPORT) (MK-440)	1	
9	0010112040	BOLT (M12x40)	1	
10	0030112000	NUT (M12)	1	
11	1052001710	HANGER	1	
12	0040212000	SPRING WASHER (M12)	1	
13	0040112000	WASHER (M12)	1	
14	1711080130	SHACKLE	2	

GLOBUG 4-SPOT — T-HANDLE ASSY.

T-HANDLE ASSY.



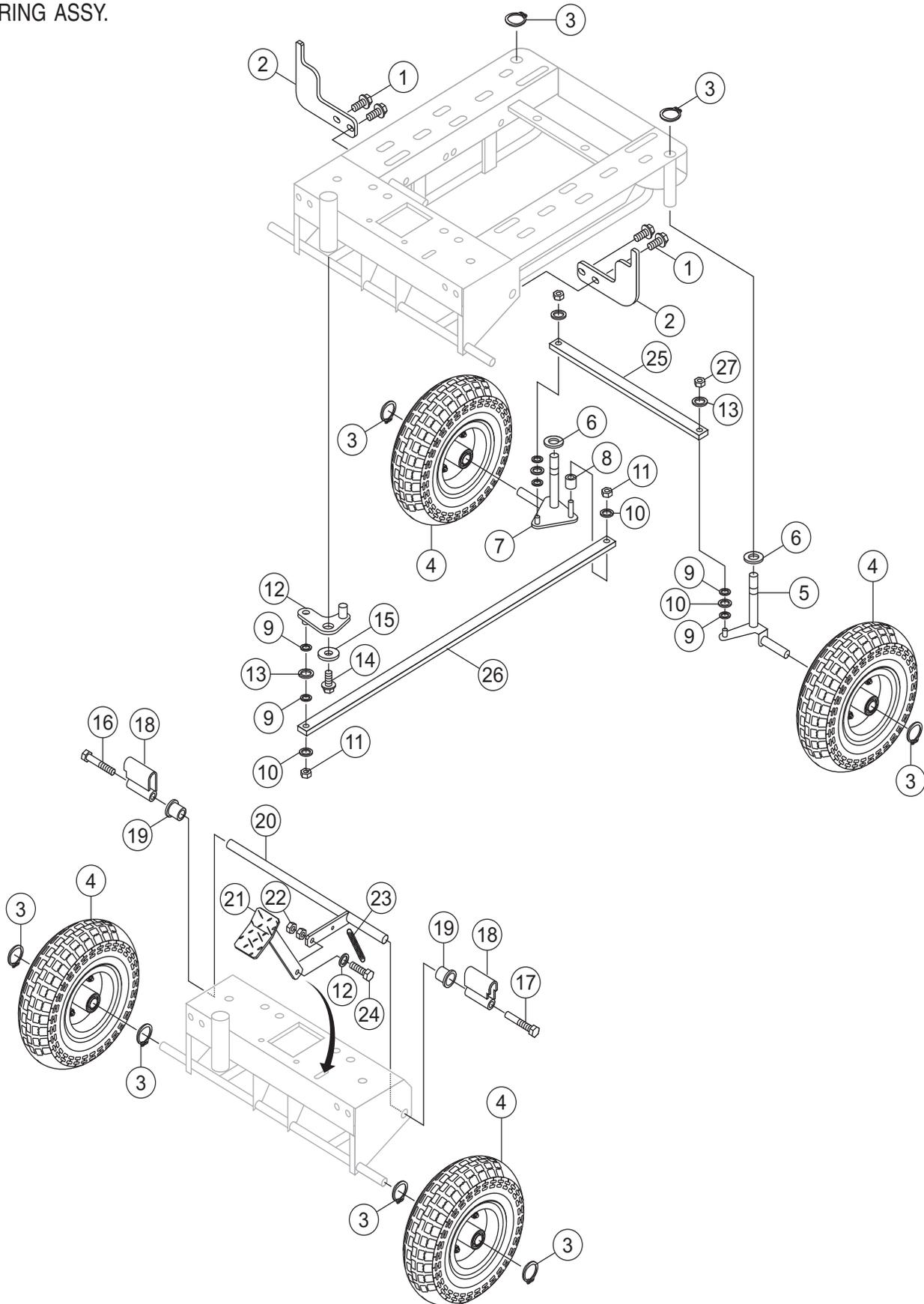
GLOBUG 4-SPOT — T-HANDLE ASSY.

T-HANDLE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	1102700130	HANDLE GRIP	2	
2	A200023001	HANDLE	1	
3	0040730000	SNAP RING (30)	1	
4	1503300130	SLEEVE BEARING (30Dx34Dx20)	2	
5	A100018905	BASE PLATE	1	REPLACES P/N A100018903
6	A300087403	SIDE GUARD	2	S/N G5000029 AND ABOVE
7	0010508015	BOLT AND WASHER	4	S/N G5000029 AND ABOVE

GLOBUG 4-SPOT — STEERING ASSY.

STEERING ASSY.



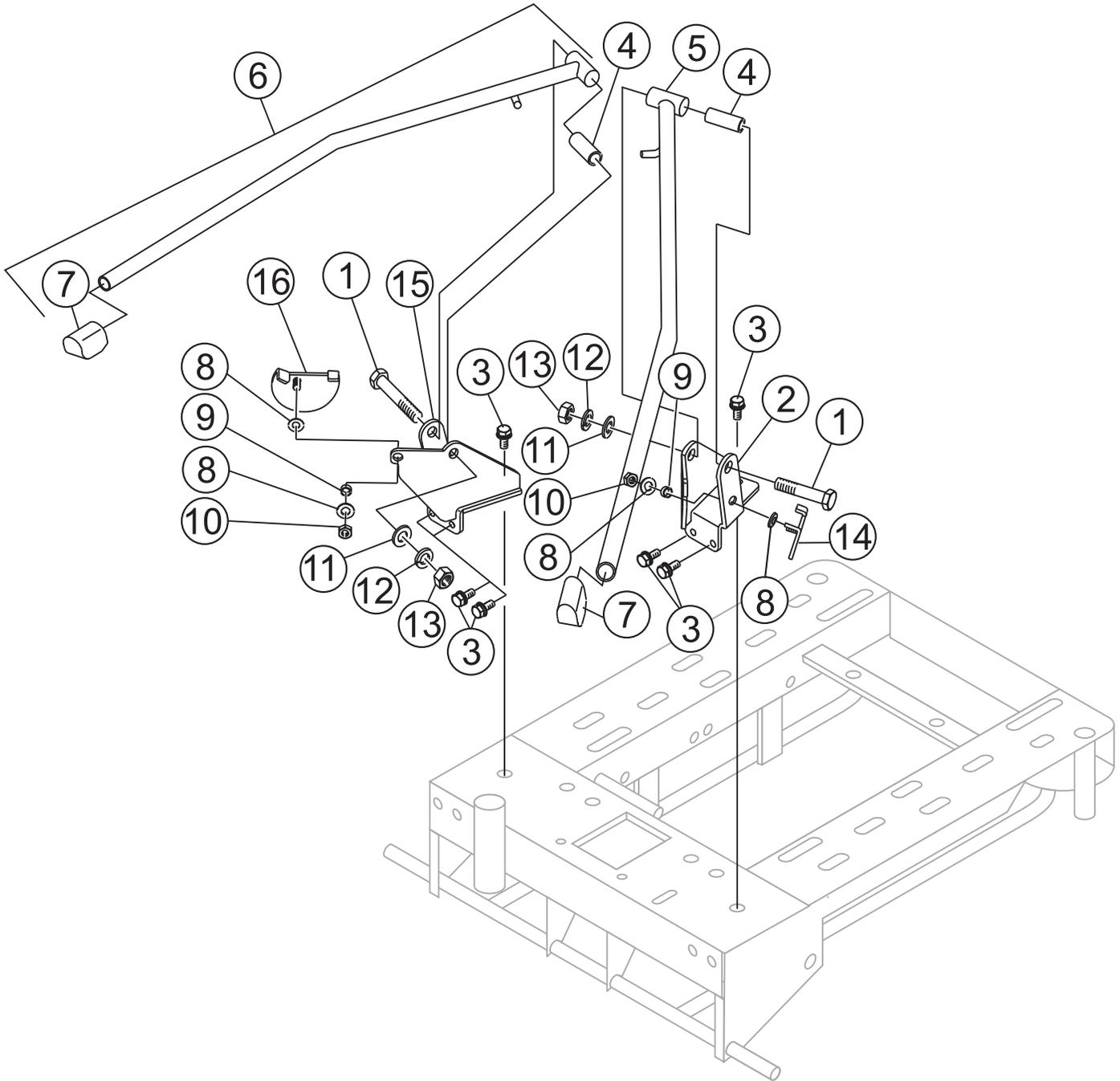
GLOBUG 4-SPOT — STEERING ASSY.

STEERING ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0010510025	BOLT AND WASHER (M10X25)	10	
2	A400033402	CATCHER (OUTRIGGER)	2	
3	0040720000	SNAP RING (20)	8	
4	E000014500	TIRE ASSY (4.10/3.50-5)	4	
5	A200022803	FRONT SHAFT (R)	1	
6	E000031200	WASHER (20dx36Dx1.5)	2	
7	A200022903	FRONT SHAFT (L)	1	
8	A400055101	SPACER	1	
9	1504120130	WASHER (12.5dx18Dx0.5t)	8	
10	0040108000	WASHER (M8)	5	
11	0030208000	SELF-LOCK NUT (M8)	3	
12	A300090600	LINK (HANDLE).....	1	REPLACES P/N A300046003
13	0040112000	WASHER (M12)	1	
14	0010512025	BOLT AND WASHER (M12x25)	1	
15	0040112041	WASHER (12dx40Dx3.2t)	1	
16	1521120130	BOLT (M12x75) LEFT SCREW	1	
17	0010112075	BOLT (M12x75)	1	
18	2071214010	BRAKE	2	
19	1503180130	SLEEVE BEARING (18dx20Dx20)	2	
20	2071213211	BRAKE SHAFT	1	
21	2001200312	BRAKE PEDAL	1	
22	0030108000	NUT (M8)	2	
23	1041000131	SPRING (BRAKE)	1	
24	0010308030	BOLT (M8x30) SUS	1	
25	A400055501	LINK (FRONT SHAFT)	1	
26	A400055401	LINK (STEERING)	1	
27	0030808000	PUSH NUT (8)	3	

GLOBUG 4-SPOT — OUTRIGGER ASSY.

OUTRIGGER ASSY.



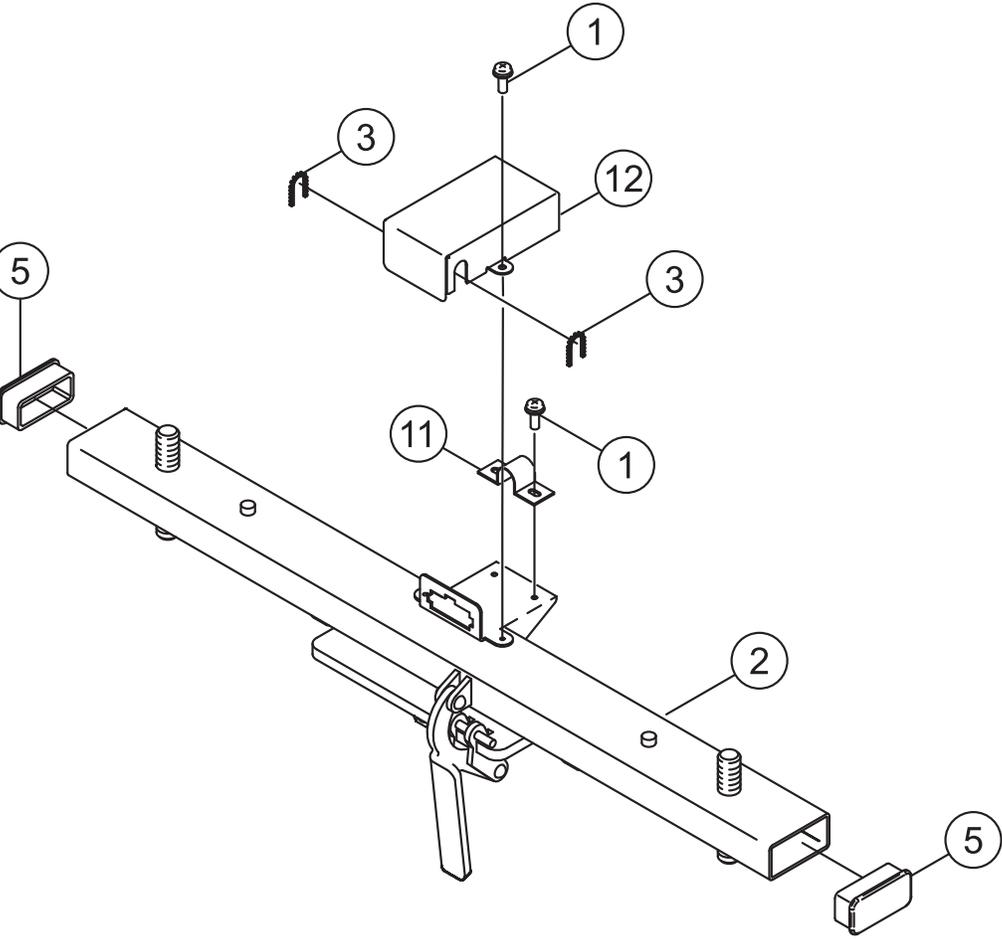
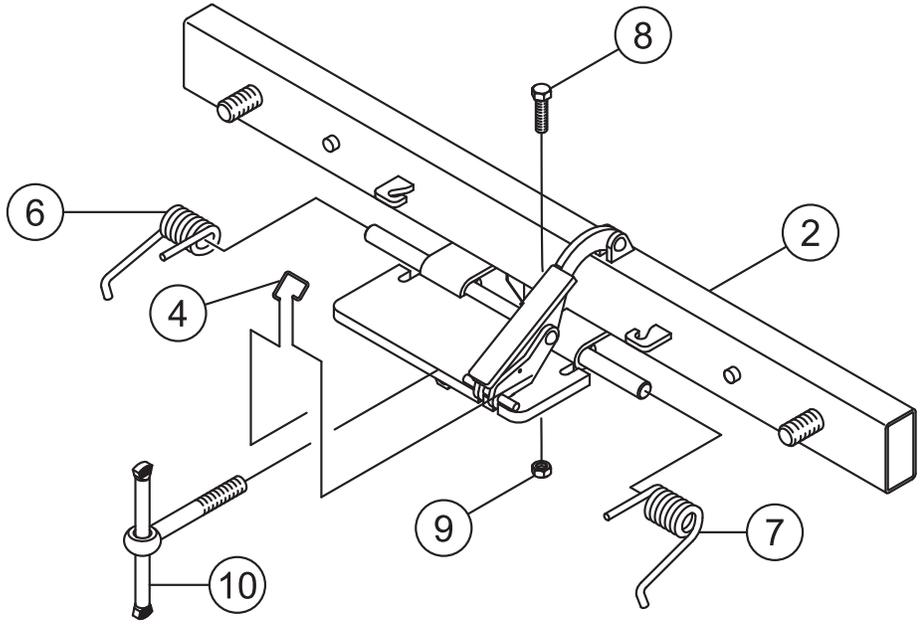
GLOBUG 4-SPOT — OUTRIGGER ASSY.

OUTRIGGER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0010116090	BOLT (M16x90)	2	
2	A100011600	BRACKET (OUT,R) R	1	
3	0010510025	BOLT & WASHER (M10x25)	10	
4	1501160111	SPACER (OUT,R)	2	
5	A200015302	OUTRIGGER R	1	INCLUDES ITEM W/*
6	A200015202	OUTRIGGER L	1	INCLUDES ITEM W/*
7*	1641000330	RUBBER FOOT	2	
8	0040110000	WASHER (M10)	4	
9	1501100430	SPACER (10.2dx13.8Dx6.5L)	2	
10	0030210000	SELF LOCK NUT (M10)	2	
11	0040116000	WASHER (M16)	2	
12	0040216000	SPRING WASHER (M16)	2	
13	0030116000	NUT (M16)	2	
14	2031321113	WEIGHT (OUT,R) R	1	
15	A100011500	BRACKET (OUT,R) L	1	
16	2031320213	WEIGHT (OUT,R) L	1	

GLOBUG 4-SPOT — MAST ADAPTER ASSY.

MAST ADAPTER ASSY.



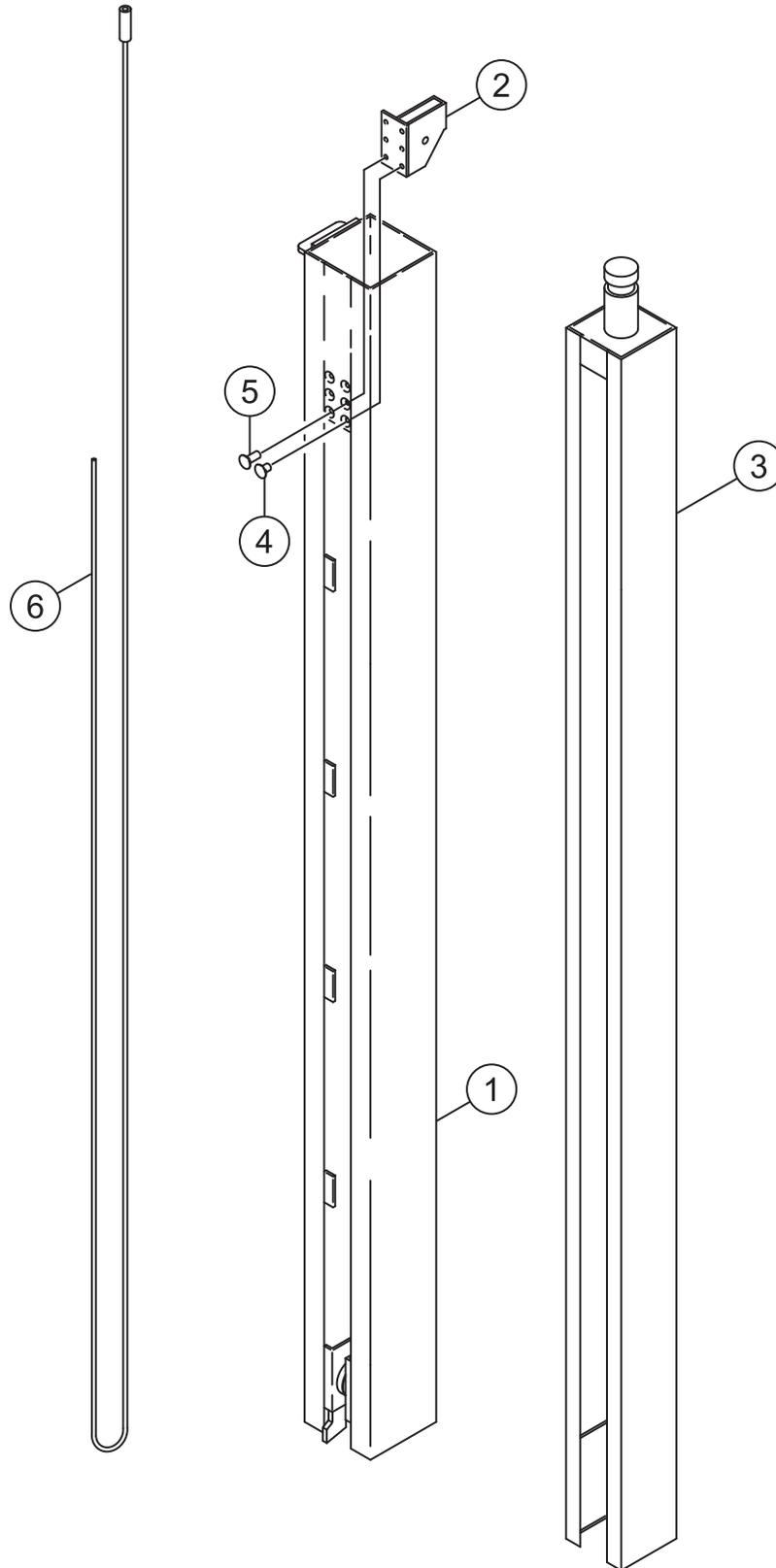
GLOBUG 4-SPOT — MAST ADAPTER ASSY.

MAST ADAPTER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0020304012	SCREW & WASHER (M4 X 12)	4	
2	2202350110	LAMP STAND CP	1	
3	1643000110	FREE BUSH	2	
4	1045000130	SPRING (LEVER)	1	
5	1652000130	CAP	2	
6	1043001230	SPRING (LAMP STAND) L	1	
7	1043001330	SPRING (LAMP STAND) R	1	
8	0010308020	BOLT (M8 X 20)	1	
9	0030108000	NUT (M8)	4	
10	2072310112	ADJUST LEVER (LAMP STAND)	1	
11	1603000130	CLAMP	1	
12	2072400510	CONNECTOR COVER	1	

GLOBUG 4-SPOT — MAST SECTION ASSY.

MAST SECTION ASSY.



GLOBUG 4-SPOT — MAST SECTION ASSY.

MAST SECTION ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A200027200	SECOND MAST	1	
2	2002262010	BRACKET (PULLEY)	1	MAST SECTION 2
3	A200027301	THIRD MAST	1	REPLACES P/N A200027300
4	0020204006	SCREW (M4x6)	6	
5	0020204010	SCREW (M4x10)	6	
6	1031040211	WIRE ROPE (4Dx6300L)	1	

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.

LIMITATION OF WARRANTIES

No warranties, express or implied, are made in connection with the sale of parts or trade accessories nor as to any engine not manufactured by Multiquip. Such warranties made in connection with the sale of new, complete units are made exclusively by a statement of warranty packaged with such units, and Multiquip neither assumes nor authorizes any person to assume for it any other obligation or liability whatever in connection with the sale of its products. Apart from such written statement of warranty, there are no warranties, express, implied or statutory, which extend beyond the description of the products on the face hereof.

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 (800) 537-3927
Contact: mq@multiquip.com

Mayco Parts

800-306-2926 Fax: 800-672-7877
310-537-3700 Fax: 310-637-3284

Service Department

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

MQ Parts Department

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

Warranty Department

800-421-1244, Ext. 279 Fax: 310-537-1173
310-537-3700, Ext. 279

Technical Assistance

800-478-1244 Fax: 310-631-5032

MEXICO

MQ Cipsa

Carr. Fed. Mexico-Puebla KM 126.5 Tel: (52) 222-225-9900
Momoxpan, Cholula, Puebla 72760 Mexico Fax: (52) 222-285-0420
Contact: pmastretta@cipsa.com.mx

CANADA

Multiquip

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

UNITED KINGDOM

Multiquip (UK) Limited Head Office

Hanover Mill, Fitzroy Street, Tel: 0161 339 2223
Ashton-under-Lyne, Fax: 0161 339 3226
Lancashire OL7 0TL
Contact: sales@multiquip.co.uk

BRAZIL

Multiquip

Av. Evandro Lins e Silva, 840 - grupo 505 Tel: 011-55-21-3433-9055
Barra de Tijuca - Rio de Janeiro Fax: 011-55-21-3433-9055
Contact: cnavarro@multiquip.com.br, srentes@multiquip.com.br

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This manual MUST accompany the equipment at all times. This manual is considered a permanent part of the equipment and should remain with the unit if resold.

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