

OPERATION AND PARTS MANUAL



GloBug

MODEL GB43LED

LIGHTING SYSTEM

(FOR USE WITH MQ SERIES GENERATORS)

Revision #0 (03/25/16)

To find the latest revision of this
publication, visit our website at:
www.multiquip.com



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.

[illegible]

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GB43LED GloBug

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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



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

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!



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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.

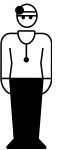
- **ALWAYS** know the location of the nearest fire extinguisher.



- **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).
- **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.
- **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.

SAFETY INFORMATION

GENERATOR SAFETY

If using a generator to power lighting system, refer to applicable generator manual safety information section.



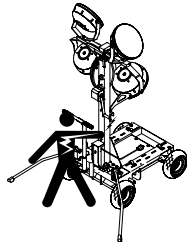
ELECTRICAL SAFETY

DANGER

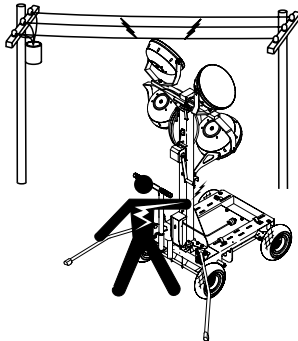
- Lighting system is equipped with a ground pin on the power plug. For your protection, **ALWAYS** complete the grounding path. **NEVER** insert the AC power plug into a 2-prong receptacle to operate lighting system.

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**.



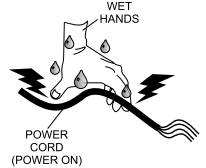
- **ALWAYS** make sure the area above the lighting system is open and clear of overhead power lines and other obstructions. Contact with overhead power lines or other obstructions could result in equipment damage, **electrical shock, electrocution and even death**.



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.

LOADING AND UNLOADING

Cart Type - With Lifting Hook

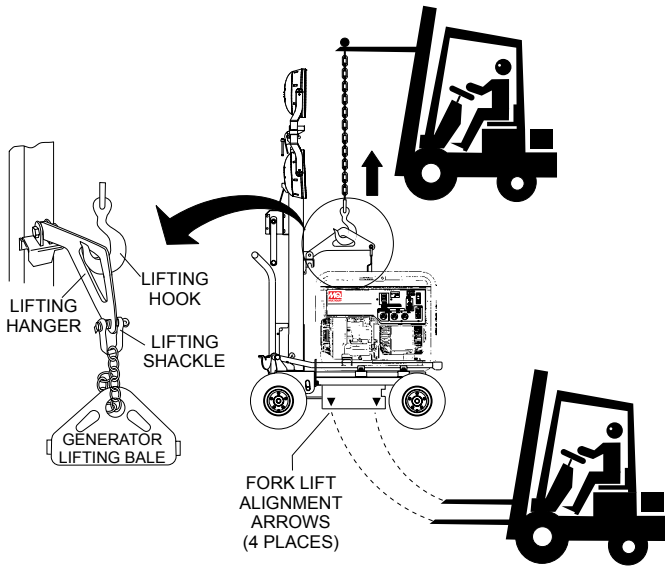
If lighting system is equipped with a transport lifting hook, refer to the following safety information.

CAUTION

- Before lifting, make sure that lighting system parts are not damaged and screws are not loosened or lost.
- **ALWAYS** make sure crane or lifting device has been properly secured to lifting hook of the equipment.
- **NEVER** lift the equipment while lighting system is running.
- Make sure the mast is completely lowered before lifting the lighting system.
- Use adequate lifting cable (wire or rope) of sufficient strength.

SAFETY INFORMATION

- Use one point suspension hook and lift straight upwards.



- Never allow any person or animal to stand underneath the equipment while lifting.
- **DO NOT** lift machine to unnecessary heights.

Cart Type - No Lifting Hook

If lighting system is not equipped with a transport lifting hook and the mast is removable, refer to the following safety information.

- Before lifting, make sure that the mast and lamp are removed as described in the manual.
- The cart can be safely lifted by two persons to the transport vehicle.

TRANSPORTING SAFETY

NOTICE

- When transporting the lighting system, if applicable, always place in **stow position** and place mast in its carrying case.
- **ALWAYS** remove lamp assembly from the mast when transporting lighting system. This will prevent damage to the lamp due to vibration.

Table 1. Specifications	
Model	GB43LED
Input Voltage	120 VAC
Max. Current	11 Amps
Frequency	60 Hz
Appropriate Generator	2,500 Watts
Wind Stability with Generator	40 mph (64.37 kph)
Weight (less generator)	316 lbs. (143.33 kg)
Lamp	
Lamp Type	Four 300W LED
Lamp Material	Polycarbonate Spotlight
Lumens	152,000
Lamp Life	40,000 hours
Plug Type	NEMA 5-15P
Mast	
Number of Stages	4
Maximum Height	17 ft. (5.2 meters)
Mast (Raise)	Manual Winch
Cart	
Cart Type	Steel, Zinc-Plated
Outriggers	2
Wheels	Four 11.8-inch (300 mm) Puncture-Proof
Brake System	Mechanical
Generator (See Specified Generator Manual)	

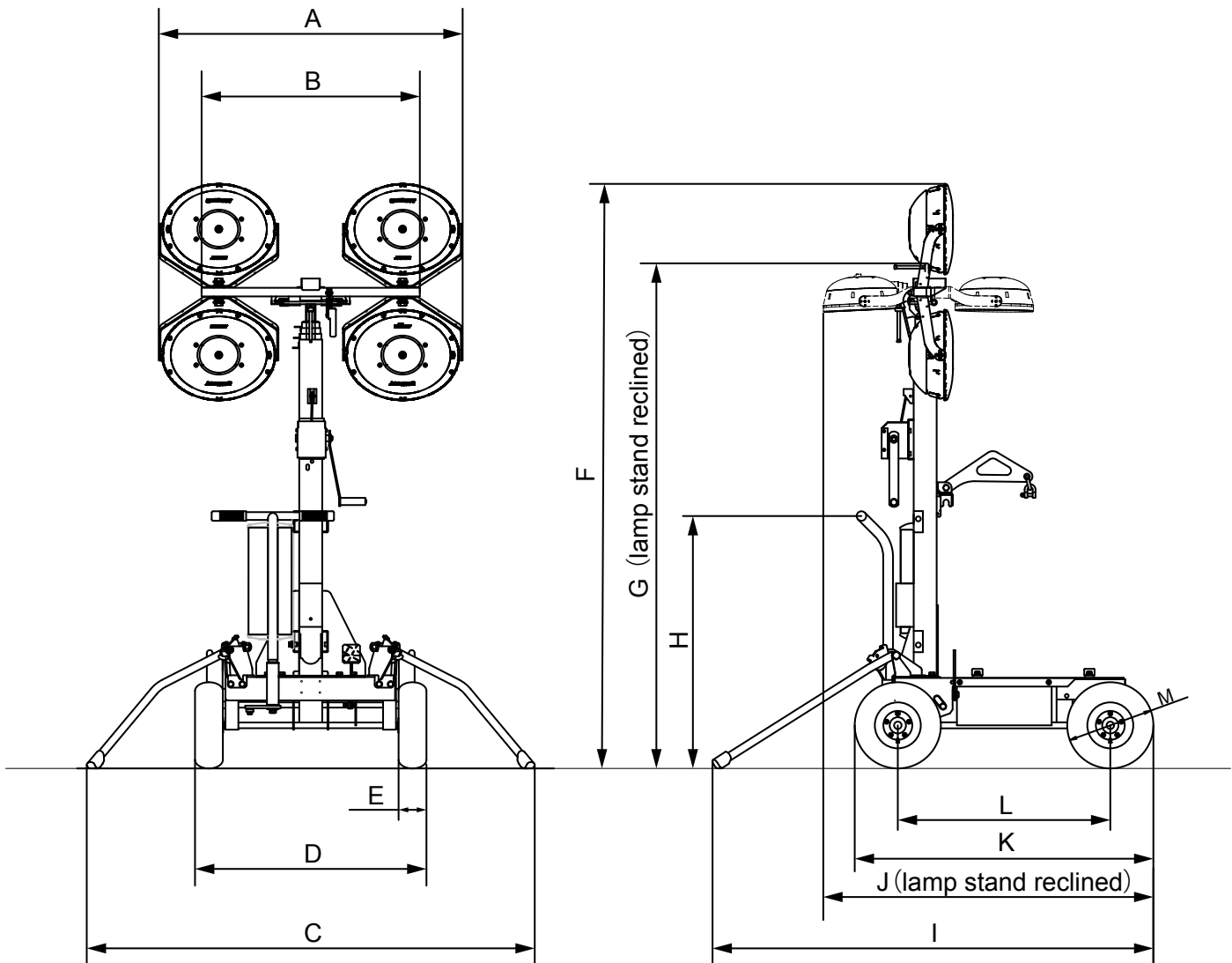
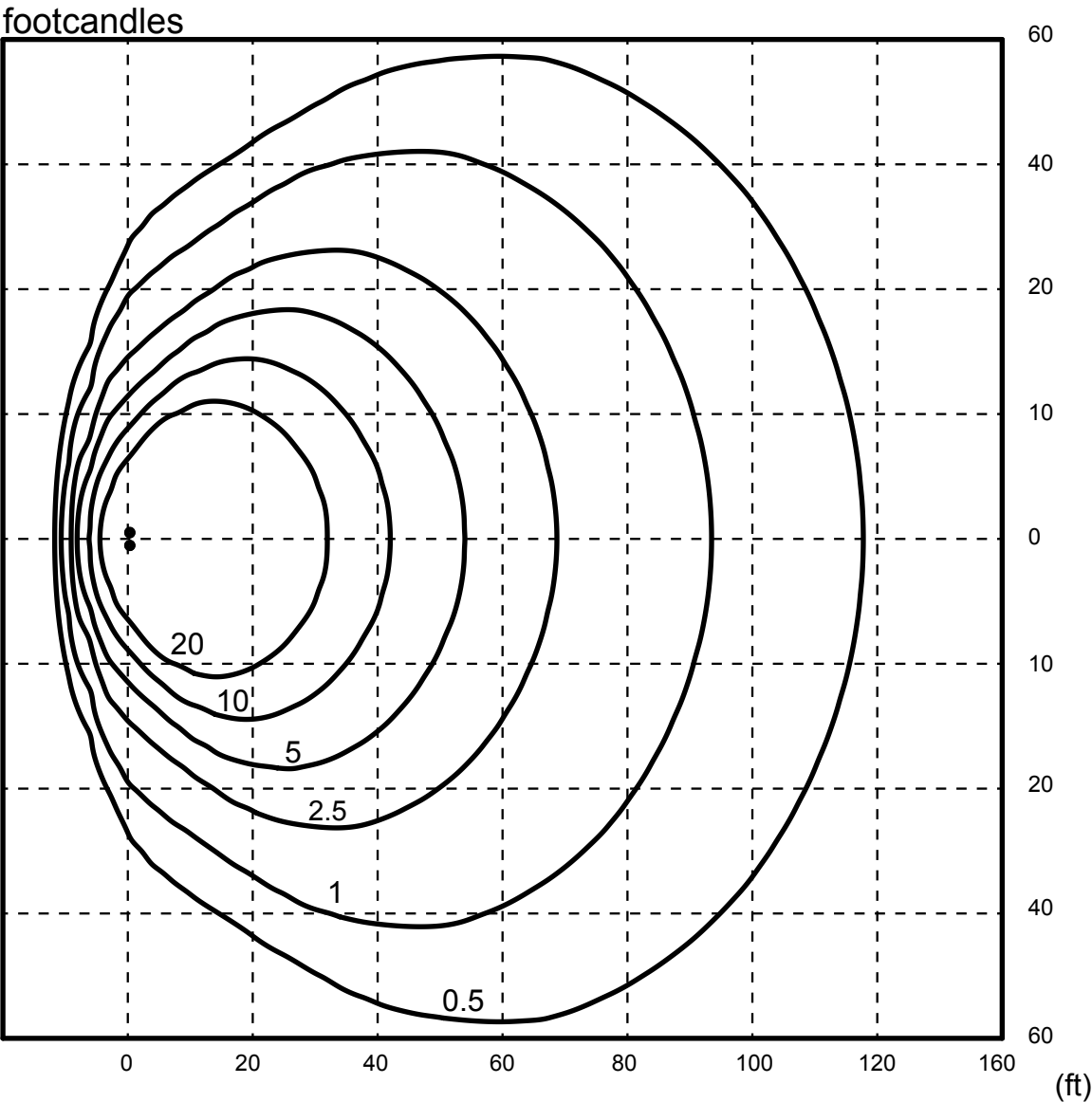


Figure 1. Dimensions

Table 2. Dimensions			
Reference Letter	Dimension in (mm)	Reference Letter	Dimension in (mm)
A	41.7 (1060)	H	34.6 (878)
B	29.9 (760)	I	61.0 (1550)
C	63.0 (1600)	J	43.7 (1110)
D	31.5 (800)	K	40.9 (1040)
E	3.9 (100)	L	29.1 (740)
F	80.3 (2040) - 207.1 (5260)	M	Ø 11.8 (300)
G	69.3 (1760)		

irradiation angle : 60 degrees



illuminance (footcandles)	20	10	5	2.5	1	0.5
distance(ft)	31.6	41.7	53.6	68.4	93.1	117.4

Figure 2. Footcandle Plot

[illegible]

GENERAL INFORMATION

The Multiquip GloBug GB43LED is a 1,200-watt LED light tower intended for emergency and remote lighting conditions. The GB43LED can be powered by a variety of Multiquip generators. Power requirements for running the GB43LED are 120 VAC, 60 Hz @ 11 amps.

NOTICE

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 GB43LED is comprised of four 300 watt LED lamps with an output of 152,000 lumens.

The GloBug GB43LED has the following features:

- Highly efficient LED lamps produce clean, clear light and deliver 40,000 hour service life.
- Immediate lighting as lamps strike instantly with no waiting required at start-up or during re-strike.

- Durable lamp housings feature aluminum and poly construction along with shatter resistant lenses.
- Flexible power options permit connection to local 120 volt power or portable generator.
- Mechanically assisted 4-stage mast extends to a maximum height of 17 feet.
- Rugged steerable cart utilizes zinc-plated steel to prevent corrosion.
- Large puncture-proof tires permit easy on-site mobility.
- Versatile platform allows secure mounting of most pipe-frame generators and includes center-mount lifting bale.
- Stability assured through mechanical foot brake and dual locking outriggers.
- Folds to tight 3.6' x 3.5' x 6.8' footprint for transport and storage.

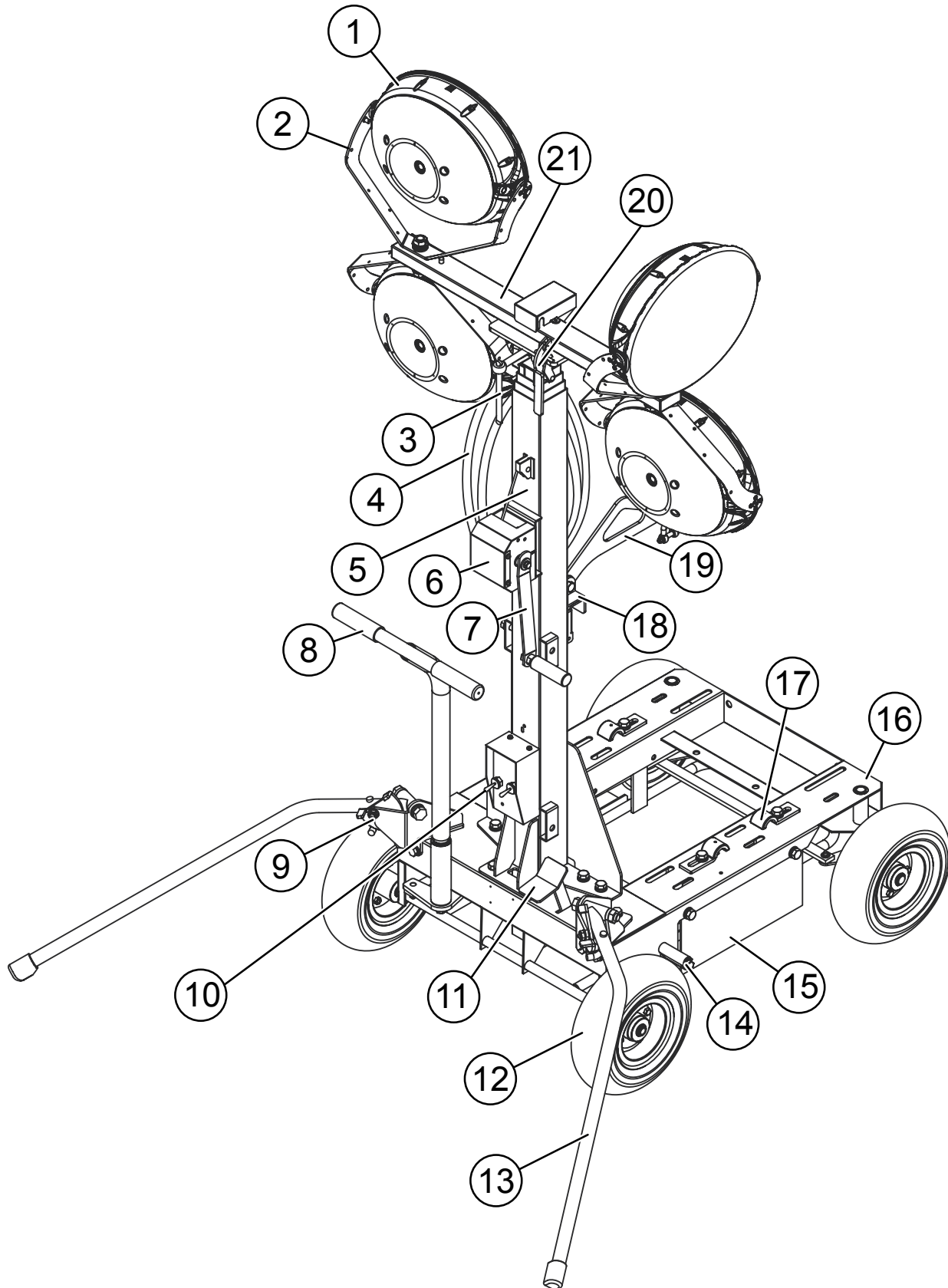


Figure 3. Major Components

COMPONENTS

Figure 3 shows the location of the controls and components for the GloBug GB43LED. The functions of each control is described below:

1. **Lamp**— 300 Watt LED lamp that delivers 40,000 hour service life.
2. **Lamp Arm** — Holds the lamp and allows it to be individually twisted left to right and vice versa.
3. **Adjust Lever** — This lever allows the lamp to be positioned up or down. Turn counterclockwise to release lamp and position. Turn clockwise to tighten.
4. **Lamp Power Cable** — Connects the lamps to the power (generator).
5. **Mast** — This mast is comprised of four separate stages. The mast can be raised up to a maximum height of 17 feet (5.2 meters). When raising the mast, always be on the lookout for overhead obstructions.
6. **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.
7. **Winch Handle** — Use this handle to adjust the mast height.
8. **Steering Handle** — The GB43LED 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 unit to turn either left or right.
9. **Counterweight Lever** — Holds the outriggers in place when deployed.
10. **Lamp Switches** — Left switch turns upper lamps on and off. Right switch turns lower lamps on and off.
11. **Brake Pedal** — Step on this pedal to apply the brakes. To release the brakes, press down on brake pedal again.
12. **Tires** — The GB43LED 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 (245 kPa).
13. **Outriggers** — **ALWAYS** deploy the outriggers when raising the mast.
14. **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.
15. **Catcher** — Holds the outrigger in place in the stow position.
16. **Cart** — Holds the generator that supplies power to the lighting unit.
17. **Locking Clamps** — To secure the generator to the GB43LED cart platform, place clamps (4) around the pipe frame of the generator. Tighten securely to prevent movement.
18. **Generator Stopper** — Holds the generator in place.
19. **Lift Hanger** — When lifting of the GB43LED is required, always use a suitable lifting device of adequate lifting capability. **NEVER** stand underneath the GB43LED while it is being lifted.
20. **Fold Lever** — Holds the lamp stand in place after adjusting its position.
21. **Lamp Stand** — Holds the four lamps and allows the lamps to be positioned.

CAUTION



Please read this entire manual carefully before attempting to operate the GB43LED. Failure to read this manual could cause damage to the unit and serious injury to the operator.

CART SETUP

1. Move the GB43LED, using the T-handle (Figure 4), to a firm level surface so that it will not slide or turn over.

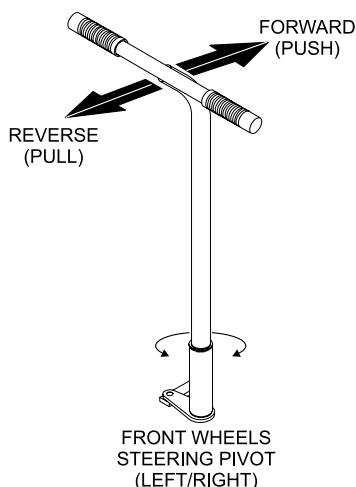


Figure 4. T-Handle (Directional Control)

2. To apply the parking brake (Figure 5), 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.

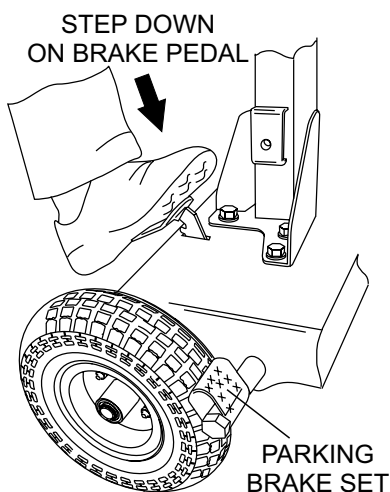


Figure 5. Parking Brake (Set Position)

3. Lift up on each outrigger (2) from its stow position, rotate backwards and place it in the deployed position, as shown in Figure 6. The outriggers will automatically lock in place once they touch the ground.

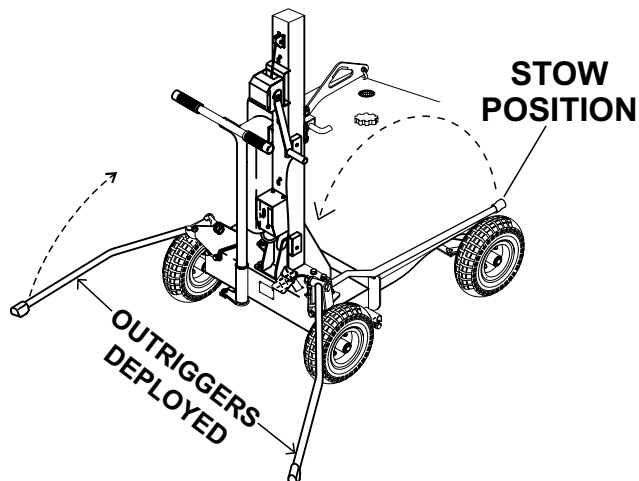


Figure 6. Outriggers (Deployed Position)

RAISING THE LAMP STAND

1. Support the lamp stand with one hand and pull up the fold lever with the other hand. The lever will spring up. See Figure 7.

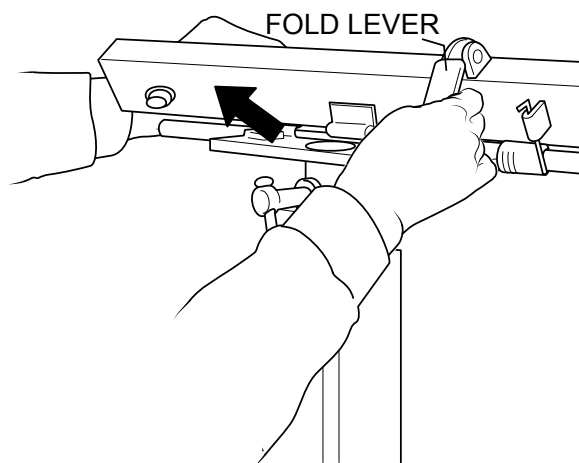


Figure 7. Raising Lamp Stand

2. Pull up the light stand to raise it and push down the fold lever to lock the lamp stand (Figure 8).

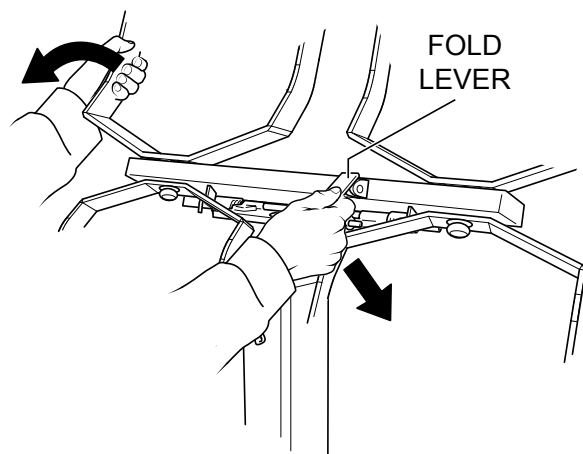


Figure 8. Locking Lamp Stand

CAUTION

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 9).

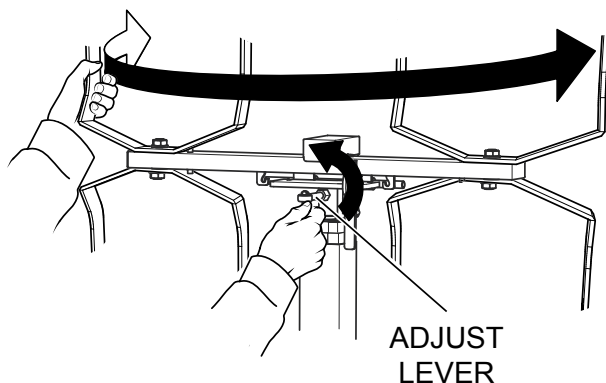


Figure 9. Adjusting Direction of Lighting Units

TURNING LIGHTS INDIVIDUALLY

1. Hold the arm of the lamp and turn it to the desired direction (Figure 10).

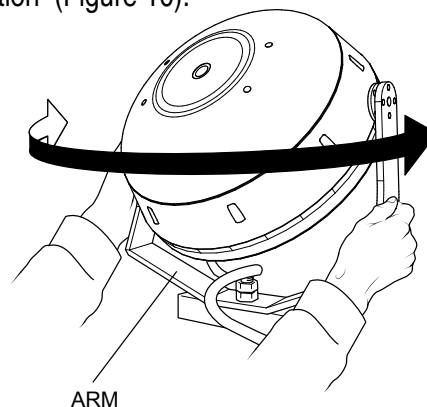


Figure 10. Adjusting Direction of Individual Lamp

ADJUSTING ANGLE OF THE LIGHTS

1. Hold the lamp and tilt it to the desired direction (Figure 11).

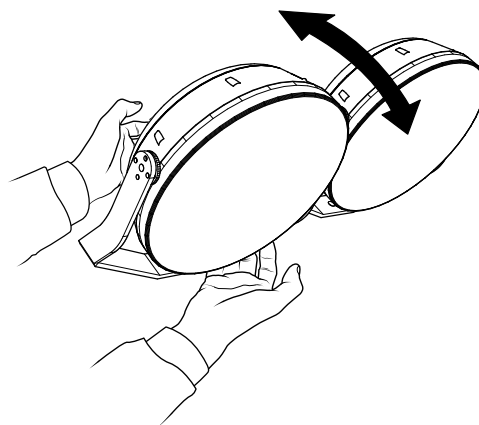


Figure 11. Adjusting Angle of Light

ADJUSTING HEIGHT OF THE LIGHTING UNIT

2. 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 12).

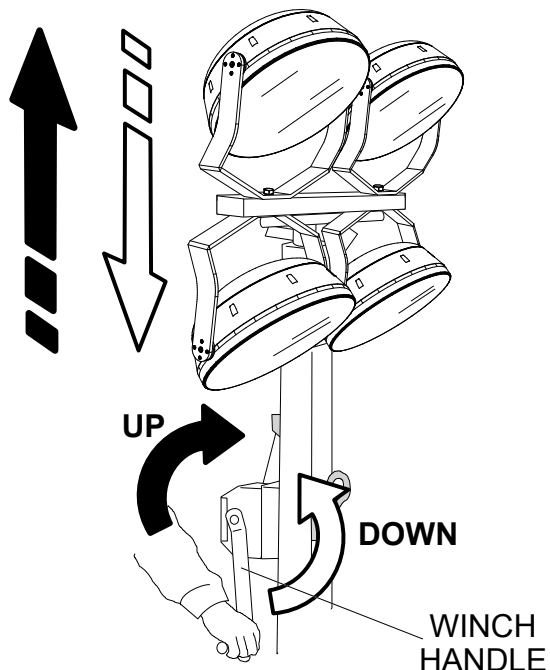


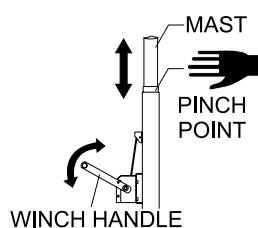
Figure 12. Adjusting Height of Lighting Unit

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 GB43LED comes in contact with high voltage power lines.

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.

APPLYING POWER

1. Make sure the generator lamp switch (Figure 13) is in the OFF position.

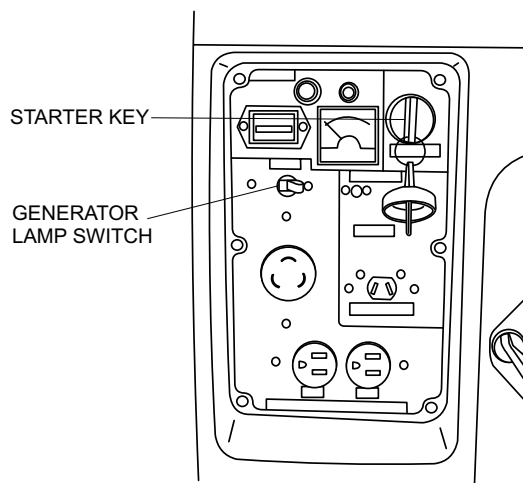


Figure 13. Generator Lamp Switch

CAUTION



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

2. The GB43LED has a power requirement of 120 VAC, 60 Hz @ 11 amps. Connect the AC power cord to the 120 VAC twist-lock receptacle (Figure 14) on the supplied generator.

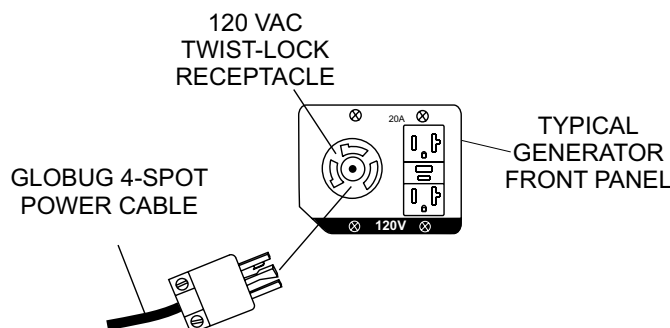


Figure 14. 120 VAC Receptacle

3. Start the generator as referenced in the "Startup" 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 13) to the ON position.
6. On the GB43LED, place the left lamp switch to the ON position to turn on the upper lamps. To turn on the lower lamps, place the right lamp switch to the ON position. Place both lamp switches to the ON position to turn all the lamps on (Figure 15).

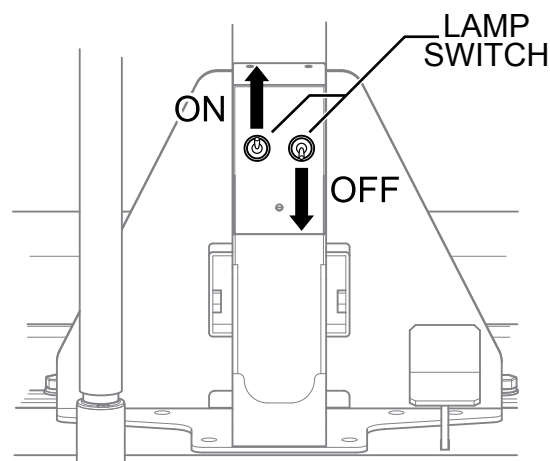


Figure 15. Turning ON Lamp Switches

7. The lamp should light up and give a fully bright light. If any lamp is not on, check all connections and repeat steps 1 through 6. If the lamp still does not come on, contact the MQ service department.

SHUTDOWN

1. Place the GB43LED lamp switches to the OFF position.
2. Place the generator lamp switch to the OFF position.
3. Disconnect the GB43LED AC power cable from the generator.
4. Shutdown generator as referenced in the "Shutdown" section of the supplied generator manual.

CAUTION

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

PREPARATION FOR STORAGE

1. Using the mast winch (Figure 12), lower the mast fully. Turn winch handle counterclockwise to lower mast.
2. Set the lighting units facing the front (Figure 16).

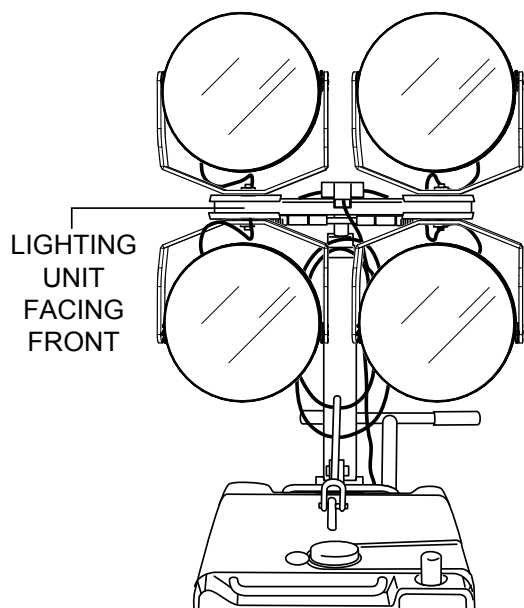


Figure 16. Lighting Unit Facing Front

3. Holding the lamp stand with one hand, pull up the fold lever with the other hand (Figure 17).

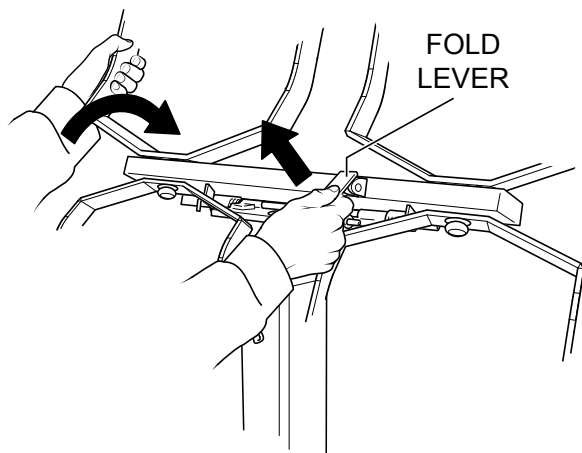


Figure 17. Lowering Lamp Stand

4. Push down the lamp stand (Figure 18). Some force is required when pushing down because of the installed springs.

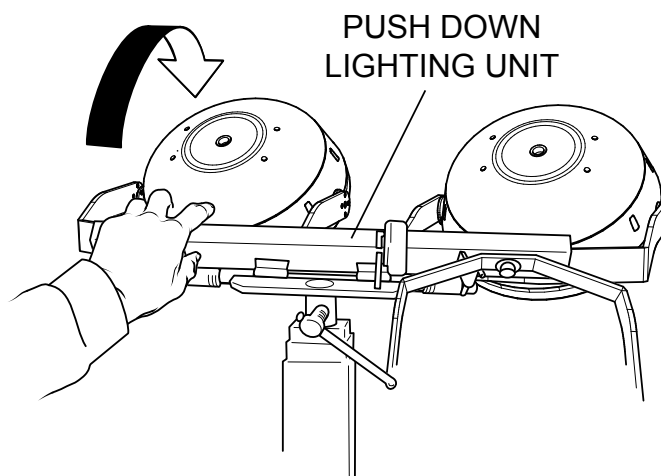


Figure 18. Pushing Down Light Stand

5. After lighting unit has been completely pushed down, push down fold lever (Figure 19) to lock the lamp stand in place.

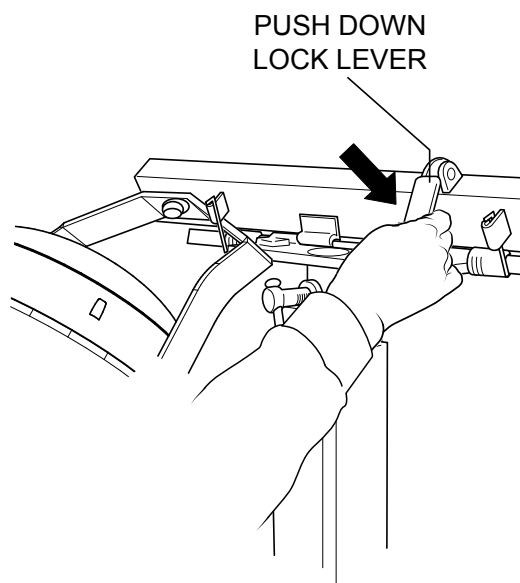


Figure 19. Locking Lamp Stand

6. To unlock outriggers, push downward on the counterweight lever indicated by arrow (Figure 20).

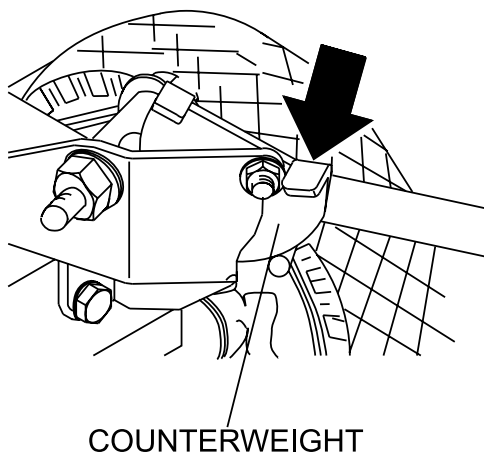


Figure 20. Outriggers (Released)

7. Grab hold of outrigger, pull upward, push down and place in stow position (Figure 21).

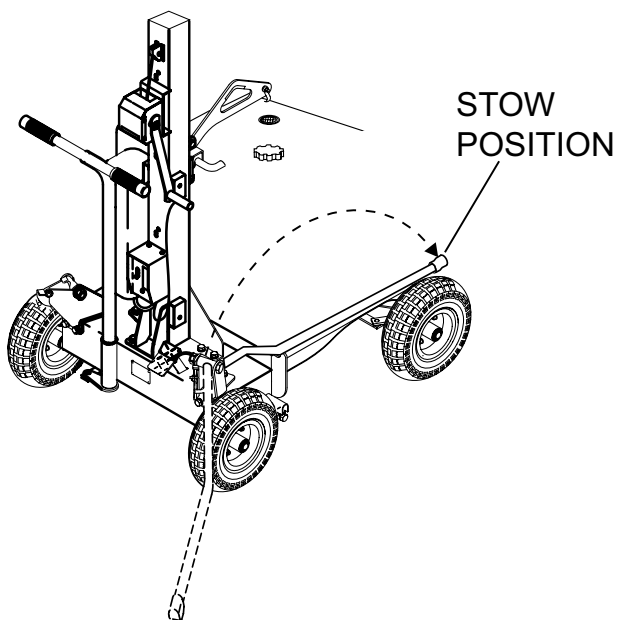


Figure 21. Outriggers (Stow Position)

8. Press down on the top of the brake pedal (Figure 22) and hold, then release. This action will disengage the brake mechanism and allow the GB43LED to be moved.

STEP DOWN
ON BRAKE PEDAL
HOLD AND RELEASE

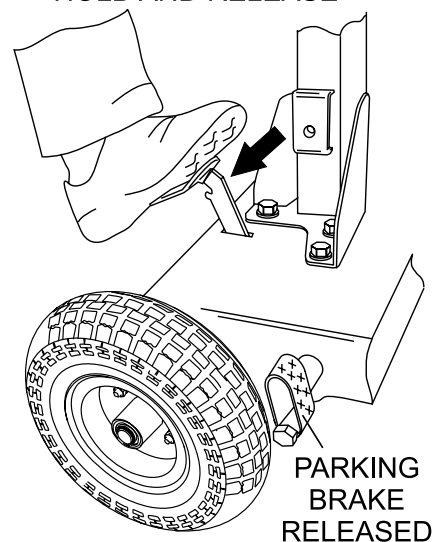


Figure 22. Parking Brake (Released Position)

STORAGE

1. Wipe dirt or foreign matter that may have accumulated on the GB43LED during operation. Use a mild detergent to clean the unit. **DO NOT** spray the engine with water.
2. Avoid storing the GB43LED in areas that can be exposed to rain, harsh elements, and high humidity.
3. Place the GB43LED in a clean dry location away from dirt and debris.

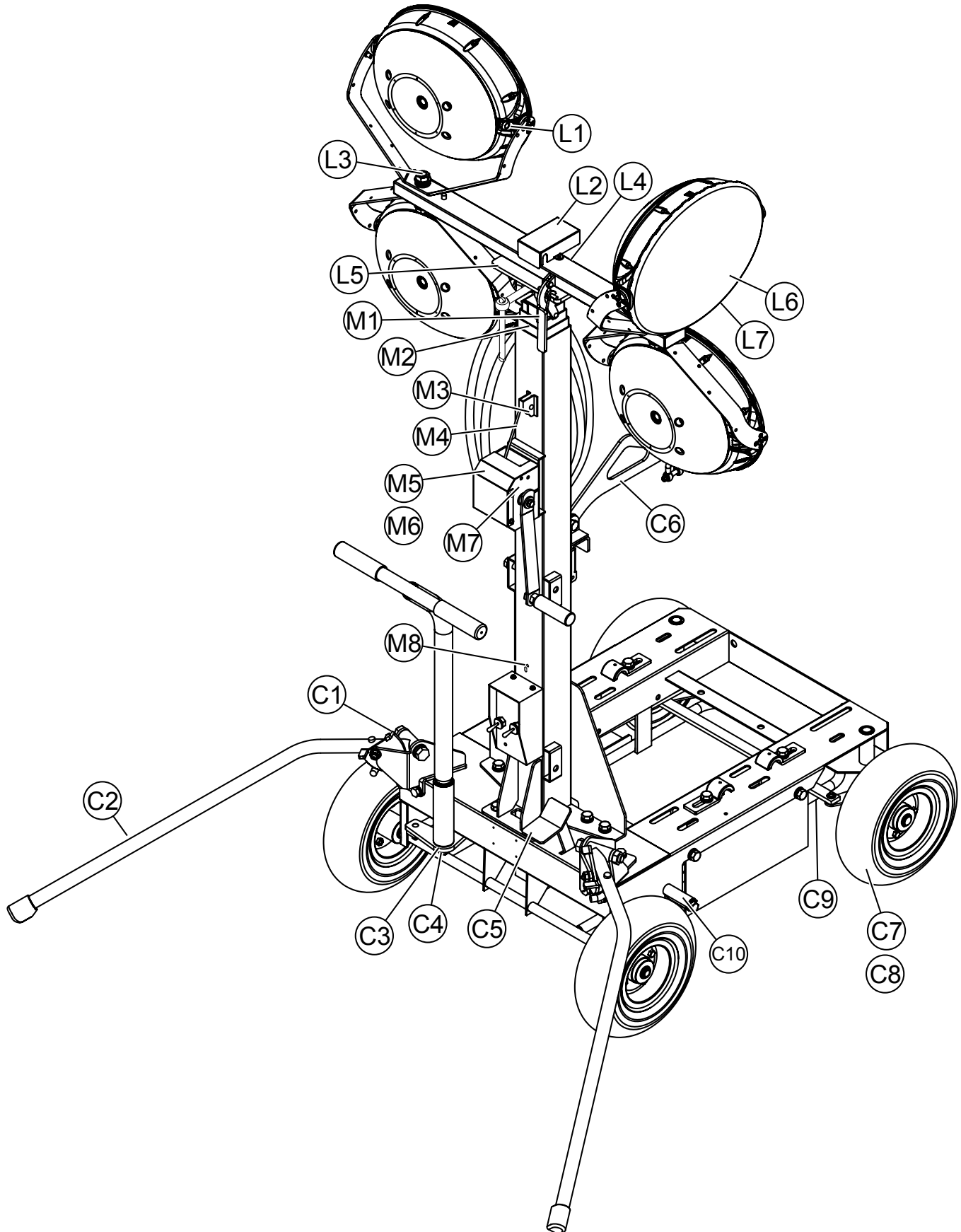


Table 3. Maintenance Chart

Location		Part	Symptom	Solution	Freq.
Lamp	L1	Cable Gland	Loose?	Screw tightly.	❖
	L2	Pin Terminal	Loose or disconnected?	Tighten or connect securely.	■
	L3	Nut	Too loose or 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 damaged?	Replace.	❖
	L7	Polycarbonate Cover	Dirty?	Wipe off dirt.	❖
Mast	M1	Fold Lever	Does not lock and unlock properly?	Repair.	❖
	M2	Mast Sliding Surface	Does not slide smoothly?	Apply grease.	●
	M3	Pulley, Top of Winch	Does not move smoothly?	Apply grease or replace	●
	M4	Wire Rope	Damaged, rusty, frayed?	Apply grease or replace.	❖
	M5	Wire Rope End	Damaged (caulking)?	Replace.	❖
	M6	Winch Brake	Defective?	Replace.	❖
	M7	Winch Stopper	Does not operate properly?	Replace	❖
	M8	Safety Stop	Loose wire rope and stopper jutting out?	Repair or replace.	▲
Cart	C1	Counterweight	Does not move smoothly?	Spray grease.	●
	C2	Outriggers	Do 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	Tires	Damaged?	Replace.	❖
	C8	Tire Pressure	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.	❖
❖ - Daily Check ■ - Every 20 Hours ● - Every 100 hours ▲ - Every 500 hours					

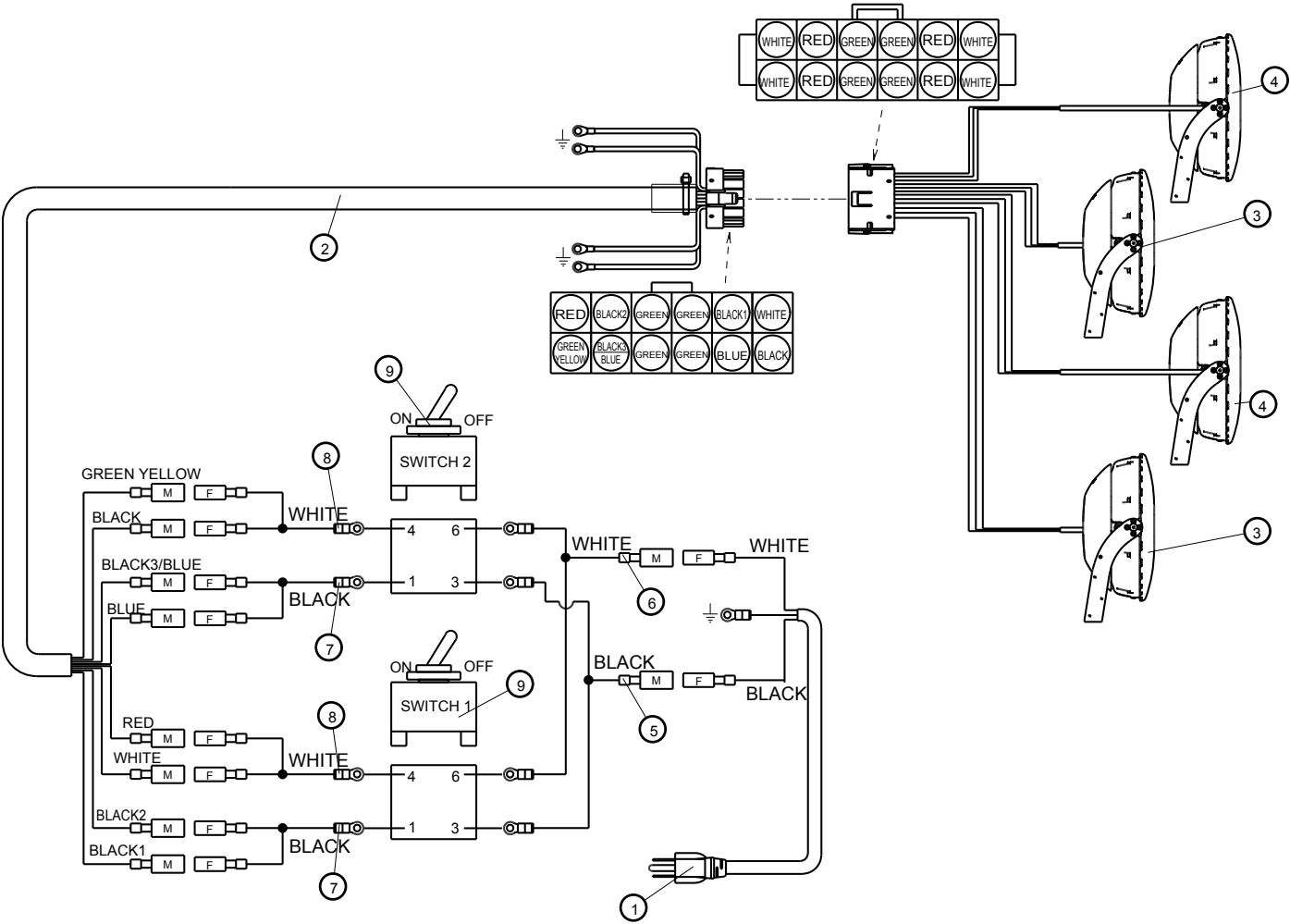
TROUBLESHOOTING

Troubleshooting (LED Lamps)		
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.
	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 input not 100 VAC?	Make sure input is 100 VAC.
	Is fan inside light tower not operating properly?	Repair or replace.
Lamp only lights for a short time.	Is generator used not appropriate?	Use generator with sufficient capacitance.
	Is ambient temperature too high - more than 104 °F (40 °C)?	Move lamp where there is proper ventilation.

TROUBLESHOOTING

Troubleshooting (Mast)		
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 drum shaft loose?	Tighten drum 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).

WIRING DIAGRAM



9	E-0001534-00	SWITCH	2
8	A-4004021-00	WIRE(JOINT 6)CP	2
7	A-4004020-00	WIRE(JOINT 5)CP	2
6	A-4004019-00	WIRE(JOINT 4)CP	1
5	A-4004018-00	WIRE(JOINT 3)CP	1
4	A-0000620-00	LED300W SPOT LIGHTING UNIT LAY	2
3	A-0000619-00	LED300W SPOT LIGHTING UNIT RAY	2
2	A-3003297-00	WIRE(LAMP)CP	1
1	A-3003341-00	CABLE (MAIN GB43LED) CP	1
NO	PART NUMBER	DESCRIPTION	QTY

[illegible]

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

GB43LED GLOBUG

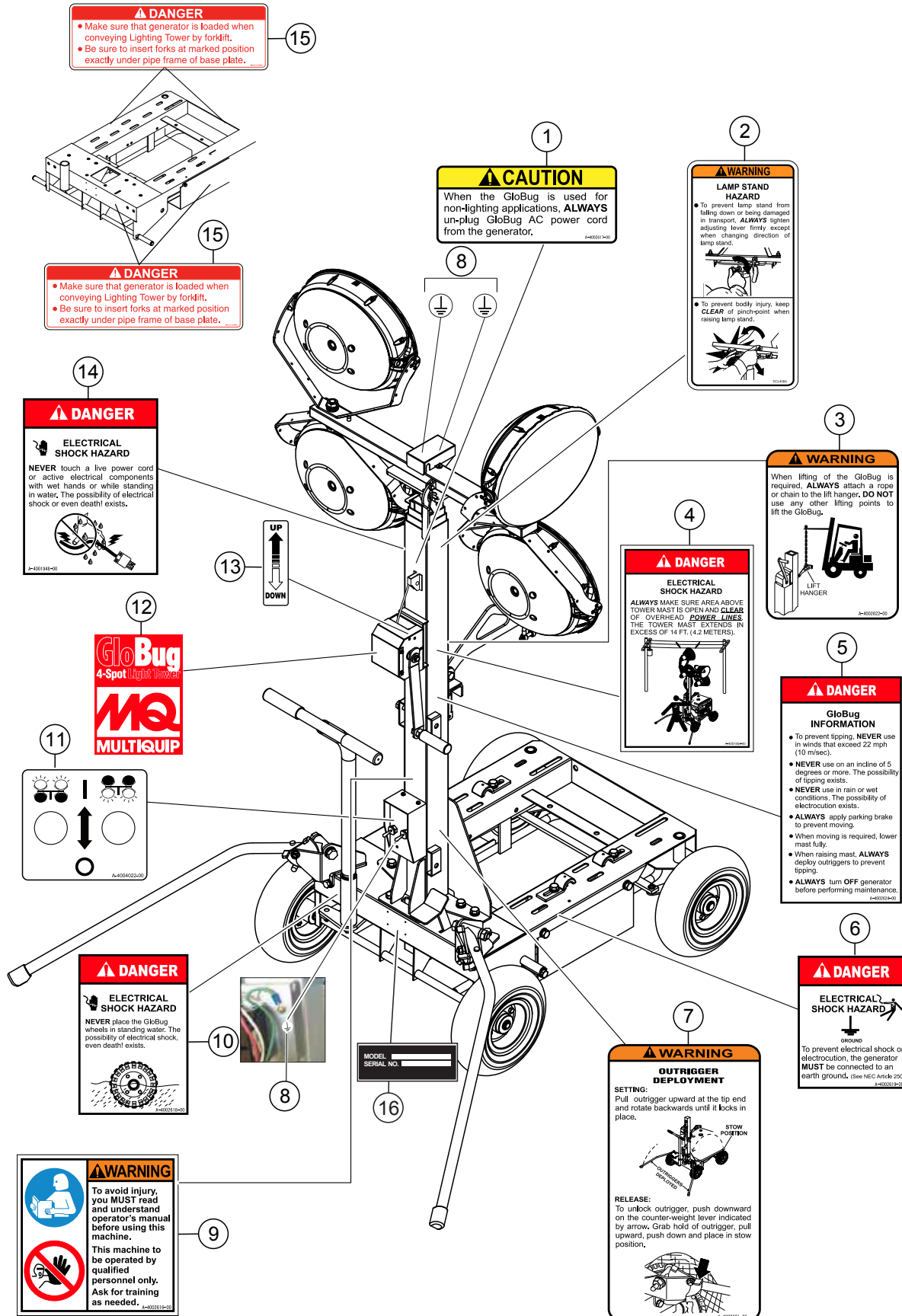
1 to 3 units

Qty.	P/N	Description
3.....	A000061900	LED 300W LIGHTING UNIT(R)
3.....	A000062000	LED 300W LIGHTING UNIT(L)
1.....	A000060600	COVER

NOTICE

Part numbers on this Suggested Spare Parts list may supersede/replace the part numbers shown in the following parts lists.

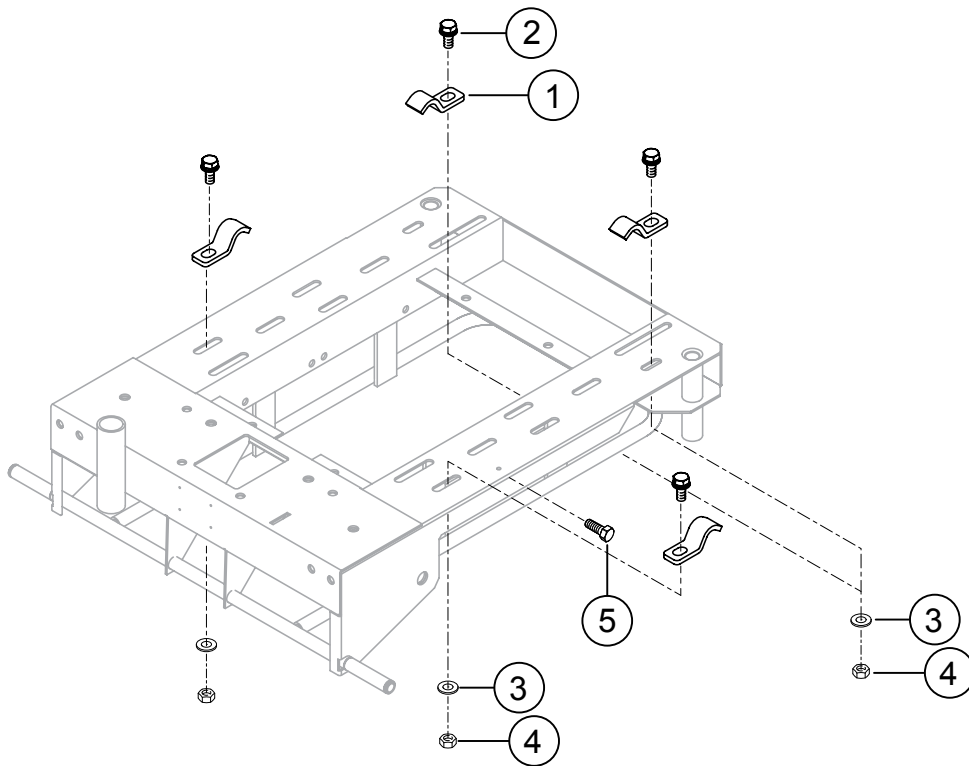
NAMEPLATES AND DECALS



NAMEPLATES AND DECALS

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A400261700	DECAL; CAUTION, REMOVE POWER CORD	1	
2	A400155500	DECAL; WARNING, ADJ. LEVER HAZARD	1	
3	A400262200	DECAL; WARNING, LIFT HANGER	1	
4	A400155400	DECAL; DANGER ELECTRIC SHOCK (GLOBUG)	1	
5	A400262400	DECAL; DANGER, GLOBUG INFORMATION	1	
6	A400261900	DECAL; DANGER, ELECTRICAL SHOCK (GND)	1	
7	A400262100	DECAL; WARNING, OUTRIGGER DEPLOYMENT	1	
8	A400084300	DECAL; GROUND, Ø10 WHITE	1	
9	A400261600	DECAL; WARNING, READ MANUAL	1	
10	A400261800	DECAL; DANGER, ELECTRICAL SHOCK (TIRES)	1	
11	A400402200	DECAL; LIGHT SWITCH ON/OFF	1	
12	A400155600	DECAL; MQ LOGO	1	
13	A400262700	DECAL; WINCH UP/DOWN	1	
14	A400194800	DECAL; DANGER, ELECTRICAL SHOCK (CORDS)	1	
15	A400116400	DECAL; DANGER, INSERT FORKLIFT	4	
16		NAMEPLATE	1.....	CONTACTMQPARTS DEPT.

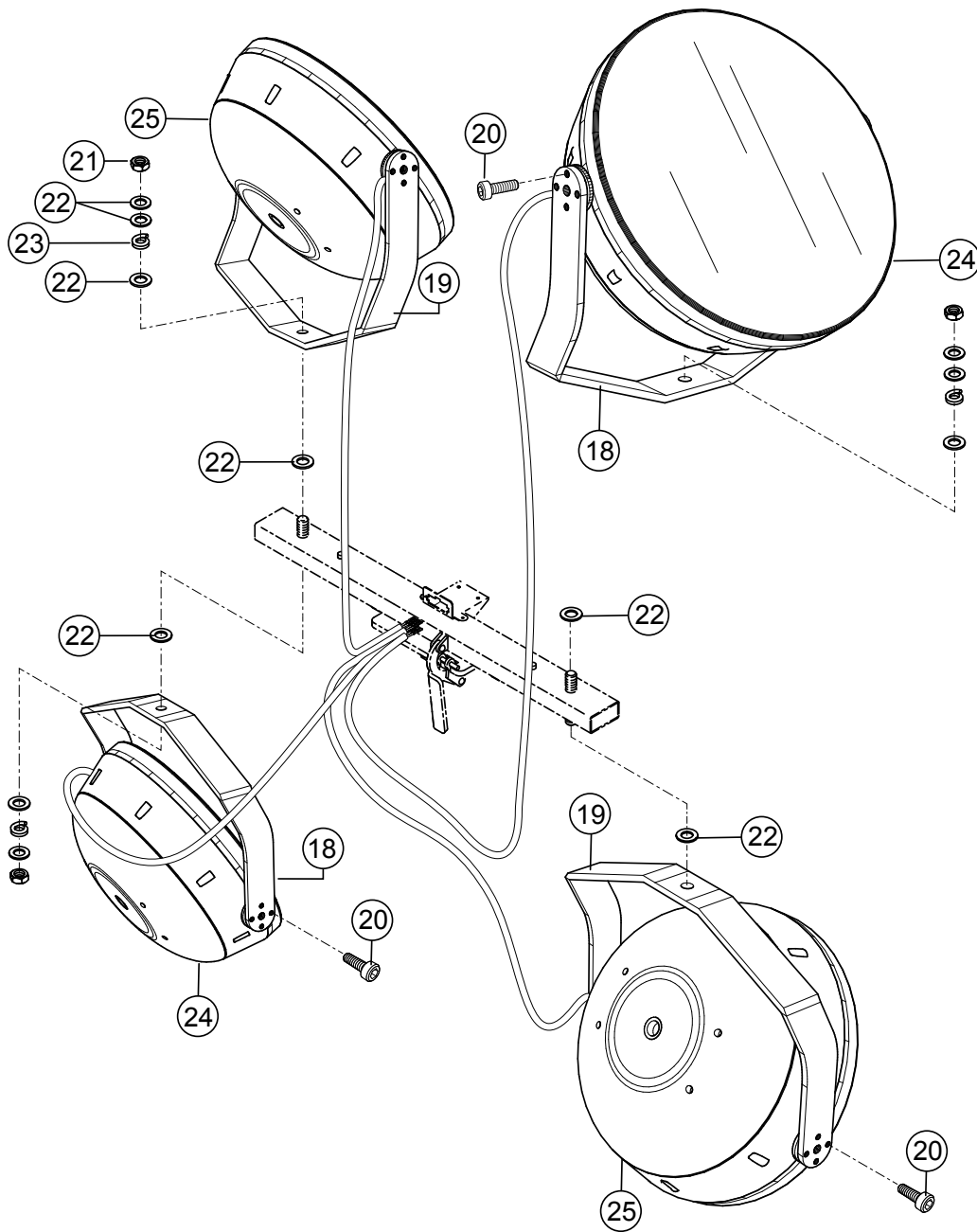
BASE PLATE ASSY.



BASE PLATE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A400166400	LOCKING CLAMP	4	
2	0013512025	BOLT AND WASHER, M12X25	4	
3	0043112000	WASHER, M12	4	
4	0033112000	NUT, M12	4	
5	0013106010	BOLT, M6X10	1	

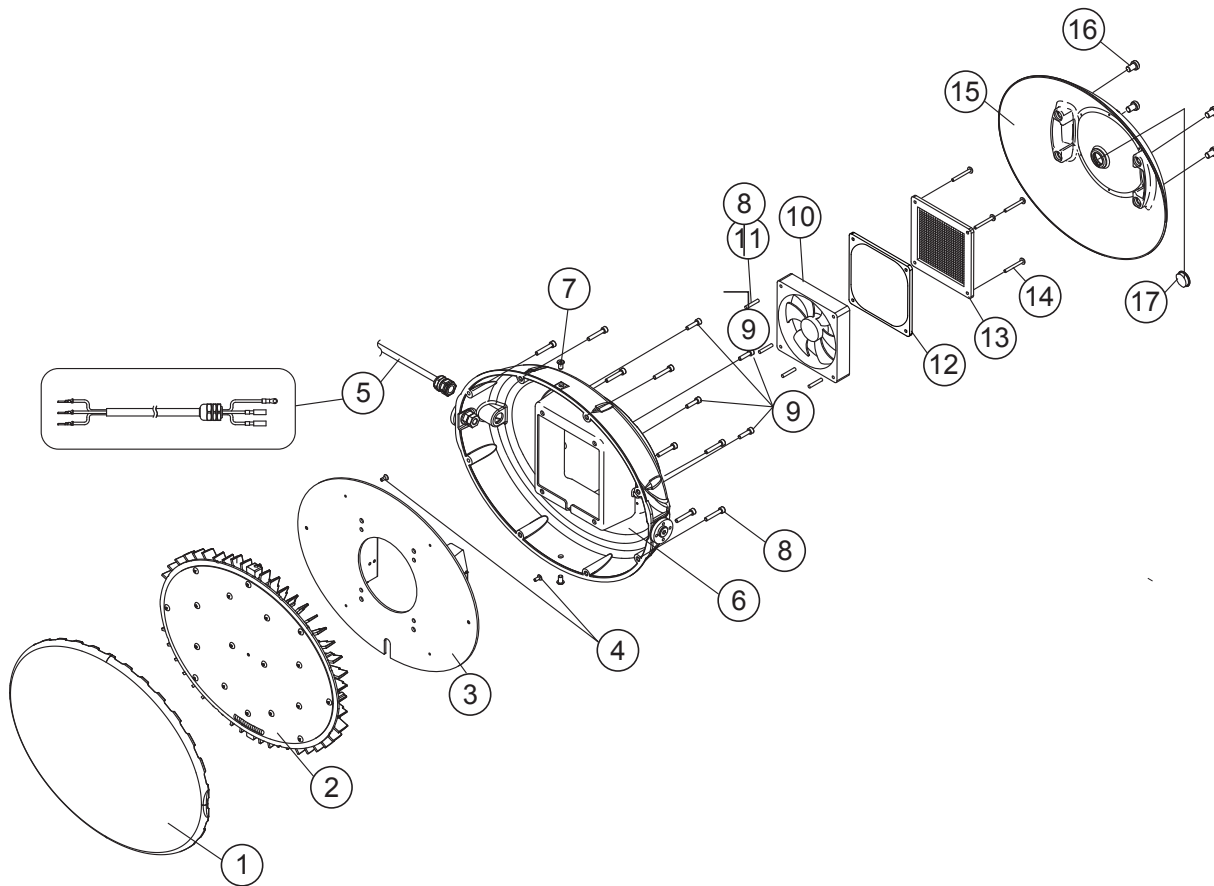
LED LAMP ASSY.



LED LAMP ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
18	A100117000	ARM, R (LS030)	2	
19	A100113401	ARM, L (LS030)	2	
20	0025005010	COUNTERSUNK SCREW M5x10	8	
21	0034116000	NUT, M16	4	
22	E000144000	WASHER, M16	16	
23	1042000230	SPRING, LAMP	4	
24	A000061900	LED 300W SPOT LIGHTING UNIT (R) ASSY.	2	
25	A000062000	LED 300W SPOT LIGHTING UNIT (L) ASSY.	2	

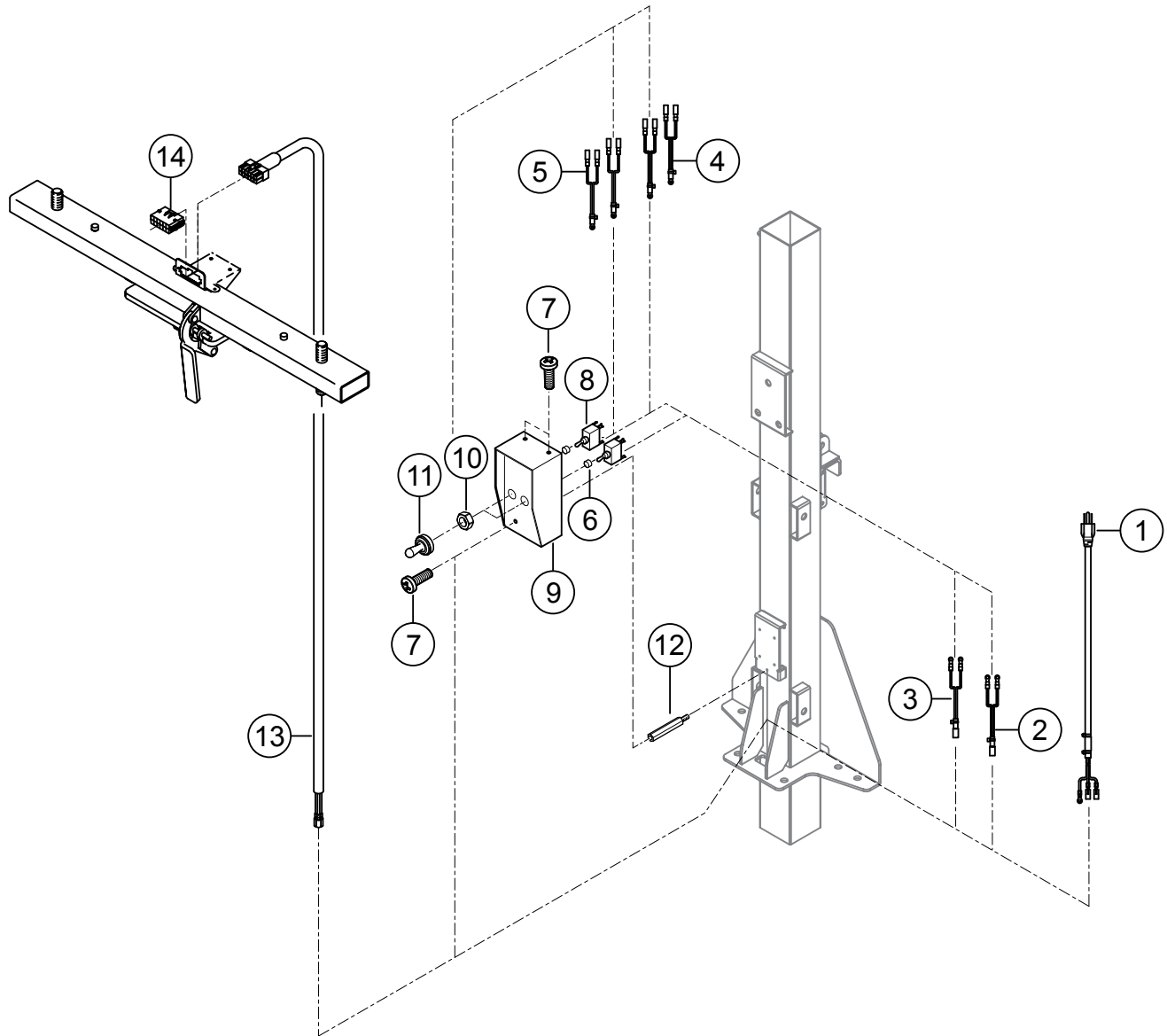
FRONT COVER ASSY.



FRONT COVER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A000060600	FRONT COVER ASSY.	4	
2	A000060700	HEAT SINK ASSY.	4	
3	A000060900	POWER UNIT ASSY.	4	
4	0025004010	COUNTERSUNK SCREW M4X10	8	
5	A300317701	CABLE (4-SPOT) COMPLETE	4	
6	A100110601	ARM BRACKET	4	
7	0017206010	BOLT, SOCKET HEAD SUS M6X10	8	
8	0017105030	BOLT, SOCKET HEAD SUS M5X30	32	
9	0043116000	BOLT, SOCKET HEAD SUS M6X16	16	
10	A300328800	FAN	4	
11	E000152600	SPACER	16	
12	A400400500	PLATE, FAN	4	
13	E000134400	FAN GUARD	4	
14	0024304035	SCREW, TRUSS HEAD	16	
15	A100116000	BACK COVER, MQ RED	4	
16	0018108012	BOLT, SOCKET HEAD SUS M8X12	16	
17	E000148500	CAP	4	

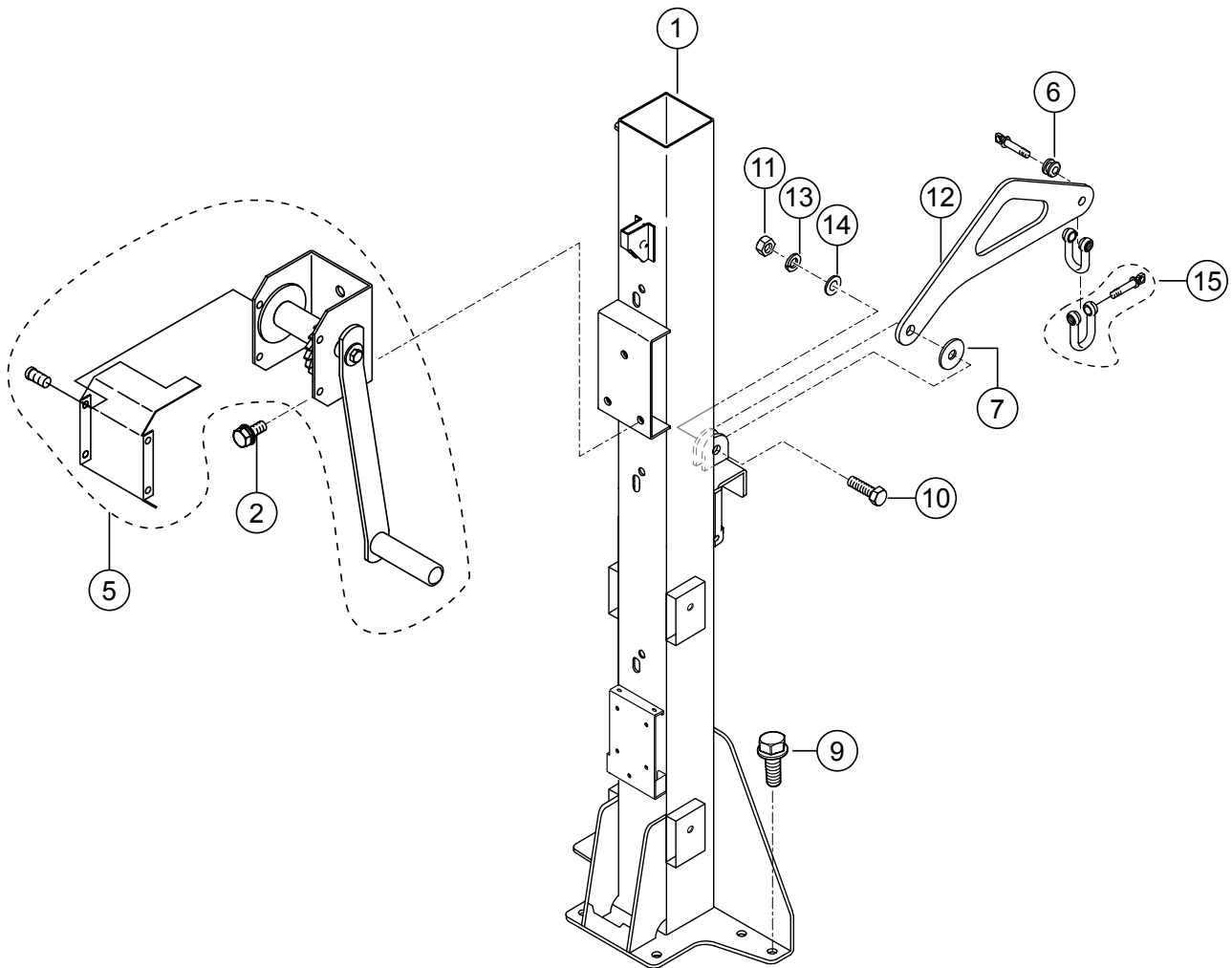
CABLE AND SWITCH ASSY.



CABLE AND SWITCH ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A300335000	CABLE (MAIN GB43LED) CP	1	
2	A400401800	WIRE (JOINT) 3 CP	1	
3	A400401900	WIRE (JOINT) 4 CP	1	
4	A400402000	WIRE (JOINT) 5 CP	2	
5	A400402100	WIRE (JOINT) 6 CP	2	
6	E000153700	SWITCH, WASHER	2	
7	0023304012	BOLT AND WASHER, M4X12	3	
8	E000153400	SWITCH	2	
9	A300334701	SWITCH COVER	1	
10	E000153600	SWITCH NUT	2	
11	E000153500	SWITCH CAP	2	
12	2032500430	BOLT, SUPPORTER	1	
13	A300329700	WIRE (LAMP) CP	1	
14	1407021030	RECEPTACLE HOUSING	1	

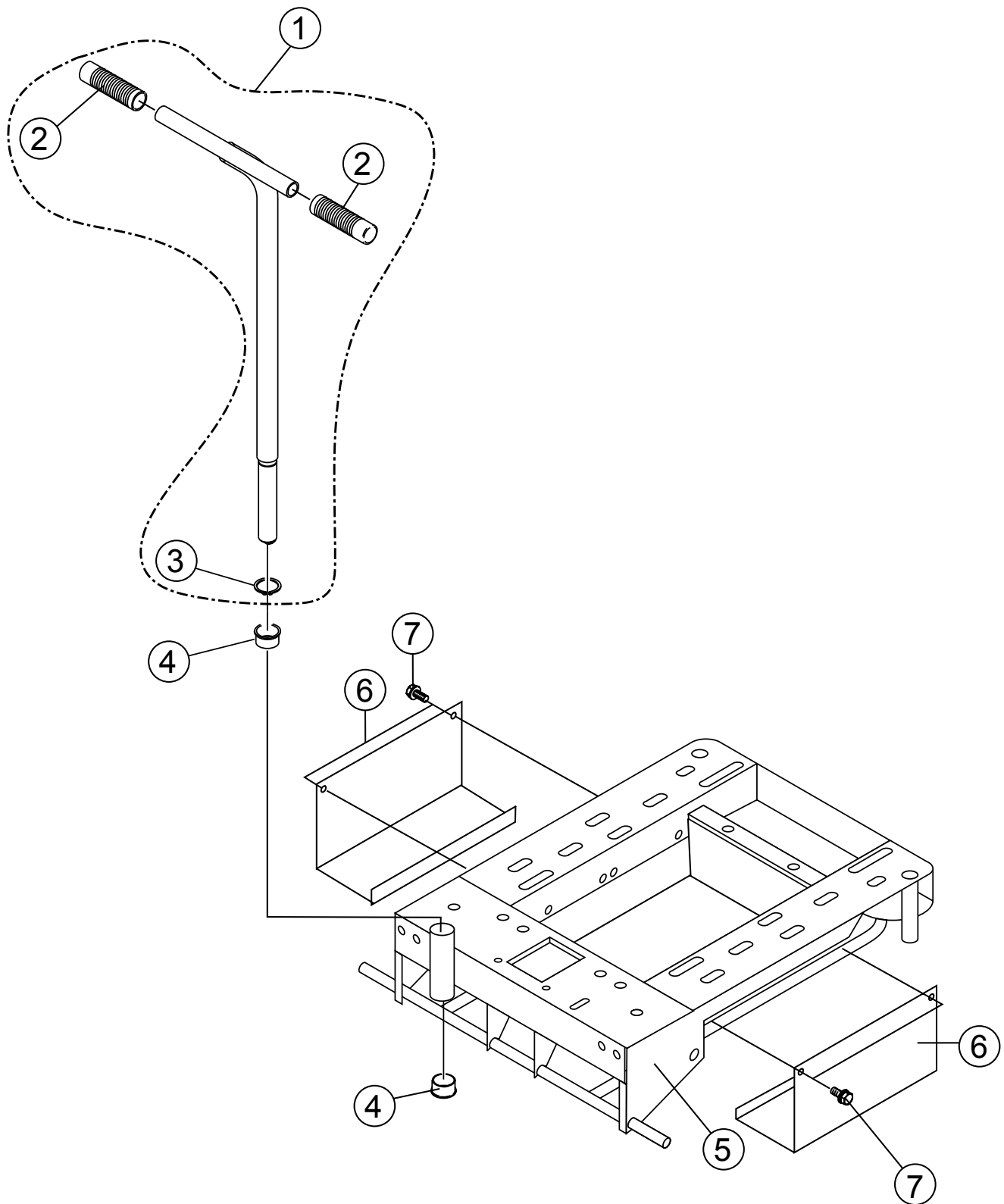
MAIN MAST ASSY.



MAIN MAST ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A100028105	FIRST MAST	1	
2	0013510025	BOLT AND WASHER, M10X25	3	
5	1011000701	WINCH HM-G103	1	
6	1642001430	GROMMET	1	
7	0043112041	WASHER, 12DX40DX3.2	1	
9	0013512025	BOLT AND WASHER, M12X25	6	
10	0013112040	BOLT, M12X40	1	
11	0033112000	NUT, M12	1	
12	1052001710	HANGER	1	
13	0043212000	WASHER, LOCK M12	1	
14	0043112000	WASHER, M12	1	
15	1711080130	SHACKLE	2	

T-HANDLE ASSY.



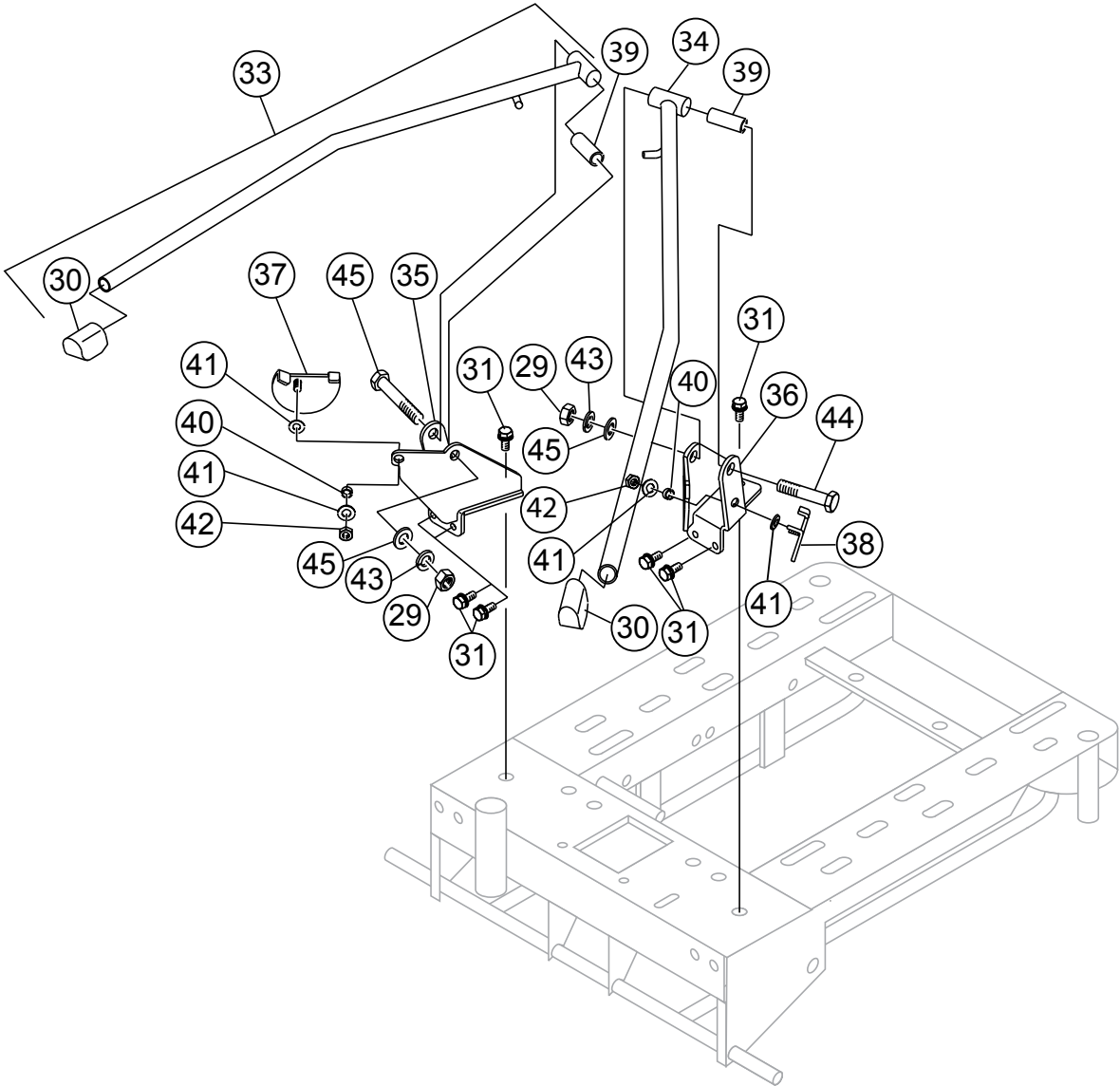
T-HANDLE ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	A200023001	HANDLE	1	INCLUDES ITEMS W/#
2#	1102700130	HANDLE GRIP	2	
3#	0040730000	SNAP RING	1	
4	1503300130	SLEEVE BEARING, 30DX34DX20	2	
5	A100018906	BASE PLATE	1	
6	A300087403	SIDE GUARD	2	
7	0013508015	BOLT AND WASHER, M8X15	4	

This exploded view diagram illustrates the assembly of a vehicle chassis. The main frame (1) is shown at the top, with various mounting points and structural reinforcements. The suspension system (2) is depicted in the center, featuring a central beam (27) and multiple shock absorbers (28). The wheels (28) are shown at the bottom, with tires and rims. The diagram includes numerous numbered callouts (1-52) identifying specific components such as bolts, nuts, washers, and structural members. The assembly is shown in a disassembled state to facilitate identification of parts and their relative positions.

STEERING ASSY.

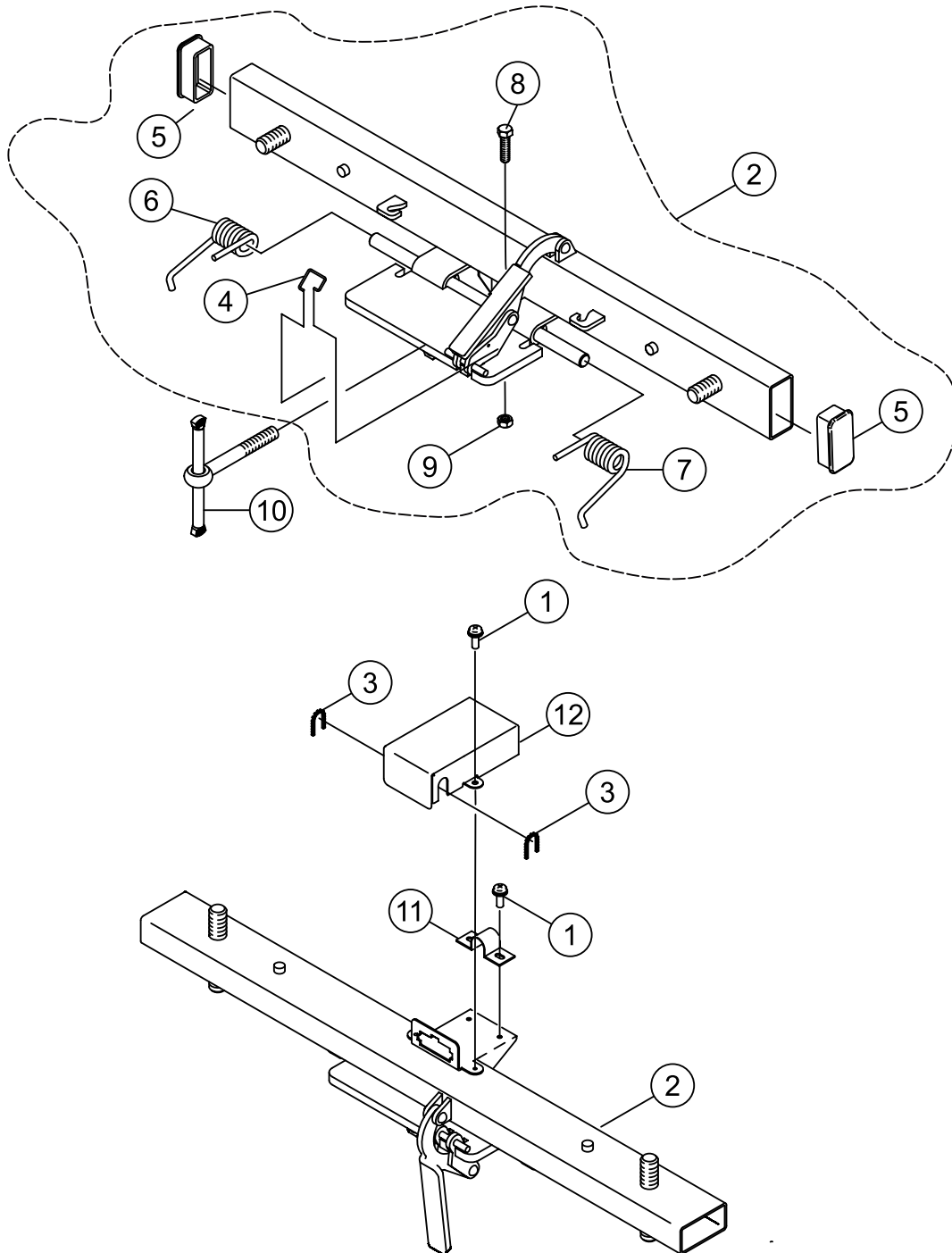
<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
2	A200022903	FRONT SHAFT (L)	1	
3	A200022803	FRONT SHAFT (R)	1	
4	2001200313	BRAKE PEDAL	1	
5	2071214010	BRAKE	2	
6	2071213211	BRAKE SHAFT	1	
7	1041000131	SPRING, BRAKE	1	
8	011208030	BOLT, M8X30 SUS	1	REPLACES P/N 0010308030
9	0033108000	NUT, M8	2	
10	0043108000	WASHER, M8	5	
11	0013212075	BOLT, M12X75	1	
12	1521120131	BOLT, M12X75 LEFT SCREW	1	
13	1503180130	SLEEVE BEARING, 18DX20DX20	2	
14	A400055501	LINK, FRONT SHAFT	1	
15	0040720000	SNAP RING, 20	8	
20	A300090600	LINK, HANDLE	1	
21	0043112000	WASHER, M12	3	
22	1504120130	WASHER, 12.2DX18DX0.5	6	
23	0033208000	SELF LOCK NUT, M8	1	
24	0030808000	PUSH NUT, 8	3	
25	0013512025	BOLT AND WASHER, M12X25	1	
26	0043112041	WASHER, 12DX40DX3.2	1	
27	A400055401	LINK, STEERING	1	
28	E000021400	PNEUMATIC TIRE	4	
31	0013510025	BOLT AND WASHER, M10X25	10	
32	A400033402	CATCHER, OUTRIGGER	2	
46	A400055101	SPACER	1	
47	E000031200	WASHER, 20DX36DX1.5	2	



OUTRIGGER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
29	0033116000	NUT, M16	2	
30\$	1641000330	RUBBER FOOT	2	
31	0013510025	BOLT AND WASHER, M10X25	10	
33	A200015203	OUTRIGGER (L)	1.....	INCLUDES ITEMS W/\$
34	A200015303	OUTRIGGER (R)	1	INCLUDES ITEMS W/\$
35	A100011501	BRACKET (OUT, R) L	1	
36	A100011601	BRACKET (OUT, R) R	1	
37	2031320213	WEIGHT (OUT, R) L	1	
38	2031321113	WEIGHT (OUT, R) R	1	
39	1501160111	SPACER (OUT, R)	2	
40	1501100430	SPACER, 10.2DX13.8DX6.5L	2	
41	0043110000	WASHER, M10	4	
42	0033210000	SELF LOCK NUT, M10	2	
43	0043216000	WASHER, LOCK, M16	2	
44	0013116090	BOLT, M16X90	2	
45	0043116000	WASHER, M16	2	

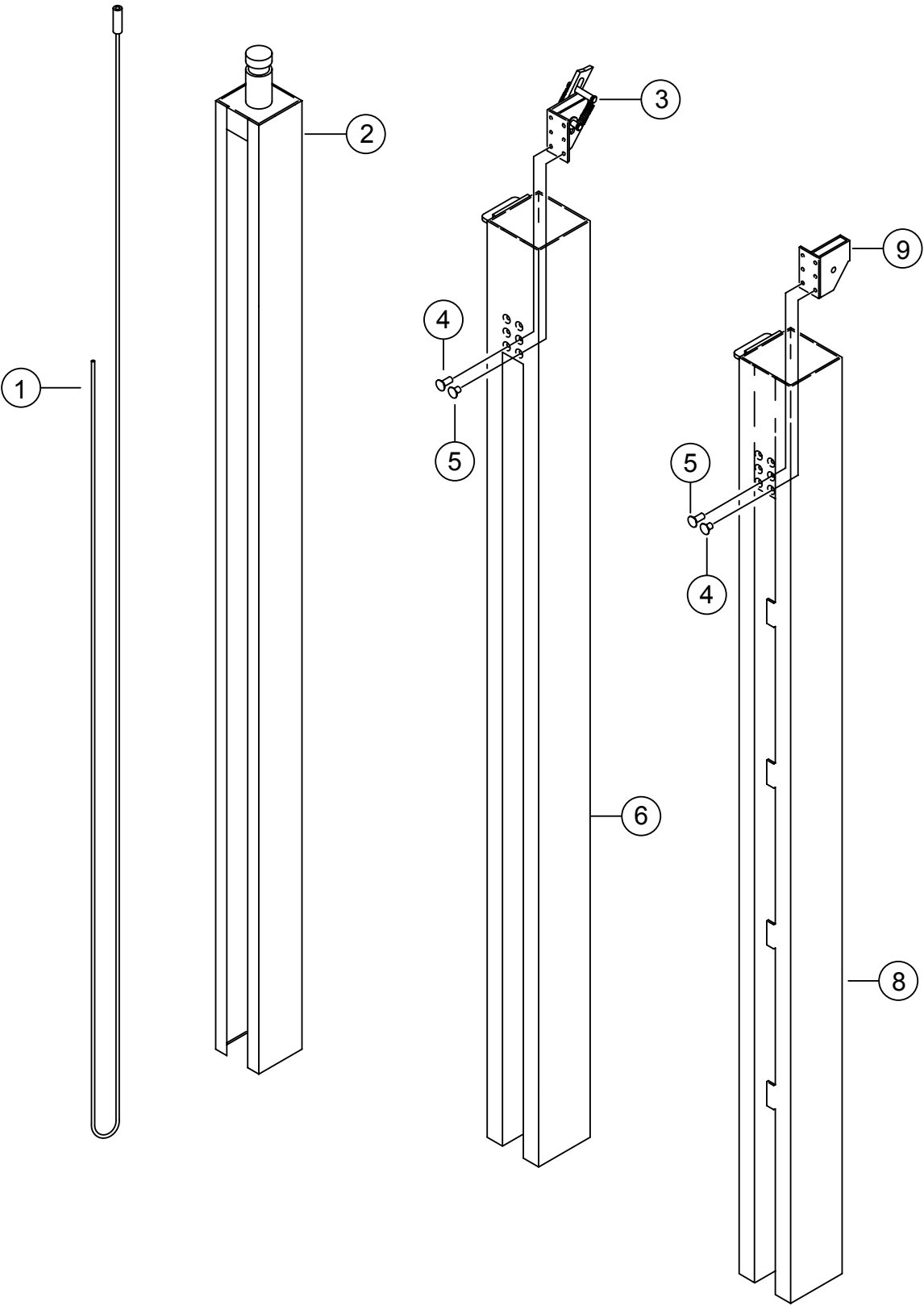
MAST ADAPTER ASSY.



MAST ADAPTER ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	0023304012	SCREW AND WASHER (M4 X 12)	4	
2	A100037300	LAMP STAND COMPLETE (OVAL LAMP)	1.....	INCLUDES ITEMS W/%
3	1643000110	FREE BUSH	2	
4%	1045000130	SPRING (LEVER)	1	
5%	1652000131	END CAP	2	
6%	A300093000	SPRING (LAMP STAND) L	1	
7%	A300092600	SPRING (LAMP STAND) R	1	
8%	0010308030	BOLT (M8 X 30)	1	
9%	0033108000	NUT (M8)	4	
10	2072310113	ADJUST LEVER (LAMP STAND)	1	
11	1603000730	CLAMP	1	
12	2072400510	CONNECTOR COVER	1	

MAST SECTION ASSY.



MAST SECTION ASSY.

<u>NO.</u>	<u>PART NO.</u>	<u>PART NAME</u>	<u>QTY.</u>	<u>REMARKS</u>
1	1031041010	WIRE ROPE COMPLETE	1	
2	A200030801	FOURTH MAST COMPLETE	1	
3	2012263010	BRACKET(PULLEY) 3 COMPLETE	1	
4	0025004010	SCREW (M4X10)	6	
5	0025004006	SCREW (M4X6)	6	
6	A200030700	THIRD MAST COMPLETE	1	
8	A200027200	SECOND MAST COMPLETE	1	
9	2002262010	BRACKET(PULLEY) 2 COMPLETE	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.

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.

Effective: February 22, 2006

NOTES

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

UNITED KINGDOM

Multiquip (UK) Limited Head Office

Unit 2, Northpoint Industrial Estate, Tel: 0161 339 2223
Globe Lane, Fax: 0161 339 3226
Dukinfield, Cheshire SK16 4UJ
Contact: sales@multiquip.co.uk

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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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