



# TURBO-2040™ FAN

## Installation and Owner's Manual

This manual applies to TURBO-2040 Fan manufactured beginning NOVEMBER 2022.

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**▲ WARNING**

***Do not install, operate or service this product unless you have read and understand the Safety Practices, Warnings, and Installation and Operating Instructions contained in this manual. Failure to do so could result in death or serious injury.***

# LIMITED WARRANTY

THIS LIMITED WARRANTY IS APS RESOURCE'S SOLE AND EXCLUSIVE WARRANTY WITH RESPECT TO THE TURBO-2040™ FAN AND IS IN LIEU OF ANY OTHER GUARANTEES OR WARRANTIES, EXPRESS OR IMPLIED

APS RESOURCE warrants that this TURBO-2040 Fan will be free from flaws in material and workmanship under normal use for a period of two (2) years from the earlier of 1) 60 days after the date of initial shipment by APS RESOURCE, or 2) the date of installation of the TURBO-2040 Fan by the original purchaser, provided that the owner maintains and operates the TURBO-2040 Fan in accordance with this User's Manual.

In the event that this TURBO-2040 Fan proves deficient in material or workmanship within the applicable Limited Warranty period, owner shall so notify APS RESOURCE, and APS RESOURCE will, at its option:

1. Replace the TURBO-2040 Fan, or the deficient portion(s) thereof, without charge to the owner; or
2. Alter or repair the TURBO-2040 Fan on site or elsewhere, without charge to the owner.

This Limited Warranty does not cover any failure caused by improper installation, abuse, improper operation, negligence, or failure to maintain and adjust the TURBO-2040 Fan properly. Parts requiring replacement due to damage resulting from vehicle impact, abuse, or improper operation are not covered by this warranty. APS RESOURCE DISCLAIMS ANY RESPONSIBILITY OR LIABILITY FOR ANY LOSS OR DAMAGE OF ANY KIND (INCLUDING WITHOUT LIMITATION, DIRECT, INDIRECT, CONSEQUENTIAL OR PUNITIVE DAMAGES, OR LOST PROFITS OR LOST PRODUCTION) arising out of or related to the use, installation or maintenance of the TURBO-2040 Fan (including premature product wear, product failure, property damage or bodily injury resulting from use of unauthorized replacement parts or modification of the TURBO-2040 Fan). APS RESOURCE's sole obligation with regard to a TURBO-2040 Fan that is claimed to be deficient in material or workmanship shall be as set forth in this Limited Warranty. This Limited Warranty will be null and void if the original purchaser does not notify APS RESOURCE's warranty department within ninety (90) days after the product deficiency is discovered.

THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF, INCLUDING, BUT NOT LIMITED TO, A WARRANTY OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE, ALL OF WHICH APS RESOURCE HEREBY DISCLAIMS.

APS RESOURCE  
6219 W. EASTWOOD COURT  
MEQUON, WI. 53092

## SAFETY SIGNAL WORDS

You may find safety signal words such as DANGER, WARNING, or CAUTION throughout the owners manual. Their use is explained below.



***This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.***

### **▲ DANGER**

***Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.***

### **▲ WARNING**

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

### **▲ CAUTION**

***Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.***

### **NOTICE**

***Caution used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, may result in property damage.***

# SAFETY PRACTICES

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## SAFETY PRACTICES

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### **⚠ DANGER**

***Read and follow these safety practices before installing, operating, or servicing the TURBO-2040 Fan™. Failure to follow these safety practices could result in death or serious injury.***

### **OPERATION**

#### **⚠ WARNING**

DO NOT operate TURBO-2040 Fan until the operator completely comprehends the contents of this manual. The fan is a specialized type of powered equipment, designed for a specific job function and requires adequate and thorough instruction BEFORE it is operated. Each person must receive adequate professional instruction regarding proper operation. Read and understand this Owner's Manual.

DO NOT operate the fan without the inlet and outlet screens properly secured and in place. Replace screens with factory replacements (OEM). The screen grid must comply with current OSHA regulations regarding protective enclosures to prevent personal injury to the operator(s). Ensure the structural integrity of the screens will allow them to serve their protective function. Keep both screens free from obstructions and debris to allow maximum airflow.

DO NOT stand directly in front of and/or face the fan outlet. Personal injury may result from debris being thrown from the fan at relatively high velocity.

DO NOT allow minors to operate the fan. Bystanders, children and animals should not be allowed in the area where a fan is in use.

DO NOT operate the unit if there is any physical damage to the cord or plug.

Keep fingers and hands clear of blade. DO NOT put any objects into the unit's openings, including hair, loose clothing, fingers and other body parts.

Implement an operational safety program for this fan, to include but not limited to instructional requirements for operation, applicable OSHA requirements, local laws and regulations, job site safety and fan maintenance. Operators must be fully instructed regarding the specifics of this safety program. (Ref. 29CFR 1926.21 (b)(2)).

Ensure the operator(s) are in adequate physical condition, mental health and not under the influence of any substance (drugs, alcohol, etc.) which might impair

vision, dexterity or judgment. If you have any condition that might be aggravated by strenuous work, check with your doctor before operating the fan. Guard against the possibility of back related injuries.

Wear approved sound barriers (ear plugs or ear mufflers). Noise, generated by the fan, may damage your hearing. Continuous and regular operators should have their hearing checked regularly.

Wear sturdy and snug fitting clothing. Never wear loose fitting clothing or anything that could become caught on controls or moving parts. Wear long pants to protect your legs. To improve your grip and protect your hands, wear heavy duty, non-slip gloves. Wear steel-toed safety boots with non-slip soles. Sneakers or other similar type shoes do not provide adequate protection.

Wear an approved safety hard hat.

Complete a visual inspection of the fan and check for damaged, worn, loose and/or broken parts. Ensure all safety devices are operable and information decals are readable. Ensure the fan and all related accessories are in good mechanical condition before use. Never modify the factory configuration.

Know where the controls are, how they operate, and how to stop the fan in an emergency.

Ensure the fan is operated in a horizontal position to meet the enclosure definition. The fan is designed for operation in job site areas that are reasonably dry, clean, and provide for a continuous, dynamic source of air for cooling the motor.

## **INSTALLATION, MAINTENANCE**

### **⚠ WARNING**

Improper connection of the ground conductor on this equipment can result in fire, electrical shock, injury or death. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the unit. If it will not fit in the outlet, have a proper outlet installed by a qualified electrician.

Always stop the motor and disconnect the power source to prevent accidental starting and/or the possibility of receiving electrical shock. Do not attempt any maintenance or repair work not described in this Owner's Manual.

# SAFETY/INSTALLATION

## SAFETY PRACTICES (cont.)

### ▲ WARNING

THE TURBO-2040 FAN IS NOT FOR USE IN HAZARDOUS LOCATIONS!

The final working procedure for any job application involving the use of the fan must be individually determined after careful analysis of all factors and/or conditions present. The nearest OSHA office is a valuable source for applicable information regarding the operation of the fan.

DO NOT set-up or operate TURBO-2040 Fan without verifying the location classification. Certain job site locations may be classified as hazardous because of explosive concentrations of gas, vapor or dust in the atmosphere. The National Electric Code (NEC) divides these locations into Classes and Groups according to the type of explosive agent. For specific information, consult the NEC, Section 500-504 and 510-517. The use of any fan not designed for use in a hazardous location may result in personal injury or death.

DO NOT use with an extension cord on the power supply. Make sure all electrical connections and wire sizes meet national and local codes.

Always use proper lifting techniques when moving or carrying the fan.

Ground the fan motor securely. Ensure the “grounding” wire and/or device is properly grounding the motor. Failure to properly ground the motor may cause an electrical shock and/or electrocution, resulting in personal injury or even death.

Use a ground fault circuit interrupter (GFCI). A GFCI is a safety device that disconnects power from a circuit to a load when a potentially dangerous condition occurs. The GFCI acts like a fast-acting fuse or circuit breaker, sensing small imbalances in the circuit caused by current leakage, and shutting off electricity within 25ms (milliseconds). Use of a portable GFCI gives on-the-job protection from electrical shock hazards caused by ground faults in commercial, industrial and residential applications. Electrically driven fans are designed to operate ONLY from a grounded, AC, single phase power source. Be certain that the voltage and phase rating of the TURBO-2040 Fan agrees with the power source. All electrical wiring installations and connections must comply with all applicable NEC statutes and with all applicable local codes and practices.

Never immerse in liquids, or spray liquids at the motor. Do not install the fan outdoors.

## INSTALLATION

### ▲ WARNING

**BEFORE STARTING FOR THE FIRST TIME: DO NOT START fan if there are any signs of shipping damage; particularly to blade, guards, or housing. If any damage is suspected, STOP and call APS RESOURCE immediately at (262) 518-1000.**

**Complete a visual inspection of the fan and check for damaged, worn, loose and/or broken parts. Ensure all safety devices are operable and information decals are readable. Ensure the fan and all related accessories are in good mechanical condition before use. Never modify the factory configuration.**

**Using substandard fasteners or weak mounting surfaces will allow this fan to fall, causing injury to people or damage to property. Only persons with a good knowledge of safe mounting methods and materials should install this device. Routinely inspect both the mounting of this product and the entire assembly to find and correct loose connections and unsafe conditions. If the TURBO-2040 Fan is hit during use, re-inspect immediately.**

# INSTALLATION

## MOUNTING THE TURBO-2040 FAN TO AN ARM ASSEMBLY WITH A TOP MOUNTED LIGHT

### NOTICE

*For typical applications, the fan handle will be approximately 5 feet above the dock floor.*

1. Determine a mounting location. The TURBO-2040 Fan can be mounted on the left or right side of the loading dock opening. It should be mounted at a height that allows a dock worker to easily position the fan into the trailer being serviced; using the positioning handle.
2. Attach the arm assembly to the wall per the instructions included with the arm assembly kit.
3. Prepare the light and mounting hardware prior to lifting it to the arm assembly. See FIGURE 1.
  - Assemble (1) lock washer onto the mounting bolt.
  - Insert the mounting bolt into the hole located on the High Impact LED light.
  - Place (1) flat washer onto the mounting bolt on the other side of the LED light hole.
4. Carefully place the light assembly onto the arm, locating the mounting bolt through the arm assembly.
5. After the mounting bolt is through the arm, install (1) star washer, (1) flat washer, (1) metal/ rubber washer shown in FIGURE 2.
6. Carefully lift the fan assembly, locating the mounting bolt through the fan assembly. It is recommended that two people lift the fan to the arm.
7. Install (1) castle nut as shown in FIGURE 3.
8. Tighten the castle nut to obtain the desired amount of resistance when rotating the TURBO-2040 Fan. If less resistance is desired, remove the star washer.
9. Install the cotter pin through the slots in the castle nut and hole in the mounting pin. Bend the cotter pin to secure it in place. See FIGURE 4.
10. Plug the power cords into corresponding plug outlet on arm.
11. Check the final assembly for safe operation following the INSTALLATION CHECKLIST and FIGURE 5A and 5B on the next page.

FIGURE 1

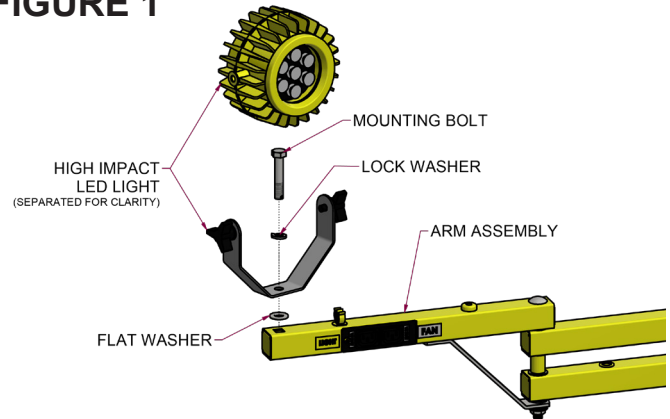


FIGURE 2

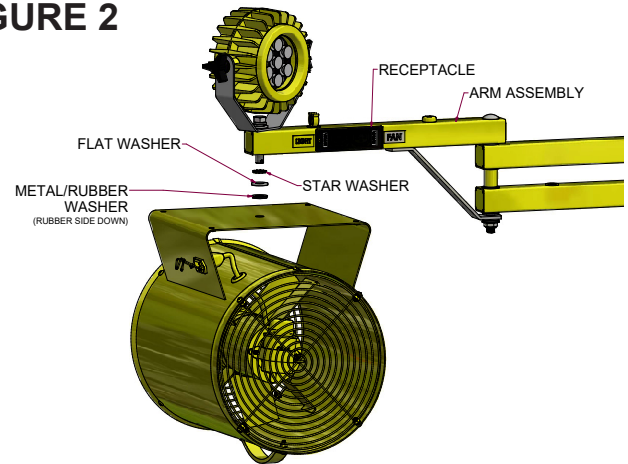


FIGURE 3

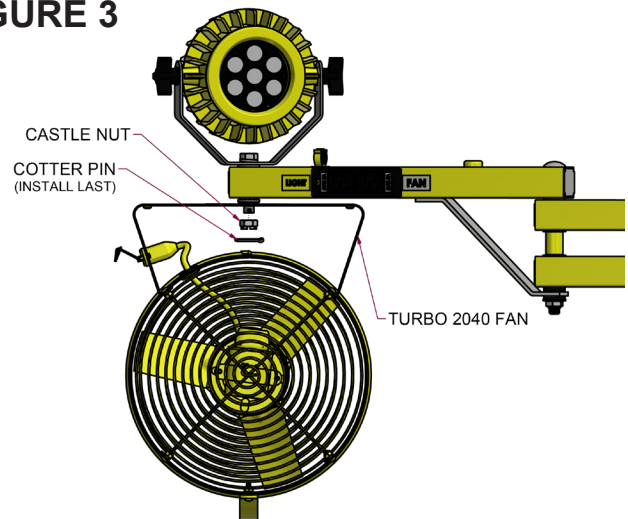
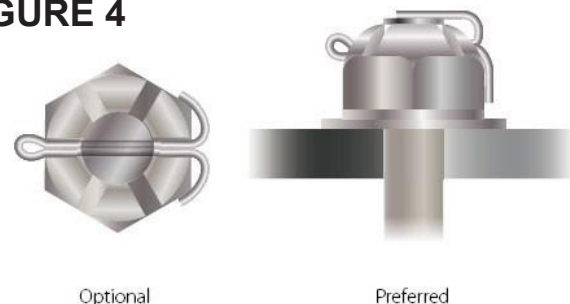
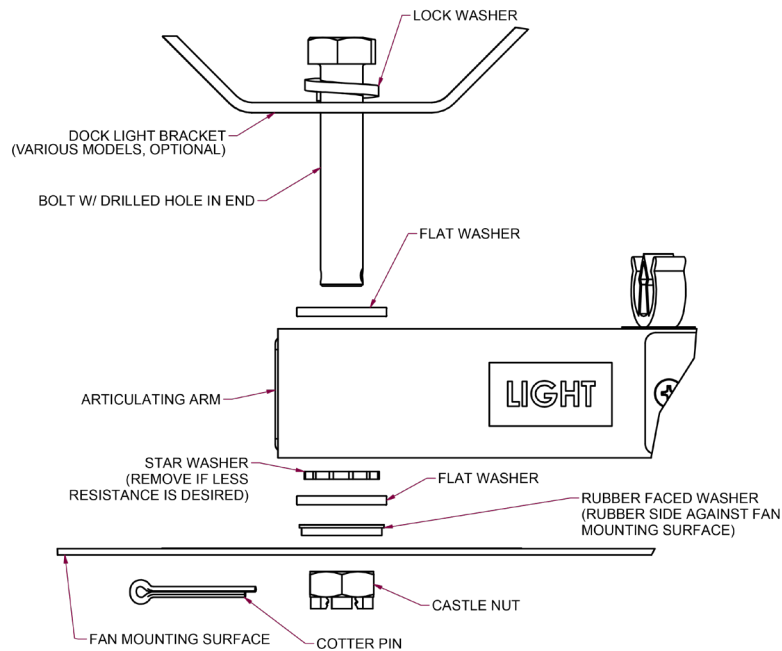


FIGURE 4

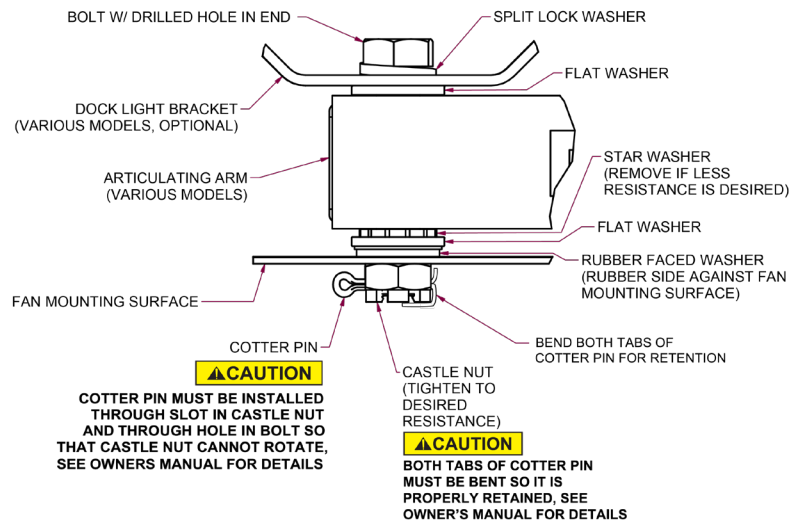


# INSTALLATION

## FIGURE 5A - PRE INSTALLATION



## FIGURE 5B - POST INSTALLATION



## INSTALLATION CHECKLIST

- ☐ Correct assembly stack per graphics.
- ☐ Cotter pin is installed and securely retained. See FIGURE 5B.
- ☐ Height of installation is approved by installation manager.
- ☐ Rotational resistance is approved by installation manager.
- ☐ Power cables are routed and secured to the system so not to interfere with operation and movement of the light/fan/arm.



# OPTIONAL INSTALLATION

## MOUNTING THE TURBO-2040 FAN TO AN ARM ASSEMBLY WITH A **SIDE MOUNTED LIGHT**

### NOTICE

*The TURBO-2040 fan must be mounted on the LEFT-HAND side of the dock if a side mounted light is desired. For typical applications, the fan handle will be approximately 5 feet above the dock floor.*

1. If the hole is not present on the non-corded side of the fan mounting bracket, then one can be drilled out at the center with a 17/32" drill bit. See FIGURE 6. Drill the hole prior to mounting the fan and arm.
2. Determine a mounting location. The TURBO-2040 Fan can ONLY be mounted on the left side of the loading dock opening if a side mounted light is desired. It should be mounted at a height that allows a dock worker to easily position the fan into the trailer being serviced; using the positioning handle.
3. Attach the arm assembly to the wall per the instructions included in the arm assembly kit.
4. Prepare the mounting hardware prior to lifting the fan on to the arm assembly. See FIGURE 7.
  - Assemble (1) lock washer, and (1) flat washer onto the mounting bolt.
  - Insert the mounting bolt into the hole located on the top of the arm.
5. After the mounting bolt is through the arm, install (1) star washer, (1) flat washer, (1) metal/rubber washer shown in FIGURE 8.
6. Carefully lift the fan assembly, locating the mounting bolt through the fan assembly. It is recommended that two people lift the fan to the arm.
7. Install (1) flat washer and (1) castle nut as shown in FIGURE 9 under the fan mounting bracket on to the bolt. Remove the flat washer if less resistance is desired.
8. Tighten the castle nut to obtain the desired amount of resistance when rotating the TURBO-2040 Fan. If less resistance is desired, remove the star washer.
9. Install the cotter pin through the slots in the castle nut and hole in the mounting pin. Bend the cotter pin to secure it in place. See FIGURE 4.
10. Check the final assembly for safe operation on following the INSTALLATION CHECKLIST and FIGURE 10A and 10B on the next page.

FIGURE 6

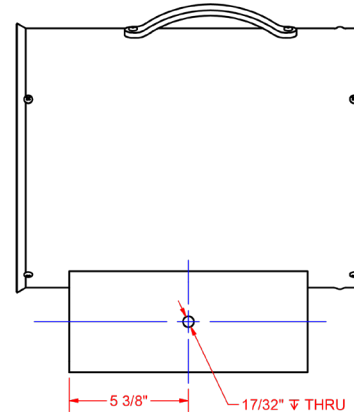


FIGURE 7

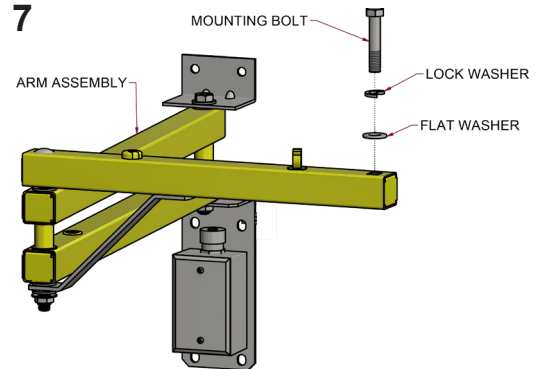


FIGURE 8

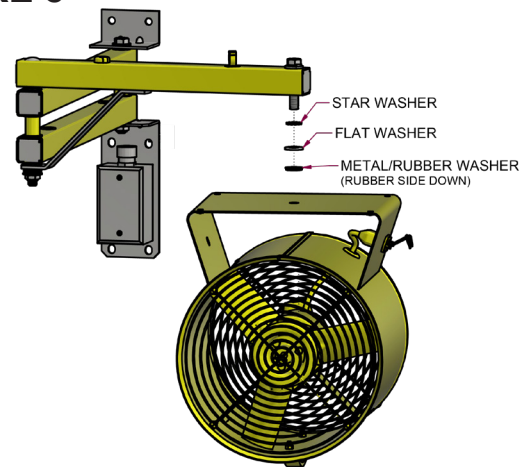
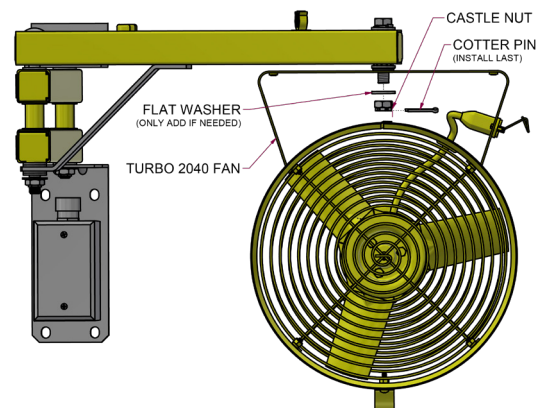
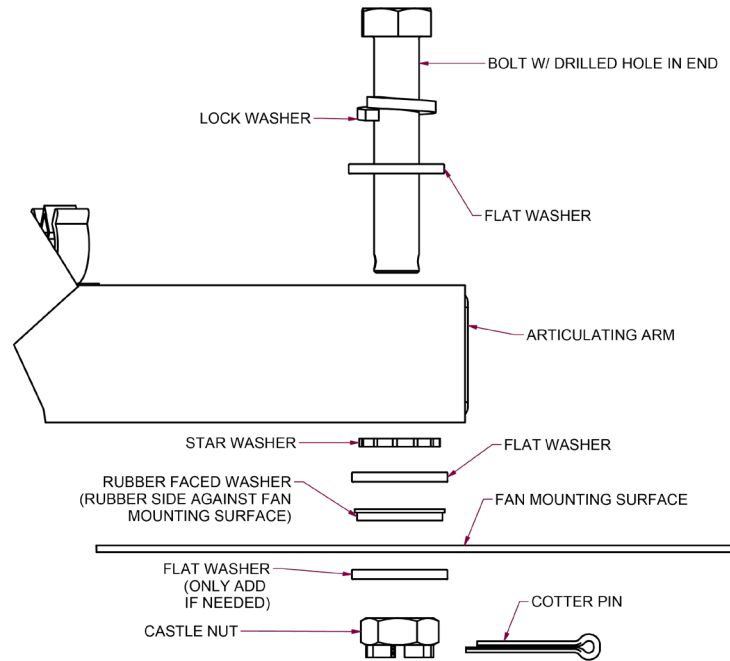


FIGURE 9

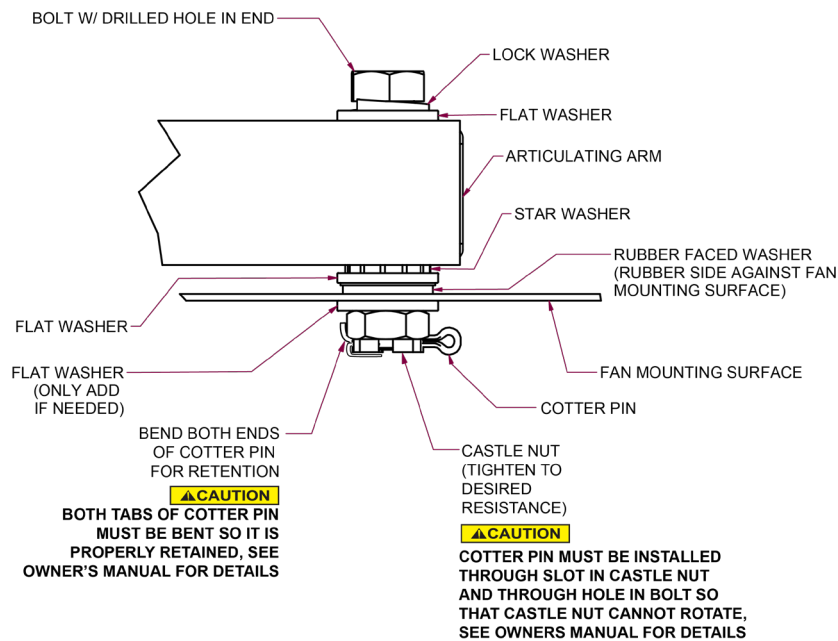


# OPTIONAL INSTALLATION

## FIGURE 10A - PRE INSTALLATION



## FIGURE 10B - POST INSTALLATION



## INSTALLATION CHECKLIST

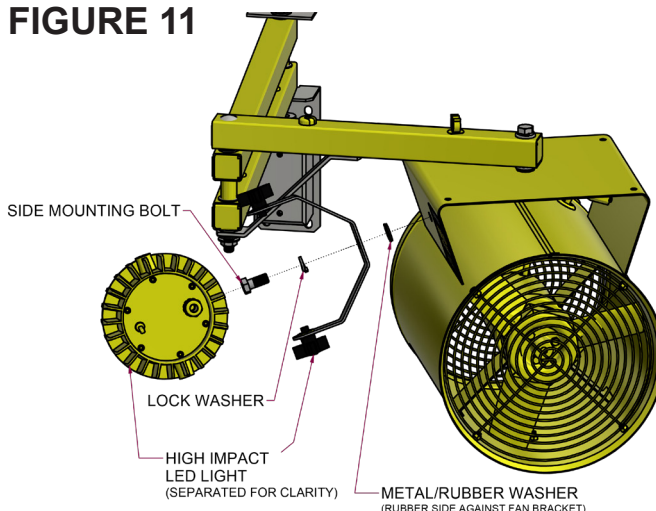
- ☐ Correct assembly stack per graphics.
- ☐ Cotter pin is installed and securely retained. See FIGURE 10B
- ☐ Height of installation is approved by installation manager.
- ☐ Rotational resistance is approved by installation manager.



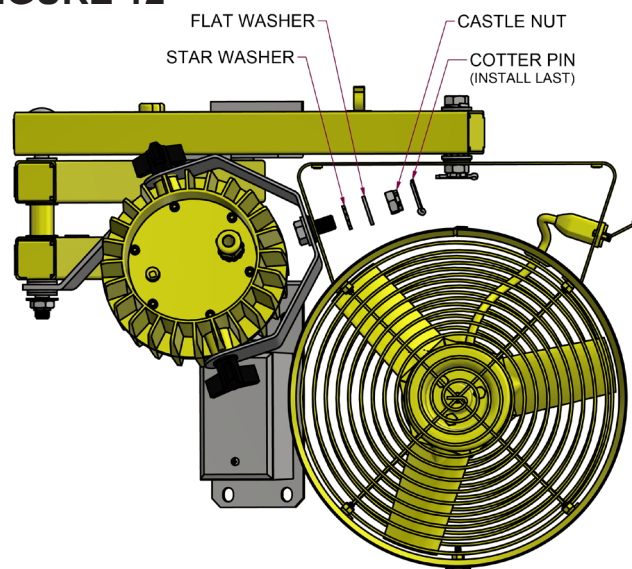
# OPTIONAL INSTALLATION

11. After securing the fan, prepare the light mounting hardware. See FIGURE 11.
  - Assemble (1) lock washer, a onto the mounting bolt.
  - Insert the side mounting bolt and lock washer into the hole located on the High Impact LED light.
  - Insert (1) metal/rubber washer on to the bolt on the other side of High Impact LED Bracket so that the metal side is touching the light bracket.
12. Carefully place the light assembly onto the fan bracket, locating the side mounting bolt through the side hole on the fan bracket. SEE FIGURE 11.
13. Install (1) flat washer, (1) star washer, and (1) castle nut as shown in FIGURE 12.
14. Tighten the castle nut to obtain the desired amount of resistance when rotating the High Impact LED light. If less resistance is desired, remove the star washer.
15. Install the cotter pin through the slots in the castle nut and hole in the mounting pin. Bend the cotter pin to secure it in place. See FIGURE 4.
16. Attach the extension cord to from the light to the power cord plugged in to the outlet. See FIGURE 13.
17. Plug the power cords into corresponding plug outlet on arm.
18. Check the final assembly for safe operation. following the INSTALLATION CHECKLIST and FIGURE 14A and 14B on the next page.

**FIGURE 11**



**FIGURE 12**

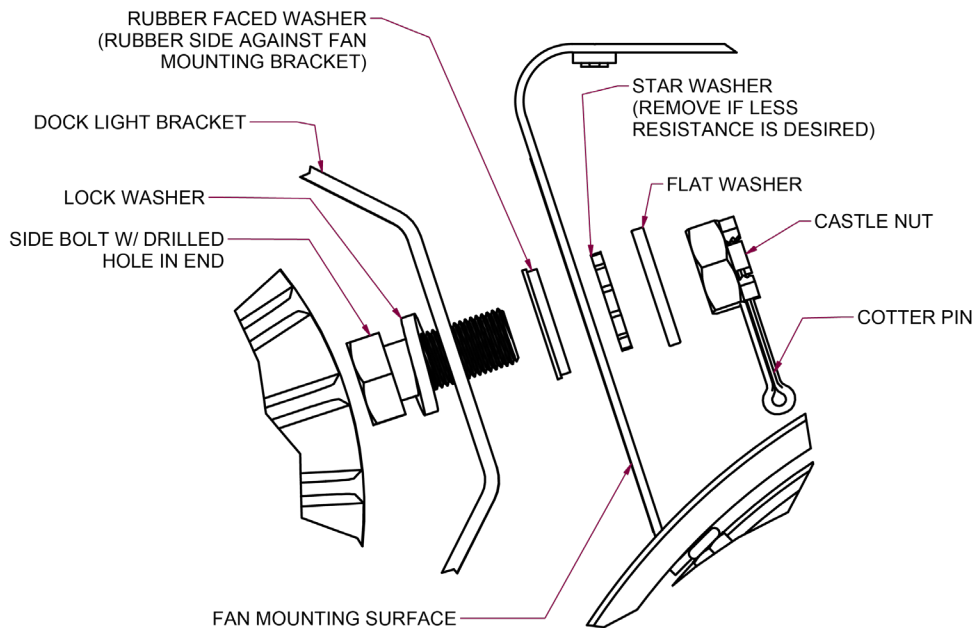


**FIGURE 13**

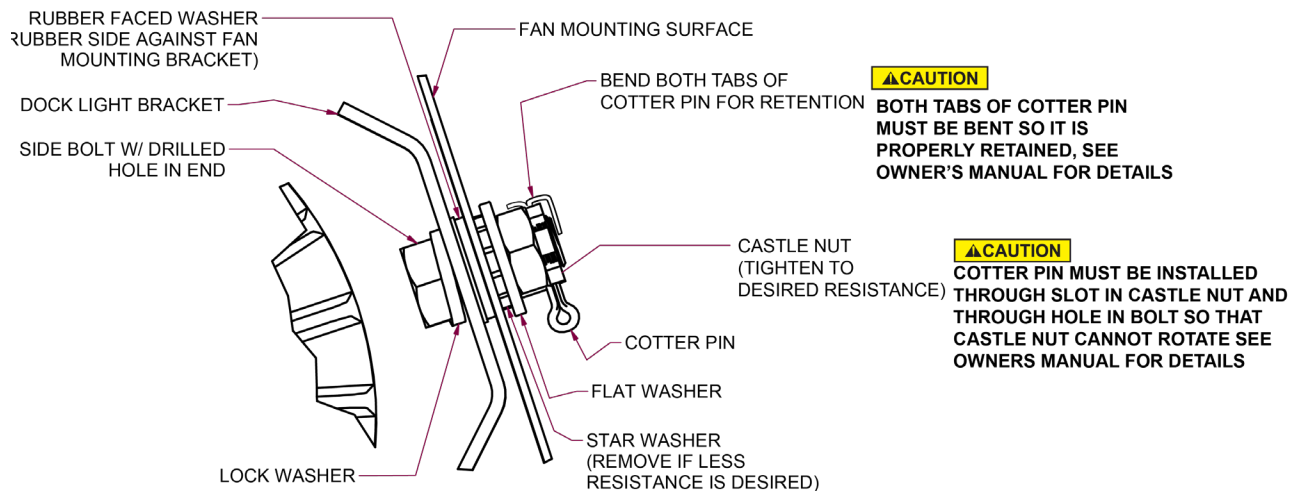


# OPTIONAL INSTALLATION

## FIGURE 14A - PRE INSTALLATION



## FIGURE 14B - POST INSTALLATION



## INSTALLATION CHECKLIST

- ☐ Correct assembly stack per graphics.
- ☐ Cotter pin is installed and securely retained. See FIGURE 14B.
- ☐ Height of installation is approved by installation manager.
- ☐ Rotational resistance is approved by installation manager.
- ☐ Power cables are routed and secured to the system so not to interfere with operation and movement of the light/fan/arm.

# OPTIONAL INSTALLATION

## OPTIONAL INSTALLATION LANYARD KIT **AP12620**

1. Drill a hole  $\frac{3}{8}$ " from the end of the articulating arm near the fan using a  $\frac{13}{64}$ " drill bit. See FIGURE 15. This hole will be used to install the lanyard kit.

### INSTALLING THE LANYARD KIT WITH A **TOP MOUNTED LIGHT**

1. Take the wire rope from the kit and insert it through the hole in the arm, loop it up around the high impact LED light bracket, then back through the hole again. See FIGURE 16.
2. Loop the wire rope down through the mounting bracket, and meet both ends of the wire. See FIGURE 17.
3. Insert each end of the wire rope into the Gripper wire clasp, ensure each end is going in opposite sides of the clasp. See FIGURE 18.
4. Adjust the slack of the rope. Tighten it so when pulling on the wire, there is approximately  $\frac{1}{2}$ " of space between the wire and light mounting bracket, and 1.00" between the wire and fan mounting bracket.

#### NOTICE

***Ensure wire rope is not overtightened and that both fan and light have desired range of motion.***

5. After setting the tightness of the lanyard, cut each end of the wire rope so that approximately 1.00-2.00" is coming out of each end of the wire clasp.
6. Insert both wire caps on each end of the wire rope.
7. Check and compare the final assembly top mounted light assembly with installed lanyard kit with FIGURE 19.

FIGURE 15

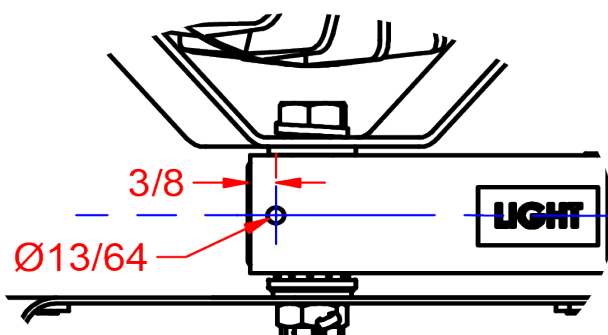


FIGURE 16

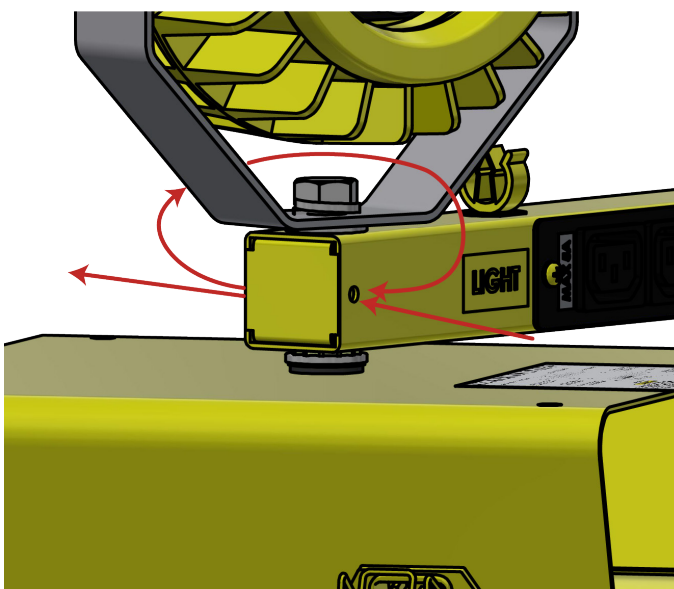
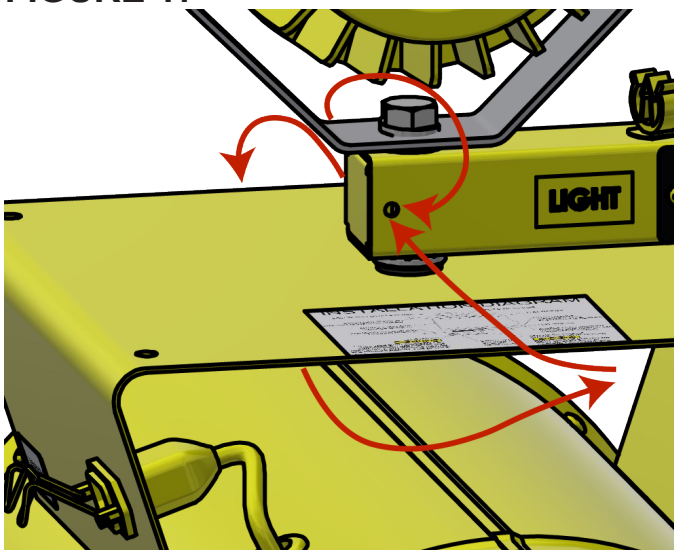


FIGURE 17



# OPTIONAL INSTALLATION

FIGURE 18



FIGURE 19





# OPTIONAL INSTALLATION

## INSTALLING THE LANYARD KIT WITH A SIDE MOUNTED LIGHT

1. Take the wire rope and feed it through the hole in the articulating arm, then loop it up through one of the bolt holes on the light side of the fan mounting bracket. See. FIGURE 20.
2. Weave the wire rope through the High impact LED light bracket then loop it down through the other bolt hole on the light side of the fan mounting bracket. Meet both ends of the wire rope. See FIGURE 21.
3. Insert each end of the wire rope into the Gripple wire clasp, ensure each end is going in opposite sides of the clasp. See FIGURE 18.
4. Adjust the slack of the rope. Tighten it so when pulling on the wire, there is approximately 2.00-3.00" of space between the wire and fan mounting bracket.

### NOTICE

***Ensure wire rope is not overtightened and that both fan and light have desired range of motion.***

5. After setting the tightness of the lanyard, cut each end of the wire rope so that approximately 1.00-2.00" is coming out of each end of the wire clasp.
6. Insert both wire caps on each end of the wire rope.
7. Check and compare the final assembly top mounted light assembly with installed lanyard kit with FIGURE 22.

FIGURE 20

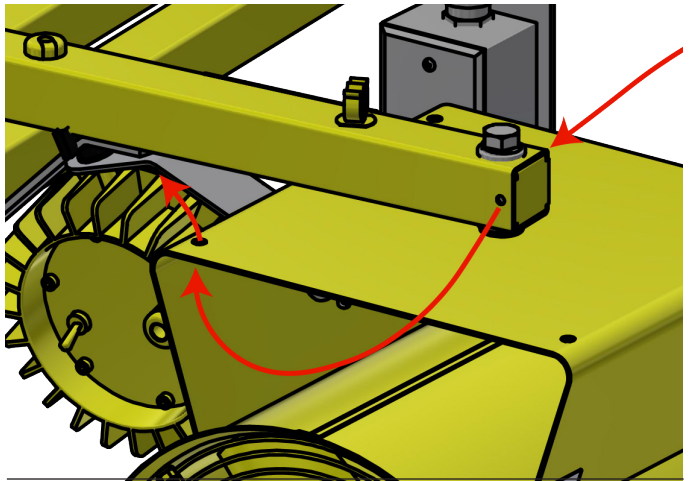


FIGURE 21

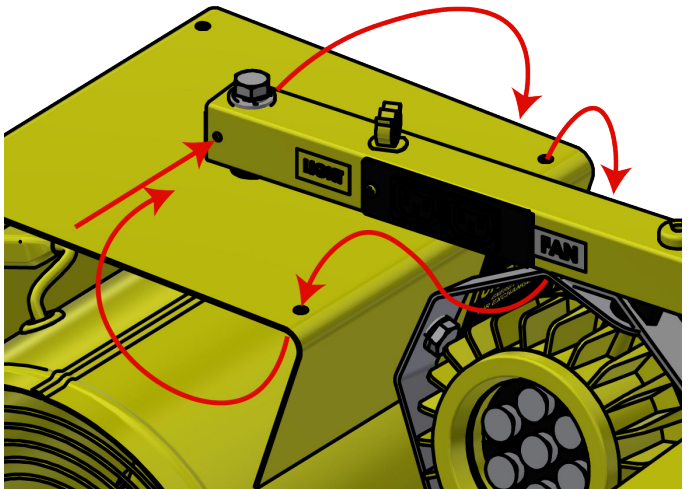
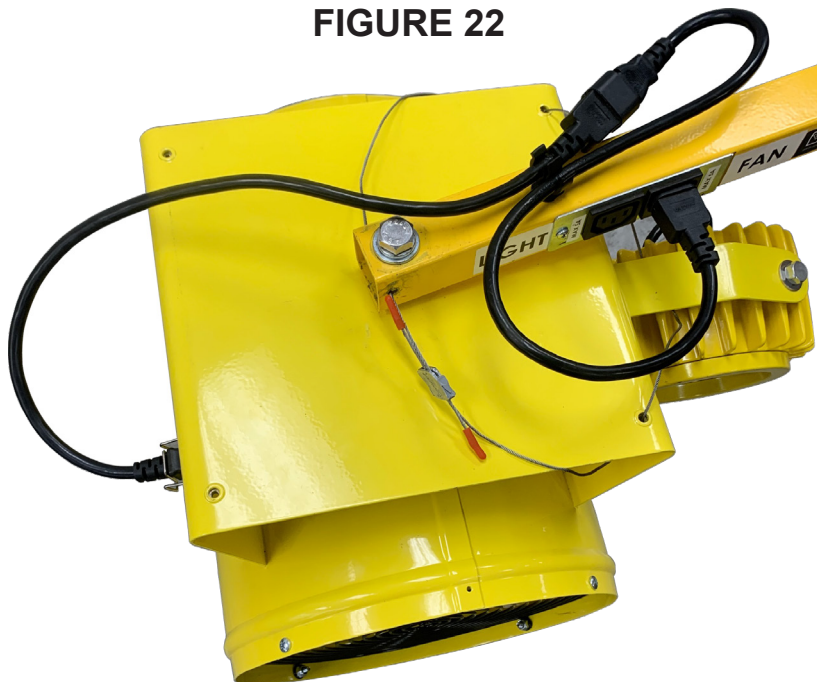


FIGURE 22



# OPERATION/MAINTENANCE

## OPERATION

### ⚠ WARNING

**DO NOT START fan if there are any signs of damage; particularly to blade, guards, or housing. If any damage is suspected, STOP and call APS RESOURCE immediately at (262) 518-1000.**

**Immediately stop the unit upon hearing excessive mechanical noise or vibration.**

**Routinely inspect both the mounting of this product and the entire assembly to find and correct loose connections and unsafe conditions. If the TURBO-2040 Fan is hit during use, re-inspect immediately.**

**Exercise care during deployment and storage to prevent physical damage.**

**This unit is equipped with thermal overload protection and automatic reset. Motor will restart without warning after motor cools.**

**DO NOT move fan while in operation.**

1. Inspect fan for damaged or worn parts.
2. Inspect and clear away any foreign debris from both the inlet and outlet areas of the fan.
3. With the trailer safely parked at the loading dock, direct the fan into the upper corner of the trailer.
4. Using the control box, or wall switch, turn the fan/light ON. Check that the unit operates properly before loading or unloading.
5. After use, turn OFF fan/light, and move the blower back to its stored position; out of the way.

## MAINTENANCE

### ⚠ WARNING

**Always stop the motor and disconnect the power source to prevent the accidental starting and/or the possibility of receiving an electrical shock before service or maintenance.**

**Do not attempt any maintenance or repair work not described in this User Manual!**

**Do not energize the electric motor with the shaft key exposed on the open shaft. Personal injury can result from being struck by a shaft key thrown from the electric motor.**

**Do not operate the blower without the inlet and outlet screens secured and in place.**

Always properly maintain the fan.

- Frequently check all fasteners and individual parts. Built-in safety features are effective only if they are maintained in good working condition.
- Keep the fan clean and properly serviced. Heavy accumulations of dust and dirt will result in overheating and premature failure of the fan motor.
- Clean the motor surfaces and all ventilation openings periodically.
- Routinely inspect both the mounting of this product and the entire assembly to find and correct loose connections and unsafe conditions.



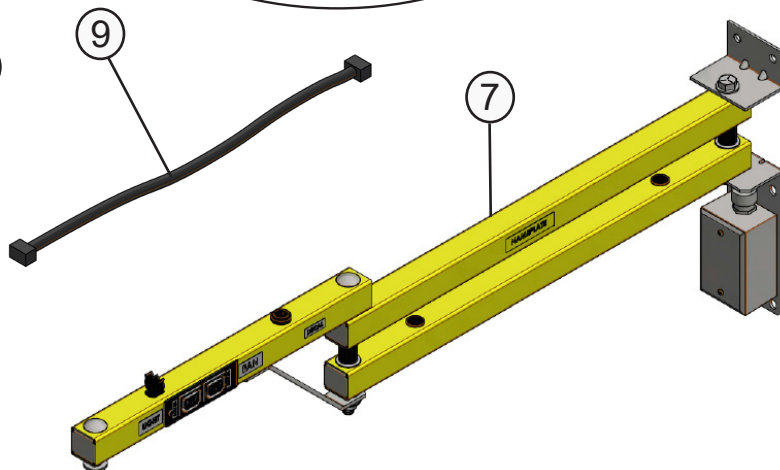
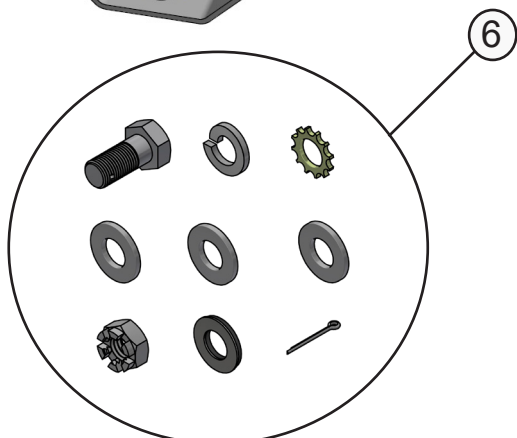
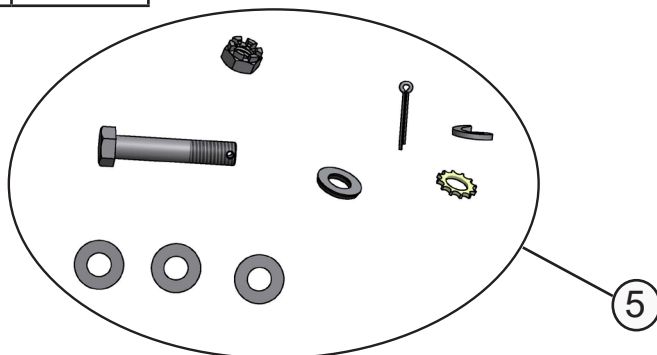
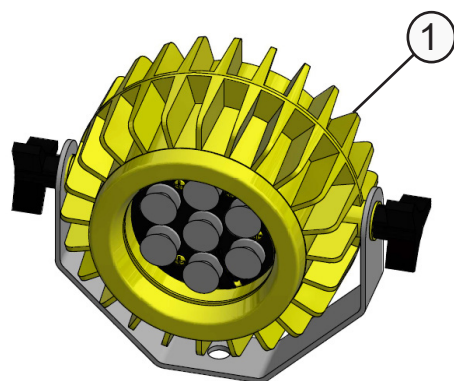
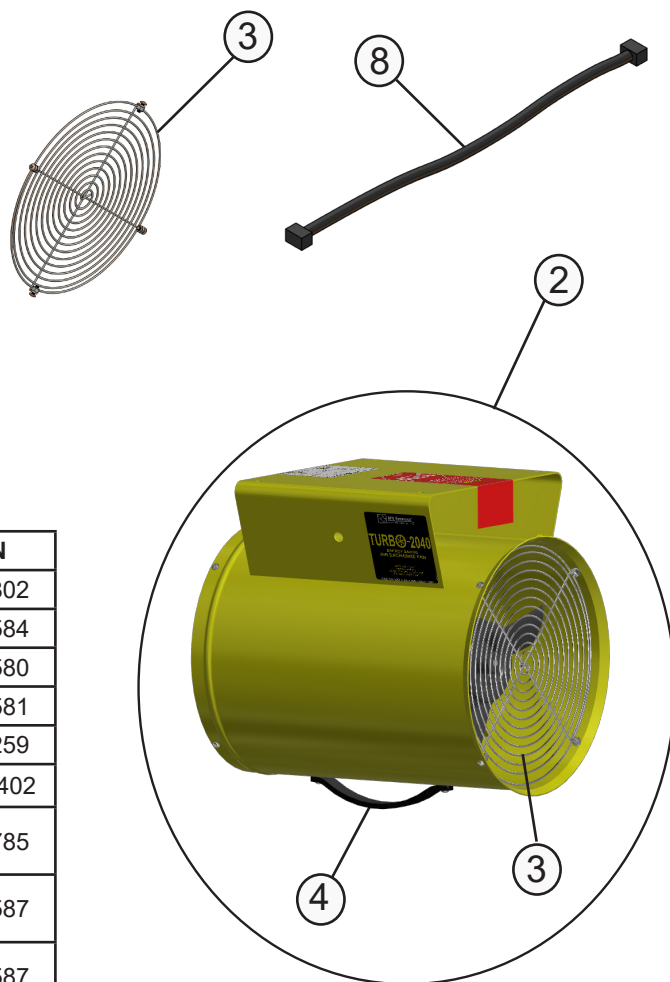
# PARTS

## PARTS

### ⚠ WARNING

To ensure proper function, durability and safety of the product, only replacement parts that do not interfere with the safe, normal operation of the product must be used. Incorporation of replacement parts or modifications that weaken the structural integrity of the product, or in any way alter the product from its normal working condition at the time of purchase from APS RESOURCE could result in product malfunction, breakdown, premature wear, death or serious injury.

ITEM	QTY	DESCRIPTION	P/N
1	1	High Impact LED Dock Light	AP4802
2	2	Kit, Turbo-2040 Fan W/ Mounting Hardware	AP9584
3	1	Kit, Grill w/Hardware	AP9580
4	1	Kit, Handle w/Hardware	AP9581
5	1	Kit, Fan Mounting Hardware	AP6259
6	1	Kit, Side Light Mounting Hardware	AP13402
7	1	Dock Light Arm with 2 Plugs, No Switches, and Junction Box	AP8785
8	1	24" Power Cord w/2 Locking Connectors & no Switch	AP9587
9	1	Extension Cord for Light, REQUIRED FOR SIDE MOUNT CONFIGURATION	AP9587



Please direct questions to your local distributor or to 4Front Engineered Solutions, Inc. - APS RESOURCE

Your local APS RESOURCE  
distributor is: