

# Appion<sup>®</sup>

## **TEZ6** CFM<sup>™</sup> TWO-STAGE VACUUM PUMP



### **⚠ WARNING**

TO REDUCE THE RISK OF INJURY OR PRODUCT DAMAGE,  
READ OPERATION MANUAL PRIOR TO OPERATING PRODUCT.

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# Introduction

Thank you for choosing the TEZ6 6CFM Vacuum Pump, the latest innovation in HVAC/R service tools. This high-performance pump is compact and lightweight, weighing just over 15 lbs, while providing the durability needed to withstand the harshest environments.

The TEZ6 is versatile enough for both large and small jobs, featuring three input fittings that allow for direct connection to multiple hoses, which enhances flow and optimizes evacuation efficiency. It also includes an all-new TEZOM oil cartridge system, equipped with an automatic oil lockout feature that prevents oil dripping or leaking during the quick 5-Second Oil Change™.

Additionally, the TEZ6 has an auto-switching power supply compatible with a voltage range of 100-240 volts AC. This, combined with a locking IEC power connector, enables users to easily switch the power cord to suit regional voltage and plug type requirements. With its innovative features and robust design, the TEZ6 is the ideal choice for any HVAC/R technician, regardless of job size or location.

# Warnings and Safety Information



## IMPORTANT - READ THIS MANUAL BEFORE OPERATION

This Operation Manual contains important information for your safety and preventing equipment problems. Unsafe operation could lead to serious injury or death to you or others. For best results and safe operation, read this entire manual before operation. Please print and keep this manual in a safe, accessible location during operation.

## OPERATOR TRAINING, CERTIFICATION AND RESPONSIBILITY

**NOTICE:** This machine is for use only by qualified professionals who are certified in the safe use, handling, and transporting of refrigerants.

**CAUTION:** Keep away from children at all times.

**CAUTION:** Do not leave this machine unattended while electrically connected.

**CAUTION:** Never defeat the safety features of this product. Do not operate with missing, broken, or unauthorized parts. Remove broken or altered equipment from service immediately.

**WARNING:** This machine is designed and intended to be used strictly as a vacuum pump.

**WARNING:** This machine should never be used to pump refrigerant.

**WARNING:** This machine should only be used to evacuate a system after the system has been purged with oxygen-free dry nitrogen (OFDN) and all refrigerant has been removed.

# Warnings and Safety Information (cont.)

## PERSONAL PROTECTIVE EQUIPMENT AND MSDS

**WARNING:** Always use the appropriate Personal Protective Equipment (PPE), including but not limited to **eye, ear, and hand protection**. Read all Material Safety Data Sheets (MSDS) for any compounds that you are likely to encounter during operation. Failure to do so could lead to injury or death.

## REFRIGERANT SAFETY

**WARNING:** Due to the flammable nature of A2L, A2, and A3 refrigerants, it is important to ensure proper technical training prior to handling these refrigerants. Some jurisdictions may require special licensing or certification before handling flammable refrigerants. Additional regulations or guidelines may be required by your local, state, or federal agencies. Check your local occupational health and safety codes.

Proper precautions should be followed when handling flammable refrigerants. These precautions include, but are not limited to, the following:

- A Temporary Hazard Zone should be created with a 3-meter perimeter around the work area.
- Place “No Smoking”, “Do Not Enter”, and any other appropriate warning signs in the area.
- A CO<sub>2</sub> or dry-powder type fire extinguisher should be available within the work area.
- Use a suitable flammable gas detector to monitor the air in the work area for refrigerant gas concentrations.

## Warnings and Safety Information (cont.)

- Ensure adequate ventilation of the area.
- Service equipment should be connected to, and disconnected from a power source outside of the flammable zone with the power switch in the off position.
- Properly ground the vacuum pump, hoses, system, and other elements to prevent static buildup.
- Do not reset service equipment circuit breakers unless power has been removed from the equipment or the area is free of ignitable concentrations.
- Disable and lock off the power to the system being serviced.
- **Do not mix flammable refrigerants with air.** All precautions must be taken to eliminate the mixing of air with flammable refrigerants.
- The system should be purged with oxygen-free dry nitrogen (OFDN) after refrigerant recovery and prior to evacuation. Do not use compressed air or oxygen.

# Warnings and Safety Information (cont.)

## HAZARD: RISK FROM MOVING COMPONENTS

This machine is equipped with a fan and motor rotating at high speeds.

WHAT CAN HAPPEN	HOW TO PREVENT IT
Debris or other objects may enter the machine housing through the air vents, causing machine damage	Be sure the area around the machine is free and clear of debris before operating the machine.
Physical damage may occur to body parts, tools, or other objects if inserted into the air vents of the machine while it is running.	Always unplug the machine and ensure that the fan and motor are not rotating before opening the case or inserting any object into the machine.
Damage may occur to the machine and surrounding objects if the machine is dropped while running.	Use caution while moving this equipment, especially during operation.

# Warnings and Safety Information (cont.)

## **HAZARD: RISK OF EXPLOSION OR FIRE**

Use of this equipment may pose certain explosion and fire hazards.

WHAT CAN HAPPEN	HOW TO PREVENT IT
Flammable/combustible gases and air may become unknowingly ingested through leaks in hoses, gaskets, connections, or leaking seals, leading to compression of these gases. This can create an explosive mixture that random static electricity could ignite.	Do not use in the vicinity of spilled or open containers of gasoline, propane, butane, acetylene, or other flammable gases.  Do not use near open sewer lines which may be emitting sewer gases.
Flammable/combustible dust and debris may become unknowingly ingested through air vents in the machine causing accidental sparking.	Do not operate the machine in excessively dusty environments or environments with conductive dust. Ensure the area around the machine is free of debris that could enter the air vents and fan.
An electrostatic discharge can ignite an explosive mixture of flammable/combustible gases and/or dust.	The qualified and certified professional operating this machine must take all appropriate measures to avoid electrostatic discharge to all earthed objects.
A recovery cylinder/tank can experience electrostatic build-up and discharge, which can ignite an explosive mixture of flammable or combustible gases and/or dust.	To dissipate all static electricity, use a grounding strap to properly bond an unpainted surface of the recovery cylinder/tank to an earthed object.



## Warnings and Safety Information (cont.)

WHAT CAN HAPPEN	HOW TO PREVENT IT
Flammable substances may ignite or explode when compressed in certain situations.	Do not use this machine to pump hydrocarbons, including blends containing butane, isobutane, or propane. Hydrocarbons are flammable substances and may ignite or explode when compressed in certain situations.
Using this machine with a damaged power cord, a power cord without a ground prong, an improperly installed outlet, and/or an improperly grounded outlet could cause an electric shock and/or ignite an explosive mixture of flammable or combustible gases and/or dust.	Always inspect the power cord for damage and make sure the power cord is secure and locked into place. Never modify the provided plug to fit an outlet.  Only use outlets that are properly installed and grounded in accordance with all local codes and ordinances.
Improper use of extension cords may result in overheating or fire in the cord or machine.	Use only 12AWG or 10AWG extension cords: - Up to 25 Feet: 12/3 UL/CSA cord - Up to 100 Feet: 10/3 UL/CSA cord

### **HAZARD: RISK FROM NOISE**

Moving components, high airflow, and pumping can all cause noise.

WHAT CAN HAPPEN	HOW TO PREVENT IT
Under some conditions and duration of use, noise from this product may contribute to hearing loss.	Always wear certified safety equipment, including ANSI or equivalent hearing protection.

# TEZ6 Components



# Using the TEZ6

**CAUTION:** Always use a grounded 3-prong outlet with a matching grounded 3-prong power cord.

**WARNING:** Always remove all refrigerant from the system and purge the system with OFDN before connecting the vacuum pump.

**NOTE:** Ensure all fittings and hose connections are properly and tightly secured before beginning the evacuation process.

## Power Cord Attachment

The TEZ6 vacuum pump features an auto-switching power supply that has a compatible range of 100-240VAC. The pump utilizes a locking IEC C14 power connector and is supplied with an IEC C13 power cord. This convenient setup allows you to easily change the power cord's plug type to match the socket requirements in your region, ensuring effortless operation wherever you are.

1. With the locking wire raised, align the terminals of the power cord and insert the C13 connector into the C14 power connector socket on the TEZ6 (see image 1).
2. Lower the locking wire to secure the power cord to the TEZ6 (see image 2).
3. Follow the instructions in reverse to remove the power cord ensuring the locking wire is raised and clicked into place.

Image 1



Image 2



# Using the TEZ6 (cont.)

## Power On/Off

**WARNING:** Never disconnect the power cord from the wall outlet while the TEZ6 is on.

**WARNING:** Never disconnect the power cord from the power connector socket on the TEZ6 while the TEZ6 is on.

1. The power switch is located in the upper right corner of the side case panel with the inlet fittings (see image 3).
2. With the TEZ6 plugged in, turn the power switch on.
3. A green LED above the power switch will begin to blink and the fan will turn on.
4. The green LED blink will increase in speed for 5 seconds while the fan begins to circulate air through the case.
5. When the green LED stops blinking and remains on continuously, the motor will turn on and increase in speed for 5 seconds.
6. Turn the power switch to the off position to stop the pump.

Image 3



# Using the TEZ6 (cont.)

## Standard Use

1. Install a new TEZOM cartridge into the oil intake and return area of the TEZ6. See Page 17 for further details on installing and changing the oil cartridge.
2. Connect the pump to the system according to the AC/R manufacturer guidelines.
  - a. Use a vacuum-rated ball valve between the system and TEZ6 to allow for isolation of the system at the end of the evacuation process.
  - b. Use the largest diameter hoses available connected directly to the pump to maximize flow.
3. Attach a full-range digital vacuum gauge to an access port of the system that is furthest from the TEZ6.
4. Turn the TEZ6 power switch on.

**NOTE:** The TEZ6 is designed to have a 10-second soft start.
5. Evacuate the system.
  - a. Follow the system manufacturer evacuation instructions to ensure the proper micron level is achieved.
6. Monitor the micron level and oil cartridge during the evacuation process and change the oil if needed.
  - a. Change the oil cartridge during evacuation if:
    - i. The micron level begins to stall.
    - ii. The oil becomes discolored with contaminants.
7. Isolate the system when the proper micron level has been achieved.
  - a. Use a vacuum-rated ball valve to isolate the system.



## Using the TEZ6 (cont.)

- b. Never rely on the internal valving of the vacuum pump for proper system isolation.
  - c. To reduce temporary connections that may lead to false results during a decay test, isolate the system only.
- 8. Turn the TEZ6 power switch off.
- 9. Monitor the micron level on a full-range digital vacuum gauge during the decay test to ensure a properly evacuated system.
- 10. If the decay test passes, remove the TEZ6 and hoses from the system to begin the next procedure in your service.
  - a. If the decay test fails, follow the system manufacturer guidelines to correctly diagnose the issue. Once the issue has been resolved, restart the evacuation procedure.

## After Use Care

After using the TEZ6 it is important to flush the pump with new oil before storage. This ensures the pump is not stored with moisture or other harsh contaminants in the oil that could cause harm to the internal components of the pump.

1. Install a new TEZOM cartridge into the oil intake and return area of the TEZ6.
2. Attach a vacuum-rated 1/4 in. ball valve to the 1/4 in. port of the TEZ6.
3. Turn the TEZ6 power switch on.
4. Close the ball valve until a slight suction can be felt from ball valve opening.
5. Run the TEZ6 while monitoring the oil.

## Using the TEZ6 (cont.)

6. If the oil shows signs of contamination, replace the oil cartridge. Repeat until the oil being circulated through the pump is clear.
7. Turn the TEZ6 power switch off.
8. Remove the 1/4 in. ball valve and reinstall the 1/4 in. cap on the port
9. Store the TEZ6 with the inlet ports capped to prevent moisture accumulation inside the pump.

### Evacuation Hose Attachment

The TEZ6 is equipped with three input fittings. Two 3/8 in. and one 1/4 in. (see image 4). These fittings should be kept sealed with the included Appion MegaSeal™ caps when the pump is not being used to prevent moisture or debris from entering the pump. For increased flow and shorter evacuation times, multiple inputs should be used at once and hoses should be connected directly from the system to the pump (see image 5). On systems with 3 or 4 connection points, 3/8 in. Speed-Ys can be used to increase the pump's hose capacity (see image 6).

Image 4



Image 5



Image 6



# Using the TEZ6 (cont.)

## Remote Exhaust Vent Connection

A Remote Exhaust Vent Connection is located on top of the front face of the TEZ6. It is threaded for connection to a standard garden hose (see image 7), which can be used to vent exhaust to another location (see image 8). To minimize any back pressure on the pump, be sure the hose is free of any obstructions and is the shortest length needed to reach the desired exhaust location.

Image 7



Image 8



## Power Cord Storage

The TEZ6 is equipped with a power cord storage compartment on the fan shroud case panel (see image 9). This compartment allows for convenient storage of the power cord and a smaller overall footprint. To store the cord, simply disconnect it from the power source and place it in the compartment. Secure the cord with the small rubber latch (see image 10).

Image 9



Image 10





# Changing the Oil

It is a good idea to always use new and clean oil in your TEZ6 vacuum pump. This not only prolongs the life of the pump, but also helps you to achieve a rapid and deep ultimate vacuum. Changing the oil in the TEZ6 is as easy as installing a new TEZOM oil cartridge following the procedure below. Replacement TEZOM oil cartridges can be purchased from your local authorized distributor (part# TZM1PK).

**NOTE:** Be sure to only use genuine Appion TEZOM oil in your TEZ6 vacuum pump to ensure optimal performance. The use of other vacuum oil may inhibit the ultimate vacuum depth that can be achieved.

**NOTE:** Always ensure the TEZOM oil cartridge is properly cleaned before reusing or refilling. Failure to do so can lead to contaminants and debris being introduced to the pump resulting in lost performance or damage to the TEZ6.

**NOTE:** The oil cartridge can be replaced when the TEZ6 is on or off. When the TEZ6 is on, have the replacement oil cartridge opened and ready to be installed prior to removing the used cartridge. Leaving the oil cartridge removed while the pump is on for longer than 20 seconds will result in a loss of vacuum.

1. Locate and remove the cap and protective seal from the top of a new oil cartridge (see image 11).

Image 11



## Changing the Oil (cont.)

2. Remove the used cartridge from the oil intake and return area of the TEZ6 by holding the lower part of the cartridge and pulling outward (see image 12).
3. Locate the flat side of the new oil cartridge. Hold the cartridge so that the flat side is facing toward the machine (see image 13).
4. Place the oil intake tube into the new oil cartridge and insert the top of the cartridge first to make sure the oil intake tube remains inside the cartridge (see image 14).
5. Gently push the bottom of the cartridge forward until it is secured in place (see image 15).
6. Place the cap back on the used oil cartridge and install the cartridge in the auxiliary oil cartridge storage. Alternatively, the cartridge may be reused after the used oil is disposed of.

**NOTE:** Always dispose of the waste oil in accordance with your local regulations.

Image 12



Image 13



Image 14



Image 15



# Changing the Oil (cont.)

## How Often Should You Change the Oil?

A vacuum pump can only pull a vacuum as deep as the vapor pressure of the sealing oil. When oil becomes saturated or contaminated, the vapor pressure/sealing capacity of the oil rises, and the evacuation process can slow to a halt.

It is recommended that the oil in your TEZ6 be changed and a new TEZOM Oil Cartridge installed at the beginning of every job. Doing this will ensure that your TEZ6 is supplied with clean, dry oil with ultra-low vapor pressure maximizing the performance of your TEZ6.

With the oil cartridge located on the front of the TEZ6, you can easily monitor and identify wet or dirty oil. As the oil becomes discolored, this indicates an increased level of contamination. For example, as moisture is drawn into the oil cartridge, the oil will take on a white, milk-like appearance. Similarly, other contaminants from the system will turn the oil dark and sludge may accumulate in the cartridge (see image 16 for color comparisons).

Image 16



## Changing the Oil (cont.)

The frequency of required oil changes will change from job to job. The number of oil changes are determined by the level of contamination in the system not its size. When dealing with highly contaminated systems frequent oil changes can be the difference of hours or days taken to achieve a deep vacuum.

While regular oil changes are time-consuming and difficult with conventional vacuum pumps, the TEZ6 has been designed so that you can remove and replace the TEZOM Oil Cartridge while the pump is running without breaking the vacuum.

# Helpful Tips

## Why Should You Use a Vacuum Pump?

Air Conditioning and Refrigeration systems are designed and tested to operate at their most efficient when they contain refrigerant and compressor oil only. The addition of moisture and non-condensables will cause reduced performance and premature or otherwise preventable failure. For this reason, adequate evacuation as dictated by the equipment manufacturer or local laws is required.

**Damage caused by moisture is one of the leading causes of failures in AC/R systems.**

Many compressor oils are Hygroscopic; poorly evacuated systems will allow moisture to remain mixed with the oil. This mixture will lead to a change in the compressor oil, resulting in loss of lubrication and turning the oil into a sludge that, in turn, will cause system blockages. The heat of compression will turn the oil/sludge mixture acidic. As this acidic mixture travels through the system, it will cause acid etching to components, pipework, and motor windings. This promotes copper plating of moving parts, leaks, and ultimately premature failure.

The only way to remove moisture throughout the entire system is to perform a proper evacuation and decay test according to the equipment manufacturer's specifications.

As the pressure in a system decreases, the boiling point of water also decreases. The following chart shows that you can get water to boil at 72° F/22° C by creating a vacuum of 29.12 Inches Hg (just over 20,000 microns) in a system.

## Helpful Tips (cont.)

Temperature in °F	Inches of Mercury	Microns*	Pounds/Sq. in. (Pressure)
212°	0.00	759,968	14.696
205°	4.95	535,000	12.279
194°	9.23	525,526	10.162
176°	15.94	355,092	6.866
158°	20.72	233,680	4.519
140°	24.04	149,352	2.888
122°	26.28	92,456	1.788
104°	27.75	55,118	1.066
86°	28.67	31,750	.614
80°	28.92	25,400	.491
76°	29.02	22,860	.442
72°	29.12	20,320	.393
69°	29.22	17,780	.344
64°	29.32	15,240	.295
59°	29.42	12,700	.246
53°	29.52	10,160	.196
45°	29.62	7,620	.147
32°	29.74	4,572	.088
21°	29.82	2,540	.049
6°	29.87	1,270	.0245
-24°	29.91	254	.0049
-35°	29.915	127	.00245
-60°	29.919	25.4	.00049
-70°	29.9195	12.7	.00024
-90°	29.9199	2.54	.000049

\*Remaining pressure in system in microns.



# Helpful Tips (cont.)

## TIP#1 Vacuum Gauge Placement

For a system to be adequately dehydrated, a deep vacuum must be achieved throughout the entire system, not just the point where the vacuum pump is connected. For the most accurate reading of vacuum depth throughout the system, it is recommended that you attach a vacuum gauge at an access port on the system that is farthest from the TEZ6.

## TIP#2 The Greater the Flow the Faster You Go

The rate of flow during the evacuation of a system is referred to as “throughput.” The throughput depends on the resistance to flow and the pressure drop between the entrance and exit of a hose or channel. Large diameter hoses and clear evacuation paths will ensure the most throughput and shortest evacuation times.

Remove restrictions such as core depressors in hoses or Schrader-type valve cores to ensure maximum flow. It is recommended to use an Appion Vacuum-Rated Valve Core Removal Tool in order to properly remove the access valve cores and maintain a good seal for a deep vacuum.

When a system is in a vacuum the throughput speed is dramatically affected by the diameter and length of the hoses being used to evacuate. Using a 3/8 in. hose will allow FOUR times more throughput than a 1/4 in. hose. A 1/2 in. hose will allow 16 TIMES more throughput than a 1/4 in. hose.

## Helpful Tips (cont.)

Even if you have to connect to a 1/4 in. access port, due the principals of flow in a vacuum as they relate to pumping speeds, employing a larger diameter hose will still dramatically decrease your evacuation time.

It is best if a system has multiple access ports at different points along the system. By attaching to as many access ports as possible and evacuating from them simultaneously into the TEZ6, a technician can dramatically reduce the time taken to achieve a deep vacuum throughout the entire system.

### **TIP#3 Excessive or Trapped Moisture in a System**

It may be more difficult to pull a deep vacuum if the system oil has had significant exposure to atmospheric air/moisture. Frequent oil changes due to contaminated TEZOM oil can be an indication that there is excessive moisture in a system.

Systems that use POE oil (approximately 100 TIMES more hydroscopic than mineral oil) can absorb a considerable amount of moisture when opened to the atmosphere. Purging the system with dry nitrogen prior to and during the evacuation process will break surface tension of the oil helping to release the trapped moisture and reduce evacuation time considerably.

During the evacuation process, visually scan all pipework and components for external signs of condensation or frosting. This will indicate that either refrigerant or moisture is still boiling off. This is not uncommon and usually happens where the system has low points or “traps” that can catch moisture. At any locations where you find



## Helpful Tips (cont.)

condensation or frost on the outside of the piping you can be fairly certain that moisture is collecting inside.

The application of heat via sump heaters/electric elements or a heat gun will increase the speed at which the moisture and refrigerant are released. The addition of breaking the vacuum with dry nitrogen can also be an effective addition to combating trapped moisture and high compressor surface tension.

Attention should be taken to the type of compressor oil used in the system. Oils are selected for many reasons and have different levels of hygroscopic characteristics and surface tensions. In some cases, heavily contaminated oil may need to be replaced in order to ensure the safe and correct operation of a system.

### **TIP#4 Extension Cords and Low Voltage**

Check that the voltage coming from the source outlet is adequate. Please note that the circuit could have many other items on it (e.g. light fixtures, appliances, or other motors). All of these extra loads on the circuit will cause a lower voltage and reduced performance.

Likewise, long and thin extension cords also starve the electrical components of necessary voltage and can cause very dangerous overheating of the electrical components and extension cord. Extension cords should be at least 12AWG and not longer than 15 ft.

# General Maintenance and Care

## Cleaning

**CAUTION:** Always disconnect the TEZ6 from a power source before cleaning.

**Light Cleaning:** Using a dry microfiber towel, wipe down the TEZ6 where it needs to be cleaned.

**Heavy Cleaning:** Lightly saturate a micro fiber towel with a mixture of mild dish soap and water. Wring the towel so no excess soap and water are dripping from the towel. Using the towel, wipe down the TEZ6 where it needs to be cleaned. Take care to not get excess soap and water on any electronic components on the exterior or inside the pump through open orifices. Using a dry towel, wipe down the TEZ6 to remove any excess moisture. Ensure the TEZ6 is completely dry before connecting to a power source.

## Storage

Always store the TEZ6 with fresh oil. Never leave contaminated oil in the pump for extended periods of time. See the After Use Care instructions (Page 13) on how to flush the pump with fresh oil.

Always store the pump with all inlet ports capped when not in use to prevent moisture accumulation inside the pump.

## Cold Weather Applications

Keep the TEZ6 and oil in a warm environment before using in temperatures below 32 °F (0 °C). This ensures the TEZ6 components

## General Maintenance and Care (cont.)

are at a safe temperature for start-up in below freezing temperatures. Once started the heat generated from the pump assembly will keep the TEZ6 warm during operation. Always keep spare oil cartridges in a warm environment when not in use.

In extreme cases, it may be necessary to bring the pump in an environment that has an ambient temperature closer to 77 °F (25 °C), open one inlet port for startup, turn the pump on, close the inlet port, and run the pump for 5-10 minutes before using it in a cold weather environment.

### Field testing

If you suspect the TEZ6 may not be pulling a vacuum correctly perform a field test to verify it is working properly.

**NOTE:** Always check that the cap gaskets are installed in each inlet port cap before performing this test.

**NOTE:** Always use fresh oil when performing this test.

1. Connect a known good vacuum gauge directly to an available port of the pump.
2. Close all other inlet ports.
3. Turn the pump on and start a timer.
4. The vacuum pump should reach a micron level of 200 microns within 1 minute.

If the pump fails to reach 200 microns in 1 minute, then the pump may have an issue.

# Specifications

**Weight:**

15.1 lbs (6.8 kg)

**Dimensions:**

11.5 x 7.6 x 9.5 in. (29.2 x 19.3 x 24.1 cm)

**Power source:**

Auto-Switching (100-120VAC, 5A) (120-240VAC, 4A) 50/60Hz

**Plug type:**

Locking IEC C13/C14

**Free Air Displacement:**

6 cfm (170.25 l/m) @ 60 Hz

**Ultimate Vacuum:**

15 microns

**Oil Capacity:**

8 oz (236 ml)

**Oil Type:**

Appion Ultimate Deep Seal Vacuum Pump Oil

**Inlet Port Sizes:**

(2) 3/8 in., (1) 1/4 in.

**Pump Type:**

Two Stage - Rotary Vane Pump

## **Specifications (cont.)**

### **Motor Type:**

1hp BLDC

### **Pump RPM:**

2200 rpm

### **Operating temps:**

-4 °F to 131 °F (-20 °C to 55 °C)

### **Storage temps:**

-4 °F to 131 °F (-20 °C to 55 °C)

### **Hazardous location:**

Class 1, Div. 2, Group D, T5

# Troubleshooting Guide

**WARNING:** Read all safety information found in this manual and in the Material Safety Data Sheets (MSDS) for any material used with this machine prior to performing any service on this machine.

**SYMPTOM:** Machine will not start, no sound when power switch turned 'On'

CAUSE	SOLUTION
Power cord not plugged in, or no power in outlet	Check power cord, try different outlet.
Motor in Thermal Overload	Allow motor to cool down.
Loose wire in machine	Open case and check wire connections.
Pump is designed to "soft start"	Open 1/4 in. inlet cap and start pump. Close tightly for evacuation.

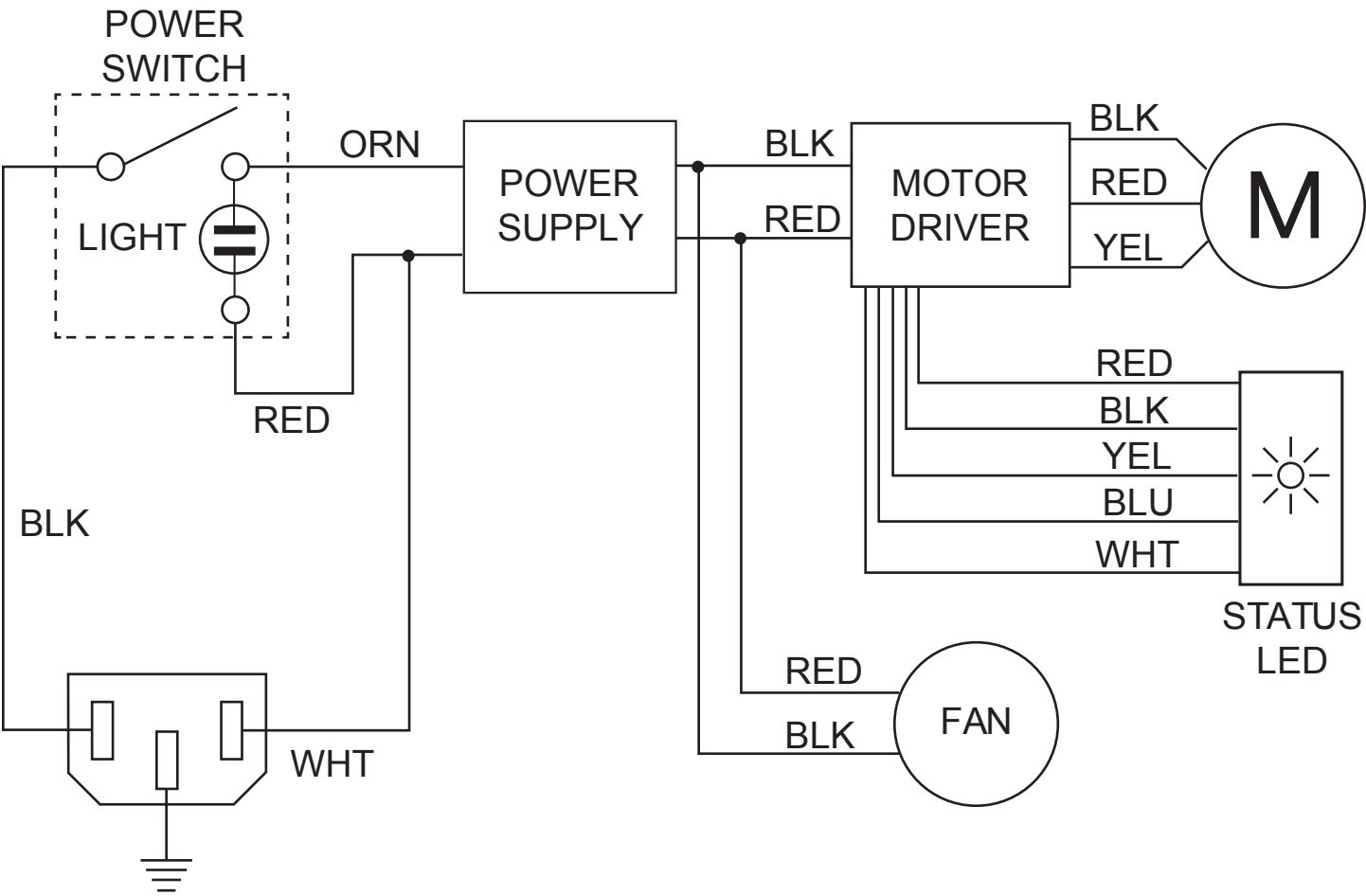
**SYMPTOM:** Poor Vacuum

CAUSE	SOLUTION
Loose hose connection and/or damaged gasket	Check all hose connections and flare caps for leaks.
Oil contaminated	Replace with new oil.
Low oil level	Replace with new oil.
Miscalibrated gauge	Recalibrate gauge, or try a different gauge.

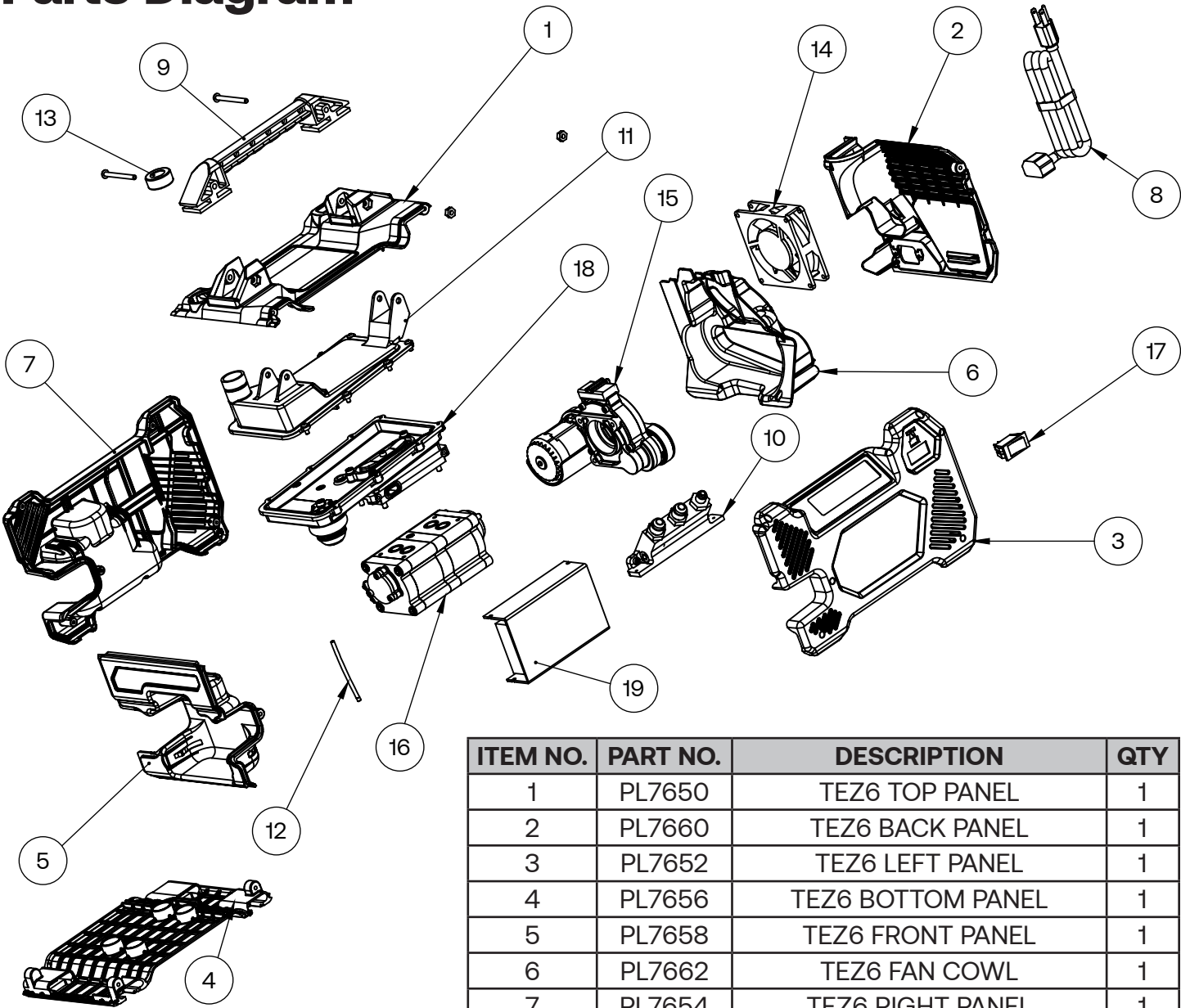
**SYMPTOM:** Oil murky or dark in color

CAUSE	SOLUTION
Oil contaminated	Replace with new oil.

# Electrical Diagram



# Parts Diagram



TEZ6 POWER CORDS	
PART NO.	DESCRIPTION
WR7250	110V 2m IEC Type B Power Cord - U.S.A.
WR7265	220V 2m IEC Type F Power Cord - European
WR7270	220V 2m IEC Type G Power Cord - UK
WR7285	220V 2m IEC Type I Power Cord - Australia
WR7290	220V 2m IEC Type N Power Cord - Brazil

ITEM NO.	PART NO.	DESCRIPTION	QTY
1	PL7650	TEZ6 TOP PANEL	1
2	PL7660	TEZ6 BACK PANEL	1
3	PL7652	TEZ6 LEFT PANEL	1
4	PL7656	TEZ6 BOTTOM PANEL	1
5	PL7658	TEZ6 FRONT PANEL	1
6	PL7662	TEZ6 FAN COWL	1
7	PL7654	TEZ6 RIGHT PANEL	1
8	WR7250	TEZ6 110V POWER CORD	1
9	PL7000	CASE HANDLE	1
10	AY1502	INLET MANIFOLD ASSEMBLY	1
11	VP3530	VALVE PLATE COVER	1
12	HS1580	OIL INTAKE TUBE	1
13	MF3871	3/4" GHT FITTING COVER	1
14	EL3310	COOLING FAN	1
15	AY1504	DRIVE ASSEMBLY	1
16	AY1515	PUMP ASSEMBLY	1
17	EL5120	POWER SWITCH	1
18	AY1520	VALVE PLATE ASSEMBLY	1
19	EL3320	400W POWER SUPPLY	



# Warranty Information

Appion Inc. (Hereinafter Appion) warrants that this equipment will, under normal and anticipated use, be free from defects in materials and workmanship for a period of one (1) year from the date of purchase by purchaser from an Appion-authorized distributor.

The complete Manufacturer's Limited Warranty is available online at [AppionTools.com](http://AppionTools.com).

All warranty services must receive Appion Factory Authorization and an RGA number prior to any action. Contact your local Appion authorized distributor to obtain the RGA number and shipping instructions. To help us provide the best service, be sure to have the following information available:

- Serial number of the equipment
- Purchase date of the defective unit
- A detailed description of the problem

Appion offers technical troubleshooting support for the lifetime of every product. Regardless of your warranty status, feel free to reach out for assistance via phone at +1 303 937 1580 or email at [support@appioninc.com](mailto:support@appioninc.com). Visit our website, [AppionTools.com](http://AppionTools.com), for extra technical insights that can enhance your product experience, making your job quicker and easier.

# Warranty Information (cont.)

<b>Appion TEZ6 Warranty Registration Card</b> Please complete this card and return it within 10 days of purchase with a copy of your sales receipt.	
Your Name	Your Company
Street Address	Phone Number
City	State          Zip
Email Address	Serial Number
Place of Purchase	Date of Purchase
How did you learn about our products? (Please only check one)  <input type="checkbox"/> Wholesaler _____ <input type="checkbox"/> Recommended By: _____ <input type="checkbox"/> Magazine <input type="checkbox"/> Newspaper Ad <input type="checkbox"/> Internet <input type="checkbox"/> Other: _____	Please select your primary line of business. (Check all that apply)  <input type="checkbox"/> Automotive <input type="checkbox"/> Commercial <input type="checkbox"/> Residential <input type="checkbox"/> Service <input type="checkbox"/> Installation <input type="checkbox"/> Other: _____
Register by <u>Mail</u> : Appion Inc. 2800 South Tejon Street Englewood, CO 80110 USA  Register by <u>Email</u> or <u>Fax</u> : 1. Scan this page AND a copy of your sales receipt. 2. Email to: Sales@AppionInc.com <u>or</u> Fax this page and your sales receipt to: 1-303-937-1599	What features most interested you? (Check all that apply)  <input type="checkbox"/> High Production <input type="checkbox"/> Low Cost <input type="checkbox"/> Low Maintenance <input type="checkbox"/> Portability <input type="checkbox"/> Ease of Use <input type="checkbox"/> Other: _____

## QR Code Index



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**Product Registration**



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