



KING KING CANADA

1.5 HP AIR COMPRESSOR



MODEL: 8449C

INSTRUCTION MANUAL

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WARRANTY INFORMATION

**2-YEAR
LIMITED WARRANTY
FOR THIS 1.5 HP AIR COMPRESSOR**

**KING CANADA TOOLS
OFFERS A 2-YEAR LIMITED WARRANTY
FOR NON-COMMERCIAL USE.**

PROOF OF PURCHASE

Please keep your dated proof of purchase for warranty and servicing purposes.

REPLACEMENT PARTS

Replacement parts for this product are available at our authorized King Canada service centers across Canada.

LIMITED TOOL WARRANTY

King Canada makes every effort to ensure that this product meets high quality and durability standards. King Canada warrants to the original retail consumer a 2-year limited warranty as of the date the product was purchased at retail and that each product is free from defects in materials. Warranty does not apply to defects due directly or indirectly to misuse, abuse, normal wear and tear, negligence or accidents, repairs done by an unauthorized service center, alterations and lack of maintenance. King Canada shall in no event be liable for death, injuries to persons or property or for incidental, special or consequential damages arising from the use of our products.

To take advantage of this limited warranty, return the product at your expense together with your dated proof of purchase to an authorized King Canada service center. Contact your retailer or visit our web site at www.kingcanada.com for an updated listing of our authorized service centers. In cooperation with our authorized serviced center, King Canada will either repair or replace the product if any part or parts covered under this warranty which examination proves to be defective in workmanship or material during the warranty period.

NOTE TO USER

This instruction manual is meant to serve as a guide only. Specifications and references are subject to change without prior notice.

KING CANADA INC. DORVAL, QUÉBEC, CANADA H9P 2Y4

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WARNING!

UNPLUG POWER CORD WHEN NOT IN USE.

To avoid hazardous situations and risk of fire, make sure to turn the switch to the “Off” position and/or unplug power cord before leaving compressor unattended.

- Unattended operation of this compressor could result in personal injury or property damage. Always remain in attendance with the compressor when it is operating.
- If electrical sparks from the compressor come in contact with flammable vapors, they may ignite, causing fire or explosion. Store flammable materials in a secure location away from the compressor.
- Restricting any of the compressor ventilation openings will cause serious overheating and could cause fire.
- Never place objects against or on top of the compressor. Operate compressor in an open area at least 12” away from any wall or obstruction that would restrict the flow of fresh air to the ventilation openings.
- Operate compressor in a clean, dry and well ventilated area. Do not operate compressor indoors in a confined area.

IMPORTANT SAFETY INSTRUCTIONS



RISK OF EXPLOSION OR FIRE WHAT CAN HAPPEN

It is normal for electrical contacts within the motor and pressure switch to spark.



If electrical sparks from the compressor come in contact with flammable vapors, they may ignite, causing fire or explosion. Restricting any of the compressor ventilation openings will cause serious overheating and could cause fire.

Unattended operation of this compressor could result in personal injury or property damage.



RISK OF BURSTING WHAT CAN HAPPEN

1. Failure to properly drain condensed water from the tank, causing rust and thinning of the steel tank.
2. Modifications or attempted repairs to the tank.
3. Unauthorized modifications to the unloader valve, safety valve or any other components which control tank pressure.
4. Excessive vibration can weaken the air tank and cause rupture or explosion.

Attachments & Accessories; Exceeding the operating pressure of air tools can cause them to explode.



RISK OF BURNS WHAT CAN HAPPEN

Touching exposed metal such as the compressor head or outlet tubes, can result in serious burns.



RISK OF PROPERTY DAMAGE WHEN TRANSPORTING COMPRESSOR WHAT CAN HAPPEN

Oil can leak or spill and could result in fire or breathing hazard, serious injury or death can result. Oil leaks will damage carpet, paint or other surfaces in vehicles or trailers.

HOW TO PREVENT IT

Always operate the compressor in a well ventilated area free of combustible materials, gasoline or solvent vapors. If spraying flammable materials, locate the compressor at least 20 feet away from the spray area. An additional length of hose may be required.

Store flammable materials in a secure location away from the compressor.

Never place objects against or on top of the compressor. Operate compressor in an open area at least 12 inches away from any wall or obstruction that would restrict the flow of fresh air to the ventilation openings.

Operate compressor in a clean, dry and well ventilated area. Do not operate compressor indoors in a confined area.

Always remain in attendance with the compressor when it is operating.

HOW TO PREVENT IT

Drain tank daily or after every use. If the tank develops a leak, replace tank or get a new air compressor. Never drill into, weld or make any modifications to the tank or its attachments.

The tank is designed to withstand specific operating pressures. Never make adjustments or parts substitutions to alter the factory set operating pressures.

For essential control of air pressure, you must install a pressure regulator and pressure gauge to the air outlet.

HOW TO PREVENT IT

Never touch any exposed metal parts on compressor during or immediately after operation. The compressor will remain hot several minutes after use.

Do not reach around protective shrouds or attempt maintenance until the compressor has cooled down completely.

HOW TO PREVENT IT

Always place compressor on a protective mat when transporting to protect against damage to vehicle from leaks. Remove compressor from vehicle immediately upon arrival.

SPECIFICATIONS & ELECTRICAL INFORMATION

SPECIFICATIONS

Model	8449C
Voltage	120V
Horsepower	1.5
Amperage	8.5A
RPM (no load speed)	3450
Phase	1
Hertz	60Hz
Operating pressure	115 PSI
CFM @ 40 PSI	2.70
CFM @ 90 PSI	2.30
Tank size	2 US Gallon

WARNING

ALL ELECTRICAL CONNECTIONS MUST BE DONE BY A QUALIFIED ELECTRICIAN. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY! ALL ADJUSTMENTS OR REPAIRS MUST BE DONE WITH THE COMPRESSOR DISCONNECTED FROM THE POWER SOURCE. FAILURE TO COMPLY MAY RESULT IN SERIOUS INJURY!

POWER SUPPLY

WARNING: YOUR COMPRESSOR MUST BE CONNECTED TO A 120V WALL OUTLET, WITH A MINIMUM 15-AMP BRANCH CIRCUIT AND USE A 15-AMP TIME DELAY FUSE OR CIRCUIT BREAKER. FAILURE TO CONNECT IN THIS WAY CAN RESULT IN INJURY FROM SHOCK OR FIRE.

GROUNDING

Your compressor must be properly grounded. Not all outlets are properly grounded. If you are not sure if your outlet is properly grounded, have it checked by a qualified electrician.

WARNING: IF NOT PROPERLY GROUNDED, THIS COMPRESSOR CAN CAUSE ELECTRICAL SHOCK, PARTICULARLY WHEN USED IN DAMP LOCATIONS. TO AVOID SHOCK OR FIRE, IF THE POWER CORD IS WORN OR DAMAGED IN ANY WAY, HAVE IT REPLACED IMMEDIATELY.

If this compressor should malfunction or breakdown, grounding provides a path of least resistance for electric current, to reduce the risk of electric shock. This compressor is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be plugged into an appropriate outlet that is properly installed and grounded in accordance with all local codes and ordinances.

WARNING: TO MAINTAIN PROPER GROUNDING, DO NOT REMOVE OR ALTER THE GROUNDING PRONG IN ANY MANNER.

120V OPERATION

As received from the factory, your compressor is ready to run for 120V operation. This machine is intended for use on a circuit that has an outlet and a plug which looks like the one illustrated in Fig.1.

WARNING: DO NOT USE A TWO-PRONG ADAPTOR(S) FOR THEY ARE NOT IN ACCORDANCE WITH LOCAL CODES AND ORDINANCES. NEVER USE IN CANADA.

EXTENSION CORDS

The use of any extension cord will cause some loss of power. IT IS RECOMMENDED TO USE A LONGER AIR HOSE INSTEAD OF AN EXTENSION CORD. If you do not have a choice, use the table in Fig.2 to determine the minimum wire size (A.W.G-American Wire Gauge) extension cord needed. Use only 3-wire extension cords which have 3-prong grounding type plugs and 3-hole receptacles which accept the tool's plug.

For circuits that are further away from the electrical circuit box, the wire size must be increased proportionately in order to deliver ample voltage to the air compressor motor. Refer to Fig.2 for wire length and size.

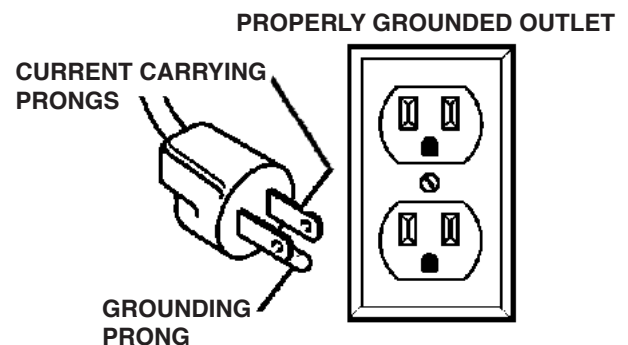


FIGURE 1

<u>LENGTH OF CONDUCTOR</u>	<u>WIRE SIZES REQUIRED (AMERICAN WIRE GAUGE)</u>
	<u>110V LINES</u>
0-25 FEET	NO.14
26-50 FEET	NO.12
51-100 FEET	Not recommended

FIGURE 2

ASSEMBLY & OPERATION CONTROLS

ASSEMBLY OF THE AIR COMPRESSOR

Your compressor comes almost completely assembled.

- 1) Install the muffler (A) Fig.3 to the cylinder cover (B) by screwing it into place as shown.
- 2) Remove the plastic cap (A) Fig.4 and replace it with the oil breather cap (B) by screwing it into place as shown.
- 3) It may be necessary to install the pressure gauges (A and B) Fig.5, place Teflon® tape around the pressure gauge threaded shafts and screw the pressure gauges in their respective places.
- 4) Install the female quick connect (C) Fig.5 to the pressure regulator housing, place Teflon® tape around the female quick connect threaded shaft and screw it into place. Tighten using wrench.



FIGURE 3

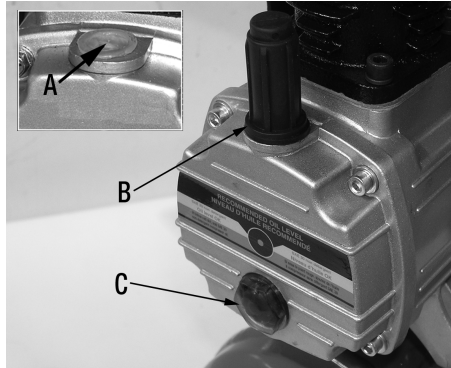


FIGURE 4

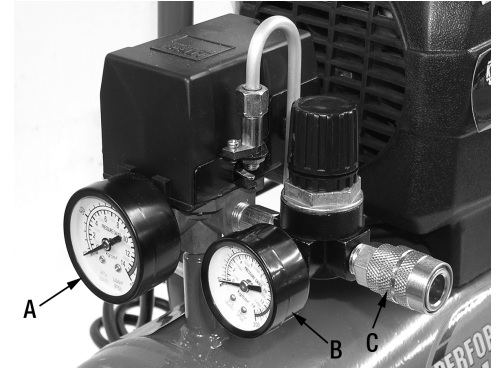


FIGURE 5

LOCATION TO USE THE AIR COMPRESSOR

Operate the air compressor in a dry, clean, cool, well ventilated area. The air compressor pump and case are designed to allow for proper cooling. Clean or blow off dust or dirt that collects on the air compressor. A clean air compressor runs cooler and provides longer service. The ventilation openings on your air compressor are necessary to maintain proper operating temperature. Do not place rags or other containers on or near these openings.

ADDITIONAL REGULATORS AND CONTROLS

Since the air tank pressure is usually greater than that which is needed, a regulator is employed to control the air pressure ahead of any individual driven device. Separate air transformers which combine the function of air regulation, moisture and dirt removal should be used where applicable.

OPERATION CONTROLS

AIR COMPRESSOR PUMP. To compress air, the piston moves up and down in the cylinder. On the downstroke, air is drawn in through the intake valves. The exhaust valves remain closed. On the upstroke of the piston, air is compressed. The intake valves close and compressed air is forced out through the exhaust valves.

CHECK VALVE (A) FIG.7. When the air compressor is operating, the check valve is “open”, allowing compressed air to enter the air tanks. When the air compressor reaches “Cut-Out” pressure, the check valve “closes”, allowing air pressure to remain inside the air tanks.

ON/AUTO-OFF SWITCH (B) FIG.6. Turn this switch ON to provide power to the automatic pressure switch and OFF to remove power at the end of each use.

PRESSURE SWITCH (A) FIG.6. The pressure switch automatically starts the motor when the tank pressure drops below the factory set “Cut-In” pressure. It also stops the motor when the air tank pressure reaches the factory set “Cut-Out” pressure.

REGULATOR (D) FIG.6. The air pressure coming from the air tanks is controlled by the regulator. Turn the regulator knob clockwise to increase pressure and counterclockwise to decrease pressure. To avoid minor readjustment after making a change in the pressure setting, always approach the desired pressure from a lower pressure. When reducing from a higher to a lower setting, first reduce the pressure less than that desired, then bring it up to the desired pressure. Depending on the air requirements of each particular accessory, the outlet regulated air pressure may have to be adjusted while operating the accessory.

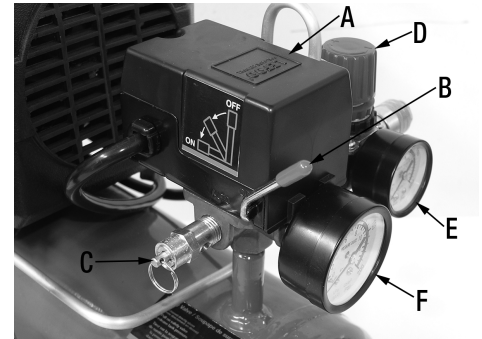


FIGURE 6

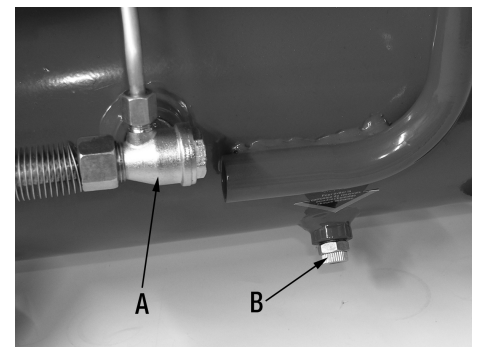


FIGURE 7

OPERATION CONTROLS & BREAK-IN PROCEDURES

OUTLET PRESSURE GAUGE (E) FIG.6. The outlet pressure gauge indicates the air pressure available at the outlet side of the regulator. The pressure is controlled by the regulator and is always less than or equal to the tank pressure.

TANK PRESSURE GAUGE (F) FIG. 6. The tank pressure gauge indicates the reserve air pressure in the tank.

COOLING SYSTEM. This compressor contains an advanced design cooling system. The cooling system is working when air is being expelled.

DRAIN VALVE (B) FIG. 7. The drain valve is located at the base of the air tank and is used to drain condensation at the end of each use.

MOTOR THERMAL OVERLOAD PROTECTOR. This air compressor is equipped with an electric motor protected by an internal thermal overload protector. If the motor overheats for any reason, the thermal overload protector will shut off the motor. The motor must be allowed to cool before it can be restarted.

IMPORTANT! If the motor overheats and shuts off, the work environment such as room temperature or humidity level will affect the amount of time needed to cool down the motor and reactivate the thermocouple. This may take anywhere from 15-45 minutes.

PRESSURE RELEASE VALVE. The pressure release valve located on the side of the pressure switch, is designed to automatically release compressed air from the compressor head and the outlet tube when the air compressor reaches “cut-out” pressure or is shut off. The pressure release valve allows the motor to restart freely. When the motor stops running, air will be heard escaping from this valve for a few seconds. No air should be heard leaking when the motor is running, or continuous leaking after unit reaches “cut-out” pressure.

SAFETY VALVE (C) FIG. 6. If the pressure switch does not shut off the air compressor at its cutout pressure setting, the safety valve will protect against high pressure by “popping out” at it’s factory set pressure (slightly higher than the pressure switch cut-out setting).

WARNING!: If the safety valve does not work properly, over pressurization may occur, causing air tank rupture or an explosion. Daily pull the ring on the safety valve to make sure that the safety valve operates freely. If the valve is stuck or does not operate smoothly, it must be replaced with the same type of valve.

IMPORTANT BREAK-IN PROCEDURES

NOTE: MAKE SURE ALL ASSEMBLY INSTRUCTIONS ABOVE HAVE BEEN FOLLOWED BEFORE DOING THE FOLLOWING “BREAK-IN PROCEDURES” (MUFFLER, OIL BREATHER CAP, PRESSURE GAUGES AND FEMALE QUICK CONNECT). SERIOUS DAMAGE MAY RESULT IF THE FOLLOWING BREAK-IN INSTRUCTIONS ARE NOT CLOSELY FOLLOWED. THESE PROCEDURES ARE REQUIRED BEFORE THE AIR COMPRESSOR IS PUT INTO SERVICE, AFTER REPLACING THE CHECK VALVE, AND WHEN THE PISTON OR THE CYLINDER SLEEVE ARE REPLACED.

- 1) Set the pressure switch lever (A) Fig.8 to the “OFF” position.
- 2) Plug the power cord into grounded 120V branch circuit receptacle.
- 3) Open the drain valve (A) Fig.9, turn it counterclockwise as shown, this will prevent air pressure build-up in the tank.
- 4) Move the pressure switch lever (A) Fig.10 to “ON/AUTO”. The compressor will start.
- 5) Run the compressor for 15 minutes. Make sure the drain valve is open and there is no tank pressure build-up (tank pressure gauge at zero).
- 6) After 15 minutes, close the drain valve by turning it clockwise. The air receiver will fill tank to cut-out pressure and the motor then will stop.
The air compressor is now ready for use.



FIGURE 8

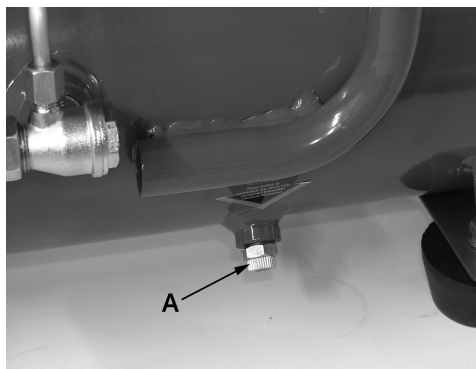


FIGURE 9

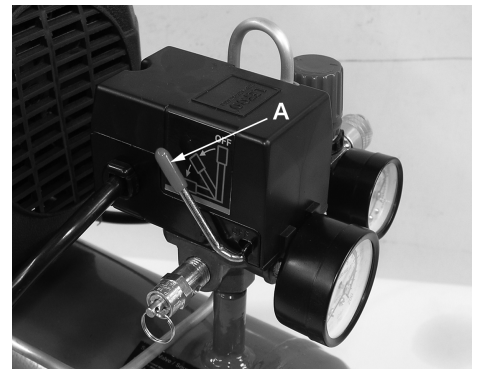


FIGURE 10

OPERATION, MAINTENANCE & STORAGE

OPERATING PROCEDURES

Preparation for use:

- 1) Before attaching air hose or any accessory, make sure the pressure switch lever is set to "OFF" and the pressure regulator is closed.
- 2) Install air hose male coupler into the female quick connect (C) Fig.5 on the air compressor, to do this, push quick connect collar backwards and hold it in this position. Push male coupler all the way into female quick connect and release collar to secure male coupler.
- 3) Turn the pressure switch lever to "ON/AUTO" (A) Fig.10 and allow tank pressure to build. Motor will stop when tank pressure reaches "cut-out".
- 4) Open the pressure regulator (D) Fig.6 by turning it clockwise. Adjust the pressure regulator to the correct pressure setting (do not exceed the maximum rating of the tool being used). Observe outlet air pressure on outlet pressure gauge (E) Fig.6 as reference. The compressor is ready for use.

After Use:

- 5) Set the "OFF/AUTO" lever to "OFF".
- 6) Turn the pressure regulator counterclockwise to set the outlet pressure to zero.
- 7) Disconnect air hose.
- 8) Pull ring on safety valve (C) Fig. 6, allowing air to bleed from the tank until tank pressure is approximately 20 PSI. Release safety valve ring.
- 9) Drain water from air tank. Turn drain valve (A) Fig.9, turn it counterclockwise to open.

WARNING!: Water will condense in the air tank. If not drained water will corrode and weaken the air tank causing a risk of air tank rupture.

NOTE: If drain valve is plugged, pull ring on safety valve (C) Fig.6, and hold until air pressure has been released. The valve can then be removed, cleaned, and reinstalled.

- 10) After the water has been completely drained, turn drain valve clockwise to close. The air compressor can now be stored.

MAINTENANCE

Before doing any maintenance or adjustments to your air compressor, the following safety precautions should be taken:

- Disconnect electrical power, drain air tank of pressure.

Daily or before each use

- 1) Check oil level. Oil level must be in the centre of the red dot of oil sight glass.
- 2) Drain condensation from tank.
- 3) Check for any unusual noise or vibration.
- 4) Be sure all nuts and bolts are tight.

Monthly

- 1) Inspect air system for leaks by applying soapy water to all joints. Tighten those joints if leakage is observed.

250 hours or six months (whichever comes first)

- 1) Change compressor oil. See following instructions
- 2) Replace oil more often if used near paint spraying operations or in dusty environments.

CHANGING OIL

To change oil, oil must be drained from the crank case by removing oil sight glass (C) Fig.11. Drain oil and replace oil sight glass. To fill the crank case with oil, first unscrew and remove oil breather cap (A), pour air compressor oil (SAE30 weight non-detergent oil) into crankcase oil opening (B) until the oil level reaches the red dot at the centre of the oil sight glass (C). Replace oil breather cap (A).

KEEP TOOL CLEAN

Periodically blow out all air passages with dry compressed air. Clean all plastic parts with a soft damp cloth. NEVER use solvents to clean plastic parts. They could possibly dissolve or otherwise damage the material. **CAUTION:** Wear safety glasses while using compressed air.

FAILURE TO START

Should your compressor fail to start, check to make sure the prongs on the cord plug are making good contact in the outlet. Also, check for blown fuses or open circuit breakers in the line.

STORAGE

- 1) Set the "OFF/AUTO" lever to "OFF".
- 2) Turn the regulator counterclockwise to set the outlet pressure to zero.
- 3) Remove the air hose.
- 4) Pull ring on safety valve (C) Fig.6, allowing air to bleed from the tank, until tank pressure is approximately 20PSI. Release safety valve ring.
- 5) Drain water from air tank. Turn drain valve (A) Fig.9, counterclockwise, to open. NOTE: If drain valve is plugged, pull ring on safety valve (C) Fig. 6, and hold until air pressure has been released. The valve can then be removed, cleaned, and reinstalled.
- 6) After the water has been completely drained, turn drain valve to close. The air compressor can now be stored.

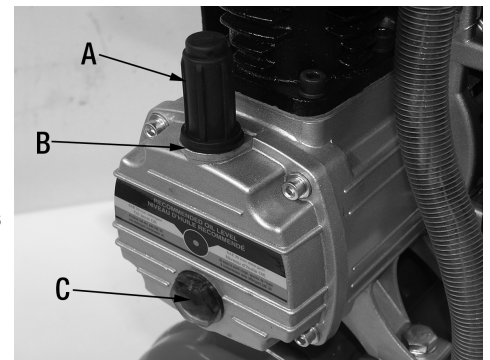


FIGURE 11

TROUBLESHOOTING

TROUBLE SHOOTING

TROUBLE	POSSIBLE CAUSE	CORRECTIVE ACTION
No start condition	Fuse blown or circuit breaker tripped. Loose electrical connections. Overheated motor.	Check for cause of blown fuse/breaker and replace or reset. Check wiring connections. Allow motor to cool down before restarting.
Low pressure	Air leak in safety valve. Restricted air filter. Defective check valve.	Check valve manually by pulling upwards on ring. If condition persists replace valve. Clean or replace as necessary. Replace check valve.
Safety valve releasing	Defective pressure switch or improper adjustment.	Check for proper adjustment and if problem persists, replace pressure switch.
Oil discharge in air	Improper oil viscosity. Too much oil in crankcase. Compressor overheated. Restricted air filter.	Replace oil with SAE30 weight non-detergent oil. Drain crankcase and fill to proper level. Air pressure regulated too high. Replace filter.

PARTS DIAGRAM & PARTS LISTS

Refer to the Parts section of the King Canada web site for the most updated parts diagram and parts list.