

HAFCO WOODMASTER



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Instruction Manual

CYCLONE DUST COLLECTORS CD-20 & CD-30

Order Code: (W319 & W320)

MACHINE DETAILS

MACHINE.

MODEL NO.

SERIAL NO.

DATE OF MANF.

IMPORTED BY

AUSTRALIA



www.machineryhouse.com.au

NEW ZEALAND



www.machineryhouse.co.nz

NOTE:

This manual is only for your reference. At the time of the compiling of this manual every effort to be exact with the instructions, specifications, drawings, and photographs of the machine was taken. Owing to the continuous improvement of the HAFCO WOODMASTER machine, changes may be made at any time without obligation or notice. Please ensure the local voltage is the same as listed on the specification plate before operating any electric machine.

SAFETY SYMBOLS:

The purpose of safety symbols is to attract your attention to possible hazardous conditions



Indicates a potentially hazardous situation causing injury or death



Indicates an alert against unsafe practices.

Note:

Used to alert the user to useful information

NOTE:

In order to see the type and model of the machine, please see the specification plate. Usually found on the back of the machine. See example (Fig.1)

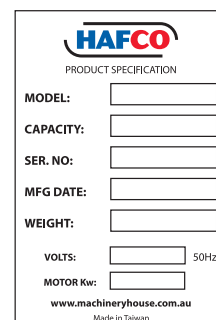


Fig. 1

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1 GENERAL MACHINE INFORMATION

1.1 SPECIFICATION

Order Code	W319	W320
MODEL	CD-20	CD-30
Type	Cyclone Dust Collector	
(CFM) Airflow	910	2204
Static Pressure	11" H2O	12.5" H2O
Approved Dust Type	Wood	
(ltr) Canister Capacity	113.56	189.27
(Yes / No)LPHV - Low Pressure High Volume	No	
(Yes / No)HPLV - High Pressure Low Volume	No	
(No. / mm) Main Inlet / Diameter	1 x 175	1 x 200
(mm) Adaptor Inlet Size	100	
(No) Number of Inlets	3	
(mm) Impeller Size	330	380
(kW / hp) Motor Power	1.5 / 2	2.24 / 3
(V / amp) Voltage	240 / 10	240 / 15
(r.p.m) Speed	2850	
(mm) Floor Space (W x D)	915 x 1370	1016 x 1390
(mm) Dimension (W x D x H)	723 x 1320 x 1780	790 x 1370 x 2080
(kg) Nett Weight	130	160

1.2 INCLUDED ACCESSORIES

- 1 x Remote Control
- 1 x Plastic Bag
- 1 x Cloth Filter Bag
- 1 x Instruction Manual

1.3 IDENTIFICATION

Become familiar with the names and locations of the controls and features shown below to better understand the instructions in this manual.



A	Motor	E	Locking Casters
B	Inlet Adaptor	F	Swivel Caster
C	Collection Drum	G	Filter Bag
D	Drum Locking Handle	H	Canister Filter

2 SAFETY

2.1 GENERAL WOODWORKING MACHINE SAFE PRACTICES

DO NOT use this machine unless you have read this manual or have been instructed in the safe use and operation of this machine.



This manual provides safety instructions on the proper setup, operation, maintenance, and service of this machine. Save this manual, refer to it often, and use it to instruct other operators. Failure to read, understand and follow the instructions in this manual may result in fire or serious personal injury—including amputation, electrocution, or death.

The owner of this machine is solely responsible for its safe use. This responsibility includes, but is not limited to proper installation in a safe environment, personnel training and authorization to use, proper inspection and maintenance, manual availability and comprehension of the application of the safety devices, integrity, and the use of personal protective equipment.

The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



Exposure to the dust created by power sanding, sawing, grinding, drilling and other construction activities may cause serious and permanent respiratory or other injury, including silicosis (a serious lung disease), cancer, and death. Avoid breathing the dust, and avoid prolonged contact with dust.

Some examples of these chemicals are:

- ✓ Lead from lead-based paints.
- ✓ Crystalline silica from bricks, cement and other masonry products.
- ✓ Arsenic and chromium from chemically-treated timber.

Always operate tool in well ventilated area and provide for proper dust removal. Use a dust collection system along with an air filtration system whenever possible. Always use properly fitting approved respiratory protection appropriate for the dust exposure, and wash exposed areas with soap and water.

- ✓ Always wear safety glasses or goggles and protective footwear.
- ✓ Wear dust masks when required.
- ✓ Wear hearing protection that is suitable for the level and frequency of the noise you are exposed to in the woodworking area. If you have trouble hearing someone speak from three feet away, the noise level from the machine may be hazardous.
- ✓ Use gloves to protect hands from splinters when handling wood but do not wear them near rotating blades and other machinery parts where the gloves can catch.

2.1 GENERAL WOODWORKING MACHINE SAFE PRACTICES Cont.

- ✓ Make sure the guard that is in position is in good working condition, and guards the machine adequately before operating any equipment or machine. Check and adjust all other safety devices.
- ✓ Make sure the equipment is properly grounded before use.
- ✓ Check that keys and adjusting wrenches are removed from the machine before turning on the power.
- ✓ Inspect stock for nails or other materials before cutting, planning, routing or carrying out similar activities.
- ✓ Make sure that all machines have start and stop buttons within easy and convenient reach of an operator. Start buttons should be protected so that accidental contact will not start machine.
- ✓ Ensure that all cutting tools and blades are clean, sharp, and in good working order so that they will cut freely, not forced.
- ✓ Turn the power off and unplug the power cord (or lock out the power source) before inspecting, changing, cleaning, adjusting or repairing a blade or a machine. Also turn the power off when discussing the work.
- ✓ Use a “push stick” to push material into the cutting area. Jigs are also useful in keeping hands safe during cutting procedures. Keep hands out of the line of the cutting blade.
- ✓ Always use a push stick for pieces less than 30 cm in length, or for the last 30 cm of a longer cut. Use a push stick to remove the cut piece from between the fence and the blade.
- ✓ Clamp down and secure all work pieces when drilling or milling.
- ✓ Use good lighting so that the work piece, cutting blades, and machine controls can be seen clearly. Position or shade lighting sources so that they do not shine in the operator’s eyes or cause any glare and reflections.
- ✓ Ensure that the floor space around the equipment is sufficient to enable you to machine the size of work piece being processed safely without bumping into other workers or equipment.
- ✓ Woodworking machines should be fitted with efficient and well-maintained local exhaust ventilation systems to remove sawdust or chips that are produced.
- ✓ Electric power cords should be above head level or in the floor in such a way that they are not tripping hazards.
- ✓ Keep work area free of clutter, clean, well swept, and well lit. Spills should be cleaned up immediately. Floor areas should be level and non-slip. Good housekeeping practices and workplace design will reduce the number of injuries and accidents from slips, trips, and falls.
- ✓ Avoid awkward operations and hand positions where a sudden slip could cause your hand to move into the cutting tool or blade.

- ✗ Do not wear loose clothing, work gloves, neckties, rings, bracelets or other jewellery that can become entangled with moving parts. Confine long hair.
- ✗ Do not remove sawdust or cuttings from the cutting head by hand while a machine is running. Use a stick or brush when the machine has stopped moving.
- ✗ Do not use compressed air to remove sawdust, turnings, etc. from machines or clothing.
- ✗ Do not leave machines running unattended (unless they are designed and intended to be operated while unattended). Do not leave a machine until the power is turned off and the machine comes to a complete stop.

2.1 GENERAL WOODWORKING MACHINE SAFE PRACTICES Cont.

- Do not try to free a stalled blade before turning the power off.
- Do not distract or startle an operator while he or she is using woodworking equipment.
- Horseplay should be prohibited. It can lead to injuries.

HAZARDS ASSOCIATED WITH MACHINES include, but are not limited to:

- Being struck by ejected parts of the machinery
- Being struck by material ejected from the machinery
- Contact or entanglement with the machinery
- Contact or entanglement with any material in motion

Health Hazards (other than physical injury caused by moving parts)

- Chemicals hazards that can irritate, burn, or pass through the skin
- Airborne substances that can be inhaled, such as oil mist, metal fumes, solvents, and dust
- Heat, noise, and vibration
- Ionizing or non-ionizing radiation (X-ray, lasers, etc.)
- Biological contamination and waste
- Soft tissue injuries (for example, to the hands, arms, shoulders, back, or neck) resulting from repetitive motion, awkward posture, extended lifting, and pressure grip)

Other Hazards

- Slips and falls from and around machinery during maintenance
- Unstable equipment that is not secured against falling over
- Safe access to/from machines (access, egress)
- Fire or explosion
- Pressure injection injuries from the release of fluids and gases under high pressure
- Electrical Hazards, such as electrocution from faulty or ungrounded electrical components
- Environment in which the machine is used (in a machine shop, or in a work site)



WARNING. *Machines are safeguarded to protect the operator from injury or death with the placement of guards. Machines must not be operated with the guards removed or damaged.*

2.2 SPECIFIC SAFETY FOR CYCLONE DUST COLLECTORS

DO NOT use this machine unless you have been instructed in its safe use and operation and have read and understood this manual



A mask must be worn when excessive airborne dust is created



Safety glasses must be worn at all times in work areas



Sturdy footwear must be worn at all times in work areas



Respirator must be worn when changing or cleaning the filter

MACHINE USE

If you are at any time experiencing difficulties performing any operation, stop using the machine! Then contact your local Service Centre, or ask an experience operator how the operation should be performed.

This dust collector must not be used for abrasives containing crystalline silica. Silica containing abrasives have been linked to severe respiratory disease such as silicosis. Only use wooden material.

Only use safety equipment that has been approved by an appropriate standards agency.

Unapproved safety equipment may not provide adequate protection. Eye protection must be ANSI-approved and breathing protection must be NIOSH-approved for the specific hazards in the work area.

DO NOT use with any openings blocked. Keep openings clear of anything that may limit air flow or hinder motor operation.

DO NOT use the Reclaimer without its Filter in place. Before each use, make sure the Filter is not clogged

DO NOT operate the dust collector in areas where explosion risks would be high if dust were dispersed into the area. Areas of high risk include, but are not limited to, areas near pilot lights and/or open flames.

DO NOT use the Dust Reclaimer to pick up water (or any other liquid) from the floor or containers such as sinks, tubs, barrels, etc.

SERVICING & MAINTENANCE

Disconnect from the power supply and allow impeller to come to a complete stop before servicing or working on the dust collector ducting system. When emptying dust from the collection bags, wear a respirator and safety glasses. Empty dust into an approved container and dispose of correctly.

3. POWER SUPPLY

3.1 ELECTRICAL INSTALLATION

Place the machine near an existing power source. Make sure all power cords are protected from traffic, material handling, moisture, chemicals, or other hazards. Make sure there is access to a means of disconnecting the power source. The electrical circuit must meet the requirements for 240V.

NOTE : The use of an extension cord is not recommended as it may decrease the life of electrical components on your machine.

ELECTRICAL REQUIREMENTS

Nominal Voltage..... 240V
 Cycle..... 50 Hz
 Phase..... Single Phase

CD-20

Power Supply Circuit..... 10 Amps
 Full Load Current..... 8 Amps

CD-30

Power Supply Circuit..... 15 Amps
 Full Load Current..... 13 Amps

(Full load current rating is also on the specification plate on the motor.)

3.2 FULL-LOAD CURRENT RATING

The full-load current rating is the amperage a machine draws when running at 100% of the output power. Where machines have more than one motor, the full load current is the amperage drawn by the largest motor or a total of all the motors and electrical devices that might operate at one time during normal operations. Full-Load Current Rating for these machine can be found on the motor plate. It should be noted that the full-load current is not the maximum amount of amps that the machine will draw. If the machine is overloaded, it will draw additional amps beyond the full-load rating and if the machine is overloaded for a long period of time, damage, overheating, or fire may be caused to the motor and circuitry. This is especially true if connected to an undersized circuit or a long extension lead. To reduce the risk of these hazards, avoid overloading the machine during operation and make sure it is connected to a power supply circuit that meets the requirements.



4 SETUP

4.1 UNPACKING

This machine was carefully packaged for safe transport. When unpacking, separate all enclosed items from packaging materials and inspect them for shipping damage. If items are damaged, please contact your distributor.

NOTE: Save all the packaging materials until you are completely satisfied with the machine and have resolved any issues with the distributor, or the shipping agent.

When unpacking, check the packing list to make sure that all parts shown are included. If any parts are missing or broken, please contact your distributor.

4.2 CLEAN - UP

The unpainted surfaces of the machine have been coated with a waxy oil to protect them from corrosion during shipment. Remove the protective coating with a solvent cleaner or a citrus based degreaser.

Optimum performance from your machine will be achieved when you clean all moving parts or sliding contact surfaces that are coated with rust prevented products.

It is advised to avoid chlorine based solvents, such as acetone or brake parts cleaner, as they will damage painted surfaces and strip metal should they come in contact. Always follow the machine manufacturer's instructions when using any type of cleaning product.

4.3 SITE PREPARATION

When selecting the site for the machine, consider the largest size of workpiece that will be processed through the machine and provide enough space around the machine for operating the machine safely. Consideration should be given to the installation of auxiliary equipment. Leave enough space around the machine to open or remove doors/covers as required for the maintenance and service as described in this manual.

It is recommended that the machine is anchored to the floor to prevent tipping or shifting. It also reduces vibration that may occur during operation.

4.4 LIFTING INSTRUCTIONS



WARNING

This machine is extremely heavy. Serious personal injury may occur if safe moving methods are not followed. To be safe, you will need assistance and power equipment when moving the shipping crate and removing the machine from the crate.



On the day that the machine arrives, make sure that a forklift or lifting device, with sufficient capacity is available to unload the machine from the vehicle. Ensure access to the chosen site is clear and that doors and ceilings are sufficiently high and wide enough to receive the machine.

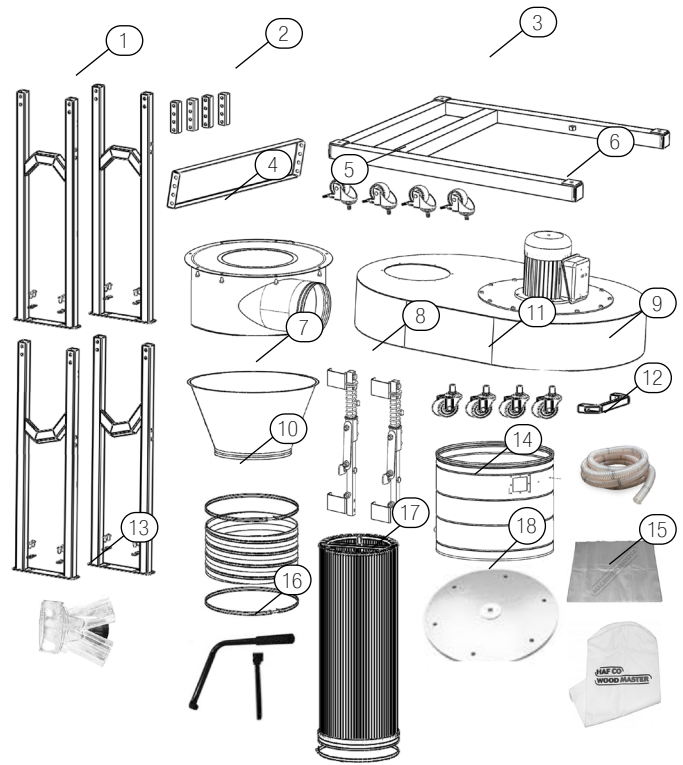
4.5 ASSEMBLY

The machine must be fully assembled before it can be operated. First clean any parts that are coated in rust preventative to ensure the assembly process can proceed smoothly.

PACKING AND PARTS LIST

This is the list of parts shipped. Lay these out on the floor and before starting to assemble.

1	Support Legs
2	Support Legs Brackets
3	Base Frame
4	Intake Barrel
5	Machine Castors
6	Impeller Housing
7	Cyclone Funnel
8	Collection Lid Mechanism
9	Handle
10	12" Hose and Clamps
11	Collection Canister castors
12	Collection Drum Hose
13	Inlet Adapter
14	Collection Drum
15	Collection Bag and Filter Bag
16	Filter Cleaning Handle and Spindle
17	Filter
18	Collection Canister Lid



DUST COLLECTOR ASSEMBLY STEPS

1. Attach (4) locking swivel castors to the bottom of the base plate with the 1/2" nuts. (Fig. 4.1)

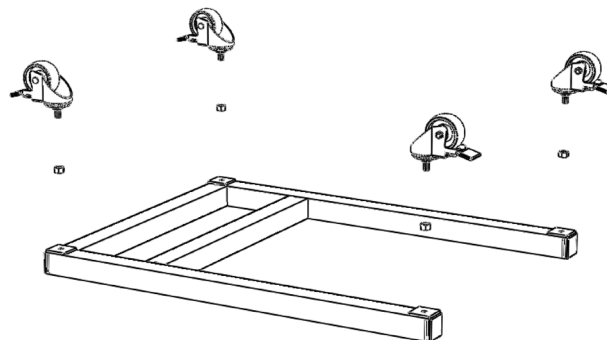


FIG. 4.1

2. Attach the (2) lower support legs to the base frame, with (8) 5/16" x 3/4" button head cap screws and (8) 5/16" flat washers, and finger tighten. (Fig.4.2)

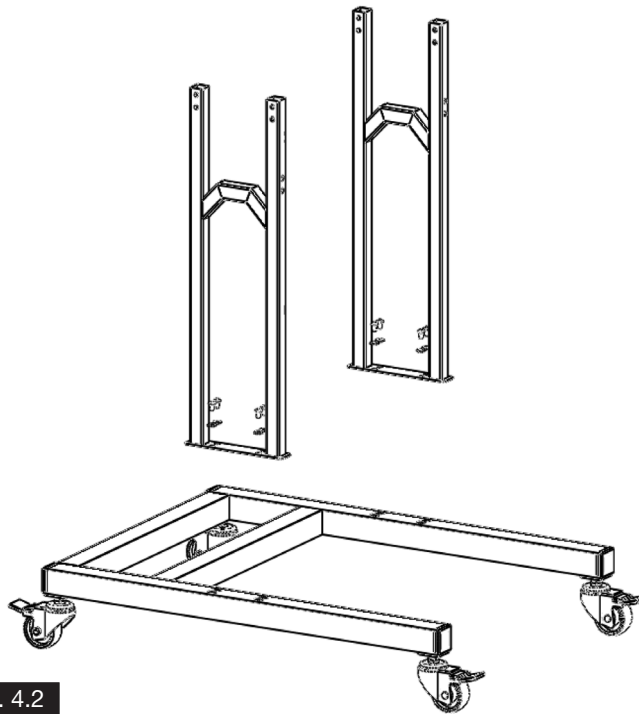


FIG. 4.2

3. Align two holes in each connector with two holes on both lower support leg and supporting bracket and secure with (8) 5/16" x 1 1/4" hex bolts, 5/16" flange washers, and 5/16" hex nuts. Only hand tighten for now. (Fig. 4.3)

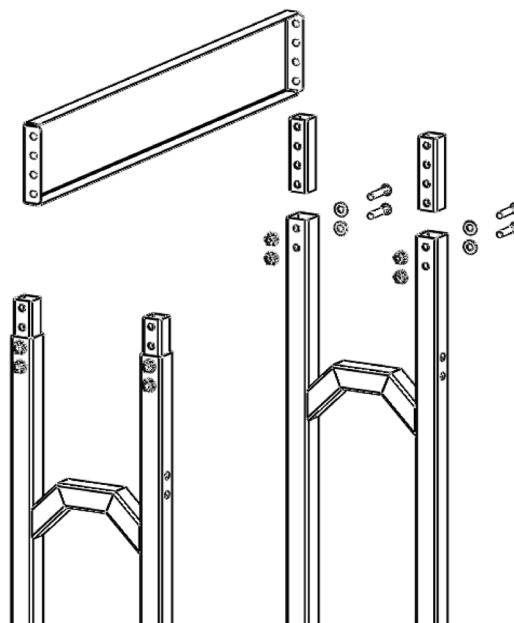


FIG. 4.3

4. Attach the upper support leg in step three to lower support leg with (8) 5/16" x 1 1/4" hex bolts, 5/16" flange washers, and 5/16" hex nuts. Only hand tighten for now.

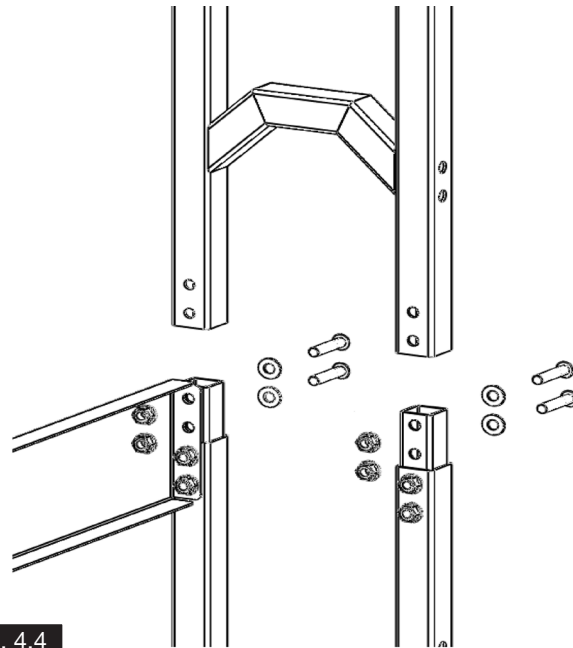


FIG. 4.4

5. With the help of two assistants, lift the impeller housing onto the support legs. Secure the impeller housing to support legs with (8) 5/16" x 18-3/4" button head screws and (8) 5/16" x 18 fender washers. Fully tighten all fasteners installed in Steps 2-4. (Fig.4.5)

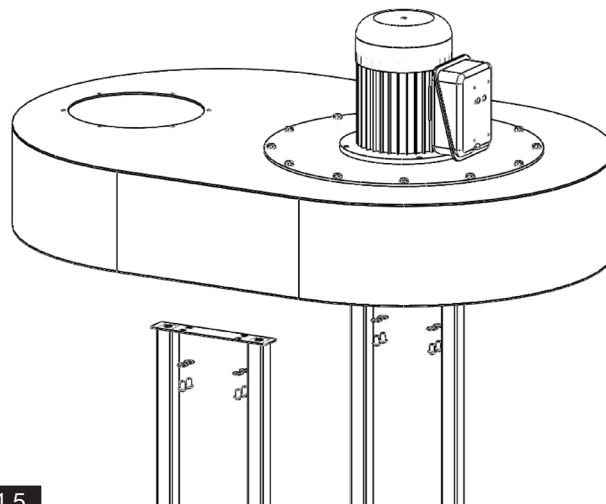


FIG. 4.5

6. Attach the intake barrel to the impeller housing with (8) 5/16" x 18-3/4" flange bolts.

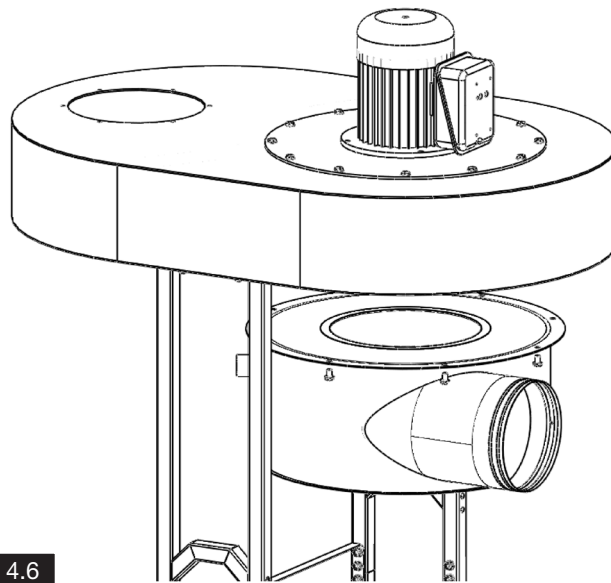


FIG. 4.6

7. Loosen the band clamp (see Figure 16) at the top of the cyclone funnel to reveal the metal lip. Attach the cyclone funnel with the intake barrel, then position the clamp so the band captures the lip at the top of the funnel and the lip at the bottom of the intake barrel. Then tighten the clamp to secure them.

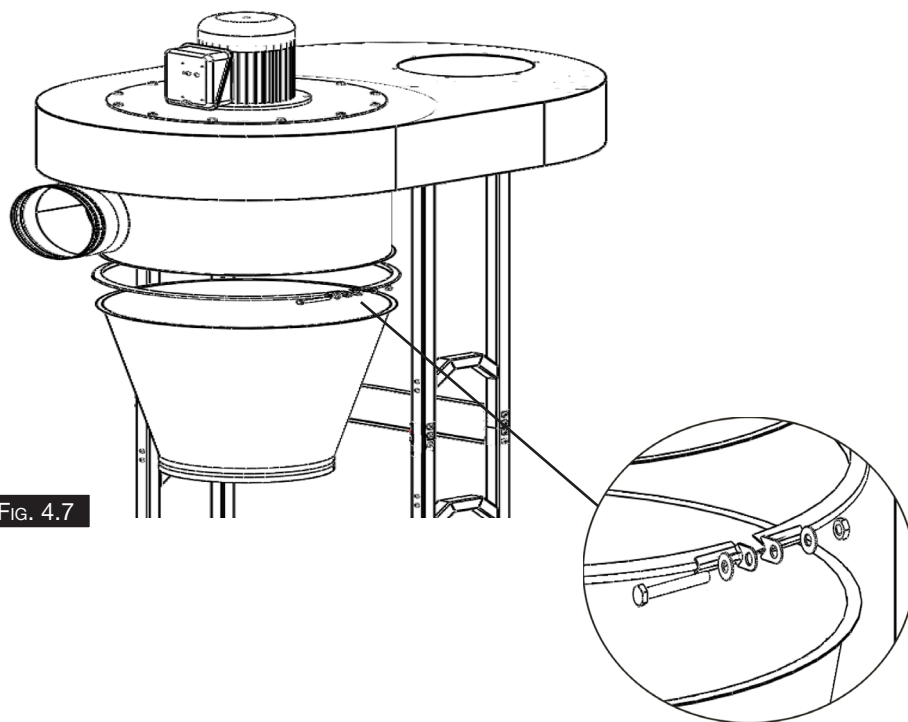
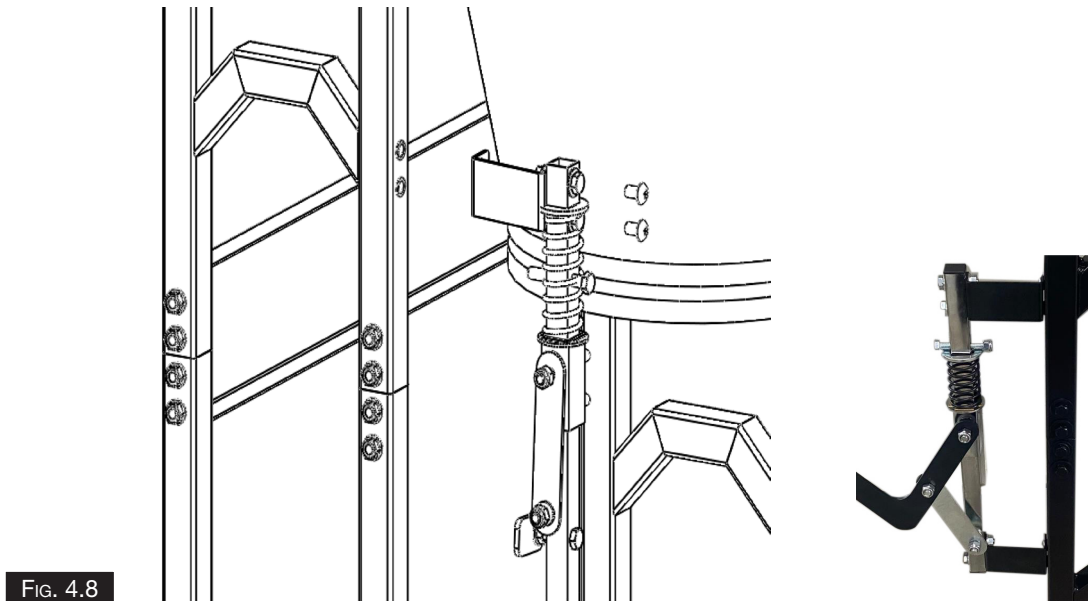
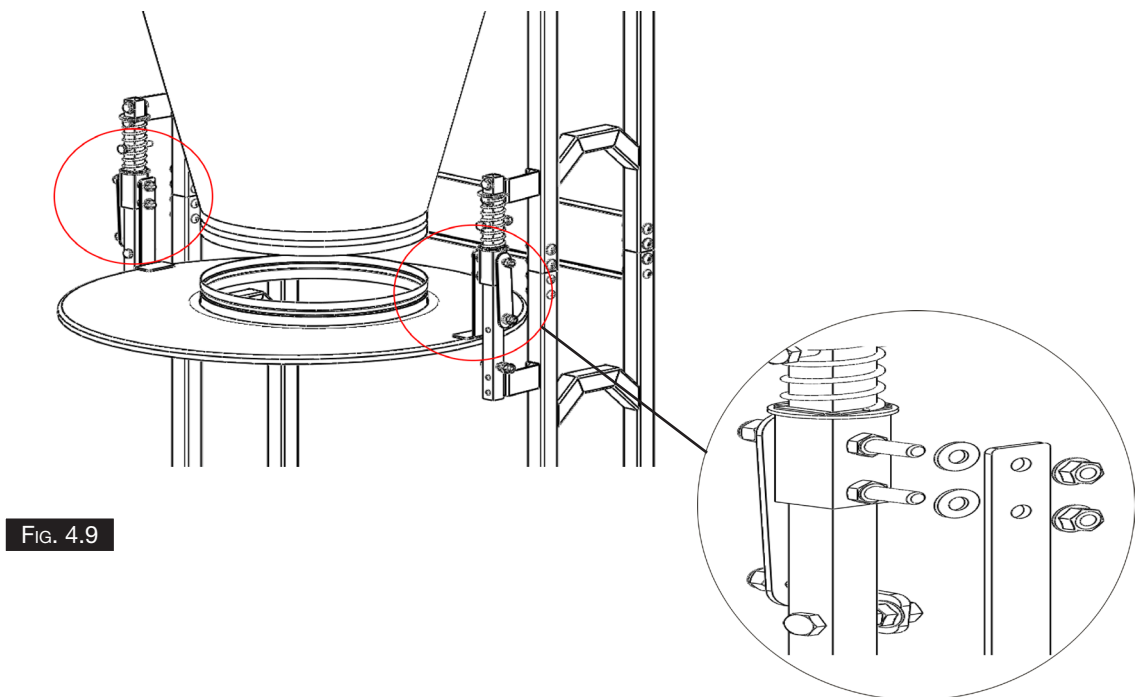


FIG. 4.7

8. Locate the lock handle assembly and secure it to the support legs with (8) button head cap screws 1/4 x 1/2. (Fig. 4.8)



9. Secure the collection drum lid to the lock handle guides with (4) hex nuts 5/16 and (4) 5/16"x16 washers (Fig. 4.9)



10. Secure the lever handle and linkage plate on the lock handle guides with (3) plastic washer $\phi 10 \times \phi 21 \times 1.6t$ and (3) lock nut 5/16. (Fig. 4.10)

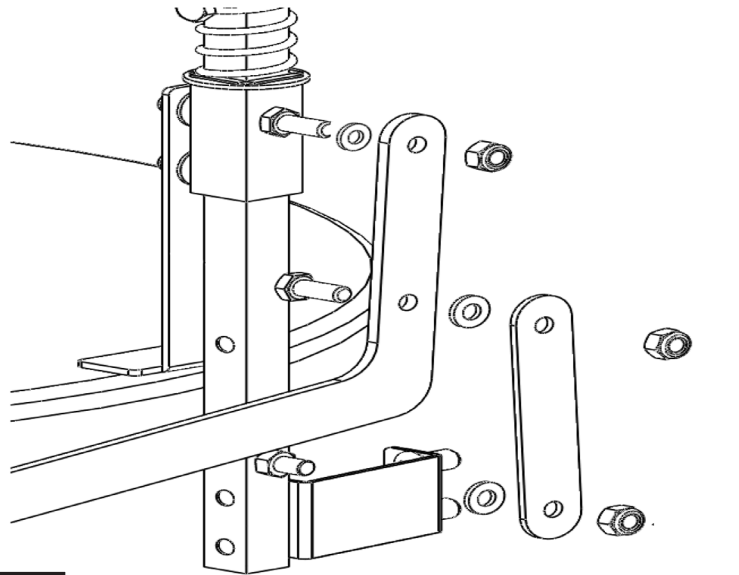


FIG. 4.10

11. Place the hose clamps on each end of the 12" flexible hose, then attach the hose to the bottom of the cyclone funnel and the dust collection lid. Secure the hose with the two large hose clamps (Fig.4.11)

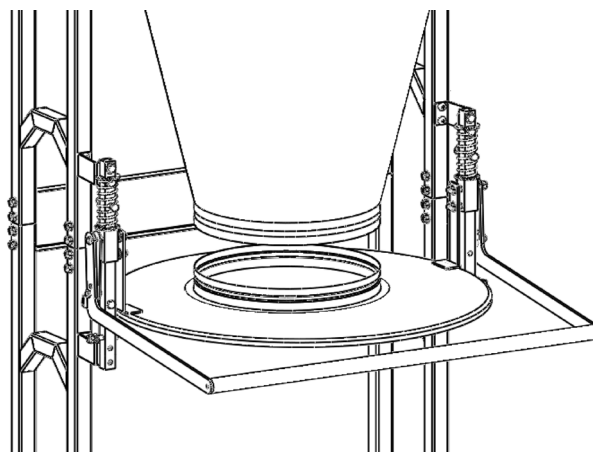
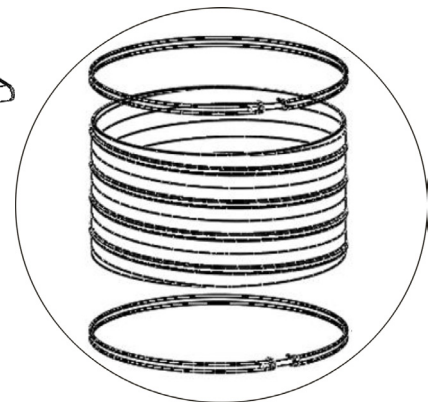


FIG. 4.11



12. Attach the (4) 2" swivel casters to the collection drum, using (1) 5 / 16" hex nut on each. Adjust the pre-installed flange nut and hex nut until the drum rolls evenly without rocking or wobbling, then tighten both nuts to secure each caster in place. Attach the collection drum handle with (2) Phillips hd screws 1/4" x 5/8" and (2) acorn nuts 1/4". Insert the large plastic dust bag inside the collection drum, and fold the excess length of bag over top of collection drum. (Fig. 4.12)

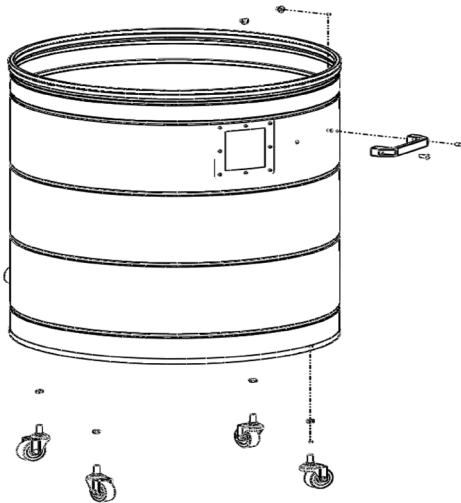


FIG. 4.12

13. Place the two 1 -3/4" hose clamps on each end of 1 1/2" x 67" vacuum hose, then connect the hose to the ports on the cyclone funnel and the collection drum. (Fig. 4.13)

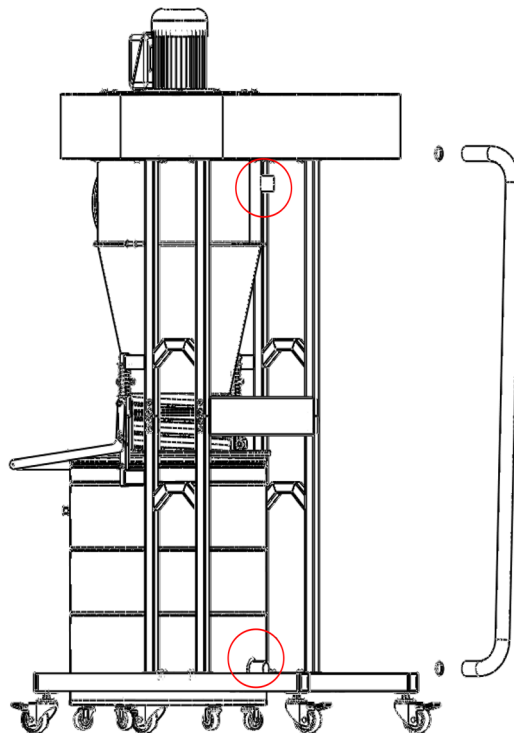


FIG. 4.13

14. Attach the plastic filter bag to canister filter and secure with the bag clamp. Attach the canister filter to the impeller housing with (6) flange bolt 5/16 x 3/4. (Fig. 4.14)

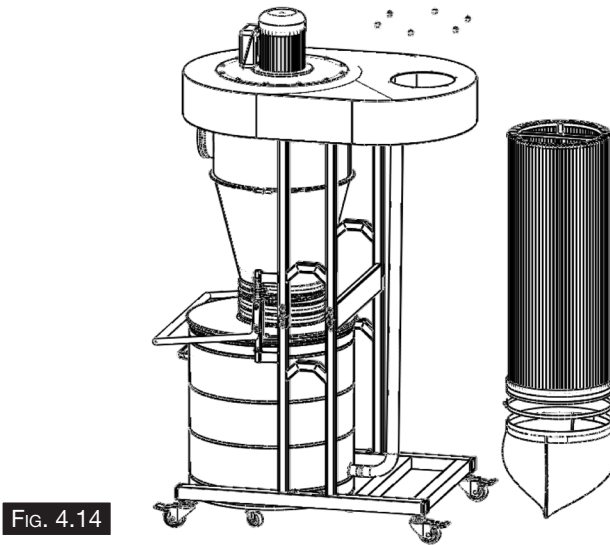


FIG. 4.14

15. Insert the filter handle spindle so one of (2) hex bolt M6 x 16 tips aligns with flat on side of filter paddle spindle, then tighten both hex bolt to secure the spindle.
Slide the filter paddle cover over the filter handle spindle, then secure with (6) 5/16 x 1/2 flange bolts. Install the filter cleaning handle on the spindle so that (1) hex bolt M6 x 16 tip aligns with spindle flat, then tighten hex bolt.

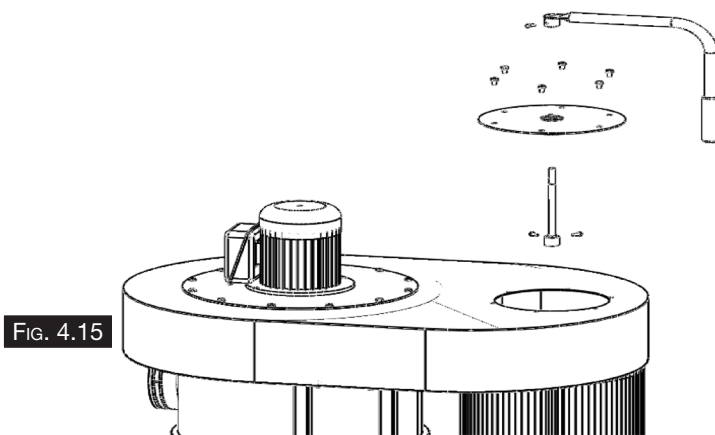
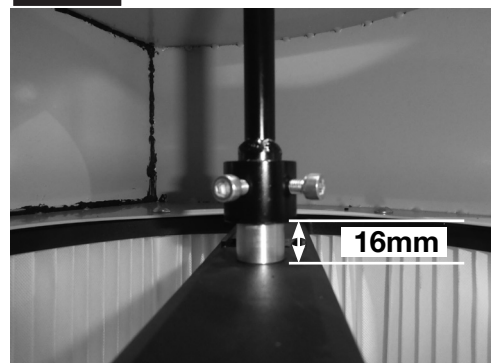


FIG. 4.15

NOTE: CD-20 models only

When fitting the filter handle spindle, it needs to be raised up approximately 16mm off the base, so there is enough shaft length protruding through the cover for the handle to attach on to. Ref. 4.16.

FIG. 4.16



16. Install the inlet adapter on the dust port and secure with (1) Phillips head screw 3/16 x 3/8. (Fig. 4.17)

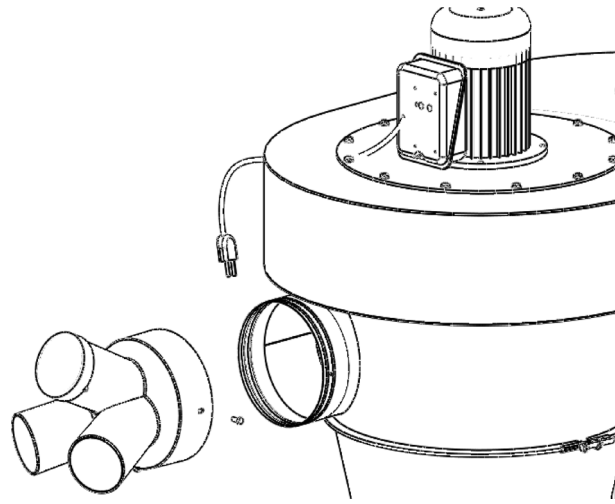


FIG. 4.17

 **WARNING!**

The machine is the sole responsibility of the owner for its safe use. This responsibility includes but is not limited to proper installation in a safe environment, personnel training, proper inspection and maintenance, manual availability and comprehension. The manufacturer will not be held liable for injury or property damage from negligence, improper training, machine modifications or misuse.



WARNING!

Machines are safeguarded to protect the operator from injury or death with the placement of guards. Machines must not be operated with the guards removed or damaged.

4.6 DUST COLLECTOR HOSE

The HAFCO WOODMASTER MODEL CD Series is designed to be used as a multi machine dust collector. Place the dust collector in a position where it will not interfere with the workpiece being processed, and with no more than 3 meters of hose attached.

4.7 DUCT GROUNDING

There are many choices regarding dust collection ducting, but flexible hose is the most common.


If attaching the CD-20 or 30 to multiple machines and creating a ducting system, be aware that there is a fire or explosion hazard if plastic duct material is used for dust collection without being grounded against static electrical charge build-up.

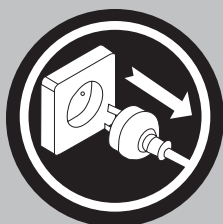
If a grounding medium is not available to prevent static electrical build up, the electrical charge will arc to the nearest grounded source. This electrical discharge may cause an explosion and subsequent fire inside the system.

To protect against static electrical build up inside a non conducting duct, a bare copper wire should be placed inside the duct along its length and grounded to the dust collector.

Be sure that you extend the bare copper wire down all branches of the system. Do not forget to connect the wires to each other with wire nuts when two branches meet at a “Y” or “T” connection.

We also recommend wrapping the outside of all plastic ducts with bare copper wire to ground the outside of the system against static electrical build up. Wire connections at Y's and T's should be made with wire nuts.

	Danger Static electricity
<i>Plastic ducting generates static electrical build-up that can cause fire or shock. Properly ground all plastic duct to reduce this risk.</i>	



WARNING!

Disconnect all power from the machine before servicing. There may be multiple power sources present. Remove the plug from the power point or remove the fuse if hardwired. Failure to do may cause death or injury.

4.8 TEST RUN

Once assembly is complete, test run the machine to ensure it is properly connected to the power and safety components are functioning correctly. Check that the direction of the motor is correct and make sure that the machine rotates in the correct direction.

If the direction is incorrect, isolate the machine and have the electrician make changes to the wiring.

If you find an unusual problem during the test run, immediately stop the machine, disconnect it from power, and fix the problem BEFORE operating the machine again. The Troubleshooting table in the Maintenance section of this manual may be able to help. If the problem persists then contact your dealers service technician.

TO TEST RUN THE MACHINE:

1. Connect the machine to the power supply.
2. Make sure that the manual has been read and that the safety instructions at the beginning of the manual are understood. Make sure the machine has been setup correctly
3. Make sure all tools and objects used during set up have been cleared away from the machine.
4. Turn the machine ON.
5. Listen to and watch for abnormal noises or actions. The machine should run smoothly with little or no vibration or rubbing noises.
6. Any strange or unusual noises should be investigated and corrected before operating the machine again. Always disconnect the machine from power supply when investigating or correcting potential problems. The troubleshooting chart in the maintenance section may be helpful in rectifying a problem.

5. OPERATION

5.1 REMOTE CONTROL OPERATION

The purpose of this control overview is to provide the novice machine operator with a basic understanding of how the machine is used during operation, and the machine controls and what they do. It also helps the operator to understand if they are discussed later in this manual.

REMOTE CONTROL: (Fig. 5.1)

Green Button: Turns the motor ON.

Red Button: Turns the motor OFF.

Requires a 12V, type A27 battery.

Note: *The remote operates on a radio frequency with a 20 mtr range. It does not need to be aimed directly at the control box to operate.*

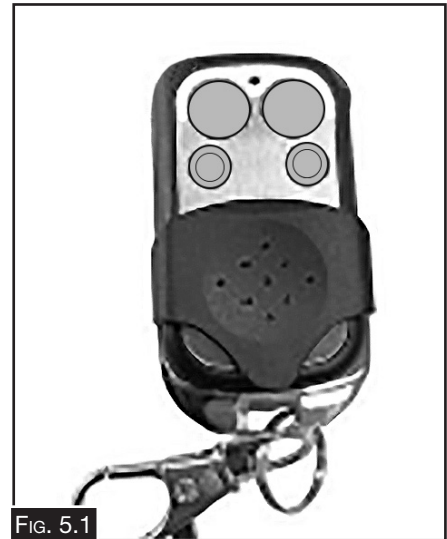
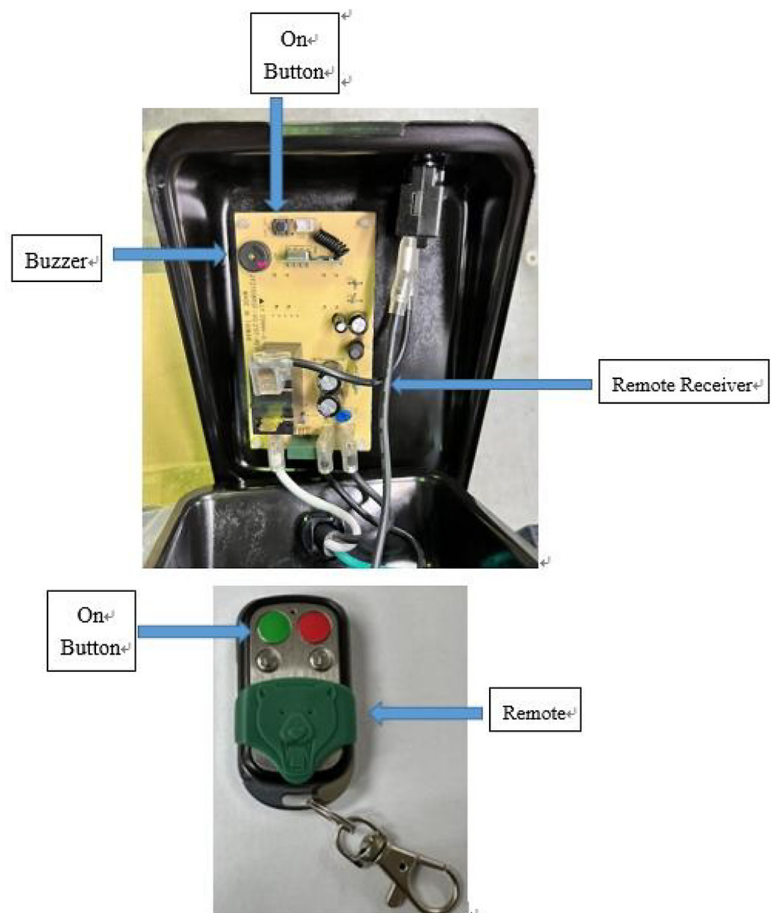


FIG. 5.1

5.2 REPROGRAMMING THE REMOTE CONTROL

To Program The Receiver:

1. Remove the switch cover to get a clear view of the remote receiver.
2. To erase any current remote transmitter codes, press the black ON button on the receiver and hold down until the buzzer beeps on the receiver.
3. Press either black ON button on the remote. When the buzzer beeps, the remote control is programmed.



6. MAINTENANCE

It is very important that regular maintenance of the equipment is carried out. The operators need to follow the daily maintenance procedures.

For optimum performance from this machine, the maintenance schedule listed below and in this section must be followed.

6.1 SCHEDULE

DAILY CHECK

- Loose mounting bolts or fasteners.
- Worn, frayed, cracked, or damaged wires.
- Damaged ON/OFF button
- Check and empty if necessary collection bag
- Any other condition that could hamper the safe operation of this machine.

6.2 BAG CLEANING

COLLECTION BAG

Changing dust collector bags is one of the least desirable jobs of the maintenance. Before any work is to take place, a respirator or dust mask and safety glasses must be worn when emptying the storage bag. Small dust particles can escape the bags during emptying, causing them to become airborne and easily inhaled. This microscopic airborne dust is extremely unhealthy to breathe and can cause serious health problems.

TO EMPTY THE COLLECTION BAG:

1. DISCONNECT THE MACHINE FROM THE POWER SUPPLY
2. Make sure that a respirator or dust mask is worn before commencing to remove the bag.
3. Un-clamp the collection bag and dispose of the contents.
4. Examine the empty bag for any damage or holes in the bag. Replace if necessary.
5. Reinstall the collection bag.

FILTER BAG

There is no set time to replace the top filter bag.

As time goes on, the dust itself can begin collecting and gathering in pockets throughout the bag. Unfortunately, this continues at an increasing pace until the air passages in the bag's fabric become partially blocked. Once you notice a reduction in performance, it may be worth seeing if the filter bag needs to be cleaned.

Before you toss the filter bag in the washer, try these steps: With the dust collector running and the bag inflated, tap the bag with your hand or a broomstick. If that doesn't clear up the dust cake, try blowing compressed air against the outside of the bag with the collector running.

Still not getting satisfactory results? Then remove the bag, turn it inside out and vacuum any remaining dust cake.

Turn the bag inside out, use the cold setting, and wash it on a gentle cycle with laundry detergent. Tumble-dry the bag on the air-only, no-heat setting or hang it outdoors in nice weather to dry completely before using it again.

6.3 TROUBLESHOOTING

Review the troubleshooting and procedures in this section if a problem develops with your machine. If you need replacement parts then follow the procedure in beginning of the spare parts section or if additional help with a procedure is required, then contact your distributor.

Note: Make sure you have the model of the machine, serial number, and manufacture date before calling.

Symptoms	Possible Cause	Possible Solution
Machine does not start or a breaker trips.	<ol style="list-style-type: none"> 1. Power supply circuit breaker tripped or fuse blown. 2. Motor wires connected incorrectly. 3. Plug/receptacle at fault/wired incorrectly. 4. Wiring open/has high resistance. 5. START/STOP or circuit breaker switch at fault. 6. Start capacitor at fault. 7. Centrifugal switch/contact points at fault. 8. Motor at fault. 	<ol style="list-style-type: none"> 1. Ensure circuit is sized correctly and free of shorts. Reset circuit breaker or replace fuse. 2. Correct motor wiring connections. 3. Test for good contacts; correct the wiring. 4. Check/fix broken, disconnected, or corroded wires. 5. Replace switch/circuit breaker. 6. Test/replace. 7. Adjust/replace centrifugal switch/contact points. 8. Test/repair/replace.
Machine has vibration or noisy operation.	<ol style="list-style-type: none"> 1. Debris caught in impeller. 2. Motor or component loose. 3. Motor fan rubbing on cover. 4. Motor mount loose/broken. 5. Motor bearings at fault. 6. Motor shaft bent. 7. Dust collector not on a flat surface. 8. Impeller damaged or unbalanced. 9. Impeller loose on motor shaft. 	<ol style="list-style-type: none"> 1. Inspect impeller for debris or damage. 2. Inspect/replace damaged bolts/nuts, and re-tighten with thread-locking fluid. 3. Fix/replace fan cover; replace loose/damaged fan. 4. Tighten/replace. 5. Test by rotating shaft; rotational grinding/loose shaft requires bearing replacement. 6. Test with dial indicator. Replace motor if damaged. 7. Stabilize dust collector. 8. Disconnect dust collector from power. Inspect impeller for dents, bends, or loose fins. Replace impeller if damaged. 9. Secure impeller; replace motor and impeller as a set if motor shaft and impeller hub are damaged
Dust collector does not adequately collect dust or chips; poor performance.	<ol style="list-style-type: none"> 1. Collection drawer or air filter dust tray are full. 2. Filters are dirty/clogged. 3. Clog in ducting. 4. Leak in ducting/connections. 5. Ducting blocked/restricted. 6. The dust collector is too far away from the point of suction, or there are too many sharp bends in the ducting. 7. Dust collector is undersized. 8. Run capacitor at fault. 9. Centrifugal switch/contact points at fault. 	<ol style="list-style-type: none"> 1. Empty collection drawer and dust tray. 2. Clean filters; replace with new filters if performance does not improve. 3. Remove clog. 4. Seal leak. 5. Remove ducting from dust collector inlet and unblock the restriction. 6. Relocate the dust collector closer to the point of suction; remove sharp bends in ducting. 7. Install a larger dust collector. 8. Test/replace. 9. Adjust/replace centrifugal switch/contact points if available.

CYCLONE DUST COLLECTORS

CD-20 & CD-30

Order Code: (W319 & W320)

The following section covers the spare parts diagrams and lists that were current at the time this manual was originally printed. Due to continuous improvements of the machine, changes may be made at anytime without notification.

HOW TO ORDER SPARE PARTS

1. Have your machines model number, serial number & date of manufacture on hand, these can be found on the specification plate mounted on the machine.
2. A scanned copy of your parts list/diagram with required spare part/s identified.

NOTE: SOME PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY

3. Go to www.machineryhouse.com.au/contactus and fill out the inquiry form attaching a copy of scanned parts list.



WARNING!

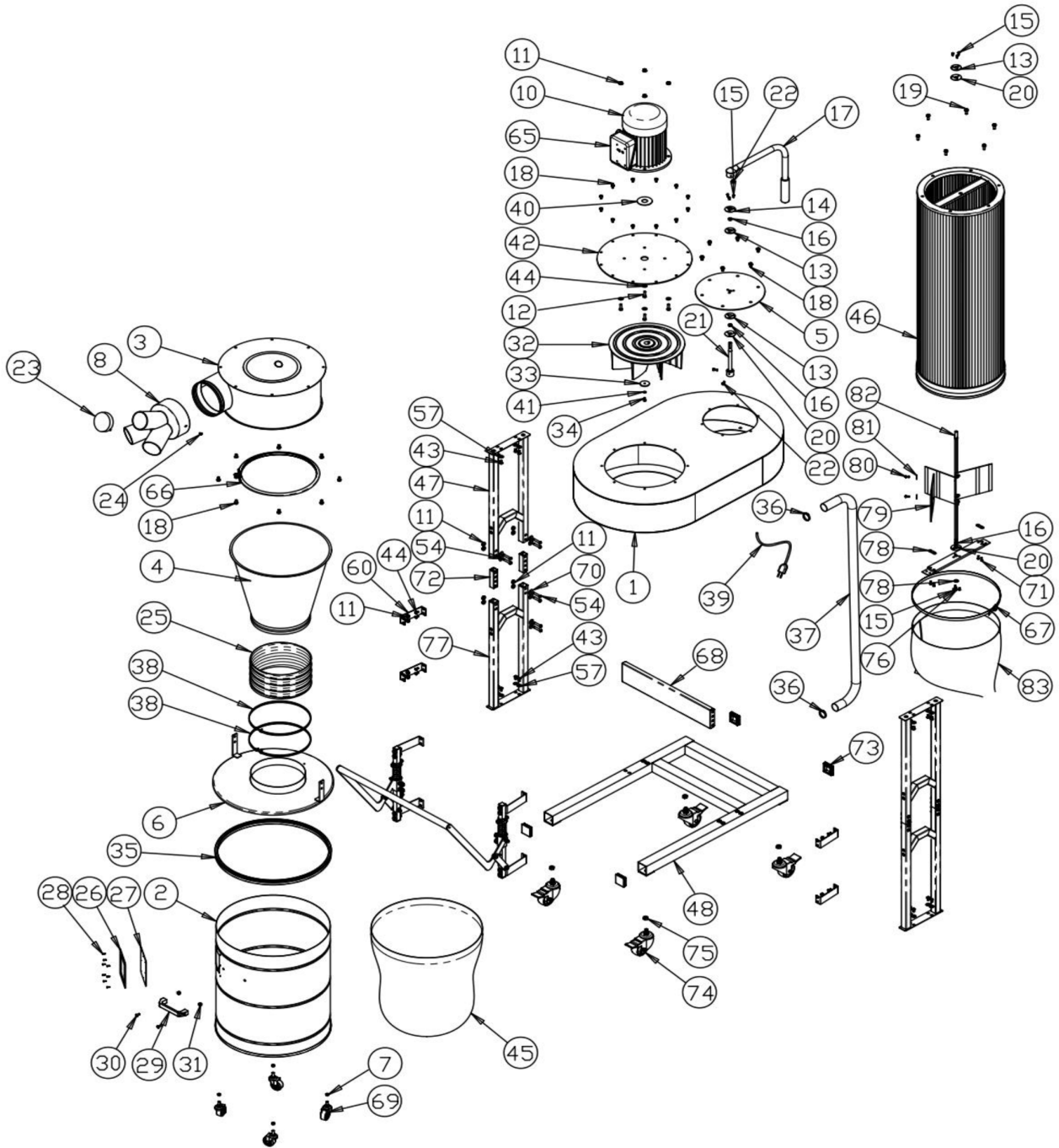
*Electricity is dangerous and could cause death.
All electrical work must be carried out by a qualified electrician.*



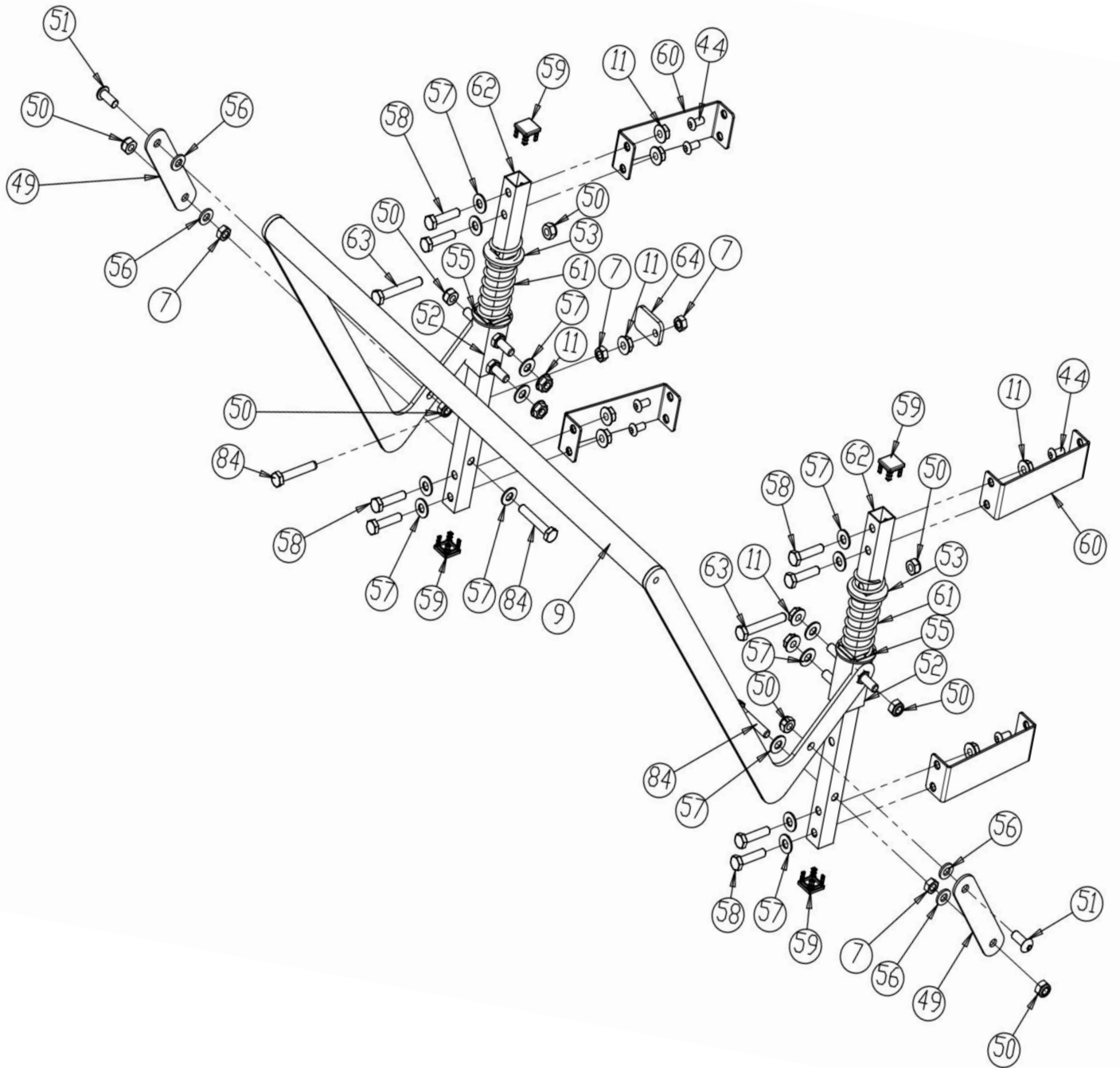
CAUTION!

It is impossible to cover all possible hazards Every workshop environment is different. These are designed as a guide to be used to compliment training and as a reminder to users prior to equipment use. Always consider safety first, as it applies to the individual working conditions.

SPARE PARTS DIAGRAM



SPARE PARTS DIAGRAM Cont.



SPARE PARTS LIST

Item	DESCRIPTION	Qty	Item	DESCRIPTION	Qty
1	IMPELLER HOUSING	1	46	CANISTER FILTER ASSY	1
2	COLLECTION DRUM	1	47	UPPER SUPPORT LEG	2
3	INTAKE BARREL	1	48	BASE	1
4	CYCLONE FUNNEL	1	49	LINKAGE PLATE	2
5	FILTER COVER PLATE	1	50	LOCK NUT 5/16-18	6
6	COLLECTION DRUM LID	1	51	BUTTON HD CAP SCR 5/16-18 X 3/4	2
7	HEX NUT 5/16-18	6	52	SPRING BRACKET	2
8	INLET ADAPTER 8" X 4" X 3	1	53	SPRING RETAINER	2
9	LEVER HANDLE	1	54	HEX BOLT 5/16-18 X 1-1/2	19
10	MOTOR 3HP 220V 1-PH	1	55	COPPER PLATE	8
11	HEX NUT 5/16-18	34	56	PLASTIC WASHER 10x21x1.6T	4
12	HEX BOLT 5/16-18 X 1	4	57	WASHER 5/16"x16	38
13	RUBBER GASKET	3	58	HEX BOLT 5/16-18 X 1-1/4	8
14	BEARING RETAINER, UPPER	1	59	END CAP 19x19	4
15	PHLP HD SCR M5-.8 X10	9	60	LOCK HANDLE GUIDE FIXING BRACKET	4
16	SLEEVE BEARING 12 X 14 X 6MM	4	61	COMPRESSION SPRING	2
17	FILTER PADDLE HANDLE	1	62	LOCK HANDLE GUIDE	2
18	FLANGE BOLT 5/16-18 X 3/4	22	63	HEX BOLT 5/16 X 2"	2
19	FLANGE BOLT 5/16-18 X 3/4	6	64	LOCK HANDLE STOP	1
20	BEARING RETAINER, LOWER	3	65	SWITCH	1
21	PADDLE HANDLE SPINDLE	1	66	ROUND CLAMP	1
22	HEX BOLT M6-1 X 16	3	67	BAG CLAMP	1
23	INLET ADAPTER CAP 4"	1	68	SUPPORTING BOARD	1
24	PHLP HD SCR 3/16 X 3/8	1	69	CASTER 2", SWIVEL	4
25	FLEX HOSE 12" X 6"	1	70	FENDER WASHER 5/16	16
26	FOAM GASKET 120 X 140MM	1	71	PHLP HD SCR M5-.8 X 15	4
27	DRUM WINDOW 120 X 140MM ACRYLIC	1	72	Support leg connecting tube	4
28	RIVET 2 X 4MM ALUMINUM	8	73	END CAP 50x50	4
29	COLLECTION DRUM HANDLE	1	74	3" Caster with brake	4
30	PHLP HD SCR 1/4-20 X 5/8	2	75	NUT 1/2"	4
31	ACORN NUT 1/4-20	2	76	PHLP HD SCR M6 X 10	1
32	IMPELLER 16" CUT	1	77	LOWER SUPPORT LEG	2
33	IMPELLER WASHER	1	78	PADDLE SPINDLE BRACKET RETAINER	2
34	CAP SCREW M6-1 X 30 LH	1	79	FILTER PADDLE	3
35	COLLECTION DRUM GASKET	1	80	PHLP HD SCR M6 X 15	6
36	HOSE CLAMP 1-3/4"	2	81	FENDER WASHER 1/4 x 18	6
37	VACUUM HOSE 1-1/2" X 67"	1	82	FILTER PADDLE SPINDLE	1
38	HOSE CLAMP 12-1/2"	2	83	FILTER BAG 20" X 23"	1
39	POWER CORD	1	84	HEX BOLT 5/16-18 X 1-3/4	3
40	RUBBER GASKET	1			
41	LOCK WASHER 1/4	1			
42	MOTOR PLATE	1			
43	BUTTON HD CAP SCR 5/16-18 X 3/4	16			
44	BUTTON HD CAP SCR 1/4-20 X 1/2	8			
45	COLLECTION DRUM BAG 30" X 41"	1			

NOTE: SOME INDIVIDUAL PARTS MAY ONLY BE AVAILABLE AS AN ASSEMBLY



ENVIRONMENT PROTECTION

Recycle unwanted materials instead of disposing of them as waste. All tools, accessories and packaging should be sorted, taken to a recycling centre and disposed of in a manner which is compatible with the environment. When the product becomes completely unserviceable and requires disposal, drain any fluids (if applicable) into approved containers and dispose of the product and fluids according to local regulations.

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