

Operating Instructions and Parts Manual Dust Collector Model: DC-650A/C/ARC/CRC



WMH TOOL GROUP 2420 Vantage Drive Elgin, Illinois 60123 Ph.: 800-274-6848 www.wmhtoolgroup.com

Part No. M-708640 Revision G1 12/04 Copyright © WMH Tool Group This manual has been prepared for the owner and operators of the JET DC-650 Series Dust Collectors. Its purpose, aside from machine operation, is to promote safety using accepted operating and maintenance procedures. To obtain maximum life and efficiency from your dust collector and to aid in using it safely, please read this manual thoroughly and follow the instructions carefully.

Warranty and Service

WMH Tool Group warrants every product it sells. If one of our tools needs service or repair, one of our Authorized Repair Stations located throughout the United States can provide quick service or information.

In most cases, a WMH Tool Group Repair Station can assist in authorizing repair work, obtaining parts, or perform routine or major maintenance repair on your JET product.

For the name of an Authorized Repair Station in your area, please call 1-800-274-6848, or visit our web site at www.wmhtoolgroup.com.

More Information

WMH Tool Group is consistently adding new products to the line. For complete, up-to-date product information, check with your local WMH Tool Group distributor, or visit our web site at www.wmhtoolgroup.com

WMH Tool Group Warranty

WMH Tool Group makes every effort to assure that its products meet high quality and durability standards and warrants to the original retail consumer/purchaser of our products that each product be free from defects in materials and workmanship as follows: 1 YEAR LIMITED WARRANTY ON ALL PRODUCTS UNLESS SPECIFIED OTHERWISE. This Warranty does not apply to defects due directly or indirectly to misuse, abuse, negligence or accidents, normal wear-and-tear, repair or alterations outside our facilities, or to a lack of maintenance.

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To take advantage of this warranty, the product or part must be returned for examination, postage prepaid, to an Authorized Repair Station designated by our office. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection discloses a defect, we will either repair or replace the product at our discretion, or refund the purchase price if we cannot readily and quickly provide a repair or replacement. We will return the repaired product or replacement at WMH Tool Group's expense, but if it is determined there is no defect, or that the defect resulted from causes not within the scope of WMH Tool Group's warranty, then the user must bear the cost of storing and returning the product. This warranty gives you specific legal rights; you may also have other rights, which vary from state to state.

WMH Tool Group sells through distributors only. Members of the WMH Tool Group reserve the right to effect at any time, without prior notice, alterations to parts, fittings and accessory equipment, which they may deem necessary for any reason whatsoever.

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- 1. Read and understand the entire owners manual before attempting assembly or operation.
- 2. Read and understand the warnings posted on the machine and in this manual. Failure to comply with all of these warnings may cause serious injury.
- 3. Replace the warning labels if they become obscured or removed.
- 4. This dust collector is designed and intended for use by properly trained and experienced personnel only. If you are not familiar with the proper and safe operation of a dust collector, do not use until proper training and knowledge have been obtained.
- 5. Do not use this dust collector for other than its intended use. If used for other purposes, WMH Tool Group disclaims any real or implied warranty and holds itself harmless from any injury that may result from that use.
- 6. Always wear approved safety glasses/face shields while using this dust collector. Everyday eyeglasses only have impact resistant lenses; they are not safety glasses.
- 7. Before operating this dust collector, remove tie, rings, watches and other jewelry, and roll sleeves up past the elbows. Remove all loose clothing and confine long hair. Non-slip footwear or anti-skid floor strips are recommended. Do **not** wear gloves.
- 8. Wear ear protectors (plugs or muffs) during extended periods of operation.
- 9. Some dust created by power sanding, sawing, grinding, drilling and other construction activities contain chemicals known to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:
- Lead from lead based paint.
- Crystalline silica from bricks, cement and other masonry products.
- Arsenic and chromium from chemically treated lumber.

Your risk of exposure varies, depending on how often you do this type of work. To reduce your exposure to these chemicals, work in a well-ventilated area and work with approved safety equipment, such as face or dust masks that are specifically designed to filter out microscopic particles.

- 10. Do not operate this machine while tired or under the influence of drugs, alcohol or any medication.
- 11. Make certain the switch is in the **OFF** position before connecting the machine to the power supply.
- 12. Make certain the machine is properly grounded.
- 13. Make all machine adjustments or maintenance with the machine unplugged from the power source.
- 14. Remove adjusting keys and wrenches. Form a habit of checking to see that keys and adjusting wrenches are removed from the machine before turning it on.
- 15. Keep safety guards in place at all times when the machine is in use. If removed for maintenance purposes, use extreme caution and replace the guards immediately.
- 16. Check damaged parts. Before further use of the machine, a guard or other part that is damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment of moving parts, binding of moving parts, breakage of parts, mounting and any other conditions that may affect its operation. A guard or other part that is damaged should be properly repaired or replaced.
- 17. Provide for adequate space surrounding work area and non-glare, overhead lighting.
- 18. Keep the floor around the machine clean and free of scrap material, oil and grease.
- 19. Keep visitors a safe distance from the work area. **Keep children away.**



- 20. Make your workshop child proof with padlocks, master switches or by removing starter keys.
- 21. Give your work undivided attention. Looking around, carrying on a conversation and "horse-play" are careless acts that can result in serious injury.
- 22. Do not use the dust collector for anything except wood dust. Materials such as liquids, metal shavings, metal dust, screws, glass, plastic or rock can cause sparks and/or damage when coming into contact with any part of the dust collector.
- 23. Use recommended accessories; improper accessories may be hazardous.
- 24. Maintain tools with care. Follow instructions for lubricating and changing accessories.
- 25. Turn off the machine before cleaning. Use a brush or compressed air to remove chips or debris do not use your hands.
- 26. Do not stand on the machine. Serious injury could occur if the machine tips over.
- 27. Never leave the machine running unattended. Turn the power off and do not leave the machine until it comes to a complete stop.
- 28. Remove loose items and unnecessary work pieces from the area before starting the machine.

Familiarize yourself with the following safety notices used in this manual:

ACAUTION This means that if precautions are not heeded, it may result in minor injury and/or possible machine damage.

AWARNING This means that if precautions are not heeded, it may result in serious injury or possibly even death.

- - SAVE THESE INSTRUCTIONS - -

Introduction

This manual is provided by JET covering the safe operation and maintenance procedures for models DC-650 Series Dust Collectors. This manual contains instructions on installation, safety precautions, general operating procedures, maintenance instructions and parts breakdown. This machine has been designed and constructed to provide years of trouble free operation if used in accordance to instructions set forth in this manual. If there are any questions or comments, please contact either your local supplier or WMH Tool Group.

Specifications

DC-650 Series Dust Collector

	DC-650A/ARC	
Stock Number		
Blower Wheel Diameter		
Sound Rating at 3 feet		65-70 dB
Bag Diameter		
Collector Bag Capacity (cu ft):		
Air Flow @ 4" (CFM):		
Max. Static Pressure (inch of wate	er):6.5	
Velocity @ 4" (FPM):		
Overall Dimensions:		
Motor (TEFC):	1 HP, 1Ph, 115V/230V, Prewired 115V	1 HP, 1Ph 115/230V, Prewired 115V
Net Weight (lbs):		
Gross weight (lbs):		

The above specifications were current at the time this manual was published, but because of our policy of continuous improvement, WMH Tool Group reserves the right to change specifications at any time and without prior notice, without incurring obligations.

Unpacking

- 1. Remove all contents from the shipping carton.
- 2. Report any damage to your distributor.
- 3. Do not discard any shipping material until after the dust collector has been assembled and is running properly.

Contents of the Shipping Carton

DC-650A Contents

- 1 Base
- 1 Owner's Manual
- 1 Warranty Card
- 1 Motor Assembly
- 1 Motor Cooling Fan
- 1 Collector Bag
- 1 Filter Bag
- 4 Casters
- 1 Support Cylinder
- 1 Retaining Strap
- 1 Filter Bag Support Rod
- 1 Bag of Assembly Hardware
 - 4 M6 x 12 Cap Screws
 - 5 M6 Lock Washers
 - 5 M6 Flat Washers
 - 2 3/8"-16 Acorn Nuts
 - 2 3/8" Hex Nuts
 - 4 M10 Flat Washers
 - 4 M8 x 12 Cap Screws
 - 4 M8 Flat Washers
 - 1 M6 Hex Nut

Tools Required for Assembly

- 2 14mm Wrenches or Sockets
- 1 10mm Wrench or Socket

DC-650C Contents

- Canister Filter Box
- 1 Canister Filter
- 1 Handle
- 1 Bag of Hardware for Handles
 - 2 M10 Hex Nuts
 - 2 M10 Flat Washers
 - 1 M10 Lock Washer
 - 4 Knobs
 - 1 M8 Hex Nut
 - 1 M8 Flat Washer
 - 1 M8 Lock Washer

DC-650C Box

- 1 Base
- 1 Owner's Manual
- 1 Warranty Card
- 1 Motor Assembly
- 1 Motor Cooling Fan
- 5 Collector Bags
- 1 Snap Ring
- 4 Casters
- 1 Support Cylinder
- 1 Bag of Assembly Hardware
 - 4 M6 x 12 Cap Screws
 - 4 M6 Lock Washers
 - 4 M6 Flat Washers
 - 2 3/8"-16 Acorn Nuts
 - 2 3/8" Hex Nuts
 - 4 M10 Flat Washers
 - 4 M8 x 12 Cap Screws
 - 4 M8 Flat Washers

Tools Required for Assembly

- 2 14mm Wrenches or Sockets
- 1 10mm Wrench or Socket
- 1 17mm Wrench

Read and understand the entire contents of this manual before attempting set-up or operation! Failure to comply may cause serious injury.



Assembly

AWARNING The dust collector must be disconnected from the power source during assembly. Failure to comply may result in serious injury!

Motor Housing and Support Canister

- 1. Place the *impeller housing* (A, Fig. 1) on the floor with the *motor* (B, Fig. 1) facing upwards as shown.
- 2. Attach the *fan* (C, Fig. 1) to the motor *shaft* (D, Fig. 1). Allow a 1/16"-1/8" clearance between the fan (C, Fig. 1) and housing (E, Fig. 1).
- 3. Secure the *fan* (C, Fig. 1) by tightening the hex cap screw on the fan with a 10mm wrench.
- 4. Attach *support cylinder* (A, Fig. 2) to the *motor housing* (B, Fig. 2) with three M6x16 socket head cap screws and three M6 flat washers (C, Fig. 2).





Figure 2







Base Assembly

- 1. Mount two fixed casters (C, Fig. 3) to the appropriate end of base (D, Fig. 3) using four M6 flat washers (E, Fig. 3), four M6 lock washers (F, Fig. 3) and four M6x12 hex cap bolts (G, Fig. 3).
- Mount two swivel casters (H, Fig 3) to the appropriate end of the base with two 3/8" hex nuts (I, Fig. 3), four M10 flat washers (J, Fig. 3), and two 3/8" acorn nuts (K, Fig. 3).

Mounting the Support Canister to Base

- Mount the support canister (L, Fig. 4) to the base (M, Fig. 4) with four M8x12 hex cap bolts and four flat washers (N, Fig. 4).
- 2. Turn the dust collector over onto the casters.

Note: Make sure the base and housing are relatively parallel. If not loosen the screws that secure the support cylinder to the motor and adjust as necessary. Tighten all hardware.

If you are assembling the *DC-650A/ARC Dust Collector*, proceed to the next section. If you are assembling the *DC-650C/CRC Dust Collector*, proceed to *Canister Installation – DC-650C/CRC* section.

Filter Bag Installation – DC-650A/ARC

- Thread an M6 hex nut onto the filter bag support rod, followed by an M6 flat washer and M6 lock washer (A, Fig. 5). Thread the support rod (B, Fig. 5) into the motor/fan housing and tighten nut against the housing.
- 2. Place the retaining strap (C, Fig. 5) through the loops on the filter bag and hang the filter bag from the hook.
- 3. Secure bag to housing with retaining strap.

Note: The retainer strap should be tight enough to provide a good seal.



Figure 5

Collector Bag Installation – DC-650A/ARC

- 1. Insert the snap ring of collector bag into the bottom of housing at an angle, see Figure 6.
- 2. Pull down on the ring and bag to make sure it "seats" in the housing.

After completing the filter bag and collector bag installation, proceed to *Electrical Connections*.



Figure 6

Canister Installation – DC-650C/CRC

- 1. Place the canister filter so that it fits snugly over the housing and tighten the four knobs (A, Fig. 7).
- 2. Mount handle (B, Fig. 7) to the arm (C, Fig. 7) with a M8 flat washer (D, Fig. 7), M8 lock washer (E, Fig. 7), and a M8 hex nut (F, Fig. 7).
- Thread a M10 hex nut (G, Fig. 7) onto the threaded rod found on top of the canister filter followed by a M10 lock washer (H, Fig. 7), and M10 flat washer (I, Fig. 7).
- Mount the arm (C, Fig. 7) to the threaded rod on top of canister with one M10 flat washer (J, Fig. 7), and a M10 hex nut (K, Fig.7).



1. Place snap ring (K, Fig. 8) over the top of plastic bag (L, Fig. 8) and fold over the bag approximately three inches.



Figure 7



Figure 8

- 2. Insert the snap ring of the collector bag into the bottom of the housing at an angle, see Figure 9.
- 3. Pull down on the ring to make sure it "seats" in the housing.

Note: make sure the snap ring "snaps" into place in the housing, and also that the plastic bag hangs down approximately 3" so that there are no air leaks.



Figure 9

Electrical Connections

All electrical connections must be done by a qualified electrician. All adjustments or repairs must be done with the dust collector disconnected from the power source, unplugged. Failure to comply may result in serious injury!

The DC-650 series dust collectors are rated at **115/230V**, **Prewired 115V**. Use a plug and outlet rated at least 20 amps. The circuit for the machine should also be protected by at least a 20 amp circuit breaker or fuse. Keep in mind that a circuit being used by other machines, tools, lights, heaters, etc. at the same time will add to the electrical load. A dedicated circuit to the dust collector will give you the best results since dust collectors are generally used at the same time other tools are running.

Before hooking up to the power source, make sure that the switch is in the off position.

Turning the Machine On & Off



This machine is intended for indoor use only.

Before hooking up to the power source, make sure that the switch is in the off position.

DC-650A and DC-650C

Flip the *Start/Stop* toggle switch mounted next to the motor to the up position to start and down position to stop. This switch comes equipped with a removable key which can be removed for safety when not in use.

DC-650ARC and DC-650CRC

The DC-650ARC and DC-650CRC dust collectors can be controlled from the *control panel* mounted on the side of the motor (Figure 9) *or* from a *remote control unit* (Figure 10).

To start the dust collector, press the *ON* button. If the *remote control unit* (Figure 10) is used, aim it at the *control panel* (Figure 9). The machine will remain running until the *OFF* button is pressed. The *digital readout* will always display 00 while running.

Setting the Timer

Once the machine is running, press the *TIME* button to activate the timer. Each time the button is pressed and released, the run time is incremented on the digital display by one minute and can be set up to 99 minutes. If the *TIME* button is pressed and held, the time will scroll up to 99 minutes, then start again at 00. Release the button when the desired set time is

reached. The dust collector will run for the amount of time displayed on the digital display. If you scroll past 99 and release the button at 10, for example, the machine will run for ten minutes, not 110 minutes.

If the *OFF* button is pressed while machine is running with the timer engaged, the machine turns off and the timer is disengaged, i.e., when the machine is restarted, the timer must be reset.



Figure 9



Figure 10

Maintenance

Never perform maintenance on this machine before turning switch off and removing plug from power source. Failure to comply may cause serious injury!

Cleaning the Filter Bag – DC-650A/ARC

Wearing а particle mask/respirator for protection against fine dust particles during cleaning is highly recommended.

During first use and after cleaning, the filter bag may allow some dust to escape. This is normal and will stop after a short period of time.

Clean both the filter and collector bags frequently to keep the collector's performance at its optimum.

Wearing particle а mask/respirator for protection against fine dust particles during cleaning is highly recommended.

To clean:

- 1. Disconnect the machine from the power source.
- 2. Unhook the filter bag from the hanger and shake the bag so that the majority of the dust falls into the collector bag.
- 3. Loosen the retaining strap, and remove the filter bag from the housing.
- 4. Turn the bag inside out and clean.
- 5. Turn the bag outside in and re-attach to the housing using the retainer strap to secure.

Removing the Collector Bag – DC-650A/ARC

Wearing particle а mask/respirator for protection against fine dust particles during cleaning is highly recommended.

- 1. Disconnect the machine from the power source.
- 2. Remove the collector bag by pushing the ring of the collector bag upwards and pulling the bag out at an angle.
- 3. Empty the contents into an appropriate container.
- 4. Turn the bag inside out and clean.
- 5. Turn the bag outside in and insert into the housing.

AWARNING To reduce the risk of injury from moving parts, always keep the inlet connected to the flexible hose. Failure to comply may result in serious injury!

Cleaning the Filter – DC-650C/CRC

Clean both the filter and collector bag frequently to keep the collector's performance at its optimum.

To clean the filter turn the handle a couple rotations so the dust falls into the collector bag.

Removing the Collector Bag – **DC-650C/CRC**

Wearing a particle mask or respirator for protection against fine dust particles during cleaning is highly recommended.

- 1. Disconnect the machine from the power source.
- 2. Remove the collector bag by pushing the ring of the collector bag upwards at an angle and pulling the bag and snap ring out.
- 3. Empty the contents into an appropriate container.

Motor

Make frequent inspections of the motor fan and blow out (with low pressure air hose) or vacuum any accumulation of foreign material in order to maintain normal motor ventilation.

Connecting the Dust Collector to a Machine

Use the proper type hose to connect the dust collector to the machine being operated. Dryer vent hose is not acceptable for this purpose. Contact your nearest JET distributor for the full line of JET Dust Collector Hoses and Accessories. Customize your installation and obtain maximum performance with JET's dust hoods, hoses, clamps, fittings, and blast gates.

Grounding the Dust Collection System

The dust collection system includes the dust collector and the hose, or ductwork you use to connect the tools. The dust collector is arounded though the ground wire in the cord. The hose or ductwork you use to connect the tool to the dust collector must also be grounded. To assist in grounding your system you can purchase the JET "Dust Collector Grounding Kit" stock # JW1053 through JET Distributors.

Parts

Replacement Parts

Replacement parts are listed in the Parts List on the following pages. To order parts or reach our service department, call 1-800-274-6848 between 7:00 a.m. and 6:00 p.m. (CST), Monday through Friday. Having the Model Number and Serial Number of your machine available when you call will allow us to serve you quickly and accurately.

Parts List

Index No.	Part No.	Description	Size	Qty
1	. 422109W	Impeller Housing		1
		Motor		
	. CA020010	Starting Capacitor (not shown)	200MFD, 125V	1
		Centrifugal Switch (not shown)		
	. 994613	Centrifugal Switch Rotor (not shown)		1
3	. M4220F	Motor Fan		1
4	. MJ422001	Switch Box (DC-650A/C only)		1
4A	. 994532	Switch (DC-650A/C only)		1
5	. IC422001	Power Cord		1
6	. 423023	Packing		1
7	. 412025W	Flange		1
8	. 410030	Flange Packing		1
9	. AB410033	Impeller	9-1/2"	1
10	. 423038W	Base		1
11	. 423044	Fixed Caster		2
12	. 410003	Pivoting Caster		2
13	. 422018W	Support Cylinder		1
		Hanger (DC-650A/ARC only)		
		Filter Bag (DC-650A/ARC only)		
		Filter (DC-650C/CRC only)		
		Retainer Strap (DC-650A/ARC only)		
17	. DC650A-17	Collection Bag (DC-650A/ARC only)		1
		Clear Plastic Collection Bag (DC-650C/CRC o		
		Key		
		Hex Nut (DC-650A/ARC only)		
		Hex Nut.		
21	. TS-059303	Cap Nut	3/8"-16	2
		Hex Nut (LH)		
		Hex Cap Screw		
		Hex Cap Screw		
		Hex Cap Screw		
		Pan Head Screw		
		Socket Head Cap Bolt		
		Flat Washer		
29	. TS-1550041	Flat Washer	M6	8
30	. TS-1550061	Flat Washer	M8	4
		Flat Washer		
32	. TS-155010	Flat Washer	M16	1
		Lock Washer		
		Hardware Package (for DC-650A/ARC – not s		
		Hardware Package (for DC-650C/CRC - not		
		Inlet Guard Warning Label (not shown)		
		Motor Bracket Warning Label (not shown)		
		Rcvr Assy (see Remote Control Breakdown fo		

Index No. Part No.	Description	Size	Qty
35 331010	Shaft		1
36 331043	Scraper		
	Plate		
38 331042	Support		1
39 ST049200	Tapping Screw	M4x8	4
	Arm		
	Hex Nut		
	Flat Washer		
	Lock Washer		
	Bracket		
	Pad		
46 200076	Handle		
47 TS-1550061			
	Lock Washer		
	Hex Nut		
	Rivet		
	Hex Cap Screw		
	Lock Washer		
	Flat Washer		
54 TS-1540041			
55 331017	Strip		2
	Hex Cap Screw		
	JET Knob		
	Pad		
59 331048	Snap Ring		1

Parts Breakdown



Remote Control Breakdown for DC-650ARC/CRC

Index No. Part No.	Description	Size	Qty
DC650RC-100	Receiver Assembly (Items 1-11)		1
1 DCRC-101	Label		1
2 DCRC-102	Counter Screw		3
3 DCRC-103			
4 DCRC-104	Seal		1
5 DCRC-105	Digital Switch		1
6 DCRC-106	Circuit Board		1
7 DCRC-107	Fuse	250V, 1A	1
8 DCRC-108	Switch Box		1
9 CA020010	Running Capacitor	200MFD, 125VAC	1
10 DCRC-111	Tapping Screw	M3.5x10	1
11 ST039304	Tapping Screw	M3.5x12	6
12 DCRC-113	Remote Control		1
13	Battery	AAA	2



Wiring Diagrams

DC-650A/C Models



CAPACITOR



DC-650ARC/CRC Models





Notes



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