

Owner's Manual & Safety Instructions

Save This Manual Keep this manual for the safety warnings and precautions, assembly, operating, inspection, maintenance and cleaning procedures. Write the product's serial number in the back of the manual near the assembly diagram (or month and year of purchase if product has no number). Keep this manual and the receipt in a safe and dry place for future reference.

20i



2 HP, 5 Micron, 70 Gallon DUST COLLECTOR



Visit our website at: <http://www.harborfreight.com>
Email our technical support at: productsupport@harborfreight.com

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When unpacking, make sure that the product is intact and undamaged. If any parts are missing or broken, please call 1-888-866-5797 as soon as possible.

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No portion of this manual or any artwork contained herein may be reproduced in any shape or form without the express written consent of Harbor Freight Tools. Diagrams within this manual may not be drawn proportionally. Due to continuing improvements, actual product may differ slightly from the product described herein. Tools required for assembly and service may not be included.

⚠ WARNING

Read this material before using this product. Failure to do so can result in serious injury.
SAVE THIS MANUAL.

Table of Contents

Safety	2	Maintenance	8
Specifications	4	Parts List and Diagram	10
Setup	4	Warranty	12
Operation	7		






SAFETY

SETUP

OPERATION

MAINTENANCE

WARNING SYMBOLS AND DEFINITIONS

	This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.
	Indicates a hazardous situation which, if not avoided, will result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in death or serious injury.
	Indicates a hazardous situation which, if not avoided, could result in minor or moderate injury.
	Addresses practices not related to personal injury.

Instructions Pertaining to a Risk of Fire, Electric Shock, or Injury to Persons

IMPORTANT SAFETY INSTRUCTIONS

When using an electrical appliance, basic precautions should always be followed, including the following:

READ ALL INSTRUCTIONS BEFORE USING THIS APPLIANCE

WARNING

To reduce the risk of fire, electric shock, or injury:

1. Do not leave appliance when plugged in. Unplug from outlet when not in use and before servicing.
2. Do not use outdoors or on wet surfaces.
3. Do not allow to be used as a toy. Close attention is necessary when used by or near children.
4. Use only as described in this manual. Use only manufacturer's recommended attachments.
5. Do not use with damaged cord or plug. If appliance is not working as it should, has been dropped, damaged, left outdoors, or dropped into water, return it to a service center.
6. Do not pull or carry by cord, use cord as a handle, close a door on cord, or pull cord around sharp edges or corners. Do not run appliance over cord. Keep cord away from heated surfaces.
7. Do not unplug by pulling on cord. To unplug, grasp the plug, not the cord.
8. Do not handle plug or appliance with wet hands.
9. Do not put any object into openings. Do not use with any opening blocked; keep free of dust, lint, hair, and anything that may reduce air flow.
10. Keep hair, loose clothing, fingers, and all parts of body away from openings and moving parts.
11. Turn off all controls before unplugging.
12. Use extra care when cleaning on stairs.
13. Do not use to pick up flammable or combustible liquids, such as gasoline, or use in areas where they may be present.
14. Connect to a properly grounded outlet only. See Grounding Instructions.
15. **Do not pick up anything that is burning or smoking, such as cigarettes, matches, or hot ashes.**

16. **Do not use without dust bag and/or filters in place.**
17. FOR HOUSEHOLD USE ONLY.
18. Stay alert, watch what you are doing and use common sense when operating an appliance. Do not use an appliance while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating appliances may result in serious personal injury.
19. Maintain labels and nameplates on the appliance. These carry important safety information. If unreadable or missing, contact Harbor Freight Tools for a replacement.
20. People with pacemakers should consult their physician(s) before use. Electromagnetic fields in close proximity to heart pacemaker could cause pacemaker interference or pacemaker failure.
21. The warnings, precautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

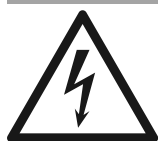


SAVE THESE INSTRUCTIONS

Grounding Instructions

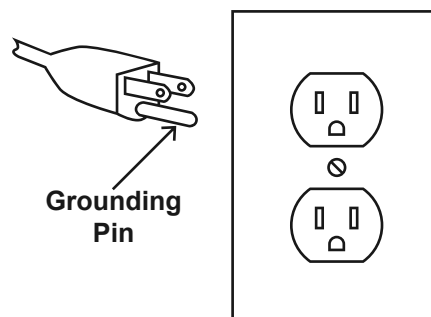
This appliance must be grounded. If it should malfunction or breakdown, grounding provides a path of least resistance for electric current to reduce the risk of electric shock. This appliance is equipped with a cord having an equipment-grounding conductor and grounding plug. The plug must be inserted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

! WARNING



Improper connection of the equipment-grounding conductor can result in a risk of electric shock. Check with a qualified electrician or service person if you are in doubt as to whether the outlet is properly grounded. Do not modify the plug provided with the appliance – if it will not fit the outlet, have a proper outlet installed by a qualified electrician.

This appliance is for use on a nominal 120-V circuit and has a grounding attachment plug that looks like the plug illustrated in **125 VAC 3-Prong Plug and Outlet**. Make sure that the appliance is connected to an outlet having the same configuration as the plug. No adaptor should be used with this appliance.



125 VAC 3-Prong Plug and Outlet
(for up to 125 VAC and up to 15 A)

Specifications

Electrical Rating	120VAC / 60Hz / 15A / 2HP Single Phase
RPM	3450
Bag Dimensions	Top=19-1/2" Dia. x 30"L Bottom=19-1/2" Dia. x 30-7/8"L
Bag Filtration Ratio	5 Microns
Intake	4-3/8" ID (screen & filter)
Exhaust Diameter	4-1/2 Inch ID With Screen

Setup - Before Use:



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Turn the **Power Switch** of the appliance off and unplug the appliance from its electrical outlet before performing any procedure in this section.

Note: For additional information regarding the parts listed in the following pages, refer to the Assembly Diagram near the end of this manual.

Assembly

1. Place Caster (39) in place on the underside corner of the Base Plate (40). For all four corners of the Caster insert one Screw (5) through Washer (21) down into Base Plate and through Caster. Thread on Nut (38). Repeat for remaining three Casters.
2. Attach the first Collector Support (29) to the Base Plate. Line up the Collector Support with holes on edge of the Base Plate. Insert Bolt (16) down through Washers (15,14), Base Plate and secure in place with Nut (2). (See Figure A.)
3. Repeat for second Collector Support on the opposite edge of the Base Plate.
4. Attach the third Collector Support through the inside holes near where the Motor Base (41) will be mounted. (See Figure B) Insert Bolt down through Washers and Base Plate and secure in place with Nut.

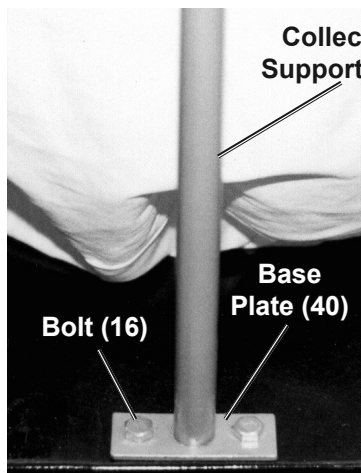


Figure A

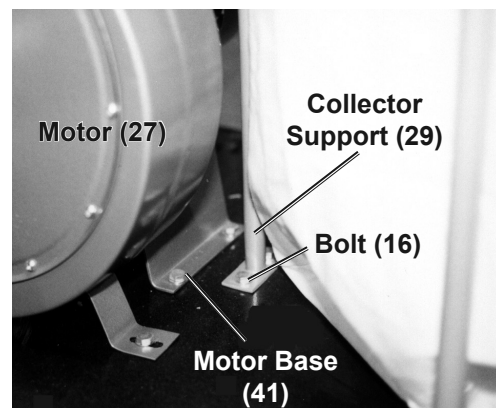


Figure B

5. The Fan Housing (17) is attached to the Motor (27) and Motor Base as a single unit. Secure the Motor Base to the Base Plate (40) using six Bolts, twelve Washers and six Nuts. (See Figure B and Figure C.)

Assembly (cont'd)

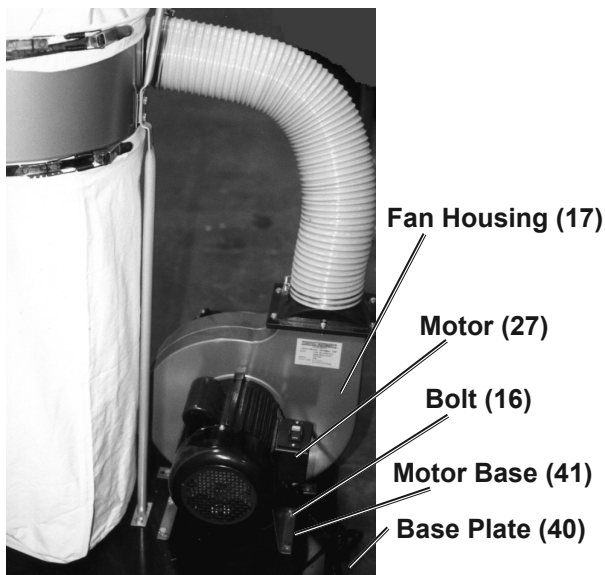


Figure C

6. Set the Outlet Gasket (19) on top of the rectangular opening of the Fan Housing. Set the Outlet (20) on top of the Fan Housing and Outlet Gasket. Slide Washers (21) onto Bolts (22) and thread into the six holes in the lip of Outlet, Fan Housing and Outlet Gasket. Secure in place with Nuts. (See Figure D)

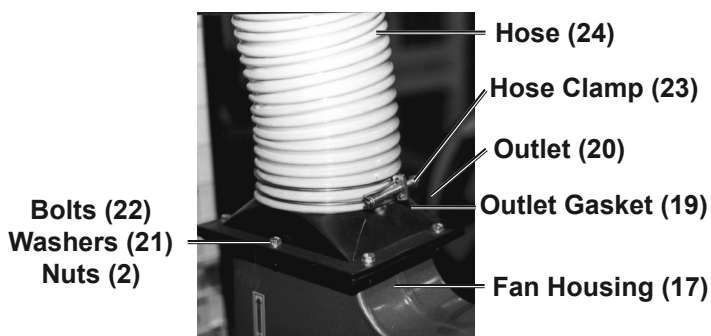


Figure D

7. Connect the Filter Bag Support (33) to the Collector Support and Collector (30). Thread in both Bolts (16) through the Collector Support and through the Filter Bag Support and into the Collector. (See Figure E)

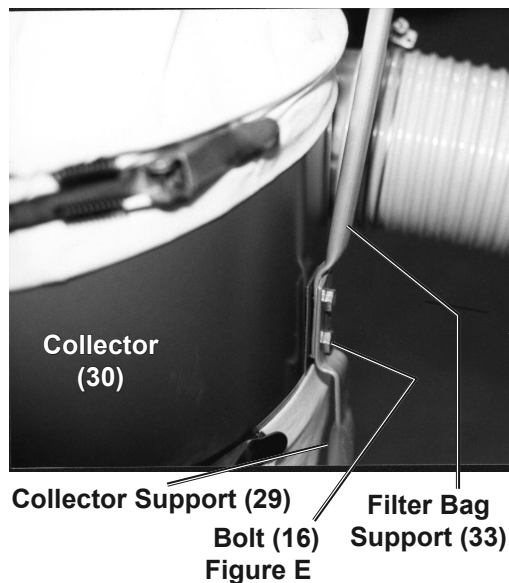


Figure E

8. Slide the Hose Clamp (23) onto the Hose (24). Slide Hose with Hose Clamp onto the Outlet. Once the Hose is in place, tighten the screw on the Hose Clamp until the Hose is securely fastened to the Outlet. (See Figure D)
9. Slide the Hose Clamp onto the other end of the Hose. Slide the top opening of the Hose over the duct in the Collector. Tighten the screw on the Hose Clamp until the Hose is securely fastened.
10. Place the Filter Bag (32) on top of the Collector. Once the Filter Bag is in place, adjust the clamp so that the clip rests between the teeth. Press the clamp down to lock in place. Extend the bag so that the loop on the top hangs on the Filter Bag Support.
11. Place the Collection Bag (37) on the bottom of the Collector and secure it with Clamp (31).
12. Attach the Handle (34) to the Collector with Nut (36) and Screw (35). (See Figure F)

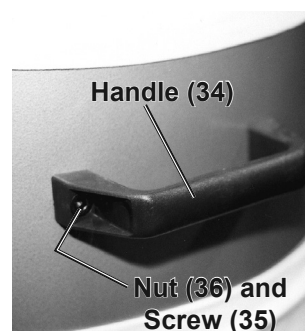
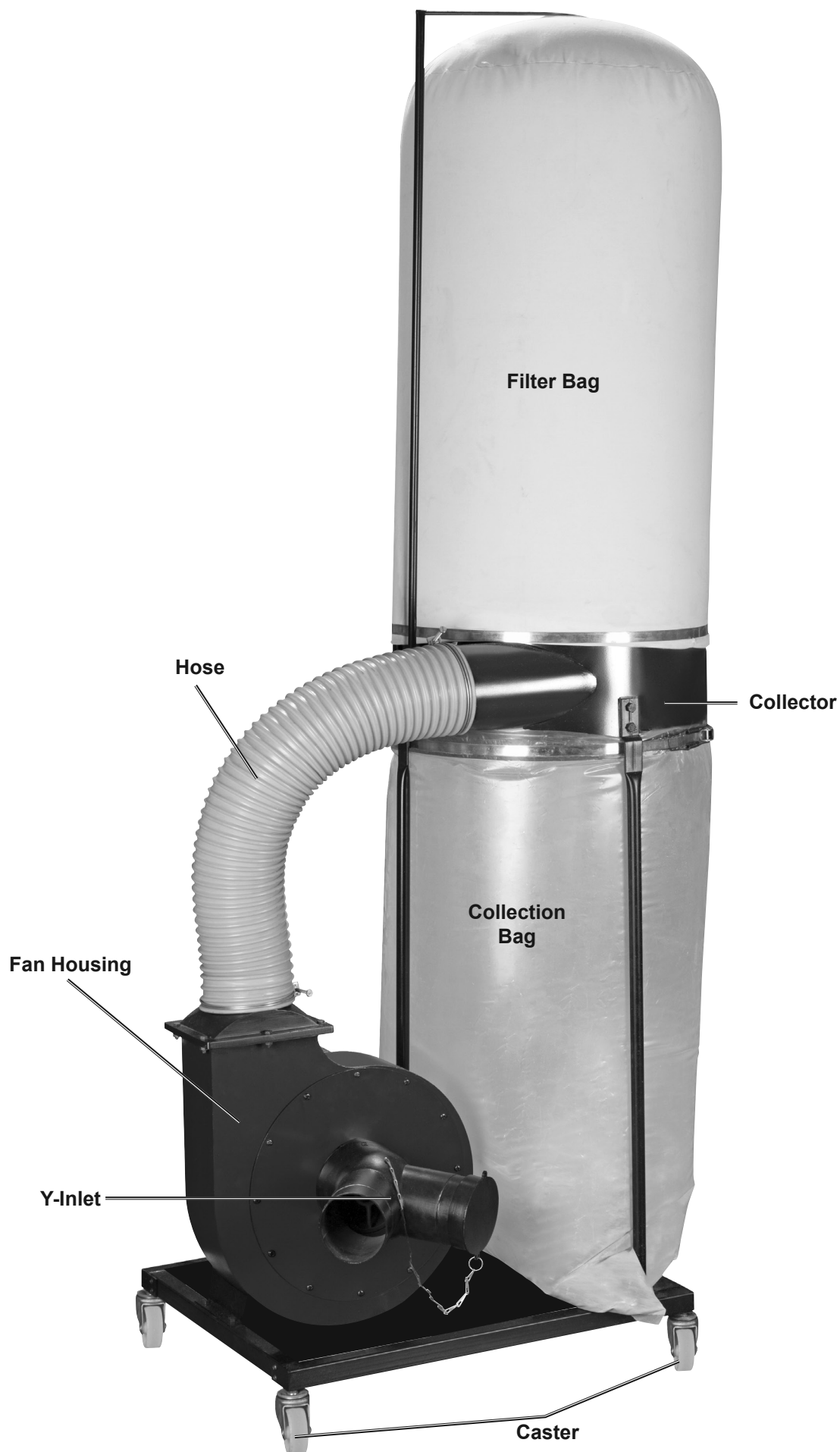


Figure F



Operating Instructions



Read the **ENTIRE IMPORTANT SAFETY INFORMATION** section at the beginning of this manual including all text under subheadings therein before set up or use of this product.

Tool Set Up

⚠ WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Make sure that the Trigger is in the off-position and unplug the tool from its electrical outlet before performing any procedure in this section.

Workpiece and Work Area Set Up

1. Designate a work area that is clean and well lit. The work area must not allow access by children or pets to prevent distraction and injury.
2. Route the power cord along a safe route to reach the work area without creating a tripping hazard or exposing the power cord to possible damage. The power cord must reach the work area with enough extra length to allow free movement while working.
3. Secure loose workpieces using a vise or clamps (not included) to prevent movement while working.
4. There must not be objects, such as utility lines, nearby that will present a hazard while working.

Vacuum Operation

⚠ WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Turn the Switch off and unplug the power cord from its electrical outlet before removing the Power Head.

Do not tamper with or remove the grounding pole on the plug. You must use this unit with a 3 pole receptacle. If you use an extension cord, it must meet amperage specified (16 AWG), and the cord must be 3-pronged.

This unit is designed for use with an existing dust system, or you can construct a new system.

1. If constructing a new system, connect 4" vent pipe (not included) to the 4" inlet side of the collector.
2. Determine the size of the dust ports on your tools and run vacuum hoses from each tool to an appropriate sized adapter, and into the 4" vent pipe (none included).

cord will cause a drop in line voltage resulting in loss of power and overheating. Table A shows the correct size to use depending on cord length and nameplate ampere rating. If in doubt, use the next heavier gauge. The smaller the gauge number, the heavier the cord.

4. Make sure that the Switch is in its off position. Plug the Power Cord into the power outlet.
5. Turn the switch on to operate the Dust Collector.
6. Make sure the Collection Bag (37) is on tight and not leaking.
7. During operation, periodically check how full the Collection Bag is. Do not let it fill more than 3/4 full. A completely full bag puts a lot of stress on the bag and the clamp.
8. To change Collection Bag, wear ANSI-approved safety goggles, and a dust mask. Turn Dust Collector off, remove the Filter Clamp (31), and empty the bag. Reinstall the bag and clamp.
9. To prevent accidents, turn off the appliance and unplug it after use. Empty and clean Bags, clean Filter (see **Cleaning Filter on page 8**), then store the appliance indoors out of children's reach.

Table A: RECOMMENDED MINIMUM WIRE GAUGE FOR EXTENSION CORDS (120 VOLT)

NAMEPLATE AMPERES (at full load)	EXTENSION CORD LENGTH			
	25'	50'	100'	150'
0 – 6	18	16	16	14
6.1 – 10	18	16	14	12
10.1 – 12	16	16	14	12
12.1 – 16	14	12	Do not use.	

3. **USE PROPER EXTENSION CORD.**
Make sure your extension cord is in good condition. When using an extension cord, be sure to use one heavy enough to carry the current your product will draw. An undersized

User-maintenance and Storage



Procedures not specifically explained in this manual must be performed only by a qualified technician.

⚠ WARNING

TO PREVENT SERIOUS INJURY FROM ACCIDENTAL OPERATION:

Turn the Power Switch of the appliance off and unplug the appliance from its electrical outlet before performing any procedure in this section.

TO PREVENT SERIOUS INJURY FROM APPLIANCE FAILURE:

Do not use damaged equipment. If abnormal noise or vibration occurs, have the problem corrected before further use.

Cleaning, Maintenance, and Lubrication

1. **BEFORE EACH USE**, inspect the general condition of the appliance. Check for:
 - loose hardware,
 - misalignment or binding of moving parts,
 - cracked or broken parts,
 - damaged electrical wiring, and
 - any other condition that may affect its safe operation.
2. **AFTER USE**, wipe external surfaces of the appliance with clean cloth. Store in an indoor dry area out of reach of children.
3. All parts are permanently lubricated. Do not use additional lubrication.
4. Check Collection and Filter Bags (1 each) prior to each use for tears or fraying. Replace if necessary.
5. Periodically tighten the Filter Clamps (31) and Hose Clamps (23).
6. Keep the Motor (27) clean of dirt and debris.
7. **⚠ WARNING!** If the supply cord of this appliance is damaged, it must be replaced only by a qualified service technician.

Cleaning Filter

To ensure proper operation, clean the Filter regularly. Torn Filters should be replaced:

CLOTH FILTER:

1. Gently tap or brush dirt off outdoors.
2. Wash Cloth Filter using mild soap and water.
3. Rinse all soap and dust out thoroughly.


4. Allow the Cloth Filter to dry for at least one day before reinstalling.



WARNING! Installing a wet Filter will increase the risk of electric shock and may damage the vacuum.

5. Reinstall the Filter.

Troubleshooting

Problem	Possible Causes	Likely Solutions
Tool will not start.	<ol style="list-style-type: none"> 1. Cord not connected. 2. No power at outlet. 3. Internal damage or wear. 	<ol style="list-style-type: none"> 1. Check that cord is plugged in. 2. Check power at outlet. If outlet is unpowered, turn off tool and check circuit breaker. If breaker is tripped, make sure circuit is right capacity for tool and circuit has no other loads. 3. Have technician service tool.
Tool operates slowly.	Extension cord too long or wire size too small.	Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load. See Table A on page 7.
Overheating.	<ol style="list-style-type: none"> 1. Blocked motor housing vents. 2. Motor being strained by long or small diameter extension cord. 3. Motor being strained by over-full Collection Bag. 	<ol style="list-style-type: none"> 1. Wear ANSI-approved safety goggles and NIOSH-approved dust mask/respirator while blowing dust out of motor using compressed air. 2. Eliminate use of extension cord. If an extension cord is needed, use one with the proper diameter for its length and load. See Table A on page 7. 3. Empty Collection Bag. Do not allow to fill past 3/4 full.
Suction loss.	Collection Bag / Filter Bag is loose or leaking.	Tighten Clamps on Bags.
 Follow all safety precautions whenever diagnosing or servicing the tool. Disconnect power supply before service.		

PLEASE READ THE FOLLOWING CAREFULLY

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS LIST AND ASSEMBLY DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER OR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT, OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS, AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

Parts List

Part	Description	Qty
1	Inlet Cap	1
2	Y-Inlet	1
3	Screw M5x10	1
4	Chain	1
5	Screw M6x12	28
6	Inlet Cover	1
7	Inlet Cover Gasket	1
8	Screw M6x20	1
9	Spring Gasket 6	17
10	Special Washer	1
11	Impeller	1
12	Bolt M10x16	4
13	Flat Gasket 10	4
14	Flat Washer 8	26
15	Spring Washer 8	22
16	Bolt M8x16	18
17	Fan Housing	1
18	Nut M6	6
19	Outlet Gasket	1
20	Outlet	1
21	Washer 6	38

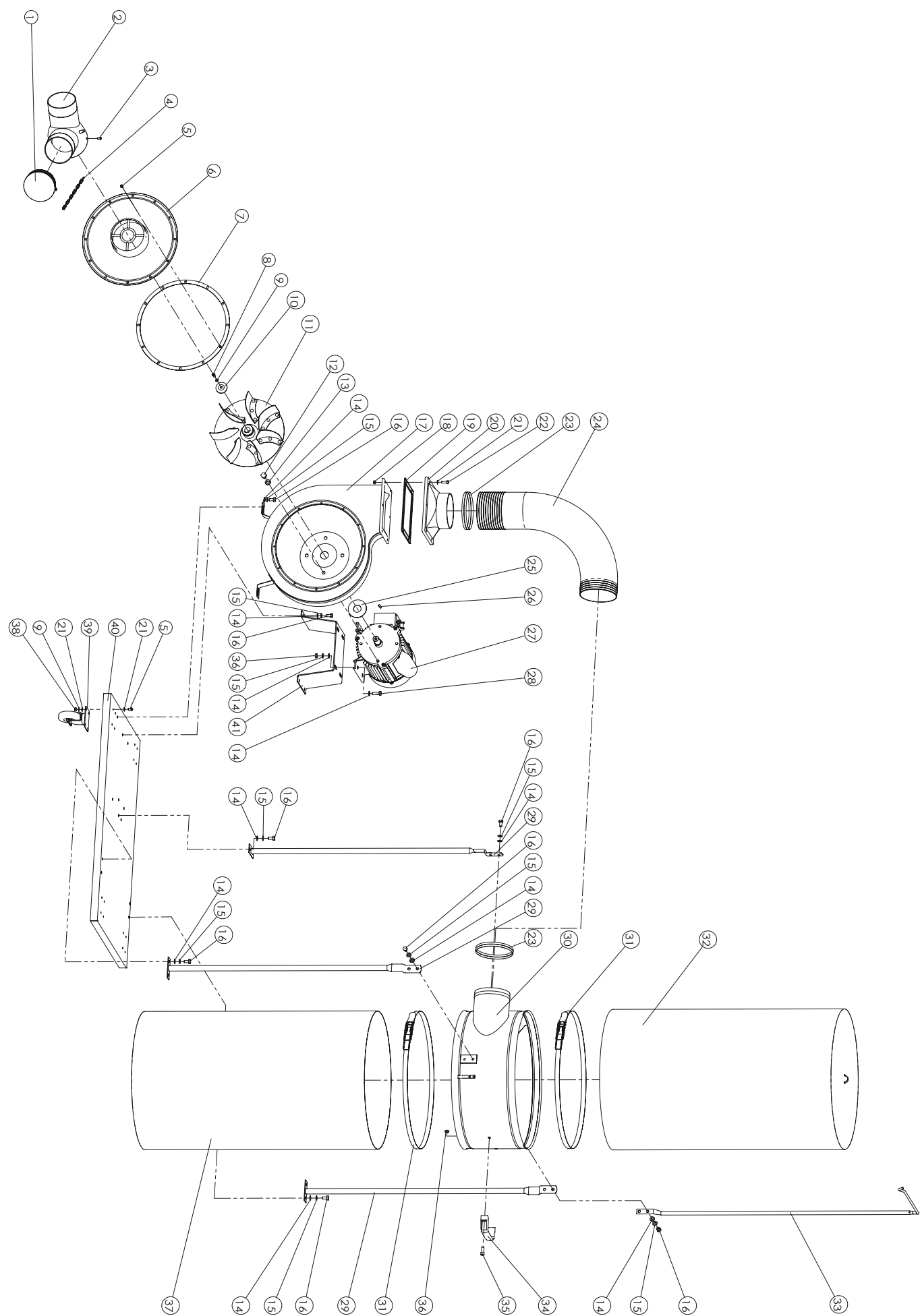
Part	Description	Qty
22	Bolt M6x20	6
23	Hose Clamp Ø120-Ø140	2
24	Hose Ø125×75	1
25	Rubber Gasket	1
26	Flat Key 5X30	1
27	Motor	1
28	Bolt M8x25	4
29	Collector Support	3
30	Collector	1
31	Filter Clamp	2
32	Filter Bag	1
33	Filter Bag Support	1
34	Hand Shank	1
35	Screw M8x20	2
36	Nut M8	6
37	Collection Bag	1
38	Nut M6	16
39	Caster	4
40	Base Plate	1
41	Motor Base	1

Record Product's Serial Number Here: _____

Note: If product has no serial number, record month and year of purchase instead.

Note: Some parts are listed and shown for illustration purposes only, and are not available individually as replacement parts. Specify UPC 193175328304 when ordering parts.

Assembly Diagram



SAFETY

SETUP

OPERATION

MAINTENANCE

Limited 90 Day Warranty

Harbor Freight Tools Co. makes every effort to assure that its products meet high quality and durability standards, and warrants to the original purchaser that this product is free from defects in materials and workmanship for the period of 90 days from the date of purchase. This warranty does not apply to damage due directly or indirectly, to misuse, abuse, negligence or accidents, repairs or alterations outside our facilities, criminal activity, improper installation, normal wear and tear, or to lack of maintenance. We shall in no event be liable for death, injuries to persons or property, or for incidental, contingent, special or consequential damages arising from the use of our product. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation of exclusion may not apply to you. THIS WARRANTY IS EXPRESSLY IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTIES OF MERCHANTABILITY AND FITNESS.

To take advantage of this warranty, the product or part must be returned to us with transportation charges prepaid. Proof of purchase date and an explanation of the complaint must accompany the merchandise. If our inspection verifies the defect, we will either repair or replace the product at our election or we may elect to refund the purchase price if we cannot readily and quickly provide you with a replacement. We will return repaired products at our expense, but if we determine there is no defect, or that the defect resulted from causes not within the scope of our warranty, then you must bear the cost of returning the product.

This warranty gives you specific legal rights and you may also have other rights which vary from state to state.



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