

—DRAMM— **COLDFOGGER™**



Owners Manual

CFAR-20/150

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— **DRAMM** — **COLDFOGGER™**

<p>Model: CFAR-20/150 120 volt 60 HZ 15.6 AMP Single-Phase</p> <hr style="border: 0.5px solid black;"/> <p style="text-align: center;">Serial Number</p>
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Test Run & Final Inspection
<p>_____ Date Passed Final Systems Test</p>
<p>By: _____</p>
Shipped To:
<p>-----</p> <p>-----</p> <p>-----</p> <p>-----</p>

Limited Warranty

Dramm Corporation warrants to the extent of the purchase price, that the Coldfogger will be free from defects in materials and workmanship to the original purchaser for a period of six months. Parts subject to wear are not covered under this limited warranty. Defects or damages due to the misuse, non-observance of safety standards, or non-observance of EPA chemical guidelines are not covered under this limited warranty. Please read and follow the instructions and heed warnings stated in the operating manual and on the Coldfogger.

Dramm Corporation makes no other further warranty, expressed or implied, and all other or further warranties, including any warranties of merchantability or fitness for a particular purpose are expressly excluded.

In no event shall Dramm Corporation be liable for loss of product, profit or any other special, incidental or consequential damages including, but not limited to, plant damage, property or persons.

This warranty begins on the date of original purchase. If warranty service is required, the equipment must be sent prepaid to:

Coldfogger Service
 Dramm Corporation
 2000 North 18th Street
 Manitowoc, WI 54220

Dramm Corporation makes no warranty, expressed or implied, in regard to the efficacy of any pesticide or other chemical which may be applied using the Coldfogger.

WARNING

The Dramm CFAR-20/150 Coldfogger operates at 2800 - 3000 PSI and applies toxic chemicals. Extreme caution must be used! Read all warnings. Serious injury or death can occur from misuse.

- Do not operate machine without reading all warnings and instructions.
- Owners or Managers: It is your responsibility to inform and instruct any employee who uses this machine in regards to safety and operational procedures.
- Follow all E.P.A. guidelines for applying chemicals, and apply chemicals at the labeled rates.
- Ensure that the pump never exceeds the maximum operating pressure of 3200 PSI.
- Engage the safety lock on the spray gun when not spraying.

When Spraying:

- Do not place your hand or fingers into the spray pattern – vaccination or injection of toxic chemicals will occur.
- Never aim the spray at yourself or any person.
- Always release (squeeze the spray gun trigger) the pressure on the spray gun before removing or before shutdown.
- The spray hose is a high pressure reinforced hose with special couplings. Do not bend the hose or drag it over sharp objects. If a leak develops do not use the hose or try to repair it. Send damaged hoses to the Dramm Corporation for inspection. No warranty will cover a hose if it has been bent, kinked, abused or dragged over sharp objects.
- When mixing and spraying, always wear protective clothing - Full face mask, spray suit, cap, hood, boots, and gloves.
- If machine is used for insecticide, fungicide, or disinfectants - **never** use it for vaccines or any other application. If purchased for vaccine application never use it for any other applications.
- When applying chemicals using the low volumemethod, (concentrated chemical solution) do not spray directly at plants.
- If injury occurs while spraying, see a doctor immediately with full labels of product being used. Do not treat as a minor injury!
- Check that all electrical connections and chemical piping connections are secure.
- Connect the electrical power cord to a grounded electrical outlet of the appropriate voltage and frequency.
- Keep all electrical connections away from liquids.
- Use only 12 gauge grounded extension cords. (Fifty foot maximum).
- Do not leave chemicals or water in the tank, pump, suction lines, or discharge hose.
- Before servicing, unplug the Coldfogger from the electrical source.

How Does My Coldfogger Work?

The CFAR-20/150 Coldfogger is designed to apply chemicals in greenhouses, nurseries, poultry barns, livestock barns, and buildings. It operates at an average pressure of 2800-3000 PSI producing a very small particle, 30-40 μ (microns) average. It is designed to apply chemicals using the low-volume (LV) principle, but it can also be used to apply chemicals using the high volume (HV) principle. If you use the low volume method, application times will be approximately 10 times faster than under the high volume method. This machine is designed to apply insecticides, fungicides, growth retardants, disinfectants and vaccines. Do not use this machine to apply viscous materials such as shading compounds or paints.

Low Volume Method: The application of chemicals at the labeled rate prescribed for a given area, but diluted into greatly reduced amounts of water or diluents. Low volume application can only be accomplished with special equipment which produces very small spray particles.

High Volume Method: The application of chemicals at rates prescribed on the chemical label, diluted into the specified amount of water. Normally this is "X" ounces of chemical diluted into 100 gallons of water. Equipment which applies chemicals under the high volume principle, generally produce spray particles in the range of 100 to 150 μ (microns) in diameter.

The CFAR-20/150 Coldfogger operates from a 120 volt- 60HZ 60HZ single-phase electric motor which drives a hydraulic diaphragm pump. This hydraulic pump is designed to produce pressures up to 3200 PSI.

CAUTION: Do not operate at pressures over 3200 PSI and never force the Pressure Regulator beyond the stop position. The high performance pump produces an average discharge rate of 52 liters (13.6 gallons) per hour. The spray is propelled 20 to 25 feet. The machine is equipped with a 72 liter (20 gallon) tank. When applying 10 liters (2.63 gallons) per 10,000 square feet, you can treat 45,000 square feet in 45 minutes using the low volume method.



The motor has a 15.6 amp self-resetting thermal overload protection cut off. In the event of an overload, voltage drop, or over heating- the motor automatically shuts down. After a period of 3 - 4 minutes the pump can be turned on safely. The 10 foot main power cord is grounded. If you use extension cords, they should be #12 gauge grounded cords- and should not exceed 50 feet.

A high quality 15W 40 oil is used in the machine. It should be changed after the first 100 hours of use. Thereafter it can be changed after every 500 hours of use, or every 6 months. See *Cleaning & Maintenance on page 13*.

A special discharge hose and spray gun have been chosen for the Coldfogger. Do not abuse, bend or drag hose over sharp objects. Do not try to repair discharge hoses or use them when a leak has developed. A filter is built into the gun to help prevent clogging. See *Cleaning & Maintenance on page 13* This should be removed and cleaned after every 10 to 20 hours of use. There is also a special filter built into the chemical tank. The tank and filter should be flushed or rinsed after every use.

Greenhouse & Nursery Application Procedures

TREATMENT AREA PRECAUTIONS

A. Secure the treatment area and post hazard signs *before* spraying. No humans or pets should be present.

B. Follow all EPA Guidelines regarding the application of chemicals.

C. Chemicals should only be applied by licensed applicators.

GREENHOUSE & NURSERY APPLICATIONS

The Damm Coldfogger produces an average droplet size of 40 μ . As explained previously, the Coldfogger uses a reduced volume of water (diluent) to apply chemicals (this means that the spray is highly concentrated). To apply-spray over and through the crop at distances greater than 7 feet, then down the aisle as you rotate your hand. The Coldfogger uses high pressure to produce small droplets. High spray velocities result, aiding the ability of the spray to rustle the plant canopy and reach the underside of the leaves. The small particles will allow excellent coverage at distances up to 25 feet from the gun. Different plants tolerate this velocity better than others. Use caution when first using the Coldfogger on a new crop. Determine the sensitivity to damage from this velocity before deciding on how closely you may spray the plants. **Do not spray plants to "Run-Off" or "Glisten"** under the low volume method of application. After spraying the plants, no visible residue should be seen on the foliage.

Growth regulator applications should be made at conventional high volume rates to avoid any miscalculations and over-application. Note - when applying B-9 the foliage should be wet.

APPLICATION PROCEDURES

The Coldfogger is a low-volume applicator. The chemical solution will be highly concentrated and only 5 to 15 liters of solution will treat 10,000 square feet. We recommend a rate of 10 liters per 10,000 square feet (or 1 liter per 1,000 square feet for potted or bedding plants). Use more total solution for cut flowers, tomatoes, ...anything with more plant mass. Similarly, less solution can be used for plugs and seedlings.

GREENHOUSE & NURSERY APPLICATIONS cont...

The Coldfogger will apply emulsifiable concentrate, wettable powder, and flowable chemical formulations.

CHEMICAL DILUTION CALCULATION

You will apply chemical at labeled rates per square foot area, but with less water. To find the correct dosage of chemical for 10,000 square feet of treatment area multiply the labeled rate per 100 gallons by 0.4. *Example:*

$$16 \text{ ounces} \times 0.4 = 6.4 \text{ ounces}$$

Mix this quantity of chemical into 10 liters of water and apply over 10,000 square feet. For easy reference, use the dilution rate chart on *page 9* for the correct dosage.

Adjust the amounts of chemical and water for the exact amount of area you wish to treat. The example calculations above are for 10,000 square feet. This rate calculation is based on bedding and potted plants. In grower surveys, on average 40 gallons of spray solution was used to treat 10,000 square feet. For different crops this amount may vary greatly. Rose or tomato growers may use as much as 200 - 300 gallons on 10,000 square feet. You may need to adjust your spray solution accordingly.

MIXING CHEMICALS & FILLING TANK

1. Fill the sprayer tank at least 3/4 full with water **ONLY**.
2. Dilute (mixing to dissolve) chemicals with water in a 5 gallon bucket. Never put concentrated chemical formulations directly into the tank without diluting with water.
3. Start sprayer with pressure regulator in **START** (priming) position to begin agitation process prior to adding chemical to sprayer tank.
4. Pour chemical and water mixture (slurry) into the sprayer tank, filled 3/4 full of water, after agitation has begun.
5. Fill remainder of sprayer tank with water.

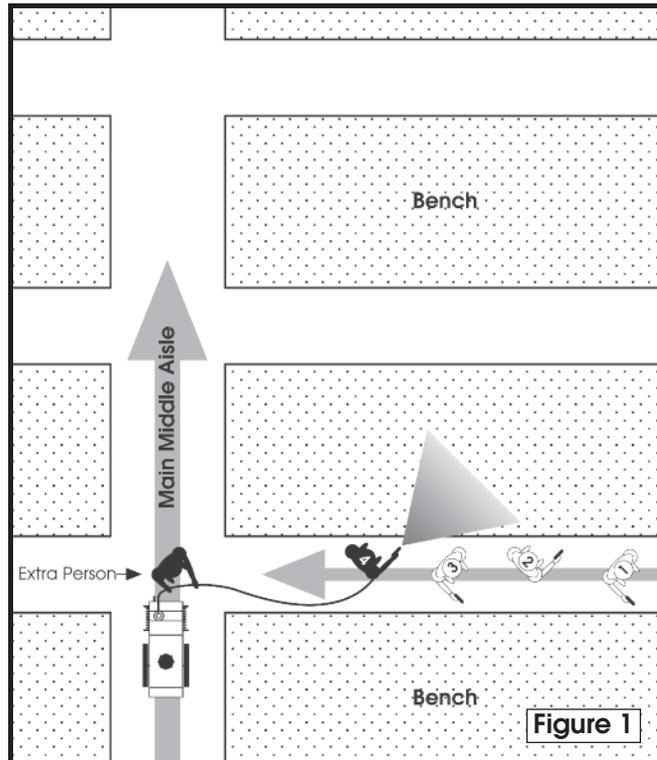
Greenhouse & Nursery Application Procedures continued...

GREENHOUSE & NURSERY APPLICATIONS cont...

SPRAYING/ FOGGING

Position the Coldfogger in the main middle aisle. Proceed to the end of the bench. Begin to spray the crop. Move rapidly back to the Coldfogger while treating benches on both sides of the aisle. See *Figure 1*. The fog will travel 20 to 25 feet. Your walking speed should be adjusted to treat 1,000 square feet in 1 minute or 10,000 square feet in 10 minutes. It facilitates application if an extra person is used to reel up the hose as the applicator moves towards the sprayer.

Remember, *DO NOT* spray the plants too closely and *DO NOT* spray to "RUN OFF" or "GLISTEN".



Other Application Procedures

PEST CONTROL

This application requires direct spraying of target surfaces for only a short time. Walls, cracks, joints and corners can be sprayed directly from a distance of about 10 feet until a moist residue appears on the treatment surface.

VACCINES

Vaccines can be applied using conventional (HIGH VOLUME) rates. Do not spray animals directly. For effective applications- generate a larger spray droplet by using the 0.015" nozzle tip.

DISINFECTION

If the Coldfogger is being used to spray disinfectants, direct application is permitted. Spray directly into wall cracks, joints and in accessible corners until covered with a moist residue. Stand about 10 feet from the target. The larger 0.015" nozzle tip is recommended in order to obtain a moist, heavy spray.

Coldfogger Dilution Rate Chart

HOW TO USE THIS CHART: Refer to the selected chemicals labeled rate instructions. Find the rate recommended for 100 gallons of water and match that amount with the number in the left hand column of the chart. Then read across to the right side of the chart to find the proper chemical amount for use in the CFAR-20/150 Coldfogger. If you are unable to make this calculation, please contact the Dramm Corporation at 1-(800)-258-0848 for assistance.

USE THIS AMOUNT OF CHEMICAL IN
100 GALLONS OF WATER
AT THE LABELED RATE

10 LITERS OF WATER AND FOG
OVER 10,000 SQUARE FEET

1.0 ounces	0.4 ounces
2.0 ounces	0.8 ounces
3.0 ounces	1.2 ounces
4.0 ounces	1.6 ounces
5.0 ounces	2.0 ounces
6.0 ounces	2.4 ounces
7.0 ounces	2.8 ounces
8.0 ounces	3.2 ounces
9.0 ounces	3.6 ounces
10.0 ounces	4.0 ounces
11.0 ounces	4.4 ounces
12.0 ounces	4.8 ounces
13.0 ounces	5.2 ounces
14.0 ounces	5.6 ounces
15.0 ounces	6.0 ounces
16.0 ounces	6.4 ounces
17.0 ounces	6.8 ounces
18.0 ounces	7.2 ounces
19.0 ounces	7.6 ounces
20.0 ounces	8.0 ounces
21.0 ounces	8.4 ounces
22.0 ounces	8.8 ounces
23.0 ounces	9.2 ounces
24.0 ounces	9.6 ounces
25.0 ounces	10.0 ounces
26.0 ounces	10.4 ounces
27.0 ounces	10.8 ounces
28.0 ounces	11.2 ounces
29.0 ounces	11.6 ounces
30.0 ounces	12.0 ounces
31.0 ounces	12.4 ounces
32.0 ounces	12.8 ounces

NOTE ON REVERSE OSMOSIS WATER: RO water is a strong solvent, as all minerals and chemicals normally present in water have been stripped. Over time RO water can cause damage to metals, even stainless steel. RO when mixed with various acidic or basic chemicals will increase their corrosive effects. **DO NOT USE STRAIGHT RO WATER** in a Coldfogger. If RO water is used on site, blend back to at least a 50%-50% mixture.

Coldfogger Starting Procedures

STARTING PROCEDURES

1. Plug the Coldfogger into a 120v, 60hz, grounded outlet.
2. With the tank full of water, turn the Agitation Pump on using the switch marked "Agitation" (see Figure 2)
3. Close the Bypass valve before the hose reel to help prime the main pump (see Figure 3).
4. Turn on the main Spray Pump using the switch marked "Spray" (see Figure 2).
5. After the unit primes and solution runs from the bypass hose, open the Bypass valve to spray.
6. Pressure should begin to register on the gauge. It may take some time to fill the hose.
You may need to pull the trigger and spray into the tank to relieve any air lock in the hose.

- This Coldfogger includes a quick connect and copper pipe assembly. This assembly is used, in place of the gun, to help prime the spray line by removing air as well as for flushing the spray line with clean water.

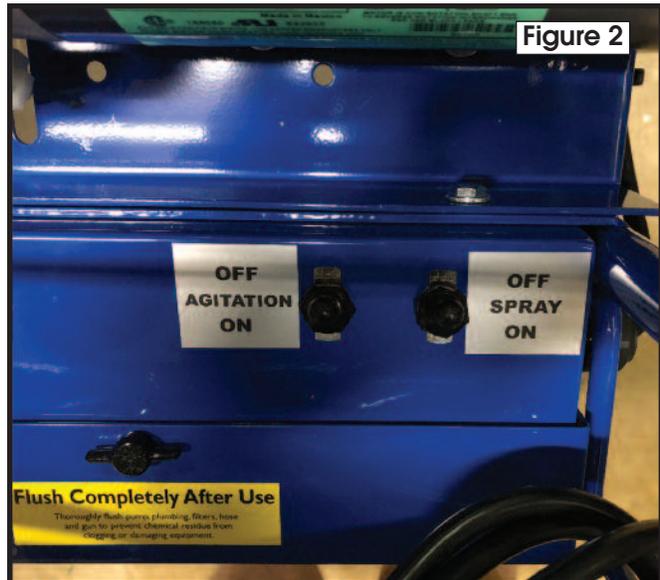


Figure 2

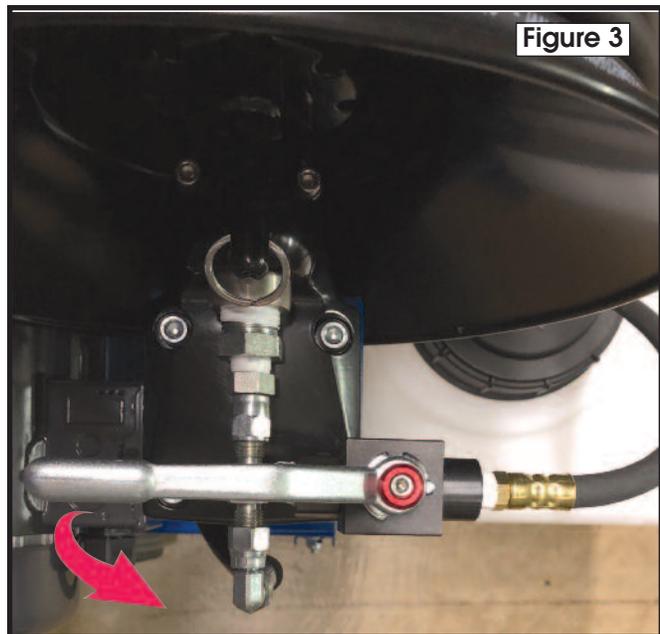


Figure 3

Bypass

Spray

Shut Down Procedures and Cleaning

STOPPING SPRAY – PUMP SHUT-DOWN

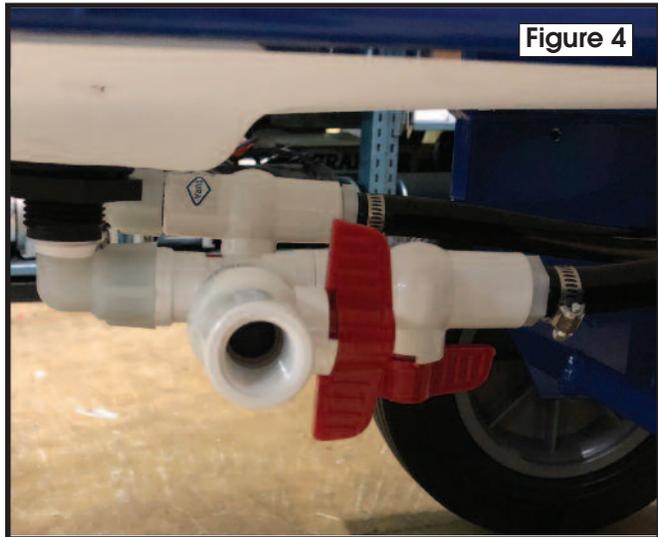
1. Release the spray gun trigger.
2. Lock the spray gun safety knob.
3. Turn off spray pump.
4. Discharge pressure in the hose by turning the bypass valve to “bypass”.
5. Turn off agitation pump.
6. Wind up the discharge hose on the hose reel.
7. Rinse the solution tank, solution tank filter, discharge hose and spray gun with warm clear water. Drain the cleaning solution using the Drain Valve. Dispose of the rinse water properly.
8. Coil up power cord.
9. Store the Coldfogger in a dry, dust-free location. Cover with plastic and keep from freezing temperatures.

BEFORE SERVICING THE PUMP:

MAINTENANCE & CLEANING

1. Turn the power switch "OFF" and disconnect from the power source.
 2. Relieve the pressure from the pump by rotating the Priming Valve counterclockwise.
 3. Relieve pressure from the spray gun by squeezing the trigger.
 4. Lock the spray gun safety knob.
- This Coldfogger includes a quick connect and copper pipe assembly. This assembly is used, in place of the gun, to help prime the spray line by removing air as well as for flushing the spray line with clean water.

Use the solution tank Drain Valve (*Pg.13, Item #35*), located under the Solution Tank, beside the Agitator. This grey valve drains the solution tank when the arrow on the lever points to the drain hose (turned clockwise). Drain the rinse water into a pail or 5 gallon bucket. Remember to close the Drain Valve (turned counterclockwise) before filling the Solution Tank with water and chemicals.



See *Figure 4*. Note: to drain, agitation pump must operate. This will also clean the agitation pump.

Isolation Valves

Isolation valves are included on the suction and agitation lines to allow for service even when the tank is full. ENSURE BOTH VALVES ARE OPEN during operation or damage to the pumps may result.

Temperature Relief Valve

The pump includes a temperature relief valve that discharges a small amount of solution from the pump once 170° F is reached. This is meant to help cool the pump.

This may occur if the unit idles too long without spraying.



Cleaning & Maintenance

SPRAY GUN FILTER : Inside the spray gun is a cylinder filter or strainer that should be cleaned every 10 - 20 working hours. Use a stiff brush, never use a steel brush. If the spray gun filter gets dirty or worn it will not spray properly and should be cleaned or replaced.

SOLUTION TANK FILTER: Inside the solution tank is a suction filter that should be cleaned after every use with a stiff brush. When this filter becomes dirty the solution will not be able to be drawn solution into the pump and the unit will not spray.

HYDRAULIC SYSTEM

1. The hydraulic oil is subject to wear and aging, so it is necessary to change this oil at least once a year or after every 500 hours of operation. However, the first oil change must be carried out after the first 100 hours of operation. Change the oil while it is still warm.

2. Run the motor for about 30 seconds to remove the remaining oil.

3. Next, fill the gear box with a good quality hydraulic oil (15W 40).

4. Vent the hydraulic system by running the unit with no pressure for a few minutes to release any trapped air.

PUMP

The pump is a triple piston pump with ceramic and stainless steel. Seals and valves in the pump will need to be replaced periodically.

If the unit does not hold pressure, or water can be seen in the oil sight, seals may need replacement.

See the parts diagram that follows for assembly.

PRESSURE REGULATOR (PUMP HEAD)

1. If the pressure regulator is damaged, then it is generally beyond repair and a new Pressure Regulator should be installed.

SPRAY GUN

NEVER AIM THE SPRAY AT YOURSELF OR OTHER PEOPLE.

DURING WORK PAUSES LOCK THE SPRAY GUN SAFETY KNOB.

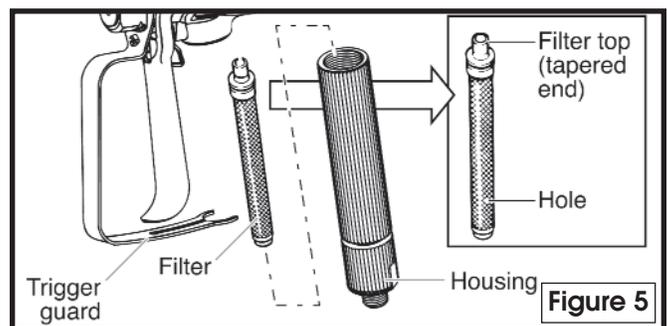
CALL A DOCTOR IMMEDIATELY UPON INJURY FROM THE SPRAY.

REMOVE THE SPRAY GUN FROM THE DISCHARGE HOSE BEFORE MAINTENANCE.

1. Flush the spray gun thoroughly after each use with warm water.

2. Inside the gun handle is a filter that should be cleaned regularly. Remove the hand guard and unscrew the spray gun handle. Pull out the filter, rinse the gun and clean the filter with a stiff brush (never use a steel brush).

3. Place the filter back into the gun with the filter hole visible at the top and screw the handle flush to the gun head. Replace the hand guard.

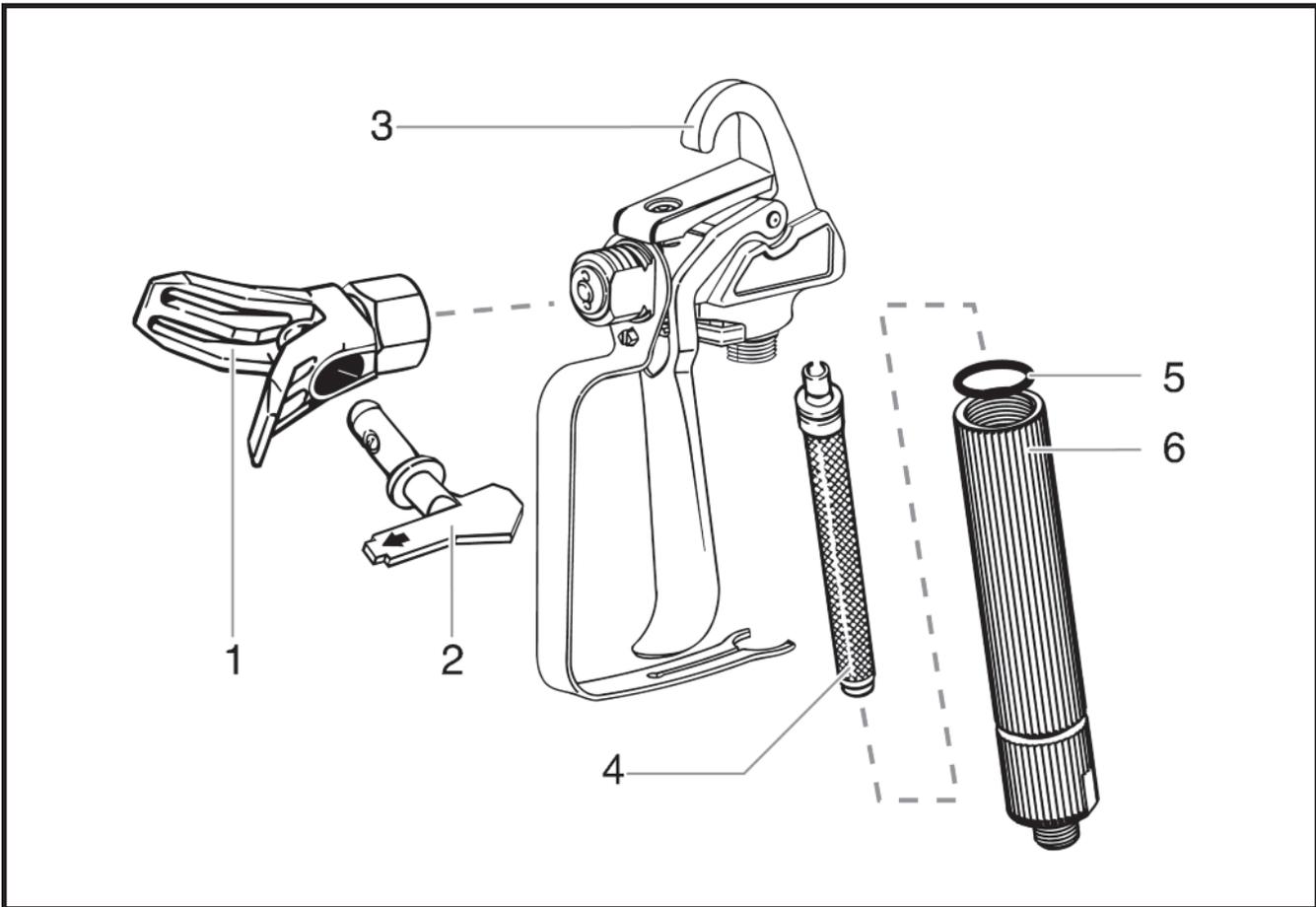


4. Reverse tip of spray gun by turning the nozzle backwards using the handle.

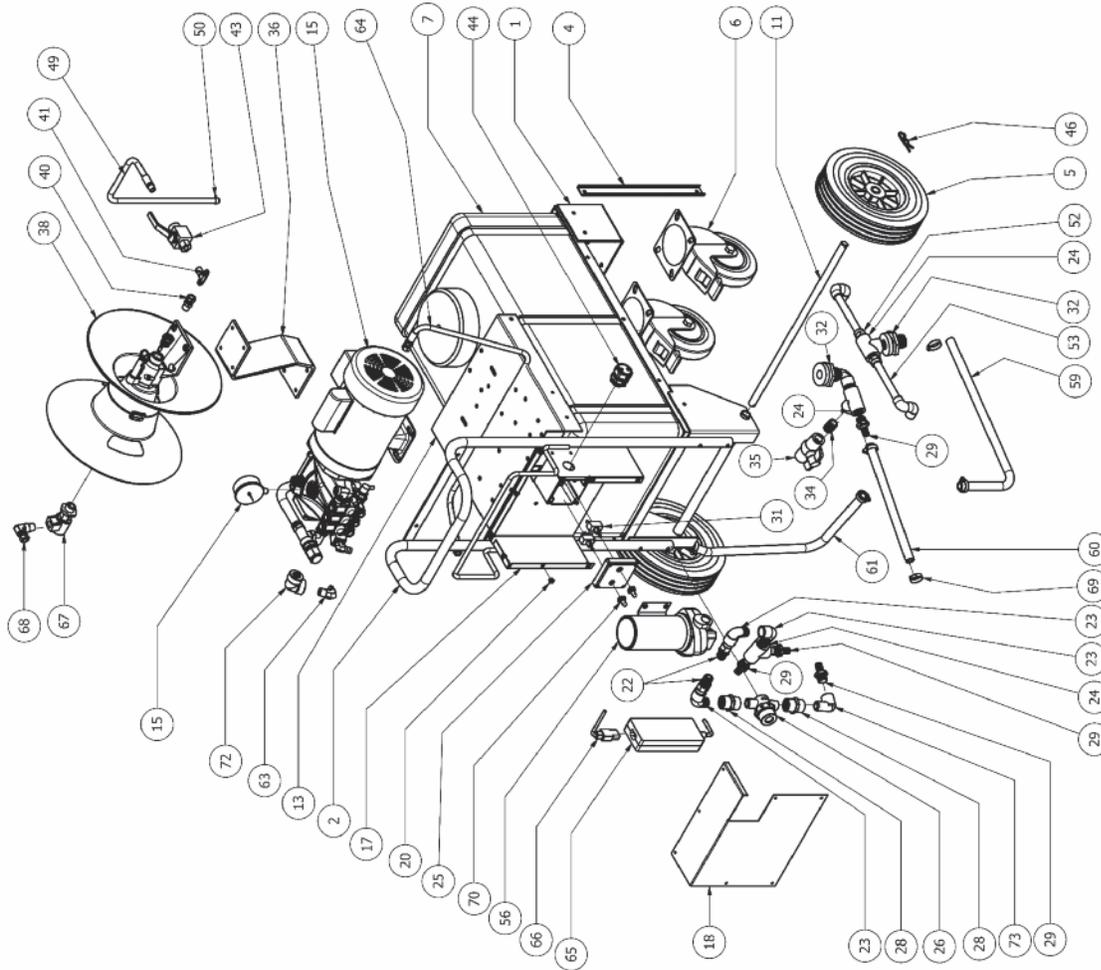
5. Spray under full pressure with tip reversed into a bucket to clean nozzle.

Item	Part #	Description	Quantity
1	0516711	Guard Assembly	1
2	0516707	Tip, 415.....	1
3	0516717	Complete gun assembly	1
4	0516732	Filter, yellow*	
5	0515332	Seal	1
6	0515329	Filter housing	1

*2-pack replacement kit



CF20 AR Cart Parts & Parts List



Parts List:

ITEM	PART NUMBER	DESCRIPTION	QTY
1	D11093B	CART 20 GAL	1
2	D11096	HANDLE ASSEMBLY	1
4	D11121	SUPPORT LEGS (MSO 20)	2
5	500006	TIRE 2 X 10 - 5/8 AXLE	2
6	500051	GASTER SWIVEL 1 x 6 W/BRK	2
7	610020	TANK 20 GALLON	1
11	D11096B	AXLE MSO	1
13	D11717B	SHELF UNIVERSAL MSO 20	1
15	200060	PUMP AR - FFRCA025	1
16	220205	BARB ELL 1/2 x 1/2MPT BR	1
17	D11866B	BOX CF20	1
18	D11867C	COVER CF20	1
19	D11868	BRACKET SWITCH CF20	1
20	118201	THREAD INSERT	12
22	220063	PORT ADPT 3/4MIGH	2
23	220122 THRD 25 SPL	ELBOW ST 1/2PT PVC	4
24	220602	TEE THREADED 1/2 PVC	3
25	300104	BOX SWITCH - HOFFMAN FLAT FACE	1
26	290004	FILTER INLINE BLK VITON	1
28	220069	UNION HEX 1/2NPT NY	2
29	220211	BARB 1/2 X 1/2MPT NY	4
31	310002	SWITCH TOGGLE SPDT	2
32	220500	BULKHEAD FITTING 1/2PT	2
34	220070	NIPPLE CLOSE 1/2 THRD PVC	2
35	230029	VALVE BALL 1/2 DURA, PVC	1
36	D11716B	Z REEL BRACKET	1
38	240003 Eley	HOSE REEL 13 DIA BLACK	1
39	220057	BUSHING 1/2PT x 1/4PT ST	1
40	220032	SWIVEL 3/8NPT x 1/4INPSM	1
41	220970	TEE JIC to PIPE BRANCH ST	1
43	230034	VALVE BALL 1/4NPT HP ST	1
44	300504	STRAIN RELIEF 2 WIRE	1
45	220207	BARB 1/4 x 1/4PT BR	1
46	118100	HAIRPIN 1/8 x 2 9/16 STL Z	2
48	19278	FERRULE 560ID x 99SL BR	1
49	PR hose CF20	HOSE PRESSURE RELEASE	1
50	220410	CLAMP 1/2 SPRING ACTION	1
51	220071	NIPPLE THRD 1/2 X 1-1/2 PVC	1
52	220008	ADAPTER 1/2NPT x 1/2 CPVC	2
53	MSO agitation tube	CPVC TUBE 1/2ID	2
54	220126	ELBOW ST 1/2 CPVC	4
55	220650 3 32	GAP 1/2 CPVC	2
56	200047	PUMP 12V 2.3GPM CONT 8.5A	1
59	Application CFAR20 2018	HOSE 1/2ID BLK	1
60	Suction CFAR20 2018	HOSE 1/2ID BLK	1
61	Pump Supply CFAR20 2018	HOSE 1/2ID BLK	1
63	220961	ELBOW JICM x 3/8PTM STZ	1
64	CF20 Pressure Line	HOSE 3/16ID 3000PSI	1
65	330211	POWER SUIP 120VAC 12V 11.5A	1
66	300406	CORD SET - 120VAC C13 PLUG	1
67	2652	SWIVEL - REEL BR (ELEY)	1
68	220104	ELBOW SWIVEL 3/8 x 1/4 St z	1
69	220401	CLAMP HOSE 5/16W -1 H	6
70	310102	BOOT SWITCH	2
71	220234	BARB ELL 1/2 x 1/2NPT male NY	1
72	220130	ELBOW 3/8PT SSTL	1
73	220127	1/2 STREET ELBOW	1

Troubleshooting 1 of 3

PROBLEM	CAUSE	REMEDY
Low spray pressure	Worn spray tip	Replace spray tip
Pump motor and agitator do not start.	No power or incorrect voltage.	Connect to 120 volt 60 Hz power source (20 amp fuse).
	Thermal overload has tripped.	Auto reset - Wait for unit to cool off for restart
	Clogged suction filter in solution tank.	Clean or replace.
	Suction hose not secured tightly to pump head.	Clean wing nut coupling and tighten or replace wing nut coupling gasket.
Agitator works, but pump motor only hums.	Hydraulic oil level too low.	Top off the oil level in the pump housing.
	Clogged intake valve (the valve inside the inlet passage can be pushed down with care).	Unscrew wing nut coupling, turn the pressure regulator clockwise and fill the inlet passage with water. Then push down the intake valve spindle with a rod until the intake valve opens (an audible change will be heard).
	Unit draws in air and not solution.	Check that all hoses are tight and not leaking.
	Damaged intake valve.	Replace the intake valve.
	Spray solution is too thick.	Dilute the spraying solution.
Open or defective pressure regulator allows solution back into the solution tank.	Close or replace the pressure regulator.	

PROBLEM	CAUSE	REMEDY
Unit fails to draw solution. Pump draws in solution, but no pressure is created.	Hydraulic oil level is low.	Top off the hydraulic oil.
	Air is in the hydraulic system.	Vent the hydraulic system.
	Too much foam in the solution tank. Spray solution is too thick.	Use an anti-foaming agent and dilute the spraying solution.
	No nozzle tip in the spray gun.	Insert a nozzle tip.
	Orifice diameter is the nozzle tip is clogged or worn.	Clean or replace nozzle tip.
	Clogged suction filter.	Clean or replace the suction filter.
	Spray gun filter is clogged.	Clean or replace the spray gun filter.
Pump draws in the solution, pressure builds up, but when the spray gun is opened the pressure drops.	Spray solution is too thick.	Dilute the spraying solution.
	Nozzle is worn	Replace nozzle
Solution runs back into the tank when spray gun is closed.	Air is trapped in the suction line.	Clean and tighten the wing nut coupling and wing nut gasket.
	Loose or defective pressure regulator.	Tighten or replace the pressure regulator.
Unit shakes, motor does not run.	Defective hydraulic control.	Qualified service is required. Contact Dramm Corporation service department at 1-800-258-0848.

PROBLEM	CAUSE	REMEDY
Leaking nozzle tip on the spray gun.	Damaged needle and valve seat.	Service the spray gun. Pull the trigger and let it snap out a few times.
Spray gun keeps on spraying when the trigger is released.	Loose the retainer screw. Damaged plastic gasket.	Tighten retainer screw. Replace gasket.
Unit fails to draw solution. Pump draws in solution, but no pressure is created.	Defective pressure regulator. Leaking intake valve.	Replace the pressure regulator. Service or replace the valve.
Unit does not prime	Hydraulic system has an air lock	Aim gun into tank and pull trigger to release air from spray lines.
Unit discharges from Temperature relief valve	Unit idling without spraying enough causing solution and pump to heat	Begin spraying. Idle less to prevent solution and pump from becoming hot.

Coldfogger CFAR-20/150 Specifications

Technical Data

Spray Droplet Size:	40 μ (micron) average diameter (30 -60 micron spectrum)
Standard Nozzle Size:	0.013" (optional 0.015")
Spray Pattern:	4 inch fan pattern
Operating Pressure:	2,800 - 3,000 PSI
Discharge Hose Burst Pressure:	9,000 PSI
Discharge Hose Length:	150 feet
Output Rate:	1 liter (0.26 gallons) per minute 3,000 psi
Solution Tank Volume:	45.6 liters (12 gallons)
Power Requirements:	120 volt 60 HZ Auto 15.6 amp
Overload Protection:	Thermal overload / Auto reset
Shipping Weight:	255 lbs
Dimensions:	Width: 21 inches Length: 39 inches Height: 43 inches

Standard equipment:

- * Thermal overload protection
- * High pressure hand held spray gun with filter
- * Solution tank suction filter
- * Solution tank agitator
- * Solution tank drain valve
- * 150 foot high pressure discharge hose
- * Quick disconnect fitting on discharge hose for spray gun
- * Discharge hose reel with manual crank and hose guide
- * Power switch for agitator and pump motors
- * Mounted on a sturdy steel frame

DRAMM[®]

2000 North 18th Street
P.O. Box 1960
Manitowoc, WI 54221-1960, USA
920-684-0227 • 1-800-258-0848
FAX: 920-684-4499
information@dramm.com