



**OWNER/ OPERATOR MANUAL
PORTABLE COMPRESSED AIR FOAM SYSTEM
MODEL FMIPC4**



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Warnings:

Read this manual carefully to understand all assembly, controls, proper operation and maintenance of your Porta-CAFS® Compressed Air Foam System. Failure to do so may result in less than optimal performance.

Warranty:

Firematic warranties Porta-CAFS Nozzle to be free from defects in materials and workmanship under normal use conditions. During this period of two (2) years, on all mechanical parts and labor, Firematic will repair or replace the defective parts or equipment at Firematic's option without charge. This includes installation of such repair or replacement parts as may be required. In no event will Firematic be responsible for consequential damages. This warranty shall not apply to units which have been subject to misuse, negligence, or alteration.

For warranty service on a Porta-CAFS Nozzle, contact Firematic directly via service@firematic.com. The commercial grade blower, which may be delivered along with Porta-CAFS is subject to its own warranty as issued by its manufacturer. For service and warranty repairs, contact your local blower dealer or the blower manufacturer directly.

Specifications**Unit Description**

All units include the Red Max EBZ6500 Blower, Porta-CAFS Nozzle with tip insert set, 10' Leader hose with 1" to 1-1/2" Adapter, and an Elkhart 30 gpm eductor.

Red Max EB6500 Backpack blower

Engine: Strato Charged® 2-stroke

Cylinder Displacement: 65.6 cc

Power output: 3.81 hp

Fuel tank volume: 71.01 fl oz

Air flow in pipe: 632.13 cfm

Air speed: 232.42 mph

Noise level: 77 dB (A)

Weight: 22.71 lbs

Warranty: 2 Years by any local Red Max Service Center.

Nozzle:

Patented Cast Aluminum nozzle with

Integrated schedule 80 stainless steel water/foam solution pipe

Self contained mixing chamber

Tip insert chamber

Elkhart 1" On/Off valve

Pressure gauge: 0-300 psi

Discharge tube

Cinch strap and clip

Hose:

1" NH ,10' Leader hose

Choice of Adapter(s)

1" x 1-1/2" NH Adapter

1.5" NH x 40mm BSP

Nozzle Insert Tips:

Four tips provided with on-board tip storage pack.

	Tip 1	Tip 2	Tip 3	Tip 4
Color	Clear	Red	Blue	Black
Size	.280"	.330"	.375"	.438"
Foam Type	Very Dry	Dry	Medium	Medium
Reach	60'	75'	90'	90'+
100 psi	24 gpm	33 gpm	42 gpm	56 gpm
150 psi	28 gpm	40 gpm	52 gpm	69 gpm
200 psi	33 gpm	46 gpm	60 gpm	79 gpm

Foam/Water Solution

Provided by eductor provided with the unit, apparatus foam system, or batch mixed tank.

Class A or B Foam

Solution: .1% to 3%

Flow rate: 22 to 80 gpm

Pressure range: 100 psi to 200 psi

Controls

Water/Foam Mixture is controlled by the integrated on/off valve in the nozzle.

The blower throttle controls the output of power from the blower. Full throttle will introduce higher amounts of air, producing thicker foam. Throttle back to introduce smaller amounts of air for wetter foam.

Maximum reach will be achieved with high pressure measured at the nozzle (min. 100psi), full throttle and open valve.

Weight

Blower and nozzle combined approximately 25 – 27 lbs.

Minimum Equipment Requirements

Porta-CAFS Requires minimum pump output of 100 psi, measured at the nozzle.

Foam Selection

Class A:

Recommended Foams:

Monsanto's Phos Check

Ansul's Silvex

Kiddie's Knockdown

Or any high quality foam

Class B:

Recommended Foam:

National Foam's Universal Gold

Or any high quality foam

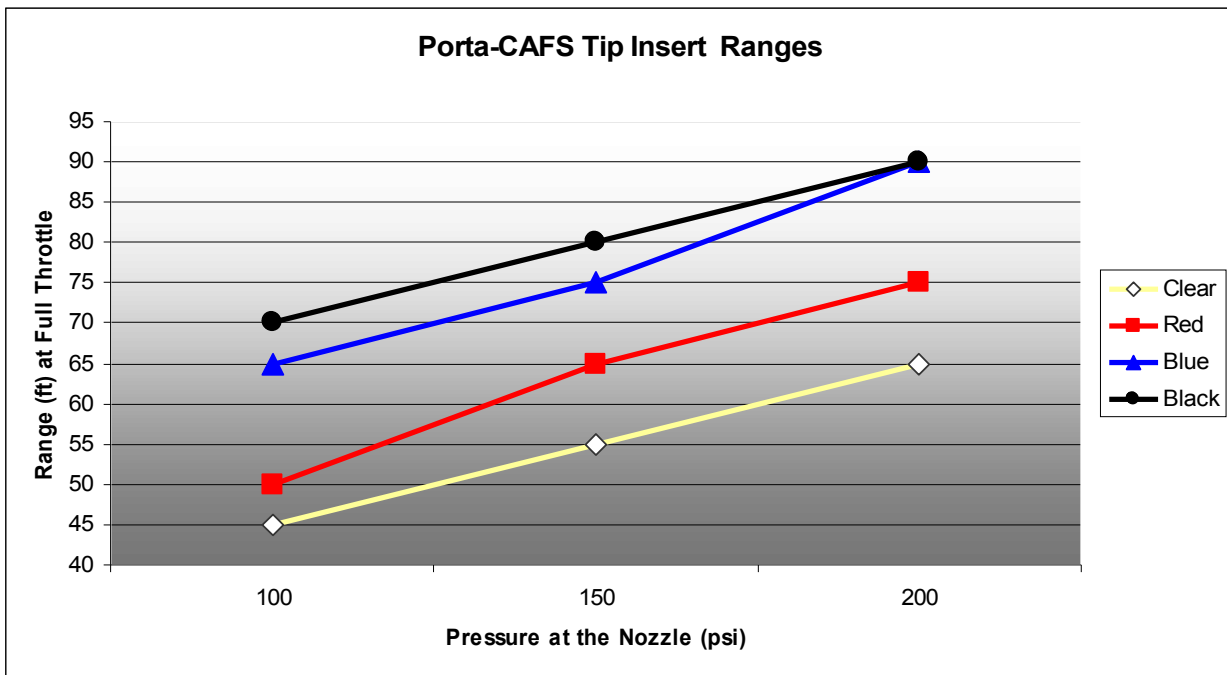
Tip Selection for optimal performance

Consider Pump Output

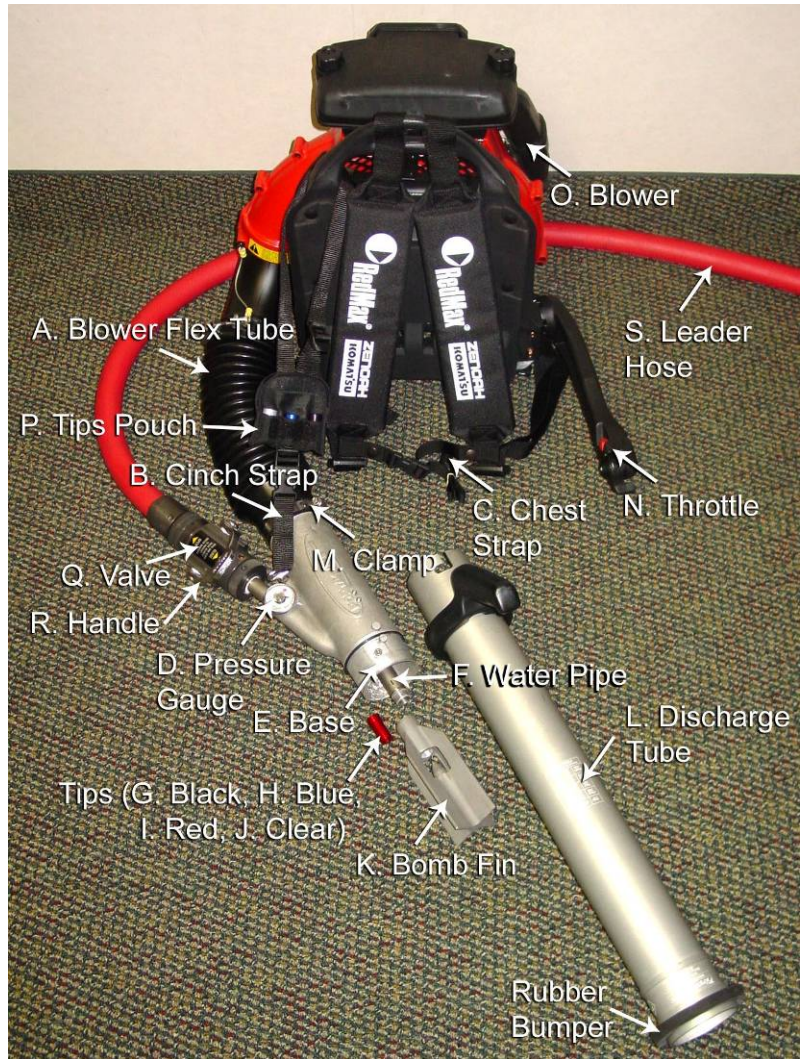
Consider Required Foam Type and Reach

Review Chart to select tip for desired performance

	Tip 1	Tip 2	Tip 3	Tip 4
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Parts Diagram:

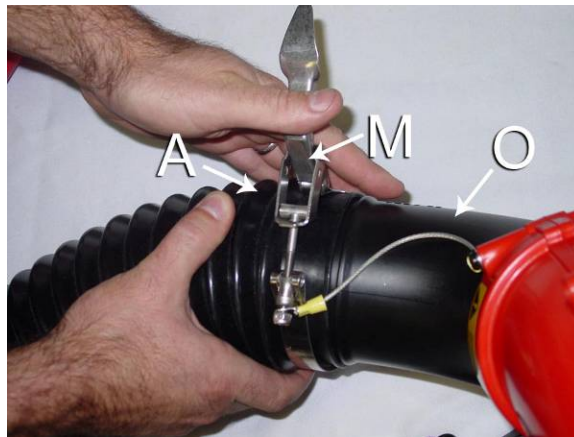


PART	PART #
A. Blower Flex Tube	1061600
B. Cinch Strap	1061000
C. Chest Strap	1061100
D. Pressure Gauge	1022060
E. Base	1021000
F. Water Pipe	1022000
G. Tip, Black	1051000
H. Tip, Blue	1051050
I. Tip, Red	1051100
J. Tip, Clear	1051150
K. Bomb Fin	1031000
L. Discharge Tube	1041000
M. Quick Clamp	1061020
N. Blower Throttle T4023-25000	1061500
O. Blower	1061500
P. Tip Pouch.....	1061050
Q. Valve, 1.5" NH	1022040
R. Handle.....	1022080
S. Leader Hose.....	1062000
T. Adapter, 1.5" NH x 1" NH.....	1061300
U. Eductor, 30gpm.....	1081000
V. Cabinet/Truck Mount.....	FSIPCMOUNT

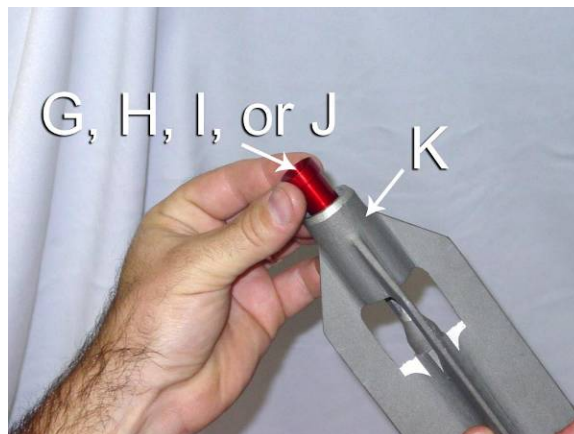
Assembly

Reference parts diagram.

1. Attach blower flex tube (A) onto blower(O) and snap on quick clamp(M) to lock.



2. Insert selected tip (G,H,I,orJ) into bomb fin(K).



3. Slide on discharge tube (L), line up two pins to lock.



4. Clip cinch strap (B) onto base(E) and attach snap buckle.



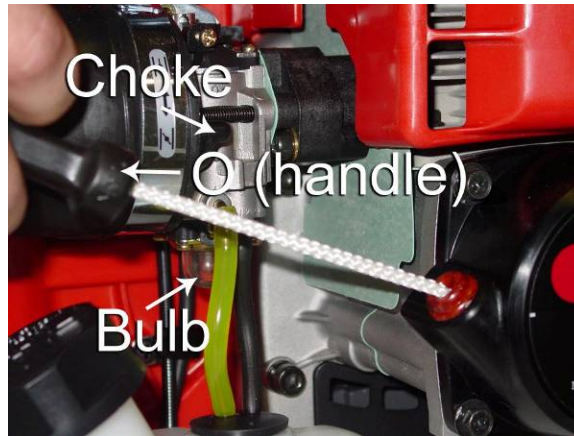
5. Install Elkhart Eductor on the chosen discharge outlet of the supply pump. If the outlet is bigger or different than 1" NH, install an adaptor to fit discharge to the 1" NH inlet of the eductor.



6. Run foam supply hose from barbed fitting on eductor to either a foam tank or supply bucket.
7. Attach a 1" NH hose of desired length from the male outlet of the eductor, to the female inlet of the Porta-CAFS.
8. Set desired foam percentage (.05 to 1% for Class A Foam, up to 6% for Class B Foam) on the bottom of the eductor.
9. Optimum pressure from pump is 200+ psi if possible. (min of 100 psi is required).
10. Install Blue tip in Porta-CAFS and operate unit as instructed above.

Operating Instructions

1. Turn on blower (O). Review Blower Operating Instructions for Safety Guidelines.



2. Open valve (Q,R) to start flow.



3. Adjust blower throttle (N) for optimal performance.



Additional Operating Information

Proportioner Use

Prepare Porta-CAFS® for use based on instructions.

Use a high quality, recommended foam.

Check the operating instructions of your on-board foam proportioning system.

Be sure the unit is properly calibrated.

Calibrating instructions should be included in the foam proportioner operating manual.

Select up to 1% for Class A Foam, 3% or 6% for Class B foam.

Follow instructions for Porta-CAFS® operation.



Batch Mixing

Prepare Porta-CAFS® for use based on instructions.

Use a high quality, recommended foam.

Use the water supply tank on board a truck or portable water supply tank.

Fill tank with a measured amount of water.

Calculate 1% for Class A foam or 3% to 6% for Class B foam.

Add that amount of foam to the water in the tank.

Turn on the pump.

RE-circulate the pump discharge back into the tank for one minute to mix the water/foam solution.

Close the re-circulating valve.

Open the valve to pump the water/foam solution to Porta-CAFS® hose.

Follow instructions for Porta-CAFS® operation.

Maintenance

To maintain Porta-CAFS®, flush Porta-CAFS® and all lines that have contained foam solution for at least 30 seconds with fresh water.

Follow Operating Guidelines for any other equipment used with Porta-CAFS®.

Clean unit with a mild soap and water solution.

Remove any minor scratches from nozzle with a light scotch brite pad.

Storage

Optional mounting brackets are available for on-board unit storage. Contact Firematic for additional information on mounting brackets.

Frequently Asked Questions

Q. What is the difference between Porta-CAFS® and a traditional truck mounted CAFS system?

A. Cost. Porta-CAFS® produces compressed air foam costing \$6 US per cubic ft of foam vs. traditional systems that cost upwards of \$250 US per cubic ft of the same foam.

Time. Porta-CAFS® is portable. Your apparatus does not have to be pulled out of service to install this system, saving that expense as well.

Simplicity. Fire Fighters have known about the benefits of CAFS for years. They are aware of the savings in water usage, the improved knock down times and increased fire fighter safety issues, but traditional systems have been burdened by their own complexity. Porta-CAFS® is the first and only user friendly CAFS system available. It is revolutionary because it does not require in-depth training courses and expertise to operate – or maintain. The simplicity of Porta-CAFS® is a major asset of this product.

Q. Is Porta-CAFS® a self contained unit?

A. Porta-CAFS® requires the water/foam solution to be fed to our nozzle via a 30 gpm eductor connected to the water/foam source.

Q. What kind of pump do I need to operate Porta-CAFS®?

A. The pump must be able to provide at least 100 psi at the Porta-CAFS® nozzle.

Q. What kind of foam can I use with Porta-CAFS®?

A. See the list of recommended foams in the Operating Instructions.

Q. Can I use any other types of foam other than the recommended brands?

A. Yes, but you must use a high quality foam in order to produce good quality CAFS.

Q. How can I change the quality of foam from wet to dry?

A. Porta-CAFS® allows the user to quickly change the amount of solution applied by selecting one of four tips enclosed with the system. The tips are mounted in a protective pouch on the cinch strap when not in use. Select a lower percentage of foam for wetter CAFS, a higher percentage of foam for drier CAFS. See the Foam Selection and Mixing Method Chart.

Q. How far can Porta-CAFS® throw the foam?

A. Maximum reach is 90' (27m). Increasing the pressure from the pump will increase your distance.

Q. Where can Porta-CAFS® be used?

A. Any where there is a fire. Structures, vehicles, boats, landscapes, etc..

Q. What kind of fires does Porta-CAFS® work on?

A. Porta-CAFS® works well on Class A and Class B fires. Sample video and photos of Porta-CAFS® in action can be found online at www.portacafs.com.

Q. What does Porta-CAFS® weigh?

A. 27 lbs maximum.

Q. How can I purchase Porta-CAFS®?

A. Call Toll Free in the US 1-888-434-7362 or visit www.portacafs.com to find your local dealer. Outside the US, visit www.portacafs.com for local dealers, email dhorton@firematic.com or call +631-924-3181.