

Fish Pediatric Compressor Nebulizer

Model 18090-FS, 18091-FS

Caution— Federal (U.S.A.) law restricts this device to sale by, or on the order of a physician.

Made in China. Latex Free.

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ON



OFF



Attention, consult instruction guide.

Alternating
CurrentType BF
Applied Part

Class II Equipment

Important Safeguards

When using electrical products, especially when children are present, basic safety precautions should always be followed. Read all instructions before using. Important information is highlighted by these terms:

DANGER	Urgent safety information for hazards that will cause serious injury or death.
WARNING	Important safety information for hazards that might cause serious injury.
CAUTION	Information for preventing damage to the product.
NOTE	Information to which you should pay special attention.

Read All Instructions Before Using

To reduce the risk of electrocution:

1. Always unplug this product immediately after using.
2. Do not use while bathing.
3. Do not place or store product where it can fall or be pulled into a tub or sink.
4. Do not place in or drop into water or other liquid.
5. Do not reach for a product that has fallen into water. Unplug immediately.



To reduce the risk of burns, electrocution, fire or injury to persons:

1. The product should never be left unattended when plugged in.
2. Close supervision is necessary when this product is used by, on, or near children or disabled individuals
3. Use this product only for its intended use as described in this guide. Do not use attachments not recommended by the manufacturer.
4. Never operate this product if:
 - a. It has a damaged power cord or plug.
 - b. It is not working properly.
 - c. It has been dropped or damaged.
 - d. It has been dropped into water.
5. Keep the power cord away from heated surfaces.
6. Never block the air openings of the product or place it on a soft surface, such as bed or couch, where the air openings may be blocked. Keep the air openings free of lint, hair, and the like.



7. Never use while drowsy or asleep.
8. Never drop or insert any object into any opening or hose.
9. Do not use outdoors. This product is for household use only.
10. DO NOT use this product in or near explosive atmospheres, or where aerosol (spray) products are being used.
11. DO NOT pump combustible liquids or vapors with the product or use in or near an area where flammable or explosive liquids or vapors may exist.
12. DO NOT operate this product in an oxygen enriched environment, i.e. oxygen tent or oxygen hood.
13. Use only in well ventilated areas.
14. Do not use this product with a DC to AC converter, or with any AC voltage and/or frequency other than specified.
15. Do not operate unit in a backpack or carrying bag.
16. Care should be taken when this product is used in the vicinity of other electronic equipment concerning the possible interference between them. They may need to be moved apart.
17. Use caution when plugging in and unplugging device. Do not allow jewelry or other metal items to contact plug.
18. Warning: This product contains small parts that may represent a choking hazard.
19. The device does not need to be calibrated.
20. Do not position the equipment so that it is difficult to operate.
21. To avoid strangulation and entanglement, keep power cord and air tubes out of reach of young children.
22. The air filter shall not be serviced or maintained while the compressor is in use.

NOTE This unit employs a temperature and/or current limiting device that will shut off the entire product should a malfunction occur or in the event of product misuse, abuse, or abnormal operation.

NOTE This is based on the thermal interrupt safety device that is integrated into the motor. As the unit runs it generates heat and gets warm. The thermal interrupt will cut power to the unit if the temperature inside gets to an unsafe level. Once the unit cools off it will work normally. If the unit is run for over 30 minutes continuously the thermal interrupt may trip which would stop the user's treatment. Some models of this appliance have a polarized plug (one blade is wider than the other). As a safety feature, this plug will fit in a polarized outlet only one way. If the plug does not fit fully in the outlet, reverse the plug. If it still does not fit, contact a qualified electrician. Do not attempt to defeat this safety feature. If repair or replacement of the cord or plug is necessary, contact your qualified Drive provider.

NOTE The exterior surfaces of the unit and the air outlet connector may become slightly warm to the touch during use. Warm air can also be felt exiting the vents on the sides of the case of the unit. This is normal.

Your doctor has prescribed a liquid medication to treat your respiratory condition. To best utilize this liquid medication, he has prescribed a Drive brand compressor nebulizer. Your Drive compressor nebulizer works to convert the medication to a high-quality mist of fine particles that penetrates deep into the lungs.

Be sure that you read and understand the information in this instruction guide. By following these simple instructions and the advice of your physician, your compressor will become an effective addition to your therapeutic routine.

Statement of Intended Use

The Drive compressor nebulizer includes an AC powered air compressor that provides a source of compressed air for home health care use. The compressor is used in conjunction with a jet (pneumatic) nebulizer to convert certain inhalable drugs into an aerosol form for inhalation by a patient. The device can be used with adult or pediatric patients.

What are Compressor Nebulizer Systems Used For?

People with breathing problems, such as Asthma, Chronic Obstructive Pulmonary Disease (COPD) or Cystic Fibrosis are often prescribed medicines that minimize or control symptoms of their disease. Compressor Nebulizer Systems are a means of delivering these prescribed medications to the lungs. These medications and the compressor nebulizer systems should be used as directed by a physician to maximize benefits. Compressor Nebulizer systems can be prescribed for use everyday or periodically as symptoms present themselves, such as the springtime when Hay Fever or Allergies are normally present.

How Does a Compressor Nebulizer Work?

Most medicines for use with a compressor nebulizer system are created in a liquid form. This liquid medication is placed in the “cup” of the nebulizer (please refer to this Instruction Guide for more information on the proper use of a nebulizer). The compressor, which is connected to the nebulizer by flexible tubing, generates a specific pressure and flow of air that essentially “drives” the nebulizer. The pressurized air produced by the compressor initiates the nebulizer’s ability to break down the liquid medication into a very fine mist. This mist, often referred to as an aerosol cloud, is then propelled out the nebulizer and inhaled into the lungs where the medicine is readily absorbed. Please consult your prescription for details on the amount of liquid medication that should be placed in the nebulizer. If you should have any questions about your medication or its use, please contact your physician or pharmacist.

How Do I Take a Treatment?

A nebulizer is the optimal delivery method of medication to the lungs. However, some users may find it difficult to use, especially very young children. In this case, an aerosol mask may be used. To ensure that the proper mask is utilized, please consult your home health provider or physician.

The most important aspect of taking a treatment is the patient's breathing pattern while inhaling the medication mist.

It should be slow and deep, all attempts should be made to sit up straight and breathe in deep.

A general rule of thumb is to attempt to breathe in so deeply that it feels as though the lungs are completely full of air and inhaling any additional air is impossible.

If possible, hold your breath for 1-2 seconds unless directed otherwise by your physician and then slowly exhale through the nebulizer mouthpiece or mask. Holding your breath for 1-2 seconds after inhaling the medication allows for optimal absorption of medication in the lungs.

Repeat this breathing pattern for the entire treatment.

The length of a treatment can last anywhere from 5 to 20 minutes, depending on the amount of medication and the performance of your compressor and nebulizer system. When you cannot see any medication in the nebulizer cup and the nebulizer has stopped producing a mist, the treatment has been completed. Turn off your compressor and follow the cleaning instructions found in this instruction guide.

If you have any additional questions regarding your equipment, medication, or treatment, please consult your physician.

Available Accessories

18254	Reusable Nebulizer (10/cs)
NEB KIT 500	Disposable Nebulizer Kit with mouthpiece, 7' tubing (50/cs)
NEB KIT 600	Adult Aerosol Mask, 7' Tubing (50/cs)
MASK 001A	Adult Aerosol Mask (50/cs)
MASK 001P	Pediatric Aerosol Mask (50/cs)
NEB KIT 700	Pediatric Aerosol Mask, 7' Tubing (50/cs)

How to Operate Your Compressor

- NOTE** Before initial operation, the nebulizer cup assembly should be cleaned following instructions described in the “Cleaning” section.
- WARNING** Before connecting the power cord, make sure the I/O (ON/OFF) switch is in the O (OFF) position.
The plug is also served to disconnect the device.

Daily Use Operation

CAUTION The Compressor is designed for intermittent use only. Do not operate it continuously for more than 30 minutes for a single use without turning it off and following a cooling period for least 30 minutes.

1. Before each use inspect the Compressor and nebulizer cup assembly for damage or wear, replace as needed.
2. Place the Compressor on a table or other flat stable surface. Be sure you can easily reach the controls when seated. Do not use this device on the floor.
3. With the power switch in the O (OFF) position, plug the power cord into an appropriate electrical wall outlet.
4. Connect one end of the tubing to the compressor air-outlet connector.
5. Assemble the nebulizer cup and add indicated medication to the nebulizer’s cup before use.
6. Attach the other end of the tubing into the air-inlet connector found at the bottom of the nebulizer cup.
7. Turn on the Compressor by pressing the power switch to the I (ON) position and begin treatment.
8. If treatment needs to be interrupted, simply press power switch to O (OFF) position.
9. When the treatment is complete, turn off the compressor by pressing the power switch to O (OFF) position and unplug the unit from the electrical outlet.
10. Always unplug this device immediately after use.



Equipment not suitable for use in the presence of a flammable anesthetic mixture with air or with oxygen or nitrous oxide. This device has no AP or APG protection not intended for use with oxygen or oxygen enriched atmospheres.

11. DO NOT use this product in or near explosive atmospheres, or where aerosol (spray) products are being used.
12. DO NOT pump combustible liquids or vapors with the product or use in or near an area where flammable or explosive liquids or vapors may exist.
13. DO NOT operate this product in an oxygen enriched environment, i.e. oxygen tent or oxygen hood.
14. Use only in well ventilated areas.

Safety Overload

NOTE Do not exceed 30 minutes of continuous operation.

NOTE This is based on the thermal interrupt safety device that is integrated into the motor. As the unit runs it generates heat and gets warm. The thermal interrupt will cut power to the unit if the temperature inside gets to an unsafe level. Once the unit cools off it will work normally. If the unit is run for over 30 minutes continuously the thermal interrupt may trip which would stop the user's treatment

1. The motor of this device has a built-in thermal overload protector. Should the motor overheat, the protector will automatically shut off the motor. Should this occur, turn the I/O (ON/OFF) switch to the O (OFF) position and allow the motor to cool down for approximately 30 minutes before turn it on again.
2. If the overload protector shuts off the motor frequently, you may have an unstable voltage situation.

Nebulizer Cleaning

All parts of the nebulizer, except tubing, should be cleaned according to the following instructions. Your physician and/or Drive provider may specify a certain cleaning procedure. If so, follow their recommendations.

To prevent possible risk of infection from contaminated medication, cleaning of the nebulizer is recommended after each aerosol treatment. Disinfecting is recommended once a day.



WARNING!

Clean After Every Use:

1. With power switch in the “ Off” position, unplug power cord from wall outlet.
2. Disconnect tubing from the air-inlet connector and set aside.
3. Disassemble mouthpiece or mask from cap. Open nebulizer by turning cap counterclockwise and remove baffle.
4. Wash all items, except tubing, in a hot water/dishwashing detergent solution. Rinse under hot tap water for 30 seconds to remove detergent residue. Allow to air dry.
5. For reusable nebulizer only, it can be cleaned daily in dishwasher using top shelf or by following the above cleaning procedure.

The Drive Reusable Nebulizer is dishwasher safe, but do not place any Drive Disposable Nebulizer parts in an automatic dishwasher; doing so could cause damage.



CAUTION!

Disinfect Daily

1. Using a clean container or bowl, soak items in three parts hot water to one part white vinegar for 30 minutes OR use a medical bacterial-germicidal disinfectant available through your provider. Be sure to follow manufacturer’s instructions carefully.
2. With clean hands, remove items from disinfectant solution, rinse under hot tap water, and air dry on a clean paper towel. Store in a zip-lock bag.

NOTE Do not towel dry nebulizer parts; this could cause contamination.

To prevent possible risk of infection from contaminated cleaning solutions, always prepare fresh solution for each cleaning cycle and discard solution after each use.



WARNING!

3. Keep the outer surface of the tubing dust-free by wiping regularly. Nebulizer tubing does not have to be washed because only filtered air passes through it.

NOTE The Drive Disposable Nebulizer will last at least 15 days and possibly longer, depending on usage. Proper cleaning will also help extend the life of the nebulizer. Because it is disposable, we recommend that an extra nebulizer be kept on hand at all times. The Drive Reusable Nebulizer is dishwasher safe and may be cleaned and reused for up to one year.

Compressor Cleaning

1. With power switch in the “Off ” position, unplug power cord from wall outlet.
2. Wipe outside of the compressor cabinet with a clean damp cloth every few days to keep dust-free.

Do not submerge in water; doing so will result in compressor damage.



Filter Change

1. Filter should be changed every 6 months or sooner if filter discolors.
2. Remove filter by grasping it firmly and pulling out of the unit. Discard old filter.
3. Replace with a new Drive filter. Additional filters should be purchased from your Drive provider.
4. Push new filter into position.



Do not reuse or wash filter or substitute any other material such as cotton for a Drive air-inlet filter. It will result in compressor damage.



Maintenance

All maintenance must be performed by a qualified Drive provider or authorized service center.

Electric shock hazard. Do not remove compressor cabinet. All disassembly and maintenance must be done by a qualified Drive provider.



Model	Description
18090-FS	Fish Pediatric Compressor Nebulizer with Disposable Nebulizer Kit
18091-FS	Fish Pediatric Compressor Nebulizer with Reusable and Disposable Nebulizer Kit

Size:	5.25 (W) x 6.75 (H) x 9.25 (D) in
Weight:	3.1 lbs
Operating Voltage:	120VAC \pm 10%, single phase, 60 Hz
Storage/Transport Temperature Range:	-25 to 70°C (-13 to 158°F),
Storage/Transport Humidity:	10 – 95%
Operating Humidity:	15 – 95% non-condensing
Operating Temperature Range:	10 to 40°C (50 to 104°F)
Maximum (no load) Flow Rate:	8 L/min.
Max Pressure:	33 psig / 230 KPa
Operating Pressure Range:	10 to 16 psig.
Operating Flow Rate:	higher than 4.0 L/min. minimum.
Operating Noise Level:	< 63 dBA

Equipment Classifications:

Protection against electric shock: Class II

Degree of protection against electric shock: Type BF

Equipment not suitable for use in the presence of flammable anesthetic mixture with air.

Not intended for use with oxygen enriched atmospheres such as oxygen hoods or tents.

*Conditions may vary based on altitude above sea level, barometric pressure, and temperature.

**Value determined with minimum flow rate through the nebulizer (20°C, sea level).

There are no hazardous materials used in the construction of this unit, therefore, there are no known risks associated with disposal of the equipment.

This product complies with the following electromagnetic compatibility standard:

IEC 60601-1-2

Please dispose of this nebulizer in accordance with local, municipal, state and federal law for electronic devices

Recommended separation distances between portable and mobile RF communications equipment and the Fish Pediatric Compressor Nebulizer 18090-FS and 18091-FS.

The Fish Pediatric Compressor Nebulizer is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the Fish Pediatric Compressor Nebulizer can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the Fish Pediatric Compressor Nebulizer as recommended below, according to the maximum output power of the communications equipment.

Rated maximum output power of transmitter W	Separation distance according to frequency of transmitter m		
	150 kHz to 80 MHz $d = 1.2 \sqrt{P}$	80 MHz to 800 MHz $d = 1.2 \sqrt{P}$	800 MHz to 2,5 GHz $d = 2.3 \sqrt{P}$
0,01	0.12	0.12	0.23
0,1	0.38	0.38	0.73
1	1.20	1.20	2.30
10	3.79	3.79	7.27
100	12.00	12.00	23.00

For transmitters rated at a maximum output power not listed above, the recommended separation distance in metres (m) can be estimated using the equation applicable to the frequency of the transmitter, where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer.

NOTE 1 At 80 MHz and 800 MHz, the separation distance for the higher frequency range applies.

NOTE 2 These guidelines may not apply in all situations. Electromagnetic propagation is affected by absorption and reflection from structures, objects and people.

7 limited warranty

Five-Year Limited Warranty on Compressor Parts

Your Drive brand product is warranted to be free of defects in materials and workmanship for five years of the original consumer purchaser.

This device was built to exacting standards and carefully inspected prior to shipment. This 5 year Limited Warranty is an expression of our confidence in the materials and workmanship of our products and our assurance to the consumer of years of dependable service.

This warranty does not cover device failure due to owner misuse or negligence, or normal wear and tear. The warranty does not extend to non-durable components which are subject to normal wear and need periodic replacement.

If you have a question about your Drive device or this warranty, please contact an authorized Drive dealer.

Save These Instructions