
OPERATING INSTRUCTIONS



SEQUENTIAL CIRCULATOR MODEL SC-3008

**Internal One Hour Timer
Details on Page 9**



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U.S. BASED MANUFACTURER

Congratulations on the purchasing of your

BIO COMPRESSION SYSTEMS

MODEL # SC-3008

Sequential 8 Circulator System

The durable, high quality material used in the manufacturing of this product will ensure you long lasting performance.

On rare incidences when problems occur, you can feel confident that your pump and garment are backed by the best warranty and customer service in the industry!

By simply dialing our toll free number for customer service







800-888-0908

warranty repairs or adjustments will be performed in a timely manner with minimal inconvenience to you







Should a warranty repair require an extended length of time, if available, a pump from our “loaner inventory” will be made available to you, so as to prevent any interruption in your treatment schedule.

The Model # SC-3008 Sequential Circulator is a manual (not software driven) sequential, pneumatic compression device intended for either primary or adjunctive treatment of primary or secondary lymphedema. The device is also intended for additional or alternate treatment of venous insufficiency and venous stasis ulcers associated with venous insufficiency as well as general treatment for swelling of the extremities. The device is intended for both home and hospital use.

CAUTIONS AND PRECAUTIONS

-  **CAUTION:** Federal law restricts this device to sale by, or on the order of, a licensed physician.
-  **CAUTION:** High pressure should be set with caution on patients with peripheral arterial occlusive disease.
-  **CAUTION:** To prevent the potential for reverse pressure and retrograde flow, do not adjust the gradient pressures without physical supervision.
-  **CAUTION:** If you experience pain or unusual symptoms during use, discontinue treatment and consult your physician immediately.
-  **CAUTION:** In the event of a power failure, simply unplug the garment from the pump to release any residual pressure in the garment.
-  **CAUTION:** The system is not intended for use during sleep.

SYMBOL DEFINITIONS

-  = "WARNING" Risk of Fire
-  = "DANGER" Risk of Explosion
-  = "CAUTION" Risk of Electrical Shock
-  = "REFER TO DOCUMENTATION BEFORE USING AND SERVICING"
-  = "TYPE B—APPLIED PART"
-  = "CLASS II PROTECTION"

CONTRAINDICATIONS

- INFECTIONS IN THE LIMB WITHOUT APPROPRIATE ANTIBIOTIC COVERAGE, INCLUDING CELLULITIS
- THE PRESENCE OF LYMPHANGIOSARCOMA
- DEEP VEIN THROMBOSIS (DVT)
- INFLAMMATORY PHLEBITIS OR EPISODES OF PULMONARY EMBOLISM
- CONGESTIVE HEART FAILURE

GENERAL EQUIPMENT SPECIFICATIONS

Model # SC-3008 - Segmental 8 Circulator

Segmented, Sequential Pneumatic Compression Device with Calibrated Gradient Pressures

DIMENSIONS: H X W X D in INCHES 5.5 x 12 x 8

WEIGHT: 8 lbs

INFLATION: 44 SECONDS

DEFLATION: 5.5 SECONDS

CYCLE TIME: 5.5 SECONDS / CHAMBER

("Electrical Specifications" under separate section)

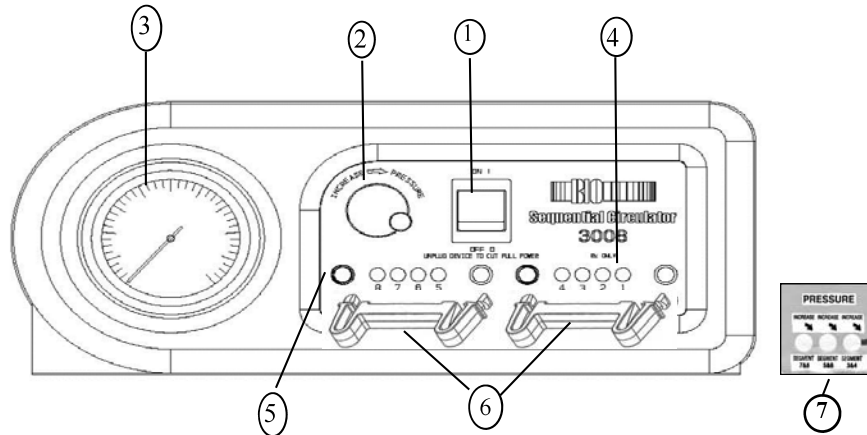
PACKAGING, SHIPPING & STORAGE

The Model# SC-3008 is shipped in a specially designed (275 test) corrugated re-usable carton with protective end-caps which envelope each end of the pump, thereby suspending the pump on all four sides within the carton. This packaging design prevents damage to the pump (which would ordinarily be sustained) when the carton is thrown or handled roughly by the carriers.

NOTE: The carton and end-caps should be saved for re-use each time the pump is either transported or shipped. When transporting, for added convenience, the carton is equipped with a fold-up handle assembly"

The device should be stored in a secure area, ideally 60 to 80 degrees (F), however, short term storage or shipping with exposure to temperatures of -20°F to +110°F will not harm the unit. To maximize the unit's life, however, time should be allowed for temperature adjustment prior to use, when moving to areas of contrasting temperature. It is also advisable to avoid "extreme" heat (+110°F) or cold (-20°F) when long term storage is contemplated.

CONTROLS & INDICATOR PUMP



1) LIGHTED ON/OFF SWITCH

2) PRESSURE ADJUSTMENT KNOB, LOCKING

To prevent against involuntary changes in the pressure setting due to inadvertent movement of the Pressure Adjustment Knob, a “locking” Pressure Adjustment Knob has been implemented on all model pumps to provide for safer, more effective therapy.

After the pressure has been set, simply by turning the smaller “inner locking knob” clockwise to tighten, the pressure adjustment knob will now remain secure in place. Turning the “inner knob” counter -clockwise will enable the “pressure adjustment knob” to again turn free without resistance.

CAUTION: CARE MUST BE TAKEN NOT TO “OVER-TIGHTEN” THE INNER LOCKING KNOB AS ONLY MINIMAL FORCE IS REQUIRED TO LOCK PRESSURE SETTING IN PLACE.

NOTE: CHANGING THE INNER KNOB TO A 1/2” x 8/32” ALLEN HEAD SET SCREW WILL UPGRADE THIS FEATURE TO TAMPER PROOF.

3) PRESSURE GAUGE (mmHg)

4) AIR SUPPLY PORTS (NUMBERED)

PORTS #1-#4

PORTS #5-#8

5) AUXILIARY RECEPTOR PORTS FOR LATCH CONNECTOR BAR.

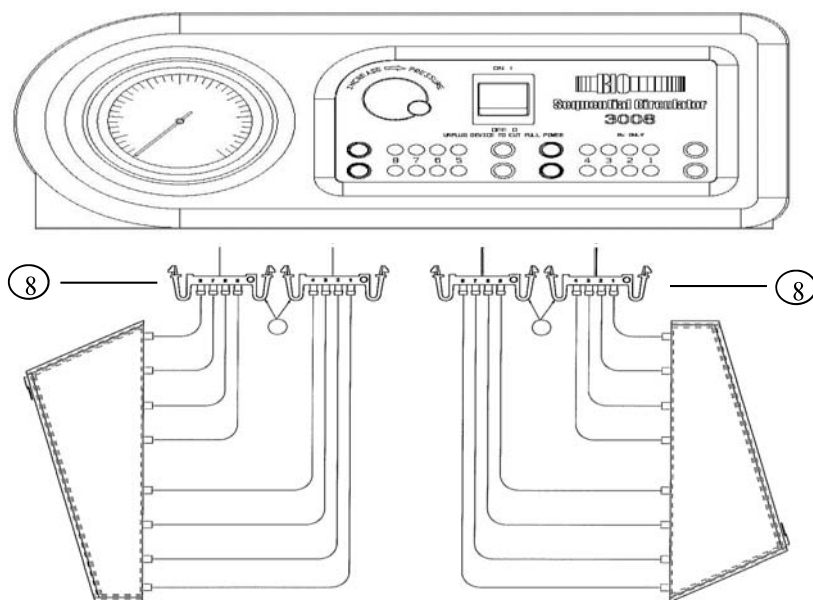
6) CAPPED AIR SUPPLY PORTS FOR LATCH CONNECTOR BLOCKER BAR

PORTS #1-#4

PORTS #5-#8

7) ADJUSTABLE GRADIENT PRESSURE “ OVERRIDE” (Located on Underside of Pump)

UPPER EXTREMITY GARMENT WITH TUBING PLUGS ATTACHED



BILATERAL TREATMENT APPLICATION

When bilateral treatment is required, remove the Latch Connector Blocker Bar from Auxiliary Air Supply Ports (#6 under controls & indicators) and attach the Latch Connector Bar in the same manner.

ADJUSTABLE GRADIENT PRESSURE

NOTE: When a pressure adjustment is made to any individual chamber, one must be conscious of the overall gradients across all chambers so as not to create reverse gradients.

8. LATCH CONNECTOR BAR (Numbered/White Circle (O))

ELECTRICAL SPECIFICATIONS

The Model # SC-3008, Sequential Circulator's electrical pump and components are "double insulated" and thus do not require a "protective ground." As a result, the Model SC-3008 is equipped with an 18 gauge, 2-wire, 10 ft. power cord, secured through the pump casing with a Heyco strain relief bushing.

Affixed to the rear exterior of the pump is a 3"x 3" Foil Label containing the "Electrical Specifications" printed in contrasting black type. These specifications are printed in both English and French and contain the following:

ELECTRICAL RATING: 120 VAC, 60Hz, 0.5 A

CARACTERISTIQUES ELECTRIQUES: 120 V c.a., 60 Hz, 0, 5 A

When servicing, use only identical replacement parts. Do not remove cover. Refer to qualified service personnel.

Lors des reparations, utilisez, exclusivement des pieces de rechange identiques. No retirez pas le couvercle. Consultez un technicien qualifie.

WARNING: REPLACE FUSE WHERE MARKED

ADVERTISSEMENT: REMETTRE LE FUSIBLE A L'ENDROIT INDIQUE

Fuse rated 3 Amps Time Delay, 250 VAC

Fusible de 3 A a retardement, 250 V c.a.

Continuous Operation with Intermittent Loading

TYPE B—APPLIED PARTCLASS II

Pie'ce Applique'e—Type B CLASSE II

ETL 9801681

CONFORMS TO
CONFROM A

Authorized service personnel, in addition to possessing proper tools and testing equipment have access to electrical schematics, calibration criteria and an inventory of identical replacement parts.
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CLASSIFICATION

- 1.) Class of protection against electrical shock..
CLASS II EQUIPMENT
- 2.) The degree of protection against electric shock..
APPLIED PART—TYPE B
- 3.) Mode..
CONTINUOUS OPERATION WITH INTERMITTENT LOADING
- 4.) According degree of protection against ingress of water..
IPXO

FUSE REPLACEMENT

Occasionally power surges, etc. or normal age can result in a blown outer safety fuse located in the rear of pump, adjacent to the power cord.

The safety fuse may be replaced by the user or caregiver, provided it is replaced with an identical type (T3AL 250V).

Prior to removal of fuse, disconnect power cord from socket. While pushing inward on fuse cap, turn counter clockwise to release cap and remove fuse. After placing new fuse in cap slot, push cap and fuse inward and turn clockwise to lock in place.

NOTE: The outer safety fuse is the only item serviceable by someone other than a Bio Compression Systems technician at the factory. Bio Compression Systems technicians have been trained specifically for the manufacturing and repair of all Bio Compression Systems products.

NOTE: Having no “electromagnetic” or “radio frequency” signal sensitive type components, this device neither generates, nor is it affected by any of this of interference. Further, its accuracy remains consistent in the presence of such devices emitting this type of interference.

PUMP ENCLOSURE

The pump enclosure is constructed of “Cyclac” which is a trademark of General Electric.

UL FLAME RATING: Under file #E47016, The UL Test method of UL 94, @ 23°C, resulted in a Flammability Rating of (2.3 VO)

UNPACKING EQUIPMENT

SEQUENTIAL CIRCULATOR

By laying carton on its side, slide pump out with protective end caps still attached. After removing pump from carton, protective end caps may be detached by gently pulling off each side.

NOTE: Be sure to SAVE carton and end caps for future transporting or shipping. When transporting, the carton is equipped with “fold-up” handles for easy carrying.

SLEEVE/GARMENT

Remove sleeve from package and unroll tubing section which is permanently attached to garment with tubing plug attached to the end.

OPERATING INSTRUCTIONS

Having familiarized yourself with the controls and features of this equipment, you are now ready to begin your treatment according to your physician's prescribed course of therapy.

1. Make sure that your circulator is plugged into a safe, properly secured, 110 V, AC outlet.
2. Place unit on a sturdy table or other type surface close to where you will be sitting. The unit has non-slip-rubberized feet on the bottom, however placing paper or other items underneath may defeat that purpose, causing unit to slide off of surface.
3. The Model #SC-3008 operates at a faster inflation cycle per chamber which allows less time for setting or adjusting the pressure in chamber #1 (the only chamber in which the pressure should be set). Once the pressure has been set, the pump automatically adjusts for slightly lower pressures in each chamber as it sequentially inflates each chamber in a distal to proximal direction. In preparation to adjust or set the pressure, to maximize available time, you should first loosen the inner locking knob so that the pressure adjustment knob can immediately be adjusted without resistance. Observing the gauge needle will enable you to set the desired pressure (turning the knob clockwise to raise the pressure and counter clockwise to lower it).

SETTING THE PRESSURE

The physician is required to prescribe these settings, but general guidelines are listed below:

60mmHG is the general rule of thumb for most patients. However, other circumstances may require adjustments to the compression used.

Presence of fibrotic tissue may require as much as 80mmHG in order to break up the fibrotic tissue and achieve reduction. Once the tissue is soft, the compression can be readjusted to 60mmHG.

Patients with a history of Congestive Heart Failure, which is controlled with medication should never be in a flat position while pumping. They should be in a reclined position with elevated legs during treatment. Their treatment regimen duration may be divided into twice a day 30 minutes per treatment.

Patients with a history of Deep Vein Thrombosis with or without a filter may require less compression. These patients will generally tolerate 40mmHG. These patients with a filter may need to divide their treatment into twice a day, 30 minutes per treatment. It is suggested that the provider obtain a Negative Doppler study from the physician for their records.

All compression settings should be discussed with the physician. It is ultimately his/her responsibility to prescribe the setting and it should be written on the prescription upon referral.

Every patient is unique and communication with the physician is important when setting pressures.

NOTE: Remember, the pressure adjustment must be made before the pump cycles to chamber #2. Should this occur, the pump must be re-set to inflation of chamber #1.

4. Take the LATCH CONNECTOR BAR which is located at the end of the tubing on your garment. Holding in one hand with the numbers facing up, squeeze ends together to line up (1 to 1) & (4 & 4) to Air Supply Ports (#4) then push onto AIR SUPPLY PORTS (#4). You should hear a click when fully engaged.
5. Repeat the previous steps to attach the LATCH CONNECTOR BAR (#8) to remaining AIR SUPPLY PORTS (#4) if using more than one garment.

6. Unzip sleeve/garment gently down to bottom stop (zipper does not separate). Place garment onto arm or leg and zip up to top of garment.
7. Press PUMP SWITCH (#1) up to the “ON” position. Allow two to three complete inflation / resting cycles before the garment reaches its pre-set therapeutic pressure.
8. As each chamber of the garment inflates, the PRESSURE GAUGE (#3) will dip down momentarily then return to reflect the actual pressure in each chamber. This will continue as each chamber becomes pressurized with each cycle.

INTERNAL ONE HOUR TREATMENT TIMER

The Model #SC-3008 Sequential Circulator is equipped with a one hour internal treatment timer which automatically begins at the start of your treatment with the pump/controller shutting off once the one hour treatment time has been reached.

After taking a full one hour treatment, the pump/controller will automatically shut itself off. Note that although the switch light will go out, the switch itself will remain in the “On” position. As a result, prior to taking your next treatment, you must first flip the “On/Off” switch down to the “Off” position, wait at least 10 seconds (enabling the pump to again re-set itself for another one hour treatment cycle), then flip the switch up again to the “On” position, at which time you will note that the switch will light as you begin your next treatment.

END OF TREATMENT

When your treatment time is completed, press the PUMP SWITCH (#1) down to the “OFF” position.

As noted earlier, although the pump shuts off, the switch may remain lighted until the timer completes its cycle, at which time it will automatically shut off. Unplugging the power cord at this point will cut total power to device.

Once the light has shut off, it is also safe should you desire, to remove the garment.

1. Squeeze Latch Connector Bar (#8) and pull outward to remove garment from pump.
2. First gently bend your arm or leg (depending where garment is located) to release some air from chambers.

3. Continue to assist in the evacuation of air from garment, working from top to bottom.
4. Once the garment feels loose enough, you can unzip the garment all the way to bottom and remove.

NOTE: Repeat above steps if bilateral garments are used!

ADJUSTING GRADIENT PRESSURES

1. Model # SC-3008 Sequential Circulators provide total Calibrated Gradient Pressure.
2. All gradients have been carefully calibrated at the factory resulting in the highest pressure in chambers #1 & #2 graduated down to the lowest in chambers #7 & #8.
3. The main PRESSURE ADJUSTMENT KNOB (#2) sets the pressure for sections #1 & #2 of the sleeve. As it is adjusted, it will also raise or lower in proportion, the remaining sections.
4. In the unlikely event you would wish to change the gradient settings calibrated at the factory, it is possible to do so by using the “over-ride” adjustments (#8) on the underside of the pump. (See “Overriding Pre-set Gradient Pressures” next page)
5. We described earlier how the Pressure Gauge responds to filling pressures with a brief “dip” before raising back up to the actual pressure.

NOTE: Repeat above steps if bilateral garments are used!

OVERRIDING PRE-SET GRADIENT PRESSURES

1. A small screw driver is the only tool needed to adjust the gradient pressures.
2. If you turn the pump on its side, you will notice underneath, three screw ports labeled #3&4, #5&6 and #7&8, each having a directional arrow indicating the way in which the pressure is increased.
3. It only takes a very small turn of the screw to adjust as you are adjusting (mmHg) as reflected on the gauge.
4. With the pump on its side and while running, observe the gauge needle to set the desired pressure.

WARRANTY INFORMATION

You can feel confident that your product is backed by the best warranty in the industry covering any and all malfunctions (including parts and labor) resulting from component and/or manufacturing defects.

Compression Pumps = 3 years from date of purchase / invoice

Sleeves/Garments = 1 year from date of purchase / invoice

NOTES: _____

Serial Number: _____

Date Purchased: _____

Local Representative/Dealer: _____

REPAIR SERVICE

1-800-888-0908

BIO COMPRESSION SYSTEMS, INC.

120 West Commercial Ave., Moonachie, NJ 07074

www.biocompression.com

MAINTENANCE AND STORAGE

Exterior Pump Case Cleaning Instructions:

1. Clean the exterior case and tubing with a damp (not wet) cloth using mild soap and water solution once per month or as needed.



WARNING!



- **Only an authorized technician may open the pump**
- **Before cleaning, unplug power cord from electrical outlet**

GARMENT CLEANING/DISINFECTING INSTRUCTIONS:

Disconnect garment from device.

2. Open garment to expose all sides either by separating Velcro type hook and loop or by unzipping (depending on type of garment).

WARNING!



- **Do not allow liquids to enter the pump, as this can present an electrical hazard**



- **Always allow the pump to dry before using**
- **Do not use bleach on the pump**

3. Cleaning solution should consist of 1/3 cup of laundry detergent per 1 gallon of warm tap water. Use either a large sink or plastic tub able to hold enough solution (depending on size and quantity of garments) to completely submerge the garment leaving the latch connector bars out of the water.
4. Garment should be soaked for 30 minutes with mild agitation every 5 to 10 minutes while keeping it below water surface.
5. Thoroughly rinse garment with warm tap water and allow to air dry.



WARNING! Never allow the Latch Connectors to be submerged into the water. If water enters the inside of the garment, damage may occur to the device.

6. Harder to remove soil on surface of garment may require additional washing by hand with a clean towel while submerged. Avoid using any abrasive materials such as scrubbing pads or chemicals that could cause damage to the exterior surface of garment.
7. Re-Submerge garment for 30 minutes (with exception of tubing connectors) in solution consisting of 1 cup of bleach per 1 gallon of warm tap water, again agitating garment every 5 to 10 minutes while keeping garment below water surface. Rinse garment thoroughly with warm tap water and allow to air dry. This completes the disinfecting step.



WARNING! DO NOT place garment in washing machine.



WARNING! DO NOT use the tubing or valves as “handles” for carrying, handing or storing garment.

**OTHER BIO COMPRESSION SYSTEMS' PRODUCTS
ALSO AVAILABLE:**

SEQUENTIAL CIRCULATOR MODEL 2004 & 2004-FC

SEQUENTIAL CIRCULATOR MODEL 3004 & 3004-FC

SEQUENTIAL CIRCULATOR MODEL 2008

THE BIOCRYO SYSTEM

MULTI-FLO DVT COMBO PROPHYLAXIS SYSTEM

BIOARTERIAL PLUS
(ARTERIAL BLOOD FLOW ENHANCEMENT SYSTEM)

COMPRESSION THERAPY GARMENTS
INCLUDING OUR
CUSTOM GARMENTS

BIO COMPRESSION SYSTEMS

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