



CircuFlow®

CircuFlow™ 5150 Series
Sequential Compression Device

Operating Instructions

 **DEVON**
MEDICAL PRODUCTS

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The Model 5150 - Sequential Compression Device














Indications:

The **CircuFlow™ 5150 Series Sequential Compression Device** is a compression device based on sequential pneumatic compression technique which is intended for the treatment of the following conditions:

- Lymphedema
- Venous stasis ulcers
- Venous insufficiency
- Peripheral edema

The device is safe for both home and hospital use.

Description of Various Symbols:

| | |
|--|---|
|  | ATTENTION: Consult ACCOMPANYING DOCUMENTS. This symbol is used to direct the user to refer to the documentations for additional information regarding the system use or description. |
|  | Type BF applied part. |
|  | Class II Equipment. |
|  | Dangerous Voltage Electrical shock hazard. Disconnect LINE CORD before servicing; refer servicing to qualified service personnel. |
| IP₂₁ | Protected against solid foreign objects of 12.5 mm and greater and vertically falling water drops. |
| <u>SLO-BLO</u> | Slow acting (time delayed) fuse. |
|  | Prescription Use Only |
|  | Date Of Manufacture |
|  | Serial Number |
|  | Keep Dry |
|  | Waste Electrical Goods Recycled |
|  | Authorized Representative in the European Community |
|  0123 | Conforms with the Medical Device Directive (93/42/EEC) and has been subject to the conformity procedures laid down in the council directive |
|  | Manufacturer |
|  | Catalog / Model Number |

Contraindications:

Compression **IS NOT** recommended in the following conditions:

- Infections in the limb, including cellulites without appropriate antibiotic coverage
- The presence of lymphangiosarcoma
- Deep vein thrombosis (DVT)
- Inflammatory phlebitis or episodes of pulmonary embolism
- Congestive heart failure

Any local conditions in which garments would interfere, for example:

- Untreated, infected wounds
- Recent skin graft
- Gangrene
- Dermatitis

General Equipment Specifications:

| | |
|--------------------------------------|--|
| DIMENSION: | 10" × 9.5" × 4.5" (W x D x H) 25cm × 24cm × 11cm (W x D x H) |
| WEIGHT: | 5.5lbs or 2.5kg |
| INFLATION: | 60 SEC |
| DEFLATION: | 12 SEC |
| CYCLE TIME: | 15 SEC/CHAMBER |
| TREATMENT TIME: | 0.5 – 3 hours |
| PRESSURE RANGE: | 20 – 80mmHg |
| SLEEVE PREFILL: | To 10mmHg |
| ELECTRICAL: | 5150: 120 VAC, 60 Hz, 45 VA MAX 5152: 220 VAC - 240 VAC, 50 Hz, 45 VA MAX |
| FUSE RATING: | 250 VAC, 1.0 AMP, SLO-BLO |
| APPLIED PART: | TYPE BF |
| PROTECTION AGAINST ELECTRICAL SHOCK: | CLASS II |
| OPERATION MODE: | CONTINUOUS OPERATION |
| PROTECTION AGAINST WATER: | IP21 |

Environmental Conditions:

| Temperature: | |
|------------------------|------------------------------|
| Operating Temperature: | 41°F (5°C) – 104°F (40°C) |
| Storage Temperature: | -13°F (-25°C) – 158°F (70°C) |
| Humidity: | |
| Operating Humidity: | 15% – 93% |
| Storage Humidity: | < 93% |
| Atmospheric Pressure: | |
| Operating Pressure: | 70 kPa – 106 kPa |
| Storage Pressure: | 50 kPa – 106 kPa |

Device Description and Operating Principle:

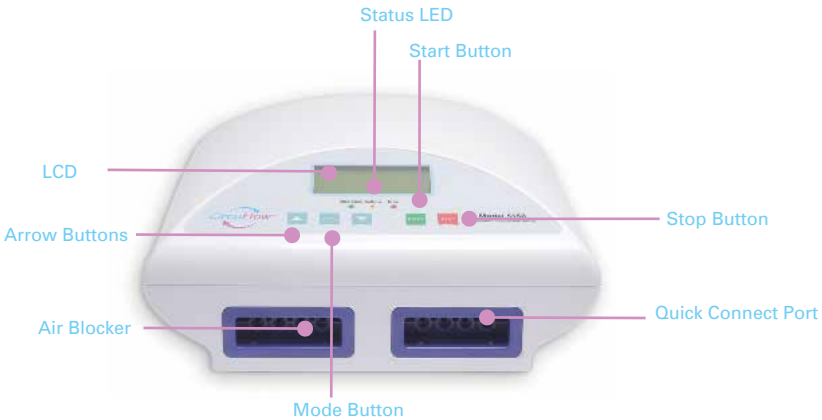
The CircuFlow™ 5150 Series Sequential Compression Pump is a gradient compression pneumatic device used for treatment and management of venous or lymphatic disorders. The application of gradient compression is effective by increasing blood flow and encouraging extracellular fluid clearance. The system consists of a device and a pair of four-chambered garments. The device provides cycles of compressed air at certain adjustable pressures, which sequentially inflates the garment from distal to proximal.

Package Contents:

- 1 CircuFlow™ 5150 Series Sequential Compression Device with attached power cord
- 1 CircuFlow™ 5150 Series Sequential Compression Device Operating Instructions
- 1 Blocker for use during unilateral therapy
- 1 Warranty Registration Form

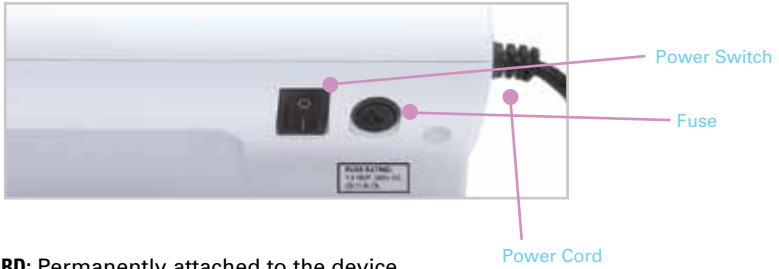
Illustration of Device Panel:

1. Front Panel:



- **LCD SCREEN:** Indicating the real-time pressure in each chamber, therapy time and error information.
- **ARROW BUTTONS:** The user can navigate through the setting selections to adjust the pressure and therapy time by pressing these buttons.
- **MODE BUTTON:** With this button the user can access the settings. By holding the button down for 5 seconds the user can lock the settings to prevent unwanted changes. During therapy, the user can see the time remaining in the treatment for 10 seconds by pressing this button.
- **STATUS LED:**
 - The OPERATING LED (green) shows the machine is on and receiving power.
 - The SETTING LED (yellow) shows that you are in the setup menu.
 - The ERROR LED (red) shows there was a problem while running the device.
- **START/STOP BUTTON:** These two buttons allow the user to start or stop the treatment sessions. Under the emergency status, press "STOP" key to release the air pressure.
- **QUICK CONNECT PORTS:** The external port that matches with the detachable quick connectors on the garments for connection purpose.
- **AIR BLOCKER:** The blocker is used to block the air passage.

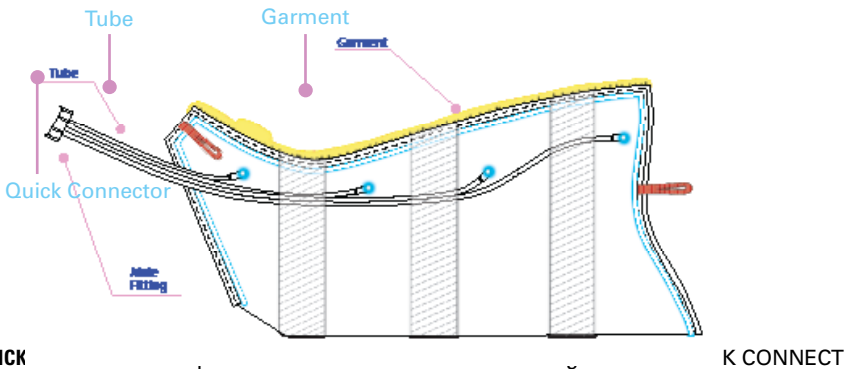
2. Side Panel: Side panel contains On/Off switch, fuse, and power cord.



- **POWER CORD:** Permanently attached to the device.
- **FUSE:** One(1) slow acting (time delayed) fuse inside for protection against electrical short circuit.
- **MAIN ON/OFF POWER SWITCH:** Power can be turned on or off by this switch.

3. Four Chamber Garment:

The segments within the garments are constructed to prevent 'ridging.' (Ridging occurs if there is a gap between two compressed areas of tissue; tissue is forced towards the gap causing a creased area with restricted blood flow.) The design of the garments ensures high patient comfort and compliance.



- **QUICK PORT** on the front panel of the system, ridged side facing up when connecting to the device.
- **TUBE:** Air guidance.
- **GARMENT:** Applied part for treatment. With four separated chambers.

Operating Instructions:

1. UNPACKING EQUIPMENT

- 1.1 Open the shipping box and lift the device up and out of the box.
- 1.2 Remove the protective foams and remove the device from the plastic bag.
- 1.3 Remove the garment from the plastic bag and unroll the tubes. Unfold the garment and spread it flat.

2. OPERATING PREPARATION

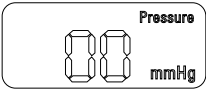
- 2.1 Place the device on a flat and stable surface in close proximity to where the patient will be resting.
- 2.2 Plug the device into a safe outlet. For the 5150, make sure it is a 120 VAC, 60 Hz outlet. For the 5152, make sure it is a 220 VAC - 240 VAC, 50 Hz outlet.
- 2.3 Attach left and/or right QUICK CONNECTORS of the garment to the QUICK CONNECT PORTS which are located on the front panel of device. During a single garment session (i.e. left only or right only) insert the AIR BLOCKER into the unused QUICK CONNECT PORT.
- 2.4 Putting the garment on: a) for LEG GARMENTS, unzip the garment all the way to the end. Place the foot at the bottom end of the garment and pull up the zipper while supporting the garment to wrap around the leg; b) for ARM GARMENTS, slide the arm through the internal cavity of the garment.


3. TREATMENT

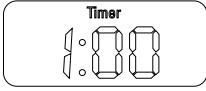
There are 2 treatment options with this device:

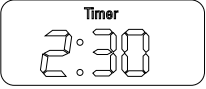
- **FACTORY DEFAULT:** The device begins in this mode providing 40mmHg pressure on the distal chamber with a 7% gradient of pressure for a 60 minute treatment time with a 60 second cycle time.
- **CUSTOM TREATMENT:** The device allows the user to set the pressure in chamber 1 and the treatment time. The rest of the chambers will run at a 7% gradient pressure lower than the user set pressure in chamber 1.

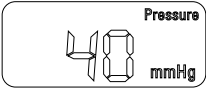
3.1 Press MAIN POWER SWITCH up to "ON" position which is located on the right side panel. The green power indicator on the front panel will then illuminate.

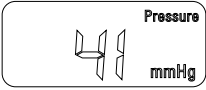
3.2  Upon this display the user can directly push START to run the device on Factory Default. If custom treatment is desired, continue to 3.3 – 3.8.


3.3  Push the MODE, UP, and DOWN BUTTON to set Custom Treatment parameters: Time and Pressure.

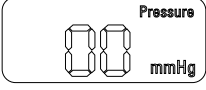
3.4  Push the MODE BUTTON for 5 seconds to access the first parameter - Timer.

 Increase or decrease the time by pushing the up or down ARROW BUTTONS, increments of 30 mins. Push MODE BUTTON to confirm the timer setting.


3.5  Push the MODE BUTTON again to access the second parameter - Pressure.

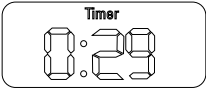
 Increase or decrease the Pressure by pushing the up or down ARROW BUTTON, increments of 1 mmHg. Push MODE BUTTON to confirm pressure setting.

3.6  Push MODE BUTTON to take you to the Total time display. This shows the total cumulative time this machine has been used for treatment.

3.7  Push the MODE BUTTON to return to the default display.

3.8  Push the green START BUTTON to start your treatment.

3.9  Push the red STOP BUTTON to end your treatment and vaccuum the air out of your sleeve.

3.10  Push the MODE BUTTON during treatment to display the time remaining in the treatment for 10 seconds.

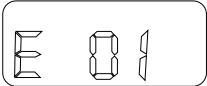
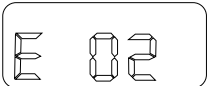
4. END OF TREATMENT

- 4.1 Each treatment will end after its set treatment time has elapsed. The user can also end the treatment at any time during a treatment session by pressing the STOP button on the front panel.
- 4.2 After the treatment, the device will vacuum air from the garment for 3 minutes so that it will facilitate the user to easily remove the garment. You will hear a beep sound when the vacuum is completed.
- 4.3 The garment should be loose enough by now so you can unzip the garment.
- 4.4 If the garment has not deflated enough to easily remove, press STOP to deflate for an additional 3 minutes.
- 4.5 After vacuum beep, press the POWER SWITCH on the right side to the OFF position.
- 4.6 Once the power indicator light is off, it is safe to remove the garment.
- 4.7 Pull out plug to isolate the circuits electrically from the supply mains on all poles simultaneously.

5. NOTE

- 5.1 The device inflation time is 60 seconds for 4 chambers, then the device stops and releases air from chambers for 12 seconds.
- 5.2 Device comes with a factory setting providing a 7% gradient pressure (e.g., sequential inflation of distal to proximal, with distal chambers inflated to a greater pressure than the proximal ones).
- 5.3 Treatment time can be set for operating from 0.5 – 3 hours in increments of half an hour.
- 5.4 An internal speaker gives reminders when device is ready to start and when treatment is finished.

6. ERROR CODES

- 6.1  When an error occurs the device will light a red LED and a buzzer will sound. Error code 01 indicates the pressure is too high. This can occur if there is a kink or other obstruction in the tubing connecting the sleeves.
- 6.2  Error code 02 indicates the pressure is too low. This can occur if there is a leak and the sleeves can not fill properly. A leak may be caused by a hole in a garment, or if the quick connectors are improperly connected.

Troubleshooting:

If the system fails to operate when plugged in and switched ON, check the fuse on the back of the housing. Unplug the system and remove fuse holder or contact your local authorized dealer for further information or advice.

Important: To protect against fire hazard, replace blown fuse with identical type and rating (1.0AMP 250VAC SLO-BLO). If the fuse blows again, return the pump to dealer for service.

Caution: There are no user serviceable parts inside the system. There is an electrical shock hazard if the pump assembly is disassembled. Refer all service to qualified personnel.

Caution: Keep away from environment of CT or MRI

Caution: Keep away from explosive or flammable anesthetic gas

Detaching Quick Connector:

Press down the snap lock on the quick connector, pull out with a light force, the quick connector can be detached from the device with the garment.

The quick connector can also be easily reconnected. Face the ridged side of the snap lock up and aim the quick connector towards the quick connect port. Push the quick connector with a light force towards inside until you hear a click indicating the proper positioning of the connector.

NOTE: The quick connectors should only be detached for maintenance and cleaning of the garments. This activity should generally be handled by medical professionals. Home users are not recommended to operate on the quick connectors.

Fuse Replacement:

The safety fuse on the right side panel of the device can sometimes blow for different reasons such as a power surge or the normal aging of the electronic components. The safety fuse is located next to the power switch.

When occasional fuse damage does happen, a medical professional can replace the fuse as long as a part that has the following parameters is ordered **(1.0 AMP 250VAC SLO-BLO)**.

While pushing inward on fuse cap, turn counterclockwise to release cap and remove fuse. After placing the new fuse in the cap slot, push cap and fuse inward and turn clockwise to secure.

NOTE: The outer safety fuse is the only item serviceable by someone other than a Devon Medical, Inc. technician. Devon Medical Products technicians have been trained specifically for the manufacture and repair of all Devon Medical Products products including this device.

Device Cleaning Instructions:

The outside pump casing is made from plastic and can be cleaned using a soft cloth and mild detergent or water.

NOTE: Never immerse device in water or apply detergent or water directly.

Garment Care & Cleaning Instructions:

1. Disconnect the QUICK CONNECTOR from the device. Unzip the garment and spread it on an even flat surface.
2. Wash both interior and exterior surfaces of the garment with a mild liquid soap and dry with a soft cloth.
3. After wash, use a clean dry cloth to initially dry the garment and then leave the garment open to air dry until it is completely dry on all surfaces.

NOTE: Never use abrasive materials such as scrubbing pad, clearing chemicals or detergents containing bleach, as they may cause damage to the garments exterior.

NOTE: Do not dry clean. Do not Iron.

Sterilization: Sterilization of the garments and the pump system is not required. However, if sterilization of the garment is desired in a hospital setting, gas sterilization is suitable. The temperature must NOT exceed 125°F (51°C).

Garment Specification:

Several types of garments are available for different size:

| | | | |
|----------------|----------|------------------------|------------|
| Model D-300S | Full Leg | Small Size | 4 chambers |
| Model D-300SW | Full Leg | Small Wide Size | 4 chambers |
| Model D-300SXW | Full Leg | Small Extra Wide Size | 4 chambers |
| Model D-300M | Full Leg | Medium Size | 4 chambers |
| Model D-300MW | Full Leg | Medium Wide Size | 4 chambers |
| Model D-300MXW | Full Leg | Medium Extra Wide Size | 4 chambers |
| Model D-300L | Full Leg | Large Size | 4 chambers |
| Model D-300LW | Full Leg | Large Wide Size | 4 chambers |
| Model D-301H | Half Leg | Regular Size | 4 chambers |
| Model D-301HW | Half Leg | Extra Large Size | 4 chambers |
| Model D-302M | Arm | Medium Size | 4 chambers |
| Model D-302L | Arm | Large Size | 4 chambers |

Disposal of Device:

Medical equipment and devices should be disposed of in proper containers that meet Environmental Protection Agency standards. Check with local State Laws & Regulations to see what is required in your state or contact your local representatives.

Warranty & Service Information:

Devon Medical Products warrants its **CircuFlow™ 5150 Series lymphedema compression pumps** (excluding sleeves) (individually each a “Device”) to be free from defects in workmanship and materials for a period of three (3) years from the date Device is delivered to the original purchaser (“Warranty Period”). Devon Medical Products warrants the sleeves for the Devices to be free from defects in workmanship and materials for a period of one (1) year from the date the sleeves are delivered to the original purchaser. This Limited Warranty is extended only to the original purchaser and is non-transferable. Devon Medical Products’ sole obligation under this Limited Warranty shall be, at its sole discretion, to repair or replace a Device which is defective in either workmanship or material. This is the sole remedy of the Purchaser. In addition, this Limited Warranty does not cover any Device which may have been damaged in transit or has been subject to misuse, neglect, or accident; or has been used in violation of Devon Medical Products instructions, including, without limitation, the instructions contained in the Operation Manual.

THERE ARE NO WARRANTIES THAN THOSE EXPRESSLY STATED HEREIN.

TO THE EXTENT PERMITTED BY LAW, DEVON MEDICAL PRODUCTS DOES NOT MAKE ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AS TO ANY PRODUCT OR DEVICE, WHETHER OR NOT THAT PRODUCT OR DEVICE IS COVERED BY ANY EXPRESS WARRANTY CONTAINED HEREIN.

IN NO EVENT SHALL DEVON MEDICAL PRODUCTS BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL, OR INDIRECT DAMAGES (INCLUDING, WITHOUT LIMITATION, DAMAGES FOR LOSS OF PROFITS, USE OR TIME INCURRED BY PURCHASER OR END USER). IN ADDITION, DEVON MEDICAL PRODUCTS SHALL NOT BE LIABLE FOR ANY EXEMPLARY OR PUNITIVE DAMAGES.

NOTE: This unit is not field serviceable. Tampering with or dismantling this unit in any way will void warranty. If you have questions or need assistance, please contact your local authorized dealer.

Manufactured For:

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Appendix 1

Product Classification:

- According to the type of protection against electrical shock, this device is classified as a Class II Equipment, and Type BF Equipment that is powered by an external electrical power source.
- According to the degree of protection against harmful ingress of water this system is classified as Ordinary Equipment (IP21:Protected against solid foreign objects of 12.5mm and greater and vertically falling water drops.)
- **CAUTION:** This device has been tested and confirmed to comply with the IEC 60601-1-2:2007 and essential requirements of Medical Device Directive 93/42/EEC. However some of the proliferation of radio-frequency transmitting equipments and other sources of electrical noise in healthcare environment, with high levels of interference, may induce abnormal stop and disruption of this device. This device may also have adverse effects to its nearby equipments. We strongly suggest the use of this device isolated from other electromagnetic equipments.
- According to the methods of sterilization this system does not have any parts or accessories that require sterilization.
- This system is classified as Equipment not Suitable for use in the presence of a Flammable Anesthetic Mixture with Air or Oxygen or Nitrous Oxide.
- According to the mode of operation this system is classified as Equipment that can be used for Continuous Operation.
- **CAUTION:** In the USA, Federal Law restricts this device to sale, by or on the order of a physician.
- Unit is packaged for transportation by common carrier.
- Keep out of the reach of children.
- To avoid danger of suffocation, keep the power supply cord and garment tube away from babies and children.
- Modification of the device and use of unqualified accessories are not allowed.
- Use the device in a clean environment one that is free from dirt, dust, pet hair, etc.
- The garments are suitable for single and multi patient use, please see the section "Garment Care & Cleaning Instructions" for garment cleaning.
- The device must be operated by qualified and trained personnel only.
- Device and accessories shelf life are the same as the warranty.

Appendix 2

Electromagnetic Compatibility Information

Instructions for use

1. **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** needs special precautions regarding EMC and needs to be installed and put into service according to the EMC information provided in this document;
2. Portable and mobile RF communications equipment can affect **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152**.

Technical description

1. **WARNING** that the use of accessories, transducers and cables other than those specified with the exception of transducers and cables sold by the manufacturer of the **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** as replacement parts for internal components, may result in increased EMISSIONS or decreased IMMUNITY of the **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152**.
2. **WARNING** that the **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** should not be used adjacent to or stacked with other equipment.

3.

| Guidance and manufacturer's declaration – electromagnetic emissions | | |
|---|-------------------|---|
| The SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152 is intended for use in the electromagnetic environment specified below. The customer or the user of the SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152 should assure that it is used in such an environment. | | |
| Emissions | Compliance | Electromagnetic environment - guidance |
| RF emissions CISPR 11 | Group 1 | The SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152 uses RF energy only for its internal function. Therefore, its RF emissions are very low and are not likely to cause any interference in nearby electronic equipment. |
| RF emissions CISPR 11 | Class B | The SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152 is suitable for use in all establishments, including domestic establishments and those directly connected to the public low-voltage power supply network that supplies buildings used for domestic purposes. |
| Harmonic emissions IEC 61000-3-2 | Class A | |
| Voltage fluctuations / flicker emissions IEC 61000-3-3 | Complies | |

4.

Guidance and manufacturer's declaration – electromagnetic immunity

The **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** is intended for use in the electro-magnetic environment specified below. The customer or the user of the **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** should assure that it is used in such an environment.


| Immunity test | IEC 60601 test level | Compliance level | Electromagnetic environment -guidance |
|--|--|---|---|
| Electrostatic discharge (ESD) IEC 61000-4-2 | ±6 kV contact ±8 kV air | ±6 kV contact ±8 kV air | Floors should be wood, concrete or ceramic tile. If floors are covered with synthetic material, the relative humidity should be at least 30 %. |
| Electrical fast transient/burst IEC 61000-4-4 | ±2 kV for power supply lines | ±2 kV for power supply lines | Mains power quality should be that of a typical commercial or hospital environment. |
| Surge IEC 61000-4-5 | ±1 kV line(s) and neutral | ±1 kV line(s) and neutral | Mains power quality should be that of a typical commercial or hospital environment. |
| Voltage dips, short interruptions and voltage variations on power supply input lines IEC 61000-4-11 | <5 % U_T (>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles <5 % U_T (>95 % dip in U_T) for 5s | <5 % U_T (>95 % dip in U_T) for 0,5 cycle 40 % U_T (60 % dip in U_T) for 5 cycles 70 % U_T (30 % dip in U_T) for 25 cycles) <5 % U_T (>95 % dip in U_T) for 5s | Mains power quality should be that of a typical commercial or hospital environment. If a dips or an interruption of mains power occurs, the current of the SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152 may be dropped off from normal level, it may be necessary to use uninterruptible power supply or a battery. |
| Power frequency (50/60 Hz) magnetic field IEC 61000-4-8 | 3 A/m | 3A/m | Power frequency magnetic fields should be at levels characteristic of a typical location in a typical commercial or hospital environment. |

NOTE U_T is the a.c. mains voltage prior to application of the test level

5.

Guidance and manufacturer's declaration – electromagnetic immunity

The **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** is intended for use in the electromagnetic environment specified below. The customer or the user of the **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** should assure that it is used in such an environment.

| Immunity test | IEC 60601 test level | Compliance level | Electromagnetic environment -guidance |
|-------------------------------|-----------------------------|------------------|---|
| Conducted RF IEC 61000-4-6 | 3 Vrms 150 kHz to 80 MHz | 3 Vrms | <p>Portable and mobile RF communications equipment should be used no closer to any part of the SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152, including cables, than the recommended separation distance calculated from the equation applicable to the frequency of the transmitter.</p> <p>Recommended separation distance:</p> $d = 1.2\sqrt{P}$ $d = 1.2\sqrt{P} \text{ 80MHz to 800MHz}$ $d = 2.3\sqrt{P} \text{ 800MHz to 2.5GHz}$ <p>where P is the maximum output power rating of the transmitter in watts (W) according to the transmitter manufacturer and d is the recommended separation distance in metres (m).</p> |
| Radiated RF IEC 61000-4-3 | 3 V/m 80 MHz to 2.5 GHz | 3 V/m | <p>Field strengths from fixed RF transmitters, as determined by an electromagnetic site survey,^a should be less than the compliance level in each frequency range.^b</p> <p>Interference may occur in the vicinity of equipment marked with the following symbol:</p>  |

NOTE 1 At 80 MHz and 800 MHz, 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.

a. Field strengths from fixed transmitters, such as base stations for radio (cellular/cordless) telephones and land mobile radios, amateur radio, AM and FM radio broadcast and TV broadcast cannot be predicted theoretically with accuracy. To assess the electromagnetic environment due to fixed RF transmitters, an electromagnetic site survey should be considered. If the measured field strength in the location in which the **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** is used exceeds the applicable RF compliance level above, the **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** should be observed to verify normal operation. If abnormal performance is observed, additional measures may be necessary, such as re-orienting or relocating the **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152**.

b. Over the frequency range 150 kHz to 80 MHz, field strengths should be less than 3 V/m.

6.

Recommended separation distances between portable and mobile RF communications equipment and the **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152**

The **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** is intended for use in an electromagnetic environment in which radiated RF disturbances are controlled. The customer or the user of the **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** can help prevent electromagnetic interference by maintaining a minimum distance between portable and mobile RF communications equipment (transmitters) and the **SEQUENTIAL COMPRESSION DEVICE MODEL 5150/5152** as recommended below, according to the maximum output power of the communications equipment.

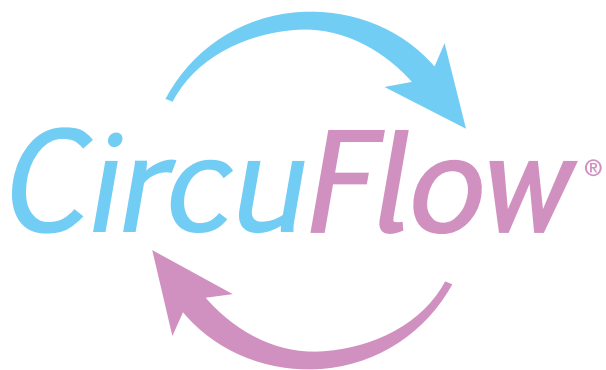
| Rated maximum output power of transmitter (W) | Separation distance according to frequency of transmitter (m) | | |
|---|---|-------------------|--------------------|
| | 150 kHz to 80 MHz | 80 MHz to 800 MHz | 800 MHz to 2.5 GHz |
| | $d = 1.2\sqrt{P}$ | $d = 1.2\sqrt{P}$ | $d = 2.3\sqrt{P}$ |
| 0.01 | 0.12 | 0.12 | 0.23 |
| 0.1 | 0.38 | 0.38 | 0.73 |
| 1 | 1.2 | 1.2 | 2.3 |
| 10 | 3.8 | 3.8 | 7.3 |
| 100 | 12 | 12 | 23 |

For transmitters rated at a maximum output power not listed above, the recommended separation distance d 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.

Notes:



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