

**INSTRUCTIONS
USING THE BEDSORE FREE DEVICE
MANUAL OPERATION
OF THE AUTOMATIC DEVICE UNIT**

The **Bedsore Free Device** has been designed to be installed on top of the bed mattress. If a plastic protective cover is need on the mattress, then it needs to be installed prior to installing the **Bedsore Free Device**.

A.

1. When you remove the **Bedsore Free Device** from it's shipping box, you should notice that the top of the **Bedsore Free Device** has **BFD-??** at the top.
2. Lower down, near the center, you will find a hose connection connected to the **Center** chamber. This is the topside of the **Bedsore Free Device**.
3. Underneath the lower section of the **Bedsore Free Device** you will find four (4) more hose connections.
4. The **Bedsore Free Device** should be place as near center in the bed mattress as possible. Near the top edge of the **Bedsore Free Device** you should notice the sealed seam of the chambers. This is the location where the neck of the patient will lie. Take in account the width of the pillow at the top of the bed frame as to where the patient's neck will lay.

B.

1. Place the Automatic Device unit at the foot area of the Bed frame. It is recommend to be placed on the floor where it is convenient for the care provider to see the patient and sit while operating the unit.
2. The roll of 3/8-inch I.D. hose provided allows for six feet in length for each hose connection. Please realize each piece of hose attached to each hose connections on the **Bedsore Free Device** may need to be cut in different lengths to end up connected to the Automatic Device unit.
3. After placement of the **Bedsore Free Device** on the mattress, take the roll of hose provided and connect one end to the far left hose connection. Route the hose over, under or through the footboard where it is convenient to reach the Automatic Device unit. Cut the hose and label this hose **LE** (or **Left End**) [labeling can be done by permanent marker or by masking tape and ink pen] then connect the other end of the hose to the (**LE**) marked on the Automatic Device unit.
4. While still under the **Bedsore Free Device**, connect an end of the remaining hose to the next hose connection to the right of the one that was just connected, route the hose as necessary. Cut the hose and label this hose **LS** (or **Left Side**) then connect the other end of the hose to the (**LS**) marked on the Automatic Device unit.
5. While still under the **Bedsore Free Device**, connect an end the remaining hose to the right of the one that was just connected, route the hose as necessary. Cut the hose and label this hose **RS** (or **Right Side**) then connect the other end of the hose to the (**RS**) marked on the Automatic Device unit.

6. While still under the **Bedsore Free Device**, connect an end the remaining hose to the right of the one that was just connected, route the hose as necessary. Cut the hose and label this hose **RE** (or **Right End**) then connect the other end of the hose to the **(RE)** marked on the Automatic Device unit.
7. At the top of the **Bedsore Free Device** near the lower center you will find the last hose connection. Connect an end of the remaining hose to this hose connection, route the hose as necessary. Cut the hose and label this hose **C** (or **Center**) then connect the other end of the hose to the **(C)** marked on the Automatic Device unit.
8. Plug the power cord from the Automatic Device unit to a wall receptacle found in the room.
9. IF the Automatic Device unit will be used to turn the patient on a timed bases, then a 9-pin serial cable will need to be connected from the **COM A** location on the Automatic Device unit to a COM PORT on a computer that is within 30 feet of the Automatic Device unit and another 9-pin serial cable will need to be connected from the **COM B** location on the Automatic Device unit to a separate COM PORT on the same computer. Neither cable should be a null modem cable. The cable wire to each DB-9 must connect pin 3 on one connector to pin 3 on the other as well as pin 5 to pin-5 for the relay boards to communicate with the computer.

C.

1. Now that all hose connections are done, you are ready to secure the **Bedsore Free Device** to the bed mattress.
2. This can be done with the optional straps that are offered or it can be done with strong cord. The cord or strap will be placed through the grommet on the **Bedsore Free Device** and attached to the bed frame that the mattress is on.
3. On most medical beds, the frame that the mattress is on will move independently of the bed chaise. This is why it is very important that the cord or strap should not be connected to a portion of the bed that can move away from the mattress when raised or lowered.
4. The cord or strap should be secured as near to the grommet as possible. The correct operation of the **Bedsore Free Device** depends on the **Bedsore Free Device** being held down on the mattress.
5. It is very important that all grommets are secured to the bed frame. If any cord or strap becomes loose, it must be tightened before using the **Bedsore Free Device**. Not having one grommet secured will cause undue stress upon the grommets that are secure and may cause one or more grommets to be ripped from the **Bedsore Free Device**.

D.

1. After the **Bedsore Free Device** is secured, the bottom sheet will be placed on the mattress.
2. Remember that all sheets are needed to be loose to allow the **Bedsore Free Device** to move the patient without having to pull unnecessarily on a tucked sheet.
3. It has been found that ironing board cover elastic straps help in keeping the bottom sheet straight. These elastic straps will allow the sheet to move when the

Bedsore Free Device inflates then automatically pull the sheet back on the mattress during deflation of the **Bedsore Free Device**. Something to consider, but not necessarily needed for the operation of the **Bedsore Free Device**.

E.

1. The bottom sheet now should have covered the **Bedsore Free Device** and all the hoses.
2. The mattress is now ready for the patient to be placed on the bed taking care of the hose connection at the lower center section of the mattress.
3. The patient's legs should straddle this connection and should not cause a problem.
4. Any sheet or blanket that is placed over the patient will need to be loose as to allow the **Bedsore Free Device** to work.

Before operating the **Bedsore Free Device**, you should understand how the **Bedsore Free Device** works so that you will get the best results when using it.

F.

1. First, the **Bedsore Free Device** has five chambers that can be inflated separately.
2. Looking from the foot of the bed, on the left you have the **Left End (LE)** chamber and on the right you have the **Right End (RE)** chamber.
3. One of these **End** chambers should be partially inflated to be used as a bumper when the patient is turn in that direction.
4. It is very important that the **End** chamber is partially inflated before using a **Side** chamber to move the patient. When the patient is moved to his/her side, the **End** chambers gives support to the frontal area of the patient after he/she has completely turn on their side.
5. This also helps prevent the patient from continuing to move on their face or off the bed that has no bed rails. **NOTICE**-filling the **End** chambers too much will prevent the patient from completing the turn to their side.
6. These **End** chambers are also used to turn the patient from his/her side to his/her Back. By inflating this **End** chamber more fully will cause the patient to return to his/her Back.
7. These **End** chambers can also serve as arm rests while the patient is on his/her Back. Both **End** chambers can be inflated to allow the patient's arms to be raised above the heart if necessary.
8. When the two **End** chambers are inflated. It makes it very difficult for a patient to turn to their side, which may be what the doctor ordered.
9. The chambers next to the **End** chambers are called the **Left Side (LS)** chamber and the **Right Side (RS)** chamber.
10. The **Side** chambers are mainly used to move the patient toward their side, but not entirely.
11. This means that you must observe the patient when using either of these **Side** chambers to watch the patient to see when he/she stops moving over.
12. When this has occurred, then it is necessary to turn off the **Side** chamber and start inflating the **Center (C)** chamber.

13. Caution must be taken to stop the inflation of the **Center (C)** chamber when the patient is on their side or at a position where you want the patient to be. Leaving the **Center** chamber inflated will give support to the patients back if need be.
14. Inflating this **Center (C)** chamber too much may cause the patient to roll further than intended.

Manually Operating the Device

With these instructions, you have elected to use the Automatic Device unit. Having the Automatic Device unit gives you the ability to plug the hoses on one **Bedsore Free Device** and move the Automatic Device unit to another bed that has a **Bedsore Free Device** and move that patient with better control. With this in mind, we will proceed to give instruction to operate the **Bedsore Free Device** with this in mind.

Moving the patient from their Back to their Right Side

1. Partially inflate the **Left End (LE)** chamber about 20-30 seconds by pushing the **LE** switch forward for pressure (**P**) (the care provider will find that more or less inflation time will be better for certain patients). Turn off the **LE** switch by pulling slightly back on the switch until the switch is straight up when you have determined that partial inflation has occurred on the **Left End** chamber.
2. Push forward the **RS** switch to inflate the **Right Side (RS)** chamber to move the patient toward their right side. Continue to inflate until the patient stops moving (about 1 ½-2 minutes) toward their right side. The chamber should have no more than 2 pounds of pressure (hard to the touch). At this point turn off the **RS** switch by pulling back slightly on the switch so the switch is straight up.
3. Push forward the **C** switch to inflate the **Center (C)** chamber until the patient is completely on their right side then pull back slightly on the switch so the switch is straight up.
4. The Automatic Device unit now should be quite, awaiting the next sequence.
5. At this point, you can adjust the top leg of the patient by bending the leg at the knee and pulling it toward the edge of the bed to shift the patient's weight to keep the patient on their side.
6. Having the patient's weight adjusted, the **Center** chamber and the **Right Side** chamber can be deflated to allow sheets to be changed, cleaning of the patient or changing the patient's gown. If this is desired, the procedure is as follows:
7. Pull back on the **C** switch to deflate the **Center** chamber. When you hear the tone of the compressor change, the **Center** chamber is deflated, push forward the **C** switch until it is straight up.
8. Pull back on the **RS** switch to deflate the **Right Side** chamber. When you hear the tone of the compressor change, the **Right Side** chamber is deflated, push forward the **RS** switch until it is straight up.
9. The Automatic Device unit now should be quite, awaiting the next sequence.
10. Now you are ready to change sheets or other care that is needed. Please refer to Changing Sheets section.

Moving the patient from their Right Side to their Back

1. If the patient's leg has been adjusted to shift their weight, straighten the leg back before moving the patient back to their Back.
2. If the **Center** and **Right Side** chambers are still inflated, the turning of the patient back to their Back is very comfortable on the patient, so it is recommended that the Right Side chamber, at least be re-inflated before turning the patient back to their Back. If the Right Side Chamber is already inflated go to section 4.
3. To re-inflate the Right Side chamber push forward the **RS** switch and inflate for 1 ½ - 2 minutes. Inflate the **Center** chamber until the Center chamber touches the patient's Back. You are now ready to turn the patient back to their Back.
4. Push forward the **LE** switch to inflate the **Left End** chamber. At the same time pull back on the **C** switch and the **RS** switch to deflate the **Center** and **Right Side** chambers as the patient moves back to their Back. As the patient starts moving toward their Back you can then pull all the way back on the **LE** switch to start deflating the **Left End** chamber. After the **Left End** chamber, the **Center** chamber and the **Right Side** chamber is deflated you will hear the tone of the compressor change. At this point push forward the **C** switch, the **RS** switch and the **LE** switch until the switches are straight up.
5. The Automatic Device unit now should be quite, awaiting the next sequence.
6. The patient should be back on their Back. Adjust the sheets and blankets where necessary.

Moving the patient from their Back to their Left Side

1. Partially inflate the **Right End (RE)** chamber about 20-30 seconds by pushing forward the **RE** switch (the care provider will find that more or less inflation time will be better for certain patients). Pull back the **RE** switch until it is straight up when you have determined that partial inflation has occurred on the **Right End** chamber.
2. Push forward the **LS** switch to inflate the **Left Side (LS)** chamber to move the patient toward their right side. Continue to inflate until the patient stops moving (about 1 ½-2 minutes) toward their right side. The chamber should have no more than 2 pounds of pressure (hard to the touch). At this point turn off the **LS** switch by pulling back slightly on the switch so the switch is straight up.
3. Push forward the **C** switch to inflate the **Center (C)** chamber until the patient is completely on their left side then pull back slightly on the switch so the switch is straight up.
4. The Automatic Device unit now should be quite, awaiting the next sequence.
5. At this point, you can adjust the top leg of the patient by bending the leg at the knee and pulling it toward the edge of the bed to shift the patient's weight to keep the patient on their side.
6. Having the patient's weight adjusted, the **Center** chamber and the **Left Side** chamber can be deflated to allow sheets to be changed, cleaning of the patient or changing the patient's gown. If this is desired, the procedure is as follows:
7. Pull back on the **C** switch to deflate the **Center** chamber. When you hear the tone of the compressor change, the **Center** chamber is deflated, push forward the **C** switch until it is straight up.

8. Pull back on the **LS** switch to deflate the **Left Side** chamber. When you hear the tone of the compressor change, the **Left Side** chamber is deflated, push forward the **LS** switch until it is straight up.
9. The Automatic Device unit now should be quite, awaiting the next sequence.
10. Now you are ready to change sheets or other care that is needed. Please refer to Changing Sheets section.

Moving the patient from their Left Side to their Back

1. If the patient's leg has been adjusted to shift their weight, straighten the leg back before moving the patient back to their Back.
2. If the **Center** and **Left Side** chambers are still inflated, the turning of the patient back to their Back is very comfortable on the patient, so it is recommended that the Right Side chamber, at least be re-inflated before turning the patient back to their Back. If the **Left Side** chamber is already inflated go to section 4.
3. To re-inflate the **Left Side** chamber push forward the **LS** switch and inflate for 1 ½ - 2 minutes. Inflate the **Center** chamber until the **Center** chamber touches the patient's Back. You are now ready to turn the patient back to their Back.
4. Push forward the **RE** switch to inflate the **Right End** chamber. At the same time pull back on the **C** switch and the **LS** switch to deflate the **Center** and **Left Side** chambers as the patient moves back to their Back. As the patient starts moving toward their Back you can then pull all the way back on the **RE** switch to start deflating the **Right End** chamber. After the **Right End** chamber, the **Center** chamber and the **Left Side** chamber is deflated you will hear the tone of the compressor change. At this point push forward the **C** switch, the **RE** switch, and the **LS** switch until the switches are straight up.
5. The patient should be back on their Back. Adjust the sheets and blankets where necessary.

Changing Sheets

1. There is a standard operating procedure changing sheets while the patient is still on the bed. With the **Bedsore Free Device** this chore is made easier.
2. After moving the patient to one side, adjust the top leg of the patient so that the patients weight is shifted to allow the patient to stay on his/her side.
3. Deflate the **Center** and **Side** chambers that moved the patient over.
4. With the top sheet and blanket removed, roll the bottom sheet long ways toward the back of the patient. Leave the rolled sheet as close to the patient's Back as possible.
5. This should expose half of the **Bedsore Free Device**.
6. Clean this area with soap and water. Disinfect the area as you would other material that the patient could come in contact with. Do not use Acetone, MEK or any other industrial strength cleaner on the material.
7. Fold the clean sheet long ways and place the folded edge next to the Back of the patient taking care not to contaminate the clean sheet with the old one.
8. Roll the top layer of the clean sheet long ways toward the back of the patient. Leave the rolled sheet as close to the patient's Back as possible without contaminating the cleaned rolled sheet.

9. You should now have half of the bed covered with the clean sheet with the rest rolled up next to the back of the patient.
10. At this point you can remove half of the patient's gown and replace that half with a clean set. If the opening of the gown is in the front of the patient, place the excess next to the back of the patient near the mattress. If the gown's opening is in the back, place the excess in the front of the patient.
11. Using the **Bedsore Free Device** move the patient back to their Back.
12. Using the **Bedsore Free Device** move the patient to their other side.
13. The old bottom sheet can now be removed.
14. Clean the area underneath the sheet before pulling on the clean rolled sheet next to the patient.
15. Pull the rolled clean sheet over the rest of the bed.
16. Remove the patient's dirty gown and dress the patient with the other half of the clean gown.
17. You can now move the patient back to their Back using the **Bedsore Free Device**.
18. Now replace the top sheet and blanket. Be sure to leave all sheets and blankets loose so the **Bedsore Free Device** can operate correctly.

If there you need further instruction or have question concerning the **Bedsore Free Device**, please send an e-mail to: info@bedsorefree.net or give us a call at: 936-753-2151.