

JUVENT 
Dynamic Motion Therapy

JUVENT
1000
Instruction Manual

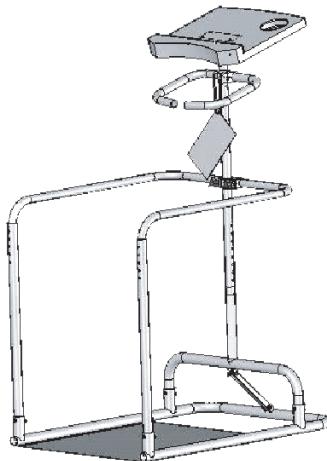


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Juvent Device and RFID Rail Stand Set Up Procedure

Remove the rail stand from the box and assemble it using the following instructions and tools.



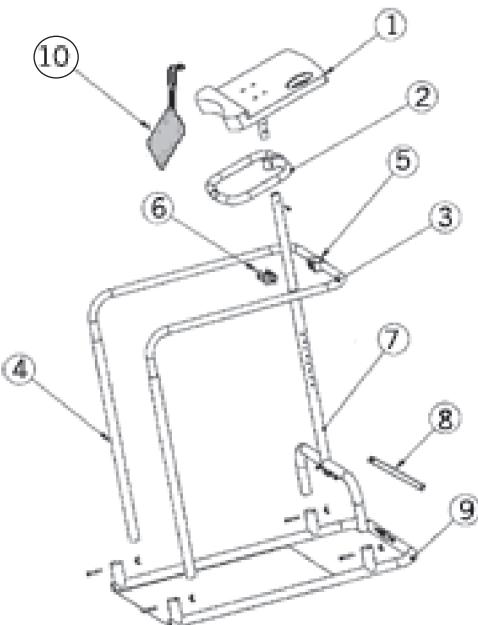
Authorized Representative
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46 Offington Park
Sutton
Dublin 13, Ireland
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Juvent
1000 Rail Stand
Model No: J100044

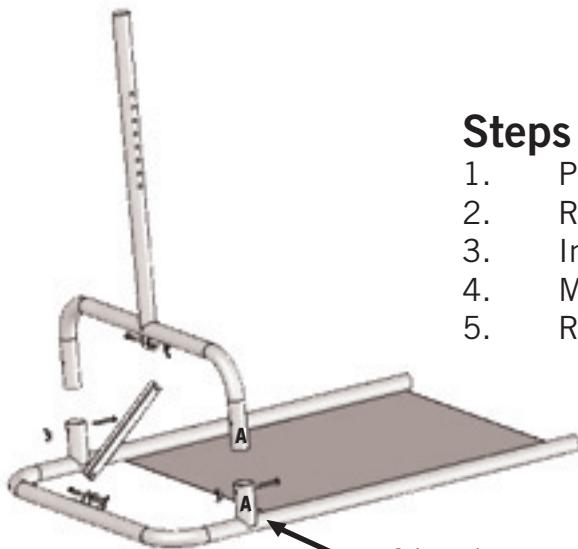
Manufactured For:
Juvent Inc.
300 Atrium Dr.
Somerset, NJ USA
Tel: 001 732 748 8866
P/N: J300155 Rev A

Parts List Call Out

3	1	Side Rail Assembly
4	2	Hand Rail Adjust Tubes
5	1	Rail Mast Fitting
6	1	Side Rail Clamp
7	1	Mast Weldment
8	1	Strut Tube
9	1	Base Frame Weldment
10	1	Card

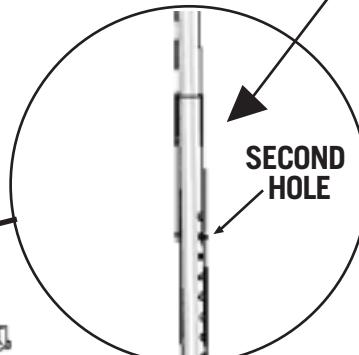
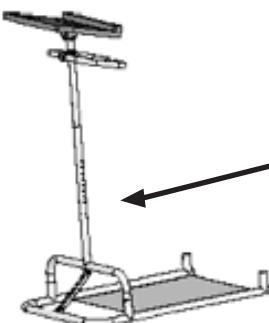
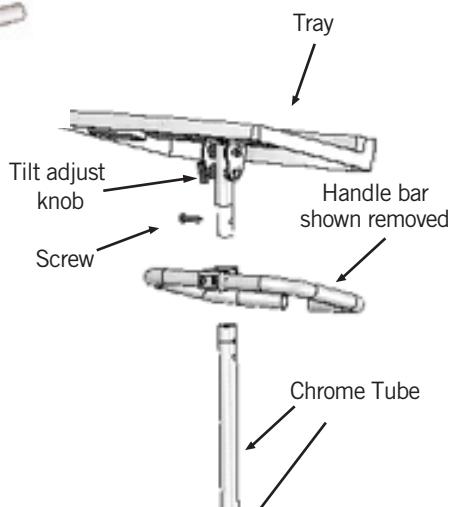


Assembly Process

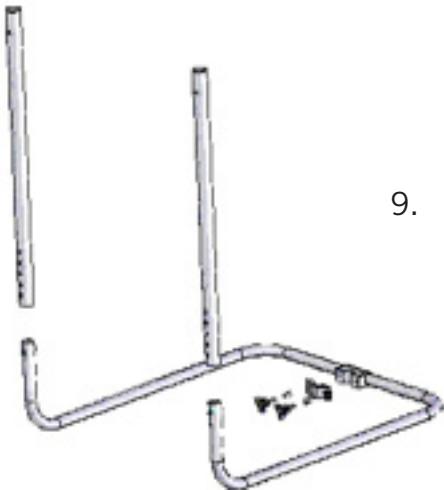


Steps

1. Place base onto floor.
2. Remove screws.
3. Insert mart into base tubes.
4. Mount strut tube.
5. Reassemble screws and tighten.
6. Slide chrome tube up to second hole location.
7. Remove the screw, Slide handle bar onto chrome tube, and slide tray assembly into chrome tube.
8. Reassemble screw and tighten.

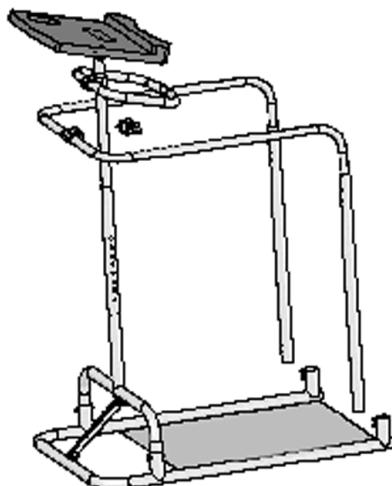


Assembly Process



9. Slide the hand rail adjust tubes onto the side rails. Snap into first hole.

10. Removed base tube screws.
Slide the hand rail assembly into the base tubes.
Reassemble the rail mast fitting and reassemble base tube screws. Then tighten.



Juvent RFID System Bill of Materials

The RFID setup kit contains the following:

1. J100014: Juvent 1000 production plate assembly modified for RFID-controlled use.
2. J200118: Juvent RFID system power supply.
3. J200117: Serial RS-232 male-to-male null-modem cable.
4. J300159: Juvent 1000 RFID system full instruction manual.
5. J300161: Juvent 1000 RFID system one-page manual
6. J100044: Railstand assembly modified for RFID use.
7. J100051: RFID reader assembly (is pre-attached to railstand by Juvent).
8. A length of Velcro cable-attachment banding.
9. J700018: Proper Posture Card.

Set Up Procedure



Figure 1

1. Remove the Juvent 1000 Device from its box and place it on the stand as shown. (Figure 1)

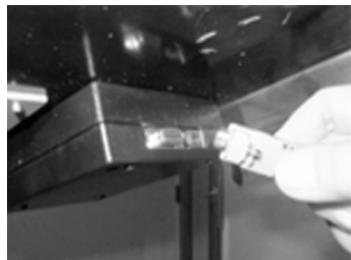


Figure 2

2. Connect one end of the RS-232 serial cable to the 9-pin connector on the RFID box, as shown in Figure 2. Two screws are provided on the serial connector; use them to lock the connector in place. If using a screwdriver, be careful not to overtighten the screws.



Figure 3

3. The Juvent system power supply has two output cords. With the power supply on the floor, only one cord will reach the RFID unit. Plug the longer cord into the RFID unit as shown in Figure 3.



Figure 4

4. The cables for the RFID unit are to be run down the outside of the center pole, on the side facing away from the user. Secure the cables with approximately 4 inches of the Velcro supplied. (Figure 4)

NOTE: Do not make the bend too tight in the cables exiting the RFID unit.



Figure 5

5. As the cables exit the RFID unit, position the cables as shown in Figure 5, using more lengths of Velcro.
6. Continue by fastening the cables in the center of the middle pole. Fasten the cables near the base of the pole. Peel the liner of the double sided tape on back of the power supply and place onto the bar. Affix power supply with two longer Velcro strips. (Figure 6 and 7)

Route the power supply cable through the retaining clip as shown. (Figure 8)

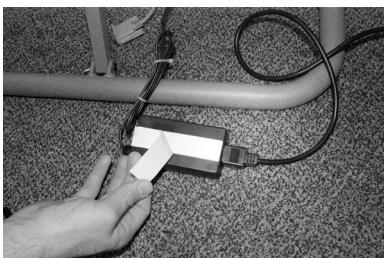


Figure 6



Figure 7



Figure 8



Figure 9

7. Connect the free end of the RS-232 cable to the Juvent 1000 device as shown in Figure 9. Tighten the two screws, but do not overtighten.

Plug the free end of the power supply cord into the Juvent 1000 as shown in Figure 10.

8. Plug the AC power plug into an AC outlet (**Ensure the outlet is not controlled by a wall switch**).



Figure 10

9. Turn on the Juvent 1000 power switch. (Figure 11)



Figure 11

10. At this point the device and RFID “Standby” indicators should be on.



Test Operation

11. Stand on the device and place your special Juvent test card over the “Start Treatment” area and verify the following:
 - A. The red RFID standby indicator went off and the green treatment indicator turned on.
 - B. The device’s blue LCD lights up.
 - C. The device runs through the 12 second “Self test cycle” and begins the 10 minute treatment countdown.

If your first card did not activate the system, repeat the test operation with the second card.

12. If the system still does not activate, check all connections.
13. Troubleshooting: See page 24 or call Juvent engineering - 1-877-209-9600

NOTE: Periodically ensure that all electrical connections are properly in place.

Symbols Used in the Operation of the Juvent 1000 DMT Platform

Symbol	Name	Description
	Standby	Power has been turned on. Juvent 1000 is in standby mode, and will begin treatment when user steps on the Platform.
	Calibration	Juvent 1000 is calibrating system parameters to the user.
	Pause	Juvent 1000 is in pause mode.
	Attention	Alerts user to refer to the manual. Attention icon will display with another icon.
	Malfunction	Juvent 1000 has sensed a malfunction. Flashes in conjunction with Attention symbol.
	Battery	Juvent 1000 has a low battery. Battery needs to be recharged (not operational at present time).

Precautions

There have been no reports of adverse effects with the use of the Juvent 1000 DMT Platform to date. This includes thousands of treatments in children, adolescents, and adult women and men.

Juvent, Inc. feels a responsibility to provide as much information as possible to potential users. The following listing of precautions was developed from expertise with the technology and potential physiological effects.

The use of the Juvent 1000 DMT Platform has not been evaluated on the following conditions. Individuals with the following conditions or implants should consult their physician before using the medical device:

- pregnancy
- congestive heart failure
- past history of deep vein thrombosis and/or pulmonary embolism
- history of thrombophlebitis within 5 years
- sensitivity to motion sickness
- known retinal conditions (eye)
- joint implants
- pacemakers and implantable cardioverter defibrillators (ICDs)
- treatment/surgery for spinal conditions (eg., sciatica-acute phase, symptomatic spinal stenosis)

Medical Device Warnings and Precautions

- There are no user serviceable parts in the Juvent 1000 Dynamic Motion Therapy Platform. If problems arise, see troubleshooting section.
- If the Juvent 1000 fails to work, refer to the troubleshooting guide on pages 24 and 25. If the medical device still fails to work, contact your local Juvent distributor.
- Do not attempt to repair the device.
- The Juvent 1000 is an electromagnetic device which could interfere with or be interfered with by other electromagnetic devices. If interference occurs or the Juvent 1000 interferes with other devices, relocate the medical device.
- To completely isolate the Juvent 1000 from power, unplug the medical device from the wall receptacle. The power cord on the external power supply is regarded as the disconnect source.
- To prevent damage to the Juvent 1000, unplug the device during lightning storms.
- Unplug the medical device when unused for long periods of time.
- Cleaning instructions: Disconnect the device from the outlet and clean with a soft cloth dampened with water. A mild soap can be used if necessary.
- Be careful not to drop the device.
- Do not place the medical device in water or operate in a wet environment, i.e., a shower stall, etc.
- Do not let objects or liquids enter the device.
- Keep the medical device away from radiators and any heat sources.
- Do not drop any objects onto the device.
- Do not jump on the device.
- Only use the supplied, approved medical grade Juvent power adapter.

Medical Device Warnings and Precautions (Cont.)

- The Juvent 1000 is a medical device which may require special precautions regarding electromagnetic compatibility (EMC), and must be installed and put into service according to the EMC information provided.
- The use of accessories, transducers or cables other than those specified, with exception of those sold by Juvent as replacement parts for internal components, may result in increased emissions or decreased immunity of the system.

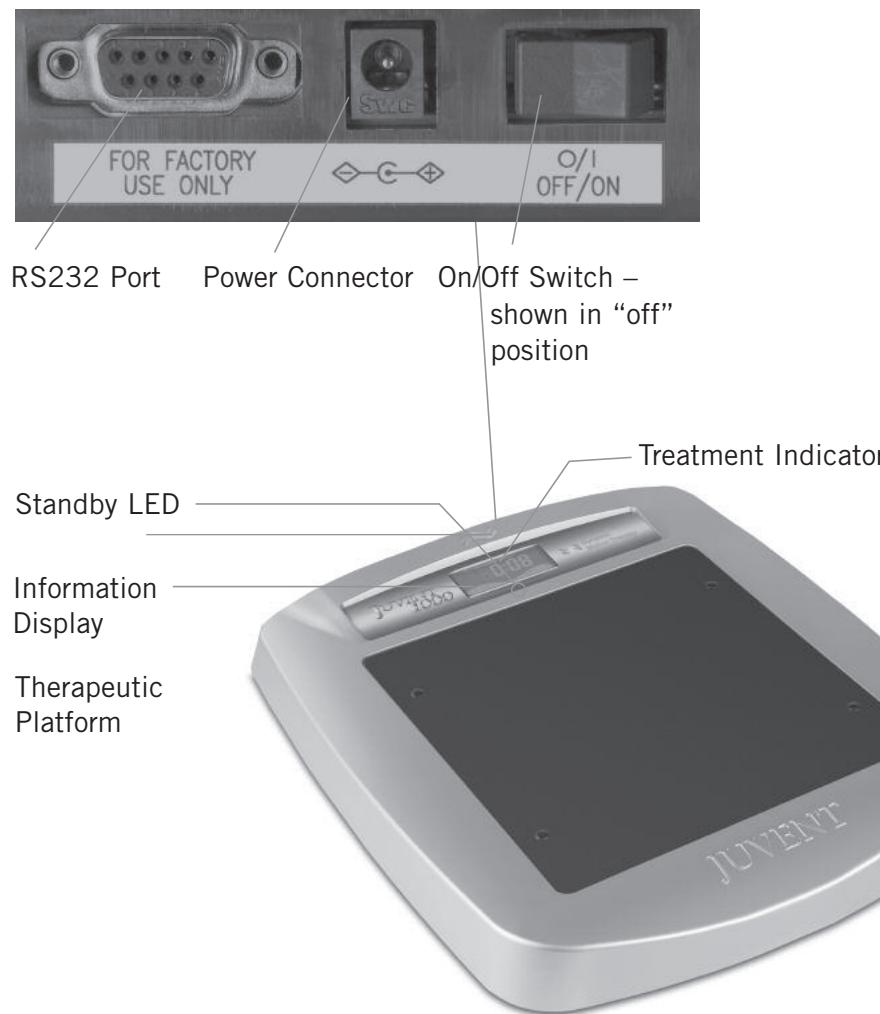
The Juvent 1000 DMT Platform is Indicated for

- maintaining and/or increasing bone density,
- restoring the fast-twitch action of Type IIA muscle fibers in the lower legs,
- stimulating blood and lymph flow from the lower limbs to the heart.

Medical Device Description

The Juvent 1000 Dynamic Motion Therapy Platform

Connection Panel



Medical Device Description

The Juvent 1000 Dynamic Motion Therapy Platform is an easy-to-use medical device that delivers a 10-minute daily treatment. The Juvent 1000 does not use any motors, cams or eccentric weights. The Platform does use a patented single spring, actuator driven, unique four-point suspension system that stabilizes the action of the Platform while offering a significant mechanical advantage.

These features allow the Juvent 1000 to be in mechanical resonance with the body mass of the user by adjusting the frequency of the vibration to the size of the individual standing on the medical device. It also results in a very efficient and gentle therapy that requires little power to operate (less than 7.5 watts, or less than the power of a nightlight).

The Juvent 1000 Platform is made of a rigid aluminum plate for the vibration surface. This surface is covered by a biocompatible mat for comfort. The Platform is enclosed by a two-piece plastic housing module with a built-in handle for easy transport. The rigid aluminum plate and the rugged, molded two-piece top/bottom housing are designed for many years of dependable service.

When a user stands on the surface of the Platform in stocking feet, a gentle mechanical vertical pulsation (displacement) is applied to the bottom of their feet. The Juvent 1000 incorporates a microprocessor controlled, automatic gain control to ensure that the correct signal is constantly delivered to the user.



Disposing of the Medical Device

The Juvent 1000 Dynamic Motion Therapy Platform contains electronic equipment that could have a potential effect on the environment if not disposed of properly. When disposing of the Juvent 1000 becomes necessary, the medical device must not be disposed with domestic waste. Please contact your local Juvent distributor for information on recycling the device properly.

System Specifications

System Weight	20.5 lbs (9.2 Kg)
System Dimensions	
Height	9.53 cm (3.75 in)
Width	53.6 cm (21.1 in)
Depth	60.2 cm (23.7 in)
Power Supply	
Input power	100-240 volts ac 50-60 Hz
Power supply output voltage	15 volts DC
Power consumption	less than 7.5 watts
Environmental Temperature	
Operating	41° F to 100° F (10° C to 38°)
Storage	32° F to 118° F (0° C to 45° C)
Relative humidity	10% to 90% (noncondensing)
Atmospheric pressure range	500 hPa to 1060 hPa
Medical Device Materials	
Displacement platform module	Aluminum
Housing module	ABS plastic, flame-retardant
Mat	Biocompatible
Signal Parameters	
Displacement frequency	32-37 Hz -0/+2%
Acceleration "g" force	0.3 g (peak to peak) (+/-20%)
Vertical displacement	~85 µm (0.085 mm)
Treatment time	10 minutes daily
Duty cycle	Continuous
System Load	
Normal operating load	>35 lbs to 249 lbs (> 15.8 Kg to 113.5 Kg)
Maximum operating load	250 lbs (113.6 Kg)
Maximum limit, nonoperating	310 lbs (140 Kg)

Environmental Conditions That Affect Use

WARNING!

The Juvent 1000 Dynamic Motion Therapy Platform is a line operated electrical medical device. Do not use the Juvent 1000 in or near water. Doing so can cause injury and/or death.

The Juvent 1000 is an electromagnetic medical device which could interfere with or be interfered with by other electromagnetic devices. If the Juvent 1000 is subject to interference or interferes with other equipment, relocate the medical device.

Electrical Requirements



Medical Device

Type B applied part.

Power Input: 15 VDC 1.2A

Type of Current: DC

Medical Grade Power Adapter (Juvent part number J200079)

Input power 100-240 volts AC

Power supply output voltage 15 volts DC

Power consumption less than 7.5 watts

Power supply operating range 50-60 Hz

Power supply polarity 

Operating Instructions

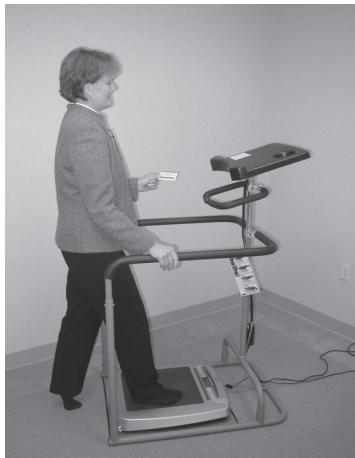


Figure 1



Figure 2



Figure 3

1. Step onto the device carfully (**Make sure you are in stocking feet**). (Figure 1)
2. To start your therapy, hold the treatment card over the indicated area (on the lower left corner of the tray) until the green light turns on and you hear the device start to run. Now remove your card. (Figure 2)
3. Stand up straight and relax **without bending your knees**. (Figure 3)
4. The Juvent 1000 Platform performs a four-second self-test to make sure that everything is working properly.
5. After the self-test, a 12-second calibration takes place to determine your body mass.

Note: During this calibration, the display screen shows the total number of treatments that the device has completed to date $T\#$. At the end of the 12 seconds, the treatment begins.

Operating Instructions (Cont.)



Figure 4

6. Once treatment starts, the number on the display screen will show 10:00 and continue to countdown to zero.
7. At the end of the treatment, the Juvent 1000 will automatically shut off.
Step carefully off the device.
(Figure 4)

Treatment Interruption

If you step off the Juvent Platform at any time during the treatment the device will beep once and automatically go into pause mode  for twenty seconds. If you stay off the platform for more than twenty seconds, it will automatically shut off.

If you return to the platform before twenty seconds, the treatment will resume.

Operating Instructions (Cont.)



8. Treatment duration is continuously monitored and the remaining treatment time is displayed on the LCD display.



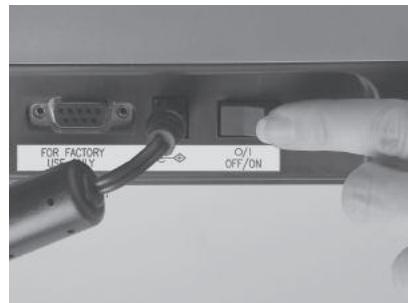
9. At the end of the 10-minute treatment, the Juvent 1000 will automatically shut off.

Step carefully off the device.



10. If the user gets off the Juvent 1000 Platform at any time during the 10-minute treatment, the device will beep once and automatically go into pause mode  for twenty seconds. If user stays off the medical device for more than twenty seconds, it will automatically shut off.

When the user returns to the Platform before twenty seconds, the treatment will resume.



11. When the device will not be used for an extended period of time, turn the main on/off switch to the "off" position.

It is also recommended to unplug the Juvent 1000 if it is not going to be used over a long period of time.

Care of the Juvent 1000

1. Cleaning instructions: Disconnect the device from the outlet and clean with a soft cloth dampened with water. A mild soap may be used if necessary.
2. Do not place the device in water or operate in a wet environment, i.e., a shower stall, etc.
3. Do not drop the device.
4. Do not jump on the device.
5. Keep the device away from radiators and any heat sources.
6. Do not drop any objects onto the device.
7. Do not let objects or liquids enter the device.
8. No other maintenance is required. There are no user serviceable parts in the Juvent 1000 Dynamic Motion Therapy Platform. If problems arise, see troubleshooting section.

Storage of the Juvent 1000

- When not in use, the device should be stored in a dry environment. Storage: 0° C to 45° C (32° F to 118° F).
- Do not store the Juvent 1000 in a damp area. Dampness may affect the device.

Troubleshooting

1. Periodically ensure that all electrical connections are properly in place.
2. If there is a device malfunction, there will be a series of three rapid beeps for eight seconds.
3. If the Juvent 1000 Platform fails to work, get off the Platform and turn the main on/off switch “off.”
4. Wait a few seconds and turn it “on” again.
5. If the device still fails to operate properly, refer to troubleshooting section on pages 25 and 26.

Troubleshooting

Symptom	Suggested Solution
Unit does not operate. Front-panel STANDBY LED  (green) is not lit and unit fails to start when user stands on the Platform.	Make sure that the power supply included with the unit is plugged into a functioning, electrical outlet, and that the front-mounted power switch on the unit is ON. Plug in power supply to back of unit.
Green STANDBY LED  is lit but unit fails to start and indicates error code.	Ensure that unit is not on deep carpet or a steeply tilted surface. Move to a hard, flat surface.
During the first 12 seconds, the green STANDBY LED  is lit, but unit stops and displays an error code.  ?	There is an internal error. Please call Juvent customer service for additional help.
Unit stops and beeps, timer display freezes, PAUSE icon lights,  and blue lightbar flashes when user steps off Platform.	This is normal; unit enters PAUSE mode and remains paused for up to five minutes when user steps off the platform while unit is running. After five minutes, unit automatically shuts off.

Troubleshooting (Cont.)

Symptom	Suggested Solution
Frequency and amplitude (intensity) of vibration vary during first 12 seconds of a new treatment.	This is normal; the unit is searching for the optimum frequency for the user's body characteristics. After 12 seconds, it will settle on a single frequency.
After the first 12 seconds, the green STANDBY LED  is lit, but unit stops treating, beeps quickly (three beeps/second), and displays an error code.	There is too much weight on the top Platform or an internal error.
The unit makes a mechanical noise or rattle when user steps off the Platform while it is running.	This is normal: the system's automatic gain control will try to adjust the DMT when user steps off of it, causing a 1-2 second vibration.
5500 code lights up.  ?	Error code. Floor may be too spongy. Move to a hard, flat surface. If device still does not operate properly, please contact your local Juvent distributor.

FCC Information

Note: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference, and
- (2) this device must accept any interference received, including interference that may cause undesired operation.

Modifications to this device not expressly approved by the manufacturer may void the user's authority to operate the device.



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J300159 Rev. C

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