



Fcare Systems

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Procedure to perform yearly control of the Viridex RF.

Revision

Indice	Date	Nature of the modification
00	29/09/2015	Creation

Diffusion

Recipient	Type of diffusion	Function	Quantity
Production and control service	Not controlled diffusion		1

Validation

Indice	Redaction	Verification	Approval
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1. Visual inspection of the outer casing

- Viridex RF casing

Check if the machine casing is intact and if shows no dents or holes.

- Screen positioning

Check whether the screen is sealed of nicely so no liquids can penetrate into the machine through the screen.

2. Checking of the mechanical fixations

- Control of the front connector

Check if the front connector is firmly fastened.

- Control of the pedal connector

Check if the pedal connector is firmly fastened.

- Control of the input filter

Check if the input filter is firmly fixated and that it cannot be pulled out together with the power cord.

3. Check the accessories

- Check the foot switch

Check if the foot switch works with the machine. This can be done by connecting the pedal to the machine and activating the output.

- Check the output cables

Use a multimeter to check the continuity of the cable. The total resistance should be less than 10 Ohm.

- Check the pen holder

Check the continuity of the needle pen holder with a multi-meter.

4. Check the software

- Self test

Check if the self-test is ran successfully. The device should end up in the treatment selection screen after the self-test has passed.

- Touch screen functionality

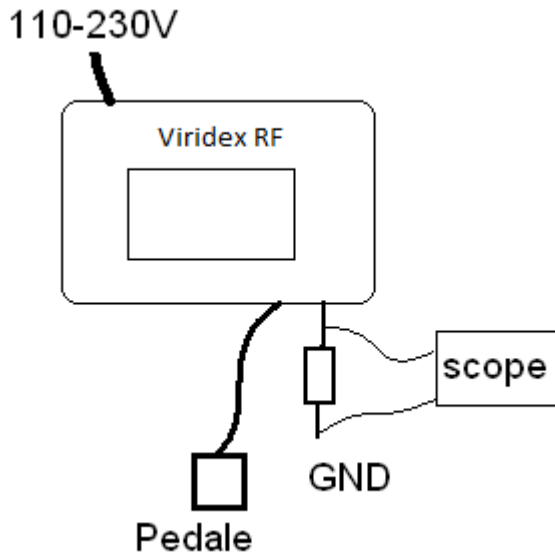
Check if the touch screen works correct. Test the screen by navigating through the different menu's and change the power and impulsion setting.

- Contrast setting

Go into the contrast menu and try changing the contrast by using the touch screen. Set the machine on the best possible setting and exit menu.

5. Control of the output signal

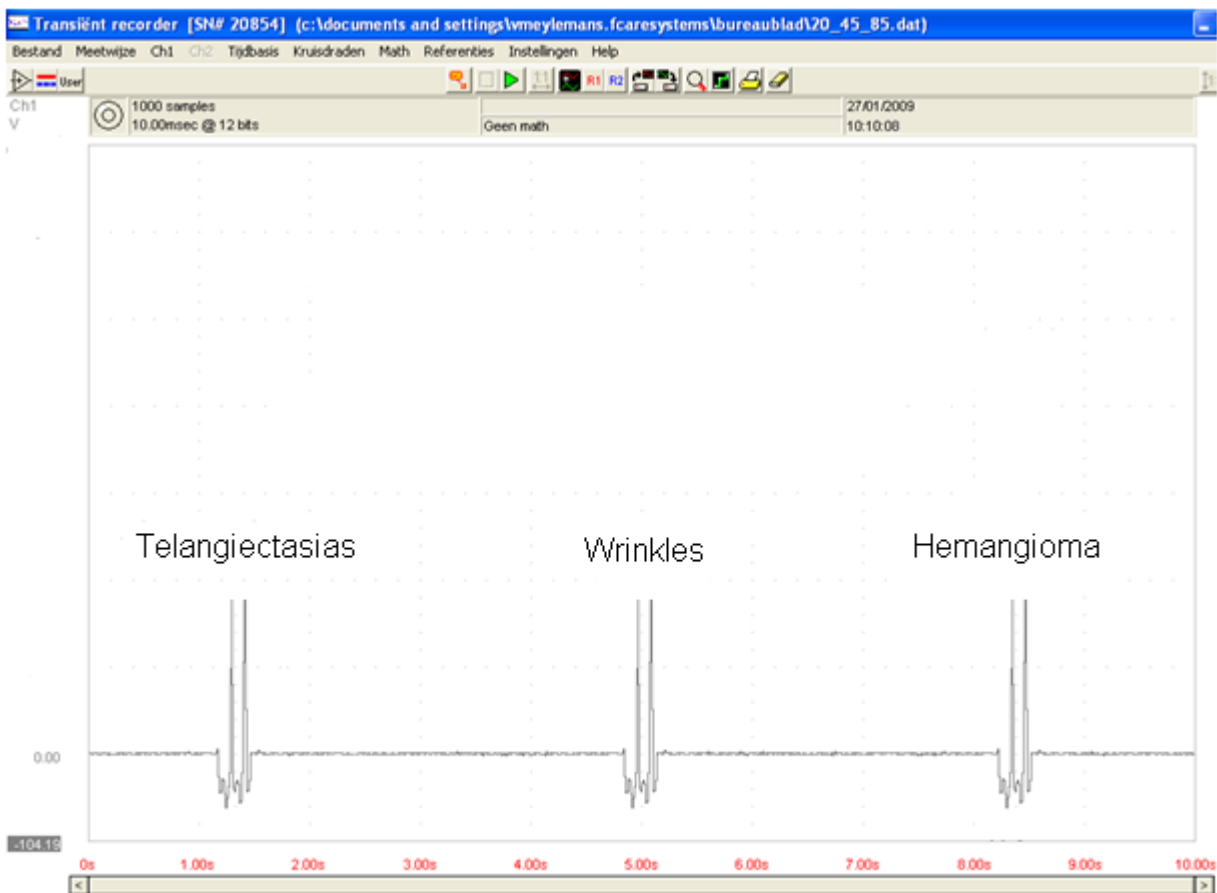
- Signal power



Connect a 450 Ohm / 20 Watt resistor on the output of the machine to measure the output. Connect the oscilloscope on the resistor.

Make sure the input of the oscilloscope is closest to the machine and the scope GND is on the other side of the resistor like it is displayed in the picture.

Adjust the oscilloscope so you have a clear view of the wave.



Measure the peak values in the following menu's:

	Minimum (V)	Measured	Maximum (V)
Telangiectasias 5W	120		180
Telangiectasias 8W	180		290
Fibromas 15W	330		450

Check whether the measured values are between of minimum and maximal values.

- **Signal frequency**

Measure the frequency of the output signal.

	Minimum (MHz)	Measured	Maximum (MHz)
f = 4MHz	3,5		4,4

If the measured frequency is within the limits then the machine is working fine.

In case of non-conformity, send back the defect machine(s) to the subcontractor.

- **Pulse width of the signal**

Measure the high time of the output.

	Measured
t = 0,2s	
t = 0,4s	
t = Continu	

The measured value may be +/- 0,05s off of the wanted value.

6. Earth continuity

Check the earth continuity between all metal parts and the ground pin of the power cord on the back of the machine with a multi-meter.

In case of non-conformity, send back the defect machine(s) to the subcontractor.

7. Leakage current

Check the leakage currents with an appropriate tester.

- Connect the AP/R – AP/RA with the Viridex RF output, the output is a type BF connection.
- Connect the ground of the Fluke with a metallic part of the Viridex RF

All leakage currents should be below maximum limitations of a class I electrical device.

8. Result

If all tests were passed successful then the machine can be used safely. In case of problems contact F Care Systems to discuss the test results.