

CLAIMS:

1. A skin treatment device (10), comprising:
 - a skin treatment head (12);
 - a force or pressure sensor (14) for determining a force or pressure with which the skin treatment device is held against the skin of a user during use;
 - 5 an output device (18) for providing output information to the user relating to the force or pressure determined by the sensor; and
 - a controller (20) for controlling the output device in dependence on the force or pressure determined by the sensor,
 - wherein the controller (20) is adapted to control the output device to provide:
 - 10 a first indication (I1) when the force or pressure determined by the sensor is in a range between a first threshold value (Th1) and a second threshold value (Th2) higher than the first threshold value, said first indication indicating that the force or pressure applied by the user is in a range for optimum skin treatment results;
 - a second indication (I2), different to the first indication, when the
 - 15 force or pressure determined by the sensor is above the second threshold value (Th2); and
 - a third indication (I3), different to the first and second indications, when the force or pressure determined by the sensor is below the first threshold value (Th1) and above a third threshold value (Th3) lower than the first threshold value;
 - characterized in that the controller (20) is adapted to control the output device (18) to provide
 - 20 a fourth indication (I4), different to the first, second and third indications (I1, I2, I3), when the force or pressure determined by the sensor (14) is below the third threshold value (Th3), in particular when the force or pressure determined by the sensor corresponds to non-contact of the skin treatment head (12) with the skin.
- 25 2. A skin treatment device as claimed in claim 1, wherein the third threshold (Th3) is, or corresponds to, a force in a range from 0.1N to 0.5N.
3. A skin treatment device as claimed in claim 1 or 2, wherein the controller (20) is adapted to control the output device (18) to provide the fourth indication only when the

force or pressure determined by the sensor is below the third threshold for longer than a first time threshold (t_{th1}).

4. A skin treatment device as claimed in any one of claims 1 to 3, wherein the
5 controller (20) is adapted:
to switch the skin treatment device between an active state and an inactive
state; and
when the force or pressure determined by the sensor is below the third
threshold value ($Th3$), to control the output device to provide the fourth indication (I4) while
10 maintaining the skin treatment device in the active state.
5. A skin treatment device as claimed in claim 4, further comprising a motor (16)
for driving the skin treatment head, wherein the controller is adapted to actuate the motor
(16) in the active state and to stop the motor in the inactive state.
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6. A skin treatment device as claimed in claim 4 or 5, wherein the controller (20)
is adapted to switch the skin treatment device to the inactive state if the force or pressure
determined by the sensor is below the third threshold ($Th3$) for longer than a second time
threshold (t_{th2}) which is larger than the first time threshold (t_{th1}).
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7. A skin treatment device as claimed in any one of claims 1 to 6, wherein the
output device (18) comprises a light output device, and the first, second and third indications
each comprise a light output with respective different colors.
- 25 8. A skin treatment device as claimed in claim 7, wherein the fourth indication
comprises:
no light output;
a light output color different to the light output colors of the first, second and
third indications; or
30 a blinking light output.
9. A skin treatment device as claimed in any one of claims 1 to 8, wherein:
the force or pressure sensor (16) is arranged to measure a force or pressure
mutually exerted by the skin treatment head and the skin; or

the skin treatment device further comprises a handle (15) coupled to the skin treatment head, and the force or pressure sensor is arranged to measure a force or pressure mutually exerted by the handle and the skin treatment head.

5 10. A skin treatment device as claimed in any one of claims 1 to 6, wherein the output device (18) comprises a light output device in the proximity of the skin treatment head.

11. A skin treatment device as claimed in any one of claims 1 to 10, wherein the
10 controller (20) is adapted to derive a performance rating in respect of a skin treatment program conducted by the user based on the force or pressure determined by the sensor during the skin treatment program.

12. A skin treatment device as claimed in any one of claims 1 to 11, comprising an
15 electric shaver, wherein the skin treatment head (12) comprises a shaving head.

13. A method of controlling a skin treatment device, the skin treatment device comprising a skin treatment head, a force or pressure sensor for determining a force or pressure with which the skin treatment device is held against the skin of a user during use,
20 and an output device for providing output information to the user relating to the force or pressure determined by the sensor, wherein the method comprises:

controlling (52) the output device to provide a first indication when the force or pressure determined by the sensor is between a first threshold value and a second threshold value higher than the first threshold value, said first indication indicating that the force or
25 pressure applied by the user is in a range for optimum skin treatment results;

controlling (54) the output device to provide a second indication, different to the first indication, when the force or pressure determined by the sensor is above the second threshold value; and

controlling (56) the output device to provide a third indication, different to the
30 first and second indications, when the force or pressure determined by the sensor is below the first threshold value and above a third threshold value lower than the first threshold value; characterized in that the method comprises controlling (60) the output device to provide a fourth indication, different to the first, second and third indications, when the force or pressure determined by the sensor is below the third threshold value, in particular when the

force or pressure determined by the sensor corresponds to non-contact of the skin treatment head with the skin.

14. A method as claimed in claim 13, comprising controlling the output device to
5 provide the fourth indication only when the force or pressure determined by the sensor is
below the third threshold for longer than a first time threshold.

15. A computer program comprising computer program code means adapted,
when said program is run on a computer, to implement the method of any one of claims 13 to
10 14.