



TELE RAIN

Direction for use 15-11-02

FEATURES:

Send an SMS if the machine stops.
Send an SMS if you call the machine.
You can start and stop the machine with your mobile phone.
The SMS can be send to 1 telephone number.
There can be send 2 SMS, to 2 different telephone numbers.

The SMS shows:

The status of the machine.
Time for finish of the irrigation.
Speed.
Length of the remaining pipe.

The TELE RAIN controls and monitors the condition of the irrigator.

If the irrigator stops, it will send a SMS message with the reason for the stop.
This is also send when the machine reaches its end stop.

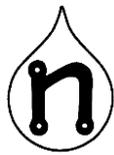
If you call the machines telephone number, (an ordinary telephone call) and end the call as soon as you hear the ring tone, the TELE RAIN will send an SMS with the status within 10 seconds.

The status shows:

Example:

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RUNNING
FINISH 20:30
SPEED 0030
DISTANCE 0352
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The machine can be started or stopped by sending an SMS to the machine.
Write " START " and the machine will start.
Write " STOP " and the machine will stop.



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How to get started:

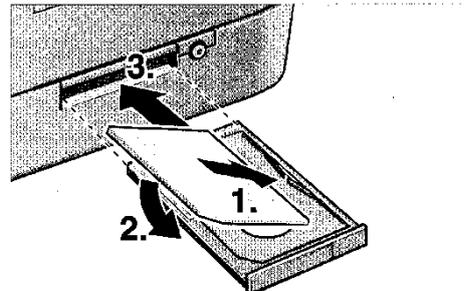
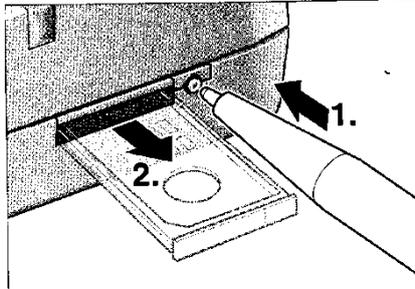
Put the SIM card into an ordinary mobile phone and change the pin code to 1111.

The TELE RAIN will only work with a SIM card with the pin code 1111.

Insert the SIM card into the Siemens modem.

Warning: Do not change the SIM card with the power connected, because it can destroy the SIM card.

3. Insert the SIM card in the SIM card holder and push it back into the housing.



Connect the power and the TELE RAIN will search for the grid, this takes about 25 sec.

The signal strength is shown in the display, it should be minimum 10 in order to have a stable connection. If the signal strength shows 99 there is no signal, the reason could be:

1. Problems with the antenna, bad connection or bad antenna.
2. Very poor signal strength.

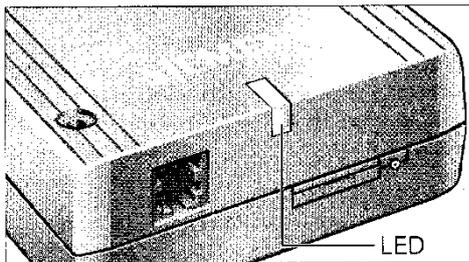
It is possible to buy a better antenna, but this will be a TV antenna type which needs to be directed towards the transmitter.

With this type of antenna the signal strength will raise about 3.

Test the signal strength with an ordinary mobile phone.

The LEDs display the following operating states of the Terminal:

Operating states / LED



Operation state

After connecting the plug-in power supply unit.

LED

ON for 2 sec.

POWER DOWN

Off

- Network search or
- no SIM card is inserted or
- wrong PIN code or
- no GSM network is available

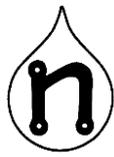
Flashes rapidly

STANDBY
(registered in the network)

Flashes slowly

Connection (TALK)

ON



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When the TELE RAIN send the status to your mobile phone the possible status are:

RUNNING
LOW PRESSURE
SUPERVISION
STOP KEY
STOP SENSOR
LOW BAT
TELEPHONE
POWER ON
TIMER

Then you have the information, so you can decide what to do.

RUNNING:	The machine is working properly.
LOW PRESSURE:	Start the pump, so you get pressure on the machine.
STOP SENSOR:	The machine is ready to be moved to a new field.
TELEPHONE:	The machine has been stopped by a SMS " STOP ", send a SMS " START " to start the machine, or press the start key on the PROGRAM RAIN.
POWER ON:	The battery has been disconnected and connected again, there could also be a lose connection in the power supply.
LOW BAT:	The battery voltage has dropped below 11.2 V, so there are problems with the power supply.
SUPERVISION:	The machine have not moved due to a malfunction for the supervision time, it is necessary to go to the machine and check the machine before pressing the START key on the PROGRAM RAIN.
STOP KEY:	The STOP key on the machine has been pressed, go to the machine and press the START key on PROGRAM RAIN.
TIMER:	The timer in the PROGRAM RAIN is running and the machine will automatically start when the time is gone.

Programming of the phone numbers and language:

Press the " PROG " key 3 times and the display will show:

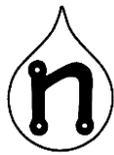
A 123456
B 123456
Language 1

1 English, 2 Danish, 3 German, 4 French, 5 Dutch, 6 Spanish, 7 Italian, 8 Swedish, 9 English, 10 English.

There is a cursor under the " A ". With the arrow keys you can chose if you want to change the number A, B or the language.

With the " PROG " key you can move the cursor to the right.

With the arrow keys you can change the digit over the cursor.



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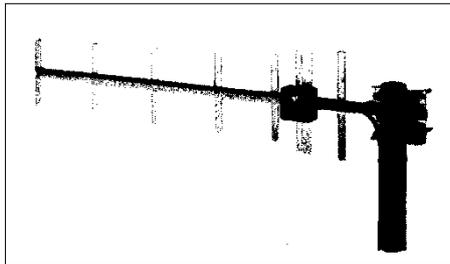
If the phone number " B " is blank it will only send one SMS.

When the right phone numbers and language are chosen, the values are saved by pressing the " MENU " key. The numbers are saved even if the power are disconnected for years.

Technical data:

Voltage	10 - 15 V
Current	max. 25 mA, sending 0.25 A
Phone numbers	14 digits max.
Send to	1 or 2 phone numbers.
Display	4 lines with light.
Size	180 x 180 x 60 L x B x H
Antenna	½ lamda, gain 4dB, length 200 mm
Signal strength	1 in the display = -113dBm 31 in the display = -51 dBm 10 minimum for safe operation.
Power supply	12V 7.2Ah battery and 2 solar panels 12V 4W on each side of the machine, so one would not risk that one of the solar panels is directed towards north the whole time.
Fuse	2 A

Accessories:



Yagi antenna. Gain 10 dB.
This is 6 dB more than the standard antenna, which
is an increase in 3 in signal strength.

Cable connection:

TELE RAIN

SCHWARZ	1	BLACK	1	NOIR
BRAUN	2	BROWN	2	MARRON
ROT	3	RED	3	ROUGE
ORANGE/HELLROT	4	ORANGE/PINK	4	ORANGE/ROSE
GELB	5	YELLOW	5	JAUNE
GRÜN	6	GREEN	6	VERT
BLAU	7	BLUE	7	BLEU
VIOLETT	8	VIOLET	8	VIOLET
WEISS	9	WHITE	9	BLANC
FREI	10	NOT USED	10	NE SE FAIT PAS