Frequency Synthesizer
F-SCAN COMPACT

Firmware Version FSC V2.0x 10SP 10 memory banks
Firmware Version FSC V2.1x 100SP 100 memory banks

INSTRUCTION MANUAL

This symbol identifies the equipment as Type B

ATTENTION: Consult accompanying documents

Table of contents

WARNING: User with Pacemaker, pregnant women and electro-sensitive persons, should consult a medical professional prior to connecting to the F-SCAN COMPACT.

WARNING: The F-SCAN COMPACT generates frequencies. The use of cables, adapters or accessories other than the ones supplied or recommended by the manufacturer could cause malfunctions and revoke the warranty.

NOTE: The F-SCAN COMPACT, all accessories, connectors and cables, must be visually inspected for damage frequently. A complete functional test, performed by a professional, is recommended once a year.

NOTE: The device's integrated functions allow biological tests and applications described by the author Dr. H. R. CLARK. They are also suitable for applications commonly named after R. R. RIFE.
The F-SCAN COMPACT is used under the sole responsibility of it's operator WITHOUT LIABILITY TO THE MANUFACTURER.

Preface

One of our prime objectives as a Swiss company is the development and manufacturing of precise and reliable products for physical therapy based on years of experience. Some of our products are well known and utilized internationally. As a small company we can afford to keep in touch with our customers who often contribute to new developments.

May your work with the F-SCAN COMPACT be beneficial.

Introduction

The FREQUENCY SYNTHESIZER **F-SCAN COMPACT** has been developed to complement our existing F-SCAN product line. Customer have frequently asked for a mobile and reasonably priced F-SCAN device with greater functionality than the F-SCAN SATELLITE and of other devices marketed.

The F-SCAN COMPACT offers the same set of more than 340 applications named after R. R. RIFE as the F-SCAN2. An application can be selected and ready to start within one minute. 10 or 100 more memory banks for up to 50 frequency values each, can be filled by the user with individually selected applications. Each of the 10 or 100 banks can be erased or reused.

The mode of operation is new. It resembles the operating mode of modern cell phones and it does not take long to get used to the procedure. The F-SCAN COMPACT is small and mobile. The integrated rechargeable Lithium-Ion battery powers the device for up to 3 hours of continued use. The device, its application cable and two suitable electrodes are all that's needed to run an F-SCAN frequency application almost anywhere.

If an application is selected and started, it will run safe and automatically with factory set defaults. The user can interfere and adjust the settings of the signal form, the runtime for each frequency or the level of the signal amplitude. These user settings remain active either until the user changes them again, or resets them to the default settings with a touch on a button.

A SWEEP-function – the range between an upper and a lower frequency limit can be defined by the user – is offered as well. The runtime can be set between 30 seconds and one hour.
A full cycle ZAPPER-function (as described by Dr. H. R. Clark) is integrated and a "SPECTRAL ZAP-function" which generates even more harmonics and further intensifies the stimulation of the immune system.

"Soft ramping" is used to switch from one frequency value to the next to avoid unwanted discharge impacts for the user. The signal amplitude is reduced to zero for the frequency exited and raised from zero to the operating level for the new value.

Power ON and OFF, as well as switches between frequency values and the end of an application, are signaled acoustically. The device switches OFF automatically after 2 minutes of inactivity.

The Lithium-Ion battery recharges if the device is connected to a PC or Notebook with the USB-cable. The latter, and a power supply to plug into mains – connected with the same USB-cable –, are shipped with the F-SCAN COMPACT.

Standard – shipping list for the F-SCAN COMPACT

- F-SCAN COMPACT
- Power supply (with USB-connector)
- Mini-USB-cable
- Application cable
- Stainless steel hand holds
- Instruction manual (not shown)

Default settings

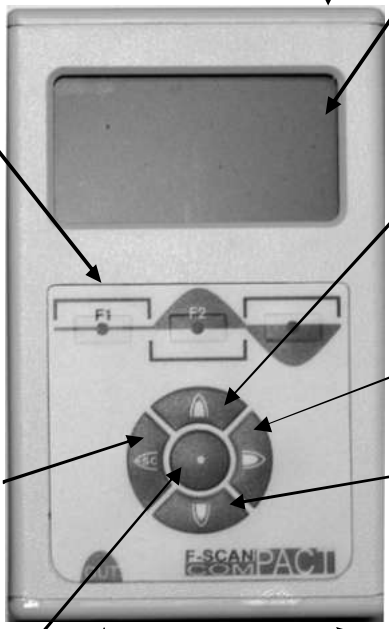
Display language:	**English** (2nd choice German)
Runtime per Frequency:	**3:00 minutes** (range 0:30 to 60:00 minutes)
Amplitude of signals:	**80%** of maximum of 12Vpp (adjustable in steps of +/- 1%)
Wave form:	**AUTO** (SQUARE positive DC-OFFSET below 65000 Hz, SINE above 65000 Hz)

Program number 1 of table 

and 

Memory positions of INDIVIDUAL APPLICATIONS are clear

Elements for operation



SOFT keys
F1, F2, F3.
Tasks for each key are defined in the bottom line of the display during operation.

Mini-USB-Connector.
Connect to PC, Notebook or power supply to charge Lithium-Ion battery via USB-cable

Graphical monochrome LCD-display.

KEY-UP

KEY- RIGHT

KEY-LEFT

KEY-DOWN

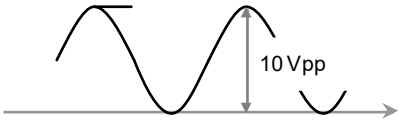
KEY-CENTER

3.5mm jack connector for application cable

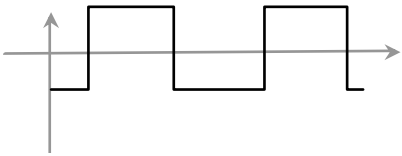
Green LED as proof of output signal during operation

NOTE: The display lights up for a few seconds only to support input activities. The device switches OFF if inactivity exceeds 2 minutes. Both measures reduce the power drain on the battery.

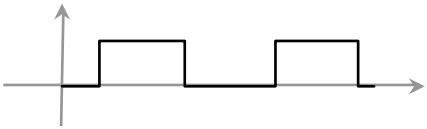
Signals sent to the output port



SINE



SQUARE FULL WAVE
(0Vpp to 24Vpp)



SQUARE DC-OFFSET positive,
(0Vpp to 12Vpp)

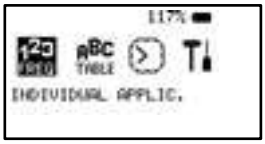
First steps

The charge level of the Lithium-Ion battery of the F-SCAN COMPACT must be checked first after the device and its accessories have been unpacked.

CHARGE YOUR F-SCAN COMPACT BEFORE FIRST USE FOR AT LEAST 6 HOURS. CONNECT THE DEVICE AND THE POWER SUPPLY WITH THE USB CABLE AND PLUG THE POWER SUPPLY INTO AN AC-OUTLET. IF THE DEVICE IS POWERED ON DURING THE CHARGING PROCEDURE, LESS ENERGY FOR ENERGIZING THE BATTERY PACK IS AVAILABLE AND THE CHARGING PROCEDURE TAKES LONGER.
THE LCD MAY SHOW APPEARING AND DISAPPEARING STRIPES DURING THE CHARGING AND THE DEVICE MAY WARM UP SLIGHTLY. THESE EFFECTS ARE NORMAL.

Press KEY-CENTER . An acoustic signal accompanies the start-up sequence. The display shows briefly the units name, the company identification and the release level of the firmware, followed by the start screen:

followed by



If the battery is fully charged its icon in the upper right corner of the display will show a load of more than 115% (117%). The battery icon flashes if the device is connected with the USB-cable to either the power supply or a booted PC or Notebook until the battery is fully charged.

The battery discharges slowly when the device is operated stand-alone. The battery should be recharged if its capacity reaches 30%. A protection circuit shuts the device off if it is operated below that level.

It may occur that the device cannot be powered on during an active charging process. In such case disconnect the device, start it up, then reconnect to the charger.

The battery is charged continuously as long as the device is connected with the USB-cable to either a booted PC or Notebook, or to the power supply plugged into mains.

Fully charged the battery supports 3 hours of continuous stand-alone operation.

The Lithium-Ion battery does not age prematurely if the device remains connected to a power source whenever it is not used stand-alone.

After power on in stand-by menu, it is possible to select different backlight settings:

- Press F1 to select 100% backlight with backlight off after 20 seconds and use KEY_UP or KEY_DOWN to adjust backlight.
- With F2, you select 70% and can use KEY_UP and KEY_DOWN for modification of backlight WITHOUT backlight off after 20 seconds.
- With F3, you select 50% and can use KEY_UP and KEY_DOWN for modification of backlight WITHOUT backlight off after 20 seconds.

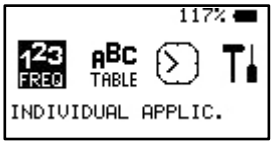
How to SELECT and RUN an APPLICATION

Program number 27 shall be used

Connect the 3.5mm plug of the application cable to the socket located on the front side of the device below the label 

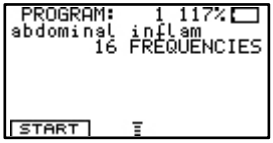
Connect the application cable to the hand holds or to self adhesive pads.

1. Switch on 

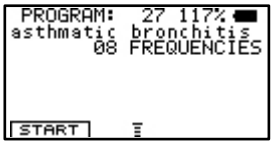


2. List 

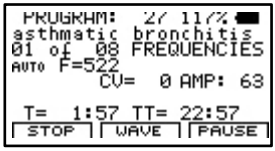
3. Select with 



4. Select entry.
Press and hold
until the desired program number
appears in the center
of the top line of the display.
Take the hand holds or position
the self adhesive pads.



5. Start with
or

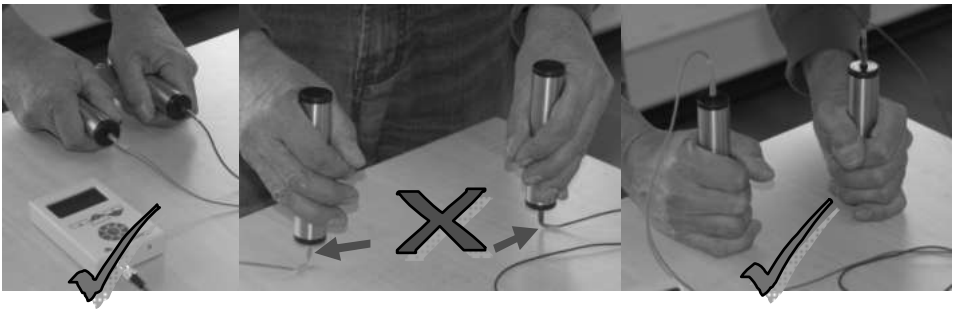


Program 27 holds 8 frequency values and completes the application within 24 minutes .

The device switches OFF automatically two minutes after completing the application, unless it is switched OFF manually before by pressing CENTER until the device signals.

ATTENTION

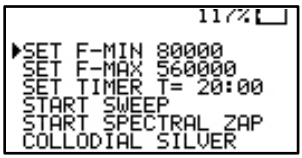
NEVER FORCE APPLICATION CABLE TO FORM SHARP ANGLES



SWEEP function and SPECTRAL ZAP function

The SWEEP function is embedded in the start menu of the APPLICATION LIST

If the symbol menu ☰ located in the center of the bottom line of the display, is activated with F2, a screen with the settings for the wide band application SWEEP opens.



If F-MIN (the lowest value of the band to SWEEP) should be changed, press ●

Replaces the value 80000 by "0" in the 1st digit

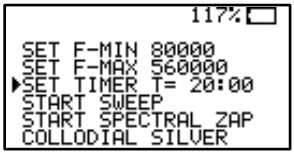
The value 80000 shall be entered again, Press ◠ 8 times.

Adds a „0" as the 2nd digit.

Adds a "0" as the 3rd digit. Another actuation adds a "0" as the 4th digit and a third one adds a "0" as the 5th digit. The value of F-MIN is 80000.

Confirm entries with ●

For entering F-MAX, proceed identically.

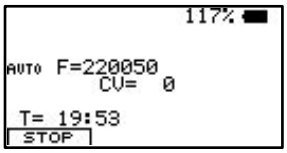


To change the runtime for the SWEEP, set the cursor to the line SET TIMER and confirm.

Adjust the time with the up and down keys and confirm with CENTER.

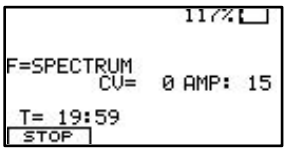
Adjust the time with KEY-UP and KEY-DOWN.
Leave the SET TIMER menu with KEY-LEFT.

To start the SWEEP, move the cursor to this line and confirm.



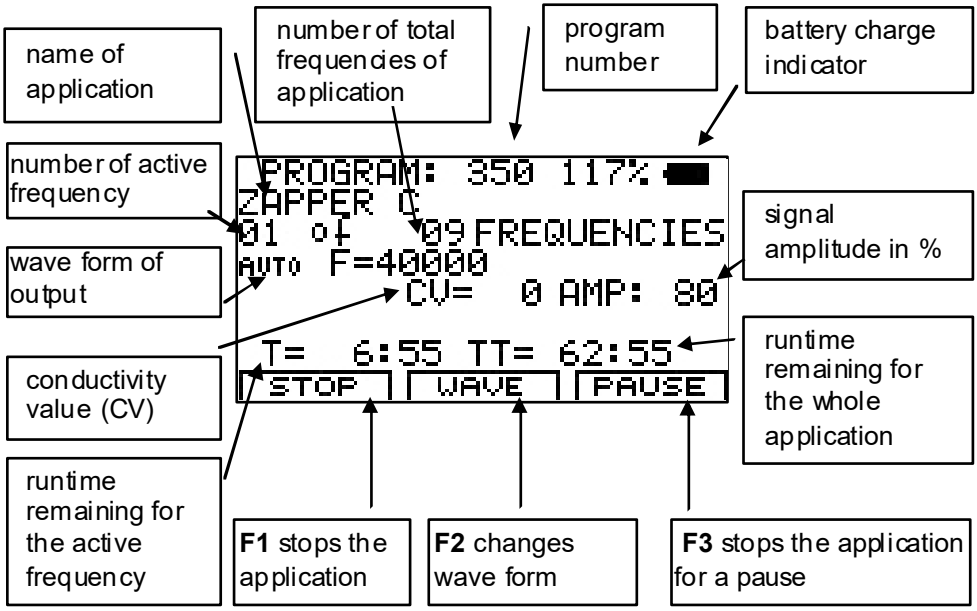
The symbol AUTO, to the left of the frequency value "F", indicates, that the signal form will be assigned automatically to the SWEEP based on the frequency band selected. The step size between frequencies is calculated by the processor in relation to the band width. The conductivity value (CV) registers if electrodes are attached. The time remaining for the SWEEP shows 19 minutes : 53 seconds.

To start the SPECTRAL ZAP, move the cursor to this line and confirm.



The application time is the same as set for SWEEP. The signal form is square dc-offset as long as the factory default AUTO is not changed.

Display readings of an active application:



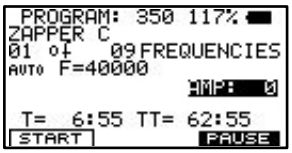
Soft keys F1, F2, F3

Their function changes in different program windows. The actual task is defined in the bottom line of the display during operation.

Whenever a frequency runs, F2 acts like a serial switch to change the wave form. A touch switches from AUTO to SINE. A second touch to SQUARE DC-OFFSET. A third touch to SQUARE FULL WAVE and another switches back to AUTO. A user selection remains active until it is either changed again, or until a reset to the default settings.

A brief touch stops the active frequency and starts the next one in line.

F3 stops the application for a pause. PAUSE flashes and the signal amplitude AMP shows "0":



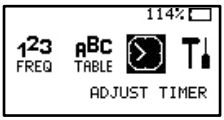
To restart from the point of interruption, press F1 or F3 .

ZAPPER function (as described by Dr. H. R. CLARK)

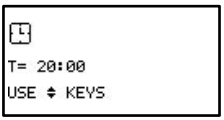
The F-SCAN COMPACT provides a traditional ZAPPER–program. It is formed by 9 time phases of equal length. If the TIMER is set to 7:00 minutes – and the program started – the function runs automatically as follows for 63:00 minutes:

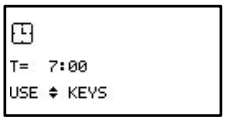
A first active time phase is followed by 3 inactive ones, leading to a second active time phase, followed again by 3 inactive ones. The program completes with a third active time phase.

Steps to the program and its sequence in detail.



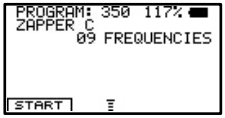
set TIMER to 7:00 minutes

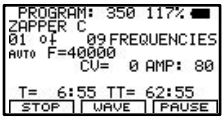




The ZAPPER–program is stored in position 350 of the application list.

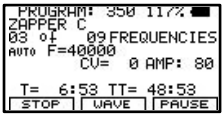
move to position 350, confirm and press START





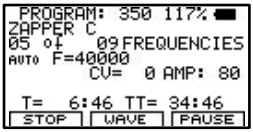
The first active 7-minute phase
01 of 09 phases, frequency F=40000Hz, amplitude AMP: 80%, total runtime left TT= 62:55

The first inactive 7-minute phase
02 of 09 phases, frequency F=0Hz, amplitude AMP: 0%, total runtime left TT= 54:58

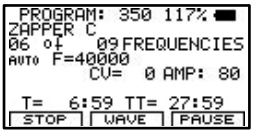


The second inactive 7-minute phase
03 of 09 phases, frequency F=0Hz, amplitude AMP: 0%, total runtime left TT= 48:53

The third inactive 7-minute phase
04 of 09 phases, frequency F=0Hz, amplitude AMP: 0%, total runtime left TT= 40:54



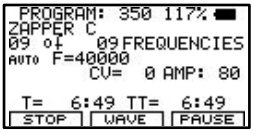
The second active 7-minute phase
05 of 09 phases, frequency F=40000Hz, amplitude AMP: 80%, total runtime left TT= 34:46



The fourth inactive 7-minute phase
06 of 09 phases, frequency F=0Hz, amplitude AMP: 0%, total runtime left TT= 27:59

The fifth inactive 7-minute phase
07 of 09 phases, frequency F=0Hz, amplitude AMP: 0%, total runtime left TT= 20:57

The sixth inactive 7-minute phase
08 of 09 phases, frequency F=0Hz, amplitude AMP: 0%, total runtime left TT= 13:50



The third active 7-minute phase
09 of 09 phases, frequency F=40000Hz, amplitude AMP: 80%, total runtime left TT= 6:49

End of ZAPPER-program

Memory banks for user defined applications

100 memory banks for user defined applications

F-SCAN COMPACT 100SP, Firmware Version FSC V2.1x

⇒ see page 21

10 memory banks for user defined applications

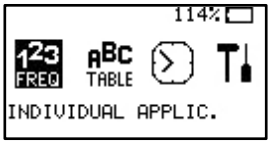
F-SCAN COMPACT 10SP, Firmware Version FSC V2.0x

The F-SCAN COMPACT offers memory banks of 50 positions each.

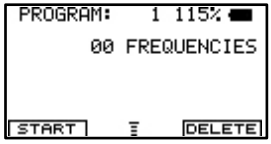
User can enter frequency sequences from the Internet or from other sources. Entries will be saved until erased by the user. The procedure to follow to either erase all user entries together, or one sequence only, will be described later in this document.

Example: how to enter frequency values of 100 Hz, 200 Hz and 1234 Hz in memory location number #1:

1. Switch on with CENTER

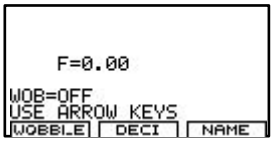


2. Select with CENTER.
‚00 FREQUENCIES' in the display indicates that no frequencies are stored in bank #1.



Memory banks can be selected with KEY-UP and KEY-DOWN

3. Input of a frequency
F=0.00 indicates that the actual value is 0 Hz.



4. Enter 100 Hz

F=1

times 10  F=10

times 10  F=100

Confirm with CENTER 
Now the first value F=100 Hz is memorized in bank #1

5. Input of a frequency 

6. Enter 200 Hz  F=1

Plus 1  F=2

times 10  F=20

times 10  F=200

Confirm with CENTER 
Now the second value F=200 Hz is memorized in bank #1.

7. Input of a frequency 

8. enter 1234 Hz  F=1

times 10  F=10

Plus 1  F=11

Plus 1  F=12

times 10  F=120

Plus 1  F=121

Plus 1  F=122

Plus 1  F=123

times 10  F=1230

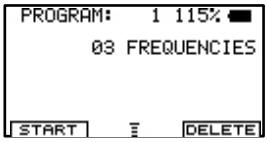
Plus 1  F=1231

Plus 1  F=1232

Plus 1  F=1233

Plus 1  F=1234

Confirm with CENTER 
Now the third value F=1234 Hz is memorized in bank #1.



Hint for entering of frequencies:

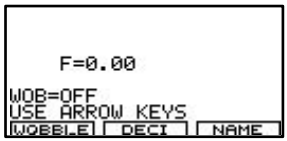
- Before confirming with CENTER, a wrong entry can be erased to F = 0 with KEY-LEFT
- With KEY-UP  values are incremented.
- With KEY-DOWN  values are decremented.

Start program with 

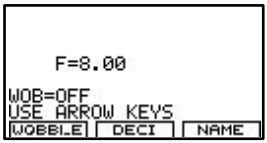
Input of decimals

Some applications mentioned in the literature call for use of frequencies with up to 2 decimals (i.e. 8.82 Hz). The F-SCAN COMPACT offers this feature starting with firmware version Vx.05 or Vx.13.

1. Input a frequency with decimals, i.e. 8.82 Hz.
   F=0.00 shows,that the Actual value of the Frequency is 0 Hz.



2. Enter 8 Hz, press 8 times



3. Press softkey “DECI“

4. Press KEY-UP and hold until decimal shows 82. Confirm with CENTER.

.

⇒ Continue with chapter TIMER

100 memory banks for user defined applications

F-SCAN COMPACT 100SP, Firmware Version FSC V2.1x

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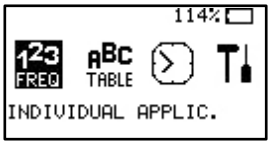
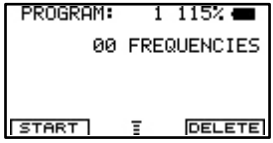
Example: how to enter frequency values of 100 Hz, 200 Hz and 1234 Hz in memory location number #1:

1. Switch on with CENTER



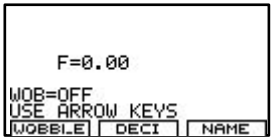
2. Select with CENTER. *‚00 FREQUENCIES‘ in the display indicates that no*



frequencies are stored in bank #1.

Memory banks can be selected with KEY-UP and KEY-DOWN

3. Input of a frequency
F=0 indicates that the actual value is 0 Hz.



4. Enter 100 Hz  F=1

times 10  F=10

times 10  F=100

Confirm with CENTER 
Now the first value F=100 Hz is memorized in bank #1

5. Input of a frequency 

6. Enter 200 Hz  F=1

Plus 1  F=2

times 10  F=20

times 10  F=200

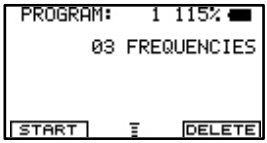
Confirm with CENTER 
Now the second value F=200 Hz is memorized in bank #1.

7. Input of a frequency 

8. enter 1234 Hz  F=1

times 10  F=10

Plus 1  F=11

Plus 1		F=12
times 10		F=120
Plus 1		F=121
Plus 1		F=122
Plus 1		F=123
times 10		F=1230
Plus 1		F=1231
Plus 1		F=1232
Plus 1		F=1233
Plus 1		F=1234
Confirm with CENTER *Now the third value F=1234 Hz is memorized in bank #1.*		

Hint for entering of frequencies:

- Before confirming with CENTER, a wrong entry can be erased to F = 0 with KEY-LEFT
- With KEY-UP  values are incremented.
- With KEY-DOWN  values are decremented.

Start program with 

Input of decimals

Some applications mentioned in the literature call for use of frequencies with up to 2 decimals (i.e. 8.82 Hz). The F-SCAN COMPACT offers this feature starting with firmware version Vx.05 or Vx.13.

1. Input a frequency with decimals, i.e. 8.82 Hz. *F=0.00 shows,that the Actual value of the Frequency is 0 Hz.*

2. Enter 8 Hz, press 8 times

3. Press softkey “DECI“

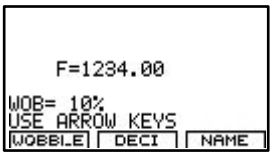
4. Press KEY-UP and hold until decimal shows 82. Confirm with CENTER.

Adjustment of Wobble-Function

For some applications it is recommended that a frequency changes constantly. This is called WOBBLE. It is possible to assign a wobble to any frequency. The value for WOBBLE is input in "%". A WOBBLE value of 10% means that the frequency alternates between +/- 10% of its value. Any value above 100 Hz can be wobbled.

NOTE: THE WOBBLE VALUE CAN ONLY BE ASSIGNED BEFORE THE FREQUENCY VALUE IS MEMORIZED WITH CENTER.

The image to the right shows that a frequency of 1234Hz has been input. Before the entry has been confirmed with KEY CENTER, KEY F1 has been pressed 10 times. Now the Frequency and the wobble value can be memorized with KEY CENTER.

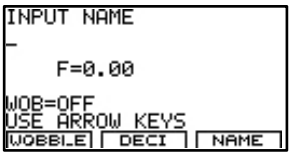


Name an application

Press KEY F3 to enter the NAME submenu.

Use KEY LEFT, KEY RIGHT, KEY UP and KEY DOWN to operate the NAME submenu:

KEY LEFT:	clears an entry
KEY UP:	increases the character value
KEY DOWN:	decreases the character value
KEY RIGHT:	selects the next character



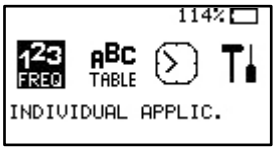
With KEY CENTER the entry will be confirmed and memorized.

TIMER
Change the runtime per frequency

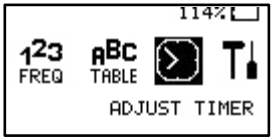
The factory default for each frequency value issued by the F-SCAN COMPACT is 3:00 minutes. The user can adjust it in steps of 15 seconds between 0:30 and 60:00 minutes.

Example: how to change the timer from 3:00 minutes to 2:00 minutes:

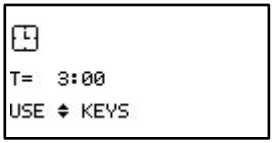
1. Switch on



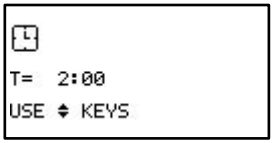
2. Select ADJUST TIMER



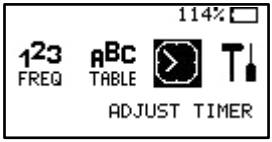
3. Confirm with CENTER



4. Set TIMER to 2:00 Minutes — 4 times



5. Terminate ADJUST TIMER

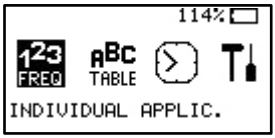


Change the amplitude of signals

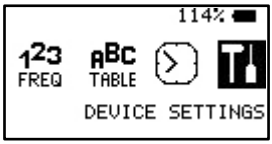
The factory default for the amplitude of signals generated by the F-SCAN COMPACT is 80% of the maximum of 24Vpp for FULL WAVE signals and 12Vpp for SQUARE WAVE DC-OFFSET signals. The user can adjust it in steps of +/- 1%.

Example: how to change the amplitude from 80% to 75%:

1. Switch on

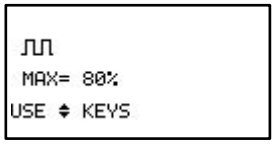


2. Select DEVICE SETTINGS

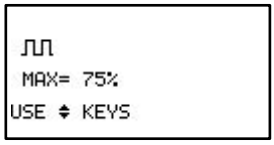


3. Confirm with CENTER

4. Confirm with CENTER



5. Set amplitude to 75%,
press KEY-DOWN 5 times.



6. Terminate SET AMPLITUDE

NOTE: All user adjustments to the default settings remain active until either the user changes them again, or resets them as described on the following page.

Reset to default settings

If the switch DEFAULT SETTINGS in the window DEVICE SETTINGS is activated, the following parameter will be reset:

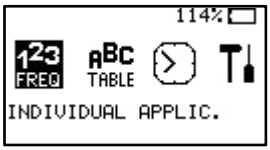
Display language:	**English** (2nd choice German)
Runtime per Frequency:	**3:00 minutes** (range 0:30 to 60:00 minutes)
Amplitude of signals:	**80%** of maximum of 12Vpp (adjustable in steps of +/- 1%)
Wave form:	**AUTO** (square DC-Offset)

Program-number 1 of table 

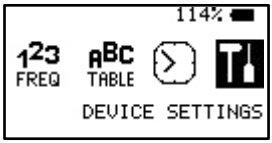
and 

Example: how to reset to DEFAULT SETTINGS:

1. Switch on 



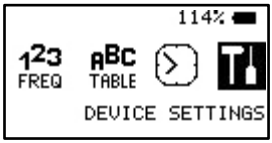
2. Select DEVICE SETTINGS 



3. Confirm with CENTER 

4. Select DEFAULT SETTINGS
press KEY-DOWN 2 times. 

5. Confirm with CENTER
Display shows activity and returns to main menu. 

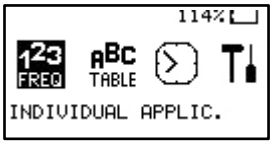


Clear ALL user memory banks

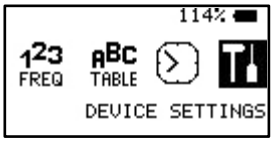
If the switch CLEAR USER MEMORY in the window DEVICE SETTINGS is activated, all 10 memory banks will be cleared. They will be ready for new input.

Example: how to clear all user memory banks:

1. Switch on



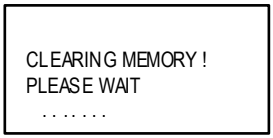
2. Select DEVICE SETTINGS



3. Confirm with CENTER

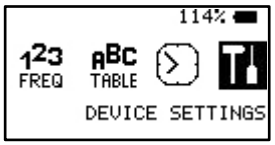
4. Select CLEAR USER MEMORY
press KEY-DOWN 3 times.

5. Now press F3 and keep it pressed. Press CENTER for half a second. When device beeps, release keys. Display shows activity and returns to main menu.



After finishing the procedure …

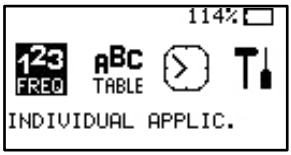
6. Terminate DEVICE SETTINGS



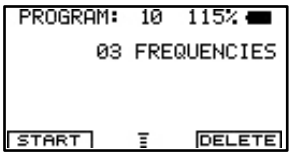
Clear ONE user memory bank

Example: how to clear ONE user memory bank:

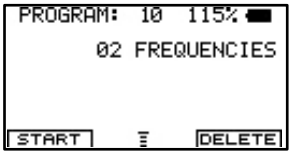
1. Switch on



2. Select INDIVIDUAL APPLIC.
Confirm with CENTER
Memory bank #10 has 3 entries.

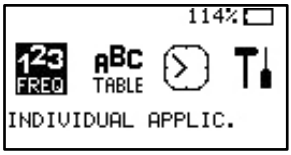


3. Press SOFT-KEY F3 until a beep.
The last Frequency of
Memory bank no. #10 will
be cleared and the message
”02 FREQUENCIES“ is displayed.



Keep SOFT-KEY F3 pressed for another 8 seconds
if all Frequencies of Memory bank #10
should be cleared.

4. Terminate INDIVIDUAL APPLIC.



OPTION DIRP

Introduction

The option DIRP offers the function to perform an automated resonance analysis. Up to now this function was offered exclusively by the F-SCAN2 and the F-SCAN TOUCH and performed by therapists or health practitioners.

DIRP (DIRP = Dual Integration Resonance Procedure) generates a snapshot of body reactions in the form of resonance answers to briefly applied frequencies. The results are therefore personalized and should be superior to the use of low frequency applications readily offered by various listings. Experience teaches that the body answers with useful resonances when positively stimulated by a given frequency.

The standard DIRP function scans the range between 80‘000 Hz and 560‘000 Hz. Based on the experience of many years scans below 80’000 Hz do not produce meaningful results. The lower and upper limits of the range can be raised if needed. The device calculates the step size between frequency values to cover the range in 500 equal steps.

Sensors

F-SCAN COMPACT with the optional DIRP function come with one regular single segment handhold and a special one with two segments.

The short segment contains the DIRP sensor.

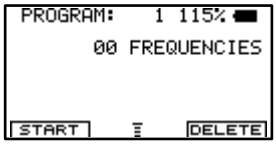
WARNING: NEVER MAKE A DIRECT CONNECTION BETWEEN THE ELECTRODES DURING A THERAPY!

The segmented handhold must be placed in the right hand such, that the forefinger curls around the DIRP sensor without pressure. Both hands should be kept as steady as possible during the DIRP run to avoid false readings.

Operating procedure

1. Connect handholds,
   Switch device ON

2. Select
   INDIVIDUAL APPLIC.
   Display shows program position ‚1'



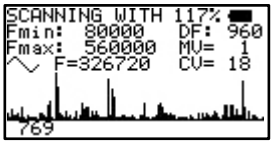
Use UP- or DOWN-keys   to select the program position to store the DIRP results in

3. Place the handholds in both hands as pictured and described above. A sticky pad electrode may be used in lieu of the steel handhold on the red cable.

4. Press the RIGHT-key.

- After selecting DIRP with KEY_RIGHT, a selection menu opens:
  - KEY_CENTER = START normal.
  - KEY_F2 = start FAST mode.
  - KEY_LEFT = EXIT.

The progress of the analysis can be followed on the display. The resulting resonances are shown in graph form. Wait until the scan is completed.



Legend:

Fmin: 80000	START frequency of the analysis.
Fmax: 560000	END frequency of the analysis.
DF: 960	Step size in Hz calculated to divide the range between Fmin and Fmax in 500 steps of equal length.
MV= 1	The resonance value of the frequency currently applied. Small values will be neglected and large values stored after completion of the analysis.
CV= 18	The average Conductivity Value in % during the run. (preferably between 5 % and 25 %)
F=326720	Value of frequency currently applied.

NOTE: KEEP HANDHOLDS STEADY TO AVOID FALSE READINGS!

NOTE: IF THE CV IS TOO HIGH, THERE WILL BE NO GRAPHICAL READOUT (FLAT LINE). TO REDUCE THE CV, USE A STICKY PAD ELECTRODE ON THE RED CONNECTOR.

After completion of the analysis the display shows the number of resonance values automatically selected for an application as HITS. These values are stored in the program position opened before the start.

5. Return to “INDIVIDUAL APPLIC“  or

- KEY_F1 to reduce the CL (clipping level).
- KEY_F3 to increase the clipping level.
- the CL and resulting number of hits are being displayed in the bottom line.
- KEY_RIGHT for jumping to the next HIT with indication of frequency and MV.

6. If an F-SCAN COMPACT 100SP is used, the program name "DIRP" will be assigned to the newly stored analysis results. The name can be edited as detailed in the Instruction Manual.

   The application can now be started by pressing F1.

Some prerequisites for a successful DIRP analysis

The results of a DIRP analysis can be used right away. They represent a snapshot of the resonance reactions to the set of frequencies applied during the analysis cycle. Those briefly applied frequencies may influence the resonance reactions to another DIRP if its run right after the first.

Some prerequisites are:

- the user should be calm and relaxed. About two hours should have passed since his last meal and his last stimulating drink.
- the user should not engage in a conversation during the analysis.
- potential sources of interaction or disturbance should be removed or inactivated during the analysis (ie. watches, electronic equipment, fluorescent lights).
- the handling described before is followed.
- the user's hands must not touch or ‚short out' by being placed on an uncovered part of the body.
- the conductivity value **CV** should best read between 3% and 25% during the analysis. A **CV** below 3% may improve after drinking a glass of water, or after a 'wide band sweep' for about 30 minutes in the same frequency band as the projected DIRP run. A **CV** above 25% may be caused by high blood pressure, a rapid pulse, nervousness, by moist hands or an inflammation. The user must be calmed with adequate procedures.

DIRP should not be used:

- if the user is hypersensitive to electrical stimulation.
- during pregnancy
- if the user has a severe heart problem
- electrodes must **NEVER** be placed on wounds or damaged skin

If in doubt, consult an expert.

OPTION ChipCard

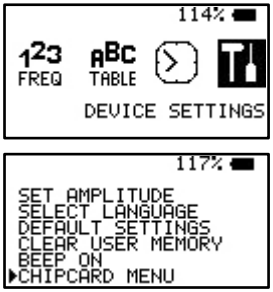
Introduction

The special ChipCard has been developed to support an easy direct transfer of INDIVIDUAL APPLICATIONS between two F-SCAN COMPACT devices. It can also be used to transfer one application from an F-SCAN COMPACT to an F-SCAN MinDevice.

The ChipCard must be inserted as pictured into the slot of the F-SCAN device.

Operation

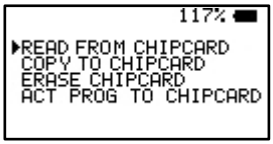
If a valid ChipCard is inserted, and the function “DEVICE SETTINGS" activated, a "CHIPCARD MENU" can be accessed on the bottom line of the display.

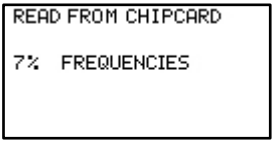


The “CHIP CARD MENU” offers 4 actions:

READ FROM ChipCard

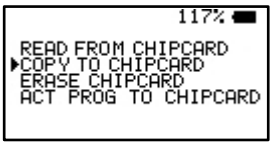
If selected and confirmed with CENTER, all applications (including their names) stored on the ChipCard replace the previous content of the function “INDIVIDUAL APPLICATIONS”. The procedure takes approx. 4 minutes and cannot be interrupted. After completion, the F-SCAN COMPACT must be switched “OFF”.

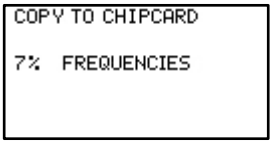




COPY TO ChipCard

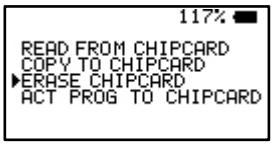
If selected and confirmed with CENTER, all applications (including their names) stored in the function “INDIVIDUAL APPLICATIONS” replace the content of the ChipCard. The procedure takes approx. 4 minutes and cannot be interrupted. The application which had been used last with the F-SCAN COMPACT will be marked. If the content of the ChipCard is transferred to an F-SCAN COMPACT this application will be readily available after power “ON”. This application will also transfer to an F-SCAN MinDevice if the ChipCard is used there.

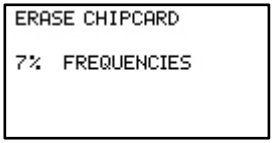




ERASE ChipCard

If selected and confirmed with CENTER, the content of the ChipCard will be erased. The procedure takes approx. 4 minutes and cannot be interrupted.





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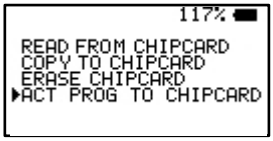
ACT PROG TO ChipCard



If selected and confirmed with CENTER, the last program chosen from the function INDIVIDUAL APPLICATIONS will be copied to the ChipCard. The procedure takes a few seconds.

Function of the CHIPCARD with an F-SCAN MinDevice

If an INDIVIDUAL APPLICATION stored in an F-SCAN COMPACT should be transferred to an F-SCAN MinDevice, the following procedure applies:

Transfer the application from the COMPACT to a ChipCard using the routine explained before. Remove the ChipCard and insert it into the slot of the MinDevice with the chip pointing up. The MinDevice must be “OFF”.

Switch the MinDevice “ON”.

The content of the transferred application is now read automatically and stored in the device – the green LED in the middle blinks until the transfer is completed.

Switch the MinDevice “OFF” and remove the ChipCard.

Miscellaneous

LITHIUM-ION BATTERY

If the battery is charged while the device is OFF, it may refuse to switch ON. Disconnect the USB-cable, start the F-SCAN COMPACT, then reconnect the cable.

WAVE FORM

If the wave form is changed from the factory default AUTO, the selection is maintained until changed back. If SQUARE FULL WAVE is selected the signals from low frequencies may be felt to be irritating. An adjustment of the signal amplitude below the default of 80% will solve the problem.

LANGUAGE SELECTION

Selection of German as the display language does not affect the names of the applications stored. The device must be reprogrammed at the factory to incorporate the German names.

CONDUCTIVITY VALUE (CV) and functional test of the APPLICATION CABLE

A CV-value appears on the display whenever a frequency is active. It is displayed numerically and as a horizontal bar. Any living organism regulates the CV representing its cell activity. The CV can also be used as a functional control of the device, and the application cable with the set of electrodes, as follows: The F-SCAN COMPACT must be readied for an application and a frequency started. The electrodes must not touch. The display must show “CV=0“ and the green LED must be bright. If the electrodes are made to touch, the CV must increase to “40“ and the green LED must be dark – device, application cable and electrodes are OK. If the electrodes are placed apart again, the LED turns bright and the CV-value reduces slowly back to zero.

DIFFERENCE between “ZAPPER” and “SPECTRAL ZAP”

The function “ZAPPER” uses one frequency and its harmonics. The function “SPECTRAL ZAP” generates many frequencies and their harmonics.

Technical data

Housing	Plastic
Dimensions	105 mm x 66 mm x 19mm
Monochrome display	45mm x 24mm; 128 x 64 pixel
Minimum frequency	1Hz
Frequency stability	30 ppm
Memory	10 or 100 user definable memory banks List of 349 complete applications if enabled by user
Power supply	Power supply: Input 100–240 VAC, 50–60 Hz, Output 5 VDC, 500mA
Multi signal port OUT	Sine signal, DC-Offset, Amplitude 10Vpp Square full wave, Amplitude 0 … 24Vpp. Square DC-Offset, Amplitude 0 … 12Vpp.
Output range	1Hz to 1.7 MHz sine, 1 Hz to 65 kHz square Reduction of Amplitude on Frequencies above 1MHz is normal.

Changes to improve or simplify the product will be made without prior notice

Declaration of Conformity

Herewith we declare:

TB-ELECTRONICS GmbH
Poststrasse 4
CH-9443 Widnau

that the following product with the marking

F-SCAN COMPACT Frequency Synthesizer

declare under our sole responsibility to which this declaration relates is in conformity with the following standard:

EMC: 89/336, 92/31, 93/68
Harmonized standards: EN 61326-1
Ratings, characteristics 5VDC, 300mA

Widnau, 03 - 04 - 2008

legally binding Signature