Jeti box profi

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jeti box profi

Introduction

The JETIBOX profi is a mobile wireless device, offering maximum comfort to the user when viewing, processing and storing telemetric data. An integral part of the JETIBOX profi is the system JETI DUPLEX 2.4GHz, which can be alternatively operated in one of the two offered wireless modes.

1. Description of equipment
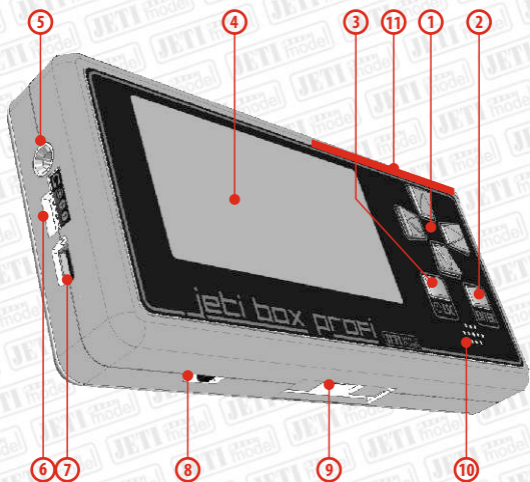
1. - 4 Navigation Buttons
2. - **Enter** for confirmation
3. - **ESC** for leaving the menu
4. - Graphic display
5. - Stereo Jack 3,5mm for earphones connection
6. - Three pin connector (Ji) for JETIBOX compatible equipment connection
7. - USB connector for JETIBOX profi to PC connection
8. - Battery switch
9. - Connector for transmitter connection (Ti)
10. - Loudspeaker
11. - Integrated antenna *

* when handling the JETIBOX profi avoid complete screening off the antennas, otherways range/sensitivity may deteriorate.

2. First Time Switch-On

Before first time switch-on please shift the switch slider to a position closer to the tramsmitter connector. Thereafter press for an extended time the button ESC and the JETIBOX profi will switch-on.
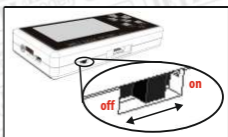
3. Charging the Battery

The JETIBOX profi contains an internal rechargeable Li Po type battery as well as the matching charging circuitry. The JETIBOX profi can be charged from three different inputs:

- USB
- Three pin connector (Ji)
- Transmitter connector (Ti)

Battery charging is indicated by consecutive filling up of the battery symbol in the lower right corner of the display. After the symbol becomes completely filled up, the input will be shown from which the battery gets charged (Ti —transmitter connecting input, USB, Ji —three pin connector). Charging of the battery is completed when the battery symbol is filled up.

4. Switch-On, Switch-Off

The JETIBOX profi is switched-on by pressing and holding the button ESC down for a few seconds, or by connecting a voltage to one of the inputs. If you intend to switch-off the JETIBOX profi, push again the push button ESC for a slightly extended time and the JETIBOX will start its switch-off procedure. Switch-off is indicated in the main menu by rolling the upper bar to the right and after it will be rolled to the end of the right corner, the JETIBOX will be switched-off.

5. Long Term Switch-Off

For a long term switch-off of the JETIBOX profi apply the switch, see paragraph 2 „First Time Switching on". The factory default switch position is battery-off. It is advisable to disconnect the battery if a long term disconnection is planned (several weeks or months). During full disconnection there is no actualisation of time and date provided, therefore it is always necessary to set-up time and date after switching-on again. Always adhere to the correct switch-off procedure. Switch-off the JETIBOX profi by using button ESC first and thereafter switch-off the battery. **Never try to disconnect the battery for long term disconnection by means of the switch while the JETIBOX profi is running!**

6. Menu Navigation, change language

In the upper menu bar you can see the menu name. The presence of a shifting bar in the right corner of the menu signifies that the menu consists of multiple menus. By pressing the "up/down" button you may move vertically through the menu items until the shifting bar sign reaches its lowest screen edge. With the push buttons "left/right" you may move through the menu horizontally.

MENU Name   **Menu Bar**

SET-UP

DUPLEX SOUND
BATTERY PROFILE

Some menus contain items which the user may set-up himself. These items consist of a description and a value. You may recognize an adjustable value by an arrow symbol to the left or right adjacent to the value, see picture. If the value is accompanied by an arrow left, a value change can be achieved by pushing the "left" button. If there appear both arrows in the menu, you may alter the values by pushing the button "left" or "right".

Description

DUPLEX

Input signal
PPM ▶

TX power
100mW ▶

Value
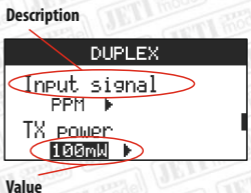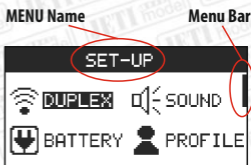
If there is a right direction arrow placed on the left side of a menu item, then this item may be changed/activated by the push button **ENTER**.

```
         DUPLEX
Binding
  ▶ Start
Range test
  ▶ Start
```
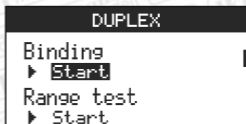
Items which cannot be set up are either marked by a simple arrow or by an icon.

On account of better orientation are some menus on the desktop marked by special navigation icons. The first icon in the upper right corner shows the position of the edited item. A further icon illustrates the choice of further embedding.
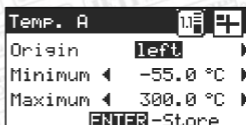
```
Temp. A        1.1
Origin        left
Minimum  ◀  -55.0 °C  ▶
Maximum  ◀  300.0 °C  ▶
          ENTER-Store
```

6.2 Language switching

When leaving the production line the JB embodies its initial set-up comprising English as initial language. If you want to switch to a different language you should proceed as follows:

```
PARAMETER1 PARAMETER2
-------    -------
PARAMETER3 PARAMETER4
-------    -------
◀1▶ ■ Ji Tx ◀    ■
```

1. Switch-On the JETI BOX PROFI. (see. Chapter 4)

```
     MAIN MENU
🔔 ALARMS   📖 MEMORY
🔧 SET-UP   ⓘ VIEW
```
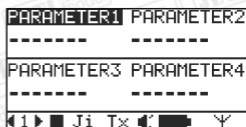
2. Push the **ESC** key. In the main menu select item **SETUP** and confirm with the **ENTER** key.

```
      SET-UP
☀ DISPLAY ⏱ TIME
🔄 UPDATE  📋 MAIN
```

3. Select item **MAIN** and confirm with the **ENTER** key.

```
        MAIN
Language
  ◀ English ▶
Original setup
  ▶ Open
```

4. Select item Language and carry out the requested language change with the aid of the left/right key.
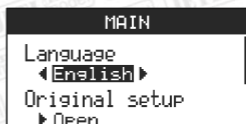
7. Wireles Modes

The JETIBOX profi contains a built-in wireless data transfer system Duplex 2.4GHz. The JETIBOX profi can be operated in two wireless communication modes – "**Monitor**" or "**Tx module**". Mode switching sequence:

1. Switch-On the JETIBOX profi

```
PARAMETER1  PARAMETER2
-------     -------

PARAMETER3  PARAMETER4
-------     -------
◀1▶ ■ Ji Tx ◀  ■■■   Ψ
```
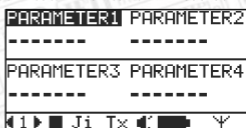
2. Push **ESC**: Main menu, select item **SET-UP**, confirm by **ENTER**

```
            MAIN MENU
 ⚱ ALARMS    🗐 MEMORY

 🔧 SET-UP    ⓘ VIEW
```

3. Select item **DUPLEX**, confirm by ENTER

```
            SET-UP
 📶 DUPLEX    ◁₍ SOUND

 🔌 BATTERY   👤 PROFILE
```

4. Select item „ **JETIbox mode**" and carry out changes by arrows left or right

```
            DUPLEX
 JETIbox mode
 ◀ Monitor
 Binding
 ▶ Start
```

5. Prompt confirmation of mode change. Select **YES**, confirm by **ENTER**

```
            PROMPT
 Do you really want
 to switch JETIbox
 to TX MODULE mode?
      YES      NO
```
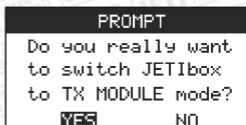
At present you have carried out a mode change. Description of particular modes see below.

7.1 Monitor

When using this mode the JETIBOX profi can only receive data via the existing connection between the transmitter and receiver (listen). The JETIBOX profi cannot communicate with the receiver without a switched on transmitter. If you want to operate the JETIBOX profi in this mode it is therefore mandatory to carry out the binding procedure between the JETIBOX profi and the transmitter as shown below.
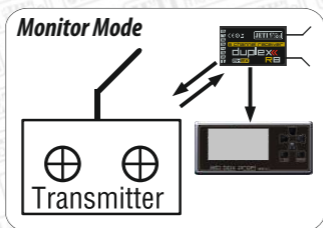
Monitor Mode

Transmitter

Binding

During the binding process the JETIBOX profi adds the transmitter identification number to its directory of equipment, which it is able to communicate with. Binding must be carried out only, if the transmitter and the JETIBOX profi have never been bound before. If the JETIBOX profi and the transmitter have already been bound at any time before, after switching on they will automatically start communication with each other. In case of this mode the JETIBOX profi is bound with the transmitter.

The sequence is as follows:
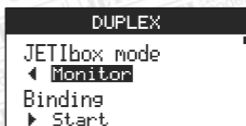
1. Switch-on the JETIBOX profi

2. Push **ESC:** Main menu, select item **SET-UP** confirm by **ENTER**

3. Select item **DUPLEX,** confirm by **ENTER**

4. Select item **DUPLEX.** Check, if the „**Monitor**" mode is set.
Push **ENTER** in item Binding.

**5.** The item „Start" will change into „Running…"

6. Switch-on the transmitter and thereafter the receiver.

7. After binding the item „Running …" will change into „Start" again and herewith the procedure will be finished.

7.2 Tx MODULE mode

In this mode the JETIBOX profi is communicating bidirectionally directly with the receiver. The JETIBOX profi receives telemetric and service data from the receiver. Via the standard PPM signal, which is generated by most transmitters, the JETIBOX profi can simultaneously send stick and controller settings to the receiver. The JETIBOX profi can simply serve as a transmitter module replacement. Thanks to the universal mounting set it is simply done by installation of the JETIBOX profi on the transmitter and by connecting the PPM signal including supply to the JETIBOXu profi.

Tx MODULE mode
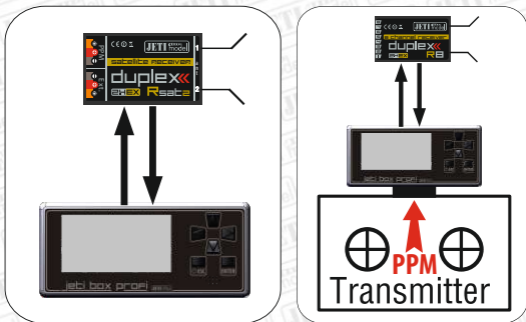
Binding

During the binding process the JETIBOX profi adds the transmitter identification number to its directory of equipment, which it is able to communicate with. Binding must be carried out only, if the transmitter and the JETIBOX profi have never been bound before. If the JETIBOX profi and the transmitter have at any time been bound before, after switching on they will automatically start communication with each other. In case of this mode the JETIBOX profi is bound with the receiver. Binding can be accomplished in two ways.

Automatic Binding:

1. Activate Binding in the receiver: plug-in the "bind plug" into the receiver input marked EXT and connect the receiver supply.

2. Switch-on the JETIBOX profi. JETIBOX profi establishes communication with the receiver.

If connection of the JETIBOX profi with the receiver fails, check whether the mode set-up of wireless communication correctly stands on "Transmitter", see chapter "Wireless Modes", and repeat the procedure.

Manual procedure:

1. Switch-on the JETIBOX profi

```
PARAMETER1 PARAMETER2
-------    -------

PARAMETER3 PARAMETER4
-------    -------

◄1► ■ Ji Tx ◄❚   ❚  Ψ
```
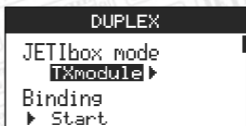
2. Push **ESC:** Main menu, select item **SET-UP**, confirm by **ENTER**

```
        MAIN MENU
 🔔 ALARMS    ▦ MEMORY
 🔧 SET-UP    ⓘ VIEW
```

3. Select item **DUPLEX,** confirm by **ENTER**

SET-UP
- DUPLEX   SOUND
- BATTERY   PROFILE

4. Select item **DUPLEX.** Check, if the "**Txmodule**" mode is set.

DUPLEX
JETIbox mode
  TXmodule ▶
Binding
  ▶ Start

5. Activate Binding in the receiver: plug-in the "bind plug" into the receiver input marked **EXT** and connect the receiver supply.

6. Go to item Binding and select -> Start, confirm by button **ENTER.**
After execution of this step connection between the **JETIBOX** profi and receiver will be accomplished.

DUPLEX
JETIbox mode
  TXmodule ▶
Binding
  ▶ Start
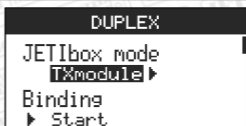
7.3 Telemetry Reception

If you do not connect a PPM signal when using the transmitter mode, the JETIBOX profi will receive telemetry from sensors only which are connected to the receiver. The JETIBOX profi will not transmit stick and controller positions. Deactivate the PPM alarm if you are going to exploit the JB in this mode.

8. Desktop

After switch-on of the JETIBOX PROFI you will be situated in the telemetric menu on the desktop working area. In the lower part a status line shows operation modes of the JETIBOX profi. Above the status line there are items showing telemetric data. The JETIBOX profi offers up to 5 different desktops with 4 items on each, which can be set by the user. With push-button "left/right" you can browse through the desktops, their sequence is shown below left in the status line.
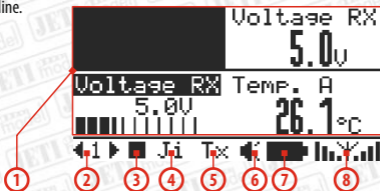
1 - Four positions of telemetric data as defined by the user
2 - Desktop sequence
3 - Storing indicator of telemetric data and PPM
4 - Menu of the external input "Ji"
5 - Menu of the wireless module
6 - Indicator of the active loudspeaker/earphones
7 - Indicator of battery status or charging status while charging
8 - Signal strength of receiver antennas

9

9. PPM monitor

In the PPM Monitor menu there are graphically shown deflections of particular channels. You simply enter the PPM Monitor from the desktop. If you are on desktop 1, just push the "left" button. The PPM Monitor menu consists of 8 indicators which graphically represent the particular channel deflections. In the status line you will find the number of detected channels. By pushing the "left" button again, 8 PPM channels may be featured .
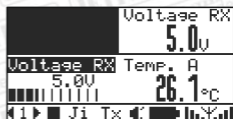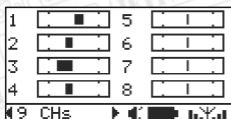
In the wireless mode "TX module" the PPM signal will be decoded at the input "Ti" and will depict the deflections of particular channels in the PPM Monitor. If the JETIBOX profi is switched to the wireless mode "Monitor", the PPM Monitor will depict channel deflections of the transmitter, which is communicating with the JETIBOX profi.

10. Telemetry with the EX System

The EX System telemetry is offering a wide potential for processing, depicting and storing telemetric data. In order to view telemetry it is necessary, that the JETIBOX profi has either picked up communication, using one of the wireless modes (see chapter Wireless Modes), or the equipment must be connected to the external input "Ji".

10.1 Display - Method of displaying telemetric values by the JETIBOX profi:

1. Select one of the four desktop items and confirm by button **ENTER.**
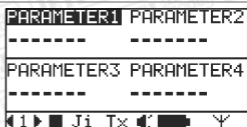
2. Select item "Equipment" and confirm by **ENTER.**

3. Select an arbitrary equipment from the directory - if there is no equipment shown on the display, check if there exists a connection and whether the sensor EX is connected to the system. When starting first time or when a new sensor is connected up the display of the equipment may take a certain time.

4. Select an arbitrary equipment parameter-complete displaying all parameters may afford a certain time. When starting first time or when a new sensor is connected up, the complete display of all parameters may afford a certain time

10
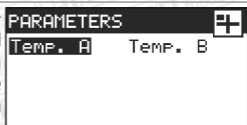
5. With the aid of this menu you may select the way of displaying telemetric data. The depicting manner of „Value" is a parameter, which is shown by a plain number. Select the item „Value". Further choices wil be described below.

Temp. A	
Value	Bargraf
Conver.	XY graf

Bargraph

Depiction of parameters in a form of a per-line graphic with a set-up possibility:

Origin — on which side of the graph is the origin placement: left, center, right

Minimum — a value, which the left border of the graph will achieve. Valid for the origin choice left, right, center. After setup of the origin on the right side, the right graph border will represent the minimum.

Maximum — a value, which the right border of the graph will achieve. Valid for the origin choice left, center. After setup of the origin on the right side the left graph border will represent the maximum.

Store the executed changes by push-button ENTER and move to the desktop.

Temp. A	
Origin	left
Minimum ◄	−55.0 °C ►
Maximum ◄	300.0 °C ►
	ENTER-Store

Set-up Examples:

This setup can be used for a graphic display in the form of a bar graph of the Vario from the sensor MVARIO, where the graph origin is placed in the center and the minimum and maximum are adjusted symmetrically. If you adjust the bargraph with its origin in the center, the bargraph will be complemented at the weighting scale ends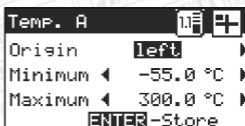 by arrows left and right, which show if the represented value is larger or smaller than the value at the bargraph center.

Vario	
Origin ◄	center ►
Minimum ◄	−2.0 m/s ►
Maximum ◄	2.0 m/s ►
	ENTER-Store

Vario	PARAMETER2
1.4m/s	--------
PARAMETER3	PARAMETER4
--------	--------
◄1► ■ Ji Tx	
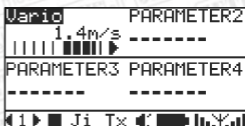
For the graphical image of capacity in the form of a bargraph of the sensor MUI you can use a setup, where the graph origin is on the left side and the minimum and maximum are adjusted in such a way, that the bargraph represents the remaining capacity of the battery by filling the graphic. If the capacity is completely consumed, the bargraph will not be filled at all.

Capacity	
Origin	left
Minimum ◄	300 mAh ►
Maximum ◄	0 mAh ►
	ENTER-Store

Capacity	PARAMETER2
38mAh	--------
PARAMETER3	PARAMETER4
--------	--------
◄1► ■ Ji Tx	
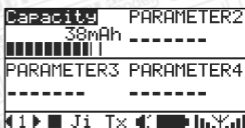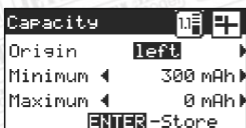
Conversion

If you want to show telemetric data in other than standard units, you may select several kinds of conversions. The upper menu bar shows the selected parameter and its actual value. If you wish to carry out the conversion with the "up/down" button, choose one of the preset

Vario	[kmh]	➕
None	[ ]	
°C -> °F	[ ]	
m/s -> kmh	[✕]	

possibilities and confirm with the ENTER button. In the upper bar you may see between square brackets the unit change. Leave the menu with the ESC button.

XY Graph

Displaying of telemetric data in dependence on time with history. This kind of depicting can be used on one desktop only once.

Mode - AUTO -matic determination of graph borders. A dynamic calculation of graph borders in dependence on telemetric data range. When switching-off, the borders are stored and when switching-on again they become renewed. Resetting of the borders is carried out when the XY graph setup is stored, i. e. by pressing the ENT button in the XY graph menu.

MANUAL - determination of graph borders. While switching to this mode the view menu is extended by items like minimum and maximum, where you may enter the graph borders.
Minimum - a value, which the lower graph border will prevail.
Maximum - a value, which the upper graph border will prevail.
Speed - an item, which may prevail three speed levels of shifting the graph time axis.

Slow - the graph is actualized 1x per 1.5s
Medium - the graph is actualized 2x per 1s
Fast - the graph is actualized 5x per 1s

Temp. A		🖾 ➕
Mode	◀	**MANUAL**
Speed	◀	Medium
Minimum	◀	−55.0 °C
Maximum	◀	300.0 °C
		ENTER-Store

10.2 Storing of Data

Telemetric and working data can be stored into the internal memory for purposes of later processing and analysis. Data recording can be started manually or automatically after switch-on. After recording is switched-on, a new data record is created in the memory, where time, date and profile name are stored. Into the created data record now begins storage of following data, if available:

- telemetric data EX - from the input „Ji" and from sensors connected to the receiver
- receiver working data (signal strength of receiver antennas, receiver voltage)
- deflections of particular channels (decoded from the input in the wireless mode "TX module" or, in the wireless mode "Monitor", as received from the receiver).

Manual Switch-On Method of Telemetry Recording:

Start/stop data recording manually by a long lasting push of the "up" button in the desktop menu. Recording is indicated in the status line by change of the icon and by its flashing. At the same time a window is opened with the warning, that recording is running and a sequence number is shown.

Temp. A	Voltage RX
	! Warning !
Volt	Record:1
◀1▶ ● Ji Tx	

Automatical switch-on method of telemetry recording:

1. On the desktop working level push **ESC**-> Main menu, select item **SET-UP** and confirm by **ENTER** button.

```
              MAIN MENU
  ⌂ ALARMS      ▦ MEMORY

  🔧 SET-UP     ⓘ VIEW
```

2. Select item **MAIN** and confirm by **ENTER** button.

```
              SET-UP
  ☼ DISPLAY     🕐 TIME

  ⚡ UPDATE      ▤ MAIN
```

3. In the item „**Auto. Storage**" set **YES**, herewith the JETIBOX profi will always start recording after switch-on.

```
              MAIN
  Original setup
   ▶ Open
  Auto. storage
   ◀ YES
```

Stop of Recording:

- manually you will stop data recording by a long lasting push of the "up" button in the desktop menu.

- switch-off the JETIBOX profi by a long lasting push of the ESC button.

10.3 On-line Telemetry on a PC

Telemetry can be watched on the PC in real time with the aid of the Flight Monitor program. Connect by an USB cable the JETIBOX profi to a PC and start the program Flight Monitor (see chapter Connecting up the JETIBOX profi to a

```
              MAIN
  Original setup
   ▶ Open
  Auto. storage
   ◀ YES
```

PC). Telemetric data will be sent in real time from the JETIBOX profi via USB to the program Flight Monitor, where you can watch, analyse and store them etc..

The following data are transferred in real time:

EX telemetry -from input „Ji" and from sensors, which are connected to the receiver,
Receiver working data (signal strength of receiver antennas, receiver voltage),
Deflections of particular channels (decoded from the input in the wireless mode "TX module" and received from the transmitter in the wireless mode "Monitor")..

11. 1st Generation Telemetry

The JETIBOX profi makes it possible to process, store and depict telemetric data of the 1st generation.

11.1 Displaying

For telemetry displaying there exist two menus on the desktop, marked in the status line by „Ji" and „Tx".

```
SENSOR MT 125
A= 26°  B= 25°C
■ STOP  ◀ ▬▬ .ıl.Y.ıll
```

In the menu „Ji" there are displayed telemetric data of equipment, which is connected via external input „Ji" (much like at the JETIBOX, JETIBOX mini). If there is no equipment connected to the input, the display will show the text: „Equipment not connected!".

Menu „TX" represents the menu of the transmitter module. In the wireless mode "Monitor" you can, after connection has been built up, watch/adjust the receiver and the telemetric sensors, connected to the receiver. With the push-button "left/right" you may browse through the upper menu level and with the aid of the "down" button you will enter the menu. By a long lasting push of the "up" button you will get back to the highest menu level. In the TX menu you will find informations of the transmitter module. Via the RX menu you will reach on wireless basis the receiver menu (more informations see instructions of Duplex receivers). Also on wireless basis you will enter the menu MX of telemetric sensors, which are connected to the receiver. The last item is an extended telemetric menu, where in the first line are shown receiver working informations and in the second line telemetry from the sensors.
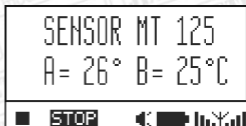
Structure of Transmitter menu - JETIBOX diagram
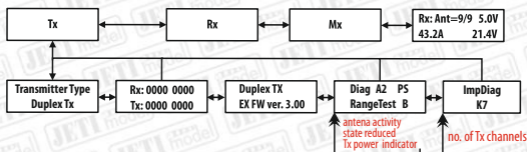
In the wireless mode "Monitor" the menu is accessible only, if to the listened in transmitter which is communicating with the receiver, there exists connection to the JETIBOX and via it access to the menu RX or MX. In this mode the JETIBOX profi only acts as an observer. You can watch data, but you cannot browse through the menu or adjust any values.

11.2 Storing Data

In the menu „Ji" or „Ti" you can start data storing with the button ENTER. If there is no storing started yet, a new record will be created and it starts storing the actual two text lines as displayed. After leaving the menu data are unceasingly stored.

How to stop storing:
- by switch-off the JETIBOX profi
- by manual switch-off in the menu - repeated pushing of button ENTER

14

12. 1st Generation System and System EX

Both systems are mutually compatible. The following lines describe the way of telemetry reception by the JETIBOX profi, if there will be used different configurations of connection between 1st generation systems and systems EX. All receivers and transmitter modules are able to transfer the telemetry system EX. Let us describe several wiring examples of an Expander and sensors.

In the described cases the transmitter module is communicating with the receiver and the JETIBOX profi runs in the "Monitor" mode, i. e. listens to the communication. In the described cases the wireless mode of the JETIBOX profi does not matter. The behaviour will be the same. The JETIBOX profi always receives working information (receiver voltage, signal strengths of antennas) from the receiver independently of the receiver version.

1. The 1st generation telemetric sensor is directly connected to the receiver. The JETIBOX profi receives 1st generation telemetry only.
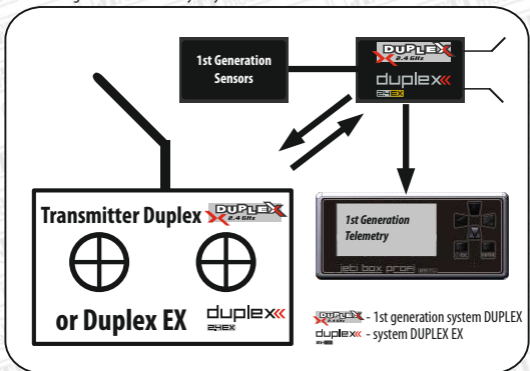
2. The telemetric sensor EX is directly connected to the receiver. The JETIBOX profi receives telemetry EX.
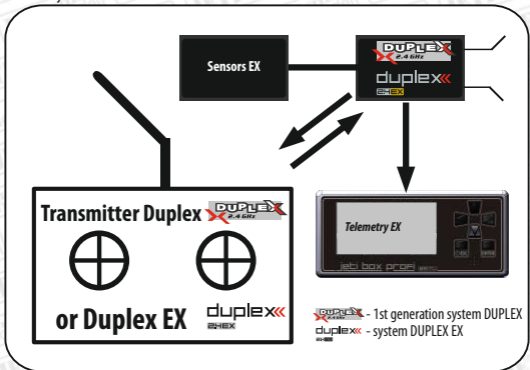
3. Telemetric sensors EX are connected via an Expander E4 to the receiver. The JETIBOX profi receives 1st generation telemetry only.
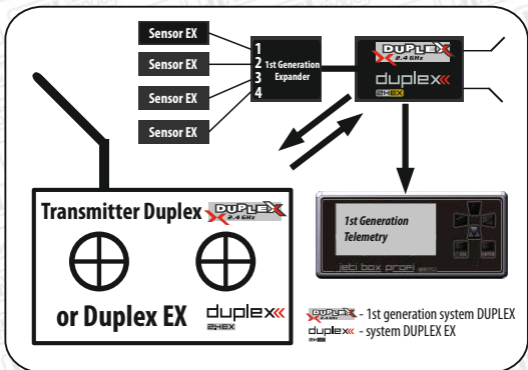
4. Telemetric sensors EX and 1st generation sensors are connected via an Expander E4 EX to the receiver. The JETIBOX profi receives telemetry EX of the first sensor and from the remaining sensors it receives 1st generation telemetry.
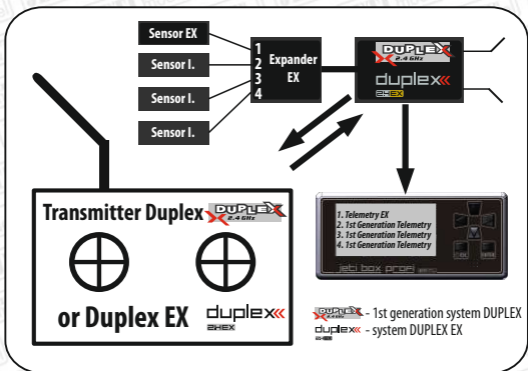
13. MAIN MENU - ALARMS

In the menu "Alarms" sounds are assigned to events and are replayed in case of event occurrence. You may, for instance, record your own sounds into the JETIBOX profi which may be replayed at the event of binding or current overrun. The menu is divided into JETIBOX profi alarms and sensor alarms. In the lower part of the menu you see the Alarm status bar. The status of the JETIBOX profi is represented in the bar by pictograms, see picture..

1 - Bind symbol: As soon as the JETIBOX profi
was connected this symbol will be shown.

2 - Error symbol PPM

3 - JETIBOX profi low voltage symbol

4 - Decrease of receiver voltage

5 - Signal loss

6 - Low signal

7 - Range test

```
      ALARMS
▶ JETIbox
▶ Sensors

⚡̷ PPM  JB  RX  ⚡  .ıll  ⊕
 ①    ②    ③    ④   ⑤  ⑥  ⑦
```
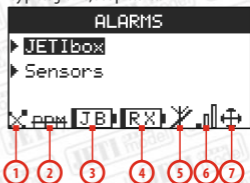
As soon as an alarm occurs, a warning appears in the window and a replay of the assigned sound starts.

13.1 JETIBOX PROFI Alarms

There are the following items contained in the Alarm menu of the JETIBOX PROFI:

Events: binding, PPM error, JETIBOX PROFI low voltage, receiver voltage decrease, signal loss, low signal, range test. With the push-button "left/right" in the item Event you can move between the events.

– *Priority* - This item implies the rate of alarm repeating at a continuing alarm occurrence.
- High - alarm will be generated every 8s
- Medium - alarm will be generated every 15s
- Low - alarm will be generated every 22s

```
  ALARMS - SENSORS
Event   ◀ Alarm - C ▶
Priority ◀ Low
Sound   ▶ Capacity
```
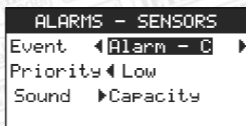
– *Sound* - The name of the sound file, which will be replayed in case of an event. By pushing the button ENTER on this item, you will depict the sound list and the approximate lengths of sounds as stored in the memory. The sound can be replayed by pushing the "right" button.

```
▶ play MEMORY LIST
▶ LowVoltBEC    2.8s
▶ PPM           2.9s
▶ RangeTest     1.2s
▶ RXlowVolt     2.7s
```
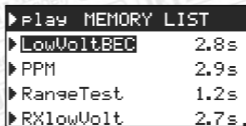
13.2 Alarms - Sensors

In this menu you may assign to the sensor alarms any sound which has been stored in the JETIBOX PROFI memory. The sensors generate alarms in the format of a Morse code. In this menu you may assign to the Morse code any sound stored in the memory of the JETIBOX PROFI. For instance, if measuring current with the aid of a MUI and adjust the capacity alarm to a value of 300mAh, the sensor will start alarm generation when this value is overstepped.

The sensor starts to generate the Morse code „C". If the JETIBOX PROFI receives this alarm, it will replay the sound which was assigned to the letter „C". It is possible to set-up at most of the sensors a letter, which will be signalized in case of an alarm. An overview of default (factory) Morse code assignments to particular sensors is shown in the table.

Morse Code	Alarms - Sensors EX	Alarms - I. Generation
A	MVARIO,MGPS - altitude	MGPS - altitude; MU-3 - low voltage A
B	Not used	MU-3 -low voltage B
C	MUI - capacity	MUI - capacity; MU-3 - low voltage C
D	MGPS-distance	MGPS-distance; MULi6s - low cell voltage
E	MU-3, MULi6,MAXBEC2D-input	Not used
F	Not used	Not used
G	Not used	Not used
H	MRPM - high rpm	MRPM - high rpm;MULi6s - low cell
I	MUI - high current	MUI - high current
J	Not used	Not used
K	Not used	MSPEED- speed
L	MRPM - low rpm	MRPM - low rpm
M	Not used	Not used
N	Not used	Not used
O	MAXBEC - voltage	Not used
P	MAXBEC - temperature	Not used
Q	MVARIO - vario	Not used
R	MT- temperature B	Not used
S	R18,R14-low signal	R18,R14-low signal
T	MT- temperature A	MT- temperature A; MAXBEC - temperature
U	MUI-voltage	MUI-voltage
V	MGPS,MSPEED- speed	MGPS- speed; MVARIO - vario; MAXBEC -
W	MU-3 - low voltage A	Not used
X	MU-3 -low voltage B	Not used
Y	MU-3 - low voltage C	Not used
Z	MULi6s - low cell voltage	Not used

In the first column you see the alphabet. The second column shows alarms of sensors EX. In the third column are 1st generation sensor alarms. For instance, the first line of the table says that the default assignment of the letter A is an altitude alarm at sensors MVARIO and MGPS in the EX version.

14. MAIN MENU - Memory

In the menu Memory you will find an overview of memory capacity as well as a function for telemetry recording. In the center of the menu there is always a capacity indicator of the given section. On the left side underneath the upper bar there is the name of the memory section and on the right side the capacity expressed in percent. Below a horizontal line you will find the following menu items:

– *New record* - when storing telemetry a new record is created

– *Delete* - will delete the complete telemetry from the internal memory

– *Number of records in the internal memory* - Sound section of the memory.

– *Number of sound files.*

```
        MEMORY
Telemetry      0.00%
   ||||||||||||||||||
▶ New record
```

```
        MEMORY
Sounds         4.18%
   ||||||||||||||||||
▷ 81of the file
```

```
        MEMORY
Telemetry      0.00%
   ||||||||||||||||||
▶ Deletion
```

```
        MEMORY
Telemetry      0.00%
   ||||||||||||||||||
▷ 1of the records
```
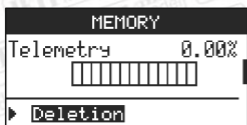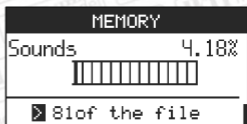
15. MAIN MENU - SET-UP

Within this menu the complete set-up of the JETIBOX PROFI is carried out. Set-up is thematically dissected into 8 sections. You may enter particular sections with the aid of the ENTER key. Value changes will appear immediately after change. With the ESC key you may leave the menu and store changes. With some menues you will be asked after set-up of changes for a confirmation of the changes made. Be careful with set-up changes of the JETIBOX PROFI while the device is runnng.

```
        SET-UP
📶 DUPLEX    🔊 SOUND
🔋 BATTERY   👤 PROFILE
☼ DISPLAY   🕓 TIME
2.0 UPDATE   ☰ MAIN
```

15.1 SET-UP - Duplex

This item allows set-up of the wireless module Duplex 2.4GHz.

– *JETIbox Mode* - Selection of the wireless mode see chapter 7, Wireless Modes.

The change of a wireless mode will interrupt the connection of the preceding mode!

– *Binding* - Start of the binding process see chapter 7, Wireless Modes

– *Range Test* - Start of the test mode. Herewith the PROFI is switched to the range test mode and the transmitter power is decreed to less than 10%. This status is simultaneously indicated acoustically. By another push of the ENTER key the JETIBOX PROFI returns to the normal status, the power output increases to the original value..

– **Input Signal** - Set-up of the input PPM signal of the transmitter. Most transmitters use standard PPM signals.

  • PPM set-up for the majority of transmitters

  • Use PPM v2 or v3 only, if your transmitter allows to switch to another PPM mode. This mostly applies to transmitters which are able to transmit more than 8 channels in the PPM mode, for instance 12 channels..

– **Transmitted Power -** Here you can adjust the transmitted power of the wireless module (the allowed maximum transmitted power may vary due to the law situation in particular countries).

```
          DUPLEX
JETIbox mode
  ▸TXmodule▸

Binding
  ▸ Start

Range test
  ▸ Start

Input signal
  PPM  ▸

TX power
  100mW  ▸

Transmitter ID
  5551:4658

Receiver ID
  A564:22364
```

  • **10mW** - within the whole band 2.4GHz the maximum transmitted power is 10mW

  • **100mW** - within the whole band the maximum transmitted power is 100mW (recommended set-up)

  • **10mW/100mW** - in parts of the 2.4GHz band the transmitted power is 10mW and 100mW (France)

– **ID Transmitter** - the transmitter identification number, with which the JETIBOX PROFI has taken up the latest communication.

– **ID Receiver** - the receiver identification number, with which the JETIBOX PROFI as taken up the latest communication.
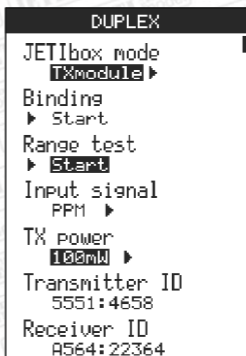
15.2 SET-UP - Sound

In this menu the voice output parameters become set-up.

– **Speaker Loudness** - Speaker loudness can be set-up in 9 steps and additionally mute.

– **Earphones Loudness** - Set-up of earphone loudness. With connected earphones the speaker becomes automatically shut down and the loudness is adjusted to earphone loudness.

```
          SOUND
Speaker loudness
  Mute          ▸

Earphone loudness
  ◂ 1 ▭▭▭        ▸

Key tones
  ◂ ON
```

– **Key Tones** - Off/On of key tones for speaker and earphones.
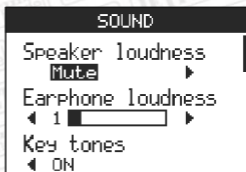
15.3 SET-UP - Battery

Set-up of charging management and displaying of input voltages.

– **Charging via Ti** - Decision set-up, whether the battery shall be charged if a voltage is connected to input Ti. If your JETIBOX PROFI is connected to the transmitter you may inhibit charging of the JETIBOX PROFI battery. The JETIBOX PROFI will be supplied from this input, but the internal battery will not be charged. Herewith you will prevent energy flow from the transmitter battery to the JETIBOX PROFI.

– **Auto. switch off** - Set-up of automatical shut-down if the supply is disconnected from the input. If you disconnect the voltage from any arbitrary input, the JETIBOX PROFI starts to shut down. If you do not want this function, set-up item NO..

– **Battery Voltage** - actual value of battery voltage

– **USB Voltage** - USB actual voltage. The minimumu input voltage is 4,5V. Maximum voltage is 5,5V. The voltage range is shown in the bargraphic.

– **Input Ji voltage** - actual voltage of the input Ji. The input Ji can be operated as an output with a voltage of 5,0V to 5,3V or as an charging input with a range of 5,7V to 20V.

– **Input Ti voltage** - actual voltage of the input Ti. The minimumu input voltage is 5,0V. The maximum voltage is 20V. The voltage range is shown in the bargraphic.

```
            BATTERY
Charging via TX
 ◄ YES
Auto. switch off
 ◄ YES
Battery voltage
   ▻ 4.082V▮▮▮▮▮▮  ▯
USB voltage
   4.79V▮▮▮▮▮▮   ▯
Input Ji voltage
   ▻ 5.26V▮▮▮
Input Ti voltage
   -.--V
```
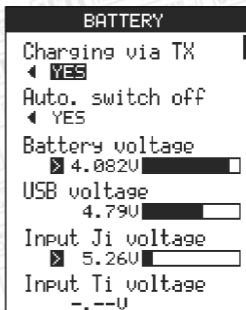
15.4 SET-UP - Profile

The JETIBOX PROFI applies an automatic profile system. The profiles are switched in accordance to the receiver identification numbers. They are also valid for the wireless mode „TX module" of the JETIBOX PROFI. As soon as the JETIBOX PROFI takes up communication it loads the profile in accordance with the receiver identification number, see fig. below. In the profile there are stored all adjustments of the desktop working area. If you take up communication using one of the wireless modes and set-up the desktop, any further connection with this receiver will renew your desktop set-up. After switching on the JETIBOX PROFI the lastly used profile becomes loaded automatically.

```
Antenna 1    Antenna 2
      9            9
▮▮▮▮▮ !  Profile  ▮ ▮
Volt┌────────────┐
    │ CESSNA 182 │
    └────────────┘
  J.0V
◄1▸ ▮ Ji Tx ◄▮ ▮▯.╳.▮
```

In the frame in the center of the menu you will see the name of the actual profile. The profile name is displayed while the window is loaded..

```
         PROFILE
 ┌──────────────────┐
 │ CESSNA 182       │
 └──────────────────┘
   ▸Rename
```

The profile name may be changed. Confirm with the ENTER key the item „Rename". With the key up/down you can change the character in the given position. With the key left characters become deleted. With the key right you confirm the character in the given position. With the key ENTER changes are stored.

```
         RENAMING
 ⬍⬌ CESSNA 182▮  ◄─►
 0123456789:;<=>?@ABC
 DEFGHIJKLMNOPQRSTUVWX
 YZ
```

15.5 SET-UP - Display

Set-up of the display and backlight.

– Backlight - Set-up of backlight intensity in steps of 10 - 100%.

– Turn off backlight - The duration within which backlight will be activated after the last key stroke:

   • Off – backlight is switched-off permanently.

   • 5s - 30s - duration of backlight switched-on status after the last key stroke.

   • Never – backlight will never be switched-off.

– Contrast - Display contrast set-up within limits of 0 - 100%

Backlight increases power consumption of the JETI box markedly, in case of permanently switched-on display backlight you must envisage shorter battery endurance.

```
         DISPLAY
Backlight
◀ 50%          ▶
Turn off backlight
◀ Never
Contrast
◀ 50%          ▶
```

15.6 SET-UP - Time

Set-up of the actual time and date. If the JETIBOX PROFI has been switched-off by the switch placed on the low side, see Long Time Switch-Off, after switching-on again the time and date in this menu must be set-up. Time and date are inserted into telemetric data records in order to improve orientation when viewing the records.

By the keys up/down the values in the given positions become increased/decreased. With the left/right key you may browse through the positions.

```
      DATE / TIME
Time (HH:MM:SS)
  ▲        ▲+
  ◀▶  00:17:22  ▼-
Date (DD.MM.YY)
        10.01.2011
```
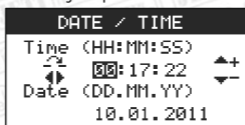
15.7 SET-UP - Update

In the upgrade menu you will find informations about the JETIBOX PROFI like series number and software version. In the item Update you may allow updates of the firmware. Find more informations in the chapter dealing with updates of the SW.

```
         UPDATE
Name: JETIBOX-profi
Ser.number65535:65535
Version SW:ff.ff
Update ▶Activate
```
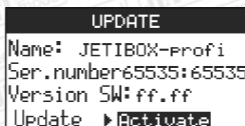
15.8 SET-UP - Main

The menu contains general set-ups. The display of the firmware language version, the basic set-up of the JETIBOX PROFI and the set-up of automatical storing.

```
              MAIN
Language
  ◄ English ►
Original setup
  ► Open
Auto. storage
     NO        ►
```
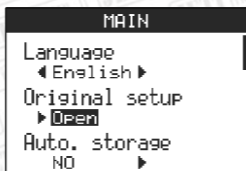
16. Connection of the JETIBOX PROFI to a PC

By connecting the JETIBOX PROFI to a computer you may easily read out measured telemetric data, record your own sound files, follow-up online telemetry or update your firmware.

If you are going to connect the JETIBOX PROFI to a computer first time you must install the appropriate drivers. If you have already operated the JETIBOX PROFI or the USB adapter with a computer, there is no more installation necessary. The computer finds the device automatically. It is sufficient if you just start the JETIBOX PROFI service program.

The driver installation procedure is as follows:

1. Connect the JETIBOX PROFI and the computer by an USB cable.

2. Install the driver which is available on the internet pages of www.jetimodel.com. In more recent operation systems drivers are installed automatically after connection of the JETIBOX PROFI.

3. Download the JETIBOX PROFI service program from the internet pages of www.jetimodel.com and proceed according to program instructions..

17. Technical data

Dimensons

 • Temperature range : 0° - 70°C.
 • Size: 131x59x21mm Temperature range : 0° - 70°C.
 • Weight (with battery) 128 g.

Display

 • Size: 2.8" with backlight.
 • Resolution: 128 x 64 pixels.

Battery & Supply

 • Battery type: Internal Li-Po battery.
 • Capacity: 450 mAh.
 • Endurance: up to 180min.
 • Charging: from USB or the other inputs: voltage range for particular inputs and maxium consumption see table:

Input	Voltage range	Power consumption
Ti	5,0 - 20V	
Ji	5,7 - 20V	5W
USB	4,5 - 5,5V	

Connectivity

- 2.4GHz System Duplex® with integrated antenna.
- 3.5 mm stereo audio jack.
- Standard Mini-USB
- Standard 3-pin JR connector

Memory

- Internal memory: 2GB
  - 263h recording telemetry EX and Generation I.
  - 439h recording telemetry EX

Audio

- Output: Loudspeaker or earphones.
- Polyfonic sounds.
- Assignment of any sound to generated alarms.

Software equipment

- Automatical profile system.
- Graphical presentation of telemetric data —bargraphics, column charts.
- Storage of telemetric data to the internal memory.
- Modes: – TX module,
  - Monitor (listen in),
- Connection to the PC: – online telemetry transfer,
  - read-out of telemetric records,
  - storage of own sounds,
- Firmware upgrade possibility.
- Czech, English and Germany firmware localisation.

Accessories

- Universal assembly set (for the majority of transmitters).

18. Ti connector wiring

1 - GND
2 - +Vcc, maximum voltage 20V
3 - PPM input
4 - not connected
5 - not connected
6 - not connected
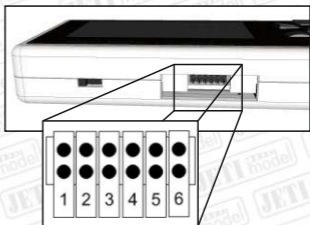
19. Safety information

19.1 Battery replacement

The JETIBOX profi is utilizing a rechargeable battery which may be charged repeatedly very often. The battery embodies a certain amount of charging/discharging cycles (several hundreds) and cannot be replaced by the user. At the end of battery lifetime replacement can be carried out by the manufacturer only.

19.2 Safety policy

• Operation at high or low ambient temperatures can decrease the life span of the JETIBOX profi. A sudden change from cold to hot environment may initiate humidity condensation insde of the product.

• Take into consideration to operate the JETIBOX profi in dry environment. Humidity inside the JETIBOX profi may induce corrosion of electronic parts. As soon as fluid/humidity penetrates into the JETIBOX profi switch it off immediately and dry it thoroughly.

• If possible avoid operation of the JETIBOX profi in dusty environments.

• Do not open the JETIBOX profi and do not try to carry out uncertified alterations. This may violate legal advices for radio equipment.

• Do not expose the JETIBOX profi to hard shocks like falling to the ground etc. This may damage electronic or mechanical parts.

• Avoid manipulations with magnets in the vicinity of the JETIBOX profi as well as action of strong magnetic fields.

• Apply for charging the specified input voltage ranges from sources with sufficient power supply.

• The JETIBOX profi can be repaired by a qualified service station only, otherwise warranty voidance may follow.

ENGLISH

Information on Disposal for Users of Waste Electrical & Electronic Equipment (private households)

This symbol on the products and/or accompanying documents means that used electrical and electronic products should not be mixed with general household waste.

For proper treatment, recovery and recycling, please take these products to designated collection points, where they will be accepted on a free of charge basis. Alternatively, in some countries you may be able to return your products to your local retailer upon the purchase of an equivalent new product.

Disposing of this product correctly will help to save valuable resources and prevent any potential negative effects on human health and the environment which could otherwise arise from inappropriate waste handling. Please contact your local authority for further details of your nearest designated collection point.

Penalties may be applicable for incorrect disposal of this waste, in accordance with national legislation.

For business users in the European Union
If you wish to discard electrical and electronic equipment, please contact your dealer or supplier for further information.

Information on Disposal in other Countries outside the European Union
This symbol is only valid in the European Union.
If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

20. Warranty, Service and Technical Support

- see internet pages of the manufacturer (www.jetimodel.com) .

20.1 Warranty and Service
The product is furnished with a warranty of 24 months after the date of sale on the assumption that it has been operated correctly and with the proper voltage according to these instructions and that it does not show mechanical damage. In case of a complaint always add a purchase receipt of the product. Warranty and post warranty repairs are carried out by the manufacturer.

20.2 Technical Support
If you are not sure to be able to provide a correct set-up and function control of your equipment by yourself, please contact our technical support. You may find our technical support either at your distributor or directly at the manufacturer JETI model. Please find further information on the internet pages www.jetimodel.com .