⑨ Transmitter to PC Connection

The JETI Duplex line of transmitters are equipped with a mini USB port. The Transmitters also come with a standard USB to mini USB cable which is used to connect your transmitter to a PC. The JETI Duplex system is fully compatible with Microsoft Windows XP and higher versions of Windows OS. After connection and confirmation your transmitter will be identified by the PC as another memory drive. While it is connected to a PC your transmitter's battery is also being charged via the USB port.

9.1   Memory & System Files

After your transmitter has been connected to a PC it will behave like standard external hard drive. Your transmitter's file directory is displayed on the PC screen. Pay close attention to moving, deleting or adding files to any open file directory, any changes performed here have a direct effect on your transmitter's internal data

File Directory

Apps   – additional user applications written in Lua programming language.

Audio   – sounds, music, and acoustic warnings

Config   – software configuration

Lang   – language configuration

Log   – telemetry data, all files use date stamp year/month/day

Manual   – instruction manual

Model   – programming files of individual models

Update   – directory used for software updates

Voice   – audio samples for speech synthesis

Devices   – device definitions used for communication with intelligent devices based on **EX Bus** protocol

9.2   Update firmware

The JETI Duplex line of transmitters fully support future software updates. We recommend that you check the distributor's and/or manufacturer's web sites frequently for the most current update.

How to update your transmitter's firmware:

1.   Connect your transmitter to a PC via USB port

2.   Confirm the connection

3.   Start Jeti Studio and update your transmitter to the latest FW version. Jeti Studio requires an internet connection to update your transmitter.

4.   After the successful data transfer, disconnect your transmiter from the PC USB port and turn OFF the transmitter. The next time that you turn your transmitter ON, the software will be updated.

With any new firmware update no model setups or configuration settings will be lost. For safety, after performing a new update, we highly recommend that you check all functions, assignments, configurations, and model mixes. A list of new features is always released with the firmware update.

9.3   Sounds, Alarms & Acoustic Updates

At this time, the JETI firmware supports ***.wav** sound files. Any sound file can be assigned to any function, switch, flight mode, telemetry alarm, or music routine. Your applications are limited only by your imagination. All sounds must be copied to the *"Audio"* file.

9.4   System Backup

Data backup is as easy as the standard backup you can perform on your PC. You can save all your data onto a PC hard drive or CD. The saved data will, of course, reflect your last transmitter configuration and model settings. The data recovery is as easy as copying your backed up files back to the transmitter. This backup can be done automatically via Jeti Studio.

9.5   PC Joystick

DS-12 transmitters can be very simply used as a joystick interface for your PC. Connect your transmitter to a PC with the USB cable. Your operating system will identify the transmitter as an HID (Human Interface Device) gaming device.

9.6   Telemetry Data Logging

All telemetry data is stored on the internal SD card in the "Log" directory file. Telemetry data files are easily identifiable as .log files.

The data files use date stamps with the "year/month/day" configuration. Flight logs can be viewed on the PC using the JETI "Flight Monitor" software.

9.7   Copying models between the transmitters

Configuration of all models in the transmitter are stored on the internal **SD card** in the directory **/Model/**. When you copy the selected model from one transmitter to another, simply copy the ***. jsn** file again to the **/Model/** directory of the second transmitter.

Note: *It is important that the two transmitters may not have the same software equipment, so it is possible that the configuration of the activated modules will not match each other. In this case it is necessary to check the individual functions of the model, since an attempt to load the model by another transmitter may end up with error message.*

⑩ Battery Safety Handling Rules

10.1 Transmitter Battery Pack

1. The Installed battery pack must be charged from an AC voltage source using only the included wall battery charger. The included adapters work with local utility services, each country might be supplied with a different type of charger.

EU: SYS1428-2412-W2E

UK: SYS1428-2412-W3U

US: SYS1428-2412-W2

Do not use any battery other than the manufacturer approved Power Ion 3200 DC battery pack.

2. Always verify the correct polarity while connecting a transmitter battery pack. The red lead is positive "+" and the black lead is negative "-" polarity.

3. Never test a battery pack by shorting the wire leads. Do not allow the battery to overheat at any time.

4. Never leave your transmitter unattended at any time while it is being charged.

5. Never charge an overheated battery pack, or in an environment warmer than 158 F (70C).

6. During cold months always check the battery's capacity, do not rely on your radio's low battery warning system.

7. Always check your transmitter and receiver batteries prior each flight. Do not rely on your radio's low battery warning system.

8. Do not allow radio battery pack to come in contact with open flame, other heat source or moisture at any time.

10.2 General Safety Rules

1. Any repair, installation, or upgrade must be performed with caution and common sense. These will require some basic mechanical skills.

2. For any of the upgrades which require removing the radio back cover you MUST disconnect the transmitter battery pack before attempting any work.

3. It is imperative to store your radio in a controlled environment. Any extreme temperatures can cause damage to the sensitive electronics. A sudden change in temperature or humidity can create condensation which can permanently damage your radio.

4. Do not use radio during poor weather conditions. Any water or condensation can cause corrosion and could permanently disable your radio. If you suspect that moisture has entered your transmitter, turn it OFF, remove the back cover and let dry it out.

5. Avoid use in dusty environments.

6. The manufacturer is not responsible for any unauthorized modifications. Changes or modifications not expressly approved by the party responsible for compliance will void the user's authority to operate the equipment.

7. This is a sophisticated hobby product and not a toy. It must be operated with caution and common sense, always avoid any mechanical damage.

8. Always avoid operating close to devices that might cause harmful electromagnetic interferences.

9. Keep all moving parts clean and free of dust or fine debris that might damage the mechanical parts of the radio.

10. Do not point the transmitter antenna directly towards your model or a human body. The radiation pattern from the antenna will be shielded and provide poor connection to your model.

11. Never repair, re-install, or exchange the internal memory SD card for other type.

12. Avoid extreme temperatures as they can cause damage to the sensitive internal SD card.

13. Always perform a ground range check prior to your initial flight.

10.3   Flight Safety Check

1. Always verify the correct position of the switches, and the gimbals, prior turning ON your transmitter. Turn on the transmitter first, then receiver. JETI transmitters use *"Model Checking".* This safety is designed so that the model memory stores the unique serial number of the receiver that has already been assigned to model. When the transmitter establishes communication with the receiver and the serial number does not match the number stored in the current model's setup, the transmitter displays a warning. You will then be able to accept the change or reject the change. If you accept the change, the transmitter stores the new receiver number into the model's setup and begins transmitting. If you reject the change, the transmitter will not communicate with the receiver and you will be allowed to select another model.

2. Perform a ground range check before each day's flying session.

3. Check the battery voltage on both the transmitter and the receiver battery packs.

4. Check all channel assignments, trim, mixes, and the correct direction of movement for your flight surfaces.

5. Set motor/engine kill switch and test the power train.

10.4   Application

This product may be used for model airplane or surface (boat, car, robot) use only. It is not intended for use in any other application than control of the models for hobby, sport and recreational purposes.

10.5   FCC /IC information

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

• Reorient or relocate the receiving antenna.

• Increase the separation between the equipment and receiver.

• Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

• Consult the dealer or an experienced radio/TV technician for help.

THIS DEVICE COMPLIES WITH PART 15 OF THE FCC RULES. OPERATION IS SUBJECT TO THE FOLLOWING TWO CONDITIONS(1) THIS DEVICE MAY NOT CAUSE HARMFUL INTERFERENCE, AND (2) THIS DEVICE MUST ACCEPT ANY INTERFERENCE RECEIVED, INCLUDING INTERFERENCE THAT MAY CAUSE UNDESIRED OPERATION.

Warning: Changes or modifications to this device not expressly approved by SPIRIT SYSTEM could void the user's authority to operate the equipment. "This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment is in direct contact with the body of the user under normal operating conditions. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter."

Under Industry Canada regulations, this radio transmitter may only operate using an antenna of a type and maximum (or lesser) gain approved for the transmitter by Industry Canada. To reduce potential radio interference to other users, the antenna type and its gain should be so chosen that the equivalent isotropically radiated power (e.i.r.p.) is not more than that necessary for successful communication.

Conformément à la réglementation d'Industrie Canada, le présent émetteur radio peut fonctionner avec une antenne d'un type et d'un gain maximal (ou inférieur) approuvé pour l'émetteur par Industrie Canada. Dans le but de réduire les risques de brouillage radioélectrique à l'intention des autres utilisateurs, il faut choisir le type d'antenne et son gain de sorte que la puissance isotroperayonnée équivalente (p.i.r.e.) ne dépasse pas l'intensité nécessaire à l'établissement d'une communication satisfaisante.

This device complies with the Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes :

(1) l'appareil ne doit pas produire de brouillage, et (2) l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

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.

Declaration of Conformity

in accordance with the regulations of EU Directive
RED 2014/53/EU and RoHS 2011/65/EU.
This declaration of conformity is issued under the sole responsibility of the manufacturer.

Producer: **JETI model s.r.o.**
                      Lomená 1530, 742 58 Příbor, Česká republika
                      IČ 26825147

declares, that the product

Type designation: transmitter DUPLEX EX
Model number: DS-12

Frequency band 1:   2400,0 – 2483,5 MHz
Max power band1:   100 mW e.i.r.p

Frequency band 2:   863,0 – 870,0 MHz
Max power band 2:   25 mW e.r.p.

**The stated product complies with essential requirements of
RED Directive 2014/53/EU and RoHS Directive 2011/65/EU.**

Harmonised standards applies:

Measures for the efficient use of the radio frequency spectrum [3.2]

EN 300 328 V 2.1.1
EN 300 220-2 V3.1.1

Protection requirements concerning electromagnetic compatibility [3.1(b)]
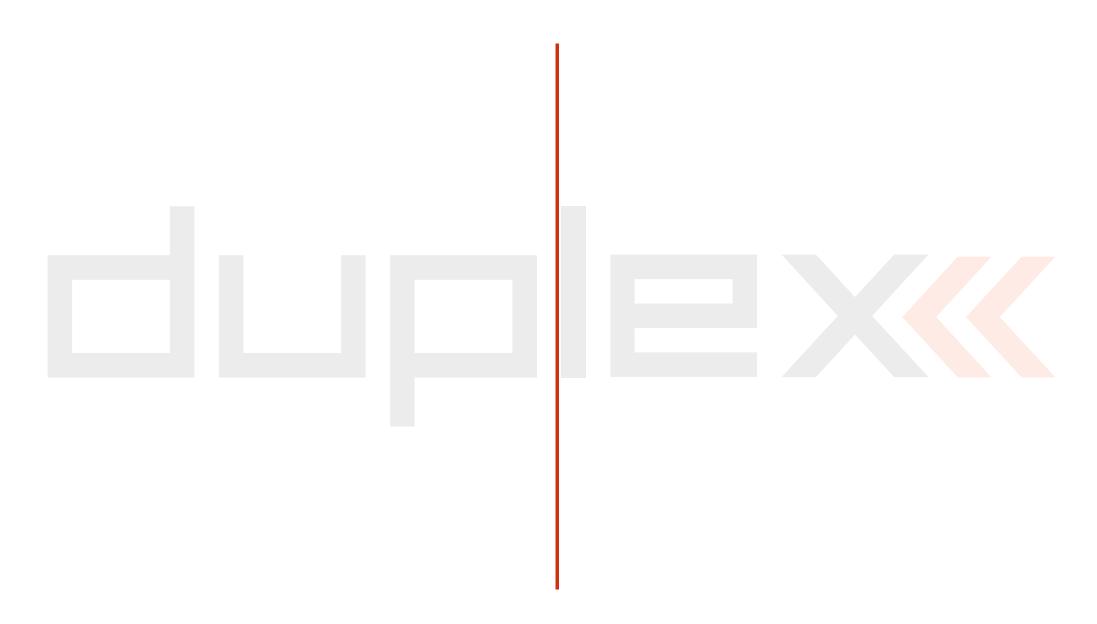
EN 301 489-1   V 2.1.1
EN 301 489-3   V 2.1.1
EN 301 489-17   V 3.1.1

Electrical Safety and Health [3.1(a)]

EN 60950-1:2006/A1:2010/A2:2013
EN 62479:2010

RoHS   EN 50581:2012

Příbor, 16.4.2019

Ing. Stanislav Jelen,
Managing Director

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