

JetLogger

**Product model/type:
V0-V0 HD-V2-V3**

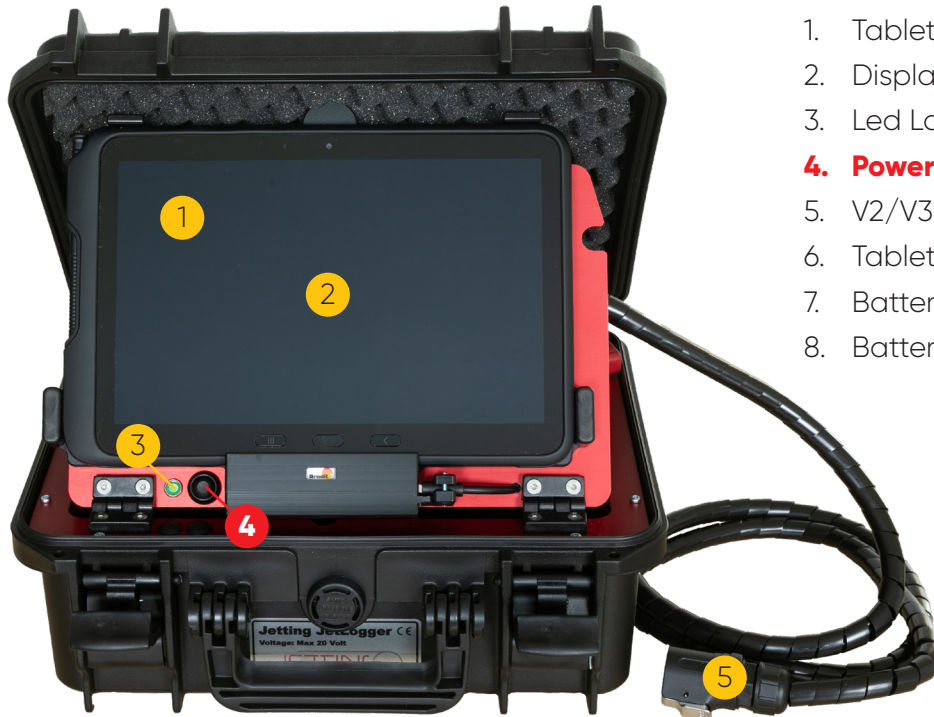
JETLOGGER SAFETY, INSTALLATION AND OPERATIONS MANUAL



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jetting.se

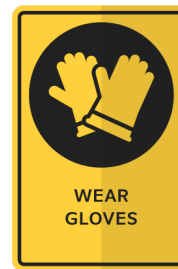
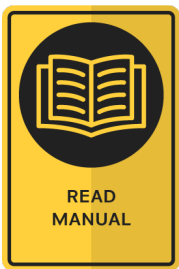


1. Tablet
2. Display
3. Led Lamp
- 4. Power button**
5. V2/V3 Jetlogger cable
6. Tablet power button
7. Battery level
8. Battery



Important Safety Notice

Read and understand all procedures and safety instructions before using the Jetting JetLogger. Please note all safety information on this page and take note of specific safety requirements outlined in the procedures of this manual. Failure to follow these instructions may result in serious personal injury or death.



Warning: Risk that noise level will exceed 70 dB when used with machine.

Manufacturer

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1. General information

JetLogger is a professional documentation system for the installer/network owner who need an efficient and professional electronic, documentation of the cable blowing process.

JetLogger is developed together with installers and network owners and can be used with Jetting's cable blowing machines models V0-JL, V0-HD-JL, V2-JLP, V3-JLP, and Jetpressure, which are prepared for JetLogger.

The JetLogger is based on a special developed software, and an industrial Galaxy tablet from Samsung connected with a cable to the blowing machine to secure optimal work conditions in the field.

Based on individual input describing the job, cable and pipe + automatically input of temperature, humidity and the exact position by GPS the JetLogger is monitoring for every 1.0 m the air pressure, speed, distance and pushing force. This parameter is presented live on the tablet giving the user a full view over the process.

Use of this unit for work other than what is intended, relieves the manufacturer from any responsibility, civil or penal. The manufacturer's responsibility ceases, and the warranty is voided when one of the following occurs:

- A. When JetLogger is used for purposes other than what is detailed in this manual.
- B. Tampering and/or modifications carried out without written approval of the manufacturer.
- C. Not using original manufactured replacement parts.
- D. Poor maintenance.
- E. Not using supplied safety devices or equipment.
- F. Connection of this unit to machines and/or parts not produced or authorized in writing by the manufacturer.
- G. JetLogger should not be used for anything other than measuring pressure in the duct.

Jetting AB is not responsible for injuries incurred as a result of improper use of the Jetlogger.

2. Technical specifications

2.1. Condition of use

1. Temperature from -15° C to +40° C (5°F to 104°F).
2. Humidity from 20 % to 90 %
3. Weather conditions relevant to working conditions
4. Natural and/or artificial lighting of the work site, >200 lux

2.2. Electrical requirements

1. Power Requirements 18 Volt

2.3. Physical specifications

1. Height 150 mm
2. Length 335 mm
3. Width 300 mm
4. Weight Approx 5,3 kg.

2.4. Electrical requirements

1. Power requirements 18 V 5 Ah
2. Power connection Milwaukee standard

3. Safety Regulations

Read and understand all procedures and safety instructions before using the Jetlogger. Please note all safety information on this page and take note of specific safety requirements explained by procedures outlined in this manual. Failure to follow these instructions may result in serious personal injury, property damage, or death. The equipment must only be handled by trained and authorized personnel who have read and understood all documentation. **In the event of mishaps or breakdown, see section 3.1.**

The unit is delivered in a custom hard case. When transported, the unit shall be placed in the hard case. The hard case must be locked, and when transported by car, the locked case should be strapped in a safe way, preventing it from overturning if the car brakes hard.

3.1. Unit Safety Shutdown

1. Press power button (LED lamp will go out)

The JetLogger system has a safety shutdown function, stopping the cable installation if the set value of the pushing force is exceeded. Please observe that after a safety shutdown the air supply to the motors (on model V2 and V3) **MUST** be turned down to zero. If not, the machine will start over with the speed/pushing force from before the safety shutdown, creating possible damage to the cable.



3.2. Workplace Safety

1. Wear personal protective equipment: ear protection, hard hat, safety glasses, steel reinforced safety shoes, and light leather work gloves (OSHA-approved or Personal Protective Equipment Directive 89/686/EEC-compliant).
2. The operator is responsible that no children or unauthorized persons are close to the unit while in operation.
3. Check the unit before starting for worn or damaged parts, loose nuts and bolts etc.
4. If unit is left unattended, ensure that unauthorized use is prevented.
5. Use the unit only for its intended purpose.
6. The unit must be operated on firm ground.

3.3. Electrical devices

JetLogger is an electrical device. Electrical shock hazards exist that could result in severe personal injury or death. Observe the following precautions to avoid electrical hazards:

1. Do not operate in or near water. This includes setting the unit on a wet surface or exposing to rain.
2. Do not operate when there is lightning or extreme weather. An earth stake driven into the ground as added protection is recommended if there is any chance of extreme weather developing.
3. Important safety Information about batteries and chargers:
 - Never submerge the battery in water.
 - Never leave the battery in the machine when cleaning.
 - If you suspect your lithium battery has water inside do not use or attempt to recharge.
 - Never use the charger or battery if the leads, contacts or casings are damaged.
 - Dropping the battery may damage the cells or circuit components inside.
 - A LITHIUM BATTERY THAT HAS BEEN SUBMERGED IN WATER OR SUSTAINED DAMAGE IS A FIRE HAZARD. DO NOT USE THE BATTERY. Place outdoors in a noncombustible container well away from flammable materials. DO NOT RECHARGE THE BATTERY.
 - Avoid charging your battery in temperatures below 5° C or above 40° C.
 - Do not exposing the battery to temperatures below -15° C or above 40° C.
 - Do not wrap or cover as the charger generates heat during use.
 - Never expose the charger to rain, moisture or damp. If you suspect any of these have occurred then do not use the charger.
 - Only charge your battery using the compatible Jetting charger provided with your battery. Never discharge your battery other than in normal use on the Jetlogger.
 - At the end of the battery's life, dispose at your local recycling centre.

3.4. Working at night requirements

1. Operator must provide portable lighting that achieves a light intensity of at least 200 Lux (Lumens/m²).

4. Unpacking the Case

4.1. Jetlogger components

Each Jetlogger Kit contains the following items:

- Tablet
- V2/V3/ JetPressure cable
- 2 pcs batteries
- 1 charger
- 1 pcs tablet charger
- 1 pcs charger cable
- Hard Case



5. Setup (LogBox)

The JetLogger system for model V2, V3 and JetPressure is a stand alone system (Log Box) connected with the machine by the supplied cable. The following steps should be done after you have prepared your fiber blowing machine with duct clamp and mounted duct, connected the air hose from the compressor, and mounted the cable guide and cable in the machine.



Always wear protective equipment: hard hat, safety glasses, safety shoes, and work gloves.



5.1. Mount battery

1. Open the Jetlogger box and mount the battery inside the log box.

5.2. Check battery level

1. Press the battery level button
2. Charge if low battery

5.3. Connect cable

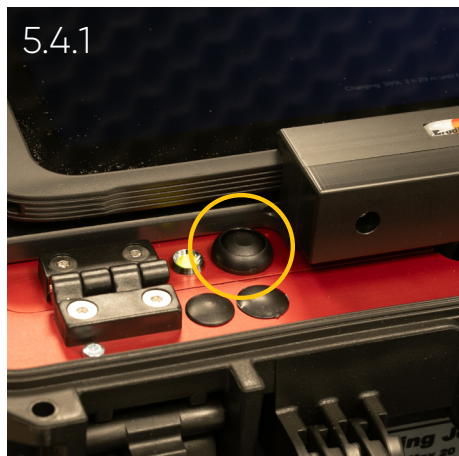
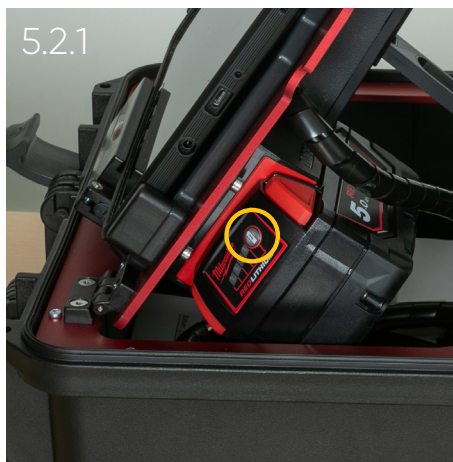
1. Open Jetlogger
2. Mount the Jetlogger cable to your machine

5.4. Start Jetlogger

1. Press Power button, the green LED lights up.

5.5. Start Tablet and Jetlogger App

1. If tablet is off, start by pressing tablet power button
2. Press the Jetlogger Icon



6. Setup (V0/VOHD JLP)

The JetLogger system V0/VO HD is integrated in the transport box of the machine. The following steps should be done after you have prepared your fiber blowing machine with duct clamp and mounted duct, connected the air hose from the compressor, and mounted the cable guide and cable in the machine.



Always wear protective equipment: hard hat, safety glasses, safety shoes, and work gloves.



6.1. Connect cables

1. Connect the blue USB cable to the machine.
2. Connect the black tablet power cable.

6.2. Connect battery

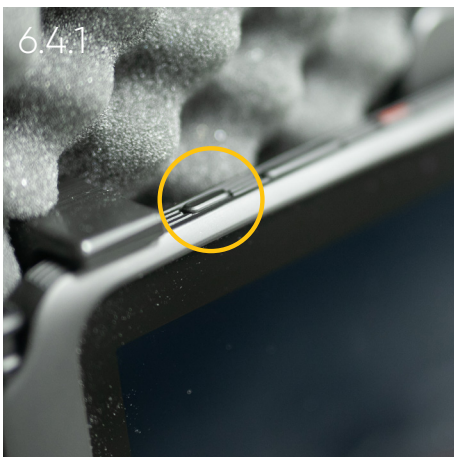
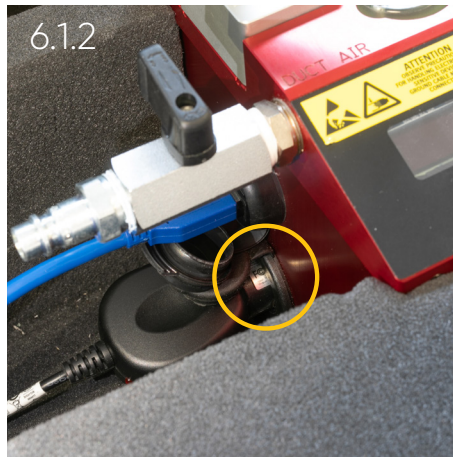
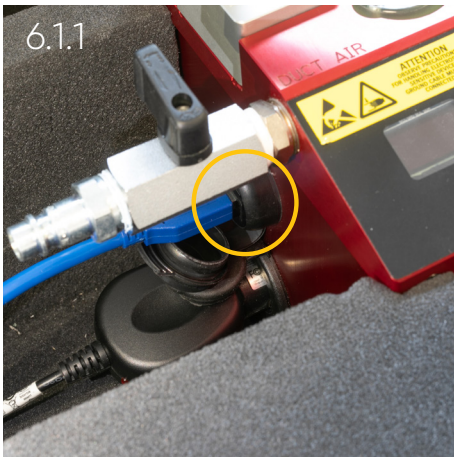
1. Connect battery V0/VO HD.

6.3. Start V0/VO HD

1. Start by push the V0/VO HD power button.

6.4. Start Tablet

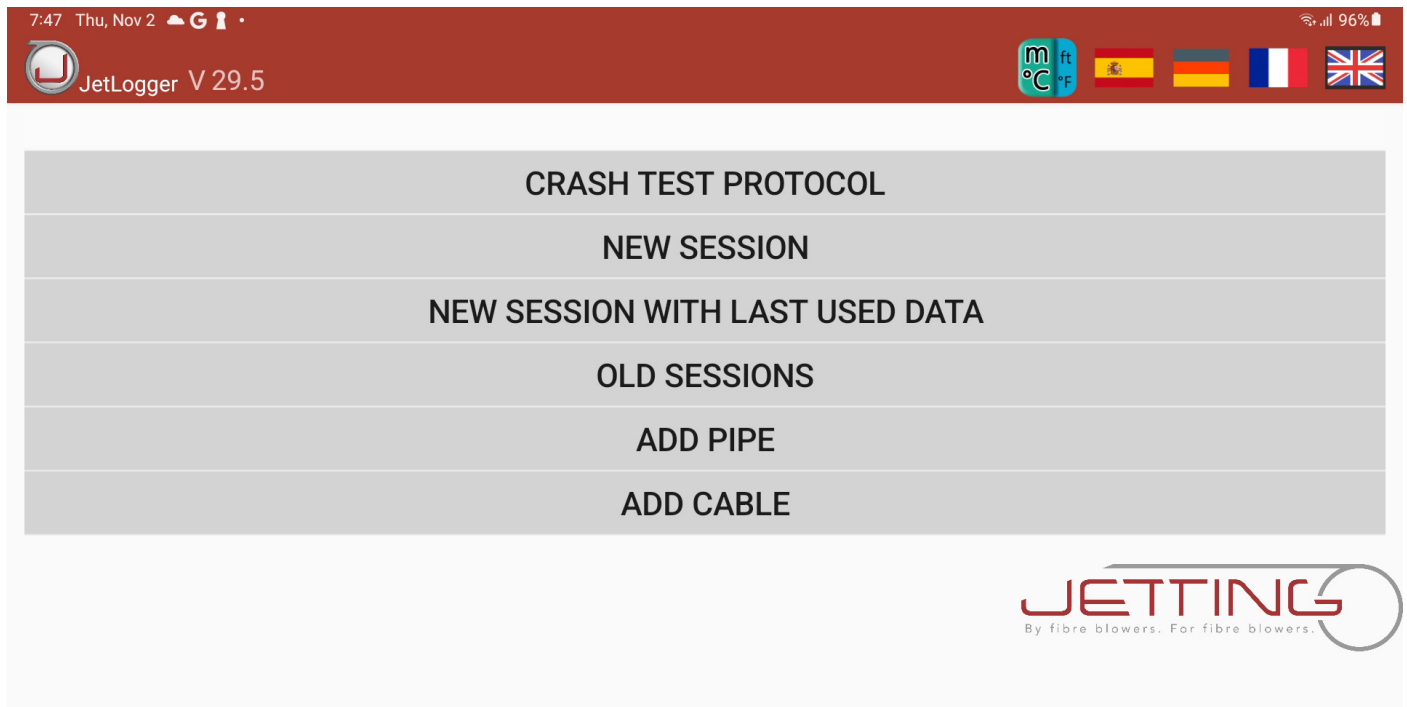
1. Start by pressing tablet power button.



7. How to start the JetLogger App

When you open the Jet Logger App you'll see the main Log menu, in the top you can:

- Change the language by pushing the flag.
- See the software version.
- See time, and battery status of the tablet.
- See indicator for charging.
- See the Wi-Fi symbol.
- See the mobil signal to operator.



In the menu you have 6 options to choose between:

1. Crash test protocol
 - Used to perform a crash test and find max pushing force.
2. New session
 - Used when a new job must be documented.
3. New session with last used data
 - Used when a job must be documented and the cable, pipe and conditions can be reused (save time for the setup).
4. Old sessions
 - This is the memory where all saved protocols are located in PDF format.
5. Add pipe
 - Register the pipe specifications for the most used pipes.
6. Add cable
 - Register the cable specifications for the most used cables.

8. Set up tablet for crash test protocol

- You should always start with doing a crash test for that special cable and pipe you will be using for the job.
- Start with pushing on 'Crash test protocol' and this menu appears:

JetLogger		Crash Test - Protocol			
Project		Project			
Address		Address			
Company		Company			
Operator		Operator			
Comments		Comments			
Time - Duration[hh:mm:ss]		27.04.2021, 15:13	Location (GPS)	00,0000', 0,00000', 00,0000 m	
Pipe parameters		Cable parameters		Machine / Compressor	
Manufacturer	Manufacturer	Manufacturer	Manufacturer	Fiber blowing machine	
Pipe type	Pipe type	Cable type	Cable type	Lubricant	Lubricant
Color / Description		Kabel-Ø:	Cable-Ø	Compressor	Compressor
Color / Description		Fiber Count	no.	Oil separator <input type="checkbox"/>	Aftercooler <input type="checkbox"/>
Type of pipe laying		Cable drum-No.	Cable Drum		
Type of pipe laying		Cable tip	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Inner pipe diameter	Inner pipe di	Cable temperature	Temperatur		
Outer pipe diameter	Outer pipe	Metrology / Environment		P RHT 90177E 22.0 °C 18 %	
Pipe temperature	Temperature	Start		End	
Inner pipe wall surface	Smooth <input type="checkbox"/> With grooves <input type="checkbox"/>	Route distance		SEARCHING FOR BLUESENSOR	
		Operating temperature	22.1 °C		START SESSION
		Humidity	18.0 %		

- Fill out the items in the protocol (the yellow boxes must be filled in).
- Type in pipe and cable specifications for the cable and pipe you will crash test.
- When all information is filled out the 'Start session box' turns green. Press it to start.
- If software is asking for connection to 'SparkFun Pro Micro', press 'OK'.
- You can now start your crash test and the system will document the job.
- After you performed a successful crash test, where you have found the maximum pushing force for the cable, click 'End Session'.
- You can now choose to 'Delete session', 'Save and go back' or 'Save and send'. Go to section 11 for more information on how to do this.

9. Set up tablet for new session

- Start with pressing on 'New Session' in the main menu. This menu should appear:

JetLogger		Fiber Blowing Protocol				
Project	Project					
Address	Address					
Company	Company					
Operator	Operator					
Comments	Comments					
Time - Duration[hh:mm:ss]		27.04.2021, 15:13	Location (GPS)	58,1785°;13,9398°;175,700 m		
Pipe parameters		Cable parameters		Machine / Compressor		
Manufacturer	Manufacturer	Manufacturer	Manufacturer	Fiber blowing machine		
Pipe type	Pipe type	Cable type	Cable type	Lubricant	Lubricant	
Color / Description		Kabel-Ø:	Cable-Ø	Compressor	Compressor	
Color / Description		Fiber Count	no.	Oil separator <input type="checkbox"/>	Aftercooler <input type="checkbox"/>	
Type of pipe laying		Cable drum-No.	Cable Drum	Crash test carried out Yes <input type="checkbox"/> No <input type="checkbox"/>		
Type of pipe laying		Cable tip	Yes <input type="checkbox"/> No <input type="checkbox"/>	Max. Pushing force		
Inner pipe diameter	Inner pipe di	Cable temperature	Temperatur	Safety shutdown Yes <input type="checkbox"/> No <input type="checkbox"/>		
Outer pipe diameter	Outer pipe	Metrology / Environment				
Pipe temperature	Temperature	Start		End		
Inner pipe wall surface	Smooth <input type="checkbox"/> With grooves <input type="checkbox"/>	Route distance		SEARCHING FOR BLUESENSOR START SESSION		
		Operating temperature				0.0 °C
		Humidity				0.0 %

- Fill out the items in the protocol (the yellow boxes must be filled in).
- Chose pipe. You will see a list of pipes stored in the memory. If not already stored you can use 'Add pipe' either from the main menu or from the 'New Session Menu'.
- Type in the Color/Description of the pipe.
- Type in the pipe temperature (use a separate temperature measuring equipment).
- Chose cable. You will see a list of cables stored in the memory. If not already stored you can use 'Add cable' either from the main menu or from the 'New Session Menu'.
- Type if you use cable tip (yes or no).
- Type the cable temperature (use a separate temperature measuring equipment).
- Note the meter marking from the cable and fill this into the protocol 'Start'.
- Chose the machine model; V0-series, V2, V3 or Jetpressure.
- Type in the lubricant specifications.
- Type in compressor brand and model. If air pressure can be shown as max 20 bars. If above 20 bars, the report will show 20 bars.
- Note if you are using an oil separator and aftercooler with your compressor, select the appropriate option in the protocol.
- Have you performed a crash test you should mark 'Yes' in the protocol otherwise 'No'.
- If you will use the 'Safety shutdown' type the maximum pushing force you got from the crash test in 'Max. pushing force'.
- If the 'Safety shutdown' must be active you should mark 'Yes' in the box (see 'Safety shutdown' page 14).

16. Information about the humidity and temperature will automatically be transferred from the BlueSensor.
17. When all information is filled in the 'Start session box' turns green. Press it and the system is ready to use.
18. Reset the meter counter on the machine.
19. You can now start your cable installation and the system will document the job.
20. When you are finished with your installation, press 'End Session'.
21. Note the meter marking from the cable and type this into the protocol under 'End'.
22. Then you can choose to 'Delete session', 'Save and back' or 'Save and send'. Go to section 11 to see how to do this.

10. New session with last used data

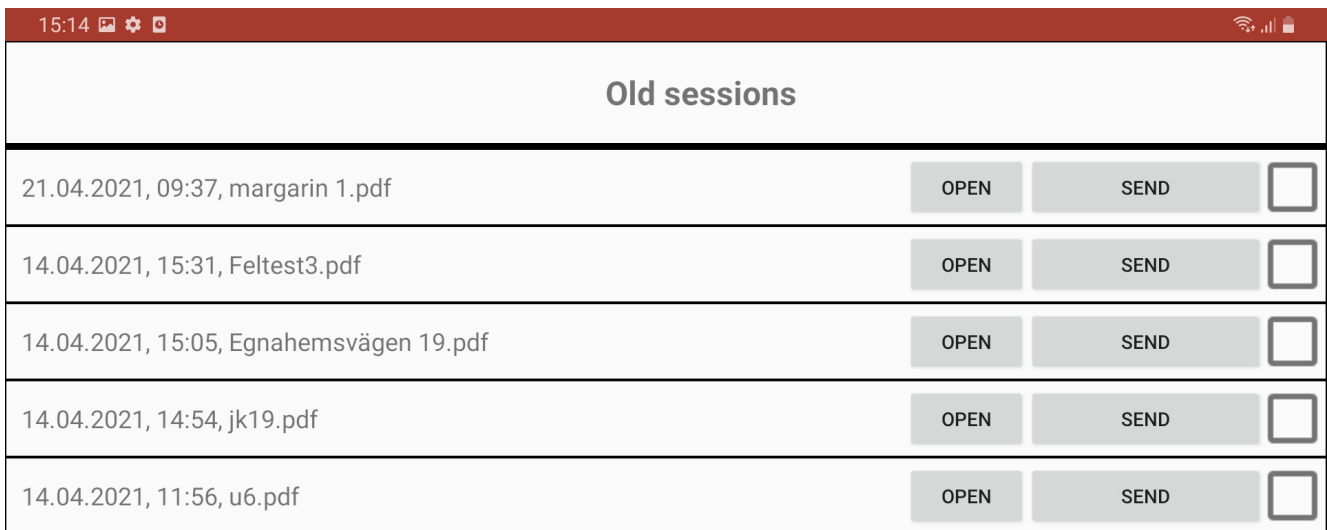
- Reset the machine counter.
- Start with tab on 'New session with last used data' in the main menu and this menu appears:

JetLogger		Fiber Blowing Protocol			
Project	jetting				
Address	Address				
Company	jetting				
Operator	johan				
Comments	Comments				
Time - Duration[hh:mm:ss]	27.04.2021, 15:13	Location (GPS)	58,1785°;13,9398°;175,700 m		
Pipe parameters		Cable parameters		Machine / Compressor	
Manufacturer	Rehau	Manufacturer	a	Fiber blowing machine	
Pipe type	DB	Cable type	a	Lubricant	Jetting Micro Lube
Color / Description		Kabel-Ø:	4.0 mm.	Compressor	JETAIR 140700
yellow		Fiber Count	4	Oil separator	<input checked="" type="checkbox"/> Aftercooler <input checked="" type="checkbox"/>
Type of pipe laying		Cable drum-No.		Cable Drum	Crash test carried out Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type of pipe laying		Cable tip	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Max. Pushing force:	
Inner pipe diameter	12.0 mm.	Cable temperature	Temperatur	Safety shutdown	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Outer pipe diameter	16.0 mm.	Metrology / Environment			
Pipe temperature	Temperature	Start		End	
Inner pipe wall surface	Smooth <input checked="" type="checkbox"/> With grooves <input type="checkbox"/>	Route distance			
		Operating temperature	0.0 °C		
		Humidity	0.0 %		
SEARCHING FOR BLUESENSOR					
START SESSION					

1. Fill in all basic information as you did in the former session. You only must fill in boxes that are yellow (address and pipe-cable temperature).
2. Note the meter marking on cable and fill out this in the protocol.
3. When all information is typed in the 'Start session box' turns green. Press it to start.
4. You can now start your installation and the system will document the job.
5. When you are finished with your installation, press 'End session'.
6. Note the meter marking on cable and fill out this in the protocol under 'End'.
7. Then you can choose to 'Delete session', 'Save and back' or 'Save and send'. Go to section 11 to see how to do this.

11. Old session

- If you want to open an old session, press 'Old Session' in the main menu and this menu appears:

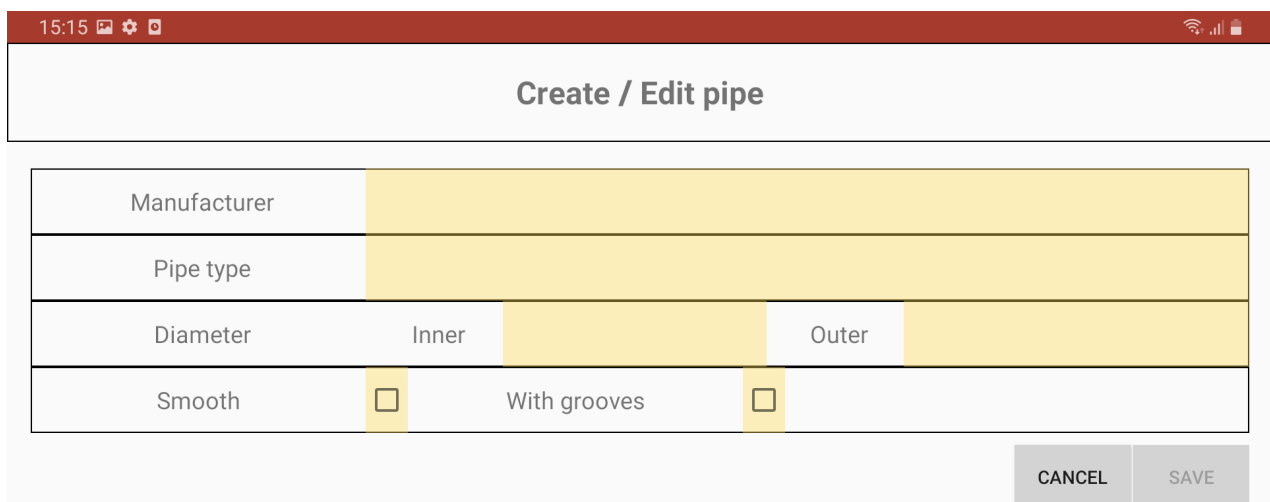


Old sessions		
21.04.2021, 09:37, margarin 1.pdf	OPEN	SEND <input type="checkbox"/>
14.04.2021, 15:31, Feltest3.pdf	OPEN	SEND <input type="checkbox"/>
14.04.2021, 15:05, Egnahemsvägen 19.pdf	OPEN	SEND <input type="checkbox"/>
14.04.2021, 14:54, jk19.pdf	OPEN	SEND <input type="checkbox"/>
14.04.2021, 11:56, u6.pdf	OPEN	SEND <input type="checkbox"/>

- All the sessions are stored with the latest session on top.
- Now you can choose between 'Open' or 'Send' your saved sessions.
- If you want to open a session just press 'Open' for the session you want to open.
- You can see the full documentation for that specific session.
- If you want to send or delete one or more files, just mark the box for those files you want to send or delete. You will see a pop up where you can chose to 'Send selected' or 'Delete selected'.

12. Add a new pipe to tablet

- If you want to add a new pipe to the JetLogger, press 'Add pipe' in the main menu and this menu appears:

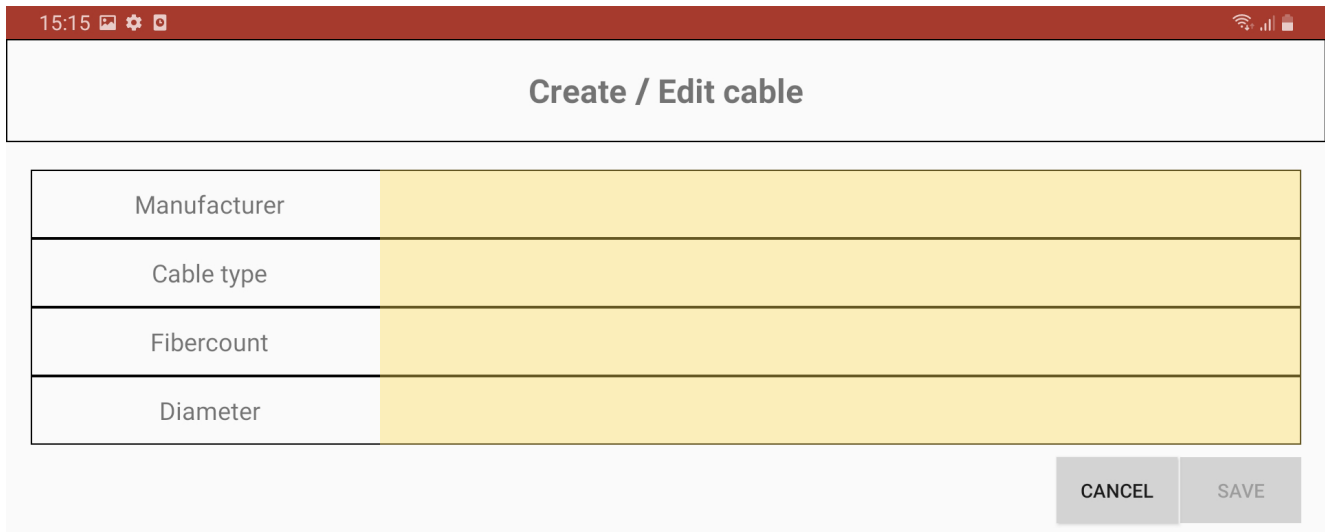


Create / Edit pipe			
Manufacturer			
Pipe type			
Diameter	Inner	Outer	
Smooth	<input type="checkbox"/>	With grooves	<input type="checkbox"/>
		CANCEL	SAVE

- You can choose to add a new pipe, edit or delete the one you already have added.
- To add a new pipe press the plus sign '+'.
• Just type in the information about the pipe and press 'save'.
• Now you can choose this pipe in the protocol.

13. Add a new cable to tablet

- If you want to add a new cable to the JetLogger, press 'Add cable' in the main menu and this menu appears:



Create / Edit cable	
Manufacturer	
Cable type	
Fibercount	
Diameter	

CANCEL SAVE

- You can choose to add a new cable or edit or delete the one you already have added.
- To add a new cable press the plus sign '+'.
• Just type in the information about the cable and press save.
- Now you can choose this cable in the protocol.

14. Delete session, save and go back or save and send

After you closed a session you can choose to:

- **Delete session**
If you delete it you won't be able to get it back.
- **Save and back**
If you chose this, the protocol will be stored in 'Old sessions'.
- **Save and send**
If you chose this, the protocol will be stored in 'Old Sessions' and you will have the possibility to send the protocol to a mail account (for example if you wish to send it to the network owner to an installer or save it in the cloud).

15. Technical information

Tablet

The tablet controlling JetLogger is an Industrial Galaxy tablet from Samsung, designed to function in the field based on the Android system. The tablet has a slot for a SIM card if you want to be directly connected via mobile signal. You need to purchase the SIM card separately from your local teleoperator. The tablet is protected and placed inside the JetLogger box. The tablet can be removed from the box to make it more user-friendly for reading and input. Please note that the tablet does not charge if removed, and it must be connected to a holder to receive data from the machine.

GPS/Google maps

Via GPS the JetLogger can identify the exact location. If you press the text 'Location GPS' on the Protocol screen you will start Google maps and see the location on a map.

How to find the serial number on the tablet

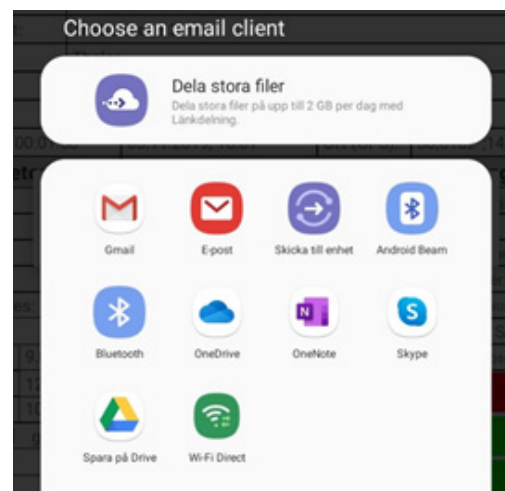
Start the tablet and go to settings, look for 'About Tablet'. Here you have all the data concerning the tablet, such as the serial number.

Safety shutdown

The JetLogger system has a safety shutdown function, stopping the cable installation if the set value of the pushing force is exceeded. Please observe that after a safety shutdown the air supply to the motors (on model V2 and V3) MUST be turned down to zero. If not, the machine will start over with the speed/pushing force from before the safety shutdown, creating possible damage to the cable.

How to set up a mail account on your tablet

Start the tablet and go to settings. Choose 'Accounts and backup', press 'Accounts' and then 'Add account'. Follow the steps on the tablet.



The OCPC = Intelligent pipe/cable combination for optimal fiber blowing conditions

The JetLogger has an intelligent pipe/cable combination build in, the Optimal Cable Pipe Combination system (OCPC system). The OCPC system is an intelligent system helping you to get the optimal pipe and cable combination for optimal blowing.

The OCPC will automatically calculate the optimal cable/pipe combination, based on the fact that the cable must not be more than 2/3 of the inner pipe diameter. It secures that you don't choose a fiber that is not suited for your choice of pipe size, for example trying to fit a fiber with a diameter that is too big for the pipe. If you choose a pipe with an inner diameter size of 8,00 mm the OCPC system will only present the cables which are optimal for this pipe size. It is possible for you to override the recommendation from the OCPC system if you like.

BlueSensor

The BlueSensor will automatically monitor the surrounding temperature and humidity and transfer this data to the JetLogger protocol via a Bluetooth signal. The BlueSensor is paired with the tablet via a unique ID-number, this is done during production. If you need to make a new connection, you'll find the ID-number on the backside of the BlueSensor. The BlueSensor is operated by a built in battery with a 15 year warranty. The battery is built in and can not be changed.

Low battery warning < 20 %

If the battery on the JetLogger is low, you will get a warning when the capacity hits 20 %. The warning will flash, you can still go on with your work, but you have to replace/recharge the battery as soon as possible. You can not change the battery when you are doing a documentation process.

16. Documentation and disposal

Ordering documentation

Documentation, user instructions and technical information can be ordered by contacting Jetting AB by phone +46 502-65 90 10

Disposal

Please follow the regulations for your country regarding how to recycle parts and dispose products.

17. EC Declaration of Conformity

EC DECLARATION OF CONFORMITY OF THE MACHINERY

Original

Directive 2006/42/EC, Annex II 1A

Manufacturer (and where appropriate his authorised representative):

Company:	Jetting AB
Address:	Murgatan 1 522 35 TIDAHOLM SWEDEN

Hereby declares that:

Type of machinery:	JetLogger
No. of machinery:	

Complies with the requirements of Machinery Directive 2006/42/EC.

Complies also with applicable requirements of the following EC directives:

2014/30/EU, EMC

The following harmonized standards have been applied:

EN ISO 12100:2010 Safety of machinery - General principles for design - Risk assessment and risk reduction
EN 60204-1:2018 Safety of machinery - Electrical equipment of machines - Part 1: General requirements

The following other standards and specifications have been applied:

Authorized to compile the technical file:

Name:	Håkan Johansson
Address:	Murgatan 1, 522 35 TIDAHOLM

Signature:

Place and date:	Tidaholm 2024-07-09
-----------------	---------------------

Signature:

Ted Josefsson

Name:	Ted Josefsson
Position:	CEO

18. Warranty Information

Warranty Period

This product is covered by a warranty for 12 months from the date of purchase. A valid receipt must be presented to claim the warranty.

Warranty Conditions

Damage and defects, which have occurred by improper use, unauthorized modifications or unauthorized repairs, are not covered by the warranty.

Battery Warranty

Batteries are covered by a 12-month warranty*.

*Conditions apply. See 3.3. Electrical devices

