



LADY ELECTRIC MOTOR

User & maintenance manual



Ver.2.0 - March 01, 2024

Fibernet srl

www.fibernet.it

INDEX

1.	GENERAL	4
2.	TECHNICAL CHARACTERISTICS.....	5
2.1.	PRODUCT CONFIGURATION	6
2.2.	ACCESSORY KIT	7
3.	OPERATING INSTRUCTIONS	8
3.1.	PRELIMINARY OPERATIONS.....	8
3.2.	LAYING PROCEDURE.....	10
4.	DISPLAY INFORMATION	11
5.	ALARM MANAGEMENT	13
5.1.	MAXIMUM THRUST REACHED – CODE 3010.....	13
5.2.	STOP COMMAND RECEIVED – CODE: 300	14
5.3.	MAX SLIP ALARM – CODE: 300	15
5.4.	GENERIC ERROR – CODE: XXXX.....	16
6.	MAINTENANCE.....	17
6.1.	CLEANING	17

SAFETY RULES



Before performing any type of alteration and/or maintenance, make sure to have previously switched off the machine, removed the batteries and the USB cable.



Before operating, make sure to have set and fixed the device on a solid surface. Check that the blowing machine is correctly connected to the minitube and that the cable is properly positioned between the two drive belts.



Do not use the machine under rain conditions and keep it away from water and/or splashes.



Do not use the Motor for different purposes. Use the motor only with the Lady Cable Jetting Machine.

1. GENERAL

This electric motor specifically designed to work in combination with the Lady cable jetting machine, is entirely developed and manufactured by Fibernet Srl. It is a compact, easy-to-use and technologically advanced power source for blowing cables inside mini ducts.

The device is provided with a polypropylene waterproof case for a safe and easy transport, two 5 Ah Milwaukee lithium batteries and a Milwaukee battery charger*.

The machine is designed to finely regulate the speed and the maximum thrust during cable blowing operations and avoid stresses that may cause attenuation in the fiber optic line.



Figure 1: Fibernet Lady Electric Motor.

* On request, the motor can be also provided without the batteries and the charger.

2. TECHNICAL CHARACTERISTICS

Here below a list of the main features:

- Weight: approximately 10.7 kg
- Compact dimensions: 410 x 340 x 200 mm
- Operating temperature -10 °C / +45 °C
- 3,5" TFT Capacitive Touch Screen Display with operative information (Speed, Meter Counter, Actual Cable Thrust, Cable Slippage, Maximum Allowed Thrust, Compressed Air Pressure,)
- Fine Speed control
- Fine Thrust control
- Automatic Stop when maximum thrust level is reached and Cable Block
- Wi-fi ready for remote management and logging (Optional Tablet and App needed)
- 2 X 18 V - 5 Ah Milwaukee lithium batteries
- Li-Ion battery charger with universal input voltage 110/230 Vac, 50 ÷ 60 Hz
- Batteries' autonomy guaranteed for more than 4.000 meters



2.1. PRODUCT CONFIGURATION

Below listed the main electric motor constituent parts (Figure 2.)

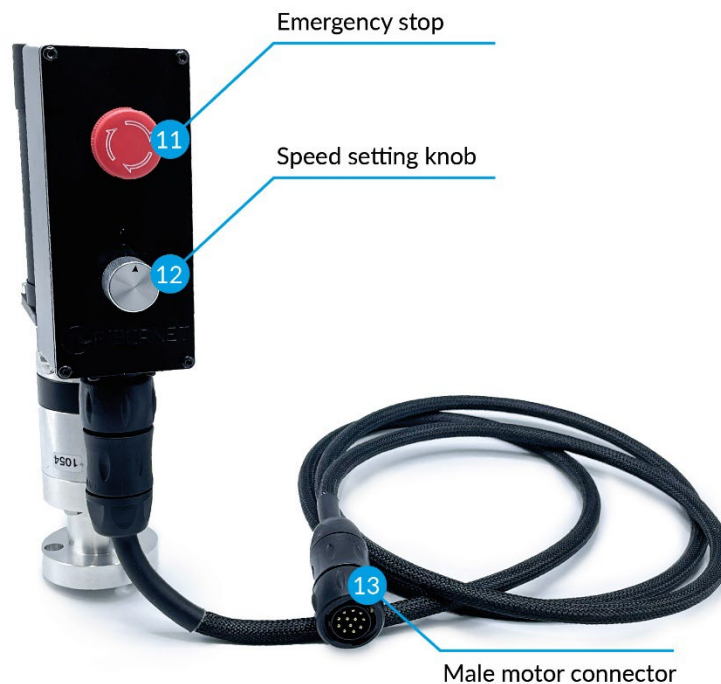
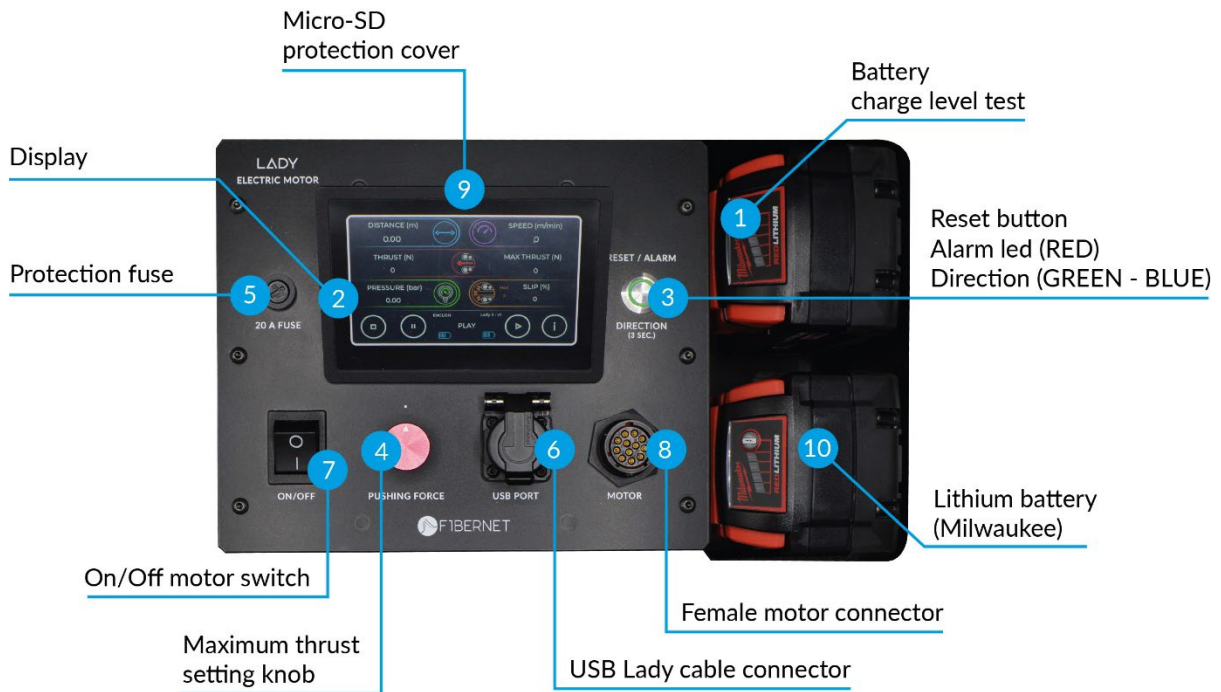


Figure 2: Components and description.

2.2. ACCESSORY KIT

The device is provided with the following accessories*:


Description	Quantity	Pictures
USB cable (1.5 meter)	1	
Milwaukee Lithium Battery M18 5 Ah	2	
Milwaukee Battery Charger	1	
Battery Charger Bag	1	

Table 1: Accessory Kit.

* On request, the motor can be also provided without the batteries and the charger.

3. OPERATING INSTRUCTIONS

Listed below the procedures to follow for a proper machine use divided in:

- 3.1 Preliminary operations
- 3.2 Laying Procedure

3.1. PRELIMINARY OPERATIONS

BEFORE GETTING STARTED IT IS RECOMMENDED TO VERIFY THAT THE BATTERY CHARGE LEVEL IS SUFFICIENT. WITH A FULL CHARGE WE GUARANTEE AT LEAST 4.000 METERS BLOWN IN A SINGLE CABLE PATH AT FULL SPEED AND WITHOUT STOPS.

Stopping the motor during a cable blowing procedure is not recommended, as the battery level could not be enough to resume the laying operation.

Prepare the motor following the steps below:

- a. Connect the Motor Cable to the Control Panel (insert the keyed Male Connector (13) and lock it rotating the plastic ring).



Figure 3: Motor Connector

- b. Connect the USB Lady Cable to the Control Panel (6) and then to the Lady cable jetting Machine.



Figure 4: USB Lady Connector.

- c. Check that the Emergency Stop (11) is not activated and the Speed Knob (12) is in zero position (make sure to make an audible click).

- d. Turn on the Lady cable jetting machine using the ON/OFF button.
- e. Turn on the Lady Electric Motor using the ON/OFF Switch (7).

THE FOLLOWING STEPS NEED TO BE DONE ONLY THE FIRST TIME YOU TURN ON THE DEVICE OR IF A DIFFERENT VERSION OF THE LADY CABLE JETTING MACHINE IS USED. THE CHOSEN PREFERENCES ARE STORED IN THE MACHINE AS DEFAULT.

THE DISPLAY IS OPERATIVE ONLY WHEN THE LADY CABLE JETTING MACHINE IS CONNECTED TO THE PANEL CONTROL AND TURNED ON.

- f. Select Info button on the display to choose the language and the machine's version in use

To understand the Lady version owned, please refer to the following table:

LADY 1	SN 1-60
LADY 2	SN 61-185
LADY 3 V1	SN 186-226
LADY 3 V2 – LADY V3 POWER (latest upgrade on the firmware)	SN 227 >>

THIS ELECTRIC MOTOR VERSION IS COMPATIBLE WITH ALL LADY VERSIONS ON THE MARKET.

IMPORTANT

IF YOU ALREADY OWN A LADY 1 UP TO LADY 3 V1, USE A SHIELDED USB CABLE 1 METER LONG.

IF YOU OWN A LADY 3 V2 AND A LADY V3 POWER, YOU CAN USE A SHIELDED USB CABLE 1.5 METER LONG.

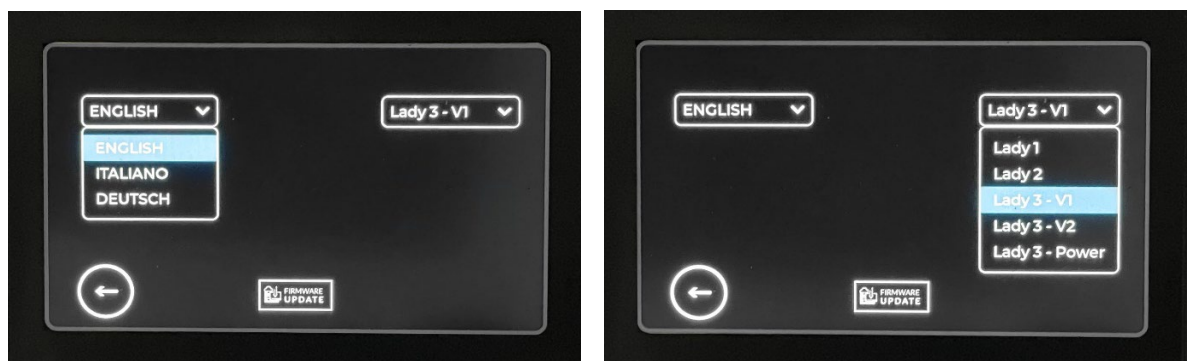


Figure 5: Language and Lady version selection

3.2. LAYING PROCEDURE

- a. Regulate the Maximum Thrust/Torque Knob (4) to the maximum force according to the specs and characteristics of the cable that will be blown (check the set value on the display).
- b. Verify that the Lady cable jetting machine is ready.
- c. Start laying the cable by rotating the Speed Knob (12) to the desired speed.

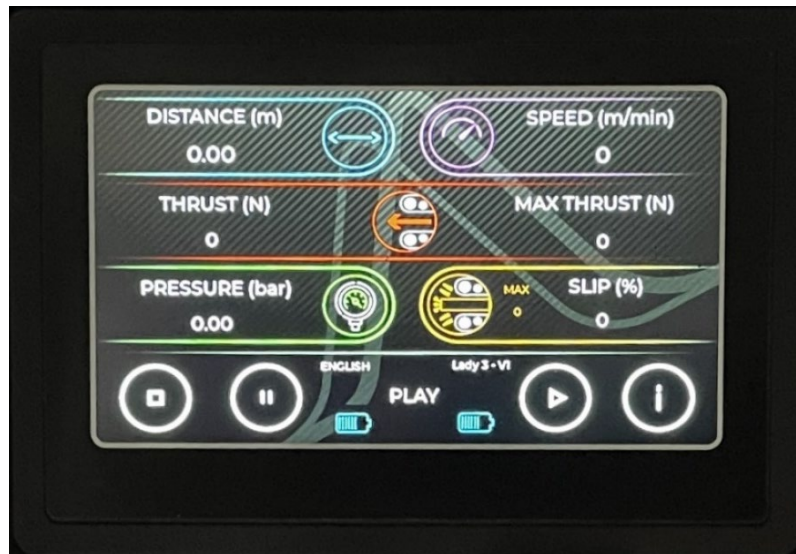


Figure 6: Lady Electric Motor Display

- d. Check the major parameters on the display during the laying process.

4. DISPLAY INFORMATION

In Figure 7 the detailed information shown on display

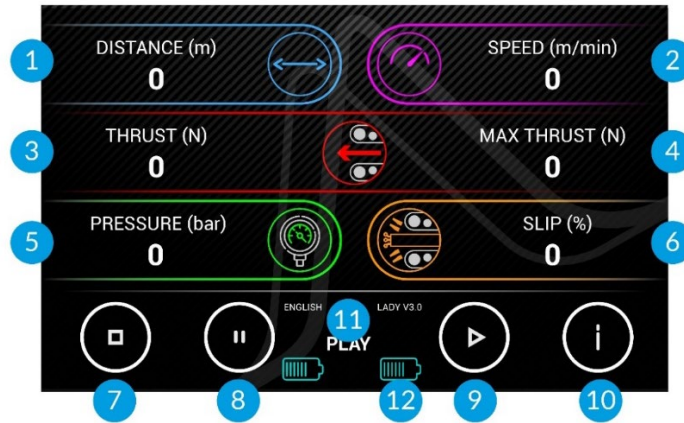


Figure 7: configuration of the Display

Position	Name	Description
1	Distance laid	Shows the distance expressed in meters since last Lady's reset
2	Speed	Shows blowing speed expressed in m/min
3	Thrust	Shows the actual pushing force applied to the cable
4	Maximum Thrust*	Shows the maximum allowed pushing force applied to the cable, set by using the "maximum thrust setting knob"
5	Air pressure	Shows the air pressure expressed in bar flowing inside the minitube
6	Slippage	This value is calculated comparing the speed of the cable (measured by the counterometer on the Lady machine) and the speed of the electric motor. Please refer to page 15 for more info
7	Stop button	Stops the Motor and the logging process. (Lead to a specific an Alarm)
8	Pause button	Freeze the displayed values and stop the logging process
9	Play button	Restart Logging process and display real time values
10	Info button	Leads to information and settings section
11	Device status	Shows actual status of the device
12	Batteries status	Shows the battery level of each battery

Table 2: list of information and buttons shown on display.

*IMPORTANT

TO HELP OVERCOME ANY BARRIER DURING THE LAYING OF THE CABLE, IF THE MAXIMUM THRUST SETTING KNOB (4) IS SET ABOVE 95% OF THE PUSHING FORCE AVAILABLE, THE ELECTRIC MOTOR GENERATES UP TO THREE TIMES THE THRUST SET FOR A LIMITED PERIOD OF TIME.


GREEN LIGHT:

THIS COLOR INDICATES THAT THE MOTOR IS PUSHING THE CABLE FORWARD.


BLUE LIGHT:

THIS COLOR INDICATES THAT THE ELECTRIC MOTOR IS SET TO PULL THE CABLE BACKWARDS.

KEEP THE BOTTON PRESSED FOR 3 SECONDS TO CHANGE THE DIRECTION.


RED LIGHT:

WHEN A RED LIGHT APPEARS, THAT MEANS THAT THERE IS AN ERROR. FOR THE COMPLETE LIST OF ERRORS, PLEASE CHECK THE PICTURES IN THE FOLLOWING PAGES

5. ALARM MANAGEMENT

During operations different types of alarm and pop-up might occur. According to the type of error, there are different solutions that can be adopted.

5.1. MAXIMUM THRUST REACHED – CODE 3010

If the maximum set thrust is reached during the laying process and the cable is blocked for more than 2 seconds, the Error Code 3010 will appear on the screen, as showed in figure 8.



Figure 8: Maximum Thrust Reached error.

To reset the alarm, follow the steps below:

- Put the Speed Knob (12) to zero (pay attention to make the final “click” sound).
- Push the “Reset” Button (3).
- Check that the Alarm Led (3) turns off.
- Push “close” on the display pop-up

5.2. STOP COMMAND RECEIVED – CODE: 300

During the laying process if the “Stop” Button (7) on the motor display or the Emergency Stop in the App is pressed, the Error Code 300 occurs, as showed in figure 9.



Figure 9: STOP Command Received error.

To reset the alarm, follow the step below:

- a. Put the Speed Knob (12) to zero (pay attention to make the final “click” sound).
- b. Push the “Reset” Button (3).
- c. Check that the Alarm Led (3) turns off.
- d. Push “close” on the display pop-up.
- e. Push “Play” button on the display.

5.3. MAX SLIP ALARM – CODE: 300

The electric motor allows the operator to understand if there is a difference between the speed of the cable blown (measured by the counterometer on the Lady machine) and the speed of the electric motor itself.

It is possible to set the maximum slippage by pressing the “SLIP” icon on the display (6) and the machine will automatically stop if that value is exceeded.

As an example:

- 100% slippage means that the cable is not moving
- 0% slippage means that there is no difference between the speed of the cable and the speed of the electric motor
- 70% slippage means that, out of ten meters blown, the cable has run the distance of three meters



Figure 10: STOP Command Received error. MAX SLIP Alarm

To reset the alarm, follow the step below:

- a. Put the Speed Knob (12) to zero (pay attention to make the final “click” sound).
- b. Push the “Reset” Button (3).
- c. Check that the Alarm Led (3) turns off.
- d. Push “close” on the display pop-up.
- e. Push “Play” button on the display.

5.4. GENERIC ERROR – CODE: XXXX

The device has an advanced internal diagnostic tool that continuously monitors all the parameters, such as voltage level, temperature, motor status, etc. In case of a malfunctioning, the motor could stop and an Error Code XXXX appears, as showed in figure 11.



Figure 11: Generic error.

To try solving the problem, restart the device using the ON/OFF (7) switch.

If the problem persists, please contact Fibernet Assistance (Ph.: +39 06 90405039) and communicate the error code displayed.

6. MAINTENANCE

Keep the device dry and clean.

6.1. CLEANING

In case the display or other parts of the device need to be cleaned, use just a wet cloth and avoid aggressive cleaners or polishing solutions.

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Dichiarazione di conformità

CE declaration of conformity
Déclaration CE de conformité
CE konformitätserklärung

Il fabbricante:

The manufacture:
Le fabricant:
Des Hersteller:

FIBERNET Srl
Via degli Olmetti, 18 – 00060 Formello, (RM) - ITALY

Il fabbricante con la presente dichiara che,

The manufacturer hereby declares that,
Le fabricant déclare par la présente que,
Der Hersteller erklärt hiermit, dass,

il dispositivo elettromeccanico per motorizzare “Lady” jetting machine
the electromechanical device for “Lady” jetting machine actioning
dispositif électromécanique pour actionnement de la machine à jet “Lady”
Elektromechanische Vorrichtung für die Aktion der “Lady” jetting machine

Type

Anno/Année/Year/Jahr

Il prodotto sopra identificato è conforme alle seguenti direttive e standard:

The above identified product is compliant with the following directives and standards:

Le produit identifié ci-dessus est conforme aux directives et normes suivantes:

Das oben angegebene Produkt entspricht den folgenden Richtlinien und Standards:

Norme armonizzate applicate:

Harmonized standards applied:

Normes harmonisées appliquées:

Angewandte harmonisierte Normen

LADY ELECTRIC MOTOR**2023**

- Machine directive **2006/42/EC**
- Directive **2014/30/EU** Electromagnetic compatibility
- Directive **2014/35/EU** LVD
- Standard EN ISO12100:2010 /Safety of machinery - General principles for design - Risk assessment and risk reduction
- Standard CEI EN55011: 2018 / Limits and methods of measurement for radio disturbance characteristics of ISM Equipment: Conducted and Radiated emissions
- Standard CEI EN61010-1:2013 / Safety requirements for electrical equipment for measurement, control and laboratory use

Roma 07/09/2023

Quality System Manager

