Installation and maintenance notebook USB VERSION

DETECT LINE NG

Attention: document to be filled during each installation. If the system is installed by you, thank you to return imperatively the double page of the middle (P9-10-11-12). Otherwise, the guarantee can not be taken into account.

In order to ensure the proper functioning of the system, preventive maintenance must be carried out every 24 months.
Thank you to contact the company MADE for the establishment of a maintenance contract.

M A D E - SA
167, Impasse de la garrigue
F 83210 LA FARLEDE
Phone : +33 (0) 494 083 198
E-mail : contact@made-sa.com - Web : www.made-sa.com

General information

Company Name: ……..

Date of installation: ……

Name of the installer: ……

Installation

Installation support: ……

Vehicle registration: ……

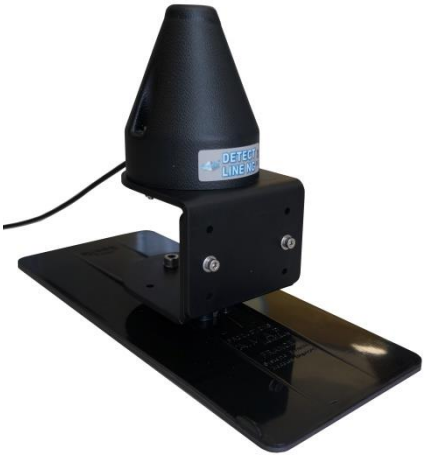
Vehicle characteristics: ……

Materials

Central Unit case serial number : ……

UC : ……Software version:……

Sensor :……
……
Cabin viewing box : ……
Outside viewing box :……



Security seal number :……

Positioning of the sensor on the support in free area ☐ Yes ☐ No***

If not, specify why the sensor is not in free field and the cause:

……
……
……
……

*** : MADE can't guarantee the optimal functioning of the system..

For optimal operation, the sensor must be in a free field on the highest point of the machine.

Presentation

DETECT LINE NG: High Voltage line volumeric detector: HVA (< 50 kV) and HVB (> 50 kV).
DETECT LINE NG warns the user by an audible alarm when the lifting machine enters a risk zone.

Central unit

Sensor management and control sensors, generation of audible and visual alarms, movement blocking management (optional). Lamp « power on » 

System in working order	Electric field present	Breakdown
- Lamp "Audible alarm" off  - Lamp "Movement cut" off  - Lamp "Visual alarm" off.  - Lamp "On work" light on steady.  * slow flash: system waiting for alarm activation	- Lamp "Audible alarm" flashing*.  - Lamp "Movement cut" light on steady*  -Lamp "Visual alarm" light on steady  -Lamp "On work" light on steady.  - Buzzer on*.	- Lamp "On work" off: power off  - slow flash: system waiting for alarm activation  - flashing fast: equipment fault. 

* Until press "Alarm Report" button located on the display unit.

Outside display unit

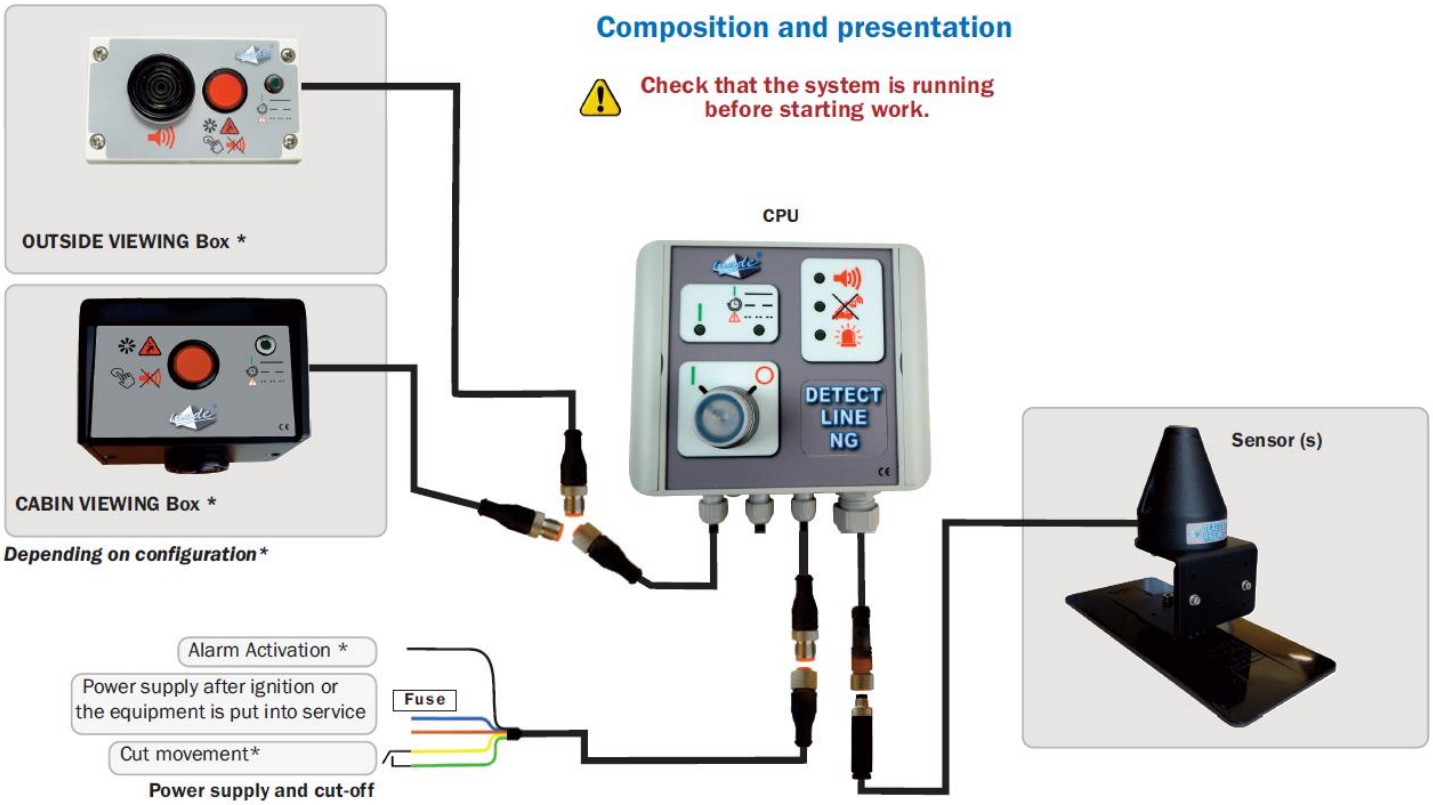
The outside display unit indicates the danger and allows acknowledging the audible alarm and the "Movement cut" (optional).

System in working order	Electric field present	Breakdown
- Lamp "Danger" off 	- Lamp "DANGER" flashing*.  - Buzzer on*.	- flashing fast: equipment fault.

* Until press "Alarm Report" button located on the outside display unit.

Sensor

Sensor measure the electric field radiated by the High Voltage lines and communicates by wire connection with the CPU.



Full system connection:

Outside display unit present: ☐ Yes ☐ No

✓ **Power supply of the central unit:**

Power: ☐ 12V ☐ 24V

Indicate the place: ……

✓ **Power supply after + PTO** ☐ Yes ☐ No

✓ **Activation of alarms at power up** ☐ Yes ☐ No

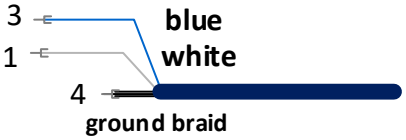
✓ **Cut movement** ☐ Yes ☐ No

Indicate the place: ……

Observations: ……

Sensor wiring:

Use the M8 3-pin male connector for sensor wiring



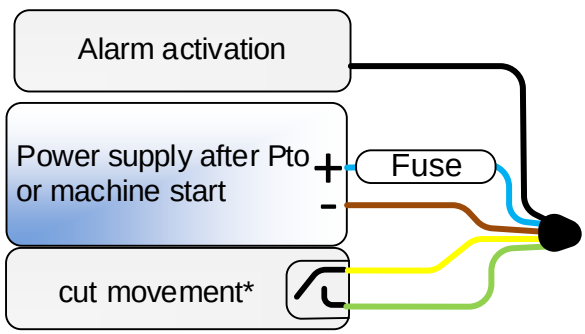
Warning: the earth cable must be as small as possible.
Use the Allen key supplied for the wiring

Number	Use
1	CPU output, 5V power supply (white)
3	CPU input, sensor measurement (blue)
4	CPU output, mass (braid)

Power supply, Cut-off and alarm activation connection:

Pin number	Operation	Sick overmolded connector cable	*Cable 5x1mm² Black*	*Cable 5x0.5mm² Grey*
1	Power 0V	*Brown*	*Brown*	*Brown*
2	Cut movement (in)	*White*	*Green*	*Black*
3	Power 12/24V	*Blue*	*Blue*	*Blue*
4	Alarm activation	*Black*	*Black*	*Grey*
5	Cut movement (out)	*Grey*	*Yellow*	*Black*

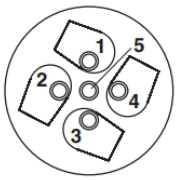
Example :

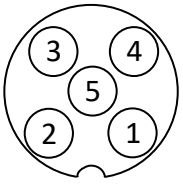


* DEPENDING ON CONFIGURATION

pinout connector

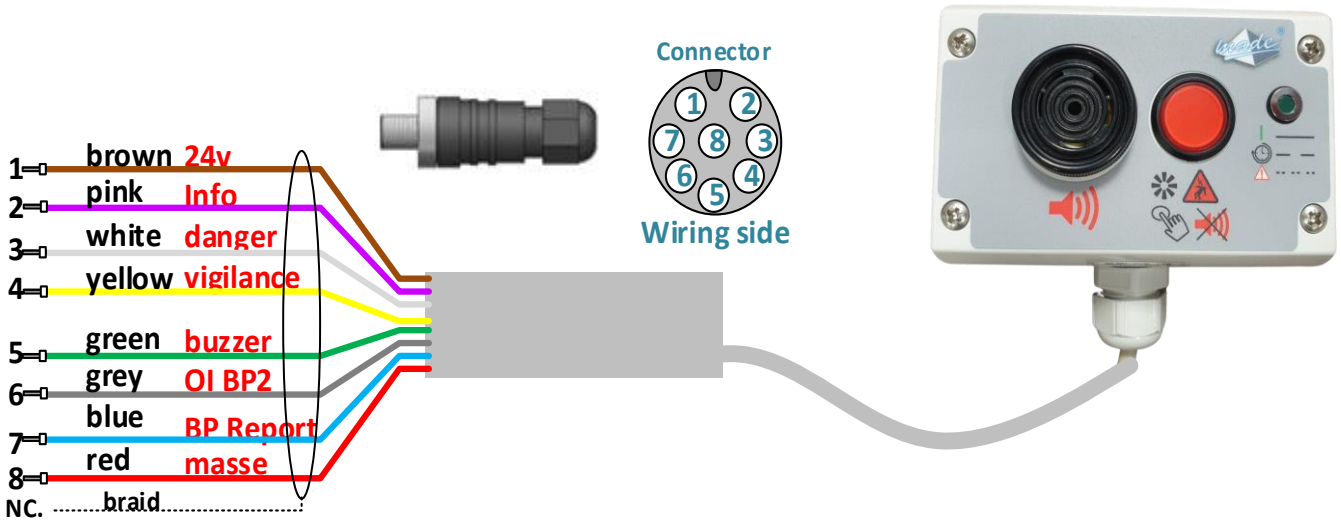
Wired side





Alarm activation: factory configuration in + 12 / 24V

Display unit wiring:



Installation of the security seal at the end of the installation and testing:

Security seal ☐ Yes ☐ No

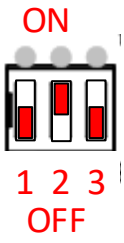
The security seal is fitted at the end of the installation by fixing it to one of the connection cables

To validate the alarm monitoring mode:

Version without PTO activation

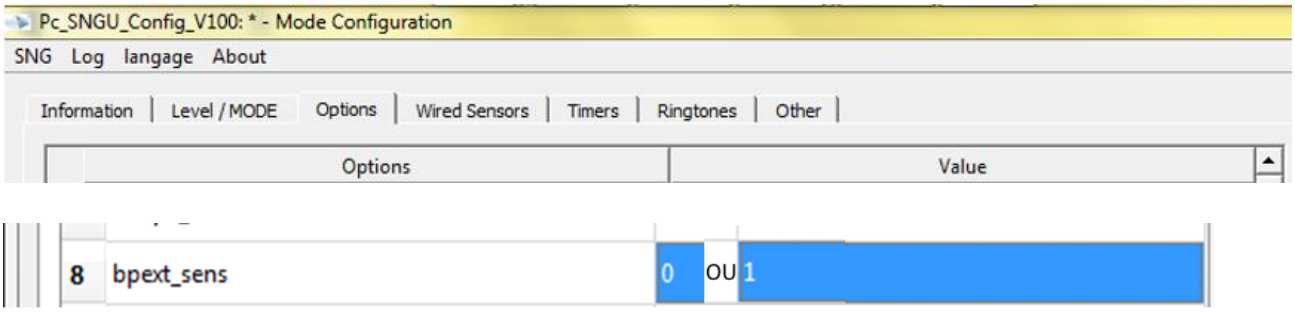
active buzzer by default

bpext_sens=0



active buzzer by default

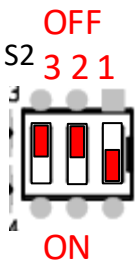
bpext_sens=1



Another way is to reverse the direction of bpext_sens using software « SNGU_Config_Vxxx »).

To activate the alarm monitoring mode, the control input must therefore be activated at ground potential (GND) or V + (12-24V). To do this, you must also configure the BPEXT_SENS option in the central unit (using the "Pc_SNG_Config_Vxxx" software)

Version: Signal Power take-off to ground



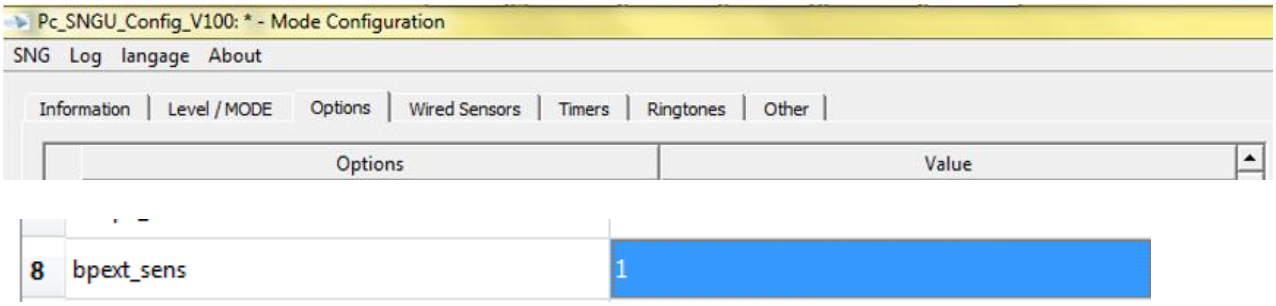
Active buzzer command on GND

bpext_sens = 1

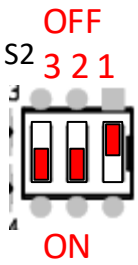
2 actions for configuration are to be performed:

Position the switches on the CPU board

Configure the option with the software



Version: Power take-off to 12-24V

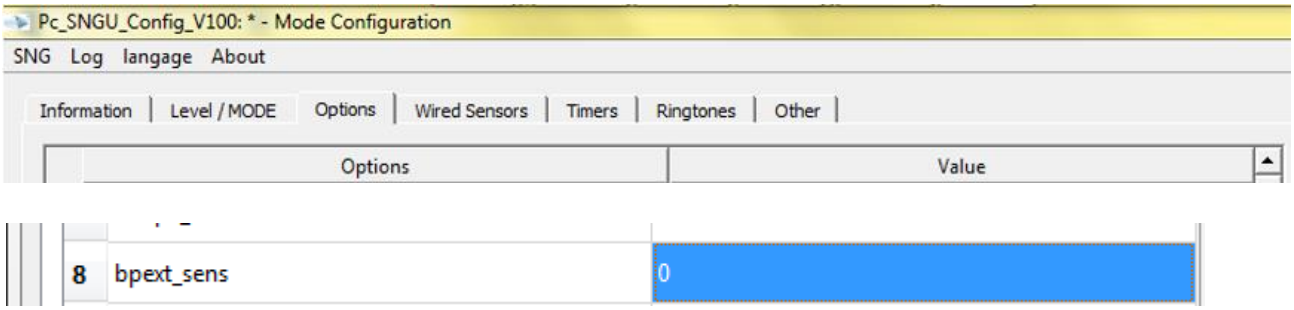


Active buzzer command on V + bpext_sens = 0

2 actions for configuration are to be performed:

Position the switches on the CPU board

Configure the option with the software



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Pages (9-10-11-12) are to be sent back to the MADE company.

Attention: Page (9-10-11-12) to be filled during each installation, and returned to us

Return the double page at the address:

MADE S.A.

167, Impasse de la garrigue
F 83210 LA FARLEDE

Phone : +33 (0) 494 083 198

Or by mail:

interventions@made-sa.com

Otherwise, the guarantee cannot be taken into account.

Fill in idem page 2

General information

Company Name: ……..

Date of installation: ……..

Name of the installer: ……

Installation

Installation support: ……..

Vehicle registration: ……

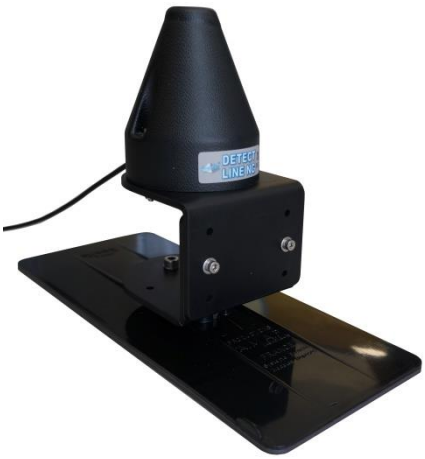
Vehicle characteristics: ……

Materials

UC case serial number**:** ……

UC:…… Software version: ……

Sensor :……
……
……
Display unit :……



Security seal number:……

Positioning of the sensor on the support in free area ☐ yes ☐ No***

If not, specify why the sensor is not in free field and the cause*:*

……
……
……
……

*** : MADE can guarantee optimal system.

For optimal operation, the sensor must be in a free field on the highest point of the machine.

Fill in idem page 4

Specify:

Outside display unit present: ☐ Yes ☐ No

✓ **Power supply of the central unit:**

POWER: ☐ 12V ☐ 24V

Indicate the place: ……

✓ **Power supply after + PTO** ☐ Yes ☐ No

✓ **Activation of alarms at power up** ☐ Yes ☐ No

Other (specify) ☐

Indicate the place: ……

✓ **Cut movement** ☐ Yes ☐ No

Indicate the place: ……

Observations : ……

Fill in idem page 6

Installation of the security seal at the end of installation and testing:

Security seal ☐ Yes ☐ No

Fill in idem page 13

Tests

✓ **Sensor test**

Testeur TC HT

Use *Testeur TC HT.*
Otherwise, approach a 230V cable on the sensor. ☐

✓ **Display unit Test** ☐

✓ **General control of functions:** (bring an AC voltage source to the sensor)

Audible alarms	☐ Yes	☐ No
Visual alarms	☐ Yes	☐ No
In service	☐ Yes	☐ No

MADE-SA:

	Wiring done by
Name :	
Signature :	

Customer:

	Supply of the simplified form or the user guide	Basic training with system explanation
Name :		
Signature :		

Observations:

……
……

Tests

- ✓ **Sensor test**

Testeur TC HT

Use *Testeur TC HT.*
Otherwise, approach a 230V cable on the sensor. ☐

- ✓ **Display unit Test** ☐

- ✓ **General control of functions:** (bring an AC voltage source to the sensor)
- ✓ Audible alarms ☐ Yes ☐ No
- ✓ Visual alarms ☐ Yes ☐ No
- ✓ In service ☐ Yes ☐ No

MADE-SA:

	Wiring done by
Name :	
Signature :	

Customer:

	Supply of the simplified form or the user guide	Basic training with system explanation
Name :		
Signature :		

Observations:

……

Technical visits

Date	Comments

Work	Name/ Signature / Stamp

Technical visits

Date	Comments

Work	Name/ Signature / Stamp

Reminder on the Electrical lines

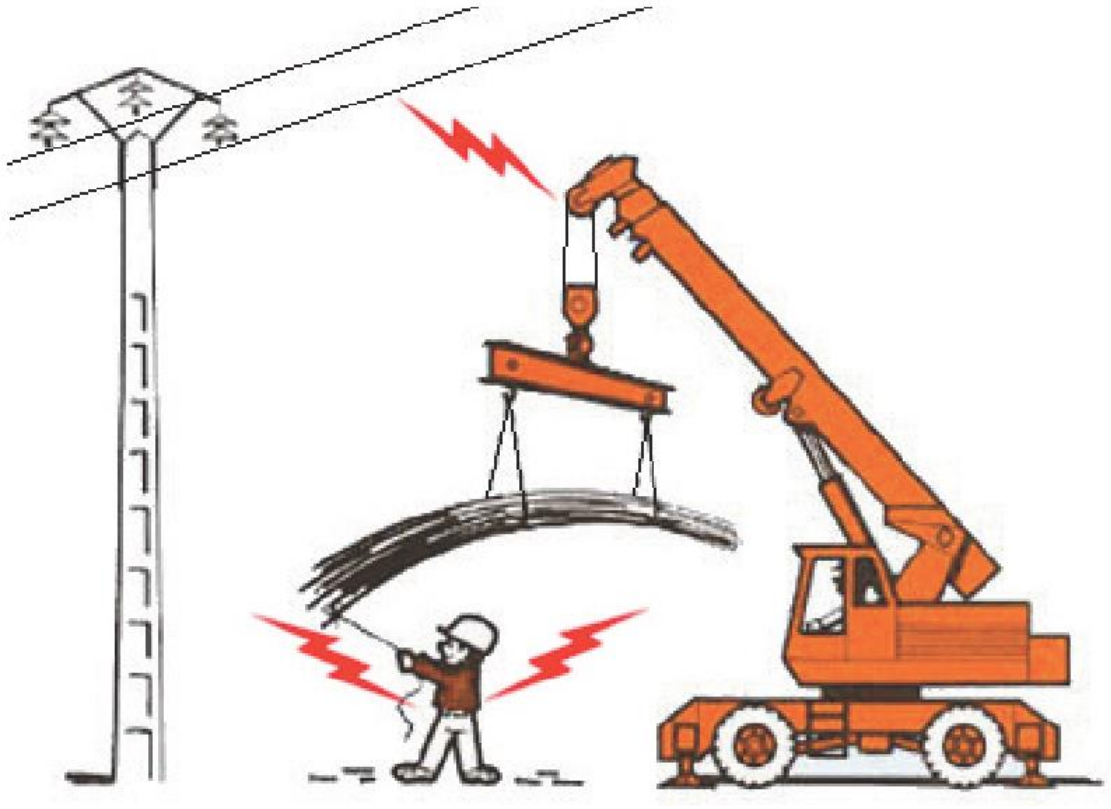
AN OPERATIONAL AID

Detection of powered overhead lines
from 20000Volts~.

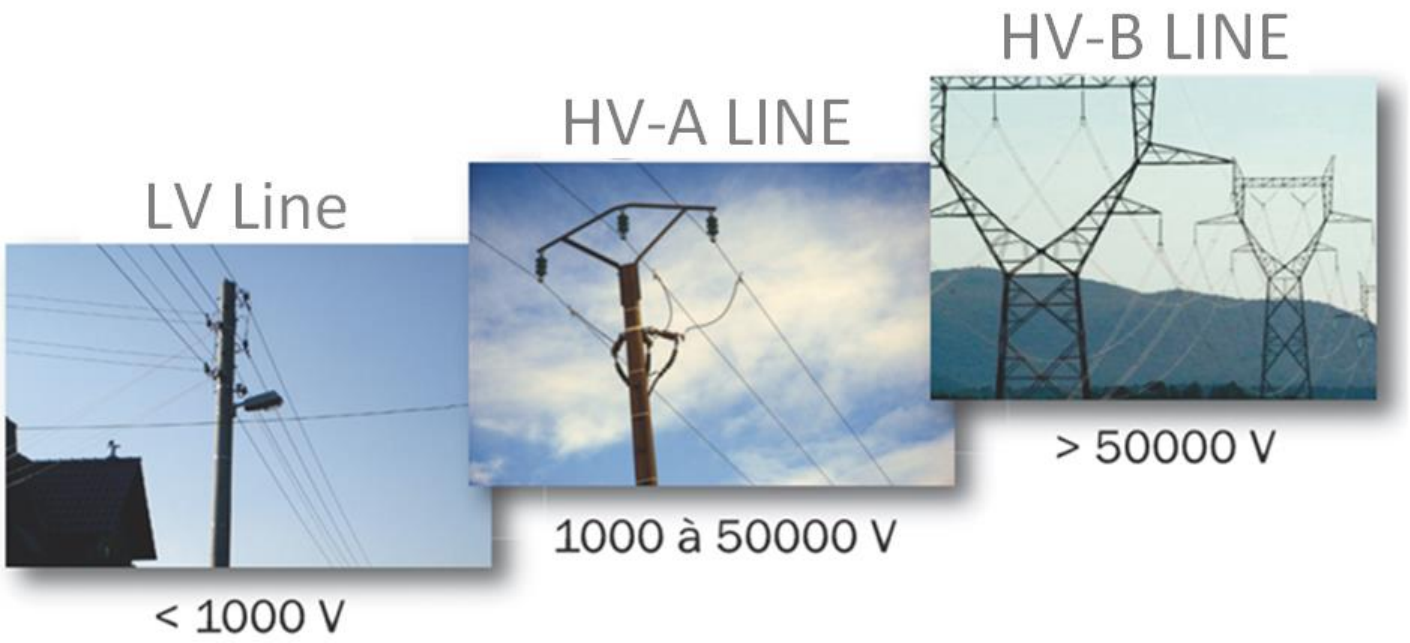
Warning :
The system is inoperative on:
- Low Voltage overhead power lines (380V)
- Medium voltage direct current power lines (trams, railways in general, ..)

The VIGILANCE and ATTENTION of the operator must remain maximum when approaching live power lines.

Electrocution can happen even without touching the line!



The different lines!



Safety distances

Up to 50000 volts: 3 m

50000 volts and over: 5 m