

Installation and maintenance notebook

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.**



MADE - 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

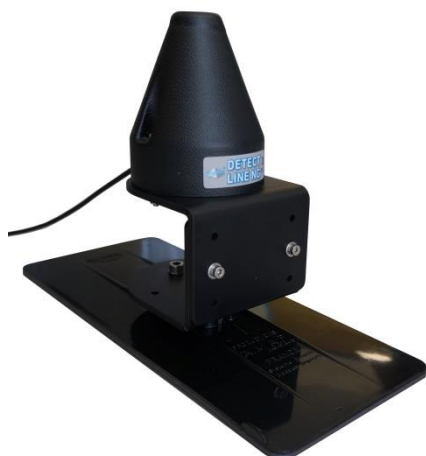
Central Unit case serial number :

UC :Software version:.....

Sensor :.....

.....

Outside 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'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 volumetric 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
<ul style="list-style-type: none"> - Lamp "Audible alarm" off - Lamp "Movement cut" off - Lamp "Visual alarm" off. - Lamp "On work" light on steady. <p> * slow flash: system waiting for alarm activation</p>	<ul style="list-style-type: none"> - Lamp "Audible alarm" flashing*. - Lamp "Movement cut" light on steady* - Lamp "Visual alarm" light on steady - Lamp "On work" light on steady. - Buzzer on*. 	<ul style="list-style-type: none"> - 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
<ul style="list-style-type: none"> - Lamp "Danger" off 	<ul style="list-style-type: none"> - Lamp "DANGER" flashing*. - Buzzer on*. 	<ul style="list-style-type: none"> - flashing fast: equipment fault.

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

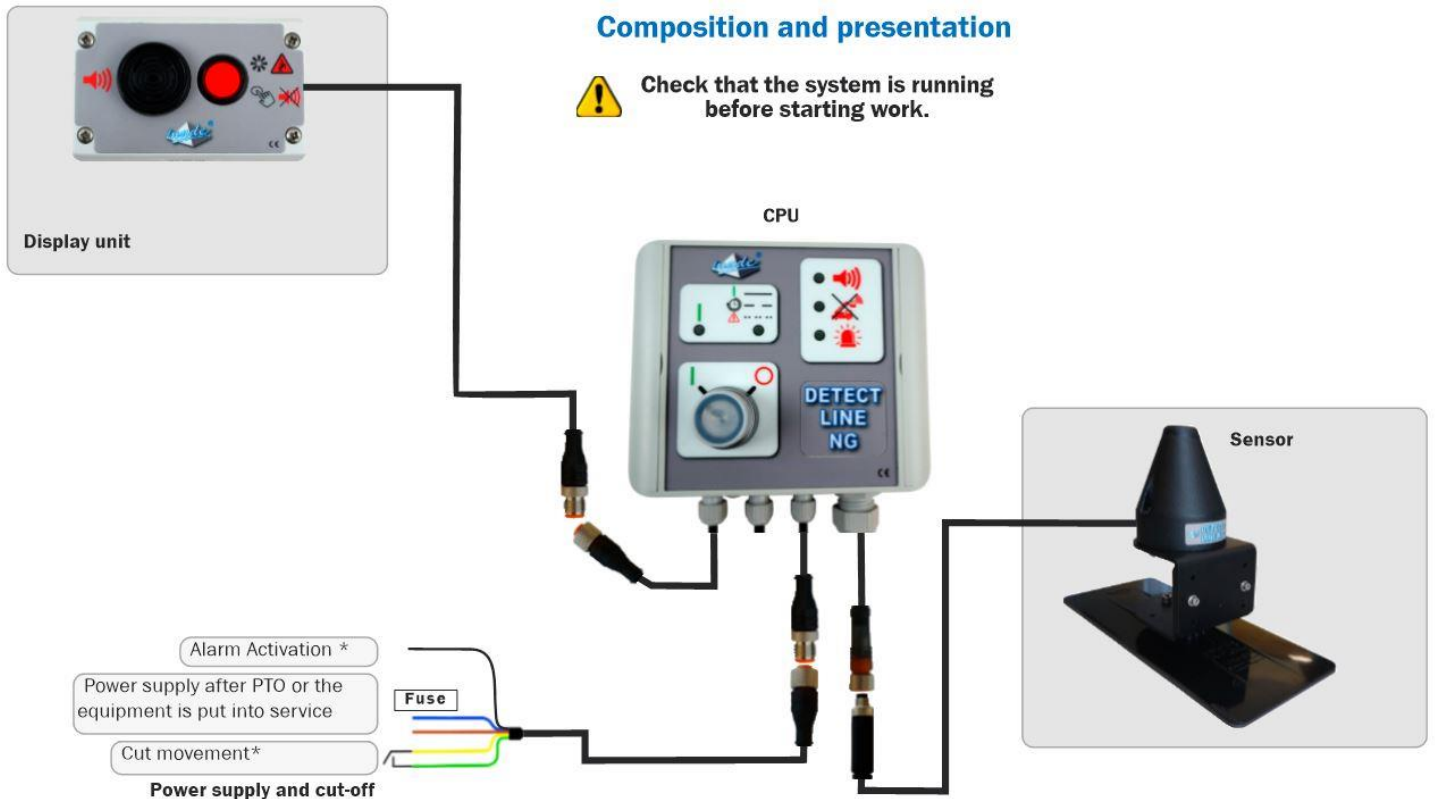
Sensor

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

Composition and presentation



Check that the system is running before starting work.



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



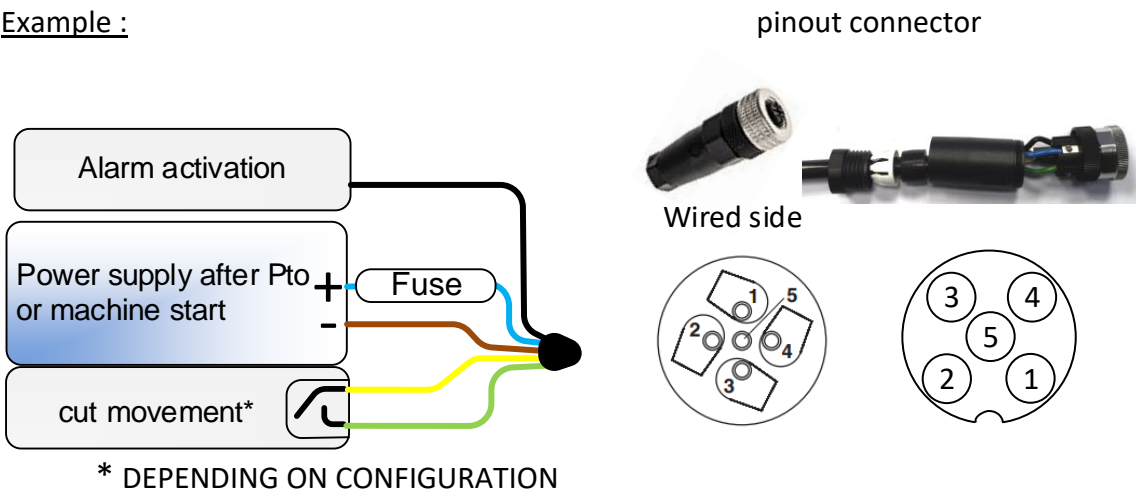
**Warning: the earth cable must be as small as possible.
Use the Allen key supplied for the wiring**

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:

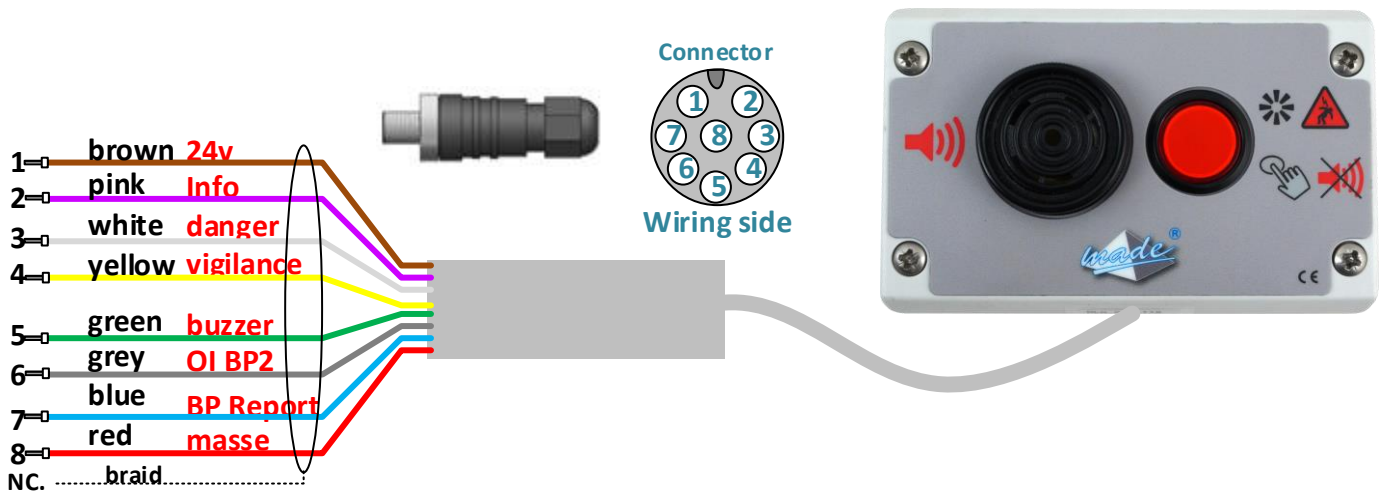
Pin number	Operation	Sick overmolded connector cable	Cable 5x1mm ² Black	Cable 5x0.5mm ² Grey
1	Power 0V	Brown 	Brown 	Brown 
2	Cut movement (in)	White 	Green 	Black 
3	Power 12/24V	Blue 	Blue 	Blue 
4	Alarm activation	Black 	Black 	Grey 
5	Cut movement (out)	Grey 	Yellow 	Black 

Example :



Alarm activation: factory configuration in + 12 / 24V

Display unit wiring:



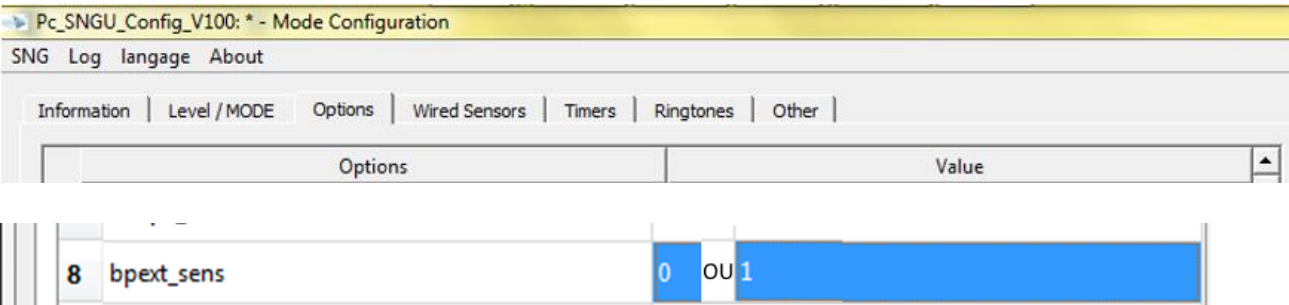
Installation of the security seal at the end of the installation and testing:

Security seal ☐ Yes ☐ No

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

Alarm activation

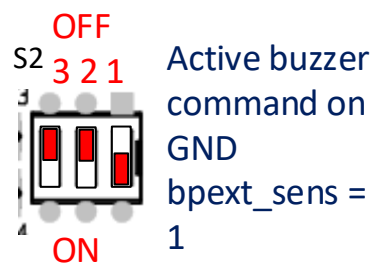
To validate the alarm monitoring mode:
Version without PTO activation



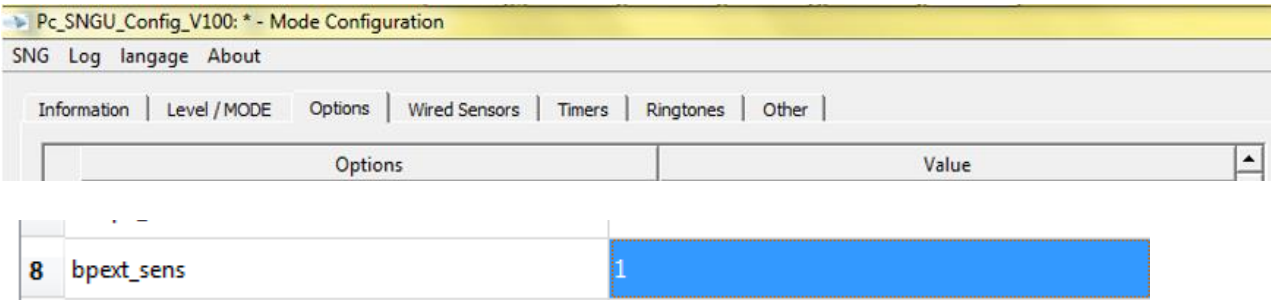
Another way is to reverse the direction of bpext_sens using software « SNGU_Config_Vxxx »).

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)

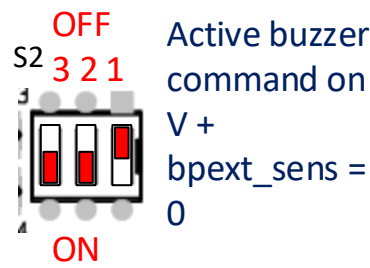
Version: Signal Power take-off to ground



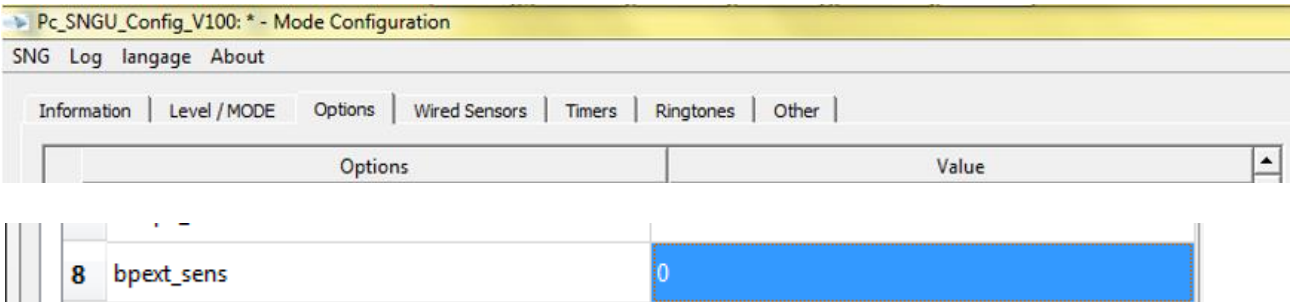
2 actions for configuration are to be performed:
Position the switches on the CPU board
Configure the option with the software



Version: Power take-off to 12-24V



2 actions for configuration are to be performed:
Position the switches on the CPU board
Configure the option with the software



The user that changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 instruction, 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 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 circuit different from that to which the receiver is connected. - Consult the dealer or an experienced radio/TV technician for help.

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.



General information

Company Name:

Date of installation:

Name of the installer:

Installation

Installation support:

Vehicle registration:

Vehicle characteristics:

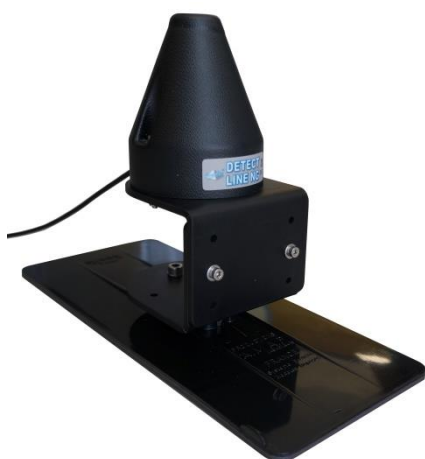
Materials

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:

.....
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.....
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.....

*** : 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

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:

.....

Date	Comments



Work	Name/ Signature / Stamp

Date	Comments



Work	Name/ Signature / Stamp

Reminder on the Electrical lines

AN OPERATIONAL AID

Detection of powered overhead lines
from 20000Volts~.

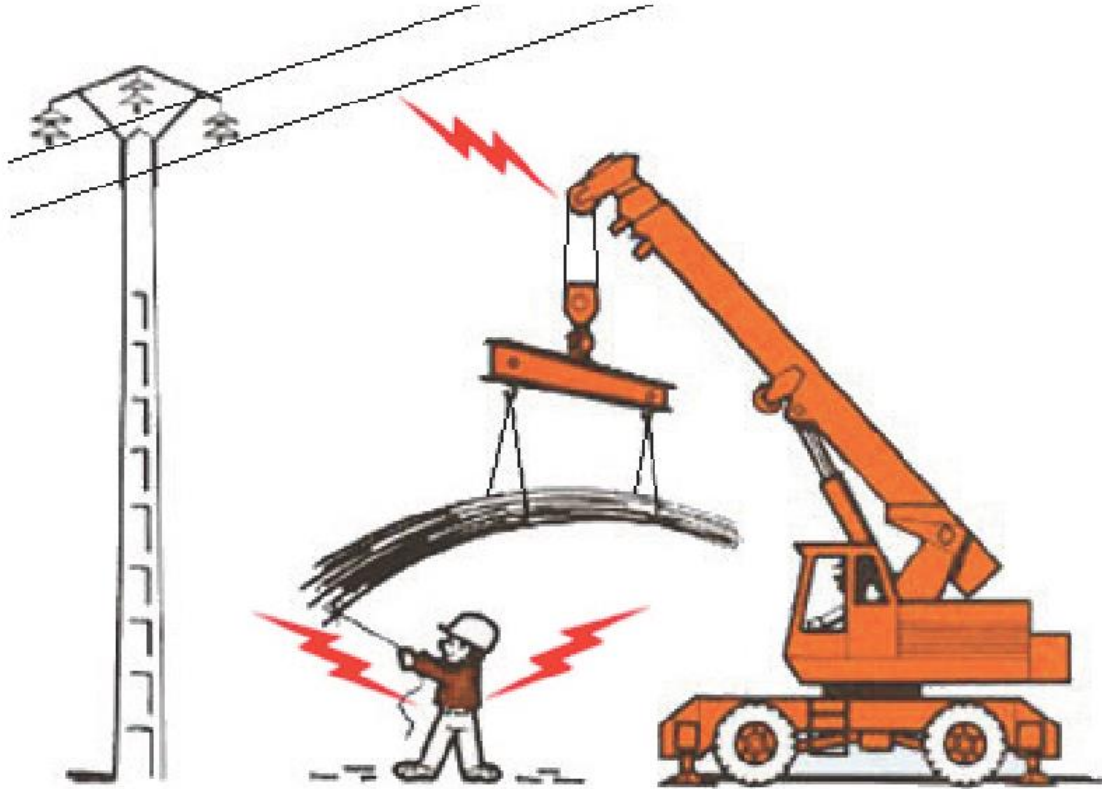
Warning :

The system is inoperative on:

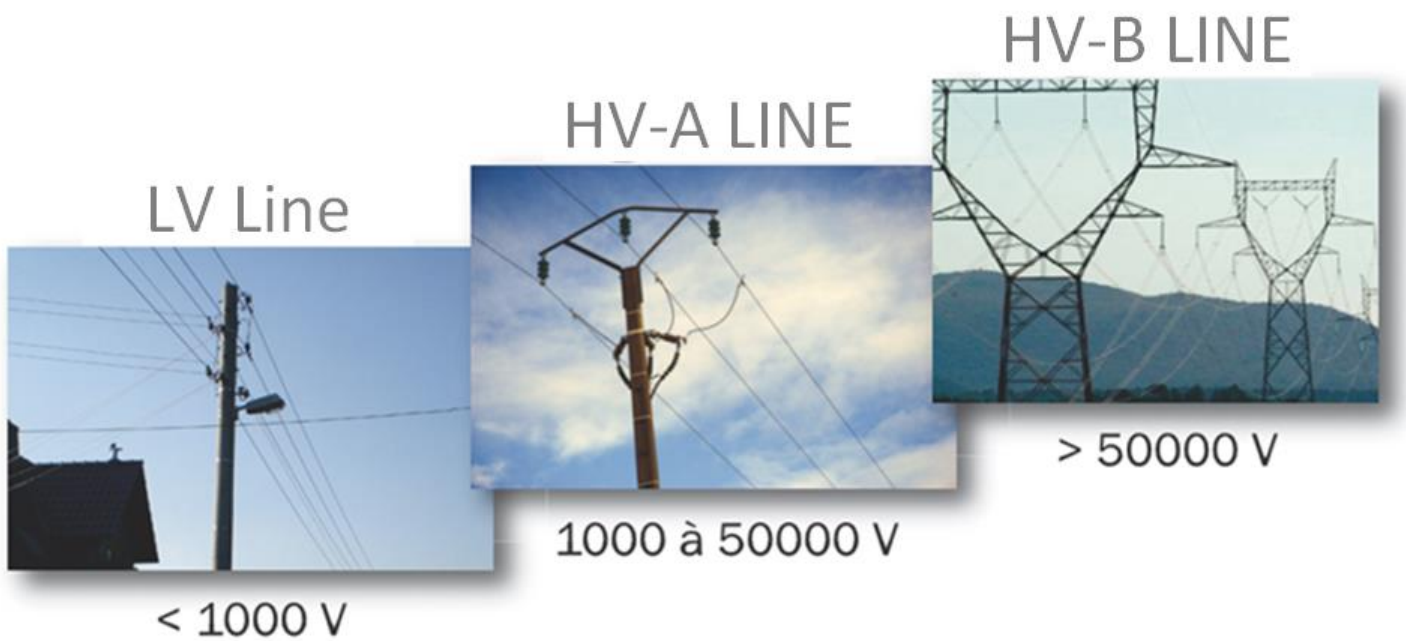
- Low Voltage overhead power lines (380V)
- Medium voltage direct current power lines (trams, railways in general, ..)

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

