



MEGA ROBOTIQUE 2000

**RANGE LIMITING DEVICE FOR
EXCAVATOR**

**Model
MEGA 5020**

USER GUIDE

MEGA ROBOTIQUE 2000

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Range limiting device function

The range limiting device can be installed on excavators and on lattice cranes. It prevents the risk of collisions between machines and obstacles such as above ground power lines. Beware the range limiting device isn't a power lines proximity detector. It analyses the position of the machine in relation with pre registered obstacle placed in a pre determinate zone.

The range limiting device isn't, by definition, a security device. It won't automatically avoid accidents without the intervention of an operator. The range limiting device must be programmed adequately to be useful.

The range limiting device is a control system that provides information about the distance between obstacles. The operator has the responsibility to program the obstacles position. Thus, the efficiency of the system depends on his vigilance.

The system will give precise indications. With a real time continuous update, it will assist the operator by giving him visual and audible warnings about the proximity of the machine in relation with the obstacles. The operator will be warned and will be able to react before an accident occurs. The system purpose is to eliminate human errors, which are responsible of many severe accidents.

Application

The **MEGA 5020** range limiting device is used on lattice cranes or on excavators. It can be installed on machines of any brands and models.

MEGA 5020 range limiting device

The **MEGA 5020** can be programmed to limit the boom height (adjustable height or free zone) and the boom rotation (left, right).

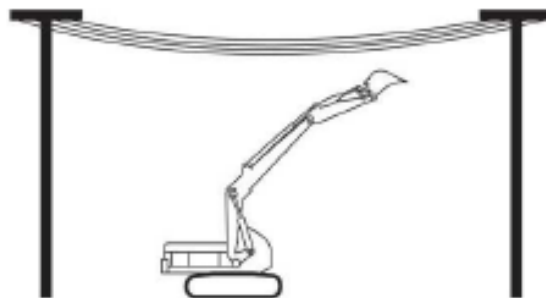
Procedures to follow

First method: Adjustable height

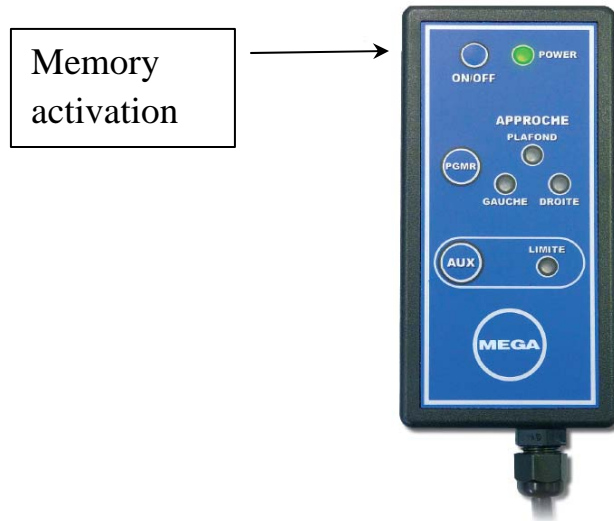
1. Rotate the excavator until you reach the left or right extremity of the working area. Extend the boom, the stick and the bucket at there maximum horizontal position.



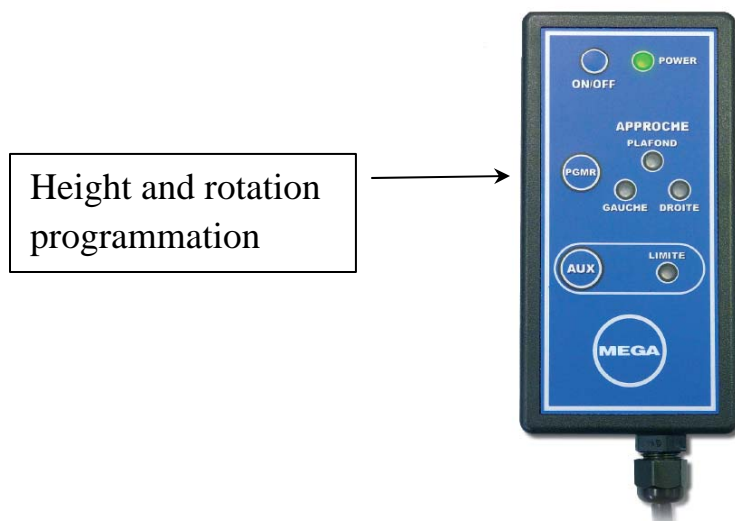
2. Raise the boom at a chosen security height (where there is no chance of contact with the obstacles) or at the maximum height (free zone).



3. Press the **ON/OFF** button (on the top of the remote) to activate the memory circuit. The green indicator will light and you will hear two bips signals at one second of interval. This announces the initialization of the programmable system and indicates that there is power on the remote.

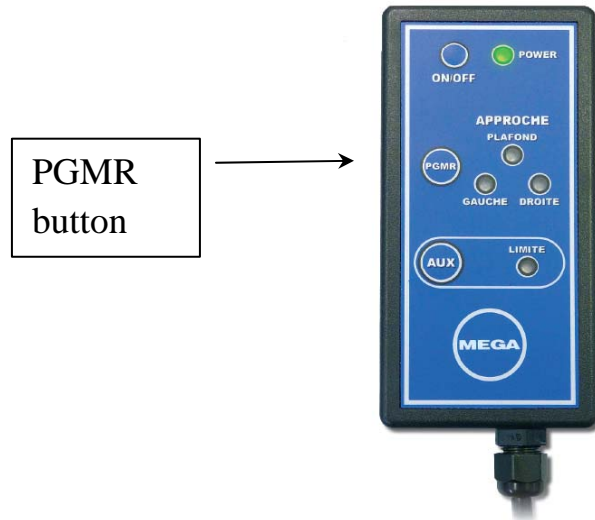


4. Press the **PGMR** button to program the height and rotation. This button is momentary switch and returns automatically at its initial position.

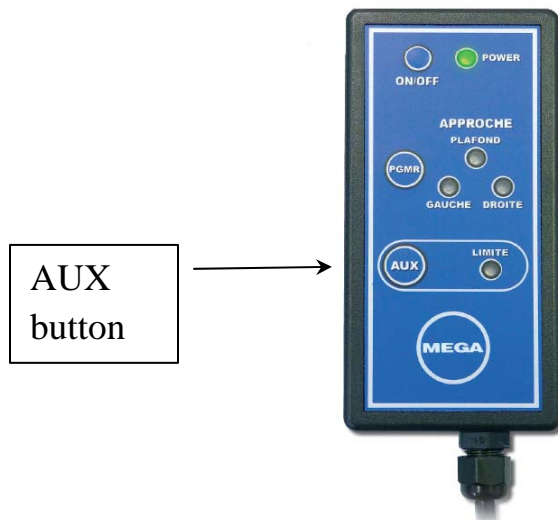


5. Rotate the excavator while lowering the boom until you reach the other extremity of the working area. **NOTE:** you can adjust the height limit at this programming period.

6. Press the **PGMR** button. The adjustable height and rotation (left, right) limits are now programmed. Therefore, the excavator will be stopped and the warning alarm will be activated when the limits will be crossed.



7. Press the **AUX** button and rotate the excavator while lowering the boom in the working area in order to move away from the programmed limits.

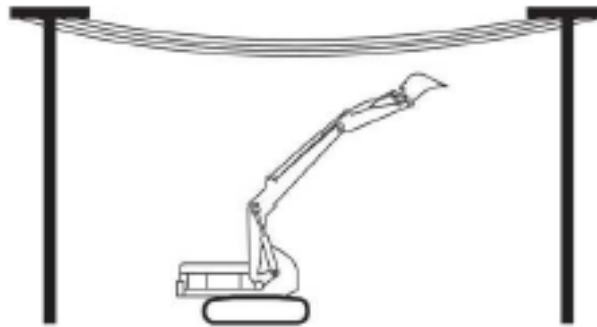


Second method: Fixed height on 360°

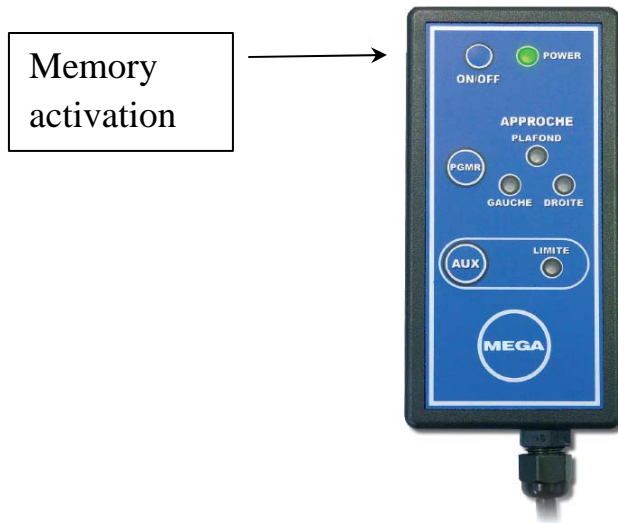
1. Extend the boom at its maximum horizontal position.



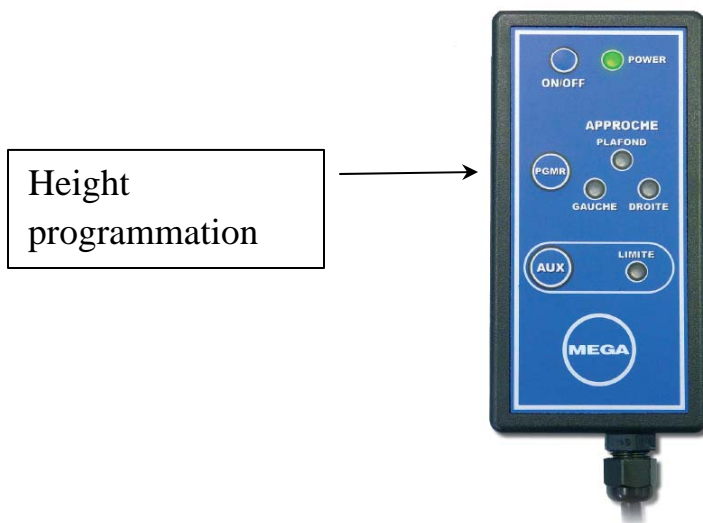
2. Raise the boom at a chosen security height (where there is no chance of contact with the obstacle) or at the maximum height (free zone).



3. Press the **ON/OFF** button (on the top of the remote) to activate the memory circuit. The green indicator will light and you will hear two bips signals at one second of interval. This announces the initialization of the programmable system and indicates that there is power on the remote.



4. Press the **PGMR** button and maintain it at least 2 seconds. This button is a momentary switch and returns automatically at its initial position. The height limit, fixed on 360°, is now programmed. Therefore, the excavator will be stopped and the warning alarm will be activated when the limits will be crossed.



5. Press the **AUX** button and rotate the excavator while lowering the boom in the working area in order to move away from the programmed limits.



Applicable on both methods:

- When the excavator will reach 5 foot from the programmed limit or when it will reach 5° from the rotation limit, a warning light will flash and an audible signal will be activated intermittently. If one of the limits is exceeded, the warning light and the audible signal will be turned on continuously. Furthermore, the stop valve will ensure that the excavator hydraulic system is shut down automatically.
- To switch the excavator hydraulic system back on, press the **AUX** button. Lower the boom and/or rotate it away from the programmed limits (a feet activated auxiliary button is available in option).

Important:

When you move the excavator, you must redefine the limits and reprogram the system.

Warranty:

The **MEGA** systems have a one year warranty, from the installation date. All defective parts (manufacturing default) will be repaired or changed by **MEGA ROBOTIQUE**. Customer must assure the transportation and handling fees at our plant.



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