

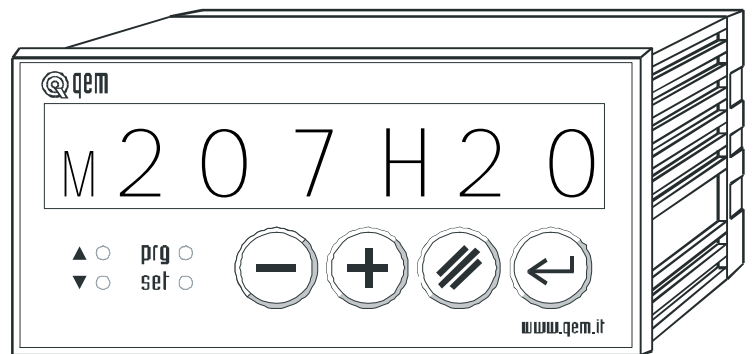
# HM 207.20A

## User's Manual

Quality in Electronic  
Manufacturing

[www.qem.it](http://www.qem.it)

QEM



DOUBLE PULSE COUNT FOR SMAL SAWS

---

**INDEX OF SUBJECTS IN THIS MANUAL**

<b>CHAP. 1 - INTRODUCTION</b>	
- <i>Complementarity</i>	1 - 1
- <i>References</i>	1 - 2
- <i>Responsibility and validity</i>	1 - 3
- <i>Description of operation</i>	1 - 4
<b>CHAP. 2 - OPERATOR / MACHINE INTERFACE</b>	
- <i>Keyboard Description</i>	2 - 1
- <i>Inputs Description</i>	2 - 2
- <i>Outputs Description</i>	2 - 3
<b>CHAP. 3 - USE</b>	
- <i>Work programmes and auxiliary functions</i>	3 - 1
<b>CHAP. 4 - ASSISTANCE</b>	
- <i>Diagnostic of inputs and outputs</i>	4 - 1
- <i>Instructions on How to Fill Up the Technical Assistance Fax</i>	4 - 2
- <i>Guarantee</i>	4 - 3

---

## CHAPTER 1

# INTRODUCTION

---

### 1 - 1 COMPLEMENTARITY

This manual is to be considered as a complement to the "Manual of installation, maintenance and assistance" which supplies the indications for the performance of wirings, troubleshooting, procedures for startup and maintenance. This manual contains indications for the instrument's use and for a correct programming.

We recommend therefore a careful reading and, in case of misunderstandings, please contact QEM for any further explanation, by sending the Assistance Fax which you find enclosed to the manual.

### 1 - 2 REFERENCES

The documentation concerning the instruments which are designed and sold by QEM has been divided into various sheets in order to allow an effective and quick reading according to the information being sought.

<i><b>User's Manual</b></i>	<i><b>Hardware Structure</b></i>	<i><b>Manual of installation, maintenance and assistance</b></i>
<p><i>Explanation of the software described</i></p> <p>It is the present manual, which shows all instructions for the comprehension and the use of the instrument described. It is a manual concerning the instrument's software; it shows all instructions for the comprehension, programming, calibrations and use of the instrument described.</p> <p>Once you install the instrument by following the instructions shown on the Manual of Installation, maintenance and assistance, with this User's Manual you are supplied with all necessary instructions for the correct use of the instrument and for its programming.</p>	<p><i>Basic information concerning the hardware of the series and possibility of customizations.</i></p> <p>It is a sheet enclosed to this User's manual, describing the hardware configuration concerning the series of the instrument described.</p> <p>It also shows the electrical, technical and mechanical characteristics, of the series and also the possible hardware customizations according to the software version.</p>	<p><i>All what you need for Installation, Maintenance and Assistance.</i></p> <p>Further explanation of all necessary subjects for a correct installation and maintenance.</p> <p>This is made to allow us to supply valid and safe instructions which shall allow you to perform products with a recognized quality and safe reliability. It is also a valid support for all those who must face a technical assistance on an application which includes a QEM's instrument.</p>

**1 - 3 RESPONSIBILITY AND VALIDITY**

**RESPONSIBILITY**

QEM is free from any responsibility for damages to people or things due to unobservance of the instructions and prescriptions contained in this manual and in the "Manual of installation, maintenance and assistance". We also state that the customer/purchaser must use the instrument according to the instructions supplied by QEM and in case of doubt he must send a written application to QEM. Any authorization for further use and replacement shall be deemed as valid by QEM, in case of contestation, only if it has been written by QEM.

No reprinting or republishing or delivery to third parties of this manual or of its parts is authorized unless a written authorization is provided by QEM. Any infraction shall provoke a request of indemnization for damages on behalf of QEM. All rights generated by patents or models are reserved.

QEM reserves the right to partially or integrally modify the characteristics of the instrument described and the enclosed documentation

**Purpose**

The purpose of this manual is to indicate the general rules to use the instrument described.

**Indication**

Write down and carefully store all parameters concerning the settings and programming of the instrument in order to make easier the eventual operations of replacement and assistance.

**VALIDITY**

This manual can be applied to all designed instruments, built and tested by QEM and having the same ordering code. This document is integrally valid except for mistakes or omissions.

<i>Instrument's Release</i>	<i>Manual Release</i>	<i>Modifications made to the Manual</i>	<i>Modifications Date</i>
1	0	New manual	22 / 04 / 04

**Emesso dal Responsabile Documentazione:** .....

**Approvato dal Responsabile di Prodotto:** .....






---

## 1 - 4 DESCRIPTION OF OPERATION

The instrument HM207.20 is a double pulse count for small saws which allows to set up the feed repetition run by the pushes bar terminal board (until max 9 repetitions) and of the total amount of piece to cut (max 9999 pieces)

CHAPTER 2  
**OPERATOR/MACHINE INTERFACE**

**2 - 1 KEYBOARD DESCRIPTION**

Key	Function
	<b>Normal operation:</b> Allows introduction the feed repetiton run by the pushes bar terminal board and of the total amount of piece to cut. <b>Data input:</b> confirms the data displayed.
	<b>Normal operation:</b> resets the piaces count. <b>Data input:</b> resets the data displayed.
	<b>Normal operation:</b> pressed for 1 second it shows input and output diagnostics. <b>Data input:</b> increases bye impulse or in continuous mode the number selected on the screen (the one that flashes).
	<b>Normal operation:</b> not utilized. <b>Data input:</b> shifts to the right the selection of the number displayed.
prg ○	Lights up while introduction the feed repetition run by the pushes bar terminal board.
set ○	Lights up while introduction of the total amount of piece count.
▲ ○	Activates with U1 output.
▼ ○	Activates with U2 output.
● 	Not utilized.

## 2 - 2 INPUTS DESCRIPTION

### *Inputs characteristics*

Please refer to the chapter "Electrical characteristics" of the software leaflet "Hardware structure" enclosed to this manual

Terminal bloach	Name	Logical status of activation	Activation mode	Polarization terminal	Description
4	I1	ON	I	3	<b>Run number count:</b> actives on the climb front.
5	I2	ON	I	3	<b>Piece count:</b> actives on the climb front.
6	I3	ON	I	3	<b>Reset runs number:</b> actives on the climb front.

### *Legend*

I = Impulsive Signal.

Name	Terminal bloach	Description
+	1	<b>Positive of transducers' power supply.</b> Positive of voltage supplied by the instrument for the supply of the instruments' inputs and of the transducers
-	2	<b>Negative of transducers' power supply.</b> Negative of voltage supplied by the instrument for the supply of the instruments' inputs and of the transducers.
Vac	11	<b>Voltage of instrument's power supply.</b> Alternated voltage according to the code of your order.
Vac	12	<b>Voltage of instrument's power supply.</b> Alternated voltage according to the code of your order.
GND	13	<b>Ground Connection.</b> We recommend a conductor with Ø 4 mm.

## 2 - 3 OUTPUTS

### *Characteristics of outputs*

Please refer to the chapter "Electrical Characteristics" of the leaflet "Hardware structure" enclosed to this manual.

Terminal bloach	Name	Logical status of activation	Activation mode	Polarization terminal	Description
9	U1	ON	C	8	<b>End runs number</b>
10	U2	ON	C	8	<b>Piece count</b>






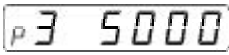



### *Legend*

C = Continuous signal.


**CHAPTER 3**  
**USE**

**3 - 1 WORK PROGRAMMES AND AUXILIARY FUNCTIONS**

**INTRODUCTION PRESELEZIONI**

Description	Keyboard	Display
Access the function for the preselection.	 x 2 sec.	 prg ○ =ON
Introduce the repetition number ("3" flashes) the feed run by the pushes bar terminal board. On confirms with <b>ENTER</b> the pieces value to execute flashes.	  	
Introduce pieces number to execute. On confirm with <b>ENTER</b> the display shows the visualizations in use again	  	prg ○ =OFF

**DISPLAYS**

Description	Keyboard	Display
Piece count (value to the right by display "50")		
Feed repetition run by the pushes bar (value to the left by display "3")		




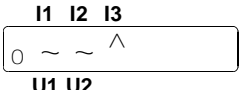
## CHAPTER 4 ASSISTANCE

### 4 - 1 DIAGNOSTIC OF INPUTS AND OUTPUTS

The instrument offers a diagnostic of the logical status of digital inputs and outputs; according to the segments of the display which are ON, it is possible to understand whether an input arrives to the instrument and whether the output has been energised.

As for the status of the inputs, if it is displayed the upper segment of the first display from the left, it means that the input 1 has been activated; if it is displayed the upper segment of the second display from the left, it means that the input 2 has been activated, and so on.

As for the digital outputs, please consider as valid the description made for the inputs, but consider the lower segments of the display

Description	Keyboard	Display
<p>Access to the display of the diagnostic for inputs/outputs.</p> <p>Status of inputs and outputs. When the upper segments of the display are ON it indicates the acquisition of the related inputs ("^"). When the lower segments of the display are On it indicates the energising of the related outputs ("_").</p>	 X 1 sec.	

### 4 - 2 INSTRUCTIONS ON HOW TO FILL UP THE FAX FOR TECHNICAL ASSISTANCE

***In order to be able to provide a quick, specific and quality assistance, we need your help.***

***If you need QEM's assistance to face the eventual troubleshooting in your applications and even though you performed all instructions indicated in the manual of "Installation, maintenance and assistance", the problem still continues, please fill up every blank of the fax enclosed to the manual of Installation, maintenance and assistance and send it to QEM's Assistance Department.***

***In this way you shall allow our technicians to get the necessary elements to understand your problem (avoiding thus expensive telephone calls).***

***We thank you for your cooperation and here at QEM's we really wish you a good job.***

#### **REMARK**

If you must send an instrument to be repaired, please strictly follow our instructions indicated here below:

- If possible, use the original packaging; in any case the packaging must protect the instrument against shocks due to transport.
- Insert into the package a detailed description of the malfunction you found and the part of wiring diagram which includes the instrument. In case the problem you discovered concerns data storage, please also include the instrument's programming (set-up, working levels, auxiliary parameters, etc.).
- If you need it, please explicitly require the quotation of charges for the repairing: if you do not ask for it, the charges shall be calculated as a whole.
- Our technicians shall give priority to the repairing of those instruments which have been sent according to the items listed above.

### 4 - 3 GUARANTEE

The guarantee is conform to the definitions of the general sales conditions.

**NOTE**

**NOTE**

## NOTE



This product is an electronic instrument and, therefore, should not be considered a machine. As a consequence, it is not subject to the requirements of EEC Directive 89/392 (Machine Directive). For this reason, we affirm that if the QEM instrument is used as a component of a machine, it may not be turned on if the machine does not satisfy the requirements of the Machine Directive.

***The instruments marking does not relieve the customer from fulfilling the obligations of the law relative to the finished product.***