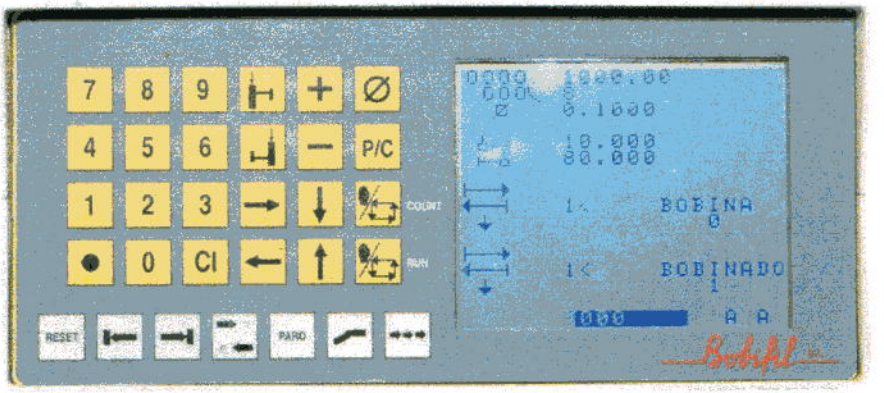
Bobifil

COIL WINDING MACHINES

PROGRAMMING GUIDE

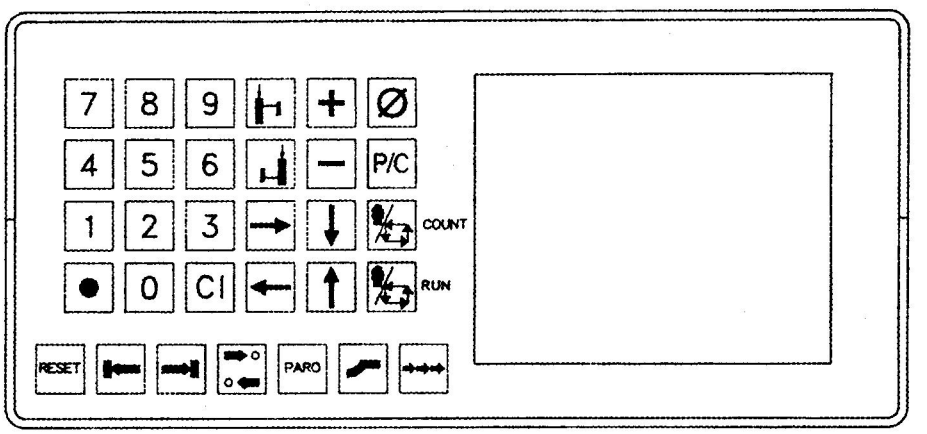


Microprocessor - MP3 -

INDEX

1. DESCRIPTION OF THE KEYBOARD OF THE -MP3-

Before explaining in detail the function of this Microprocessor, we must know the function of each one of the keys on the Keyboard:



P/C 'PROGRAMMING/WINDING': This key permits the change between *the programming screen and the winding and counting screen.*

• The 'DECIMAL POINT': Key (floating decimal).

CI 'CLEAR': This key has two functions:

1. While in the *programming screen,* pressing this key erases the line selected by the indicator.
2. While in the *winding and counting screen,* pressing this key the number of turns of the winding in course will GO TO ZERO, and it places the guider in the position of initiating this winding.

↓ 'DOWN ARROW': pushing this key ACCEPTS THE DATA that is being edited and displaces the indicator to the LINE BELOW.

↑ 'UP ARROW': pushing this key ACCEPTS THE DATA that is being edited and displaces the indicator to the LINE ABOVE.

→ 'RIGHT ARROW': This key has two functions:

1. Pushing this key in the *programming screen,* it goes on to the NEXT WINDING.

   \+ ***If in this winding the data has not yet been introduced, by pushing the key again the data from the previous winding is copied.***

2. Pushing this key while in the *consulting and modification screen,* it passes to the WINDING AND COUNTING SCREEN.

← 'LEFT ARROW': By pushing this key while in the *programming screen* it passes to the PREVIOUS WINDING.

'PLUS': This key has two functions:

1. Pushing it while in the *programming screen* it passes to the NEXT BOBBIN.

2. Pushing it while in the *consulting and modification screen* allows you to INCREASE THE VALUE selected for the *diameter* and the *left and right stops.*

'MINUS': This key has two functions:

1. Pushing this key while in the *programming screen, it* passes to the PREVIOUS BOBBIN.

2. Pushing this key while in the *consulting and modification screen* allows you to DECREASE THE VALUE selected for the *diameter* and the *left and right stops.*

'DIAMETER': This key has two functions:

1. Pushing this key in the *programming screen* changes it to the OPERATIONS MENU SCREEN.

2. Pushing this key in the *winding and counting screen*, ACTIVATES THE CONSULTING SCREEN, then allows you to modify the *diameter* with the keys - *"Plus"* (+) and *"Minus"* (-).

'LEFT LIMIT'. This key has two different functions:

1. Pushing this key while in the *programming screen* and with the indicator situated on the corresponding line *left limit*, it visualizes THE PRESENT POSITION OF THE GUIDER, which can be modified by means of the manual displacement keys of the guider: ***"Guider to the right"*** **(➡▌)** ***and "Guider to the left"*** **(▌⬅)** (programming the limits by 'teaching').

2. Pushing this key while in the *winding and counting screen*, it passes to the CONSULTING SCREEN, thus being able to modify the *left limit* with the keys *"Plus"* (+) and *"Minus"* (-).

'RIGHT LIMIT': This key has two different functions:

1. Pushing it while in the *programming screen* and with the indicator situated in the corresponding line to the *right limit*, visualizes the PRESENT POSITION OF THE GUIDER, which can be modified by means of the manual displacement keys of the guider: ***"Guider to the right"*** **(➡▌)** and ***"Guider to the left"*** (▌⬅) (programming limits by 'teaching').

2. Pushing it while in the *winding and counting screen*, it goes to the CONSULTING SCREEN, thus being able to modify the *right limit* with the keys *"Plus"* (+) and *"Minus"* (-).

'COUNT'. Pushing this button while in the *programming screen* allows the selection of the MEANS OF REPOSITIONING THE COUNTER after every winding, which can be done in two ways:

1. *Counter to zero* in each winding (selected with the letter A).
2. *By adding*, passing to the following winding while maintaining the number of total turns (selected with the letter M).

+ *The present selection (A or M) appears in the lower right part of the programming screen and in the first square in the upper left part of the winding screen.*

'RUN'. Pushing this button while in both the *programming screen and the winding screen* selects THE MEANS TO PASS FROM ONE WINDING TO ANOTHER, which can be:

1. *Automatically* and without pause (selected with the letter A).
2. *Manually* by means of the key *"Following coil"* ➡➡➡ (selected with the letter M).

+ *The present selection (A or M) appears in the lower right part of the programming screen and in the first square in the upper left part of the winding screen.*

'RESET'. The Reset button SELECTS THE ZERO COIL of the present bobbin.

+ ***In the winding screen and with the motor stopped it makes THE PRINCIPAL SHAFT GO TO THE -O-POSITION.***

'RIGHT GUIDER'. This key DISPLACES THE GUIDER TO THE RIGHT while pressed. Keep in mind the following considerations:

1. While in the winding screen:
   a) *If the winding shaft is stopped*, the guider moves with increasing velocity while the key is pressed. According to the MP3 program version (EPROM), the guider will move only as far as the *programmed right limit* in the present bobbin or it will move indefinitely.
   b) *If the winding shaft is turning*, the speed of the guider will be slightly affected by pushing this key:

   If the guider is moving to the right, the speed will increase slightly.
   If the guider is moving to the left, the speed will decrease slightly.

   + *These variations of speed are very difficult to see, but they do serve to finely adjust the wire pitch during the winding process.*
2. While in the programming screen:
   The guider will only move if the indicator is in the corresponding line to the *left or right limit* and the limit key that corresponds has been pressed (programming by *"teach in").*

   + *Once the carriage has been placed in the desired position for the limit, this should be accepted by pushing the "Down arrow" key twice. '*

GUIDER TO THE LEFT'. This key DISPLACES THE GUIDER TO THE LEFT while held pushed. Keep in mind the following considerations:

1. While in the winding screen:

a) *If the winding shaft is stopped*, the guider moves with an increasing speed while the key is held pressed. According to the program version MP3 (EPROM), the guider moves only to the *programmed left limit* of the present coil or it will move indefinitely.

b) *If the winding shaft is turning* the speed of the guider will be slightly affected by pushing this key.

If the guider is moving toward the right, the speed will decrease slightly.
If the guider is moving to the left, the speed will increase slightly.

\+ ***These variations of speed are very difficult to see, but they do serve to finely adjust the wire pitch during the winding process.***

2. While in the programming screen:

The guider will only move if the indicator is situated in the corresponding line to the ***left or right limit*** and the limit key that corresponds has been pressed (programming by *"teach in"*).

\+ ***Once the carriage has been placed in the desired position for the limit, this should be accepted by pushing the "Down arrow" key twice.***

'GUIDER DIRECTION'. Pushing this key while in the *winding screen*, the DIRECTION OF MOVEMENT OF THE GUIDER IS INVERTED. The LEDS indicate the present direction of movement.

'START'. Pushing this key while in the *winding and counting screen*, THE WINDING PROCESS IS COMMENCED.

'STOP'. Pushing this key DETAINS THE WINDING PROCESS by way of the software (with the acceleration ramp / programmed deceleration).

"NEXT WINDING": Pushing this key while in the *winding and counting screen* ALLOWS YOU TO PASS TO THE NEXT WINDING but only when the option RUN is in the mode M (manual).

2. MICROPROCESSOR -MP3- PROGRAMMING

In this section the manner of introducing the necessary data to program the coils is explained in detail. Before describing each one of these parameters, we must take into account the following observations:

2.1 OBSERVATIONS REGARDING THE INTRODUCTION OF DATA

2.1.1 Data, which is shown on the screen, always pertains to the winding that is active at that moment.

+ *VERY IMPORTANT:* When entering a value in any of the described fields, it must always be accepted by means of one of the keys *"arrow down"* or *"arrow up"*.

If you leave the winding screen without having accepted the last modification in this way, the program will continue to store the previous value.

2.1.2 In the present version of the program, it is no longer necessary to type the "decimal point" when introducing whole values.

2.1.3 To change the winding while in a particular coil the "right arrow" (next coil) and 'left arrow' (previous coil) keys must be used. If, when passing to the next winding, it is found to be empty (with the data in zero), if the key 'right arrow' is pushed again, all of the values of the immediately previous winding will be copied.

2.1.4 By pushing "RESET" the "0" winding is selected directly.

2.1.5 To change the active coil the keys 'Plus' (+) (next coil) and 'Minus' (-) (previous coil) must be pushed. The displacement takes place in a circular way, allowing to pass from the first to the last or vice-versa. Also, a particular number of a coil may be chosen directly by means of the option 'Load coil' on the "MENU" screen.

2.1.6 The maximum storage capacity of the Microprocessor MP3 is 1.000 windings. By means of the option "Configurate blocks" on the "Operations Menu" screen, the number of coils and windings can be configured. The configuration by defect after making a "System Reset", is 20 coils and 50 windings.

Each one of the values that appear on the programming screen are described in the following; on page 11 we can see an example of programming with a drawing of this screen:

2.2 NUMBER OF TURNS

The data introduced in the first line corresponds to the *number of turns* in the selected winding.

The maximum value accepted in this field is 999999.

2.3 ACCELERATION-DECELERATION RAMP

The second line of the programming screen corresponds to *the acceleration and deceleration* at the start and finish of the winding.

\+ *The '0' value corresponds to the smoothest ramp and the 9 value to the fastest.*

The program selects by defect the value 5 of the acceleration ramp when the wire diameter is introduced; therefore it is not necessary to introduce any value in this field.

2.4 WIRE DIAMETER

The third line corresponds to the *wire diameter.*

Observe how when accepting the value of the diameter, a value for the velocity and ramp are selected by defect.

The maximum value of diameter accepted depends on the model of the machine that the microprocessor is mounted on.

2.5 PROGRAMMING THE WINDING LIMITS

The following two data on the programming screen correspond to the *left and right limits* of the winding. These can be introduced by direct means or by "teach in".

2.5.1 To introduce the limits by direct means, simply type the desired value with the decimal point in the proper position.

2.5.2 To introduce the value by "teach in" the following system must be followed:

2.5.2.1 While the indicator is in the limit where the value is to be introduced, push the key *"left limit"*, and the present position of the guider will appear.

2.5.2.2 Move this with the manual displacement keys of the guider to the position where the corresponding limit must be.

2.5.2.3 Accept the value by pushing twice the *"down arrow" key.*

\+ *NOTE: If mechanical limits are to be used, a very low value must be introduced for the left limit (for example 0.1) and a very high one for the right limit (which can be the same as the accepted maximum for the actual model*

of machine). In this way, we guarantee that the guider will find a mechanical limit before the programmed one. This technique can be used with both or with only one of the limits, if it is used with only one of them then the other will function by means of the programmed value.

It is not recommended to introduce the value 0.0 in either of the limits.

2.6 POSITION OF THE GUIDER AT THE START AND FINISH OF THE WINDING

The following two lines select respectively the *position where the guider will go to* at the start and end of the winding; the three possible options are:

2.6.1 In the left limit, and represented by the symbol '<', is selected by entering the value 1.

2.6.2 In the right limit: and represented by the symbol '>', is selected by entering the value 2.

2.6.3 In whatever position the guider is found at the end of the winding: represented by the symbol '^' and selected by introducing the value 0.

Please note that by "left and right limits", we refer to both the programmed and the mechanical ones; the guider will always stop in whichever one it finds first.

+ ***Symbols that represent the start and end position programmed appear respectively in the 3 rd and 4 th square of the upper part of the winding screen.***

2.7 TURNING SPEED OF THE COIL

The last data to be introduced corresponds to the winding speed.

The program selects a speed by defect when the diameter of the wire is introduced, and therefore it is not necessary to introduce any value in this field. However, introducing an inferior value can manually modify this value by defect, as the program will not allow a higher one to be introduced.

For the machines that have developmental change by means of levers or belts, the microprocessor shows the position where these should be found according to the selected velocity.

It is necessary to check that the position of the levers is the one shown on screen before starting to wind, because if not the program will limit the velocity or impede the start of the winding process, depending on the program version.

+ *This position is shown both in the upper right part of the programming screen, and in the center of the winding screen. If the velocity is modified manually, the position of the mechanical levers is brought up to date immediately.*

2.8 PROGRAMMING THE REPOSITION OF THE COUNTER

There are two options when programming the *turns counter*. The selection of one or the other is done by means of the key *'COUNT'*, and the actual option is shown in the inferior right part of the *programming screen* and in the superior left part of the *winding screen*. The two possible options are the following:

2.8.1 RESET the counter to zero in each winding of a coil, so that for each winding the total number of turns must be introduced. The letter A represents it.

2.8.2 By addition, so that it passes to the following winding maintaining the total number of turns. In each winding, the number of turns accumulated must be introduced up to this moment in the total of the coil. It is represented by means of the letter M.

2.9 PROGRAMMING THE CHANGE OF SCREEN (NEXT WINDING)

The change from one winding to the next can be effected manually or automatically. The selection of one or the other is with the key *'RUN'*, and the actual option is shown in the lower right part of the programming screen and in the upper left part of the winding screen. The function of each mode is the following:

2.9.1 MANUAL Mode: When the winding ends the guider goes to the final programmed position and it is necessary to push the key 'next winding' ➡➡➡ to pass to the following winding. It is represented with the letter M.

2.9.2 AUTOMATIC Mode: when the winding ends the guider goes to the final programmed position for this winding and immediately moves on to the initial position of the following winding. It is selected with the letter A.

The position of the commutator "Manual/Cycles" of the winding machine keyboard will determine if the following winding begins automatically (cycles mode) or if it is necessary to push the "START" key.

+ *Consult the machine manual.*

3. EXAMPLE PROGRAMMING OF THE MICROPROCESSOR -MP3-

Let's suppose that we have a coil with three windings:

- The first one with *5 milímeters length* and the other two with *10 mm*, having a separation between them of *1 mm*.
- The diameter of the wire is 0.5 mm.
- The *number of turns is 100* in the first winding, *200* in the second and *400* in the third.
- The *initial position* of the guider in each winding must be in the *left limit*.

The complete parameters of the three windings are the following:

WINDING- 0	
Number of turns	100.00
Acceleration ramp	3
Wire diameter	0.5000
Left limit	10.000
Right limit	15.000
Initial position	1<
Final position	0^
Velocity	3200

WINDING-1	
Number of turns	200.00
Acceleration ramp	3
Wire diameter	0.5000
Left limit	16.000
Right limit	26.000
Initial position	1<
Final position	0^
Velocity	3200

WINDING -2	
Number of turns	400.00
Acceleration ramp	3
Wire diameter	0.5000
Left limit	27.000
Right limit	37.000
Initial position	1<
Final position	0^
Velocity	3200

To introduce this data in the MP3 microprocessor you must proceed in the following manner:

3.1 In first place, you have to acceed to the programming screen.
To do this you must select the OPTION OR *'Program'*, pushing the *"0'* key if the machine has just been started, or by pushing the *'P/C'* key if we are now in the *winding screen*.

+ ***Once in the programming screen, make sure that you are in the winding "0", if you are not, push the key 'left arrow' as many times as may be necessary.***

3.2 Once in the winding *"0"*, situate the indicator in the first line by using the keys *"up arrow"* and *"down arrow"*.

This first line corresponds to the *number of turns of the winding.* To introduce 100 turns, push the keys*'100'*, and afterward the ***decimal point*** key followed by the key *'down arrow'*, and (ENTER) to accept the value.

+ *In this manner the number of turns is stored and the indicator will have moved to the second line, which corresponds to the acceleration/deceleration ramp.*

3.3 The program selects the value 5 for this field from the diameter of the wire, for which it is not necessary to introduce any value in this field. We can therefore push the "down arrow" key again *'down arrow'*, and the indicator will go to the third line, which corresponds to the diameter of the wire.

3.4 Push the *'0'* key, the *'decimal point'* key and the key *"5"* to introduce the value described in this example. Afterwards push the key *'down arrow'* to accept this value.

+ *Observe that when introducing the diameter a value by defect is selected for the ramp and the speed.*

3.5 At this moment the indicator is found in the fourth line, that corresponds to the left limit. Push the keys *'1'*, *'0'*, *'decimal point'* and *'down arrow'*, so that the indicator will go to the following line.

3.6 We now find ourselves in the fifth line that corresponds to the right limit.
Push the keys*'1'*, *'5'*, *'decimal point'* and *'down arrow'*, and the indicator will go to the next line.

3.7 Now the indicator is in the sixth line, corresponding to the initial position of the guider. The possible values to be introduced in this field are a *'1'*, a *'2'* or a *'0'*.
- ➢ *The value '1'* means that the guider will situate itself in the programmed position as *left limit* before beginning the winding process (together with this value the symbol '<' will appear).
- ➢ *The value '2'* indicated wihch will be placed in the programmed position as *right limit* (together with the value the symbol '>' will appear).
- ➢ *The '0' value* means that the guider will not make any movements before starting the winding process, staying in the position in which it is found (together with the value the symbol '^' will appear).

3.8 In the example that we are describing we must push the *"1"* key and afterwards the *"down arrow"* key.
In the seventh line the position to which the guider will move at the end of the winding is programmed; the possible options and the meaning of each one of them is the same as what was described for the initial position of the guider.

3.9 Push the keys *' 0 '* and *'down arrow'*. The indicator has now moved to the last line, corresponding to the velocity of the principal shaft.
The program will have selected a value by defect for this field from the diameter of the wire introduced, and therefore it is not necessary to modify this field. However, should you wish to modify it, you must push the key *'Cl'* to erase the actual value before introducing the new one.

The program will not allow you to introduce a superior value to the one selected by defect (in this case 3200), and therefore it must be an inferior

value to the one selected by defect to be able to modify this field. If a new value is introduced it must be accepted by means of the key *"down arrow".*

\+ *Once you have arrived to this point, the first winding program of the coil will be programmed (winding 0).*

3.10 To pass to winding *"1"* the key *"down arrow"* must be pushed.

Following the same steps as those described for the 0 winding, the winding 1 can be programmed.

However, if various data coincides with the previous winding, it could be faster to copy the information and only modify those that are different.

To copy the data of the winding 0 in the winding 1, push the key "right arrow" again and follow the following steps:

3.11 With the *"down arrow"* or *"up arrow"* keys, move the indicator to the first line (number of turns).

3.12 Push the *"CI"* key to erase the present value and afterwards introduce the number of turns of the winding 1 (200), just as it was described for the winding 0.

3.13 Push *'down arrow'* three times to accept the value and to move the indicator to the fourth line.
Push the *'CI'* again and introduce the value '16.000'.

3.14 In the same way modify the value of the right limit and accept it with the "down arrow" key, so that the winding 1 will have all the correct data.

3.15 Push the "arrow right" key to pass to the winding 2.

\+ *If you wish to copy the data of the winding 1 and only modify the information that is different, push the key 'right arrow' and afterwards proceed as described for the winding 1 but with the values of winding 2. If instead of copying the data you prefer to introduce it all again, proceed as described for the winding 0.*

3.16 Once all of the values have been programmed, move again to the winding 0 before commencing the winding. To do this push the key 'left arrow' as many times as necessary until the winding 0 appears, or push the key 'Reset', with which the winding shaft will look for the zero point and the winding 0 will be activated.

3.17 Afterwards push the key *'P/C'* to pass to the winding screen.

4. PROGRAMMING THE ENDS OF LAYERS IN THE -MP3-

The Microprocessor -MP3- includes the possibility of activating the stop in the guider at the end of the layers during the winding process.

The use of this end of layers is done by mens of the *'COUNT'* key, only if we are in the *winding screen.*

When the end of layers is activated, in the center part of the last line of the winding screen, a letter appears in inverted video, and blinking. This letter appears between the *diameter of the wire and the position of the guider.*

\+ *The exact letter will depend on the language that was selected in the microprocessor.*

To properly program the *end of layers* we will proceed according to one of the three following options:

4.1 ***In the first case, if you wish that the winding shaft should effect a direction with acceleration and deceleration ramp at the start and end of each layer, then it is necessary to program a different winding for each layer.***

In this case, from the diameter of the wire and the length of the winding (difference between right limit and left limit), you should calculate the number of turns that will include each layer, and the windings will be programmed with this number of turns.

The initial position of the guider in the first winding should be programmed in the limit that is desired (left or right).

In the following windings we have two options:

a) If you wish the process to stop each time it reaches the limits of the winding, including *when there is a slight unevenness* between the position of the guider and the number of turns of the principal shaft, we should program as initial position '0 ^ ' (which means, where it finishes the previous winding). *In this case it is possible that two stops per layer will be produced, due to this possible difference between guider and winder.*

b) If you see that this difference is very small or doesn't exist at all, you can program the initial position alternatively to the left ('1 <') and to the right ('2 >') in successive windings, so that we therefore can guarantee that the process only will stop once for each layer.
The final position of the guider can be programmed always as that in which the winding ends. ('0 ^ ').

EXAMPLE:

Let's suppose that we have a coil with the following characteristics:

- Just one coil 40 milimeters long.
- Wire diameter 0.5 mm.
- Total of 400 spires.
- Therefore, there is a total of 5 layers.

➲ The initial position of the guider should be in the **left limit**.

If we wish to wind with deceleration ramp at the end of each layer we must program 5 different windings with 80 turns each one (result of dividing the length of the coil between the diameter of the wire: 40/0.5=80).

In the first winding we select as an initial guider position the left limit '<' and as the final position that in which it ends '0 ^ '.

The speed of the winding that the program selects for a diameter of 0.5 mm. is 3200 rpm (or the maximum of the machine if this is inferior to the other) and the acceleration ramp by defect is 5. (In the sample this has been reduced to 3).

The complete parameters of the 5 windings will be therefore, the following (the values of the left and right limit have been chosen as an example):

WINDING- 0	
Number of turns	80.00
Acceleration ramp	3
Wire diameter	0.5000
Left limit	10.000
Right limit	50.000
Initial position	1<
Final position	0^
Velocity	3200

WINDING-1	
Number of turns	80.00
Acceleration ramp	3
Wire diameter	0.5000
Left limit	10.000
Right limit	50.000
Initial position	0^
Final position	0^
Velocity	3200

WINDING- 2	
Number of turns	80.00
Acceleration ramp	3
Wire diameter	0.5000
Left limit	10.000
Right limit	50.000
Initial position	0^
Final position	0^
Velocity	3200

WINDING-3	
Number of turns	80.00
Acceleration ramp	3
Wire diameter	0.5000
Left limit	10.000
Right limit	50.000
Initial position	0^
Final position	0^
Velocity	3200

WINDING- 4	
Number of turns	80.00
Acceleration ramp	3
Wire diameter	0.5000
Left limit	10.000
Right limit	50.000
Initial position	0^
Final position	0^
Velocity	3200

4.2 *If you wish to program the total number of turns of the winding independently of the number of layers, but still having to stop at the end of each one of them, it is necessary to reduce the winding speed, since at the end of each layer the winding shaft will stop abruptly.*

+ *To reduce the speed you can operate in two ways:*

a) One option is to program a different speed to that which is given by the program by defect for the diameter of the wire.
It is wise to divide this speed approximately by ten, since otherwise it is possible that the guider will not truly follow the direction of the winding shaft when it stops so abruptly, and there will be accumulations of wire in the extremes of the winding.

b) The other option to wind at a lower speed is by using the pedal, so that the operator must take it upon himself to reduce the speed when the guider is close to the extremes.

+ *We recommend using a combination of both methods, diminishing the velocity of the program approximately in half and using the pedal to reduce the velocity in the extremes of the winding.*

In the following square we can see the parameters of the winding corresponding to the second option, keeping the same sample as the anterior option.

WINDING- 0	
Number of turns	400.00
Acceleration ramp	3
Wire diameter	0.5000
Left limit	10.000
Right limit	15.000
Initial position	1^
Final position	0^
Velocity	1500

4.3 In this third option, we can program the end of layers in one sole winding with the total number of turns, leaving out the pedal.

a) While in the Programming screen, we can acceed to the UTILITIES MENU.
b) Push the key "7" *(End of layers).*
c) Introduce the number of turns in which the velocity of the winding diminishes, before reaching the end of each layer.
d) Confirm this value pushing the key ***"Down arrow".***

+ ***We will calculate the number of turns by experimenting directly in the winding.***

In the following square we can see the parameters of winding corresponding to this third option, keeping the same example of the previous option.

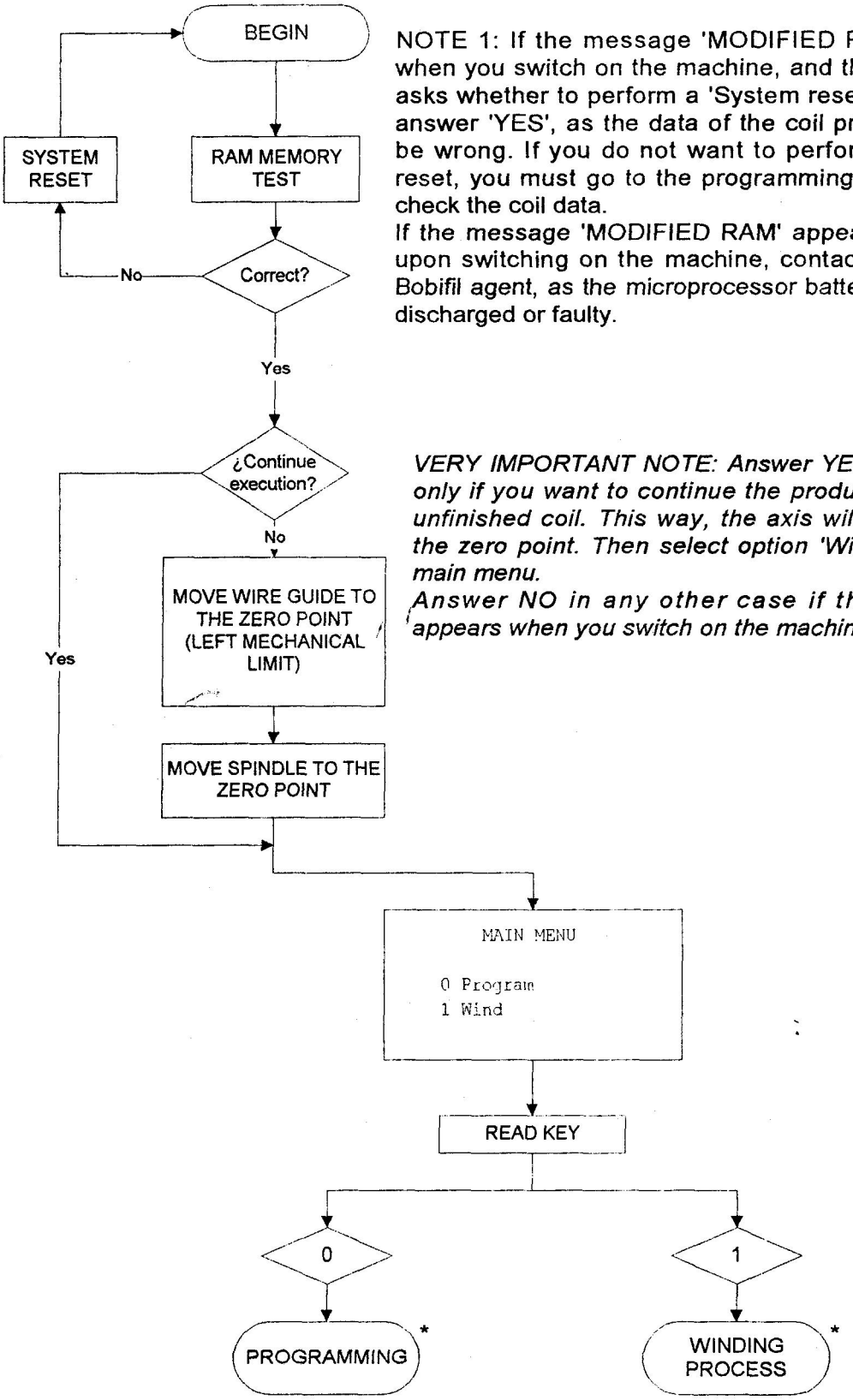
WINDING- 0	
Number of turns	400.00
Acceleration ramp	3
Wire diameter	0.5000
Left limit	10.000
Right limit	15.000
Initial position	1^
Final position	0^
Velocity	1500

At any time during the winding process we can activate and deactivate the end of layers using the key *'COUNT'*, including when the winding shaft is turning.

When the end of layers is activated there will always appear a letter "C" in reverse video flashing in the center of the last line of the winding screen, and another letter "C" in the inferior right corner of the programming screen.

The key *'COUNT'* still has the function of selecting between the manual mode of programming the turns or automatically if we are in the programming screen.

5. ORGANIZATION OF THE FUNCTION OF THE MICROPROCESSOR -MP3-

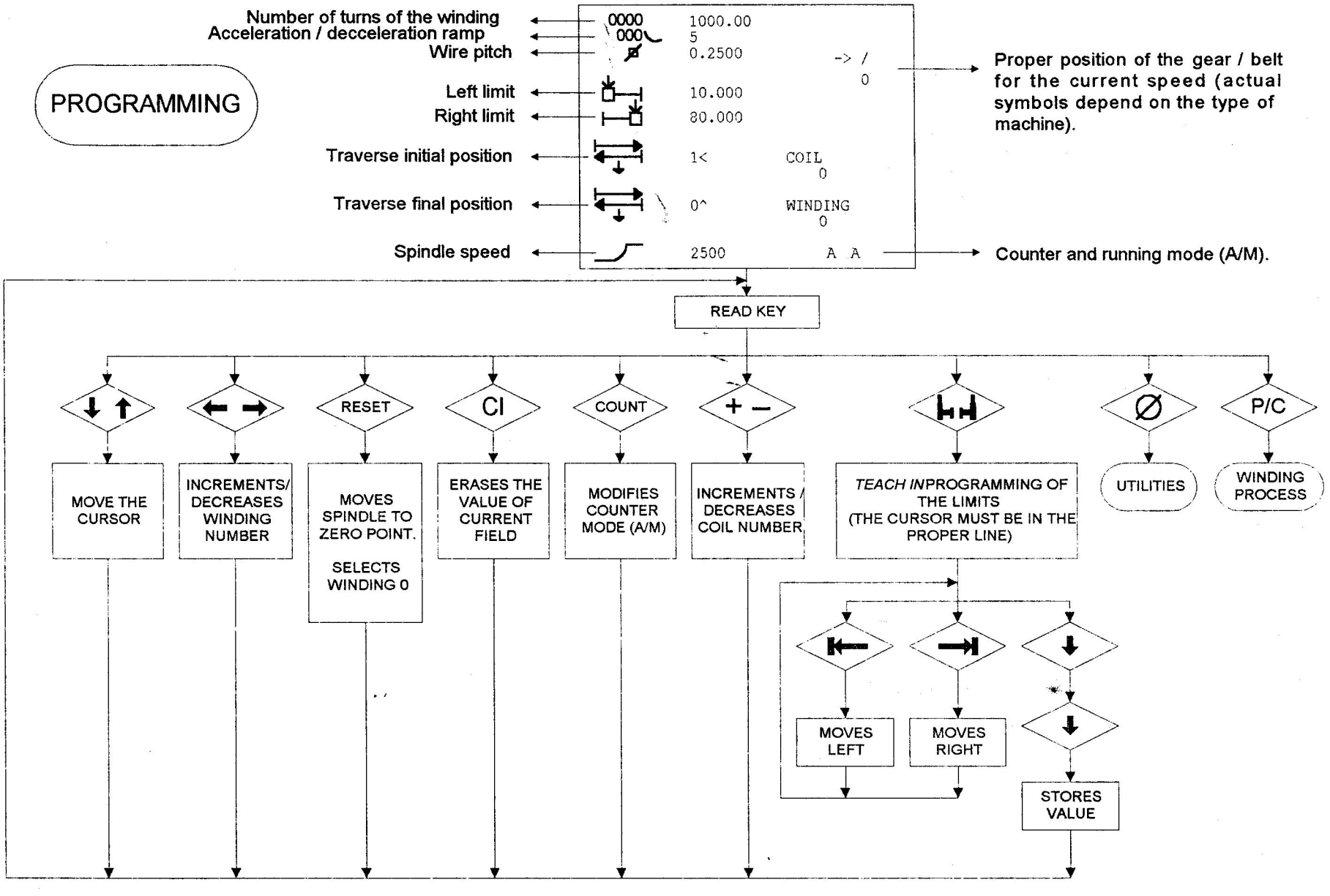


NOTE 1: If the message 'MODIFIED RAM' appears when you switch on the machine, and the program asks whether to perform a 'System reset', you should answer 'YES', as the data of the coil program could be wrong. If you do not want to perform a system reset, you must go to the programming screen and check the coil data.
If the message 'MODIFIED RAM' appears frequently upon switching on the machine, contact with your Bobifil agent, as the microprocessor battery could be discharged or faulty.

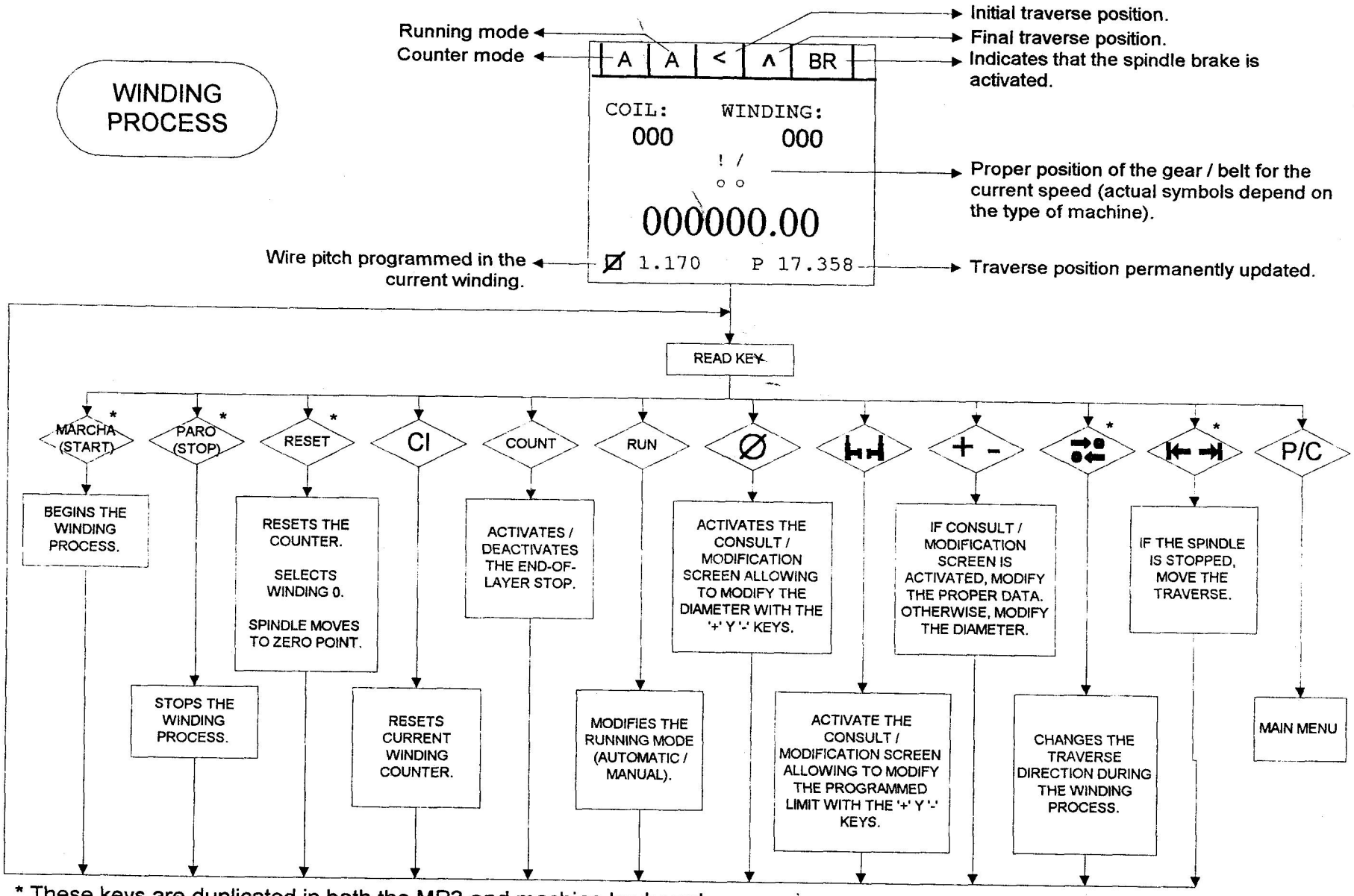
VERY IMPORTANT NOTE: Answer YES to this question only if you want to continue the production of an unfinished coil. This way, the axis will not move to the zero point. Then select option 'Wind' from the main menu.
Answer NO in any other case if this question appears when you switch on the machine.

* Look at the following pages.

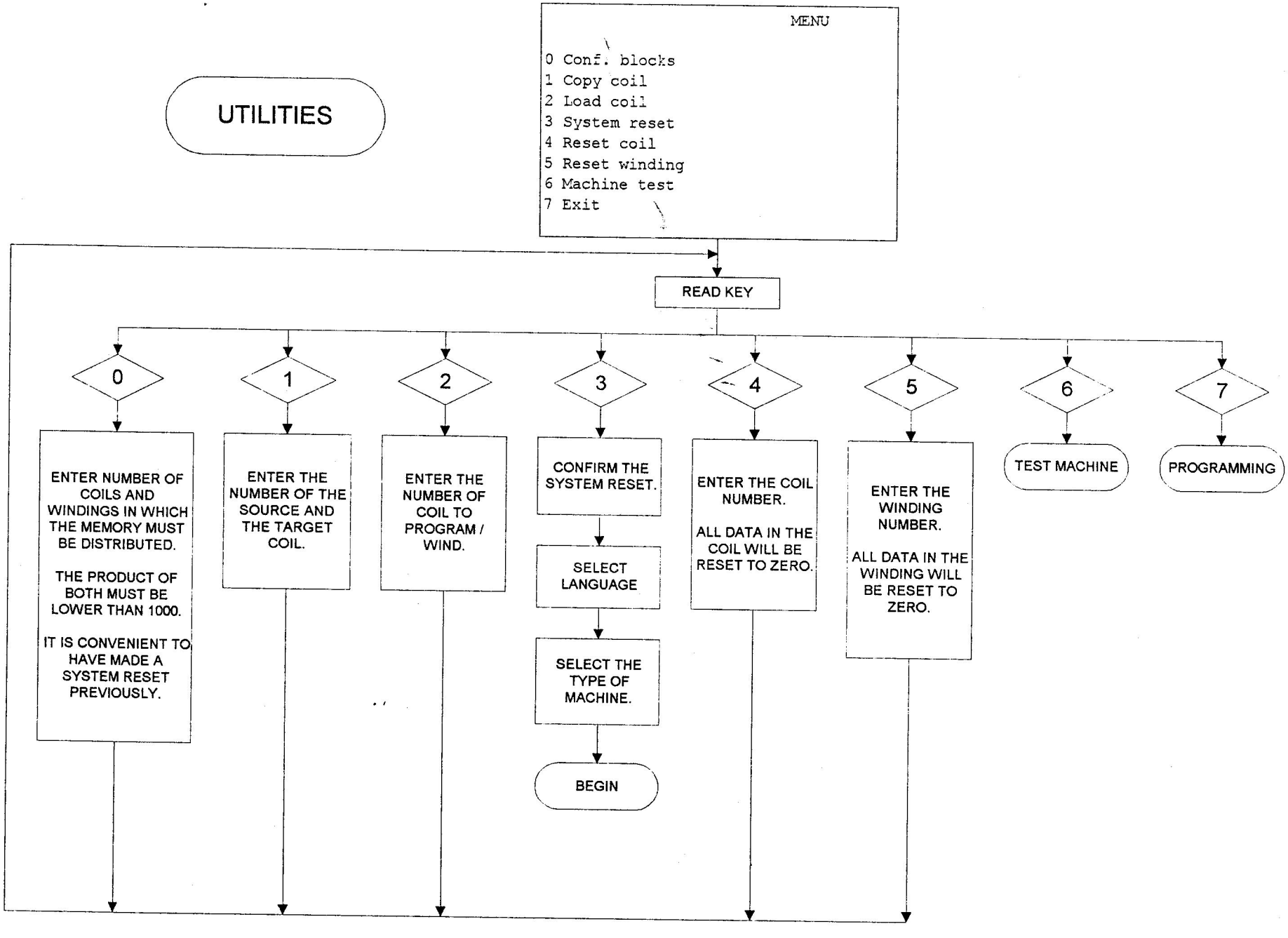
PROGRAMMING



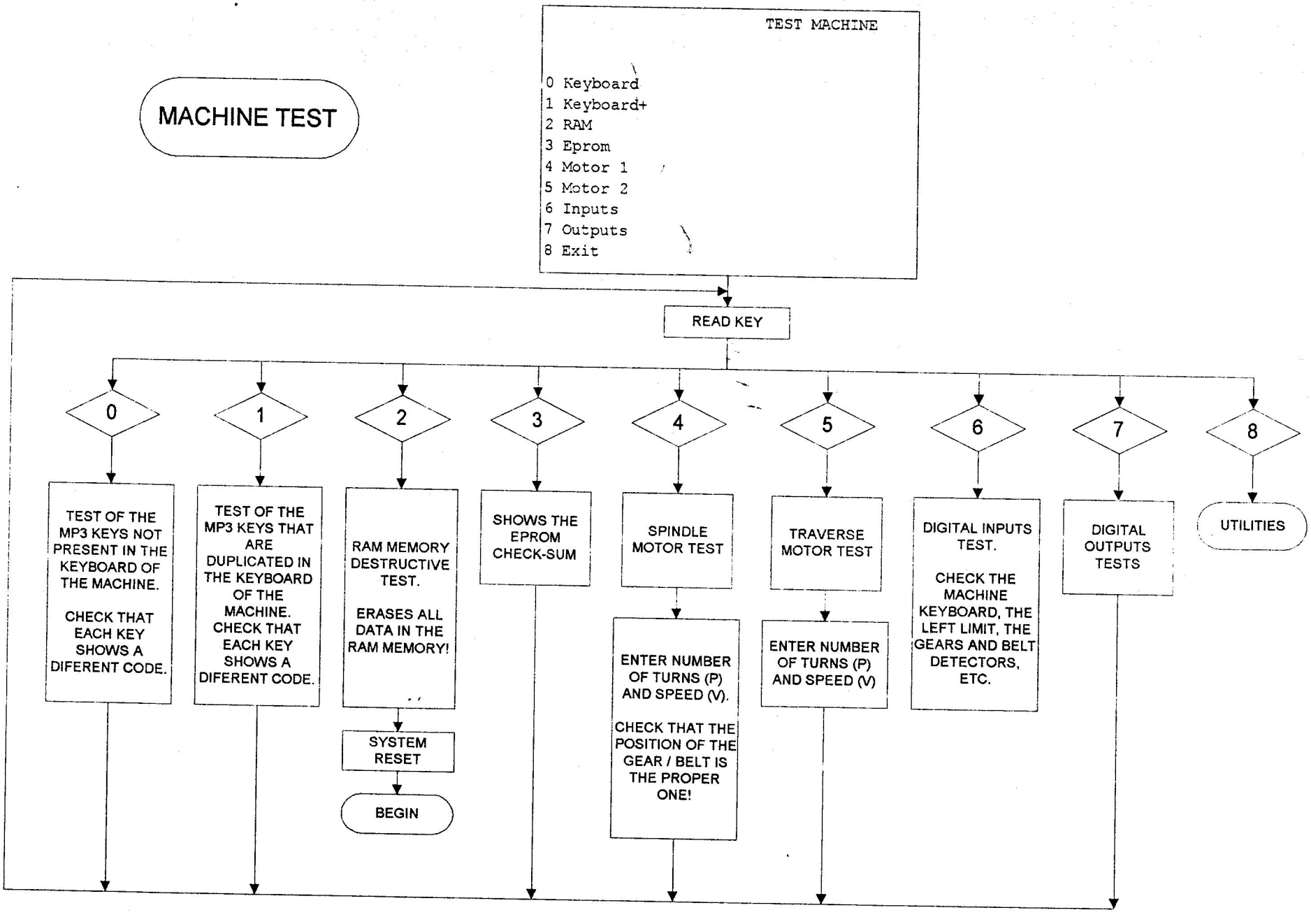
WINDING PROCESS



* These keys are duplicated in both the MP3 and machine keyboard.


UTILITIES
MENU
0 Conf. blocks
1 Copy coil
2 Load coil
3 System reset
4 Reset coil
5 Reset winding
6 Machine test
7 Exit
READ KEY
0
1
2
3
4
5
6
7
ENTER NUMBER OF COILS AND WINDINGS IN WHICH THE MEMORY MUST BE DISTRIBUTED.
THE PRODUCT OF BOTH MUST BE LOWER THAN 1000.
IT IS CONVENIENT TO HAVE MADE A SYSTEM RESET PREVIOUSLY.
ENTER THE NUMBER OF THE SOURCE AND THE TARGET COIL.
ENTER THE NUMBER OF COIL TO PROGRAM / WIND.
CONFIRM THE SYSTEM RESET.
SELECT LANGUAGE
SELECT THE TYPE OF MACHINE.
BEGIN
ENTER THE COIL NUMBER.
ALL DATA IN THE COIL WILL BE RESET TO ZERO.
ENTER THE WINDING NUMBER.
ALL DATA IN THE WINDING WILL BE RESET TO ZERO.
TEST MACHINE
PROGRAMMING

MACHINE TEST



NOTES