

# MAGNETICDAYS

APP MANUAL  
ANDROID **.3.01**



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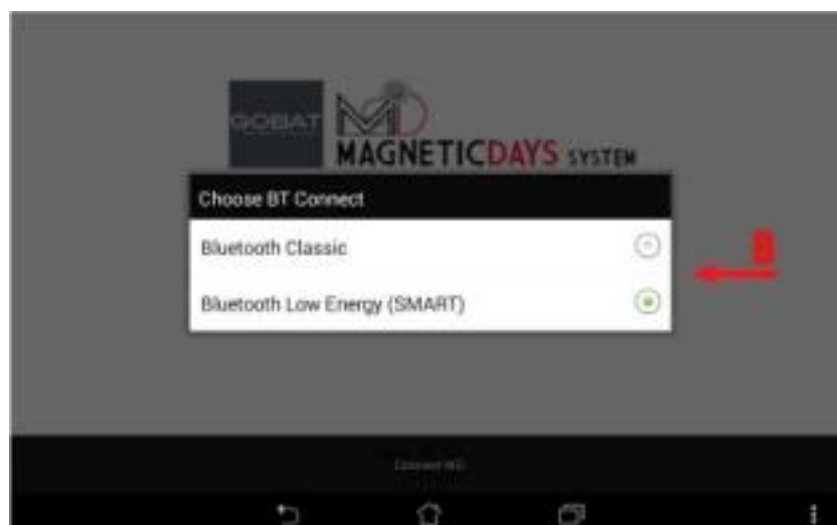
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# BLUETOOTH SELECTION AND CONNECTION



The first procedure when opening the initial connection between the App and your Magnetic Days, is to select the type of Bluetooth to use for the connection ( Bluetooth type 2 or Bluetooth Low Energy ). This is determined by the type of circuit board installed on your Magnetic Days.

Pressing the A key on the screen, gives access to the Bluetooth selection menu.

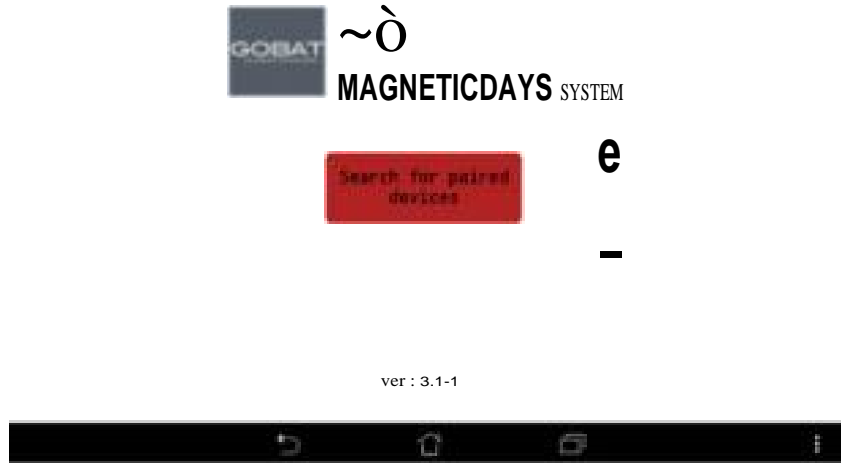


The menu appears from which you select the type of connection necessary, ( and turning into green ) press the relevant key for the required Bluetooth ( B )



# MAGNETIC DAYS SYSTEM

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Going back to the opening main screen, press the C key to connect between the control device ( Tablet or Smartphone ) and the Magnetic Days

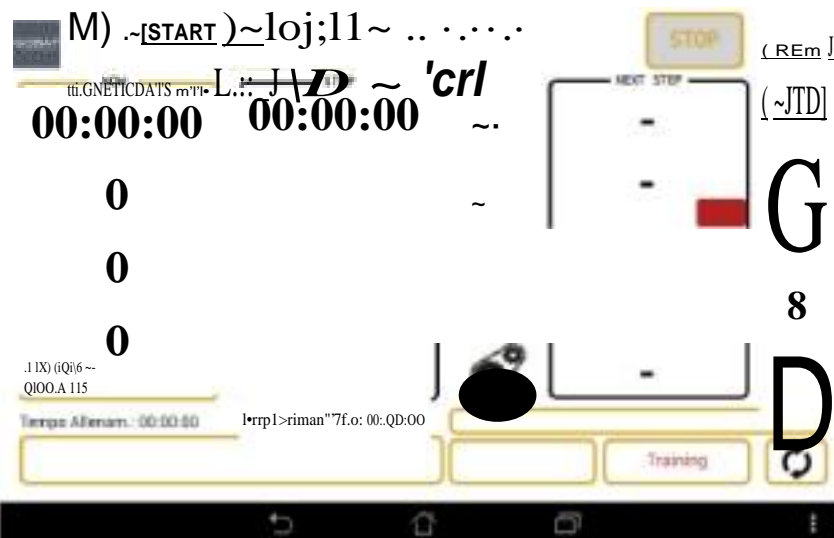
A list of MDs detected by the device will appear, pressing the D key (and turning into green), connects the required MD.



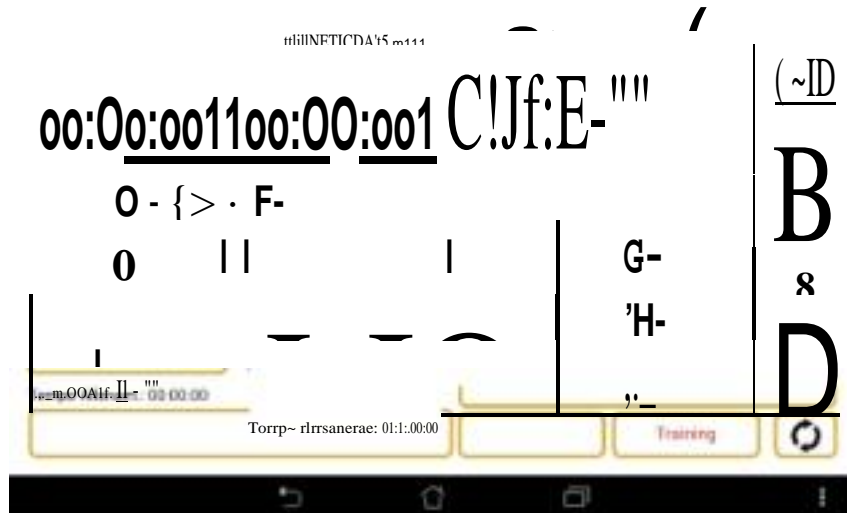
Two messages of connection in progress will appear in sequence.



Once the connection has occurred, the main user screen of the Magnetic Days system will appear.



# ICONS



**E - TIME** - The Icon indicates the active time in use expressed in Hours / Minutes /Seconds  
 It is activated by pedalling and is suspended when movement

**F - WATT** - The icon indicates the power applied during pedalling. The value is expressed in Watt  
 and is the product of the applied Force ( Newton ) by the Speed ( RPM)

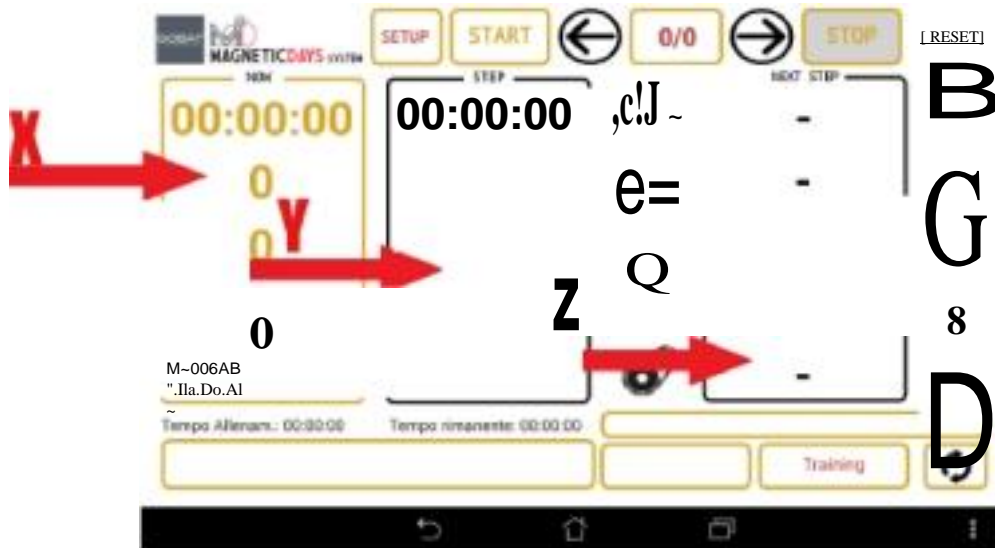
**G - RPM** - The icon indicates the RPM ( Rounds per Minute ) and represents the as  
 Pedalling frequency per minute

**H - BPM** The icon represents Heart Rate expressed in Beats per Minute

**I - GEAR** The icon represents the Mechanical Ratio (gear setting to be used in  
 training

**L - DATA** - This field displays the information of the Serial Number of the MD  
 connected and the loaded Firmware.

# FUNCTIONS SCREEN 1

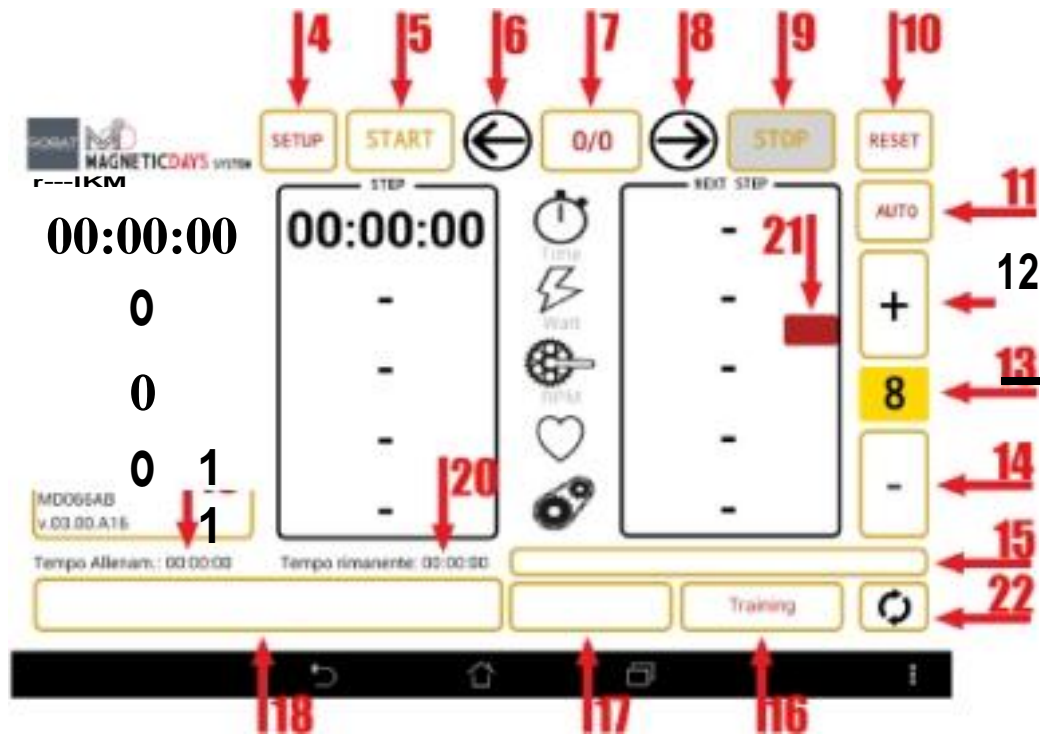


**X - NOW** - The panel indicates the values expressed instantly  
 When reading information of a free job, where the value of the Watts depends on the ratio used, of the generated RPM and the set brake value, the information will show in **YELLOW** .  
 When using **TRAINING** ( Training programme ), press the Start key to initiate a Training programme, the colour of the information turns **GREEN** confirming that the system is restricted by the information already programmed in the training programme.

**Y - STEP** - The panel indicates the values required at the time by the single step of the Training programme. The information appears only if a Training programme has been loaded. The information colour is always **WHITE**

**Z - NEXT** - The panel indicates the values required by the next step of the Training programme. The information only appears if a Training programme has been loaded. The information colour is always **RED**

# FUNCTIONS SCREEN 2



- 4 - SETUP - The key allows you to access the system settings screen
- 5 - START The key starts a loaded training programme
- 6 - PREV. The key scrolls back through the steps of a training programme
- 7 - STEP - The field shows the current training step in respect to all loaded training steps
- 8 - NEXT The key scrolls forward through the steps of a training programme
- 9 - STOP The key interrupts the training programme
- 10 - RESET The key realigns from the beginning of the training programme
- 11 - AUTO The button turns on / off the system AUTO function
- 12 - PLUS The key allows the increase the brake positions when in Manual function and increases the Watts when in Auto function





- 13 - BRAKE**                      The field displays the brake position when running Manual.  
If in Auto, the field shows the letter "A"
- 14 - LESS**                        The key allows the decrease of the brake position when in Manual and  
the decrease of the Watts when in Auto
- 15 - TITLE**                      The field displays the Name of the Training Programme to execute,  
when loaded
- 16 - TRAINING**                 The key allows access to the Script / Loading  
training programmes screen
- 17 - TEST**                        The key allows access to the test protocol Loading screen  
( Currently NOT ACTIVE )
- 18 - NOTE**                      The field displays the notes of the training programme step in  
execution at the time
- 19 - TRAINING  
TIME**                            The field displays the total duration of the loaded  
training programme
- 20 - TIME  
LEFT**                            The field displays the time remaining until the end of the training  
programme
- 21 - GEAR  
REQUEST**                      The field displays the brake that will be required by the training  
programme step following the one in execution. The value can be  
A - if the step will be with an automatic brake  
1/25 (1/30 for increased brakes) - the value of the brake expected,  
when working with a constant brake (progressions for example).
- 22 - SINCRO**                    The key allows synchronization of files with your page Training  
System Cloud on the [www.magneticdays.com](http://www.magneticdays.com)

# FUNCTIONS SCREEN 3

## LOADING TEST/TRAINING PROTOCOLS

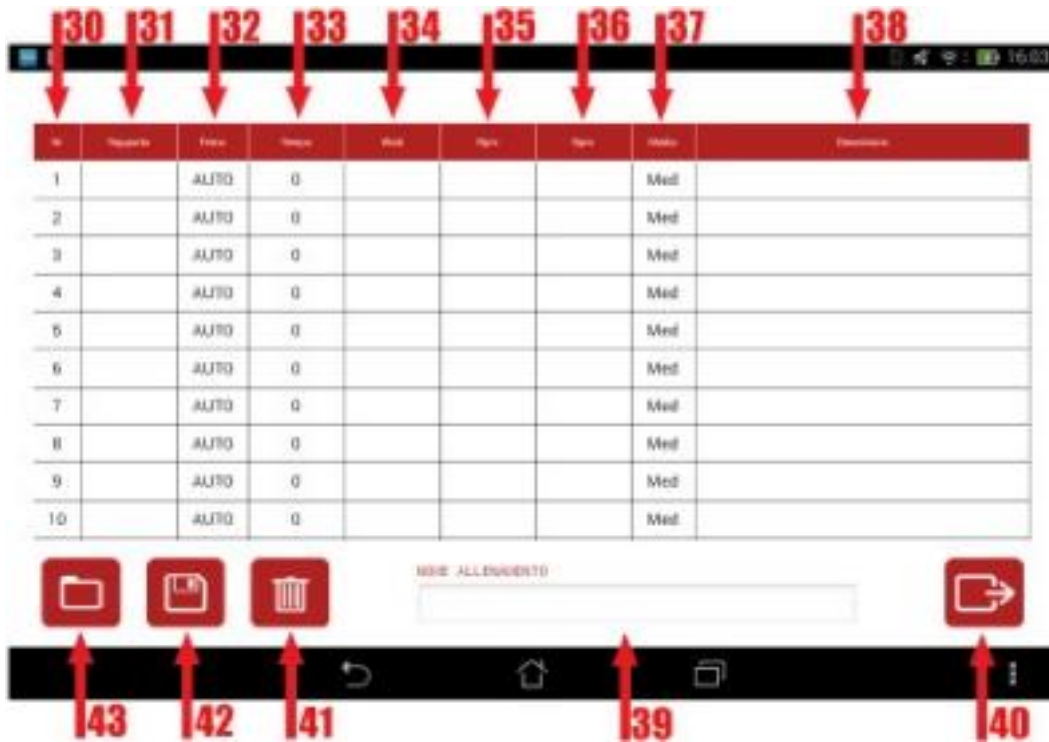


- |      |                |  |
|------|----------------|--|
| 44 - | LOADING SCREEN | The screen on which training protocols and completed test/training sessions transit. |
| 45 - | SELECT         | The key to select and Load the file for execution                                    |
| 46 - | CANCEL         | The key to cancel the procedure  |

# FUNCTIONS SCREEN 4

## TRAINING

## INPUT



- 30 LINE The Field indicates the row of the Training Step
- 31 GEAR In this field you insert the indicated ratio to obtain, with a fixed brake, the value of watts required in function of the set RPM. The field is alphanumeric and writing is unlimited. The field is optional
- 32 - BRAKE In the field you choose the brake value (1-25 or 1-30) required in the training step or AUTO (default) that sets the system to dispense the resistant force inserted in the "WATT" regardless of the ratio used and by applied RPM
- 33 - TIME In the field you enter the Time value (in seconds) of the training step duration. The field is COMPULSORY.
- 34 - WATT In the field you enter the Watt value required by the training step. If Auto Brake is chosen, this field becomes the step MASTER.
- 35 RPM In the field you enter the RPM value required by the training step. The field is alphanumeric and you can write either direct value indications or alphabetic indications such as "FREE".

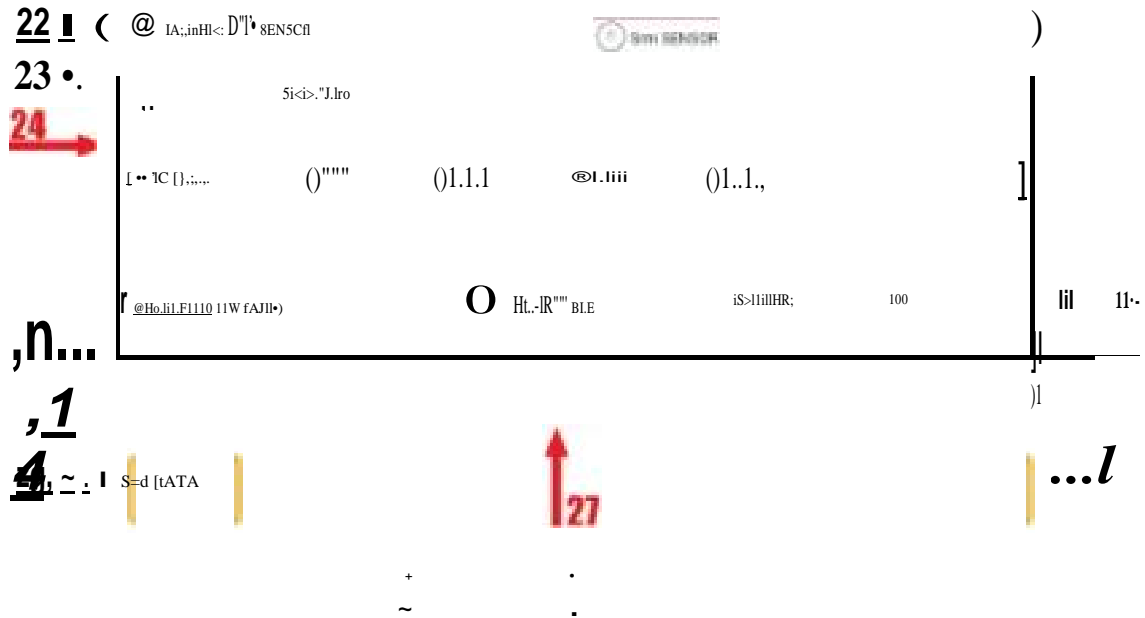


- 36 - HEART  
FREQ.** In the field you insert the BPM number provided for in the training step. This field is optional
  
- 37 - FILTER** The drop down menu to choose the reading Filter information of the individual training steps, shows all the filter values that are possible:

  - 0 - No filter. The information displays pure value read every 0.5 sec
  - MIN - I information showing the average value every 2 readings ( 1 sec. )
  - MED - I information showing the average value every 4 readings ( 2 sec. )
  - MAX - I information showing average value every 8 readings ( 4 sec. )

The set default value is MED.
  
- 38 - DESCRIPTION** In the field you write the description of the single training step
  
- 39 - TRAINING NAME** The field contains the name of the training programme. In case of direct writing of the workout, the field must be filled before saving the programme itself. In the case of an Upload, the field shall indicate the name given by the Coach to the training programme. The name can be changed for a new back-up
  
- 40 - EXECUTE PROGRAMME** - Pressing the button switches the displayed programme to the execution function.
  
- 41 - CANCEL PROGRAMME** - Pressing the button deletes the training programme at the time displayed in the writing window.
  
- 42 - SAVE PROGRAMME -** Press the button to save a written training programme in the device memory.
  
- 43 - LOAD PROGRAMME -** Press the button to load a training programme contained in the device memory.

# SETUP FUNCTIONS



**22 - SOURCE**

The drop-down menu allows the selection of the source of visualised information.

You can choose between the Magnetic Days internal mathematics system or the Ant+ radio signal from the Powermeter SRM

**23 - INCREASE WATT**

In the field you can enter the desired watts increase / decrease value with each click plus or minus in Auto function

**24 - FILTER**

With the drop-down menu you can choose the reading filter for the system information, when the source of information is MD and working according to Manual or Auto(No Training operation ). The possible values are:

- 0- No filter. I information displays the pure value read every 0,5 sec.
- MIN - I information displays the average value every 2 readings( 1 sec. )
- MED - I information displays the average value every 4 readings ( 2sec. )
- MAX - I information displays the average value every 8 readings ( 4sec. )

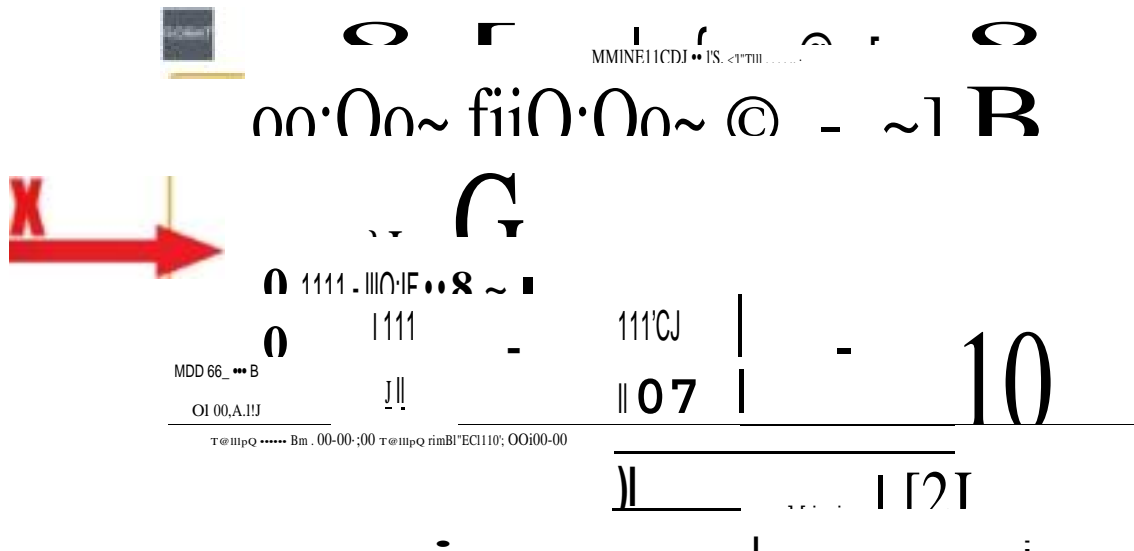
The set default value is MED



- 25 HEART MONITOR** With the drop-down menu you can choose the type of connection to the system for your heart rate monitor. The possible choices are:
- MD ( ANT +)** - Having an Ant +heart rate monitor connect the system through the Magnetic Days antenna
- BLE** - Having a Bluetooth heart rate monitor, connect to the system via Bluetooth of your device. Naturally you can only use monitors of the same Bluetooth type used to connect with the MD.
- The set default value is ANT+ MD
- 47 MONITOR CODE** Using an Ant +heart rate monitor, you enter the same code in the window so that, in the presence of more MDs and more monitors, each system has a closed connected without any interference. Setting the value to 0 (zero) and turning on a monitor, the system captures and stores the monitor code . To connect the MD to a new band, the should value be reset to 0.
- 26 - ID** Registration ID for the Training System User in the Portal [www.magneticdays.com](http://www.magneticdays.com)  
This data is essential for the correct synchronization with the cloud and the resulting file exchange
- 27 - PASSWORD -** Password for the Training System User registration to the Portal [www.magneticdays.com](http://www.magneticdays.com) . This data is essential for the correct synchronization with the cloud and the resulting file exchange
- 28 - SENDDATA** The key sends the settings on the page to the MD
- 29 EXIT** The key exits the Set Up screen.

# FUNCTIONS FOR USE 1

## MANUAL



The MANUAL use function of Magnetic Days allows easy visualization of one's own information during use. The only panel where the information appears is to the left "NOW". Information, if Magnetic Days mathematics are selected will appear in YELLOW.

The system is ACTIVATED by pedalling and LOCKS automatically when movement ceases. Once activated, timing starts and instantly displays the WATTS, maintained RPM and BPM ( Heart Rate ) information. All the generated information is recorded (a series every 0.5 sec). The information stability of depends on the filter used (default MED ).

With the keys PLUS (12) and MINUS (14) you can alter the brake strength, choosing one of the 25 positions (30 in the case of increased brake - MDE6-30). The brake position is displayed in the window 13. (In the case of use of the MD with a manual brake - MDE4-6 - you will have to set one of the six possible manual brake positions).

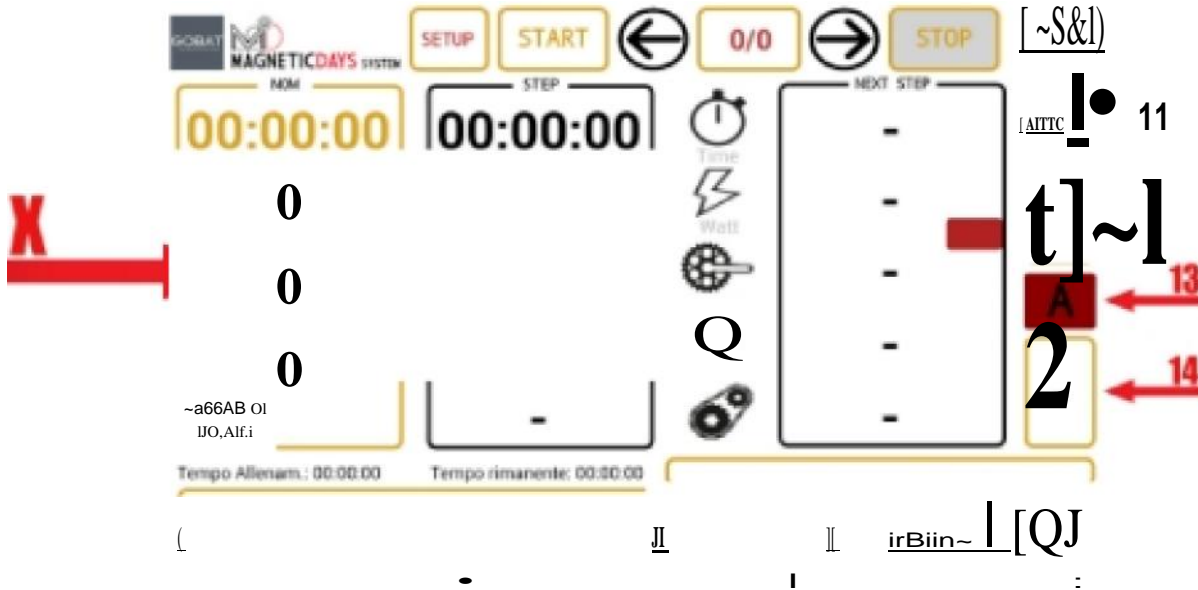
In this situation, the braking force of MD will depend on the set brake of maintained RPMs and which bicycle gear is used.

Acting on these three parameters you will have to check the WATT / RPM ratio required for the work to be carried out on the Platform.

To facilitate pre-setting of the parameters, a useful tool is the Magnetic Days CALCULATOR that for each combination of settings; Ratio / Brake / RPM, gives the relative number of Watts dispensed

# FUNCTIONS FOR USE 2

## AUTOMATIC



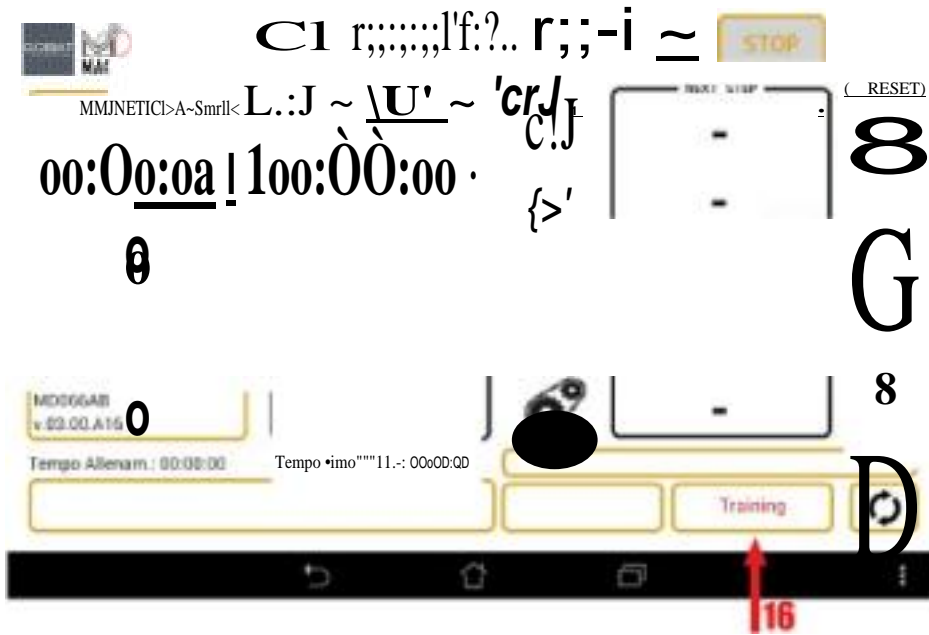
The FIRST function of AUTOMATIC use of Magnetic Days allows easy viewing of your information, as for the previous function, but with the big difference of being able to FIX the dispensed WATT value regardless of the ratio used and by the RPM applied. To activate it, simply press the AUTO key (11) while pedalling. From that moment on, the system will ensure (within the operating margins of the brake calliper) a resistant force such as to dispense the Watt value displayed upon activation of the function. The value will be automatically maintained, intervening on the gears of the bicycle or by VARYING the pedalling frequency (RPM). When the function is activated, the letter "A" appears in the brake value display field (13). Of course the value of the braking force can be varied during use, simply by pressing the Plus (12) and Minus (14). each click of the keys, the braking force will increase or decrease by the value set in the Set Up screen, in field 23. The only panel where the information appears is to the left "NOW". The information, if Magnetic Days mathematics is selected, all appear in YELLOW.

The system STARTS by pedalling and STOPS automatically when movement ceases. Upon activation, timing starts and instantly displays the WATTS, maintained RPM and BPM (Heart Rate) information. All the generated information is recorded (a sequence every 0.5 sec.). The information stability of depends on the filter used (default MEDMED).

In the case of use of the MD with a manual brake - MDE4-6 - the function will NOT be available.



# FUNCTIONS FOR USE 3 TRAINING



One of the main innovations of Magnetic Days, is the ability to run Custom Training that are automatically managed by the system. The training protocols can be written directly by the Athlete or received from your coach who generated them with the Cyber Test professional software. The protocols can be received via USB, via E-mail or downloaded through the Training System Cloud on the [www.magneticdays.com](http://www.magneticdays.com) portal

The first step, on the software main screen, press the Test key ( 16 ) to enter Training in the area where we

- CREATE Training programmes
- SAVE Training programmes
- MODIFY Training programmes
- LOAD Training programmes saved on my computer
- RECEIVE Training programmes written by others

# TRAINING

## CREATING A TRAINING PROGRAMME



The Creating training programmes screen, allows you to freely enter our programmes consisting of various STEPS. Based on the philosophy of use, for each single step there are COMPULSORY and OPTIONAL fields.

Speaking of Training management philosophy, we can choose whether to work in Manual or in Automatic.

Working in Manual, the work done in terms of generated Power will naturally depend on the Ratio used, the selected level of Fixed Brake and the Pedalling Frequency (RPM)

When working in Automatic it will be the system that ensures (within a range of possibilities) Power requirements, regardless of the Ratio used and the Pedalling Frequency (RPM).

# TRAINING

## CREATING A TRAINING PROGRAMME

### MANUAL FUNCTION



We are now creating a Training Step in Manual function

The Ratio being used is important, it is advisable to enter the ratio ( Gear - 31 ) indicated in the first line of the field to obtain the required Watt / RPM combination. To facilitate this choice, you can use the Magnetic Days CALCULATOR that gives the Wattage Values for each level of the MD brake used according to the ratio and the required RPM. The Gear field is alphanumeric and is still OPTIONAL

In the second field ( Brake - 32 ) we put the Magnetic Days Fixed brake, chosen for the Step. The field works as a drop-down menu. Clicking on the field opens the menu from which you select the chosen Brake. The default is "AUTO" and should, in this case, be changed. The field is COMPULSORY



In the third field ( Time - 33 ) you must enter the Step duration time. The value is expressed in SECONDS. The field is COMPULSORY

In the fourth field ( Watt - 34 ) you must enter the amount of Power required for the Step. We recommend that the field is filled in but, in this case, it is NOT COMPULSORY.

In the fifth field ( RPM - 35 ) you must enter the pedalling Frequency value required by the Step. The field is alphanumeric and may show precise indications of RPM or alphabetic notes like "FREE" type. We recommend that the field is filled in but it is Optional.

In the sixth field ( BPM - 36 ) you must enter the Heart Rate value suggested for the work required in the Step. The Field is Optional.

In the seventh field ( AVG - 37 ) you must enter the FILTER value of the generated information. The filter values are:

- 0 - No filter. I information displays the pure value read every 0,5 sec.
- MIN - I information displays the average value every 2 readings( 1 sec. )
- MED - I information displays the average value every 4 readings ( 2 sec. )
- MAX - I information displays the average value every 8 readings ( 4 sec. )

The set default value is MED

In the eighth field ( Description - 38 ) you can display a description that the training step calls for. The field is Optional

After writing the first line you will move to the next using the same guideline.

**This chapter describes the creation of a training programme in the Manual Function. The programmes, however, can be MIXED with both Manual function and Automatic Function rows. For the creation of Automatic function rows, follow the indications in the Next Chapter ( xxxxxx ).**

When you finish writing the Training programme, you must enter its' name, filling in the Training Name ( 39 ). The programme will be LOADED for use with the key 40 ( xxxxxxxxxxxx ).

The Training programme may be SAVED ( Key 42 ) ( xxxxxxxxxxxxxx ) or DELETED, by pressing key 41 ( Before the final cancellation, a confirmation Alarm message will appear

# TRAINING

## CREATING A TRAINING PROGRAMME

### AUTOMATIC FUNCTION



We are now creating a Training Step in Automatic function.

In this case the System is automatically managed by the software for GUARANTEEING (within a certain range) the constant Power ( Watt ) generation irrespective of the Ratio used and the maintained Pedalling Frequency ( RPM).

The first field ( Gear - 31 ) be left in Blank, because the indicated data is not influential

In the second field ( Brake - 32 ) leave the AUTO menu default

In the third field ( Time - 33 ) you must enter the Step duration time. The value is always expressed in SECONDS. The field is COMPULSORY

In the fourth field ( Watt - 34 ) you must enter the required amount of Power for the Step. In this case, the value becomes decisive as it is the reference parameter of the training step. The field becomes COMPULSORY.



In the fifth field ( RPM - 35 ) you must enter the Pedalling Frequency value required for the Step. The field is alphanumeric and may show precise RPM or alphabetic indications such as "FREE". It is recommended that the field is filled in but it is Optional

In the sixth field ( BPM - 36 ) you must enter the Heart Rate value for the work required in this Step. This field is Optional

In the seventh field ( AVG - 37 ) you must enter the value of the generated information FILTER. The filtering values are possible:

- 0 - No filter. I information displays the pure value read every 0,5 sec.
- MIN - I information displays the average value every 2 readings ( 1 sec. )
- MED - I information displays the average value every 4 readings ( 2 sec. )
- MAX - I information displays the average value every 8 readings( 4sec)

The set default value is MED

In the eighth field ( Description - 38 ) you can show a training step job description. The field is Optional.

After writing the first line you will move to the next using the same guidelines.

**This chapter describes the writing of an Automatic function training programme. The programmes, however, can be MIXED providing both Manual and Automatic rows. In this case, for the creation of the Manual Function rows follow the instructions in the Previous Chapter ( xxxxxxxx ).**

When you finish writing the Training programme, you must enter its' name, filling in the Training Name field ( 39 ). The programme will be LOADED for execution with the key 40( xxxxxxxxxxxxxx ).

The Training Programme can be SAVED ( Key 42 ) ( xxxxxxxxxxxxxx ) or entirely DELETED, by pressing key 41



N°	Modulo	Temp.	Temp.	Temp.	Temp.	Temp.	Mod.	Descrizione
1		AUTO	180	100	LIBERE		Med.	RISCALDAMENTO GENERALE
2		AUTO	180	120	LIBERE		Med.	RISCALDAMENTO GENERALE
3		AUTO	120	140	LIBERE		Med.	RISCALDAMENTO GENERALE
4		AUTO	80	180	95		Med.	RISCALDAMENTO SPECIFICO
5		AUTO	80	100	LIBERE		Med.	RISCALDAMENTO SPECIFICO-REC
6		AUTO	80	180	180		Med.	RISCALDAMENTO SPECIFICO
7		AUTO	80	100	LIBERE		Med.	RISCALDAMENTO SPECIFICO-REC
8		AUTO	10	200	95		Med.	RISCALDAMENTO SPECIFICO
9		AUTO	10	210	95		Med.	RISCALDAMENTO SPECIFICO
10		AUTO	10	220	95		Med.	RISCALDAMENTO SPECIFICO

FILE ALLIAMENTO

User\_Watchup\_Test\_24.12.14

The image shows an example of a compiled Automatic Training programme

Once the creating of a Training Programme is finished and it has been named, you proceed to SAVE pressing key 42. The file will be automatically saved in the “training” sub folder inside the Magneticdays folder, in the device memory.

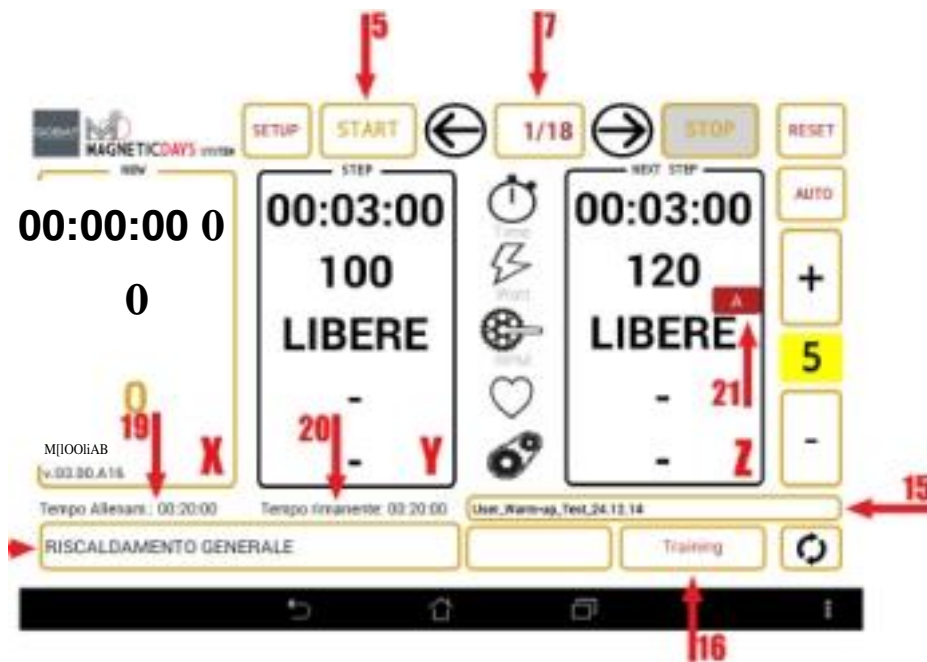
To reload a saved Training Programme press key 43. You will access the list of available Programmes. Select the programme, it will load onto the input screen and you press key 40, to run it

# TRAINING

## TRAINING PROGRAMME EXECUTION



Once you have selected the Training Programme on the input screen, press key 71 and ENTER it for EXECUTION.



We are now on the Magnetic Days Software Main Screen, with the Training Programme Uploaded but still in standby. This is evidenced by the Left ( Now - X ) information panel that still shows the numbers in YELLOW.

We analyse the information shown on the screen

Field 15 shows the TITLE of the loaded Training programme

In field 7 we have the COUNTER of the steps in the Training programme. The number on the Right indicates the Total number of steps, while the Left indicates which Step is loaded for execution. The information of the loaded field appears in Y ( Step)



The individual Fields that we read in the Step, from top to bottom indicate:

- TIME; the Step duration. This field works in countdown during the course of Training.
  
- The POWER in watts required by the Step in execution. If the Step is in AUTOMATIC the data represents the Step Master and the system will maintain it regardless of the Ratio used and the maintained Pedalling Frequency ( RPM).
  
- The PEDALLING FREQUENCY (RPM) required by the Step in execution. If the Step is in AUTOMATIC this will be the only data that the athlete must strive to maintain to conduct the proper execution of the Training Programme.
  
- The HEART RATE (BPM). Is an approximation of that which should be the Heart Rate corresponding to the Step in execution. If shown it is a data reference for the athlete to check his physical condition at the time of the execution of the Training Programme.
  
- The GEAR. If the Step is in MANUAL, the field will show the correct Ratio (Gear) to use to keep to the Watts / RPM combination required in the Step in execution. This figure is easily obtainable using the Magnetic Days software CALCULATOR tool.

Using the same sequence described in Z ( Next Step ) you can read the information required by NEXT Step and not the one in execution. The Square shows a further indication contained in field21. This indication refers to the type of the Next Training Step. If the step is in AUTOMATIC, the field will display an "A". If the step is in MANUAL, in the field will show the expected Brake Number of the Step. In this case in the field Gear we will probably find the indication of the Ratio to use.

When the countdown of the Step in execution is finished, the information in the Next Step panel will move immediately to the Step Panel, while in the Next Step panel those required by the following Step will appear (Except when in the Step panel the last Step of the Training programme is loaded

Field 18 displays the description of the Step in execution

Field 19 displays the TOTAL DURATION of the loaded Training programme. The field will remain fixed throughout the training.

Field 20 displays the REMAINING TIME of the Training programme. Starting the execution of the programme, the field begins the Countdown. Likewise, the Execution Time of the programme is shown in the TIME field of Box 1 ( Now)



Pressing START ( 5 ) initiates the Uploaded Training programme.  
The Uploaded programme will be FROZEN and is only activated when Pedalling starts.

This condition is shown by:

- The Numbers in the Now Panel ( X ) from Yellow turn RED
- The TIME in the Now Panel, indicating the Total Time of the Training Programme Execution e is still

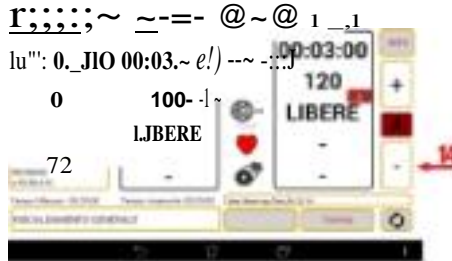
**This FREEZING condition will also occur ( TIME STILL ) DURING the execution of the Training programme, whenever this is interrupted by stopping pedalling. It automatically REACTIVATES ( TIME ACTIVE) by starting pedalling again.**

STARTING pedalling, Effectively Activates the Training programme and this is highlighted by:

- The TIME in the Now Panel, indicating the Total Time of Training Programme Execution starts counting the Total Training Time
- Field 20 starts the countdown indicating the Time Remaining until the end of the Training programme.

**Whenever, for any reason, you stop pedalling, the Training programme freezes again, returning to the previous display.**

During the Training programme execution, when the Step in execution is running AUTOMATIC, should the intensity of the step be too high, you can intervene on the Single Step by pressing button 14 ( LESS). The Power intensity ( Watt ) required by the Step decreases the value set in the System Set Up.



During the Training programme execution, the individual Steps or can be SKIPPED or REPEATED.



To move Forwards and Backwards between the Training programme Steps, you must first suspend it by pressing STOP ( 9 ). At this point, use the Forward Arrow (6) / Back Arrow (8) to scroll the Step. The selected Step number will appear in field 7. Once the Step is selected Restart the Programme by pressing START ( 5).

To view the Step values, press the Training key ( 16 ) and view the entire Training programme on the Input screen, from which you can then return to the main screen with key 40



If you want to start over the training programme, after pressing the STOP key (9), you will have to press RESET (10) and then START again.

Once training is finished, the system AUTOMATICALLY saves the training file in the devices' Magneticdays folder.