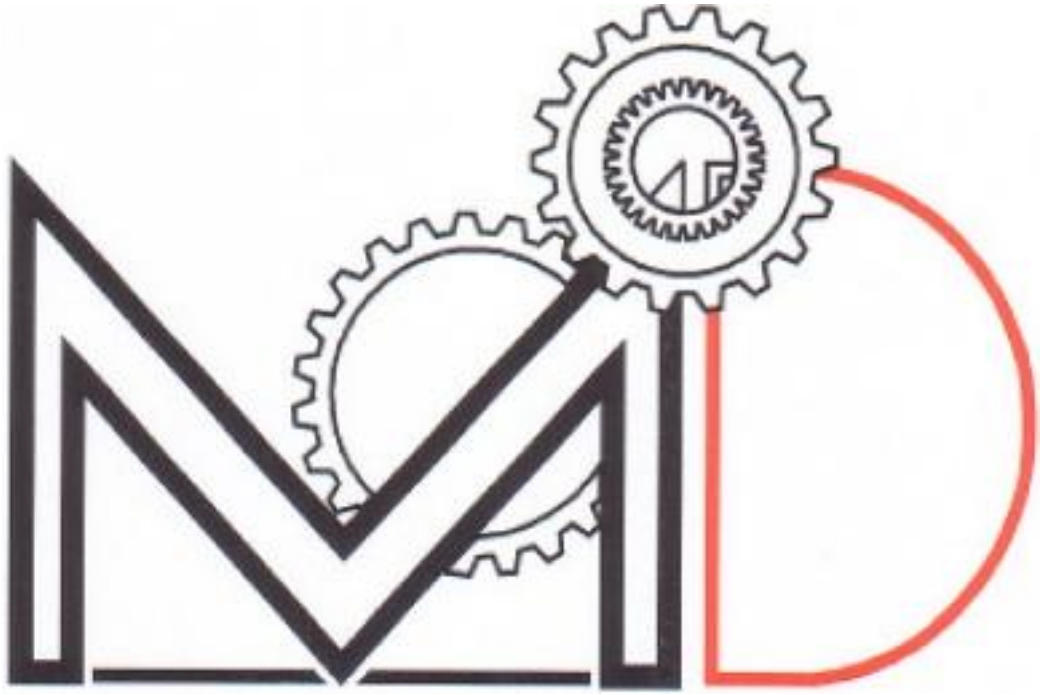


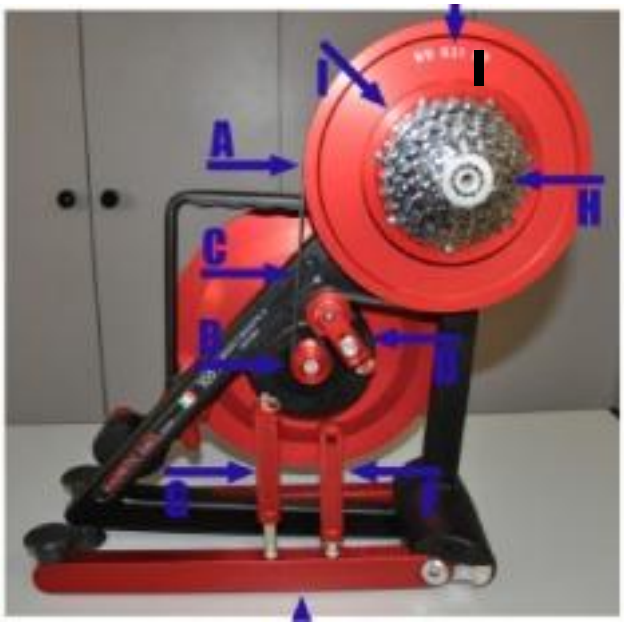
MAGNETICDAYS

OPERATING INSTRUCTIONS

Magnetic Days Series 3

INDEX

PARTS DESCRIPTION



Magnetic Days Right Side

A	-	Large Pulley
B	-	Small Pulley
E	-	Poly-V Belt
D	-	Belt Tensioner
E	-	Right Stand
F	-	Right Crank
G	-	Left Crank
H	-	Sprocket
I	-	Free wheel Lock
L	-	Serial Number

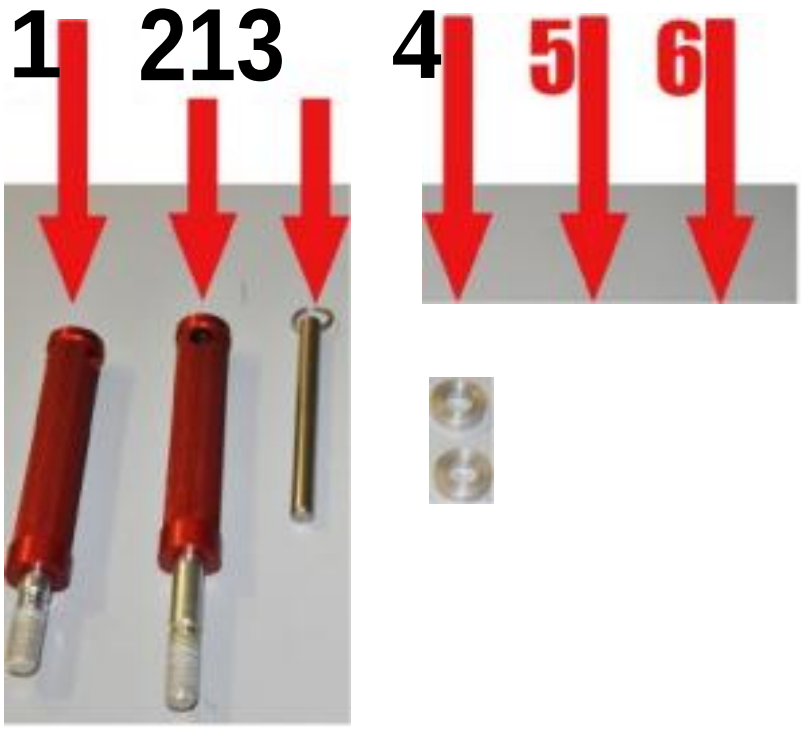
0

p

Magnetic Days Left Side

M	Fly Wheel
N	Brake Calliper
O	Brake Motor
P	Left Stand
Q	Bike dropout width adjustment bush
R	Main Electronic Board
S	Marker for movement optical sensor

MECHANICALCOMPONENTS



1	Right Crank
2	Left Crank
3	Crank Lock Pin Key (Inserted inside Left Crank)
4	Frame Adjustment Shims
5	Bush for Fixed dropout width (125 mm.)
6	Adapter for 12mm Bolt.

ELECTRICAL COMPONENTS 1

8 **1** **1** **11**
0

7	Accessory Bag
8	Power Pack
9	Power pack cable (USB/A plug-Mini USB plug) Mt. 1.8
10	PC Connection Cable (USB/ A plug - Mini USB plug) Mt. 4.5
1 **1**	RPM cable sensor(complete with magnets)

ELECTRICAL COMPONENTS 2

1	Power pack Cable with "fuse wire".
2	USB/ A plug-plug Mt. 3.0 Cable
1	PC Connection Cable with “fuse wire”.
3	USB/A plug-plug 5.0 Mt. Cable

SYSTEM OPENING

The first thing to do before using the Magnetic Days is open the stands. Before doing this, remove the cranks (1 and 2) from their fittings in the Right Stand.

Then rotate the two stands forwards to the mechanical stop. In this way the MD will rest on three points guaranteeing perfect adhesion and stability even on uneven surfaces.

BICYCLE ASSEMBLY

The Magnetic Days connects to the bike in the same way as a rear wheel. As with the wheel, assembly is facilitated by the position of the rear derailleur in the higher gear.

Prior to installation, you must adjust the MD to the width of the rear bicycle dropout. By turning the width adjustment bush (Q) you can in fact get the first 3 settings

- Remove the bush (using a size xx spanner), the width of the MD allows you to connect a bicycle with a 120mm .rear dropout (Track bicycle)

- Replacing the bushing with the low-profile one included in the package (5) the width of the MD allows you to connect a bicycle with a 125 mm rear dropout (Fixed Bike)

- Leaving the standard bushing fitted, the width of the MD allows you to connect a bicycle with a 130mm rear dropout. (Road Bike)

Settings for larger widths (MTB Bikes) are made by using the shims in the package (4). In the narrower settings, the shims can be used like washers externally on the dropout.

Once the width has been determined and the right setting made, the connection of the bicycle to the MD can be done in two ways depending on the type of wheel mounting.

Bicycles can in fact have either a classic fitting or a through shaft.

STANDARD FITTING

With a standard wheel fitting , insert the cranks into the holes on the MD and loosely screw them in .

Position the rear dropout, making sure that the chain is inserted onto the pinion 11 of the MD sprocket .
Check that the dropout is entered correctly on both pins of the MD cranks, tighten them by hand to tighten the frame. Block both cranks well by using of the special key inserted in the outer holes of the cranks. The key stays in the right crank and is easy to remove thanks to the ring at its end.
Once the cranks are properly tightened, reinsert the key in its slot.

THROUGH SHAFT FITTING

With a through shaft fitting, first determine the diameter of the linchpin mounting (10 or 12 mm.). In the case of a 10 mm. mounting the two cranks will be used as semi pins for each side for mounting the bicycle.
In the case of a 12 mm. mounting the Right crank will be mounted normally being the side with the threaded 10mm hole in the rear dropout . The Left pedal crank, will need the adapter bushing to be inserted (6) which takes the diameter of the linchpin of the pedal crank itself to 12 mm.

Then insert the spacers (4) between the frame and the MD to the extent necessary. When mounting this type of frame it is a little more difficult to match the crank pins to the holes on the MD, while keeping the inner spacers in position.
Once the pins are inserted , tighten the cranks up to lock the frame to the MD. Then finish the locking using the special key inserted in the outer holes of the cranks. The key to stays in the right crank and is easy to remove thanks to the ring at its end.
Once the cranks are properly tightened, replace the key into its slot.

CABLE CONNECTION

Now we begin the connections. Connect the MD to the power supply, connect it to the PC and insert the RPM sensor cable .

After connecting the power pack (8) to its cable (9) via the USB / A, insert the Mini USB into socket 15 of the MD

To connect the MD to the PC, connect the appropriate cable (1 O) via the Mini USB into socket 16. Connect the other end of the USB / A to the PC

The RPM sensor cable (11) must be connected to the MD by inserting the Mini USB in socket 17. The same socket works for the MD KEYS control, in the case of a RPM Ant +sensor

In some MDs (or on request) "fuse " wires are mounted to preserve the integrity of the system electronic cards from damage due to accidental tearing of the connecting cables. These wires are attached to the MD structure with plastic ties and connect to the connecting cables with a male / female USB / A.

The Power fuse wire (18) includes a 90 °Mini USB connector in order to keep the cable in close contact with the structure. It is connected to the lower part of the MD support structure with two plastic cable ties. This cable is particularly important because in case of damage to the engine brake electronic control board (to which the power cable is directly connected), it is essential to return the MD to the Firm for repair.

The fuse wire connecting to the PC (19) includes a straight Mini USB connector and is secured to the vertical part of the structure of the MD with two plastic cable ties.
Also in this case the system serves to preserve the Motherboard of the system from damage caused by any tearing of the connection cable.
Unlike the motor control board, the motherboard may, however, be replaced without returning the MD to the Firm.

BELT TENSIONER

For any tension adjustment, first unlock the bolt X and then turn the grub screw Y being careful not to tighten the Poly-V belt too much. Excessive tension, as well as generating abnormal stress on the flywheel shaft, it increases the friction of the system, thus distorting the factory calibrated Watt reading.

Always check that the Tensioner roller (W) turns smoothly and lubricate it when necessary. For this, use chain lubricating grease spray (ORPC GR-http: / /www.magneticdays.com/index. Php / en / shop / Accessories / grease-white-spray-for-chain-detail) paying attention not to contaminate the Poly-V belt during application. The grease must be applied to the sides of the roller.

FREE WHEEL BLOCK

All MDs (Except the BASIC - MDB4-6 version) have a Free Wheel lock. This allows you to work with a fixed gear bike and for specific training work

To lock the Freewheel of the Cassette, first align the 7 pins of the phase locking system with the notches on the 28 toothed pinion of the cassette.

At this point take the edge of the outer ring of the locking system with both hands and, forcing with the thumbs against the surface of the Large Pulley, pull the system towards you.

The outer ring of the locking system will slide and engage the 7 pins on the 28 teeth pinion. In this position, the Cassette Free Wheel will be blocked.
To Release, push the locking ring towards the Large Pulley until the 7 pins disconnect from the pinion 28.
Naturally, the system only works with the standard pinion 28 installed. If you want to to keep the lock system when replacing the cassette, use the pinion 28 that is a standard supply in the new cassette installed. The standard fitting mounted on the MD is Campagnolo (Except in the Shimano 11 V optional version).

ELECTRONIC BOARD REPLACEMENT

Having to replace the Electronic motherboard due to a fault or an Upgrade, proceed as follows.

Using a 2 mm Allen wrench unscrew the two screws shown in the illustration. A third screw is inserted firmly in the MD structure in the lower right of the Motherboard slot cover. This screw acts as a simple cover insertion guide and must NOT be unscrewed. Once the two screws have been removed, pull the cover slightly to remove it.

Once the Motherboard is visible, CAREFULLY, disconnect the wiring connector. Any damage to the wiring would mean having to send the MD back to the factory for the replacement of the component. For this operation we recommend the use of a small flat screwdriver to disconnect the connector from the board.
After disconnecting the connector, pull out the cover / card piece and then insert the new one. For reconnection of the connector, use the same attention as previously. When the wiring has been connected, replace the cover and fix it to the frame with the two screws.

ACCESSORIES

ROTOSTOP

The Rotostop is an accessory that keeps the front wheel locked during use of the Magnetic Days. In addition slots are present for both road and MTB wheels. For each wheel measurement, there is a slot which keeps the bicycle perfectly level (without Rotostop, the bicycle mounted on the MD is slightly downhill) and one that simulates the position of the bicycle in an uphill slope of 6%.

ACCESSORIES

BASIC ROLL BAR

The Roll Bar is a stabilizer bar that when applied to the Magnetic Days joins the floor contact points of the front legs and widens their support base. To assemble; first unscrew the front rubber feet from the MD and in their place screw the two bolts provided with the accessory. The Roll Bar is used to give greater stability to the system especially for off saddle work where the oscillations induced by pedalling increase compared to work on the saddle. Of course, with the Roll Bar installed, the MD folding legs remain locked in the open position. To close them and place the MD in its case, you must remove the accessory

ACCESSORIES

COMPLETE ROLL BAR

The Complete Roll Bar is a accessory that allows you to connect the bicycle frame to the Magnetic Days without the front wheel.
The complete system is extremely stable and particularly suitable for the execution of evaluation tests.
The adjustable bike attachment, allows universal mounting of all bike frames both road and MTB.

Of course, for those who already possess the Basic Roll Bar the extension bar alone is available.

ACCESSORIES

RPM ANT +SENSOR

The accessory lets the sensor detect the pedalling frequency (RPM) without connecting the Magnetic Days USB Mini cable. The sensor transmits in Ant + and communicates directly with the MD antenna.

With the installation of this accessory, the control buttons on the handlebars make it easier to interact with the Magnetic Days User Software. These buttons are connected with the Mini USB cable to the port normally used by the RPM sensor.

ACCESSORIES

CONTROL BUTTONS

This accessory permits a more direct interaction with the Magnetic Days User management software. Both current functions +/- and upcoming features, can be easily operated without taking your hands off the handlebars and with no need to touch the screen of the device used to drive the MD.

The device plugs into the MD via a Mini USB cable that is inserted into the socket dedicated to the RPM sensor. In order to use this accessory it is necessary to have the ANT +RPM sensor .

ACCESSORIES

TABLET SUPPORT

This accessory gives support for the tablet or smartphone used to drive the Magnetic Days. The device is easily screwed into the handlebar of the bicycle. The accessory is supplied with an adhesive non-slip pad that ensures the stability of the devices, thus avoiding the risk of them falling fall while using the Magnetic Days.