# **ProMystic MD Mini**

Thank you for purchasing ProMystic's MD Mini. You can now carry MD with you and be ready to perform at a moments notice. Very small footprint and you can carry it right on your keychain.



### What you receive

MD Mini Cube Electronic transmitter Battery (CR1225 or BR1225) Carabiner Hook Operation Frequency: 433.92 MHz

Modulation: ASK

**Key Features** 

Very small package and easy to cary
High Strength plastic enclosure
Real Rubik's 2.5M rub laser cut stickers
Programmable 'Lock' Mode with no on/off switch or magnets
Very long battery life
Over 30 feet of range

MD Mini is Built with Quality to Last a Lifetime www.promystic.com

#### The Receiver

#### How to turn it on and off

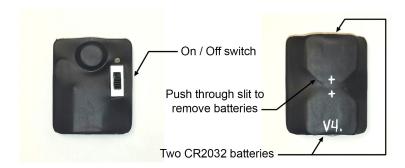
Slide the on/off switch. (See photo, below left.) When you switch the receiver on, it will vibrate for one second, letting you know it is activated. It does not vibrate when you switch it off.

#### How to install batteries

The receiver comes with two CR2032 batteries already installed. When the batteries are drained, the receiver will give one long, weak buzz, or just stop working. You'll notice that the range also decreases when the battery is low.

To install new batteries:

- Remove the old battery by pushing it out of the battery holder with a non-metallic object a toothpick, pencil, or corner of a credit card.
- Look for the "+" indicator on the battery, and hold it with that side toward you. Slide it into the battery holder. (See photo, below right.)



### **Battery tips**

Good batteries will give you about ten hours of active performance time. I recommend Panasonic, Sony, Energizer, or Renata. You can buy them online for less than \$1 apiece. I get my batteries at www.digikey.com. Keep new batteries on hand, storing them so they don't contact each other or other metal.

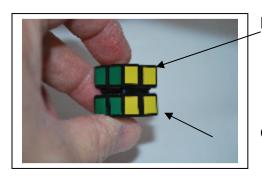
You should keep the receiver off when you're not using it, or the battery will drain. You do not need to remove the batteries.

If you're performing for more than an hour, keep the receiver turned off as much as possible. Leaving it on for hours drains the batteries quickly. Using it for ten minutes at a time will give you much better battery life, because this allows the lithium batteries to recover from the load.

### **Theory of Operation**

#### Open the cube

The MD Mini is made to look seamless. It is opened by pulling the cube with the hands from the '3' side and the '4' side. This means to pull the red side away from the orange side. This is meant to be difficult for a spectator to do while performing.



Red on top

Orange on bottom

#### <u>Installing the Battery</u>

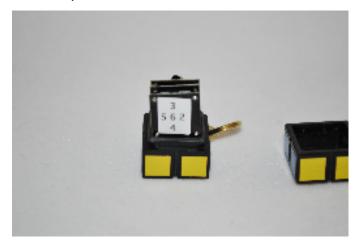
You should first install the battery before installing the transmitter into the plastic cube. There are two programmable features that can only be programmed **ONLY** when you install the battery. You can set the features each time you install the battery. One is the 'Lock' feature. The lock feature allows you to dial a code with the cube to shut it off. This allows you to carry the cube around and conserve battery power since it will not unexpectedly turn on. The second feature is to program the 'frequency'. If you have purchases any ProMystic product it is set to the 'A' frequency. I have made special receivers on the 'B' frequency. The cube defaule is 'A' frequency, but you can set it to work on the 'B' frequency.

It is very easy to set the modes. This is done when you install the battery. When you install the battery you get a series of initial signals or buzzes.

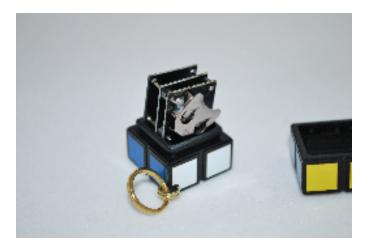
- 1) The first buzz is ignored
- 2) If the second buzz is a '6', then you ENABLE the LOCK feature, any other number disables it.
- 3-4) If the Third buzz is a '6' followed by the fourth buzz a '1', then you set the cube to 'B' frequency. Both A and B receivers will work for the first four buzzes. Once the frequency 'A' or 'B' is set, only 'A' or 'B' will work. If you do not dial a 6-1 code, the default 'A' frequency is set.

### Installing the Electronic Transmitter

Now, install the electronics as shown, with the sides as follows. They will press firmly into the plastic enclosure.



From the back or white side it will look like this. From the white side, the battery clasp will point up and to the right. Battery not shown.



The transmitter should press firmly into the plastic enclosure. It should seat flush so the cap will sit flush as well.



View from the back



Now snap the enclosure shut



#### **How the Codes Work**

Each cube has six sides. The transmitter inside sends out one to six pulses, according to which side is on top. The receiver vibrates or "buzzes" in response, telling you what you need to know.

The cube is made to look identical to a puzzle cube, the same colors in the exact same locations.

The codes are easy to remember in the English language. 1-white (sounds like), 2-blue (sounds like), 3-red (3-letters in red), 4-orange (sounds like), 5-green (5 letters in green), 6-yellow (6 letters in yellow).

# of Buzzes	Colors
1	White
2	Blue
3	Red
4	Orange
5	Green
6	Yellow

### <u>Tips</u>

- 1) The cube must be held level (i.e., flat on a hand or table) to give an accurate reading however, it is slightly forgiving and even if tilted up to 15 degrees from level, the cube will still give a correct read. A cube tilted more than 15 degrees may read the next closest side, though, which would leave you uncertain. To avoid this, manage your spectators and show them how to hold the cube (i.e., flat).
- 2) If a spectator turns the cube to a new side, the receiver must finish reporting the current number before it reports the next number. It won't go through ten repeats, but will finish its current sequence of buzzes, then change to the new number.

## Active, Sleep, Deep Sleep, and LOCK Modes

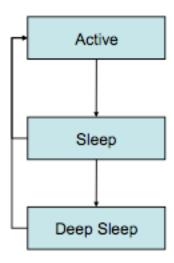
With a battery installed, the cube is always "on." To conserve battery life, the cube has four modes: active, sleep, deep sleep, and lock.

Active: When the cube is turned to a new side, it will transmit the code for that side ten times.

Sleep: After transmitting ten times, the cube will go to sleep. At this point it will transmit only if turned to a new side. This approach not only preserves battery life, but also lets you continue your routine without all the buzzing in your pocket. When a new side of the cube is selected, the cube will go active within 4 seconds and transmit ten times.

Deep sleep: If the cube isn't moved for about 15 minutes, it will go into deep sleep. The cube sleeps for 30 seconds at a time, then briefly checks to see whether it has been turned. When the cube is turned, it will wake up within 30 seconds and go into the active state. When the cube is not in use, it stays in deep sleep to conserve battery life.

Lock: In this mode the cube will not wake up until it receivers a special code. To put the cube to sleep, dial the cube 1-2-3-4-5-6. You must enable the 'Lock' mode while installing the battery to enable this feature. It is used to lock the cube off for travel with the cube. To unlock the cube, turn the 6 side up. Wait for the '6' signal and then dial a '1' followed by a '6'.



## **IMPORTANT WARRANTY**

Promystic products are warranted (i) against defects and workmanship and (ii) that when properly used, will execute their programmed instructions, for a period of 1 year from the date of product purchase. We will, at our option, repair or replace Promystic products that prove to be defective either upon your receipt or though normal usage.

If a defective Promystic product has been obsolete by us or is no longer in production and deemed to be non-repairable, we will, at our option, provide an equivalent product or system or provide a trade-in credit.

WE DO NOT WARRANT THAT THE OPERATION OF A PROMYSTIC PRODUCT, ITS FIRMWARE AND HARDWARE, WILL BE UNINTERRUPTED OR TOTALLY ERROR FREE.

#### LIMITATIONS OF WARRANTY

The foregoing warranty shall not apply to defects resulting from maintenance performed by anyone other than us, modifications made by you or any third party, misuse, abuse, neglect, accident, repair, improper installation, alteration, mishandling, operation outside the environmental specifications for the product, or improper settings or maintenance.

#### **EXCLUSIVE WARRANTY**

THIS WARRANTY WILL CONSTITUTE OUR SOLE AND EXCLUSIVE LIABILITY AND YOUR SOLE AND EXCLUSIVE REMEDY FOR BREACH OF OUR PRODUCT WARRANTY, AND WE WILL HAVE A REASONABLE TIME IN WHICH TO PROVIDE THE REMEDY. YOU ACKNOWLEDGE THAT THIS WARRANTY SHALL BE IN LIEU OF AND TO THE EXCLUSION (TO THE FULLEST EXTENT PERMITTED BY LAW) OF ANY OTHER WARRANTY, CONDITION, TERM OR UNDERTAKING OF ANY KIND, EXPRSS OR IMPLIED, STATUTORY OR OTHERWISE, RELATING TO OUR PRODUCT INCLUDING (WITHOUT LIMITATION) ANY AS TO THEIR CONDITION, QUALITY, PERFORMANCE OR FITNESS FOR A PURPOSE. IF YOU ARE A CONSUMER THE ABOVE ALL SHALL NOT ACT TO EXCLUDE YOUR STATUTORY RIGHTS.

**Model: MDMINI** 

FCC ID: 2ARYL-MDMINI

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

**CAUTION:** Modification or changes to this equipment not expressly approved by the manufacturer may void the user's authority to operate the equipment.

**NOTE:** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- —Reorient or relocate the receiving antenna.
- —Increase the separation between the equipment and receiver.
- —Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- —Consult the dealer or an experienced radio/TV technician for help.

#### RF Exposure Information

The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.