MARCO POLO™

Pet Monitoring, Tracking and Recovery System

Operating Instructions

Locator Model ETP-LOC-01
Tag Model ETP-TAG-02

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. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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.

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) this device may not cause interference, and (2) this device must accept any interference, including interference that may cause undesired operation of the device.
Cet appareil s'accorde avec Industrie Canada licence-exempte RSS standard. (1) cet appareil ne peut pas causer l'intervention, et (2) cet appareil doit accepter de l'intervention, y compris l'intervention qui peut causer l'opération non désirée de

This Class【B】digital apparatus complies with Canadian ICES-003.
Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.

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Limitation of Liability

The Marco Polo system (the Product) is designed and manufactured with the intended use as a pet tracking assistant. The Product is a supplement to the normal precautions a reasonable pet owner would take to ensure the safety and confinement of their pet. This Product is not a substitute for proper fencing in good repair, the use of leashes, tie-outs or any other measures typically used to restrain pets and keep them out of harm's way. All owners of pets are encouraged to seek the advice of a trained professional regarding the proper enclosure and environment for their pet and to comply with all applicable municipal laws regarding pet ownership.

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THIS PRODUCT IS NOT INTENDED FOR USE ON PEOPLE OR FOR ANY PURPOSE WHERE INJURY OR LOSS OF LIFE MAY RESULT FROM THE USE OR MISUSE OF THE PRODUCT.

Important Note: To avoid possible injury, the American Kennel Club (AKC) recommends that ALL collars and tags of any kind be removed from pets prior to crating.

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Introduction

The Marco Polo pet monitoring, tracking and recovery system is designed to help you keep your pet safe, 24 x 7, anywhere you choose to take them, with the maximum comfort for your pet and the least hassle and expense for you.

The Marco Polo system consists of a handheld device called a "locator" and one or more small, lightweight devices called "tags" that attach to your pet's collar. As in the popular swimming pool game, the Marco Polo locator sends out signals to the tag on your pet's collar asking, "Where are you?" The tag on your pet answers back, "Here I am!" This allows Marco Polo to keep track of your pet, even when you are not around. If your pet wanders, Marco Polo's tracking feature allows you to quickly find their location and bring them safely back home.

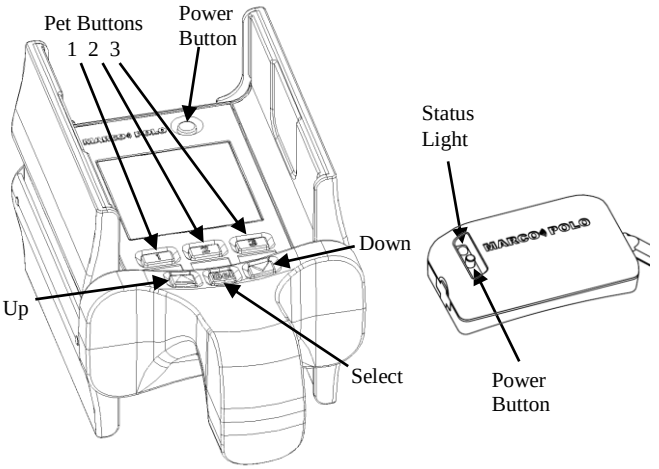
The Marco Polo system has two basic modes of operation:

- In the *Monitoring* mode the locator continually checks on your pet's whereabouts to ensure that they have not wandered outside a boundary area that you have selected for them. If the pet is found to be out of its designated safe zone then the locator will notify you with an alarm. Up to 3 pets may be monitored at one time with individual safe zones and alarm conditions configurable for each pet. For use around the home, it is best to leave the locator turned on, plugged in and in monitor mode at all times. This will provide the longest battery life in the collar tag, a warning if a tag needs to be charged, and an alarm if a pet wanders.
- In the *Tracking* mode the Marco Polo locator searches the surrounding area for a wandering pet and, once found, displays the approximate distance and direction to their location.

The Marco Polo system is designed to give you years of trouble-free and expense-free service. It can operate anywhere, from urban areas to the most remote locations, making it perfect for active pet owners who wish to bring their pets along.

Please take the time to review the enclosed instructions and practice with your new system so that if the day comes when your furry friend is found to be missing you can quickly return them to safety.

User Controls and Displays



Locator:

Power Button – Turns the Locator on and off.

Pet Buttons – One button for each of up to 3 pets. Pressing button changes the mode for that pet's tag from Idle to Track to Monitor.

Up Button – Moves the selection cursor up one position.
Select Button – Selects the item currently flashing.
Down Button - Moves the selection cursor down one position.

Tag:

Power Button – Hold down to turn power On/Off.

Status Light – Indicates On and Off status and battery charging status.

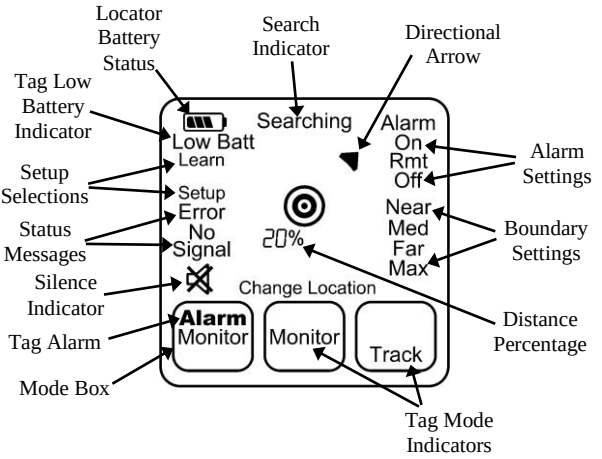


Figure 2
Locator Display Elements

System Setup

Battery Charging

The Marco Polo pet monitoring and tracking system consists of two parts: a handheld "Locator" unit and up to three "Tag" units that can be attached to your pet's collar. Prior to first use, the internal lithium rechargeable batteries must be charged with the included battery charger adapter. Also, if the battery is ever removed from the locator, the charger must be connected at least momentarily to reset it. Figure 3 shows the location of the charging jacks.

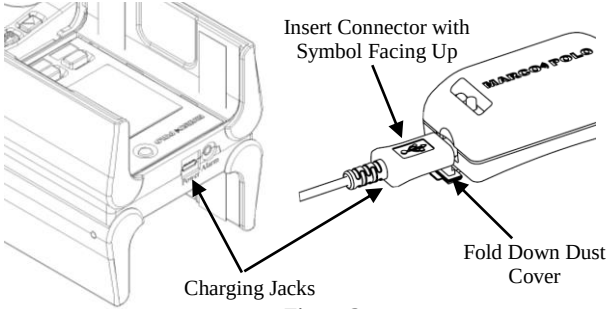


Figure 3
Location of Charging Jacks

Charging the Tag – fold down the protective dustcover on the tag and insert the rectangular micro USB connector into the charging port. The USB symbol should be facing up as shown in Figure 3. The USB connector on the other end of the cable can be connected to the supplied AC adapter or to any powered USB source, such as a computer, auto adapter, rechargeable battery pack, etc.

Although the tag will charge when turned on or off, if you turn it on you can see the charging status. To turn the tag on, press and hold the blue power button until the red light begins to flash. The tag's status light will flash once per second until the charge cycle is complete and then the light will briefly flash once every 10-seconds. The tag will not communicate with the locator while charging is in process. Charging a completely discharged battery will take 2 to 3 hours, partial charging can take much less time. Make certain to securely replace the protective rubber cover after charging to keep dirt and debris out of the connector - the rubber cover has nothing to do with the waterproofing of the tag.

Charging the Locator – insert the round Micro USB plug into the connector marked "Power" on the front of the locator. The USB connector on the other end of the cable can be connected to the supplied AC adapter or to any powered USB source, such as a computer, auto adapter, rechargeable battery

pack, etc. The locator's battery status indicator will show the charge level increasing during the charge cycle and then the indicator will show full when charging is complete. The locator can be used in any mode while connected to the charger. It will not harm the battery to keep the locator plugged into the charger all the time for long-term monitoring of your pets and will ensure that the battery is fully charged in the event you need to use the locator to track a pet.

Tag Attachment

Please refer to the fold-out instructions for fitting the fabric tag holder to your collar or harness for the first time. The holding straps should be trimmed and the trimmed ends rounded as shown in the instructions to provide the maximum comfort for your pet.

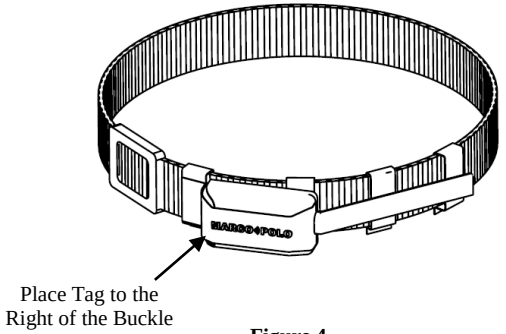


Figure 4
Attaching the Tag Holder to a Collar

When attaching the tag to a collar, place the body of the tag towards the buckle of the collar. You want the tag's antenna to lead up the side of your pet's neck when they are wearing the collar.

The collar holder is designed to be used with collars ranging in size from 3/8" (9mm) wide and 3/32" (2mm) thick to 1.5" (38mm) wide and 1/4" (6mm) thick. The collar length must be 6.5" (16.5cm) or greater. Note that thicker collars can be accommodated if they are not also the maximum width, such as

a 1/2" (12mm) diameter round collar for example. If you are choosing a new collar for your pet then select the widest and thickest collar that will fit them comfortably as this will provide the most secure attachment for the tag. If you wish to remove the collar tag from your pet each day, such as when they are indoors or crated, then it is sometimes best to place the Marco Polo tag on a second collar and remove the entire collar from the pet. The collar holder is not designed to be removed from the collar on a frequent basis.

A note about safety: There has been much discussion in the news about the safety of radio frequency devices, such as mobile phones, and you may be concerned about the safety of attaching a device that transmits radio frequencies to your pet. Rest assured that the Marco Polo tag outputs extremely small amounts of radio frequency energy - amounts so low that they are considerably under the threshold that would require any safety review. This is also why the Marco Polo tag can run for many weeks on a single charge of its small battery.

Note: To avoid possible injury, the American Kennel Club (AKC) recommends that ALL collars and tags of any kind be removed from pets prior to crating.

Powering On the Locator and Tag

To power on the locator: Press and hold the Power button (see the User Controls and Displays section for the location of the power button) until all of the display segments flash and the locator beeps twice.

To power on the tag: Press and hold the power button until the red light flashes. The number of flashes indicates the tag's battery charge status. Three sets of 3 flashes (3-3-3) means fully charged, 3 sets of two flashes (2-2-2) is partially charged and 3 flashes (1-1-1) indicates the tag requires charging before further use. Note that if the Marco Polo Locator is monitoring or tracking the tag and the battery level drops to the 1-1-1 level you will see a "Low Batt" indication on the locator's display. After the battery status flashes are finished, the red light will flash briefly once every 10 seconds.

To turn the tag Off: Press and hold the power button until you see the red light come on. If the tag's status light shows one long flash, it is turning off; if it shows 3 or more flashes it is going on as described above. If the tag is

"busy" during one of the brief 10-seond flashes, it may not respond to the off command. If this occurs, release and press the power button again until the red light turns on. When the tag is on the light will flash briefly once every 10-seconds, when it is off no flashes will be seen.

Pairing a Tag and Locator

If you purchase the Marco Polo locator with one included tag then no pairing operation is needed and you may proceed directly to the "Tracking a Pet" section below. If you purchased additional tags or if you have received a replacement tag then you will need to transfer the unique ID code of the tag into the locator before the tag can be used. To do this, first turn the tag off but keep it nearby. Next, press and hold the Select button until "Setup" and "Learn" appear on the display. Press the down arrow button so that Learn is flashing and then press select to enter the learn mode. Now press the Pet button (1, 2 or 3) that you wish to assign to the new tag. "Searching" will now flash on the locator.

Once the locator is in learn mode you have 20 seconds to turn the power on to the tag you wish to assign to the selected Pet button on the locator. If the tag and locator are successfully paired then the locator will beep two short beeps and the Learn display will disappear. If you wait too long to turn the tag on or if there is an error you will hear one long beep and the locator display will say "No Signal". If this happens, turn the tag power off again and repeat the above process until the two beeps are heard.

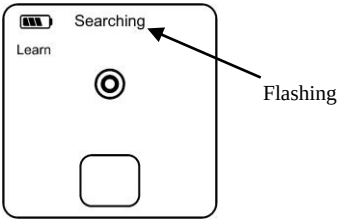


Figure 5
Learn Mode Display
(Pet 2 Shown as an Example)

Labeling the Pet Buttons

To help remember which pets are assigned to which of the three Pet buttons on the locator, you may fill in the included pet button labels and place them in the label wells under each button. You may wish to abbreviate the pet's name or just use the first letter of the name to write on the label.

Rescue Group Searching

One locator can teach a single Tag ID to any number of other locators – even if the pet is lost and you do not have access to the tag. This is useful if two or more searchers will be looking for the same lost pet. To do this, put the second locator (the one receiving the Tag ID) into Learn Mode, just as you would in the pairing operation above, then within 20 seconds turn on the first locator, the one that has the ID you wish to transfer. The first locator will now prompt you for which of the 3 Pet ID's you want to transfer by flashing its 3 select boxes. Press the Pet button that you wish to transfer to the second locator; the second locator should beep twice to indicate it has received the ID. You may repeat this operation with any number of locators, one at a time. Note that the locator receiving the Tag ID does not have to use the same Pet button assignment as the locator sending the ID. For example, your lost pet may be assigned to Pet 1 on your locator but your friend may wish to transfer that Tag ID into Pet 2 or 3 on their locator.

Backlight

Each time you press a button on the locator the display's backlight will come on for 5 seconds. A short press of the Down Arrow button can be used to turn on the backlight for 5 seconds when needed without affecting the search or tracking functions. If you need the backlight to be on for a more extended time, short presses of the Power button will latch the backlight on or off.

Sounds

The locator sounds various beep tones to indicate key presses, range indications, monitor alarms and error conditions. To silence all beep tones, press and hold the Down Arrow button on the locator for 2 seconds - the display backlight will come on to indicate you have held the button long enough. To reactivate the beep tones, press and hold the Down Arrow button again. Note: audible alarms for monitoring may also be individually configured for each pet, see the section on Monitoring Setups.

Tracking a Pet

Searching

Once your Marco Polo tag is turned on and placed on the pet's collar you may track their whereabouts at any time. To do this, simply turn the locator on and press the Pet button over the name of the pet you wish to track. When you do this the Track icon will begin to flash as shown in Figure 6.

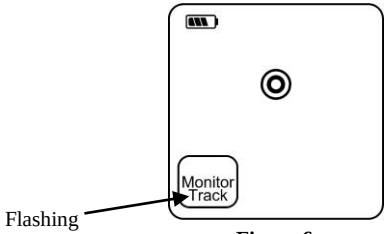


Figure 6
Starting Track Mode
(Pet 1 Shown as an Example)

Once the Track icon is flashing you can either start the search process immediately by pressing the Select button or you can simply wait 5 seconds and the locator will enter track mode automatically. The first thing the locator does in tracking mode is send out a signal to get the tag's attention, a process called "searching". Figure 7 shows the appearance of the display in searching mode.

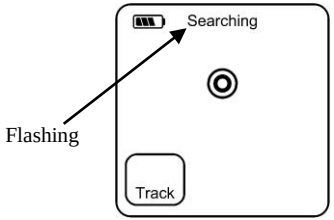


Figure 7
Searching for Tag 1

This searching transmission will continue until one of these events has occurred:

1. The tag responds
2. The operation is canceled as described below
3. Two minutes have elapsed without a response from the tag

The first time you attempt to search for your pet's tag do so with the pet nearby, somewhere in your house or yard where you know the signal will be received. This way you can practice with the locator and know what to expect if an emergency arises. Normally, the tag will respond to the searching signal within 30 seconds but in some cases it can take up to a minute. If your pet's tag does not respond within a minute then make certain it is turned on and review the information on "Pairing a Tag and Locator" above if necessary. If the searching operation times out after two minutes the locator will begin beeping, the Searching icon will disappear and the display will show "No Signal". Pressing the select button again will restart the search operation for another 2 minutes. Once the tag does respond, the locator will beep and the display will appear as shown in Figure 8.

If you wish to cancel a searching operation then press the Pet button twice until both Track and Monitor disappear from the display.

Tracking

Once the searching operation has been successful the tracking display will appear as shown in Figure 8.

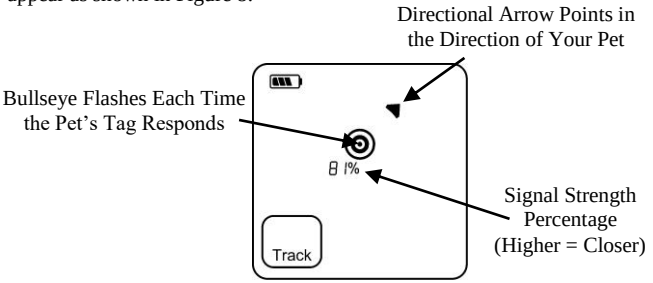


Figure 8
Tracking Display

When the tracking mode is activated the locator communicates with your pet's tag about once every 5 seconds. When your pet's tag responds, the following information is updated on the display:

1. The "tag" icon flashes to show that your pet's tag responded to the locator.
2. The signal strength received from the tag is measured and converted to a percentage that ranges from 0% to 99%. 99% means you are very near your pet, 0% means you are far away.
3. The signal strength received from the tag is also displayed as a number of "bars" (like the signal strength bars on your cell phone). The more bars that are showing the closer you are to your pet.
4. If the locator is in an area where there are not too many obstructions, a directional arrow will display showing the direction of your pet.

In addition to the displayed information listed above, the locator will sound a number of beeps each time your pet's tag responds. A single beep means that your pet is not in the immediate vicinity, two beeps means fairly close and three beeps indicate the pet is in close proximity. You can use this audible feedback for hands free searching while driving or to allow you to concentrate

on your footing when searching at night. To turn the beeping off, press the Down button for 3 seconds.

To get the best results when tracking, always hold the locator out in front of you, waist high, level to the ground – like you are carrying a pan of water.

If you and/or your pet are moving then the signal conditions are constantly changing and the information on the tracking display may be rapidly changing as well. For example, if your pet moves behind a large obstruction, such as a large building or a hill, the signal strength may fall off quickly or become too low to be received even though your pet has not moved very much further away. Also, depending on obstructions and objects that might reflect or block the signal coming from your pet's tag, the locator may not be able to calculate the direction to the pet. These conditions will be reflected on the tracking display as shown in Figure 9.

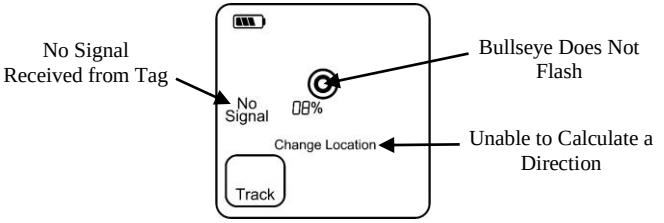


Figure 9
Tracking Error Messages

No Signal - If a signal is not received back from the tag, the tag icon does not flash and the No Signal message is displayed. This condition can occur from time to time under normal conditions and is not a malfunction. The locator will keep trying to communicate with the tag. If 10 attempts in a row to communicate with the tag fail (about 50 seconds) the locator will automatically restart the searching operation and the display will appear as in Figure 7. If the searching operation is unsuccessful the locator will emit one long beep and wait for you to press Select to resume searching for the tag again.

Change Location - If the locator does receive a signal back from the tag but cannot calculate a direction to the tag the Change Location message will be displayed to remind you to move the locator to a better location (see the Tracking Tips section for more information.) The Change Location display will only appear when the locator is unable to calculate a direction after four consecutive attempts. As long as a response is received from your pet's tag the signal strength information will be updated, even if a direction cannot be determined.

As you move along in your search for your pet it is normal to see No Signal or Change Location pop up occasionally - the system is designed to accommodate these situations. Continue along the path of the last displayed direction or the path that gives an increasing signal level if no direction is displayed.

Exiting Searching/Track Mode

To exit searching mode, press the Pet button three times to enter idle mode (both Track and Monitor are off.) To exit track press the Pet button twice to enter idle mode. Alternatively, if you are finished using the locator you can simply turn it off to exit either mode, it is never necessary to change anything on your pet's tag; it stays on all the time and changes modes automatically.

Tracking Tips

If you are out in an open area with few houses or hills and your pet is within range of the locator then tracking is easy – just start the tracking mode and follow the arrow directly to your pet. If you are not careful you will run into them or step on them! However, if you are in a crowded residential area and/or an area with many hills, the radio signals lose their power much more quickly and are blocked by some objects while being reflected off others. In these circumstances you will need to master some techniques. Here are some tips on tracking that will help you find your pet quickly:

1. When searching by car, drive slowly with the locator in Searching mode and listen for the beeps to begin. If possible, make a loop around the neighborhood. If you do not get any response from your pet's tag then make larger loops or crisscross the area to widen the search. Keep pressing Select to restart the search when you hear the long beep indicating the locator has timed out (about once every 2 minutes.)
2. When searching on foot, if the pet is not within range at first, follow the direction you usually go when you walk your pet. Restart the

Searching mode by pressing the Select button when necessary. Moving to higher ground when possible will extend the range of the system

3. Once communications with your pet's tag have started (i.e. the locator is beeping once every 5 seconds) use the directional display to determine in which general direction to proceed. If you cannot get a directional arrow take the following steps:

   a. Make certain you are holding the locator in front of you, waist high and level to the ground.

   b. If possible, move to a clear, unobstructed area away from buildings, automobiles, hills, etc. Higher ground is always better if available.

   c. If you do not get a reading facing one direction, turn 90 degrees and try again. Once you get a directional arrow, always turn to face toward that direction, with the arrow straight ahead. Walking away from the tag will not produce good results.

   d. When you first get a directional indication it is best to qualify it to make certain that you are moving towards the tag and not away from it. To do this, turn your body so that the arrow points straight ahead now turn 90 degrees and check to see if the arrow still points in the same general direction. If it does then that direction is correct. If the arrow now points in the opposite direction of what it did originally, turn your body to face that direction, if the arrow confirms that direction then it is the correct path to your pet.

   e. When far away from your pet the directional arrows will show the general path to take to get closer (e.g. up the street vs. down the street). If the pet is far away you know that its direction from your location cannot change quickly so don't try to gauge each step based on the arrow, just move along the road or path until you see a consistent change in the indicated direction. Verify that the signal strength is generally increasing (more signal strength bars, higher percentage readings and/or more beeps) as you move along.

   f. When you are close to your pet the directional information will become much more sensitive. For example, if your pet was hiding in a bush just to the right of the path you are walking on you might see the arrow point forward as you approach. Then 5 seconds later

the next reading may point directly to the right because you are now next to the bush. If you kept walking, 5 seconds later the arrow would be pointing behind you because you have now passed the bush. This will allow you to find the exact location of your pet.

g. When driving you will generally be using the beep tones as your guide while you search in a "hotter/colder" fashion. When you get to intersections, hold the locator up above the dashboard and see if you can get a directional arrow to guide you which way to turn. If not, choose a direction and note if the signal is getting stronger (more beeps) or weaker (fewer beeps). If you drive outside the range of the system then after 10 tries of not being able to communicate with the tag (about 50 seconds) the locator will automatically start searching for the tag again to restart communications. If this happens, turn around and go back to the area where you last had contact with the tag.

h. It is generally fastest to stay in the car until you have found the point on the road that gives you the highest number of beeps. Proceed along while watching for your pet until the number of beeps goes down and then go back to where you received the highest signal and then proceed on foot. Always stop and proceed on foot if you hear three beeps, you are very close to your pet!

Follow safe driving procedures at all times when using the system while in a vehicle. Use hands-free operation of the system and, when possible, have a companion with you to operate the locator.

If an emergency arises and you are not certain of the state of the locator, turn it off and back on then select the pet you wish to track. The tag will always automatically return to the mode where it is responsive to the locator's searching signal.

Monitoring a Pet

One of the most unique and powerful features of your Marco Polo system is the ability to monitor your pets 24 hours a day to ensure that they have not left your yard or other designated area. To get the most out of the monitoring features of the system you will need to customize the settings for your individual situation. After this is done you will not need to adjust the settings unless you change locations or wish to alter the way Marco Polo notifies you about a missing pet.

Monitoring Setups

The Marco Polo system allows you to select individual boundaries for up to three different pets as well as select the type of notification you will receive when the pet wanders outside of that boundary area. To enter the Setup mode turn the locator on and then press and hold the Select button until Setup begins flashing on the display as shown in Figure 10. Press select again to enter setup mode.

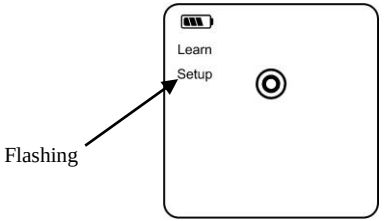


Figure 10
Starting Setup Mode

The 3 mode boxes will now flash, prompting you to press the Pet button you wish to set up. Press Pet button 1, 2 or 3 to continue. The display will now flash the last stored setting (or factory default) for the alarm mode as shown in Figure 11.

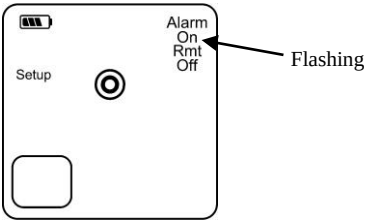


Figure 11
Setting Alarm Mode for Pet 1

Press the Down Arrow button to cycle through the alarm mode selections:

On - When the pet is found outside of the designated area for 2 consecutive monitoring checks (40 to 80 seconds) an audible tone is generated by the locator.

Remote – An audible tone is generated by the locator plus, after an additional monitoring check shows the tag is still outside the designated area, the external alarm output is activated. Please check eurekaproducts.com to see the available accessory devices that can be used with this output.

Off - Only the ALARM indication is shown on the locator's display. No audible or external alarm is generated.

Once you have made your alarm mode selection, press the Select button, the display will now show the last stored (or factory default) boundary selection as shown in Figure 12.

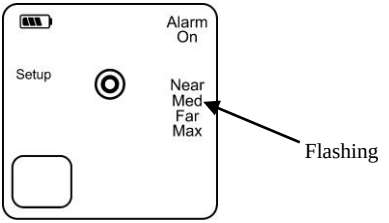


Figure 12
Setting Monitor Boundary for Pet 1

Press the Down Arrow button to cycle though the boundary selections. In general, you want to choose the smallest boundary area that does not generate false alarms as your pet moves about or takes a nap on top of the collar tag. These are the available boundary selections:

Near – Below 60% signal strength. Used when the pet is intended to be very close to the locator at all times. Examples would include an inside pet in a small to medium sized home, an RV, campsite, cabin or other fairly confined area. This setting may also be suitable for a patio home or condominium with a small outside area.

Med – Below 40% signal strength. This setting will work for most homes with two stories and a medium to large yard area. This is the factory default setting.

Far – Below 20% signal strength. This setting is for homes with very large yards or yards with obstructions, hills, etc. that may block the signals from the tag.

Max – No signal. In this mode the locator must lose communication with the tag to activate an alarm. Use this setting in very large areas or in urban settings where large buildings may block the signals from the tag.

Once you have made your boundary selection, press the Select button to store your settings and exit setup mode. If you have more than one pet you wish to monitor then repeat the setup process for each pet. The monitoring setups are stored permanently in the locator and will not be lost even if the battery is removed.

Monitoring a Single Pet

To begin monitoring your pet and receive alarm notifications if they move outside of your selected boundary area, press the Pet button over the pet's name twice. This will cause the word Monitor to flash. You can press Select to start monitor mode immediately or simply wait 5 seconds and the locator will enter monitor mode automatically. Once the monitor mode has been started the display will appear as shown in Figure 13.

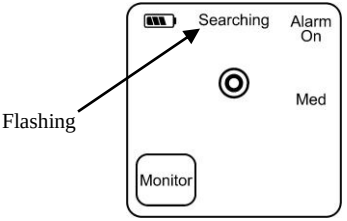


Figure 13
Starting Monitor Mode

Monitor mode begins just like tracking mode by searching for the selected pet's tag. Once the searching operation is successful (10 to 30 seconds) the display will appear as shown in Figure 14.

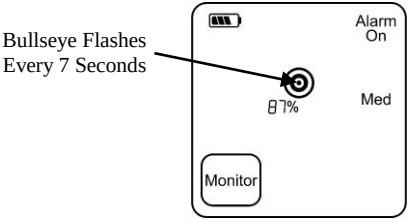


Figure 14
Monitor Mode – Pet 1

In monitor mode three things are different from tracking mode:

1. The locator only communicates with the tag once every 40 seconds rather than once every 5 seconds.
2. The direction information is not calculated or displayed by the locator.
3. The received signal strength from the tag is compared to the boundary you selected and an alarm is issued if the pet moves outside of that boundary. The alarm may be:
   a. Beeping only (On Mode)
   b. Beeping plus remote alarm activation (Remote Mode)
   c. Silent alarm. (Off Mode)

To turn the audible alarm off press and hold the Down Arrow button for 2 seconds. Each time you do this the locator will toggle between silent and normal mode.

If the monitored pet strays outside the selected boundary area and stays there for 80 seconds or more then the Alarm will be activated on the locator. The alarm display will appear as shown in Figure 15.

Figure 15
Monitor Mode
Pet 1 Outside Boundary Area

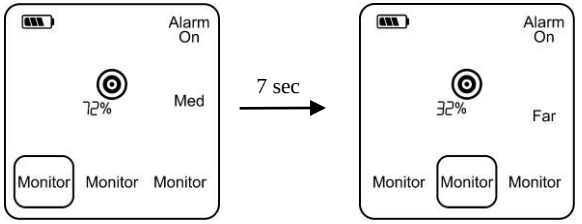
If the pet moves back into the boundary area the alarm will cancel automatically. If you wish to cancel monitor mode, press the Pet button once to clear the display and return to idle mode. If you wish to track the wandering pet then press the pet button twice until "Track" flashes and the locator will

transition directly to the tracking mode, this transition will take up to 40 seconds, during which time the display will flash “Searching”.

Monitoring Multiple Pets

The Marco Polo system can monitor up to three pets at one time. To do this you simply repeat the process of placing each tag into monitor mode one at a time by pressing the Pet button twice for each tag to be monitored.

When more than one tag is being monitored, the locator’s display switches between displaying the information for each tag at about a 7 second rate. The mode box indicates which tag’s information is being displayed. Figure 16 shows how the display might look when three tags are being monitored. First the locator will display the information for Pet 1 for 7 seconds then Pet 2, Pet 3 and back to Pet 1.



Status of Pet 1 Status of Pet 2

Figure 16
Monitoring 3 Pets

If a boundary alarm occurs for any pet, the Alarm notification will stay on for that pet regardless of which pet’s information is being displayed at the moment. Figure 17 shows an example of a display where Pets 1 and 2 have boundary alarms and the display is currently showing the status of Pet 3.

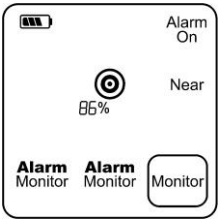


Figure 17
Monitoring 3 Pets
Pets 1 and 2 in Alarm

Switching Between Modes

You can transition a pet's tag directly from one mode to another by pressing its pet button until the mode you want (Track, Monitor or Idle) is indicated and then press select. You may cycle through the available modes as many times as you want as long as you press the pet button at least once every 5 seconds and don't press Select. Note that only one pet may be tracked at one time so if you move a pet's tag from idle to track or from monitor to track, any other active tags will disappear from the display so that you can concentrate on tracking the selected pet.

Low Battery Alarm

Each time the locator communicates with a tag, the tag sends back its battery's charge status to the locator. If the tag's battery is low then the "Low Batt" message will appear on the display and there will be one short beep each time the locator communicates with the tag. At the time that the low battery alarm is displayed the tag still has enough battery capacity to stay in monitor mode or idle mode for about one more week or track mode for about 8 hours. If you are not using the locator to monitor your pet(s) then you should check the battery status of each tag once a week by turning the tag off and back on and observing the number of times the status light flashes when the tag starts up. A 1-1-1 flash means a low battery condition, 2-2-2 flashes is half charged and 3-3-3 flashes indicates a fully charged battery. You can also check to make certain the tag's battery is not low by putting it into track mode from the locator and checking to see if the Low Battery icon is shown on the locator's display.

Testing the System

It is a good idea to become familiar with the operation of the Marco Polo system before you get into an emergency situation where a pet is missing and referring to an operator's manual is the last thing on your mind. It is also important that each member of the family has a basic knowledge of how to use the tracking mode in case they are called upon to search for a missing pet.

On the bottom of the locator you will see some basic instructions titled "To Find a Lost Pet". Generally, these instructions are enough to allow even a novice user to successfully recover a pet. **At a minimum, make certain that everyone who might use the system in an emergency knows where to look for these instructions!**

Testing Track Mode

When getting familiar with the tracking mode there are a few things to keep in mind:

1. The tracking tag is made to be *on the pet***.** This may not be obvious but it is very important. Having your partner walk around with the tag is not going to produce the same results as the pet wearing it. The antenna is designed to work properly when next to the pet's skin and will be in the correct orientation when the pet is standing with their nose on the ground (something your partner may not be able to do!)
2. Walking away from the tag is not going to simulate a search for your pet. Hiding the tag yourself and then using the tracking mode as you walk away from it is not going to give good results. In this situation your body is blocking the direct path of the signal from the tag. To practice tracking you should have an assistant lead the pet away and then set out to find them as you normally would. Refer to the "Tracking Tips" section of this manual.
3. Don't try to gauge every step based on the displayed information. As you move along in your search it is normal, and unavoidable, that the signal strength and directional information will fluctuate somewhat. Occasionally you may see a directional indication that is pointing in the wrong direction. You need to use the displayed information as a general guide as to which way to go and as verification that you are getting closer to the target, not further from it.

Testing Monitor Mode

Generally, the goal of testing the Monitor mode is to find the correct boundary setting for your individual situation and verify that the alarm system is working correctly. Here is some helpful information to make this test go more smoothly:

1. Standing in a field while your partner walks away from you holding the tag is not going to work. For all the reasons mentioned below, this will not give you any useful information.
2. The boundary alarm is based on signal strength. Many factors can influence the signal strength that the locator receives back from the tag on your pet besides the distance. Walls, trees, the pet napping on top of the tag, all have an impact on the received signal. The recommendations for boundary settings are based on the locator being inside and the tag, on the pet, being outside.
3. The right setting is one that doesn't give false alarms. Recognize that the appropriate boundary setting must allow the pet to go on about its business anywhere in "safe area" without setting off the alarm and this may mean a setting that is somewhat beyond the boundary of your property when the pet is walking away.
4. The tag must be *on the pet*. Because the signal strength will be different when the tag is on the pet vs in your pocket or holding it in your hand – the only meaningful test is when the tag is on the pet and the pet is on the ground.
5. There is a time element. The alarm on the locator sounds when the signal strength from the tag on your pet is below the boundary limit for 2 consecutive checks. The locator checks on the tag once every 40 seconds. Depending on the timing of the checks the pet may need to be out of the boundary area for 40 to 80 seconds for the alarm to sound. If one measurement is below the limit and the next one is above the limit the alarm will not sound – 2 consecutive measurements, taken 40 seconds apart in time, must be below the limit to activate the alarm.
6. Verify the limits using Track mode. The best way to get a starting point for your boundary settings is to put the locator in track mode. With the locator sitting where you normally plan to keep it, such as on the kitchen counter, have a second person lead the pet away while you

observe the signal strength readings on the locator (don't stand in the window holding the locator, that is not the same!) When the signal level drops to consistently below 60%, that is the Near boundary, below 40% is the Med boundary, below 20% is the Far boundary and when the pet is so far away from the locator that you see "No Signal" on the display that is the Max boundary. Choose and program the setting that is best for your situation.

7. Verify the alarm activation in Monitor mode. Now that you have established where the boundary is, place the locator into monitor mode with the pet beyond the boundary. Within 80 seconds the alarm will sound on the locator. If the alarm is not loud enough for your needs or if you wish to receive notifications when you are away from home, there are two accessories available that you can add to your Marco Polo system. One is a very loud external alarm and the other is a phone dialer that will call up to 4 phone numbers using a land-line connection (the dialed numbers may be cell phones) and deliver a voice message. You can see these products at www.eurekaproducts.com, go to Shop/Accessories.

8. Adjust as necessary for false alarms. If false alarms occur, try to take note of where the pet is at the time. It may be possible to move the locator to produce a higher signal from that portion of the house or yard that is causing the problem. If that doesn't work then you may need to bump up to the next higher boundary setting.

9. Be realistic. Marco Polo isn't intended to be a containment system, such as a buried-wire fence system. It is designed to give prompt notification that a pet has left the area you want them to be within. In most cases when a pet escapes its safe area it is moving pretty fast. The time required for your pet to move from a boundary line that is right at your property line to one that is 40 feet beyond the property line is probably only a few seconds. Very likely, the alarm on the locator will sound at exactly the same 40-second interval check with either boundary.

Troubleshooting

Problem	Solution
Tag or locator will not turn on.	- Connect battery charger. - Hold power button for 3 seconds.
Tag will not respond to locator in searching mode when close to the locator.	- Check that tag is turned on. - Wait 2 minutes for tag to return to search/receive mode. - Move tag further away from locator. - Turn locator off /on and try again. - Follow instructions for “paring” a tag and locator.
Tag will not respond to locator in searching mode when the pet is lost.	- Walk/drive around until the tag is within range of the locator. - Try to find high ground overlooking the search area. - Turn the locator off /on, wait 2 minutes to ensure the tag is in search receive mode, try again.
Monitor alarm sounds when pet is in safe zone.	- Increase boundary setting to the next higher setting (e.g. change Near to Med).
Monitor alarm is not sounding when pet is outside of safe zone.	- Wait up to 80 seconds for alarm to activate. - Decrease boundary setting. - Make certain alarm mode is not set to Off.
Tag is not switching between track and monitor modes.	- Wait up to 40 seconds for mode switching to complete.
Direction arrow is not shown when tracking.	- See the section on “Tracking Tips”
Signal strength display is erratic.	- Local obstructions may be blocking the signal sometimes and not others as you or the pet move around.

Specifications

Locator Specifications

Size	6”h x 3 ½”w x 1 ½”d
Weight	10 oz.
Battery Type	Rechargeable Li-ion
Battery Life	Searching Mode - 8 Hours Tracking Mode - 3 Days Monitor Mode - 3 Days
Range	Up to 2 Miles Line-of-Sight
Number of Pets	Up to 3
Alarms	Internal Audible Alarm External Siren Alarm (Optional) External Auto Dialer (Optional)
Weatherproofing	Light Rain

Tag Specifications

Size	2”h x 1”w x 3/4”d
Weight	0.8 oz.
Battery Type	Rechargeable Li-Polymer*
Battery Life	Idle - 15 days Tracking Mode - 3 days Monitor Mode - 45 days *
Attachment	Fabric Holder
Weatherproofing	Submersion in 3 feet of water for 30 minutes - IP67

* Note that you may greatly increase the tag’s battery life by keeping the locator in monitor mode. If you do not wish to receive the alarm notifications simply switch the Alarm Mode to “Off” as discussed in the Monitoring Setups section of the Marco Polo Operating Instructions.

Contact

For more information, latest available accessories or customer service contact us at: www.eurekaproducts.com

Warranty

90-Day Limited Warranty

Eureka Technology Partners, LLC warrants the enclosed product against defects in materials and workmanship under normal use and service for 90 days provided it is returned in accordance with this warranty. If defective, the product will be repaired or replaced at Eureka's option, at no charge, with dated proof of purchase. This warranty does not cover defects or damage resulting from: misuse, improper operation, unauthorized modification, or normal wear and tear.

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