



Pet Pace

PETS REMOTE MONITORING SYSTEM

USER MANUAL



Welcome to PetPace

Your New PetPace Remote Monitoring System

Your new PetPace Remote Monitoring System is an innovative tool that can be used to help you better monitor pet health. The PetPace Monitoring System has been designed to help detect health issues early, when they are preventable or more easily treated.

How it works

Sophisticated sensors, embedded in the PetPace Collar, continuously monitor a range of vital signs and activity patterns. Data is collected into the secure PetPace database. Using advanced clinical algorithms, the PetPace System analyzes the data and provides alerts when there is cause for concern. You can also visit the PetPace website at all times to see how your patient is doing.

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1. Introductory Information

1.1. Conventions



A warning sign -  , to give your attention to a situation that can cause physical harm to you or to the equipment.



A note sign -  , to emphasize an important note in the manual.

1.2. General Notes



PetPace remote monitoring system is not a medical device

2. Inside the Package

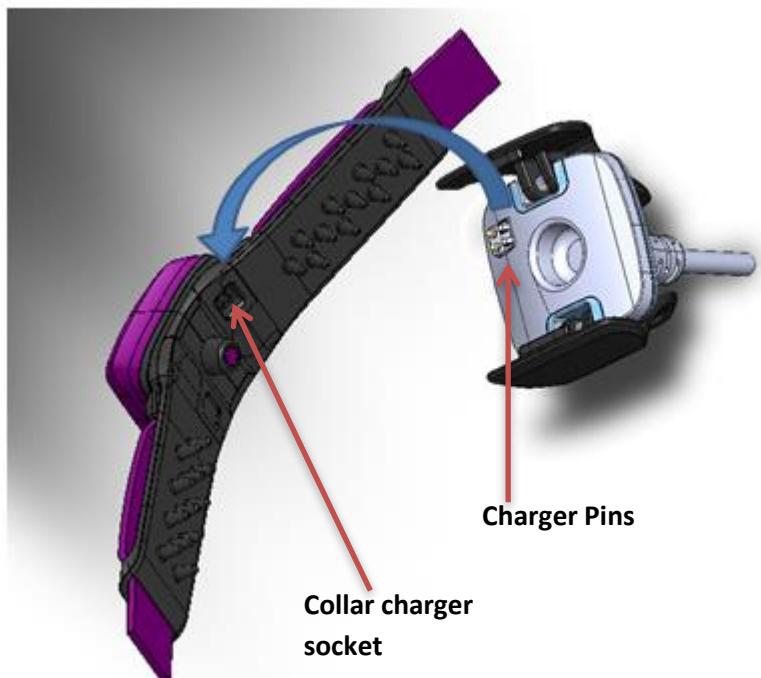
The PetPace Remote Monitoring System package includes the following items:

1		PetPace Collar
2		PetPace Collar Charger Adapter
3		PetPace Gateway
4		USB Type-A to micro USB Power Cable
5		Ethernet Cable
6		USB Power Supply (x2)

2.1. PetPace Collar

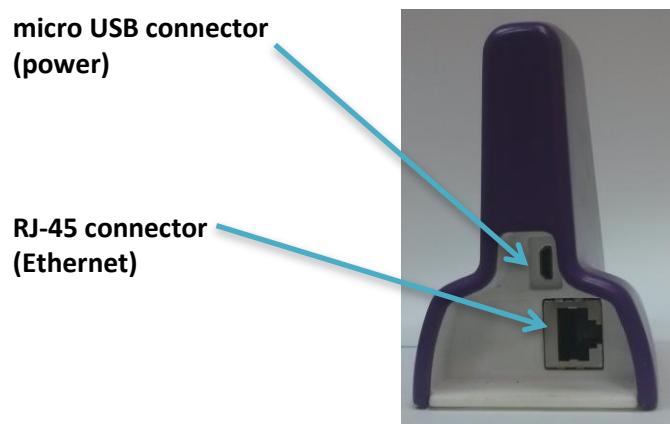
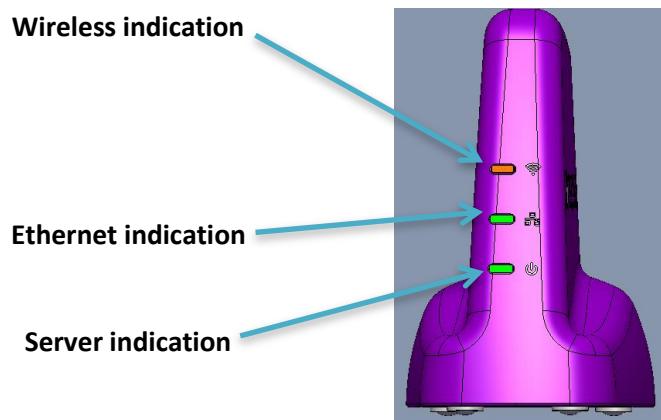


2.2. PetPace Collar Charger Adapter



2.3. PetPace Gateway

The PetPace Gateway receives data from the PetPace Collar and transmits it to the PetPace cloud-based server.



3. First-time installation



Please read the Safety Information chapter prior to first use

1. Connect the **PetPace Gateway** (item 3) to the **power supply**.
 - a. Insert the micro USB connector of the power cable (item 4) to the gateway.
 - b. Connect the USB type-A connector of the power cable (item 4) to the USB power supply (item 6).
 - c. Connect the USB power supply (item 6) to power.
 - d. Once the PetPace Gateway is connected to power, the bottom green LED light will blink.
2. Connect the **PetPace Gateway** (item 3) to the **Internet**.
 - a. Connect the Ethernet cable (item 5) to the Gateway's RJ-45 connector on one side and to your Router/Modem LAN port on the other side.
 - b. Make sure your Router/Modem is connected to the Internet.
 - c. Once the PetPace Gateway is connected to the Router/Modem the middle green LED light will blink.
3. Once the PetPace Gateway establishes a connection with the PetPace Servers the bottom green LED will switch from blinking to being constantly on.
4. You are now ready to start working with the PetPace Collar.

4. Charging the Collar

Your PetPace Collar must be charged prior to first use.

1. When the Collar's battery is low, the Collar's LED light will blink in red every 10 seconds. A low-level battery indicator will also show on the pet's page on the Web page or Mobile Application.
2. Connect the USB power supply (item 6) to the Collar Charger Adapter (item 2).
3. Remove the Collar from the dog and connect it to the Collar charger adapter (see pictures below)



4. During charging the Collar LED light will illuminate continuously in **orange**.

5. Once charging is complete, the Collar LED light will illuminate continuously in **green**.
6. Note: the Collar is automatically turned on when removed from the charger. There is no need to manually turn it on. The Collar will blink twice in **green** once removed from the charger to indicate that it starts operating.



Do NOT charge the collar while it's placed on your pet

5. Working with the collar

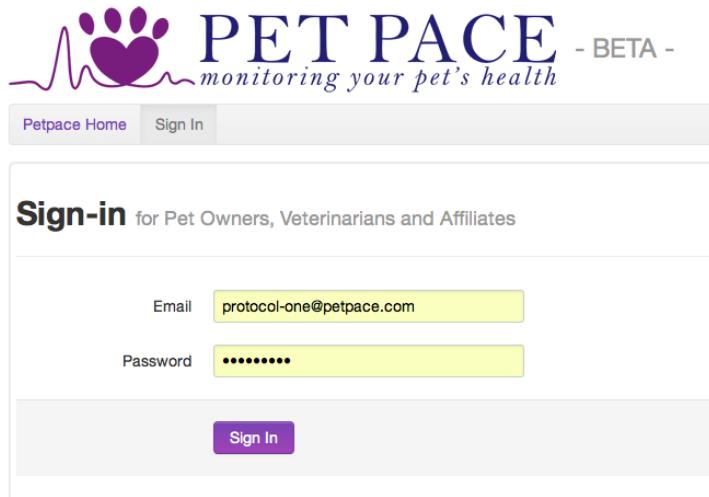
1. Turn on the PetPace Collar by pressing the On/Off Button until you see 2 green blinks on the LED light (see picture in Appendix chapter 7.1.2).
2. Place the Collar on the pet's neck making sure that:
 - a. The rectangle electronics box is on the bottom of the neck (ventral midline) and the buckle sits on the top of the neck (dorsal midline).
 - b. **The arrow on the buckle points to the pet's head** (the On/Off Button is towards the nose).
3. The free ends of the straps should be pulled evenly until the Collar lies snugly against the skin (two fingers rule).
4. The Collar will automatically communicate with the Gateway. Once the communication is established the top orange LED light on the Gateway will turn on (see picture in Appendix chapter 7.1.1).

6. Manually turning the Collar on and off

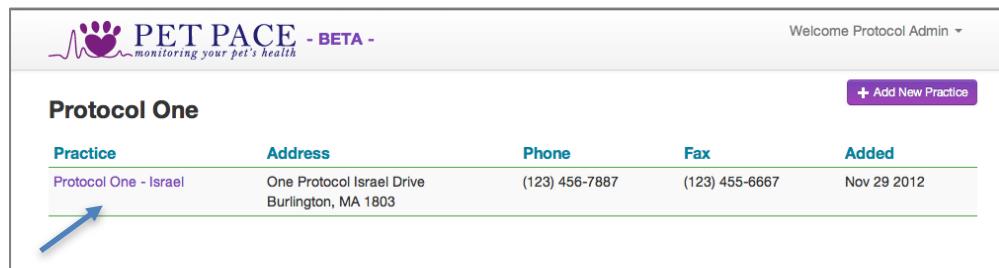
1. The Collar can be manually turned on or off by continuously pressing the Collar's On/Off Button for more than 2 sec.
2. If the Collar is in the On position, press the On/Off Button continuously until there are two red LED light blinks, which indicate that the Collar is now turned off.
3. If the Collar is in the Off position, press the On/Off Button continuously until there are two green LED light blinks, which indicate that the Collar is now turned on.

7. Working with the Website

1. Connect to the PetPace Web Site: <http://orion.petpace.com/>. Sign-in using the provided user and password.



2. Choose the practice affiliation

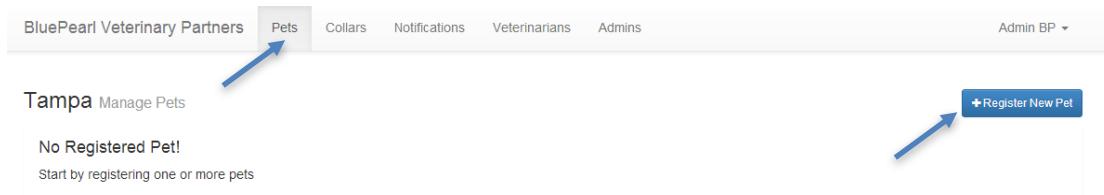


The image shows the PetPace practice list page. At the top is the PetPace logo and 'Welcome Protocol Admin' with a dropdown arrow. Below is a table titled 'Protocol One' with columns: Practice, Address, Phone, Fax, and Added. One row is visible: 'Protocol One - Israel' with address 'One Protocol Israel Drive Burlington, MA 1803', phone '(123) 456-7887', fax '(123) 455-6667', and added date 'Nov 29 2012'. A blue arrow points to the 'Protocol One - Israel' row.

Practice	Address	Phone	Fax	Added
Protocol One - Israel	One Protocol Israel Drive Burlington, MA 1803	(123) 456-7887	(123) 455-6667	Nov 29 2012

7.1. Registering a new pet

1. Click on “Pets” tab and then click on “Register New Pet”.



2. Fill in the pet's information and click “submit”.

The screenshot shows the "Pet Information" form. At the top, there is a navigation bar with tabs: BluePearl Veterinary Partners, Pets (highlighted with a blue arrow), Collars, Notifications, Veterinarians, and Admins. Below the navigation bar, the title "Pet Information" is displayed. The form contains the following fields:

- Species:** A dropdown menu set to "Dog".
- Name:** An input field.
- Breed:** An input field.
- Sex:** A dropdown menu set to "Intact Male".
- Date of birth:** A date picker set to "1 / December / 2013".

Below the form, there is a section titled "Owner Information (optional)" with two input fields: "Owner's Name" and "Email". At the bottom of the form is a blue "submit" button.

7.2. Assigning a Collar to a Pet

1. Choose a pet from the list. Click on its name and select "Assign Collar" from the drop-down menu.

Pet Info	Owner	Notification	Collar	Battery	Last Communication	Sampling
Josephine ▾ Bassett / Female	Eyal	OFF	1005	50%	Jan 12, 09:45:07 PM	1 hour
Dima ▾ Bulldog / Male	Dima	OFF	1001	82%	Jan 11, 01:45:44 AM	1 hour
Shtoot ▾ Canaan Dog / Male	Eyal Yunger	OFF				
Pet Dashboard	Galit	OFF				
Monitoring Data	Idit	OFF				
Manual Data	Visoker Liron	OFF				
Assign Collar	Galit	OFF				
Collar Assignment History	Galit	OFF				
Notification Management	Dikla	OFF				
Pet Info	Dikla	OFF				
Assign Veterinarian	Eyal	OFF				
Booly ▾ Boxer / Female	Galit	OFF				
Booly ▾ Mix / Male	Galit	OFF				

2. Choose the desired Collar ID to assign and click "submit".

Shtoot » Assign Collar

Dashboard Monitoring Data Manual Data Pet Info Notification Assign Collar Assign Vet Collar History

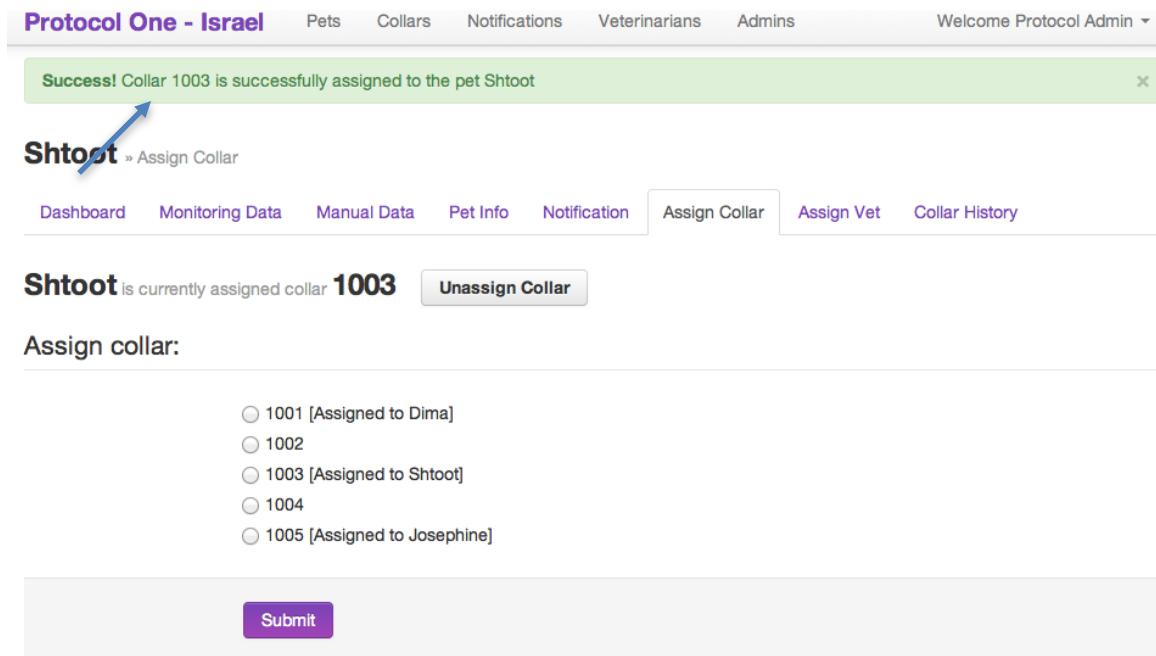
<< No Collar Assigned >> to Shtoot

Assign collar:

1001 [Assigned to Dima]
 1002
 1003
 1004
 1005 [Assigned to Josephine]

Submit

3. A confirmation green box will appear on top once the Collar is successfully assigned.



The screenshot shows the PetPace Admin interface. At the top, a green banner displays the message: "Success! Collar 1003 is successfully assigned to the pet Shtoot". Below the banner, the navigation bar includes links for Protocol One - Israel, Pets, Collars, Notifications, Veterinarians, Admins, and a Welcome Protocol Admin dropdown. The main content area shows a pet named "Shtoot" with the status "is currently assigned collar 1003". A "Unassign Collar" button is visible. Below this, a section titled "Assign collar:" lists five collar options (1001-1005) with their assignees. A "Submit" button is at the bottom of the list. A blue arrow points from the text "A confirmation green box will appear on top once the Collar is successfully assigned." to the green banner.

4. The Collar is now operating and collecting data on the pet.

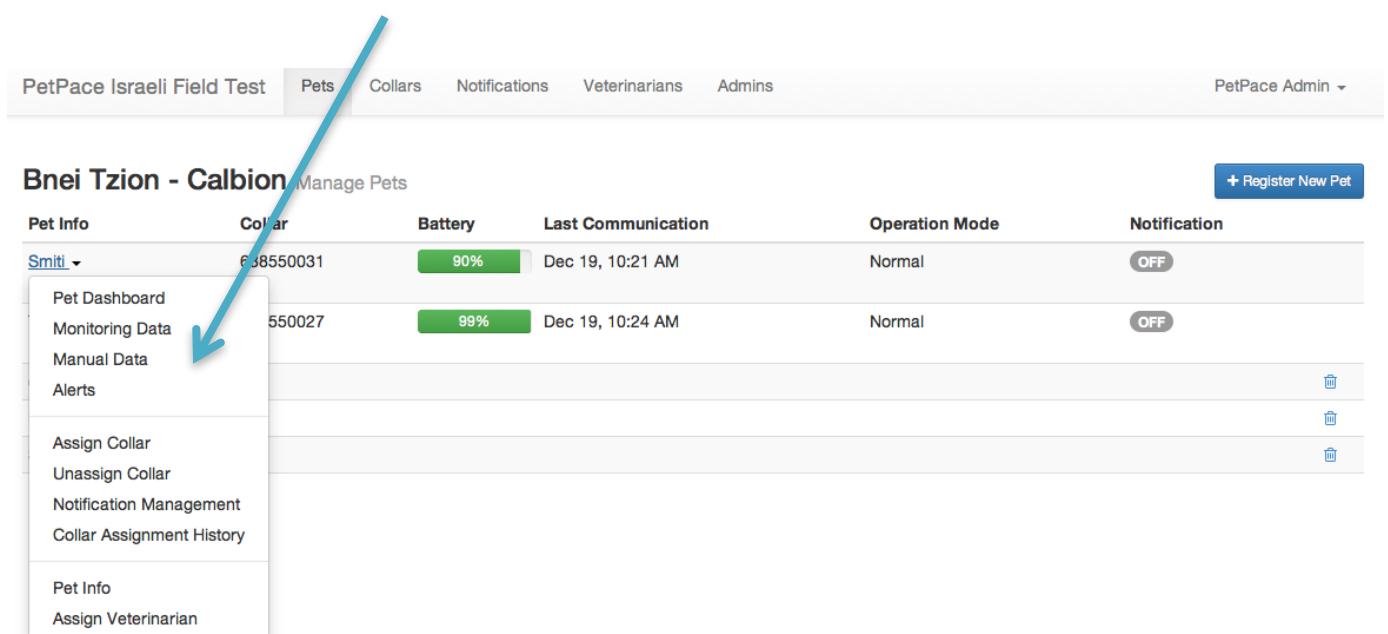
7.3. Working with the data

The PetPace System provides 3 ways to view the data:

- The “**Pet Dashboard**” is a comprehensive graphical view of all accumulated data
- “**Alerts**” shows a detailed view of all alerts over a range of dates.
- “**Monitoring Data**” shows a detailed table view of all the data collected over a range of dates

The PetPace System also allows you to add data manually.

From the Pets window, select the desired pet to monitor, click on it and from the drop-down menu choose between Pet Dashboard, Monitoring Data and Manual Data views.



The screenshot shows the PetPace Admin interface. At the top, there is a navigation bar with tabs for 'Pet Pace Israeli Field Test', 'Pets' (which is selected), 'Collars', 'Notifications', 'Veterinarians', and 'Admins'. On the far right, it says 'PetPace Admin' with a dropdown arrow. Below the navigation bar, the title 'Bnei Tzion - Calbion' and a 'Manage Pets' button are visible. To the right of the title is a blue button labeled '+ Register New Pet'. The main area displays a table of pets. The first row shows a pet named 'Smiti' with collar '638550031', battery level '90%', last communication on 'Dec 19, 10:21 AM', operation mode 'Normal', and notification status 'OFF'. The second row shows another pet with collar '550027', battery level '99%', last communication on 'Dec 19, 10:24 AM', operation mode 'Normal', and notification status 'OFF'. To the left of the table, a blue arrow points down to a dropdown menu for the selected pet 'Smiti'. The dropdown menu contains the following options: 'Pet Dashboard', 'Monitoring Data', 'Manual Data' (which is highlighted in blue), and 'Alerts'. Below these, there are sections for 'Assign Collar', 'Unassign Collar', 'Notification Management', 'Collar Assignment History', 'Pet Info', and 'Assign Veterinarian'.

7.3.1. Pet Dashboard

1. Select the desired date range.
2. The graphs show: Temperature, Pulse rate, Respiratory rate, Activity and Positions.
3. Hover over a point in the graph to view specific data value for a moment in time.

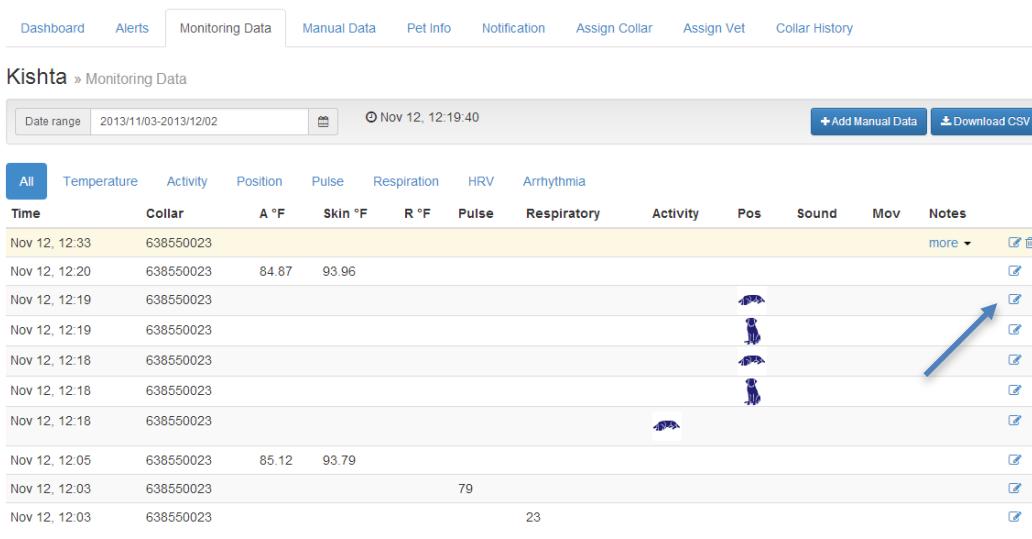


7.3.2. Alerts

1. Select the desired date range to review all alerts over that time **period**.
2. Click on an alert to see additional information.

7.3.3. Monitoring data

1. Select the desired date range.
2. Each row indicates a single sensor reading.
3. Yellow rows show Manual Data; White/grey rows show Monitoring Data.
4. To add notes to Monitoring Data click on the Edit icon at the right end of the row.
5. To edit or delete Manual Data click on the appropriate icons at the right end of the row.



Kishta > Monitoring Data

Date range	2013/11/03-2013/12/02	Nov 12, 12:19:40	+ Add Manual Data	Download CSV								
All	Temperature	Activity	Position	Pulse	Respiration	HRV	Arrhythmia	Activity	Pos	Sound	Mov	Notes
Time	Collar	A °F	Skin °F	R °F	Pulse	Respiratory						more ▾
Nov 12, 12:33	638550023											<input checked="" type="checkbox"/>
Nov 12, 12:20	638550023	84.87	93.96									<input checked="" type="checkbox"/>
Nov 12, 12:19	638550023											<input checked="" type="checkbox"/>
Nov 12, 12:19	638550023											<input checked="" type="checkbox"/>
Nov 12, 12:18	638550023											<input checked="" type="checkbox"/>
Nov 12, 12:18	638550023											<input checked="" type="checkbox"/>
Nov 12, 12:18	638550023											<input checked="" type="checkbox"/>
Nov 12, 12:05	638550023	85.12	93.79									<input checked="" type="checkbox"/>
Nov 12, 12:03	638550023				79							<input checked="" type="checkbox"/>
Nov 12, 12:03	638550023											<input checked="" type="checkbox"/>

7.3.4. Manual Data

1. To add data manually, click the "Add Manual Data" button on the top right of the Monitoring Data page, or on the Manual Data page.
2. Add data on the appropriate fields in the form and click "submit".
3. To view only manual data choose the "Manual Data" tab. To view manual data combined with Monitoring Data from the Collar, choose the "Monitoring Data" tab.

Timestamp	Collar	A °F	R °F	S °F	Pulse	Res	Act	Pos	Sound	Move	L'ness	Tech	Notes	
Dec 04, 15:56	638550025				68	0	passive	Lying R			PetPace Admin	End of protocol		
Dec 04, 15:55	638550025				0	20	passive	Lying R			PetPace Admin			
Dec 04, 15:53	638550025		100.40		0	0	passive	Lying R			PetPace Admin			

7.4. Notifications

The PetPace System provides the ability to receive alerts via email, phone and text message.

1. To set notifications click the "Notification" Tab.
2. Set alert notification to "On".
3. Fill in the desired Email address and/or phone number for notification.

8. Appendix

8.1. LEDs Indications

8.1.1. Gateway

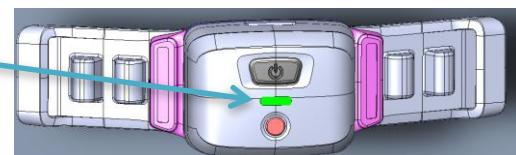
Wireless indication	Orange light is constantly on while the Gateway communicates with the Collar.	
Ethernet indication	Green light blinking while Ethernet communication is intact.	
Server indication	Green light is constantly on while Gateway is connected to PetPace server. Green light blinking while attempting to connect to PetPace server.	

8.1.2. Collar

The Collar's LED can illuminate in green, red or orange according to the following table:

Manual Turn-On / Turn-Off	Turn-on	2 green blinks
	Turn-off	2 red blinks
Charging	During charge	Constant orange
	Charge complete	Constant green
	Off-Charge	2 green blinks
Battery Low		Red blink every 10 sec

Collar LED indication



8.2. Troubleshooting

1. Verify Gateway and Collar status according to the following Gateway LEDs indication table:

LED indication	Description	Troubleshooting
TOP ORANGE LED	Wireless communication Indication. Should be ON during Collar operation.	<ol style="list-style-type: none"> 1. Make sure Collar is operating and in proper range from Gateway.
GREEN MIDDLE LED	Ethernet connection Indication. Should blink while Ethernet cable is connected.	<ol style="list-style-type: none"> 1. Make sure Ethernet cable is properly connected. 2. Check the modem/router that the Gateway is connected to. Make sure its port LED is blinking as well.
GREEN BOTTOM LED	Server connection Indication. Blinks while server is not connected. Constantly ON while Gateway is connected to Server.	<p>If LED is blinking :</p> <ol style="list-style-type: none"> 1. Make sure middle LED is blinking (otherwise refer to above troubleshooting instructions). 2. Make sure there is a proper internet connection through router. 3. Turn the Gateway off by disconnecting it from the power and then turn it back on. <p>If LED is off:</p> <ol style="list-style-type: none"> 1. Make sure Gateway is properly connected to power.

9. Product Specifications

9.1. Gateway

Dimensions: 78x60x51 mm

Weight: 62g

Operating temperature range: 0-45C

The product is designed for indoor use only.

Power: 5V – VDC @ 0.2A

9.2. Collar

Dimensions: 40x35x15 mm (Electronics case)

Weight: 43g

Operating temperature range: 0-45C

The product is designed for outdoor and indoor use.

The product is water and dust resistant (IP67).

Power:

Collar contains Li-Ion rechargeable battery.

Charging power: 5V – VDC @ 0.25A

The package contains 2 power suppliers to be used with standard US power outlets.

Power supplier input: 100-240V ~ 50-60Hz 0.5A / output: 4.75-5.25V @ 500mA max

10. SAFETY INFORMATION



- The collar is powered by a Li-Ion rechargeable battery.
- Charge the collar only with the provided and approved collar charger adapter and the power supply designated for this product.
- Do not attempt to charge your collar with anything other than the AC adapter provided. The use of any other types of power adapters may damage or destroy the collar and could be dangerous.
- Make sure the collar is fully charged before first use.
- Leaving the collar in hot or cold places, will reduce the battery capacity.
- The battery used in the collar may present a risk of fire or chemical burn if mistreated.
- Batteries may explode if damaged.
- Do not attempt to open the collar or replace its battery! The collar is sealed and the battery is not changeable. Use of other batteries may present a risk of fire or explosion.
- Dispose of batteries according to local regulations. Please recycle when possible. Do not dispose as household waste or in a fire as they may explode.
- Do not attempt to power the gateway with anything other than the AC adapter provided in the package.
- The power adapters provided are suitable for standard US power outlets only
- Charge the product according to the instructions in the user manual or quick installation guide supplied in the product package or the company's website
- For LED indication and troubleshooting please refer to the user manual

11. Regulatory Information

11.1. FCC Compliance Notice

The product is licensed with the following ID under FCC listing:

FCC ID: 2ACUDC102C for PetPace Collar

FCC ID: 2ACUDG202B for PetPace Gateway

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.
- Contact PetPace LLC at support.petpace.com for help.

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

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

Changes or modifications to this equipment not expressly approved by PetPace may void the user's authority to operate this equipment.

This equipment has been approved for mobile applications where the equipment should be used at distances greater than 20cm from the human body (with the exception of hands, wrists, feet and ankles). Operation at distances less than 20 cm is strictly prohibited.

11.2. IC Compliance Notice

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
2. this device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage,
2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

The device meets the exemption from the routine evaluation limits in section 2.5 of RSS 102 and compliance with RSS-102 RF exposure, users can obtain Canadian information on RF exposure and compliance.

Le dispositif rencontre l'exemption des limites courantes d'évaluation dans la section 2.5 de RSS 102 et la conformité à l'exposition de RSS-102 rf, utilisateurs peut obtenir l'information canadienne sur l'exposition et la conformité de rf.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body.

Cet émetteur ne doit pas être Co-placé ou ne fonctionnant en même temps qu'aucune autre antenne ou émetteur. Cet équipement devrait être installé et actionné avec une distance minimum de 20 centimètres entre le radiateur et votre corps.

This radio transmitter with model: C102C and G202B has been approved by Industry Canada to operate with the antenna type listed below with the maximum permissible gain and required antenna impedance for each antenna type indicated. Antenna type not included in this list, having a gain greater than the maximum gain indicated for that type, are strictly prohibited for use with this device.

Le présent émetteur radio with model: C102C and G202B a été approuvé par Industrie Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal et l'impédance requise pour chaque type d'antenne. Les types d'antenne non inclus dans cette liste, ou dont le gain est supérieur au gain maximal indiqué, sont strictement interdits pour l'exploitation de l'émetteur.

Product	Antenna Part Number	Description / Type	Gain (dBi)	Frequency band
Collar (C102C)	MSC0019	Helix Antenna	-6	902-928 MHz
Gateway (G202B)	MSC0001	Printed Antenna	-3	902-928 MHz

The installer of this radio equipment must ensure that the antenna is located or pointed such that it does not emit RF field in excess of Health Canada limits for the general population; consult Safety Code 6, obtainable from Health Canada's website www.hc-sc.gc.ca/rpb.

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.