PakSense Ultra Wireless Reader

User's Manual

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PakSense Ultra Wireless Reader

FCC Regulatory statements

PakSense Ultra Wireless Reader Model: PSUWR01A

FCC ID: WPEPAKS-2A

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:

1. Reorient or relocate the receiving antenna.

2. Increase the separation between the equipment and receiver.

3. Connect the equipment to an outlet on a circuit different from that to which the

receiver is connected.

4. Consult the dealer or an experienced radio/TV technician.

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

2. This device must accept any interference received, including interference that

may cause undesired operation.

FCC Warning

Modifications not expressly approved by the manufacturer could void the user's

authority to operate the equipment under FCC Rules.

Radio Frequency Exposure

This equipment has been evaluated in accordance with the FCC bulletin 56, "Hazards of radio frequency and electromagnetic fields", and bulletin 65, "Human exposure to radio frequency and electromagnetic fields". Safe operation in an uncontrolled environment will result if a distance greater than or equal to 20 cm. from the device is maintained.

Introduction

T hank you for choosing the PakSense Ultra Wireless temperature monitoring solution for your time and temperature monitoring needs. By providing innovative time and temperature monitoring solutions, PakSense helps solve costly distribution issues and enables customers to make better decisions about product quality and safety.

Downloading Data to the Ultra Wireless Reader

The PakSense Ultra Wireless Reader is used to download data from PakSense Ultra Wireless Labels and enables users to make quick decisions regarding product quality. In scenarios where wireless transmissions have been turned off or label battery power has been compromised, the PakSense Ultra Contact Reader can be used as a secondary method to download data. Detailed instruction on the use of the PakSense Ultra Contact Reader can be found by accessing the resource library section on the PakSense web site or by calling +1-208-489-9010.

Overview of the PakSense Ultra Wireless Reader

The Ultra Wireless Reader is used to read the time and temperature data from the PakSense Ultra Wireless Labels. The reader case is made from industrial strength packaging and is water resistant to withstand use in humid conditions.

1. LCD Screen

2. Navigation Key Pad

3. Label Status Legend

5. Battery Status Light

4. USB Port & Charging Port

1. LCD Screen – Temperature summaries, alert details, and reader set-up information is displayed here.
2. Navigation Key Pad – Enables the user to scroll through the screens and select menu items
   o Up Arrow: Scroll up.
   o Down Arrow: Scroll down.
   o Right Arrow: Scroll forward.
   o Left Arrow: Scroll back.
   o Select: Press to turn the Ultra Wireless Reader on. Also use to select the highlighted menu item.

3. Label Status Legend – Illustrates meaning of label alert status
   o Blank field indicates that the temperature readings stayed within specified parameters.
   o Up Arrow indicates temperatures exceeded upper temperature parameters.
   o Down Arrow indicates temperatures exceeded lower temperature parameters.
   o X indicates the label did not read correctly. Re-read the label to obtain temperature data.
4. USB Port and Charging port – connect USB cable to download info to a PC or connect USB charger to charge device.

5. Battery Status Light – Lit while the battery is charging.
   o Red light indicates the battery is at 95% capacity or less.
   o Green light indicates the battery is fully charged.

Navigating the Ultra Wireless Reader Screens

To turn on the Ultra Wireless Reader, press the "select" button.

Opening Screen
The opening screen for the Ultra Wireless Reader is shown below. This screen appears momentarily while the system initializes.

Main Menu

The opening screen will disappear and the MAIN menu screen shown below comes into view.

From this screen the user is presented with the four options. The user can select any of these options by using the UP/DOWN arrows to highlight the option, and then pressing the SELECT button to select it.

- o DOWNLOAD LABELS: Press to find any labels within range and download data.

- o DISPLAY LABELS: Displays the labels that have been downloaded. Labels are listed by serial number. Select each label serial number for more detailed information.

- o TOOLS: Set preferences such as Fahrenheit/Celsius, time zone, and date format.

- o POWER OFF: Turn off the Ultra Wireless Reader.

Downloading Labels

To read data from the Ultra Wireless Labels, highlight DOWNLOAD LABELS and press SELECT.

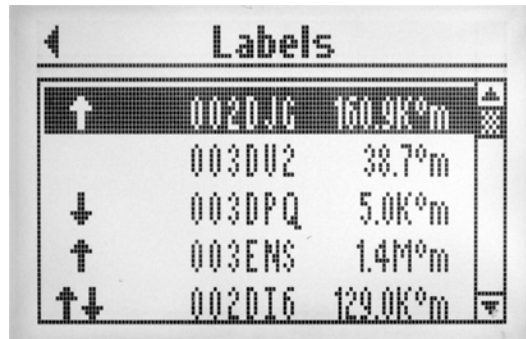1. Label transmission status

2. Label Number Indicator

The PakSense Ultra Wireless Reader will look for available PakSense Ultra Wireless Labels within range and will download data. Each PakSense Ultra Wireless Label takes between two and ten seconds to download.

Once a PakSense Ultra Wireless Label has been read and is stored in the Ultra Wireless Reader, it will not be re-read. To re-read a label, the label must be cleared from the Ultra Wireless Reader memory. To clear the memory on the Ultra Wireless Reader, refer to **Clearing the Reader Memory on page 15.**
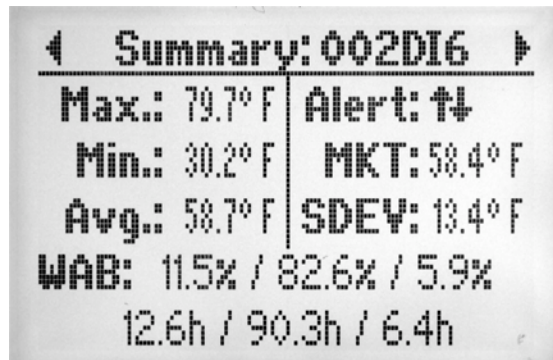
After all of the detected PakSense Ultra Wireless Labels have been downloaded, a listing of label serial numbers appears.

Display Label Information

To view a downloaded label, scroll to the label serial number, highlight it, and press the select button.

Once a label serial number is selected, a summary page will appear as depicted below.
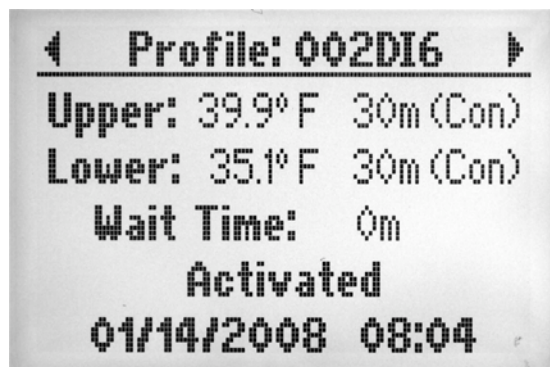

The following information is available on the summary screen:

- Label Serial Number

- Maximum temperature reached (Max)

- Minimum temperature reached (Min)

- Average temperature of all temperature reads from the end of the "Cool down" period to when the label was read. (Avg)

- Alert: High ↑ Low ↓

o   Mean Kinetic Temperature (MKT)

o   Standard Deviation (SDEV)

o   WAB:

   o   W: The total amount of time (in actual and percentage of total time) temperatures stayed within specified parameters.

   o   A: The total amount of time (in actual and percentage of total time) temperatures stayed above the upper temperature limit.

   o   B: The total amount of time (in actual and percentage of total time) temperatures stayed below the lower temperature limit.

Label Profile Screen

By pressing the right arrow scroll key, the Label Profile Screen displays the pre-set programming of the label.

```
◄    Profile: 002DI6    ►
Upper: 39.9°F  30m (Con)
Lower: 35.1°F  30m (Con)
   Wait Time:   0m
        Activated
   01/14/2008  08:04
```

• Upper: Upper temperature limit and temperature duration trigger in either consecutive or cumulative terms.

• Lower: Lower temperature limit and temperature duration trigger in either consecutive or cumulative terms.

• Wait Time: Also known as the "Cool Down" period, this is the amount of time after activation the label "waited" to start actively recording temperatures.

• Activation time and date.

Alerts Screen

By pressing the right arrow scroll key, the Alerts Screen displays the start day and time, duration, maximum temperature reached, and alert degree minutes for each temperature excursion that triggered an alert. Up to 10 separate alerts will be displayed that can be accessed by pressing the right arrow scroll key.

Alerts:

- o ⬆ indicates temperatures exceeded specified temperature parameters.

- o ⬇ indicates temperatures were below specified temperature parameters.

- o ⬆⬇ indicates temperatures were above and below specified temperature parameters.

Alert Degree Minutes (ADM) - Next to each label serial number is the Alert Degree Minutes, indicating the amount of time that was spent outside the specified temperature limits. The greater the value of Alert Degree Minutes, the more time the temperatures were outside the specified temperature parameters.

Display Labels

After information has been downloaded, this menu item enables users to go back and review stored label data.

Tools

To access utility functions for PakSense Ultra Wireless Reader, go to the TOOLS menu item in the MAIN menu screen. Press SELECT to enter the TOOLs menu.
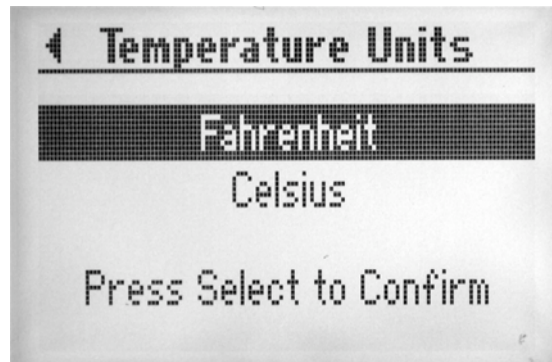
- o Set Fahrenheit / Celsius Set the preferred temperature scale.

- o Set Time Zone Set the time zone.

- o Set Date Format Set the preferred date format.

- o Clear Memory Clear the stored label data from memory. The reader memory can also be cleared from the PakSense Ultra Software Utility.

Any of these options can be selected by using the UP/DOWN arrows to highlight the option, and then pressing SELECT to confirm the new setting. The user can return the MAIN menu by pressing the LEFT arrow.
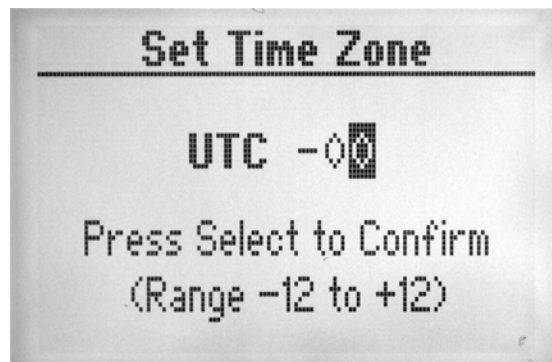
Set Fahrenheit / Celsius

Select Set Fahrenheit / Celsius. Choose the preferred format.

Set Time Zone

Input the Universal Time Code (UTC) zone for the preferred time zone.

Input the correct time zone by pressing the UP/DOWN arrows to find the correct UTC setting. The UTC value with corresponding time zone is provided in the table below.
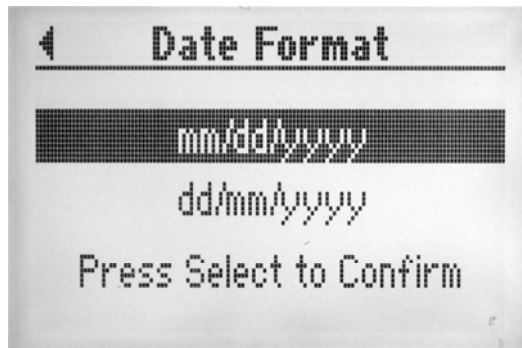
Value	Time Zone
+13	(GMT+13:00) Nuku'alofa
+12	(GMT+12:00) Auckland, Wellington, Fiji, Kamchatka, Marshall Is.

+11	(GMT+11:00) Magadan, Solomon Is., New Caledonia
+10	(GMT+10:00) Brisbane, Canberra, Melbourne, Sydney, Hobard, Vladivostok, Guam, Port Moersby
+09	(GMT+09:00) Yakutsk, Osaka, Sapporo, Tokyo, Seoul, Adelaide, Darwin
+08	(GMT+08:00) Perth, Taipei, Kuala Lumpur, Singapore, Irkutsk, Ulaan Bataar, Beijing, Chongqing, Hong Kong, Urumqi
+07	(GMT+07:00) Krasnoyarsk, Bangkok, Hanoi, Jakarta
+06	(GMT+06:00) Astana, Dhaka, Yangon (Rangoon), Almaty, Novosibirsk
+05	(GMT+05:00) Ekaterinburg, Chennai, Kolkata, Mumbai, New Delhi, Kathmandu, Islamabad, Karachi, Sri Jayawardenepura, Tashkent
+04	(GMT+04:30) Kabul, Abu Dhabi, Muscat, Yerevan, Baku, Caucasus Standard Time
+03	(GMT+03:00) Moscow, St. Petersburg, Volgograd, Tehran, Tbilisi, Nairobi, Baghdad, Kuwait, Riyadh
+02	(GMT+02:00) Minsk, Cairo, Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius, Athens, Bucharest, Istanbul, Jerusalem, Amman, Beirut, Harare, Pretoria
+01	(GMT+01:00) Brussels, Copenhagen, Madrid, Paris, West Central Africa, Sarajevo, Skopje, Warsaw, Zagreb, Belgrade, Bratislava, Budapest, Ljubljana, Prague
0	(GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London, Monrovia, Reykjavik, Casablanca
-01	(GMT-01:00) Azores, Cape Verde Is.
-02	(GMT-02:00) Mid-Atlantic
-03	(GMT-03:00) Buenos Aires, Brasilia, Greenland, Monetvideo, Newfoundland, Georgetown
-04	(GMT-04:00) Atlantic Time (Canada) Manaus, Santiago, La Paz, Caracas
-05	(GMT-05:00) Eastern Time (US & Canada) Bogota, Lima, Quito, Rio Branco
-06	(GMT-06:00) Central Time (US & Canada),

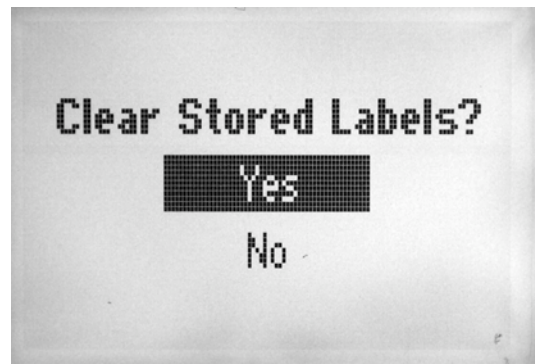|	
	Guadalajara, Mexico City, Monterrey, Central America
-07	(GMT-07:00) Mountain Time (US & Canada), Arizona, Chihuahua, La Paz, Mazatlan
-08	(GMT-08:00) Pacific Time (US & Canada)
-09	(GMT-09:00) Alaska
-10	(GMT-10:00) Hawaii
-11	(GMT-11:00) Midway Island, Samoa
-12	(GMT -12:00) International Date Line West

Set date format

Set the preferred date format by highlighting the preferred setting and pressing SELECT to confirm.

Clearing the Reader Memory

To clear the stored PakSense Ultra Wireless Labels from the reader, select CLEAR MEMORY.

Select YES to clear the memory, NO to keep the label data in the Reader's memory.

Charging the Reader
- o Plug charge unit into outlet.

- o Connect USB cable to mini port on the reader.

- o Battery status LED on reader will indicate charging status.