

# ALERT™ J5

EVIDENTIAL BREATH ALCOHOL TESTER



Instruction manual



N28449

The ALERT J5 personal breath alcohol tester has met the requirements of EN55011 and EN61326-1.

Under the ACMA regulations for EMC requirements, the ALERT J5 personal breath alcohol tester has been classified as a low-risk device, since it is only powered through a battery.

#### **Federal Communications Commission (FCC) Disclaimer**

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

This device complies with Part 15 of the FCC rules. Operations are subject to the following 2 conditions:

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

#### **Industry Canada**

This device complies with Industry Canada licence-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.

#### **Industrie Canada**

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, et
2. L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

#### **Certification**

The ALERT J5 evidential breath alcohol tester and other breath alcohol testing products of Alcohol Countermeasure Systems (ACS) comply with international standards for function and safety. For more details, contact ACS.



**Manufactured by:**

Alcohol Countermeasure Systems Corp

60 International Boulevard

Toronto, Ontario M9W 6J2 CANADA

T +1 416 619 3500

F +1 416 619 3501

info@acs-corp.com

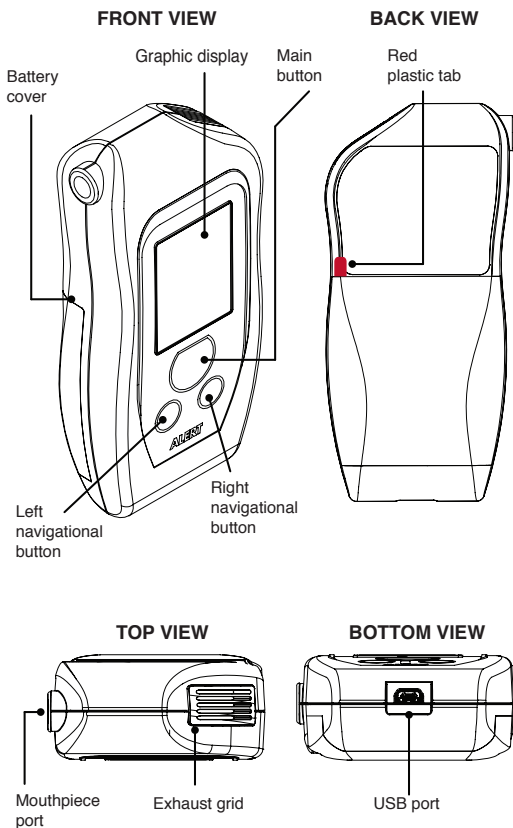
acs-corp.com

**ACS, ALCOHOL COUNTERMEASURE SYSTEMS, ALCOSIM, ALERT** and the “**Molly**” are trademarks of Alcohol Countermeasure Systems (International) Inc. and are used under license. Alcohol Countermeasure Systems is the trading style of Alcohol Countermeasure Systems (International) Inc.

**© 2015 Alcohol Countermeasure Systems**

The information disclosed in this document is the valuable property of Alcohol Countermeasure Systems and all copyright and other proprietary rights to this document are reserved. No reproduction of this document is permitted without the prior written consent of Alcohol Countermeasure Systems.

## ALERT J5 COMPONENTS



# TABLE OF CONTENTS

|  |    |
|--|----|
| <b>Safety and precautions</b> .....              | 1  |
| <b>Disclaimer</b> .....                          | 2  |
| <b>Introduction</b> .....                        | 2  |
| Warranty .....                                   | 2  |
| Maintenance .....                                | 2  |
| <b>Getting started</b> .....                     | 3  |
| <b>Operation</b> .....                           | 3  |
| <b>Display</b> .....                             | 4  |
| Menu icons — main menu .....                     | 5  |
| <b>Breath test</b> .....                         | 5  |
| <b>Passive test</b> .....                        | 6  |
| <b>Significance of breath test results</b> ..... | 7  |
| <b>History menu</b> .....                        | 8  |
| <b>Settings menu</b> .....                       | 9  |
| <b>Troubleshooting menu</b> .....                | 14 |
| Diagnostics .....                                | 14 |
| Advanced .....                                   | 15 |
| <b>Battery strength indicator</b> .....          | 15 |
| <b>Printing</b> .....                            | 16 |
| Printing via Bluetooth .....                     | 16 |
| Printing via USB cable .....                     | 16 |
| Printing operations .....                        | 16 |
| Inserting the battery .....                      | 17 |
| Loading the paper roll .....                     | 17 |
| <b>Maintenance and troubleshooting</b> .....     | 18 |
| Calibration .....                                | 18 |
| Disposal at the end of service life .....        | 18 |
| Replacement parts .....                          | 18 |
| <b>Index</b> .....                               | 19 |

## SAFETY AND PRECAUTIONS

- Use the ALERT J5 tester for its intended purpose only
- Do not blow smoke or spit into the mouthpiece; it may damage the sensor
- Always use a clean mouthpiece when blowing into the tester
- Do not cover the exhaust grid (the top-right side of the tester) while providing a breath sample
- Do not store the tester in extreme heat or cold and avoid exposing it to direct sunlight for extended periods of time
- Use the tester within the ambient temperature range of -20 to 65 °C
- Use the power adaptor provided for ambient temperatures lower than 10 °C
- Only use AA alkaline batteries
- Turn the tester off before removing the batteries
- Do not disassemble the tester, as this may cause injury and void the warranty
- Keep magnets or radio frequency (RF) devices away from the tester to minimize the potential for electromagnetic interference
- Wait 10 minutes after drinking, eating or smoking before providing a breath sample
- Drinking alcohol and eating foods containing alcohol will result in a warning, including: medicines, menthol drops, smoking, using mouthwash or mouth spray
- Rinse the mouth with water after using mouthwash or mouth spray to remove alcohol
- Do not spray air fresheners, disinfectants, cologne or perfume prior to a test, as these may also contain alcohol

***NOTE: There are additional factors that may affect the results of a breath test. Follow this manual carefully to avoid false readings.***

## **DISCLAIMER**

Sale of the ALERT J5 evidential breath alcohol tester is under the strict condition that neither the manufacturer nor the vendor of the device shall be held responsible for the accuracy of any breath test nor is responsible for any loss, damage, injury or other consequence resulting—directly or indirectly—from the use thereof.

## **INTRODUCTION**

Thank you for purchasing the ALERT J5 evidential breath alcohol tester, a device designed for the industrial and traffic safety sectors.

The ALERT J5 tester accurately measures breath alcohol concentration (BrAC).

Alcohol tolerance differs from person to person; impairment may occur below the legal limit. It may take up to 60 minutes to reach the highest BrAC after the consumption of alcohol.

## **WARRANTY**

All ACS products are warranted to be free of defects in workmanship and materials for one year from the date of shipment.

ACS agrees to replace or repair any defective ALERT J5 device, provided the defect was not caused by misuse or mishandling.

Any ALERT J5 device being returned for warranty repair must be properly packaged and shipped prepaid to the authorized dealer's facility.

## **MAINTENANCE**

The ALERT J5 evidential breath alcohol tester is manufactured for field use and is susceptible to dirt and debris. Clean with a damp cloth and mild soap. Do not use abrasive cleaners or solvents.

Periodic maintenance and calibration is required. Contact your dealer for more information.

## GETTING STARTED

The ALERT J5 evidential breath alcohol tester is simple to use. It measures breath alcohol concentration (BrAC), which is in direct proportion to blood alcohol concentration (BAC). The readout is provided on the display.

The ALERT J5 tester is well suited for the industrial and traffic safety sectors, with a three button control and the choice of battery or power adaptor operation.

***NOTE: A red plastic tab is inserted between the battery and the electrical connection to conserve battery power during shipment and storage. To operate the tester for the first time, pull the plastic tab from the battery compartment, which is accessible at the back of the tester. You do not need to open the back cover to remove the tab.***

## OPERATION

### TURNING THE TESTER ON

Press the *main* button once to power ON the ALERT J5 evidential breath alcohol tester. The ACS logo is displayed during the start-up sequence.

### READY FOR A BREATH TEST

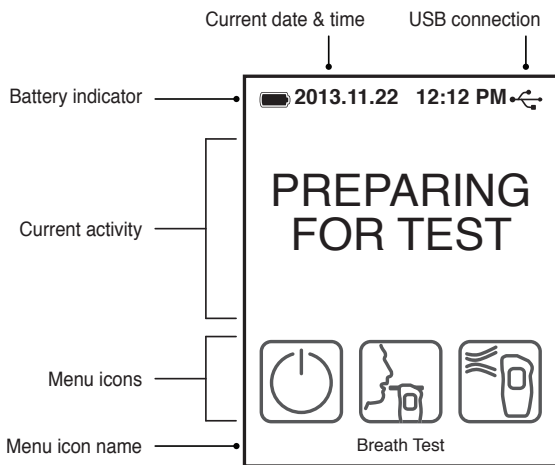
**READY** appears on the display when the ALERT J5 tester is ready for use.

### TURNING THE TESTER OFF







The ALERT J5 evidential breath alcohol tester will power down automatically after 3 minutes of inactivity. Press and hold the *main* button or select the **Shutdown** icon to turn off the ALERT J5 tester.

## DISPLAY

The ALERT J5 evidential breath alcohol display provides the readout of BrAC with the unit of measurement, battery levels, date and time, error messages, abort messages and all the indicators necessary for a clear and comprehensive user interface.



## MENU ICONS — MAIN MENU

|   |                        |   |
|---|------------------------|---|
|  | <b>Breath Test</b>     | To take a test with a mouthpiece.                               |
|  | <b>Passive Test</b>    | To take a test of the surrounding environment.                  |
|  | <b>History</b>         | To review the log with a printing option.                       |
|  | <b>Settings</b>        | Time/date, language, volume, brightness and Bluetooth pairings. |
|  | <b>Troubleshooting</b> | Error codes, diagnostics and advanced options.                  |
|  | <b>Shutdown</b>        | To turn the unit off.   |

In the Main Menu, use the navigational buttons to move to the desired function and press the *main* button to select.

### BREATH TEST



Select the **Breath Test** icon to perform a breath test using a mouthpiece. Always insert a clean mouthpiece to ensure an accurate breath sample.

**PREPARING FOR TEST** is displayed, followed by **READY**.

Blow into the mouthpiece. A continuous tone can be heard, indicating proper breath flow. Continue blowing until the tone ends. A failure tone with **ABORT** displayed indicates that a proper breath sample was not provided. Follow the directions on the display for a retest.



**ANALYZING** is displayed for a few seconds, followed by the numeric BrAC result and the **Print** icon on the display. The mouthpiece port will also illuminate:

- RED - if the test result is over the fail threshold
- ORANGE - if the test result is within the warn range
- GREEN - if the test result is below the warn threshold

Press the *main* button to select the **Print** icon, or wait for the device to return to **READY**. Refer to the “Printing” section of this manual for printing instructions.

The result is stored in the log. Refer to the “History menu” section of this manual for further information.

## PASSIVE TEST



Select the **Passive Test** icon to perform a breath test without the use of a mouthpiece.

**PREPARING FOR TEST** is displayed, followed by **READY**.



Position your mouth 3 cm away from the exhaust grid, exhale for 5 seconds and press the *main* button to take a breath sample.

**NOTE: Passive testing is generally used to detect the presence of alcohol in the environment.**

**ANALYZING** is displayed for a few seconds, followed by a **PASS**, **WARN** or **FAIL** message and the **Print** icon on the display.

The mouthpiece port glows:

- RED - if the test result is over the fail threshold
- ORANGE - if the test result is within the warn range
- GREEN - if the test result is below the warn threshold

Press the *main* button to select the **Print** icon, or wait for the unit to get back to **READY**. Refer to the “Printing” section of this manual for printing instructions.

The result is stored in the log. Refer to the “History menu” section of this manual for further information.

## SIGNIFICANCE OF BREATH TEST RESULTS

The results of a breath test are presented digitally and may be interpreted in the following chart; BrAC is expressed in mg/L:

| BrAC (mg/L) | SIGNIFICANCE  |
|-------------|---|
| 0.05        | Not associated with a positive measure of alcohol.              |
| 0.10        | Not necessarily indicative of alcohol consumption.              |
| 0.25        | Positive measure of alcohol and unsafe to operate a vehicle.    |
| 0.40        | High alcohol level detected and dangerous to operate a vehicle. |

BrAC readings of up to 0.05 mg/L may appear from naturally occurring substances in the body and are not associated with a positive measure of alcohol.

Readings of up to 0.10 mg/L may occur from alcohol contamination from foods, beverages or medicines and are not necessarily indicative of alcohol consumption.

Readings of 0.25 mg/L and greater are indicative of alcohol consumption and deemed unsafe to operate a vehicle, the result of which may lead to a traffic violation.

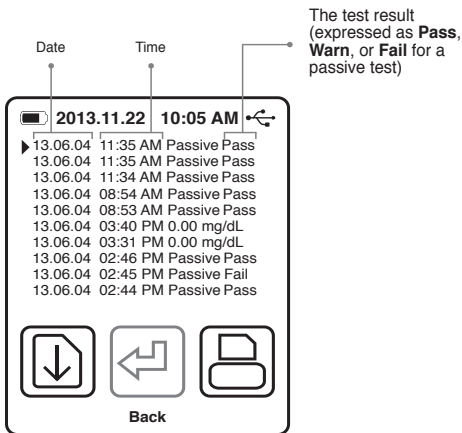
Readings of 0.40 mg/L and greater are indicative of high levels of alcohol consumption and deemed too dangerous to operate a vehicle, the result of which may lead to a criminal offence.

## HISTORY MENU



Select the **History** icon to review the records stored in the log.







Each breath test is saved in a numerical format which can be interpreted as follows:



**NOTE:** Records in yellow indicate that the test was taken with a unit that is overdue for a calibration. Not verified will show on the printout.

Follow the icons below to navigate through the History Menu.

You can scroll through the options with the navigational buttons and select with the *main* button. The current selection is indicated by an arrow ► on the left-hand side of the display.

|   |                    |   |
|---|--------------------|---|
|  | <b>Back</b>        | To move back to the previous menu.              |
|  | <b>Print</b>       | Refer to the "Printing" section of this manual. |
|  | <b>Page Up</b>     | To move up the log, 1 page at a time.           |
|  | <b>Page Down</b>   | To move down the log, 1 page at a time.         |
|  | <b>Record Up</b>   | To move up the log, 1 record at a time.         |
|  | <b>Record Down</b> | To move down the log, 1 record at a time.       |

## SETTINGS MENU



Select the **Settings** icon to change various options.

## TIME AND DATE



Select the **Time & Date** icon to change various time elements. Scroll through the options with the navigational buttons and select with the *main* button.



**Adjust Time.** The time, **24 hour** and **BACK** options are presented. The current option is indicated by an arrow ►. Press the navigational buttons to scroll up and down and press the *main* button to select.

**Time.** The hourly value will blink. Use the navigational buttons to increase and decrease the value. Press the *main* button to confirm and switch to the minute value. Repeat these steps to adjust the minute value and confirm, which will return to the previous menu.

**Time format.** The time format will blink. Toggle between **12 hour** and **24 hour** with the navigation buttons and press the *main* button to confirm. The **AM/PM** value will blink if **12 hour** is selected. Toggle between **AM** and **PM** with the navigational buttons and press the *main* button to confirm. Select **BACK** by pressing the *main* button to return to the Time and Date Menu.



**Adjust Date.** The day, month, year, format and **BACK** options are presented. The current option is indicated by an arrow ►. Use the navigational buttons to scroll up and down and the *main* button to select.

**Day.** The day value will blink. Use the navigational buttons to increase and decrease the value. Press the *main* button to confirm.

**Month.** The monthly value will blink. Use the navigational buttons to increase and decrease the value. Press the *main* button to confirm.

**Year.** The yearly value will blink. Use the navigational buttons to increase and decrease the value. Press the *main* button to confirm.

**Format.** The date format will blink. Use the navigational buttons to change how the date format is displayed. Press the *main* button to confirm.



**Back.** Allows you to move back to the Settings Menu.

## VOLUME



Select the **Volume** icon to change various speaker volume elements. Scroll through the options with the navigational buttons and select with the *main* button.



**Button Sound.** A beep is generated by default for each button press. Press the *main* button to scroll between **BUTTON MUTE ON** and **BUTTON MUTE OFF**.



**Volume up.** Press the *main* button to increase the volume.



**Volume down.** Press the *main* button to decrease the volume.



**Back.** Allows you to move back to the Settings Menu.

## BRIGHTNESS



Select the **Brightness** icon to brighten or darken the display. Scroll through the options with the navigational buttons and select with the *main* button.



Press the *main* button to increase the brightness of the display.



Press the *main* button to decrease the brightness of the display.



**Back.** Allows you to move back to the Settings Menu.

## LANGUAGE



Press the navigational buttons to scroll up and down the languages and press the *main* button to select and save. The display will return to the Settings Menu.

## DEVICE SETTINGS



The current item is indicated by an arrow ►. Use the navigational buttons to scroll up and down the items. This menu is for informational purposes only and is useful when contacting an authorized dealer for troubleshooting. It provides a list of factory settings:

- Country code
- Print script version
- Firmware version
- Hardware version
- PCB serial number
- Unit serial number
- Unit of measurement
- Warn limit
- Fail limit

Press the *main* button at any time to return to the Main Menu.

## BLUETOOTH PAIRING



This section allows you to pair the ALERT J5 tester with the Bluetooth printer. Refer to the “Printing” section of this manual for more information.

## RESTORE SETTINGS



Press the *main* button to restore the Volume, Brightness and Language to factory settings.

## TROUBLESHOOTING MENU



Diagnostics, advanced and back options are presented. The current option is indicated by an arrow ►. Use the navigational buttons to scroll up and down and the *main* button to select.

### DIAGNOSTICS

Test the main components of the unit. The current option is indicated by an arrow ►. Use the navigational buttons to scroll through the icons at the bottom and use the *main* button to select.

**PUMP.** The pump is activated once the charging voltage is reached. The result of the test is indicated as **PASS** or **FAIL**. Press the *main* button to return to the previous menu.

**LED.** The mouthpiece port LED is tested in all the available colours (Green, Amber and Red) to allow a visual check. The result of the test is indicated as a **PASS** or **FAIL**. Press the *main* button to return to the previous menu.

**SPEAKER.** The speaker is tested with all the tones implemented. The result of the test is indicated as a **PASS** or **FAIL**. Press the *main* button to return to the previous menu.

**BLUETOOTH.** The Bluetooth module is tested. The result of the test is indicated as a **PASS** or **FAIL**. Press the *main* button to return to the previous menu.

**SENSOR HEATER.** The sensor heater is tested by monitoring its capability to reach a target temperature in 20 seconds. The result of the test is indicated as a **PASS** or **FAIL**. Press the *main* button to return to the previous menu.

**NOTE:** *A power adaptor needs to be plugged into the unit in order to test the sensor heater.*

**BLOWTUBE HEATER.** The blowtube heater is tested by monitoring its capability to reach a target temperature in 20 seconds. The result of the test is indicated as a **PASS** or **FAIL**. Press the *main* button to return to the previous menu.

**NOTE:** *A power adaptor needs to be plugged into the unit in order to test the blowtube heater.*

**DEVICE TEMPERATURE.** The temperature measured by the ambient sensor and blowtube thermistors is displayed to provide an indication of potential anomalies with these components.

**ANALOG SIGNALS.** The analog signals for battery voltage, real time clock, booster, CPU and pump are displayed to provide an indication of potential anomalies with these components.

## ADVANCED

This menu is password protected; only an authorized ACS person can perform these actions.

## BATTERY STRENGTH INDICATOR

The **Battery Strength** icon is displayed on the top-left corner.

The batteries need to be replaced when the **Battery Strength** icon flashes. Failure to do so may cause the unit to shut down unexpectedly.

**NOTE:** *The Battery Strength icon is replaced by a USB icon when the unit is plugged into a vehicle via a power adaptor.*

## PRINTING

### PRINTING VIA BLUETOOTH

The Bluetooth printer provided is already paired at the factory with the ALERT J5. Follow this procedure for pairing the tester and printer in the event that one of them is replaced in the field.

1. Press and hold the power button until the battery light illuminates and the printer turns on. The battery may require charging if the printer does not power on.
2. In the Main Menu, scroll to the **Settings** icon by pressing the navigational buttons. Select the **Bluetooth Pairing** icon by pressing the *main* button.
3. The current item is indicated by an arrow ►. Use the navigational buttons to scroll up and down the items. Select **ADD DEVICE** by pressing the *main* button. The list will take a few seconds to populate.
4. Bluetooth devices within a 10 meter range are presented. Select the printer with the *main* button and enter the password (contact ACS).

**NOTE:** *You only need to pair a printer once.*

### PRINTING VIA USB CABLE

The USB printer comes with a USB cable. This cable will connect the USB port of the unit and the USB port on the printer together. No additional operations are required to connect them.

### PRINTING OPERATIONS

The **Print** icon appears after a breath sample is provided, as well as in the History Menu to allow printing of past records.

**NOTE:** *Ensure that the printer is on before continuing.*

Press the *main* button to display the printing options: Bluetooth or USB. Toggle between the options by pressing the navigational buttons and select the option with the *main* button. The results will print automatically after selecting.

Refer to the “Printing” section of this manual for further information.

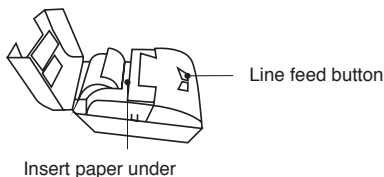
## INSERTING THE BATTERY

1. Lift the tab on the back of the printer to remove the back cover and expose the battery compartment.
2. Align the power terminals and push the battery pack into the compartment.
3. Replace the cover.

***NOTE: Remove the battery when the printer is not in use to preserve service life. Let it drain fully before recharging.***

## LOADING THE PAPER ROLL

1. Open the printer top cover by pushing up on both sides of it.
2. Place a new paper roll into the cradle, with the paper feeding away from the buttons.
3. Close the lid so that an inch of paper peeks out from underneath.



4. Press and hold the power button to turn the printer on. Press the feed button until the paper feeds smoothly through the printer.

# MAINTENANCE AND TROUBLESHOOTING

## CALIBRATION

Yearly calibration is required to maintain optimum breath test accuracy. The ALERT J5 evidential breath alcohol tester automatically displays **CALIBRATION REQUIRED** on the Main Menu 14 days before a calibration is due. A calibration is performed with either the ALCOSIM breath alcohol simulator or an alcohol gas standard cylinder.

## DISPOSAL AT THE END OF SERVICE LIFE

Disposal of the ALERT J5 tester at the end of its service life can be done by:

- Returning the tester to your dealer for disposal
- Contacting your local waste management authority for more information on the appropriate disposal methods to be followed
- Asking a suitable disposal contractor to dispose of the tester

## REPLACEMENT PARTS

Contact your dealer for the following parts:

95-000145 Mouthpieces (bag of 25)

59-200032 Printer paper roll

# INDEX

## A

Ambient temperature, 1  
Analog signals, 15

## B

Battery, 1, 3, 4, 15  
Blood alcohol concentration (BAC), 3  
Blowtube heater, 14  
Bluetooth, 13, 14, 16  
Breath alcohol concentration (BrAC),  
2, 3, 4, 7  
Breath flow, 5  
Breath sample, 1, 5  
Breath test, 1, 2, 5, 6  
Brightness, 12  
Button sound, 11

## C

Calibration, 2, 8, 18  
Clock, 10  
Country code, 13

## D

Device serial number, 13  
Device settings, 13  
Device temperature, 1, 15  
Diagnostics, 14  
Disposal, 18

## E

Error messages, 4  
Exhaust grid, 1, 6

## F

Firmware version, 13

## H

History menu, 5, 8

## L

Language, 12  
LED, 14  
Legal limit, 6

## M

Main menu, 5  
Maintenance, 2, 18  
Mouthpiece, 1, 5, 6

## P

Page Down, 9  
Page Up, 9  
Passive test, 5, 6  
Pass limit, 13  
PCB serial number, 13  
Power adaptor, 1, 3  
Print, 6  
Printing, 16  
Pump, 14

## R

Record Down, 9  
Record Up, 9  
Restore settings, 13

## **S**

- Sensor, 1
- Sensor heater, 14
- Settings, 5, 9
- Shutdown, 3, 5
- Speaker, 14

## **T**

- Time and Date, 9
- Time format, 10
- Troubleshooting, 5, 18

## **V**

- Volume, 11

## **W**

- Warn range, 6
- Warranty, 1, 2

