breeze33®

BZ33-201P
Manual
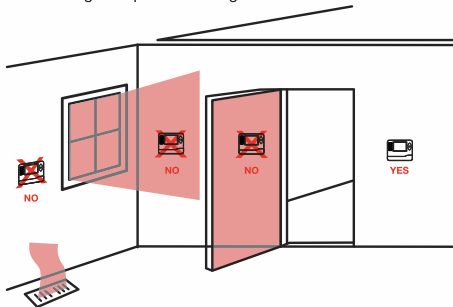
725HP

Table of Contents

⚠ Caution

Equipment damage hazard. Do not operate the cooling system if the outdoor temperature is below 50 °F (10 °C) to prevent possible compressor damage.

Installation Tips

Wall locations

The thermostat should be installed approximately 4 to 5 feet above the floor. Select an area with average temperature and good air circulation.

Do not install thermostat in locations:
- Close to hot or cold air ducts
- That are in direct sunlight
- With an outside wall behind the thermostat
- In areas that do not require conditioning
- Where there are dead spots or drafts (in corners or behind doors)
- Where there might be concealed chimneys or pipes

Tip

Pick an installation location that is easy for the user to access. The temperature of the location should be representative of the building.

Caution:
Electrical Hazard
Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.
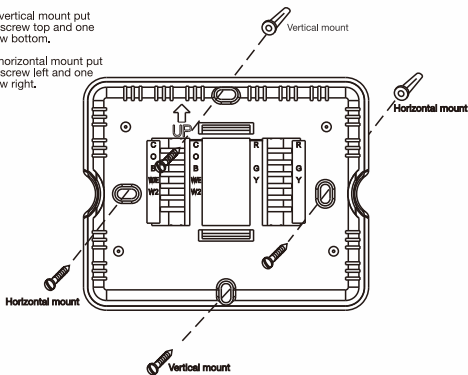
Mercury Notice:
All of our products are mercury free. However, if the product you are replacing contains mercury, dispose of it properly. Your local waste management authority can give you instructions on recycling and proper disposal.
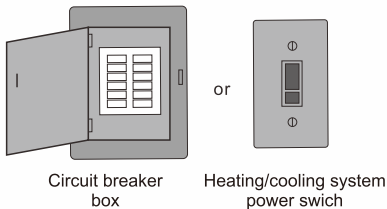
For vertical mount put one screw top and one screw bottom.

For horizontal mount put one screw left and one screw right.

Vertical mount

Horizontal mount

Horizontal mount

Vertical mount

4

Wiring

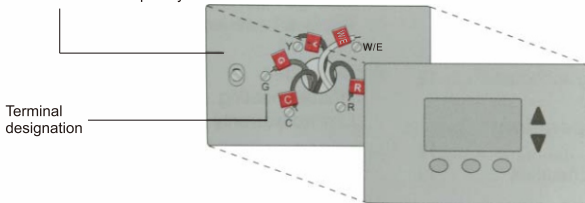## 1 Turn Off Power to Heating/Cooling System

or

Circuit breaker box

Heating/cooling system power swich

2 Remove Old Thermostat

Remove old thermostat but leave wallplate with wires attached.

Do not remove wallplate yet

W/E

Terminal designation

3 Label Wires with Tags

Label the wires using the supplied wire labels as you disconnect them.

Wiring Labels
Apply these wiring labels to each wire with the appropriate terminal designation as you remove it from the existing thermostat.
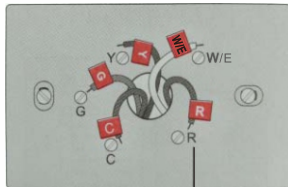
Étiquettes de fils
Lorsque vous retirez les fils des bornes du thermostat existant, collez ces étiquettes sur chaque fil correspondant à la lettre de la borne.

Rótulos para los cables
Coloque estos rótulos, con la designación de las terminales, en cada cable al remover los cables del termostato actual.

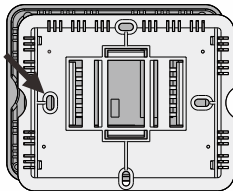|									
B	B	Y2	Y2	C	C	W/E	W/E	F	F
G	G	H	H	L	L	O	O	P	P
R	R	RC	RC	RH	RH	T	T	U	U
V/VR	V/VR	W	W	W1	W1	W2	W2	W3	W3
X	X	X1	X1	X2	X2	Y	Y	Y1	Y1
AUX	AUX								

Wire Labels

Terminal designation

4 Separate Wallplate from New Thermostat

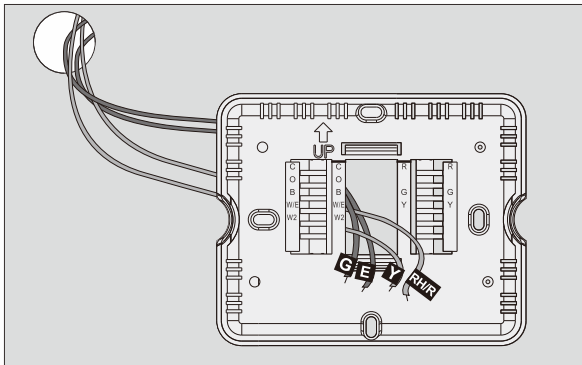Remove wallplate from the new thermostat and mount onto wall.

Wallplate

Wiring

5   Separate Wallplate from New Thermostat

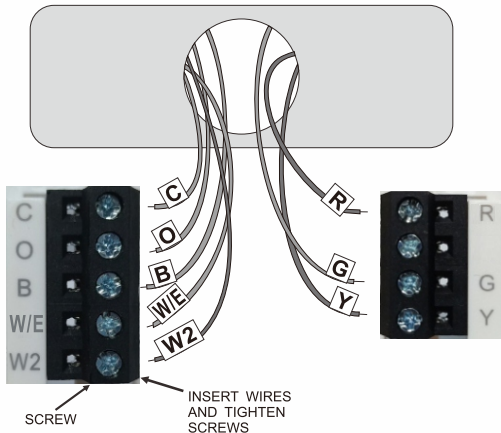Mount the new wallplate using the included screws and anchors.

Drill 3/16-in. holes for drywall
Drill 3/16-in. holes for plaster

6 Connect Wires
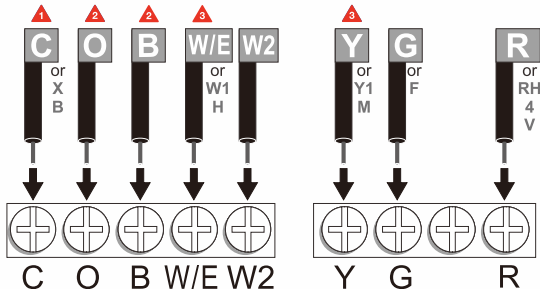
Simply match wire labels.

If labels do not match letters on the thermostat, check "Alternate Wiring (Conventional Systems)" on page 9 and connect to terminal as shown (see notes, below).

C
O
B
W/E
W2

C
O
B
W/E
W2

R
G
Y

R
G
Y

INSERT WIRES
AND TIGHTEN
SCREWS

SCREW

Alternate Wiring (Conventional Systems)

If labels do not match letters on the thermostat, check the chart below and connect to terminal as shown here (See notes, below).

C or X B   **O**   **B**   **W/E** or W1 H   **W2**   **Y** or Y1 M   **G** or F   **R** or RH 4 V

C   O   B   W/E   W2   Y   G   R

1 If there has **C** or **X** wire available then you can connect with **C** terminal, if there is no **C** or **X** wire then no need to connect with C terminal.

2 If you <u>have</u> a **heat pump** without auxiliary/backup hear connect **O** or **B**, <u>not</u> both. If you do <u>not have</u> a **heat pump**, do not connect **B**. Wrap bare end of wire with electrical tape.

3 Place a jumper (piece of wire) between **Y** and **W** if you are using a heat pump without auxiliary/backup heat

9

Caution: Electrical Hazard
Failure to disconnect the power before beginning to install this product can cause electrical shock or equipment damage.

Warning:
All components of the control system and the thermostat installation must conform to Class II circuits per the NEC Code.

Wiring

1. If you are replacing a thermostat, make note of the terminal connections on the thermostat that is being replaced. In some cases the wiring connections will not be color coded. For example, the green wire may not be connected to the **G** terminal.

2. Loosen the terminal block screws. Insert wires then retighten terminal block screws.

3. Place nonflammable insulation into wall opening to prevent drafts.

Terminal Designations

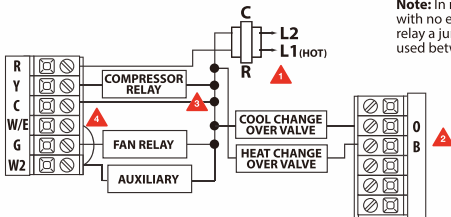|	Heat Pump System 1 HEAT 1 COOL / 2 HEAT 1 COOL	Conventional System 1 HEAT 1 COOL / 2 HEAT 1 COOL
R	Transformer Power	Transformer Power
C	Transformer Common	Transformer Common
B	Changeover Valve Energized in HEAT	Energized in HEAT
O	Changeover Valve Energized in COOL	Energized in COOL
G	Fan Relay	Fan Relay
W/E	First Stage of Emergency HEAT	First Stage of HEAT
W2	Second Stage of HEAT/ EMERGENCY HEAT	Second Stage of HEAT
Y	First Stage of HEAT and COOL	First Stage of COOL

Installation Tip:

Do not overtighten terminal block screws, as this can damage the terminal block. A damaged terminal block can keep the thermostat from fitting on the subbase correctly or cause system operation issues. Max Torque = 6in-lbs.
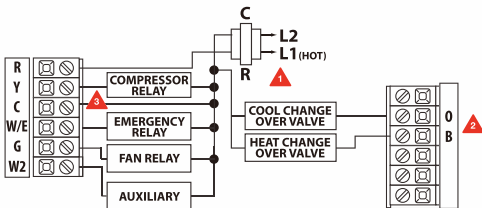
Wiring

1 Power supply

2 Use either O or B terminals for changeover valve

3 Optional 24 VAC common connection when thermostat is used in battery power mode.

4 Jumper (not supplied)

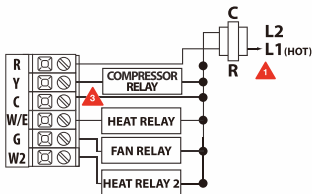## 2H/1C Heat Pump System

Note: In many systems with no emergency heat relay a jumper can be used between E and W2.

R
Y
C
W/E
G
W2

COMPRESSOR RELAY

FAN RELAY

AUXILIARY

C
L2
L1 (HOT)
R

COOL CHANGE OVER VALVE

HEAT CHANGE OVER VALVE

O
B

Typical 2H/1C Heat Pump System with separate emergency heat
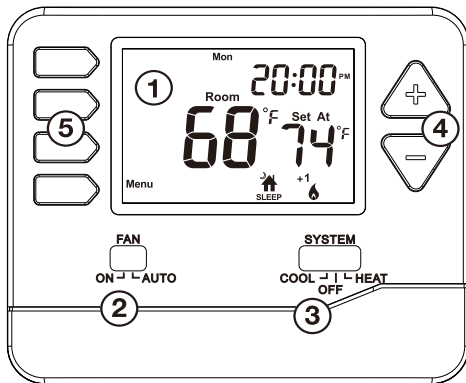

Conventional System 1H/1C, 2H/1C   (Heat pump set to "OFF" in tech settings)

Note: This thermostat is only compatible with ONE transformer systems.

Thermostat Operation

1. LCD Display
2. Fan Switch
3. System Switch
4. Temperature Setpoint Buttons
5. User Buttons

13

① **LCD Display**
See page 15 for details about this display read out.

② **Fan Switch**
Select **ON** or **AUTO**. **ON** will run the fan continuously. **AUTO** will cycle the fan on only when the heating or cooling system is on.

③ **System Switch**
Selects the operation mode on your HVAC system. Selecting **HEAT** turns on the heat mode. Selecting **COOL** turns on the cool mode. Selecting **OFF** turns both heating and cooling off. Selecting **EMH** (for heat

pumps with auxiliary heat) will lockout the compressor and control emergency/ auxiliary heat.

④ **Temperature Setpoint Buttons**
Press the + or - buttons to select the desired room temperature.
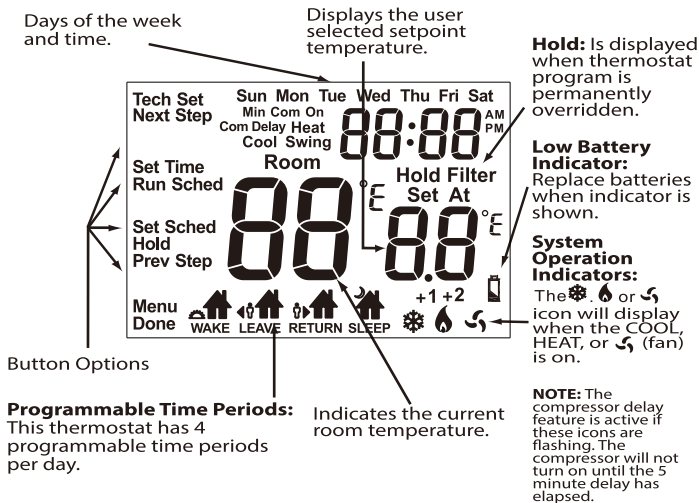
⑤ **User Buttons**
Use these buttons to set up your programming options. Refer to the next page for detail.

⚠ **Caution:**
When the battery icon 🔋 appears replace your AAA batteries immediately. Failure to do so may result in your heating & cooling system becoming inoperable. freezing or over heating can occur.

Days of the week and time.

Displays the user selected setpoint temperature.

Hold: Is displayed when thermostat program is permanently overridden.

Tech Set
Next Step

Sun Mon Tue Wed Thu Fri Sat
Min Com On
Com Delay Heat
Cool Swing
Room

88:88 AM PM

Low Battery Indicator: Replace batteries when indicator is shown.

Set Time
Run Sched

**Hold Filter
Set At**

Set Sched
Hold
Prev Step

88 °F

88 °F

System Operation Indicators: The ❄, ♦ or fan icon will display when the COOL, HEAT, or (fan) is on.

Menu
Done

WAKE LEAVE RETURN SLEEP

+1 +2

❄ ♦ fan

Button Options

Programmable Time Periods: This thermostat has 4 programmable time periods per day.

Indicates the current room temperature.

NOTE: The compressor delay feature is active if these icons are flashing. The compressor will not turn on until the 5 minute delay has elapsed.
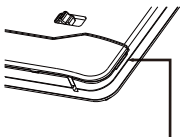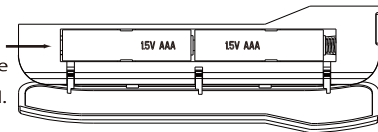
Important:

The low battery indicator is dispalyed when the 2x AAA battery power is low.

Battery Door Information

Replace with 2x AAA Alkaline Batteries. High quality Alkaline batteries are recommended.

1.5V AAA   1.5V AAA

Use the finger bevel on the lower portion of the thermostat to open the easy access battery door.

Temporary and Permanent Hold Feature (if using programming)

Temporary Hold: The thermostat will display **HOLD** and **RUN SCHED** on the left of your screen when you press the ⊕ or ⊖ key. If you do nothing, the temperature will remain at this setpoint temporarily until next time period. Your program setpoint will then replace your temporary setpoint.

Permanent Hold: If you press the **HOLD** key at the left of your screen, you will see **HOLD** appear below the setpoint temperature in the display. The thermostat will now permanently stay at this setpoint and can be adjusted using the ⊕ or ⊖ keys.
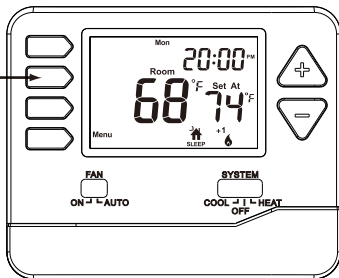
To return to program: Press the **RUN SCHED** key at the left of your screen to exit either temporary or permanent hold.

Filter Change Reminder

If your HVAC contractor has configured the thermostat to remind you when the air filter needs to be changed, you will see **FILTER** in the display when your air filter needs to be changed.

Resetting the filter change reminder: When **FILTER** reminder is displayed, you should change your air filter and reset the reminder by holding down the second button from the top left side of the thermostat for 3 seconds.

Hold down 3 seconds, to reset filter reminder.

Set Time

1. Press the **MENU** button

2. Press **SET TIME**

3. Day of the week will be flashing. Use the ⊕ or ⊖ key to select the current day of the week.

4. Press **NEXT STEP**

5. The current hour is flashing. Use the ⊕ or ⊖ key to select the current hour. When using 12-hour time, make sure the correct a.m. or p.m. choice is selected.

6. Press **NEXT STEP**

7. Minutes are now flashing. Use the ⊕ or ⊖ key to select current minutes.

8. Press **DONE** when completed.

Set Program Schedule 5+1+1 or 7 Day

To customize your program schedule, follow these steps:

1. Select **HEAT** or **COOL** with the system switch. **Note:** You have to program heat and cool each seperately.

2. Press the **MENU** button (If menu does not appear first press **RUN SCHED**)

3. Press **SET SCHED**. Note: Monday-Friday or **(Monday if in 7 Day)** is displayed and the **WAKE** icon is shown. You are now programming the wake time period for that day.

4. Time is flashing. Use the ⊕ or ⊖ key to make your time selection for that day's **WAKE** time period.

5. Press **NEXT STEP**

6. The setpoint temperature is flashing. Use the ⊕ or ⊖ key to make your setpoint selection for that day's **WAKE** time period.

7. Press **NEXT STEP**

8. Repeat steps 4 thru 7 for that day's **LEAVE** time period, **RETURN** time period, and **SLEEP** time period.

Continued on next page...

Set Program Schedule 5+1+1 or 7Day

Saturday:

Repeat steps 4 through 7 for the Saturday **WAKE** time period, **LEAVE** time period, **RETURN** time period, and for the Saturday **SLEEP** time period.

Sunday:

Repeat steps 4 through 7 for the Sunday **WAKE** time period, **LEAVE** time period, **RETURN** time period, and for the Sunday **SLEEP** time period.

1. Press MENU button.
2. Press and hold TECH SET button for 3 seconds.
3. Configure the installer options as desired using the table below.
Use the + OR - keys to change settings and the NEXT STEP or PREV STEP key to move from one option to another.
Note: Only press DONE key when you want to exit the Technician Setup Options.

Tech Settings		LCD Will Show	Adjustment Options	Default
Filter Change Reminder	This feature will flash "FILT" in the display after the elapsed run time to remind the user to change the filter. A setting of "OFF" will disable this feature.	Next Step OFF FL SE Prev Step	You can adjust the filter change reminder from OFF to 2000 hours of runtime in 50 hour increments. Tap the second button from the top left side of the thermostat to display the current filter elapsed runtime.	OFF
Room Temperature Calibration	This feature allows the installer to change the calibration of the room temperature display. For example, if the thermostat reads 70° degrees and you would like it to read 72° then select +2.	Next Step CAL 0°F Prev Step	You can adjust the room temperature display to read 3° above or below the factory calibrated reading.	0
Minimum Compressor On Time	**This feature allows the installer to select the minimum run time for the compressor. For example: a setting of 4 will force the compressor to run for at least 4 minutes every time the compressor turns on, regardless of the room temperature.**	Next Step OFF An on Prev Step	**You can select the minimum compressor run time from "off", "3", "4", or "5" minutes. If 3,4, or 5 is selected, the compressor will run for at least the selected time before turning off.**	OFF

Tech Settings		LCD Will Show	Adjustment Options	Default
Compressor Short Cycle Delay	The compressor short cycle delay protects the compressor from short cycling. This feature will not allow the compressor to be turned on for 5 minutes after it was last turned off.	Next Step **ON** **CO** OF Prev Step	Selecting "ON" will not allow the compressor to be turned on for 5 minutes after the last time the compressor was switched off. Select "OFF" to remove this delay.	ON
Cooling Swing	The swing setting often called "cycle rate", "differential" or "anticipation" is adjustable. A smaller swing setting will cause more frequent cycles and a larger swing setting will cause fewer cycles.	Next Step dF CO **0.5** °F Prev Step	The cooling swing setting is adjustable from 0.2° to 2°. For example: A swing setting of 0.5° will turn the cooling on at approximately 0.5° above the setpoint and turn the cooling off at approximately 0.5° below the setpoint.	0.5
Heating Swing	The swing setting often called "cycle rate", "differential" or "anticipation" is adjustable. A smaller swing setting will cause more frequent cycles and a larger swing setting will cause fewer cycles.	Next Step dF HE **0.4** °F Prev Step	The heating swing setting is adjustable from 0.2° to 2°. For example: A swing setting of 0.5° will turn the heating on at approximately 0.5° below the setpoint and turn the heating off at approximately 0.5° above the setpoint.	0.4

Tech Settings		LCD Will Show	Adjustment Options	Default
F or C	Select F for Fahrenheit temperature read out or select C for Celsius read out.	Next Step °F 82 °F Prev Step	F for Fahrenheit C for Celsius	F
12 or 24 Hour Clock	You can select either a 12 or 24 hour clock setting.	Next Step 24H Prev Step	Use the ⊞ and ⊟ to select 12 or 24 hour clock.	24H
Fan Operation	Select GAS for systems that control the fan during a call for heat. Select ELEC to have the thermostat control the fan during a call for heat.	Next Step GAS Prev Step	GAS - GS or ELEC - EL	GAS

Tech Settings		LCD Will Show	Adjustment Options	Default
Program Options	You can configure this thermostat to have 7 Day, 5+1+1 programming or non programmable. Note: If 7d is selected, in set schedule you will program all seven days individually. If 5d is selected, in set schedule you will program Monday – Friday together and Saturday and Sunday individually. If 0d is selected the thermostat becomes non-programmable and the Set Schedule button goes away in Menu.	Next Step Pr 0G 5d Prev Step	Use the ⊞ and ⊟ key to select **7d** for 7 Day, **5d** for 5+1+1, or **0d** for non programmable.	5d
Heat Pump	When turned on the thermostat will operate a heat pump. EM. Heat will show as an option in the system switch tech setting. Use the ⊞ and ⊟ button to adjust.	HEAT PUMP On	OFF configures the thermostat for conventional systems. ON configures the thermostat for heat pump systems.	ON
GAS AUX	In HEAT mode (HEAT pump set to ON), Y will turn off automatically after W2 relay is turned ON for 45 seconds.	AG ON	Use the + and - to select on or off.	ON

W2 --------- Auxiliary heat relay
Y ----------- Compressor relay
G ----------- Fan relay
O ----------- Heat pump changeover valve
                energized in cooling
R ----------- Transformer power
C ----------- Common wire from system transformer
B ----------- Heat pump changeover valve
                energized in heating
W/E --------- Emergency heat relay

Note:
In many systems with no emergency heat relay a jumper can be installed between E and W2.

WARRANTY

Breeze33 Products LLC (Breeze33) warrants to the ORIGINAL PURCHASER that its thermostats shall be free from defects in material and workmanship under normal use and service for a five (5) years. This warranty cannot be transferred - it is extended only to the original Purchaser or First User of the Product. By accepting and keeping this Product you agree to all of the warranty terms and limitations of liability described below.

  Breeze33's obligations under the warranty set forth above shall be to replace any Breeze33 Thermostat which is defective.

WHAT IS NOT COVERED?

The warranty above does not cover and Breeze33 is not liable for, (i) installation, (ii) any labor charges or (iii) products which have been damaged as a result of any accident, misuse, abuse, neglect, improper installation or maintenance, the use of abrasive or organic solvent cleaners, modification, failure to use the register, grille, or diffuser in accordance with instructions provided by Breeze33.

HOW TO OBTAIN WARRANTY SERVICE

Contact our warranty department at 740-314-4404 to report the defect. Return failed product with proof of purchase,your name, and address within 30 days of failure to:

Breeze33 Products LLC 350
Courtney Road Sebring,
Ohio 44672 USA

Warranty

LIMITATION OF LIABILITY

Breeze33's liability on any claim of any kind, including, without limitation, warranty, negligence and/or breach of contract, shall in no case exceed the purchase price paid by the Customer. IN NO EVENT SHALL BREEZE33 BE LIABLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING, WITHOUT LIMITATION, DAMAGE TO PROPERTY) OR PUNITIVE DAMAGES, DAMAGES IN THE NATURE OF PENALTIES OR SIMILAR OR RELATED DAMAGES OF ANY KIND.

DISCLAIMER OF WARRANTIES

BREEZE33 EXPRESSLY DISCLAIMS ALL WARRANTIES, EXCEPT AS EXPLICITLY STATED HEREIN, TO THE FULLEST EXTENT PERMITTED BY LAW, WHETHER WRITTEN, ORAL, EXPRESS OR IMPLIED, INCLUDING ANY WARRANTY OF PERFORMANCE, MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, AND NONINFRINGEMENT. THIS DISCLAIMER INCLUDES ANY ORAL WARRANTIES OR REPRESENTATIONS MADE OR IMPLIED BY ANY AGENT, EMPLOYEE, SUBCONTRACTOR, MANAGER, DIRECTOR AND/OR REPRESENTATIVE OF BREEZE33.

Operation Manual