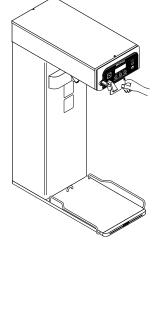
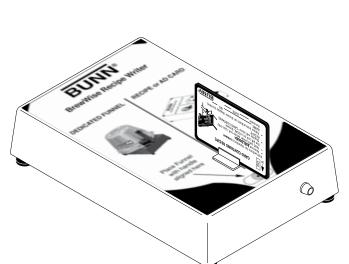
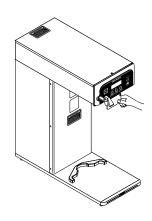
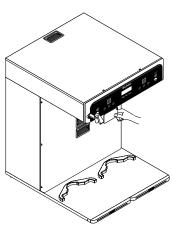
BUNN®

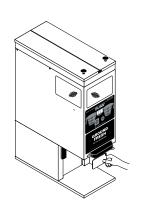
BRW BrewWISE® Recipe Writer W/Software V1.24

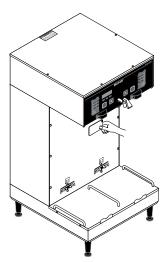












INSTALLATION AND OPERATING MANUAL

BUNN-O-MATIC CORPORATION

POST OFFICE BOX 3227 SPRINGFIELD, ILLINOIS 62708-3227 PHONE: (217) 529-6601 FAX: (217) 529-6644



BUNN-O-MATIC COMMERCIAL PRODUCT WARRANTY

Bunn-O-Matic Corp. ("BUNN") warrants equipment manufactured by it as follows:

- 1) All equipment other than as specified below: 2 years parts and 1 year labor.
- 2) Electronic circuit and/or control boards: parts and labor for 3 years.
- 3) Compressors on refrigeration equipment: 5 years parts and 1 year labor.
- 4) Grinding burrs on coffee grinding equipment to grind coffee to meet original factory screen sieve analysis: parts and labor for 3 years or 30,000 pounds of coffee, whichever comes first.

These warranty periods run from the date of installation BUNN warrants that the equipment manufactured by it will be commercially free of defects in material and workmanship existing at the time of manufacture and appearing within the applicable warranty period. This warranty does not apply to any equipment, component or part that was not manufactured by BUNN or that, in BUNN's judgment, has been affected by misuse, neglect, alteration, improper installation or operation, improper maintenance or repair, damage or casualty. This warranty is conditioned on the Buyer 1) giving BUNN prompt notice of any claim to be made under this warranty by telephone at (217) 529-6601 or by writing to Post Office Box 3227, Springfield, Illinois 62708-3227; 2) if requested by BUNN, shipping the defective equipment prepaid to an authorized BUNN service location; and 3) receiving prior authorization from BUNN that the defective equipment is under warranty.

THE FOREGOING WARRANTY IS EXCLUSIVE AND IS IN LIEU OF ANY OTHER WARRANTY, WRITTEN OR ORAL, EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF EITHER MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. The agents, dealers or employees of BUNN are not authorized to make modifications to this warranty or to make additional warranties that are binding on BUNN. Accordingly, statements by such individuals, whether oral or written, do not constitute warranties and should not be relied upon.

If BUNN determines in its sole discretion that the equipment does not conform to the warranty, BUNN, at its exclusive option while the equipment is under warranty, shall either 1) provide at no charge replacement parts and/or labor (during the applicable parts and labor warranty periods specified above) to repair the defective components, provided that this repair is done by a BUNN Authorized Service Representative; or 2) shall replace the equipment or refund the purchase price for the equipment.

THE BUYER'S REMEDY AGAINST BUNN FOR THE BREACH OF ANY OBLIGATION ARISING OUT OF THE SALE OF THIS EQUIPMENT, WHETHER DERIVED FROM WARRANTY OR OTHERWISE, SHALL BE LIMITED, AT BUNN'S SOLE OPTION AS SPECIFIED HEREIN, TO REPAIR, REPLACEMENT OR REFUND.

In no event shall BUNN be liable for any other damage or loss, including, but not limited to, lost profits, lost sales, loss of use of equipment, claims of Buyer's customers, cost of capital, cost of down time, cost of substitute equipment, facilities or services, or any other special, incidental or consequential damages.

392, AutoPOD, AXIOM, BrewLOGIC, BrewMETER, Brew Better Not Bitter, BrewWISE, BrewWIZARD, BUNN Espress, BUNN Family Gourmet, BUNN Gourmet, BUNN Pour-O-Matic, BUNN, BUNN with the stylized red line, BUNNlink, Bunn-OMatic, Bunn-O-Matic, BUNNserve, BUNNSERVE with the stylized wrench design, Cool Froth, DBC, Dr. Brew stylized Dr. design, Dual, Easy Pour, EasyClear, EasyGard, FlavorGard, Gourmet Ice, Gourmet Juice, High Intensity, iMIX, Infusion Series, Intellisteam, My Café, PowerLogic, Quality Beverage Equipment Worldwide, Respect Earth, Respect Earth with the stylized leaf and coffee cherry design, Safety-Fresh, savemycoffee.com, Scale-Pro, Silver Series, Single, Smart Funnel, Smart Hopper, SmartWAVE, Soft Heat, SplashGard, The Mark of Quality in Beverage Equipment Worldwide, ThermoFresh, A Partner You Can Count On, Air Brew, Air Infusion, Beverage Bar Creator, Beverage Profit Calculator, Brew better, not bitter., BUNNSource, Coffee At Its Best, Cyclonic Heating System, Digital Brewer Control, Nothing Brews Like a BUNN, Pouring Profits, Signature Series, Tea At Its Best, Phase Brew, The Horizontal Red Line, Titan, trifecta, Ultra, Velocity Brew are either trademarks or registered trademarks of Bunn-O-Matic Corporation.

Introduction

The BrewWISE® Recipe Writer box connects to a PC by way of a standard serial port or USB port where applicable. PC software is included that provides a user interface to the Writer box. A unique feature of the BrewWISE® system is the ability to transfer information to and from the brewer, funnels, and grinder via the funnels or memory cards.

The BrewWISE® Recipe Writer provides a convenient method of transferring information. The system can then be used to configure the brewer, funnels, and grinder for optimum flavor performance.

The BrewWISE® Recipe Writer can be used to make:

- Recipe cards for specific coffee names
- Recipe cards for No-Name coffee
- Funnels dedicated to one specific coffee name
- Cards for advertising messages

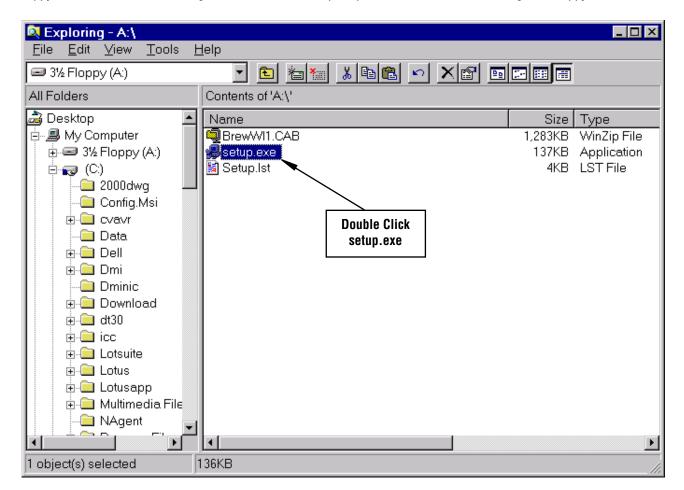
System Requirements

- PC with 486DX/66MHz or higher processor; Pentium or higher processor recommended.
- Microsoft® Windows 95, 98, 2000, NT®, or XP operating systems.
- VGA or higher resolution monitor: Super VGA recommended.
- A functional, available RS-232 serial port set up as Com1-Com4 or a USB to Serial adapter Cable (Bunn-O-Matic part # 37076.0000) where applicable.

Installation

If a USB to Serial Adapter was included with your writer, follow the instruction supplied with it for installation.

- It is recommended that all open Windows applications be closed before installing BrewWISE® Recipe Writer software.
- If you are updating an existing version of the BrewWISE® Recipe Writer software, the older version <u>MUST</u> first be un-installed using Windows Control Panel. Simply go to Start-Settings-Control Panel and Double-click Add/Remove Programs. Then find the Recipe Writer software in the list of installed programs, select, and click the Change/Remove button.
- From Windows Explorer, Double Click on the setup.exe file located on the installation CD or on Disk 1 of the installation disks. The installation program will display a "Copying Files" screen. This screen could be present for several minutes if installing from floppy disks; much less if installing from a CD. You will be prompted to insert Disk 2 if installing from floppy disks.

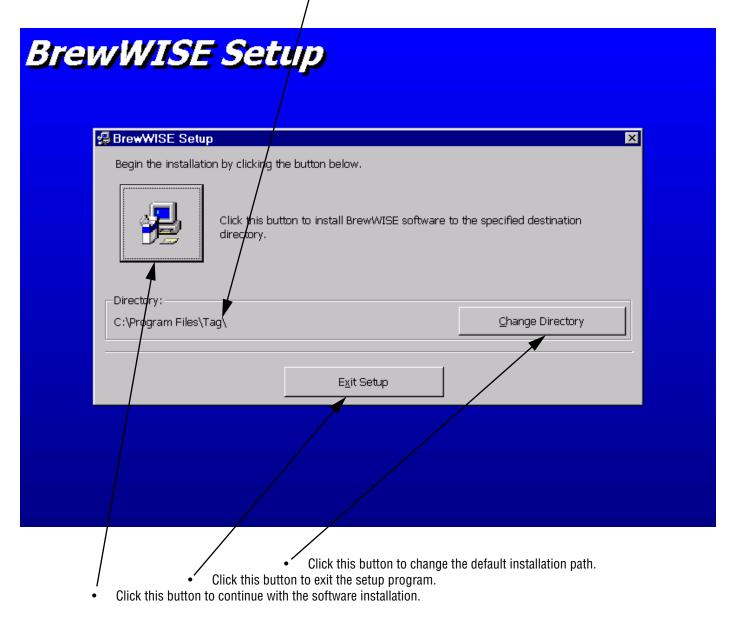


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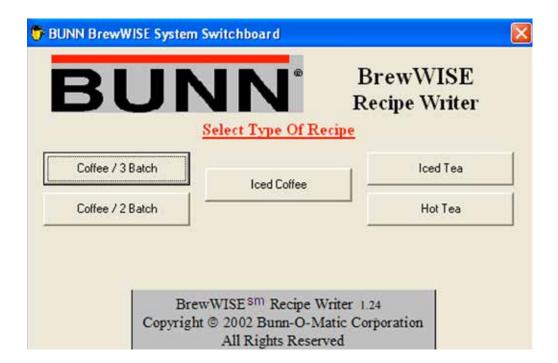
 After all the necessary files are copied, the installation program displays a Welcome screen that allows the user to continue with installation or exit the setup program. If any Windows applications are running, it is recommended that you close them at this time.



- The setup program will then prompt the user to choose a program group. It is recommended that the default BrewWISE® group be chosen. Click "Continue" to accept this Program Group.
- Once the "Continue" button is clicked, a progress bar will display as the installation completes. Shortly after, a message box indicating that BrewWISE® setup was completed successfully should appear. Clicking OK will complete the setup process.

Program Operation

- To begin using the BrewWISE® Recipe Writer, plug the serial cable connected to the Recipe Writer Box into the first available serial port on the host computer. If a USB to Serial Adapter Cable was included with your Recipe Writer, you may connect it between the attached serial cable on the Recipe Writer box and the USB port on the host computer. Plug in the power supply attached to the Recipe Writer Box. The green indicator lamp on the Recipe Writer Box should light to indicate that the hardware is ready.
- From your computer's desktop, click "Programs" -> "BrewWISE" -> "BrewWISE". You should then see the switchboard screen of the BrewWISE® Recipe Writer. If your writer hardware is connected properly, the program should display "Bunn BrewWISE® Recipe Writer Detected on Comm 1" towards the bottom of the switchboard form. Your Comm port number may be different depending on individual computer configurations. If the Recipe Writer Hardware is not detected, a message box will appear indicating so. You may enter, save and retrieve recipes and ads without the Recipe Writer hardware present, but you will not be allowed to write unless the proper hardware is detected. The switchboard form is pictured below.

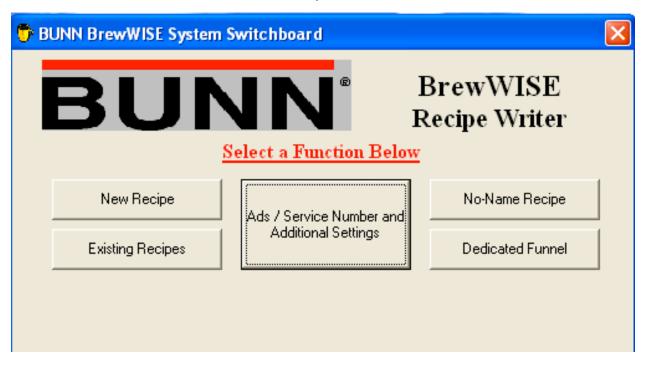


Coffee / 3 Batch



Clicking "Coffee / 3 Batch" from the Switchboard screen brings up Coffee / 3 Batch Switchboard form shown above.
 Use this option when writing recipes for brewers having 3 batch size selections. This includes SINGLE DBC and DUAL DBC models.

Coffee / 2 Batch



• Clicking "Coffee / 2 Batch" from the Switchboard screen brings up Coffee / 2 Batch Switchboard form shown above. Use this option when writing recipes for brewers having 2 batch size selections. This includes iCB and ITCB models.

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Coffee New Recipe





- Clicking "New Recipe" from the Coffee Switchboard screen brings up the main Recipe form. After a Coffee Name has been typed
 in and the "Enter" or "Tab" key is pressed, the remaining three buttons on the form will become active. Recipe volume parameters
 may be entered or saved in either English or Metric units. Depending on the specific software in your brewer, Recipes may be
 written in Metric units and recognized by the brewer as such. If you are more comfortable with Metric units, but your brewer only
 recognizes English units, the Recipe may be entered in Metric, then switched to English before writing the Recipe to the card or
 funnel.
- The instruction label provides information such as high and low parameter limits, depending on the specific text box you are in.
 This label also shows the allowable format for the numerical parameters, such as whether fractional amounts are allowed.
 Note: In text boxes that allow fractional values (a decimal point), whole numbers may still be used without error.
- Most of the text boxes can be typed directly into. The "Tab", "Shift-Tab" or "Enter" keys can be used to move the cursor on to the next text box. In order to set the Pulse Brew and Pre-Infusion times, the associated buttons must be clicked and the "OFF" text boxes must be double-clicked in order to set the times. These steps are present in order to insure that the user is only able to set Pulse Brew OR Pre-Infusion. Note: Although it is possible to mix Pulse Brew and Pre-Infusion batches on the same recipe, Pulse Brew and Pre-Infusion cannot be used on the same batch size.

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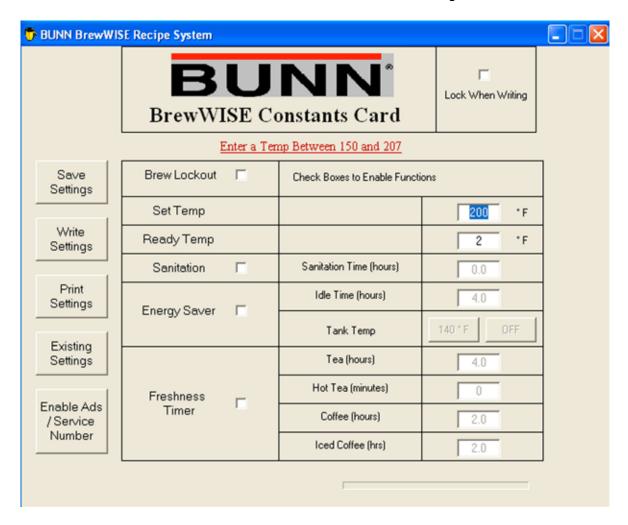
Existing Recipes



• Clicking the "Existing Recipes" button from either the Switchboard form or the main Recipe form brings up the BrewWISE® File Handler form. The File Handler form allows the user to Open files, Save files, Delete files, or Sort files by name or number. Double-clicking on a file name in the file list box brings the associated recipe into the main form for writing or editing. The File Handler also insures that all recipes have a unique name and number. In order for the brewer and grinder to recognize recipes properly, duplicate recipe names and / or numbers are not allowed.

• The File Handler form will select a directory set aside for the particular recipe type chosen.

Ads / Service Number and Additional Settings



The BrewWISE Constants Card screen (shown above) can be accessed by clicking the "Ads / Service Number and Additional Settings" button from the switchboard screen. Machine settings may be modified and transferred to the card.

After filling in the form for new settings, the constants can be edited and saved, written to a memory card, or a hard copy of the recipe can be printed to your default Windows printer.

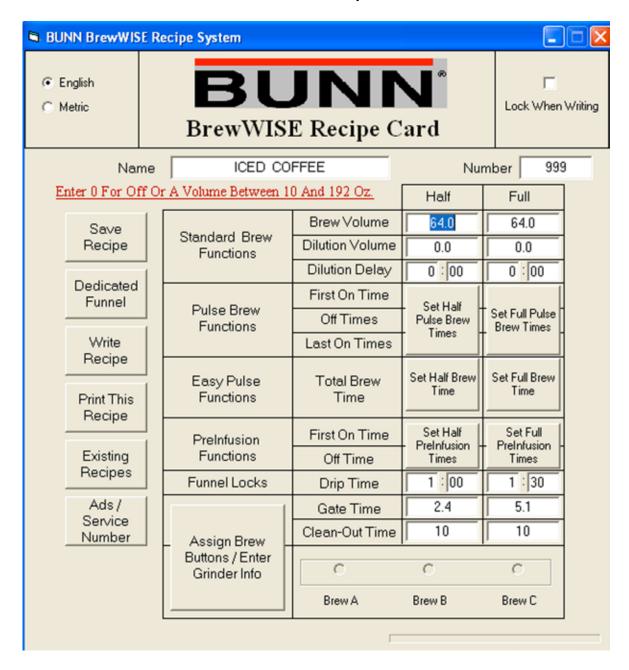
Clicking "Save Settings" will store the current displayed values. You will be asked if you want to overwrite the existing recipe.

After the settings have been filled in completely, it may be transferred to a recipe card by clicking the "Write" button. Make sure that the card is in place on the Writer Box before clicking the "Write" button. A progress bar and a message label will appear at the bottom of the recipe form during the write process in order to keep the user informed as to the status of the write. If the card returns the correct response to the PC, the application displays "Writing Successful". If the time-out period is reached before the memory card is written, the application displays "Write Has Timed Out". Generally, this is due to one of three things;

- 1 The memory card has been locked from a previous write,
- 2 The memory card is not properly in place on the Writer, Or
- 3 TheWriter hardware is not properly connected to the PC.

Clicking "Existing Settings" will load the previously saved settings.

Iced Coffee Recipes



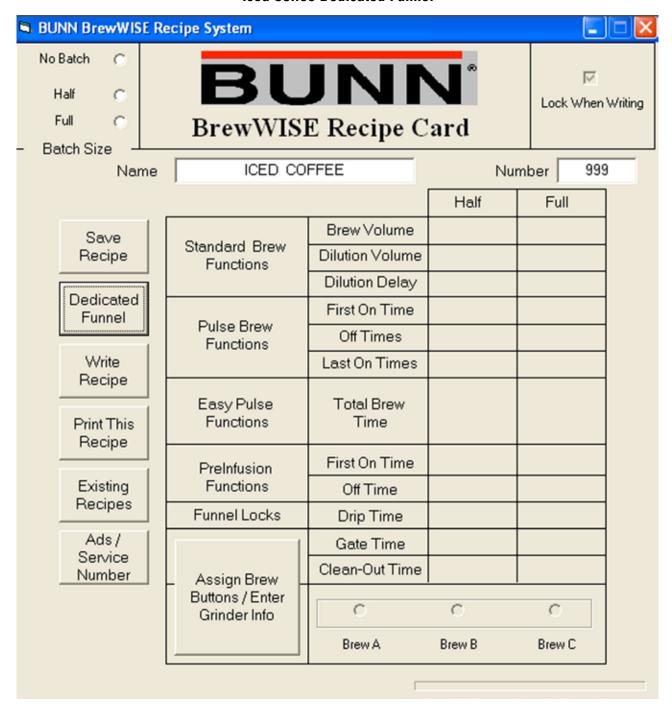
The Iced Coffee screen (shown above) can be accessed by clicking the "Iced Coffee" button from the switchboard screen. The Name is fixed as "ICED COFFEE" and Number is fixed as "999" and cannot be changed.

- Recipe volume parameters may be entered or saved in either English or Metric units. Depending on the specific software in your brewer, recipes may be written in Metric units and recognized by the brewer as such. If you are more comfortable with Metric units, but your brewer only recognizes English units, the Recipe may be entered in Metric, then switched to English before writing the Recipe to the card or funnel.
- The instruction label provides information such as high and low parameter limits, depending on the specific text box you are in. This label also shows the allowable format for the numerical parameters, such as whether fractional amounts are allowed. **Note:** In text boxes that allow fractional values (a decimal point), whole numbers may still be used without error.
- Most of the text boxes can be typed directly into The "Tab", "Shift-Tab" or "Enter" keys can be used to move the cursor on to the next text box. In order to set the Pulse Brew, Pre-Infusion, Easy Pulse times, the associated buttons must be clicked and the "OFF" text boxes must be double-clicked in order to set the times. These steps are present in order to insure that the user is only able to set Pulse Brew, Pre-Infusion, OR Easy Pulse. Note: Although it is possible to mix Pulse Brew and Pre-Infusion batches on the same recipe, Pulse Brew and Pre-Infusion cannot be used on the same batch size.

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Iced Coffee Dedicated Funnel



The Iced Coffee Dedicated Funnel screen (shown above) can be accessed by clicking the "Dedicated Funnel" button from the Iced Coffee Recipe screen. The Name is fixed as "ICED COFFEE" and Number is fixed as "999" and cannot be changed.

Notice that the Dedicated Funnel screen contains no text boxes for brewer or grinder parameters. When writing to a Dedicated Funnel, only the "Coffee Name", "Coffee Number", and "Batch" information is written to the funnel chip. Brew parameters must be entered manually at the brewer for each corresponding Dedicated Funnel name or a separate recipe card must be used in order to transfer the recipes.

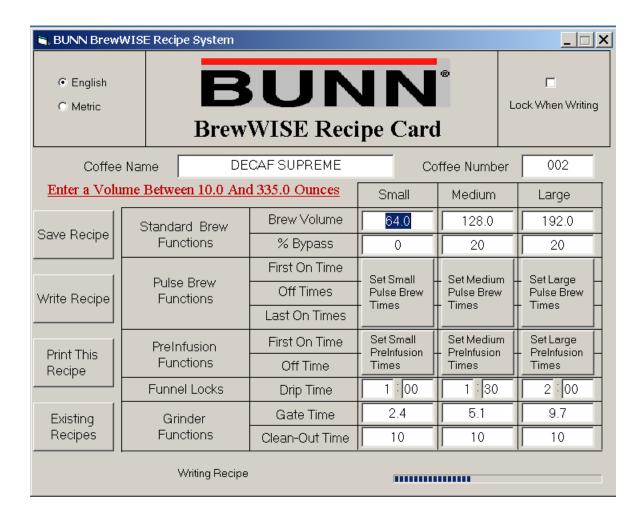
In order to prevent accidental erasure, Dedicated Funnels are always written "Locked". The application will not allow the user to clear the "Locked" check box in the dedicated funnel screen.

Existing Recipes

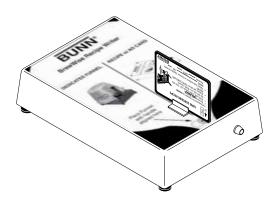


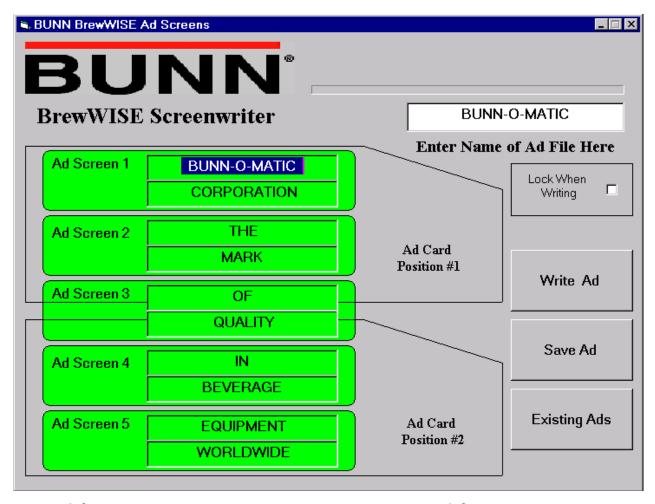
- After filling in the form for a new recipe or retrieving an existing recipe, the recipe can be edited and saved, written to a memory card, or a hard copy of the recipe can be printed to your default Windows printer.
- Clicking "Save" brings up the File Handler form where the user can scroll through the existing recipes in order to make sure the desired name or number are not already taken. If "Save" is clicked on the File Handler form, the application checks to make sure that the recipe name and number are unique before saving the recipe. In the event of a conflict, the application will prompt the user to either overwrite the existing recipe or go back to the main recipe screen in order to make changes.

Writing Recipes

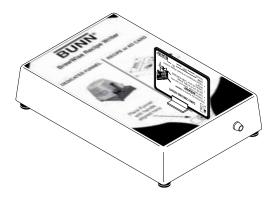


- After a recipe has been filled in completely, it may be transferred to a recipe card by clicking the "Write" button. Make sure that the card is in place on the Writer Box before clicking the "Write" button. A progress bar and a message label will appear at the bottom of the recipe form during the write process in order to keep the user informed as to the status of the write. If the card returns the correct response to the PC, the application displays "Writing Successful". If the time-out period is reached before the memory card is written, the application displays "Write Has Timed Out". Generally, this is due to one of three things;
 - 1 The memory card has been locked from a previous write, 2 The memory card is not properly in place on the Writer, Or 3 The Writer hardware is not properly connected to the PC.





- The BrewWISE® Recipe Writer can be used to transfer ad messages from the BrewWISE® software into the brewer by using an ad (advertisement) card. Each position can hold five 16-character lines, so that the total ad stored in the brewer can consist of ten 16-character lines. Ads are displayed in screens, each 2-line screen displaying for a few seconds in rotation while the brewer is idle. Writing is done in the same manner as with recipes, except that two write cycles are required. The ad (advertisement) card contains two memory chips labeled #1 and #2. Before writing, the card must be positioned on the box as shown with the #1 chip above the indicated alignment target. After successfully writing to #1, the application will prompt the user to reposition the card so that chip #2 is aligned with the target. If ads already exist in a brewer, writing only the first ad position may provide unexpected results. For best results, always write both positions when updating existing ads on a brewer, even if the second position consists only of blank lines. For a more complete explanation of writing to cards, see the previous section entitled "Writing Recipes". Note: Although blank lines may be left at the end of an ad, leaving one complete ad screen blank can cause undesired results. The application will warn the user if unacceptable combinations are encountered.
- Completely erasing ads can be accomplished by writing two positions consisting entirely of blank lines.



Coffee Dedicated Funnel





3 Batch Dedicated Funnel

2 Batch Dedicated Funnel

The Dedicated Funnel screen (shown above) can be accessed by clicking the "Dedicated Funnel" button from the switchboard screen. The Dedicated Funnel Function is intended to be used when:

- 1. The ground coffee to be used in the funnel is **NOT** dispensed by a BrewWISE® grinder.
- 2. The same coffee name is always used in the funnel.
- 3. There is no plan to change to a different named coffee in the funnel. The dedicated funnel has the name locked into it and can **NEVER** be erased.

The main advantage of the dedicated funnel function is that it allows the use of named recipes when the BrewWISE® grinder is not used; operation is not limited to the two "No-Name" recipes.

Notice that the Dedicated Funnel screen contains no text boxes for brewer or grinder parameters. When writing to a Dedicated Funnel, only the "Coffee Name", "Coffee Number", and "Batch" information is written to the funnel chip. Brew parameters must be entered manually at the brewer for each corresponding Dedicated Funnel name or a separate recipe card must be used in order to transfer the recipes.

In order to prevent accidental erasure, Dedicated Funnels are always written "Locked". The application will not allow the user to clear the "Locked" checkbox in the dedicated funnel screen.



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Coffee No-Name Recipes





3 Batch Dedicated Funnel

2 Batch Dedicated Funnel

The No-Name recipe screens are accessed by clicking on one of the "No-Name Recipe" buttons on the switchboard screen. The "Coffee Name" in the No-Name recipe screen is filled in automatically by the application and cannot be edited. The "Coffee Number" for a No-Name recipe is always 000 and cannot be changed.

No-Name Recipe Notes

When a brew funnel is inserted in under the sprayhead of the BrewWISE® brewer, the information stored in the funnel handle is read by the brewer.

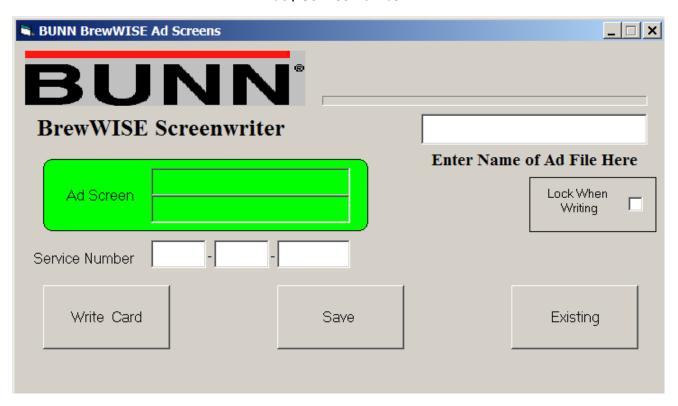
If the coffee was ground into the funnel by a BrewWISE® grinder, then the Coffee Name, the Coffee Number, and the batch size information would have been stored in the funnel handle. The brewer reads this information, looks into its memory, and retrieves the corresponding brewing recipe.

If the coffee in the funnel did <u>NOT</u> come from a BrewWISE® grinder, then there is no information in the handle. When placed into the brewer, only the fact that the funnel is present is detected. In this case, the brewer uses the "No-Name" recipe since there is no name to look up in memory. On a Dual brewer, it is possible to have two different No-Name recipes, one for the left brewing head and one for the right.

After a No-Name recipe has been filled in completely, it may be transferred to a recipe card by clicking the "Write" button. Make sure that the card is in place on the Writer Box before clicking the "Write" button. A progress bar and a message label will appear at the bottom of the recipe form during the write process in order to keep the user informed as to the status of the write. If the card returns the correct response to the PC, the application displays "Writing Successful". If the time-out period is reached before the memory card is written, the application displays "Write Has Timed Out". Generally, this is due to one of three things;

1 - The memory card has been locked from a previous write, 2 - The memory card is not properly in place on the Writer, Or 3 - The Writer hardware is not properly connected to the PC.

Ads / Service Number



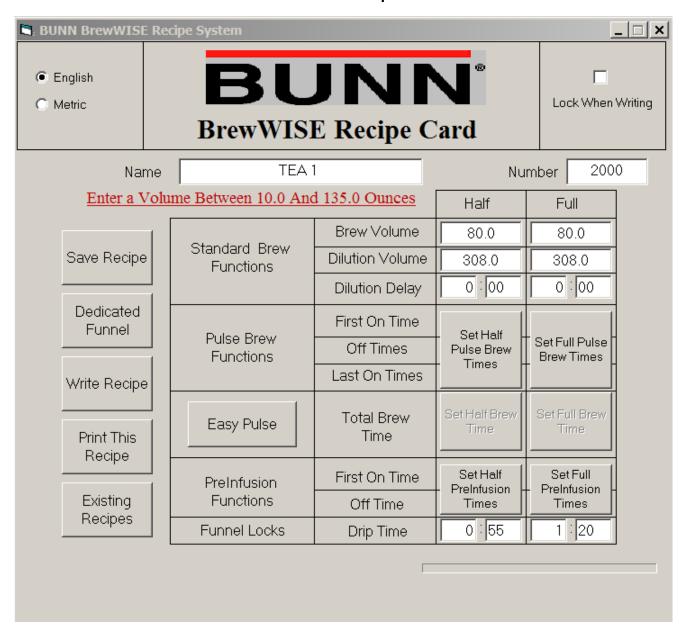
The BrewWISE Recipe Writer can be used to transfer Ad / Service Number information from the BrewWISE software into brewers so equipped. The 2 line ad and the Service Number are displayed for a few seconds in rotation while the brewer is idle. Writing is done in the same manner as with recipes.

Iced Tea Selector



The Iced Tea selector screen (shown above) can be accessed by clicking the "Iced Tea" button from the switchboard screen. From here you may select one of three fixed tea names (1, 2, or 3), a Numbered Tea Recipe where a unique name and number can be given to a recipe, or an Ads/Service Number screen where you can write an Ad card.

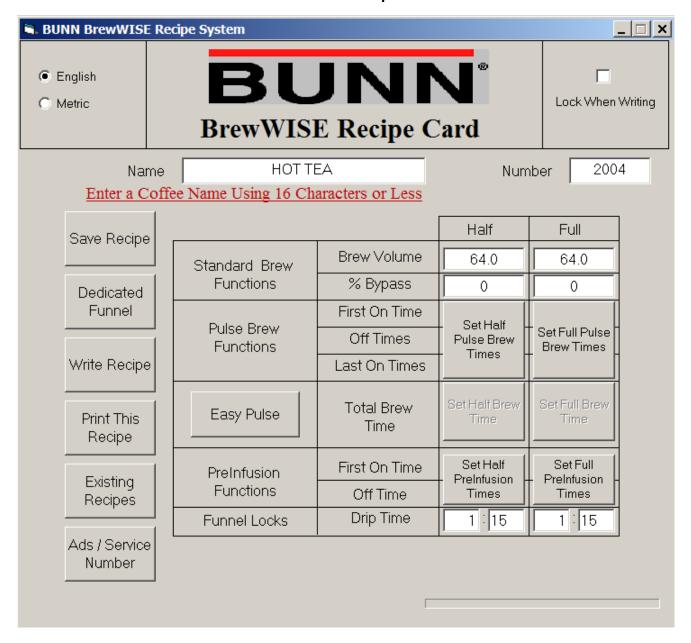
Iced Tea Recipe



Selecting Tea 1, Tea 2, Tea 3, or Numbered Tea Recipe recipes on the Iced Tea Selector will bring up the Iced Tea Recipe screen. If Tea 1, 2, or 3 were selected the Name and number can not be changed. If Numbered Tea Recipes was selected a Name and Number may be assigned to the recipe.

- The instruction label provides information such as high and low parameter limits, depending on the specific text box you are in. This label also shows the allowable format for the numerical parameters, such as whether fractional amounts are allowed. **Note:** In text boxes that allow fractional values (a decimal point), whole numbers may still be used without error.
- Most of the text boxes can be typed directly into The "Tab", "Shift-Tab" or "Enter" keys can be used to move the cursor on to the next text box. In order to set the Pulse Brew and Pre-Infusion times, the associated buttons must be clicked and the "OFF" text boxes must be double-clicked in order to set the times. These steps are present in order to insure that the user is only able to set Pulse Brew OR Pre-Infusion. Note: Although it is possible to mix Pulse Brew and Pre-Infusion batches on the same recipe, Pulse Brew and Pre-Infusion cannot be used on the same batch size.

Hot Tea Recipe



The Hot Tea screen (shown above) by clicking the "Hot Tea" button from the switchboard screen. The Name is fixed as "HOT TEA" and Number is fixed as "2004" and cannot be changed.

The information is entered, saved and written as in the coffee recipe screen.

Troubleshooting

- 1. If you have software for your PDA installed on the computer used to connect to the BrewWISE® Recipe Writer box, it may reserve the computers serial port as soon as the computer is started up, causing the port to become unavailable to the BrewWISE® Recipe Writer hardware. In order for the BrewWISE® Recipe Writer to write to a card or funnel, the PDA's software may have to be disabled or un-installed before starting the Recipe Writer program.
- 2. If a valid communication port cannot be found by the Recipe Writer software, yet the hardware for one exists on the host computer, try disabling any enabled IR ports on the host computer.
- 3. The BrewWISE® Recipe Writer software was designed and tested to work in the English/U.S. version of Microsoft Windows. Using this software in other versions of Microsoft Windows may produce unexpected results.
- 4. The BrewWISE® Recipe Writer software will not run directly from the CD or floppy disks; it must be installed using the setup.exe program found on the installation media.

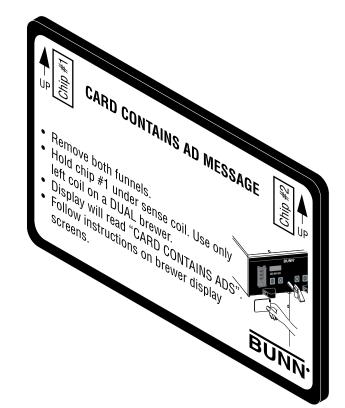
Replacement Parts

Replacement cards may be ordered from Bunn-O-Matic using the following part numbers:

37076.0000 - USB to Serial Adapter Cable (Not Illustrated)



Recipe Card - 34447.0000



Ad Card - 34448.0000