Culligan®

Culligan® High Efficiency Automatic Water Filter Owners Guide





## Attention Culligan Customer

The installation, service and maintenance of this equipment should be rendered by a qualified and trained service technician. Your local independently operated Culligan dealer employs trained service and maintenance personnel who are experienced in the installation, function and repair of Culligan equipment. This publication is written specifically for these individuals and is intended for their use.

We encourage Culligan users to learn about Culligan products, but we believe that product knowledge is best obtained by consulting with your Culligan dealer. Untrained individuals who use this manual assume the risk of any resulting property damage or personal injury.



WARNING!

Electrical shock hazard! Prior to servicing equipment, disconnect power supply to prevent electrical shock.

NOTE

This system is not intended for use where water is microbiologically unsafe or with water of unknown quality.



#### **WARNING!**

If incorrectly installed, operated or maintained, this product can cause severe injury. Those who install, operate, or maintain this product should be trained in its proper use, warned of its dangers, and should read the entire manual before attempting to install, operate, or maintain this product.



#### WARNING!

This device complies with part 15 of the FCC rules subject to the two following conditions: 1) This device may not cause harmful interference, and 2) This device must accept all interference received including interference that may cause undesired operation.

This equipment complies with Part 15 of the FCC rules. Any changes or modifications not expressly approved by the manufacturer could void the user's authority to operate the equipment. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.



#### CAUTION!

To reduce the risk of fire, use only No. 26 AWG or larger telecommunications line cord.



#### **CAUTION!**

This product is not to be used by children or persons with reduced physical, sensory or mental capabilities, or lack of experience or knowledge, unless they have been given supervision or instruction.



#### CAUTION!

Children should be instructed not to play with this appliance.



#### CAUTION!

If the power cord from the transformer to the unit looks or becomes damaged, the cord and transformer should be replaced by a Culligan Service Agent or similarly qualified person in order to avoid a hazard.

Products manufactured and marketed by Culligan International Company (Culligan) and its affiliates are protected by patents issued or pending in the United States and other countries. Culligan reserves the right to change the specifications referred to in this literature at any time, without prior notice. Culligan, AquaSensor, Tripl-Hull, and SoftMinder are trademarks of Culligan International Company or its affiliates.

## **Culligan International Company**

9399 West Higgins Road, Suite 1100 Rosemont, Illinois 60018 1-847-430-2800 www.culligan.com



## **Contents**

Thank You
Specifications
Introduction
Navigating the Menus and Keypad4
First Time Setup
Information 9
Set Date and Time
Regeneration
Care and Cleaning of Your Water Conditioner
Recommended Preventative Maintenance Inspection Schedule
Things to Check Before You Call for Service
Error Codes
When and How to Bypass Your Water Filter
Performance Data Sheets
High Efficiency 9" Cullar and 10" Cullar Filter
High Efficiency 9" Cullneu and 10" Cullneu Filter
High Efficiency 9" Filtr-Cleer and 10" Filtr-Cleer Filter
Records and Data
Important Data on Your Water Filter
Culligan Limited Warranty
With Culligan You Get More Than A Quality Product
Index



## About this Manual

#### This manual:

- familiarizes the operator with the equipment
- explains installation and setup procedures
- provides basic programming information
- explains the various modes of operation
- gives specifications and troubleshooting information

#### **Read this Manual First**

Before you operate the Culligan High Efficiency Automatic Water Filter, read this manual to become familiar with the device and its capabilities.

#### **Safe Practices**

Throughout this manual there are paragraphs set off by special headings.

Notice (or Note) is used to emphasize installation, operation or maintenance information which is important, but does not present any hazard. For example,

#### NOTICE The nipple must extend no more than 1 inch above the cover plate.

Caution is used when failure to follow directions could result in damage to equipment or property.



CAUTION! Disassembly while under water pressure can result in flooding.

Warning is used to indicate a hazard which could cause injury or death if ignored.



WARNING! Electrical shock hazard! Unplug the unit before removing the timer mechanism or cover plates!

The CAUTION and WARNING paragraphs are not meant to cover all possible conditions and situations that may occur. Understand that common sense, caution, and careful attention are conditions which cannot be built into the equipment. These MUST be supplied by the personnel installing, operating, or maintaining the system.

Be sure to check and follow the applicable plumbing codes and ordinances when installing this equipment. Local codes may prohibit the discharge of sanitizing or descaling solutions to drain.

Use protective clothing and proper face or eye protection equipment when handling chemicals or tools.

NOTE The Culligan High Efficiency Filter is not intended for use with water that is microbiologically unsafe or of unknown quality without adequate disinfection either before or after the system.

NOTE Check with your public works department for applicable local plumbing and sanitation codes. Follow local codes if they differ from the standards used in this manual. To ensure proper and efficient operation of the Culligan High Efficiency Filter to your full satisfaction, carefully follow the instructions in this manual.



#### Welcome To Your New World of Better Living with Culligan Water.

Thank You

The Culligan High Efficiency Cullar Filter has been tested and certified by WQA against NSF/ANSI Standard 372, CSA B483.1, and NSF/ANSI Standard 42 for the effective reduction of chlorine taste and odor up to 120,000 gallons for the 9" filter and 180,000 gallons for the 10" filter as verified and substantiated by test data.

The Culligan High Efficiency Cullneu® Filter has been tested and certified by WQA against NSF/ANSI Standard 372, CSA B483.1, and NSF/ANSI Standard 42 for acid neutralization up to 14,500 gallons for the 9" filter and 21,750 gallons for the 10" filter

The Culligan High Efficiency Filtr-Cleer® 9" and 10" models have been tested and certified by WQA against NSF/ANSI Standard 372, CSA B483.1, and NSF/ANSI Standard 42 for Class V (≥30µm to <50µm) particulate reductions as verified and substantiated by test data.

The Culligan High Efficiency Water Filter Outdoor Enclosure complies with the UL 50/50E and UL 746C standards for a NEMA 3R Enclosure Rating.

For installations in Massachusetts, Massachusetts Plumbing Code 248 CMR shall be adhered to. Consult your licensed plumber for installation of this system. This system and its installation must comply with state and local regulations. The use of saddle valves is not permitted.

Congratulations, too, on selecting one of the "first family" of water treatment in the prestigious Culligan High Efficiency Water Filters. With Culligan's many years of knowledge and experience in water treatment, you can be confident that the model you selected has been designed and engineered to provide years of service with a minimum of care and attention.

Some localities have corrosive water. A water filter cannot correct this problem and so its printed warranty disclaims liability for corrosion of plumbing lines, fixtures or appliances. If you suspect corrosion, your Culligan Dealer has equipment to control the problem.



## **Specifications**

	9-Inch	10-Inch
General	7 men	i o incii
Mineral Tank Size	9x48 in. (229x1,219mm)	10x54 in. (254x1,372mm)
Control	Hi-Flo Power Valve	Hi-Flo Power Valve
Timer	Electronic	Electronic
Temperature Limits	33-120°F (1-50°C)	33-120°F (1-50°C)
Water Pressure Limits	20-120 psi (140-830kPa)	20-120 psi (140-830kPa)
Water Pressure Limits (Canada)	20-90 psi (140-620kPa)	20-90 psi (140-620kPa)
Electrical Requirements	24V/50-60 Hz	24V/50-60 Hz
Electrical Power Consumption, Min./Max.	8.4 Watts/21.6 Watts	8.4 Watts/21.6 Watts
Overall Height	54 in. (1,372 mm)	60 in. (1,524 mm)
Filtr-Cleer®		,
Rated Service Flow @ Pressure Drop	9.0 gpm @ 9 psi	12.0 gpm @ 15 psi
Minimum Practical Filtration Size	30 microns	30 microns
Maximum Particulate Matter	150 NTU	150 NTU
Maximum Suspended Solids	150 mg/L	150 mg/L
Drain Flow, Maximum <sup>1</sup>	4.5 gpm	7.0 gpm
pH Limitation	6.0–9.5	6.0–9.5
Recharge Time <sup>2</sup>	30 min.	30 min.
Recharge Water Consumption, Av. <sup>3</sup>	90 gal.	140 gal.
Freeboard <sup>4</sup>	20 ± 1.5 inches	19 ± 1.5 inches
Cullar®		
Rated Service Flow @ Pressure Drop	4.0 gpm @ 2.0 psi	5.9 gpm @ 4.0 psi
Drain Flow, Maximum1	3.5 gpm	5.5 gpm
pH Limitation	5.0–11.0	5.0–11.0
Recharge Time <sup>2</sup>	30 min.	30 min.
Recharge Water Consumption, Av. <sup>3</sup>	40 gal.	110 gal.
Cullar Media Volume	0.73 cu. ft.	1.5 cu. ft.
Cullsan® Underbedding Media Amount	10 lbs. (.1 ft³)	20 lbs. (.2 ft³)
Freeboard <sup>4</sup>	22 ± 1.5 inches	24 ± 1.5 inches
Rated Capacity	120,000 gallons	180,000 gallons
Cullneu®5		
Rated Service Flow @ Pressure Drop	4.0 gpm @ 2.0 psi	5.9 gpm @ 5.0 psi
Drain Flow, Maximum <sup>1</sup>	3.5 gpm	5.5 gpm
pH Limitation*	5.2-6.8	5.2-6.8
Recharge Time <sup>2</sup>	30 min.	30 min.
Recharge Water Consumption, Av. <sup>3</sup>	70 gal.	110 gal.
Cullneu Media Volume	1.1 cu. ft.	1.6 cu. ft.
Freeboard <sup>4</sup>	13 ± 1.5 inches	18 ± 1.5 inches
Rated Capacity	14,500 gallons	21,750 gallons

<sup>&</sup>lt;sup>1</sup>Backwash at 120 psi (830 kPa).

NOTE Under dynamic conditions, it may be necessary to mix five parts Cullneu with one part Cullneu C to effectively raise the pH.

<sup>&</sup>lt;sup>2</sup>Factory Settings.

<sup>&</sup>lt;sup>3</sup>Factory Settings and 120 psi line pressure.

<sup>&</sup>lt;sup>4</sup>Measured from top of media surface to top surface of tank threads (backwashed and drained).



#### Filtr-Cleer®

The High Efficiency Filtr-Cleer Automatic Water Filter is capable of reducing particulate matter down to 30 microns particle size. It will not remove color, organics, colloidal turbidity or dissolved solids. Some applications follow:

- Reduction of suspended matters in any water system.
- Reduction of particulate matter, such as clay, mud, etc.
- Prefiltration of oxidized iron ahead of an automatic or manual softener.
- Reduction of light sand.

## NOTE If sands cannot be removed from the Filtr-Cleer tank during backwashing, a sand trap should be installed.

 After the retention tank when a Cul-Cleer® system is used to correct hydrogen sulfide or colloidal suspension problems.

The quality and number of gallons filtered water between backwashes will depend upon the amount, type, and size of the particulate matter being filtered. If a water sample is sent to our laboratory, where application of a Filtr-Cleer unit is contemplated, write "Filtr-Cleer Analysis" on the sample tag. Send an additional sample of water for a standard water analysis. The laboratory will test for Nephelometric Turbidity Units (NTU) and suspended solids (mg/L). The sample will also be filtered through 10 micron filter paper and NTU run on a filtered sample. If the NTU of the raw water exceeds 150, suspended solids exceed 150 mg/L or the filtered water through the 10 micron filter paper is of an unacceptable quality, a Filtr-Cleer filter may not be applicable. As a guide, the U.S. Public Health Drinking Water standards states the turbidity should not exceed 1 NTU. The exact number of gallons filtered between backwashes cannot be given because of many variables.

#### Cullar® Filter

The High Efficiency Water Filter with Cullar Media will reduce chlorine taste and odor and other common bad tastes and odors. It will not remove hydrogen sulfide. It is important to note that whenever the cause of an objectionable taste or odor has not been established, Health Authorities should determine if water is safe to drink. If bacterial contamination is present, a Cul-Cleer® system is indicated. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system.

#### Cullneu® Filter

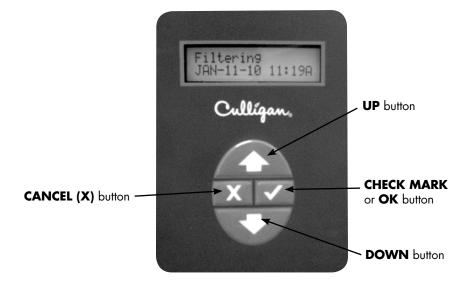
The High Efficiency Water Filter with Cullneu Media will neutralize slightly acid water (pH (5.2 to 6.8)) and thus help to prevent unsightly brown or green stains due to corrosion of household plumbing. If the pH is between 5 and 6, one part of Cullneu C media should be mixed with 5 parts of Cullneu media to provide additional neutralizing capability. If the water to be treated has a pH less than 5, a high hardness, or a high carbon dioxide level, Cullneu may not be applicable; a solution feeder should be used. Since Cullneu adds hardness, it should be used prior to a softener.

In order to size and apply the equipment correctly, a complete analysis of the water supply should be obtained. This can best be accomplished by contacting your local Culligan dealer, who will be able to test the water supply right at the site, or arrange to have one or more water samples sent to the Culligan laboratory for a more detailed analysis.

## Introduction



# Navigating the Menus and Keypad





**UP ARROW** button: scrolls up the menu



**DOWN ARROW** button: scrolls down the menu



**CHECK MARK** button: selects the highlighted option, opens a new screen, or accepts a changed setting



**CANCEL** or **X** button: returns to the previous screen or cancels a changed setting



Controller



Remote

NOTE Hold down the or to quickly scroll through the setting without repeatedly pressing the button.

Filtering JAN-01-12 11:19A

- 1. This is the **HOME SCREEN**. Press any button except **X** to advance to the **MAIN MENU SCREEN**.
- >1)INFORMATION
  2)MANUAL MODE
- 2. This is the **MAIN MENU SCREEN**. The ">" symbol indicates the menu selection. Press or to scroll through the menu.



- 1)INFORMATION >2)MANUAL MODE
- 3. This is the **MAIN MENU SCREEN**. The ">" symbol indicates the menu selection. Press or to scroll through the menu.
- 4. Press **1** to select a setting.

MANUAL MODE REGEN NOW 5. The screen displays the setting (Manual Mode) and the current value (Regen Now). Press to change the value.

MANUAL MODE >REGEN NOW

6. The screen displays the ">" symbol next to the value, indicating that the value may be changed. Press or to change the value. For example, press to change the value to REGEN TONITE. Press again to select the next available value, BYPASS.

MANUAL MODE REGEN NOW 7. Press X to cancel the changed setting and revert to the default setting. The screen displays the default setting.

MANUAL MODE >BYPASS

- 8. Press to accept the changed value. If the setting values are displayed, the ">" symbol no longer appears next to the value.
- 1)INFORMATION >2)MANUAL MODE
- 9. The screen then returns to the **MAIN MENU**. Press **X** to return to the **HOME SCREEN**.

Filtering
JAN-01-12 11:19A

10. The screen displays the **HOME SCREEN**.

NOTE Unplugging the Culligan HE water filter will not affect any of the control settings (the control must be plugged in for at least 10 minutes). Once programmed, the settings will be stored indefinitely.



## First Time Setup

#### **First Time Setup Procedure**

When a new controller is first powered on, the screen will display the first time setup message. The HE Controller is designed to simplify the setup and installation process by making some default recommendations during the initial setup. These default settings are appropriate for most common installations.

After completing the plumbing connections to the water filter, turn on and program the HE Controller.

FIRST TIME SETUP PRESS DOWN ARROW

When a new controller is first turned on, the screen displays **FIRST TIME SETUP**. Press to display the first setup screen.

#### **Serial Number**

s/N: 00000123

The screen displays the serial number for this Smart Controller. Press to display the firmware version information screen.

NOTE If this unit will be installed with a modem, it is required that this electronic ID number be reported to Culligan on the IQR form.

#### **Firmware Version**

FWR217LT21 Jul 24 2012 The screen displays the firmware version and date installed for this Smart Controller. Press to display the month setup screen.

#### Set Month (Jan-Dec)

SET MONTH

The screen displays the month setting. Press to accept the information displayed (and view the next setting), or press to change the setting.

SET MONTH >JAN

If you press the screen displays a cursor (>) symbol next to the displayed value. Press to see the next available value.

SET MONTH >FEB

The screen displays February instead of January. Press 
to accept the selected month and advance to the next setting, **SET DAY**.

### Set Day (0-31)

SET DAY >3

The screen displays the day setting. Press to accept the information displayed (and view the next setup screen), or press to change the setting.

Press to see the next available value. Press to accept the selected day and advance to the next setting, **SET YEAR**.



#### Set Year (2009-2030)

SET YEAR >2012

The screen displays the year setting. Press to accept the information displayed (and view the next setup screen), or press to change the setting.

Press to see the next available value. Press to accept the selected year and advance to the next setting, **CLOCK TYPE**.

#### Set Clock Type (12 or 24)

CLOCK TYPE >12 HR

The screen displays the clock type setting. Press to accept the information displayed (and view the next setup screen), or press to change the setting.

Press to change the clock type from 12-hour to 24-hour. Press to accept the selected clock type and advance to the next setting, **SET HOUR**.

#### Set Hour (12PM-11AM)

SET HOUR >10AM

The screen displays the hour setting. Press to accept the information displayed (and view the next setup screen), or press to change the setting.

Press to change the hour (in this example, from 12PM to 10AM).

Press to accept the selected hour and advance to the next setting, **SET MINUTES**.

#### Set Minutes (0-60)

SET MINUTES >20

The screen displays the minutes setting. Press to accept the information displayed (and view the next setup screen), or press to change the setting.

Press to change the minutes (in this example, from 0 to 20). Press to accept the selected hour and advance to the next setting, **UNIT TYPE**.

#### Unit Type (Softener, Filter, or Resin + Carbon)

UNIT TYPE >FILTER

The screen displays the unit type setting. Press **v** to change the setting to **FILTER** and advance to the next setting, **VALVE TYPE**.

#### Valve Type (HE 1, HE 1.25, HE 1.5, HE 1 Twin, HE 1.5 Twin, 4-Cycle, 5-Cycle, Plat Plus)

VALVE TYPE >HE 1

The screen displays the valve type setting. Press to accept the default setting (**HE 1**) and advance to the next setting, **UNITS**.

#### Units (U.S. Inch or Metric)

UNITS >US The screen displays the units of measure setting. Press to accept the default setting (US) and advance to the next setting, **MEDIA LIFE**.



#### **Media Life**

MEDIA LIFE >100000

The screen displays the media life setting (0–100,000,000), which specifies the estimated lifetime total flow of the filter media in gallons. Once the total flow reaches the programmed media life, the controller displays the alarm message **REPLACE FILTER MEDIA**. Press to accept the information displayed (leave the HE setting at the default, 100,000) and advance to the next setting, **TOTAL CAPACITY**.

#### **Total Capacity**

TOTAL CAPACITY >1000

The screen displays the total capacity setting (10–999999for the filter, which specifies how often the filter will initiate reconditioning based on total flow, in gallons. When the total flow reaches total capacity, the filter initiates reconditioning at the preset time.

NOTE Culligan recommends using REGEN INTERVAL (Time Clock Backup) even if a meter is used to inititate reconditioning.

Press to accept the default HE setting, 1000.

#### **Completed First Time Setup**

INITIALIZING
JAN-01-12 12:01P

When the setup is complete, the circuit board microprocessor automatically calculates filter capacity. The screen displays the initializing status and the current date and time, and then transitions to the home screen.

FILTERING
JAN-01-12 12:01P

The screen displays the current state (the display alternates between Filtering and any error) and the date/time set for the unit. This is the default home screen.

The controller is designed to simplify the setup and installation process by making some default recommendations during the Initial Setup. The default settings are designed to be appropriate for most common installations.



The following information can be displayed at the control valve or remote display. These settings are readonly. Press or to scroll through the settings. Press to view the previous setting.

## Information

Screen Display	Range	Setting Description
FILTERING JAN-01-12 11:19A	N/A	1. From the <b>HOME</b> screen, press to view the main menu.
>1)INFORMATION 2)MANUAL MODE	1–6	<ol> <li>The screen displays the main menu. Press</li></ol>
FILTER LIFE LEFT 50000 GAL	0– 50,000	<ol> <li>The screen displays the FILTER LIFE LEFT in gallons.</li> <li>Press to select the next information screen.</li> </ol>
FILTER LIFE LEFT 100 DAYS	0–100	4. The screen displays the <b>FILTER LIFE LEFT</b> in days. Press to see the next information screen.
REMAIN CAPACITY 700 GAL	0-no limit	5. The screen displays the filtering capacity remaining, measured in gallons (liters), before initiating reconditioning. Press to see the next information screen.
CURRENT FLOWRATE	0-no limit	6. The screen displays the current flow rate, measured in gallons (liters) per minute. Press to see the next information screen.
TODAY'S USAGE 100 GAL	0-no limit	<ol> <li>The screen displays today's water usage, measured in gallons (liters). Press to see the next information screen.</li> </ol>
AVERAGE DAILY 300 GAL	0-no limit	8. The screen displays average water usage for this configuration. Press to see the next information screen.
NEXT REGEN ON JAN-03	N/A	9. The screen displays the date of the next regeneration, based on average daily water usage. Press to see the next information screen.



Screen Display	Range	Setting Description
TOTAL WATER USED 1000 GAL	0-no limit	<ul><li>10. The screen the total water used for this configuration.</li><li>Whole numbers are displayed above 100 gallons.</li><li>Press to see the next information screen.</li></ul>
EXT FILT CAP REM 20000 GAL	0–no limit	11. If an external filter is used, the screen displays the remaining capacity of the filter. When the remaining capacity reaches zero, the system triggers the External Filter Alarm. Press to return to the main menu.
>1)INFORMATION 2)MANUAL MODE		12. The screen displays the main menu. Press X to exit to the home screen.
FILTERING JAN-01-12 11:19A		13. The screen displays the home screen.



To update the date and time on the HE Filter, follow this procedure.

## Set Date and Time

Screen Display	Range	Setting Description
FILTERING JAN-01-12 11:19A	N/A	14. Start at the <b>HOME SCREEN</b> . Press to advance to the <b>MAIN MENU SCREEN</b> .
2)MANUAL MODE >3)SET DATE/TIME	N/A	<ul> <li>15. Press to scroll to 3) SET DATE/TIME.</li> <li>16. Press to display the date and time settings.</li> </ul>
et Month		<u></u>
SET MONTH JAN	Jan-Dec	17. The screen displays the month setting. Press  to display the next setting, or press  to change the month setting.
SET MONTH >JAN	Jan-Dec	18. The screen displays a cursor next to the month. Press to display the next value (here, changing January to February).
SET MONTH >FEB	Jan-Dec	19. Press to display the next value (here, changing January to February).
SET MONTH FEB		20. Press ✓ to accept the new value. The screen displays the month without the cursor and advances to the Day setting.
et Day	ı	<b></b>
SET DAY >2	1–30	1. Press to advance to the next setting if the day is correct or press to change the day setting. Press to display the next value (for example, change 1 to 2).
		2. Press  to accept the new value. The screen displays the day without the cursor and advances to the Year setting
et Year	•	1. Press to advance to the next setting if the year is cor-
SET YEAR >2012	2009–30	rect, or press to change the year setting. Press to display the next value (for example, change 2010 to 2012).
	2007 00	2. Press to accept the new value. The screen displays the year without the cursor and advances to the Clock Type setting.



Screen Display	Range	Setting Description
Set Clock Type		
CLOCK TYPE >12 HR	12 or 24	Press to advance to the next setting if the clock type is correct, or press and then to change the clock type setting (leave at default setting, 12 hour).
		Press to accept the new value. The screen displays the clock type without the cursor and advances to the Set Hour setting.
Set Hour		<u></u>
SET HOUR >10AM	12PM- 11AM	Press to advance to the next setting if the hour is correct, or press and then to change the hour (in this example, from 12PM to 10AM).
		Press to accept the new value. The screen displays the hour setting without the cursor and advances to the Set Minutes setting.
Set Minutes		
SET MINUTES	0–60	Press to advance to the next setting if the clock type is correct, or press and then to change the minutes (in this example, from 0 to 20).
		Press to accept the new value. The screen displays the minutes without the cursor and advances to the Daylight Savings setting.
Set Daylight Savings T	ime	
DAYLIGHT SAVINGS	Yes No	Press to advance to the next setting if the daylight savings time setting is correct, or press and then to change the setting.
		Press to accept the new value. The screen displays the day- light savings setting without the cursor.
Return to the Home Sc	reen	
FILTERING JAN-01-12 11:19A		Press X until the screen displays the <b>HOME SCREEN</b> and saves the settings.



There are several conditions that will cause the control to trip a regeneration. The screen displays REGEN TONITE when the control has signaled for a regeneration. REGENERATING is displayed while the control is in regeneration. The following are conditions that will call for regeneration:

- 1. When the Soft-Minder® meter has recorded the passage of a predetermined number of gallons.
- 2. At the preset time, when the number of days without a regeneration is equal to the regeneration interval (timeclock backup) setting.
- 3. At the preset time, when REGEN TONITE is selected. The screen displays REGEN TONITE.
- 4. Immediately, when the **REGEN NOW** is selected. The screen displays **REGENERATING**.
- Immediately, if power to the unit has been off for more than three (3) hours and time of day has been restored.
- 6. At the preset time based on **DAY-OF-WEEK** Regeneration setting.

Follow either procedure to bypass the filter or to initiate a manual regeneration or automatically bypass the filter at the control valve or the remote display.

#### **Delayed Regeneration**

Screen Display	Range	Changing the Setting	
FILTERING JAN-01-12 12:01P	N/A	1.	At the <b>HOME SCREEN</b> , press  and hold for at least three seconds, then release the button.
REGEN TONITE JAN-01-12 12:01P	Regen Tonite	2.	The first line of the display will toggle between <b>FILTERING</b> and <b>REGEN TONITE</b> .
REGEN OFF JAN-01-12 12:01P	Regen Off	3.	To cancel a delayed regeneration, press and hold the for three (3) seconds, then release the button. The screen displays <b>REGEN OFF</b> .

#### **Immediate Regeneration**

Screen Display	Range	Changing the Setting	
FILTERING JAN-01-12 12:01P	N/A	1.	At the <b>HOME SCREEN</b> , press and hold for at least ten (10) seconds, then release the button.
REGEN NOW JAN-01-12 12:01P	Regen Now	2.	The first line of the screen displays <b>REGEN NOW</b> . The filter will initiate an immediate regeneration.
REGENERATING JAN-01-12 12:01P	N/A	3.	The first line of the screen displays <b>REGENERATING</b> .

## Regeneration



## **Standard Manual Regeneration**

Screen Display	Range		Changing the Setting
Filtering JAN-01-12 12:01P	N/A	1.	This is the <b>HOME SCREEN</b> . Press any button except <b>X</b> to advance to the <b>MAIN MENU SCREEN</b> .
1)INFORMATION >2)MANUAL MODE	1–6	2.	Press to 2)MANUAL MODE then press . The screen displays the Manual Mode settings.
	Regen Off	3.	Press 🗸 and 🚹 or 🛂 to change the setting.
MANUAL MODE >REGEN NOW	Regen Now		The default is <b>REGEN NOW</b> . Press the <b>t</b> to select this option to begin regeneration immediately.
	Regen Tonite	5.	If the screen displays <b>REGEN OFF</b> then the filter will not regenerate.
	Bypass	6.	If the screen displays <b>REGEN TONITE</b> then the filter will regenerate that night at 2:00 a.m. (or at the preset regeneration time). The screen displays two status messages: <b>FILTERING</b> and <b>REGEN TONITE.</b>
		7.	If the screen displays <b>BYPASS</b> then for a specified time the filter will be bypassed. Press to select the total time the filter is to be in the bypass state.
MANUAL BYPASS	Off 30 (min) 60 90	8.	Press of and and or to to select the total time the filter is to be in the bypass state.
	120 180 Manual Bypass	9.	Press to accept this setting. The screen displays the Manual Mode menu.
1)INFORMATION >2)MANUAL MODE		10.	Press X until the screen displays the <b>HOME SCREEN</b> and saves the settings.



Following these simple precautions will help assure continued trouble-free service and keep your Culligan Water Conditioner looking like new for years.

- Use only mild soap and warm water when cleaning the exterior of the conditioner. Never use harsh, abrasive cleaning compounds or those which contain acid, such as vinegar, bleach and similar products.
- Important: Protect your water conditioner and the entire drainline from freezing temperatures.
   DANGER! If your unit should freeze, do not attempt to disassemble it. Call your Culligan Dealer.
- 3. **Important:** Culligan water filters are sold for use on potable water, only. If at any time the water becomes contaminated, such as during a "boil water" situation, the operation of the water filter should be discontinued until it is verified that the water is again potable. To do this, screw the blue knob on the back of the water filter against the barrel of the bypass valve. Then, call your Culligan dealer to have your system sanitized before it is placed back into service.

NOTE Following the manufacturer's instructions regarding operation, maintenance and replacement requirements, including replacement of filters if applicable, is essential for Culligan's products to perform as advertised.

4. Should service, adjustment or trouble-shooting information be needed which is not covered in the Use and Care Guide, call your Culligan Dealer.

If you have further questions, please call your local independently operated Culligan dealer. He or she will be glad to be of assistance to you.

#### **Recommended Preventative Maintenance Inspection Schedule**

The Culligan High Efficiency water filter has been designed to provide a good, consistent service life. Routinely inspecting the system may help avoid potentially costly breakdowns related to circumstances outside of the control of the dealer and/or user. The filter is for problem water use and routine maintenance is required. Contact your local Culligan dealer to perform routine maintenance.

Component	Suggested Inspection Frequency	Reason for Maintenance
Entire System	At Start-up, after infrequent use (idle for one week or more) or every 3–6 months if on a private water supply.	On private supplies, the appearance of off-tastes and odors, particularly if musty or "rotten egg" (caused by harmless sulfate-reducing bacteria) may indicate a need for the system to be sanitized.
Backwash Flow Controller	Every 12 months or every time service is performed on the system.	Build up of sediment, iron and/or other foreign materials (found in some water supplies but not necessarily all) could negatively affect system performance. Monitor item for normal or unexpected wear.
Media	As needed.	Cullneu Filter—As water passes through the Cullneu filter, the media slowly dissolves and neutralizes the water. The rate at which the Cullneu media dissolves depends on a number of factors such as temperature flow rate and pH. Add media when pH elevation no longer occurs.
		Cullar—Replace when taste odor or chlorine can no longer be removed.
		Filtr-Cleer—Media may need to be reconditioned or replaced depending on water characteristics.

Care and Cleaning of Your Water Conditioner



## Things to Check Before You Call for Service

If you unexpectedly experience changes in your water, make these simple checks before calling your Culligan dealer. One of the following conditions may be the reason for your interruption of service.

#### **Important**

If any of the following conditions is found, the water filter should be manually recharged according to instructions on page <?> after you have corrected the problem.

#### **Power Supply**

Check your power supply cord. Is it plugged fully into the electric outlet? Be certain that the outlet is not controlled by a wall switch which has been turned off. Plug in the transformer then reset conditioner to proper time of day.

#### **Blown Fuse**

Check the house fuse or circuit breaker panel. Replace a blown-out fuse or reset an open circuit breaker.

#### **Power Failure**

Any interruption in your power supply or time change—such as daylight savings—will disrupt your filter's recharge schedule by causing the timer to run off-schedule. Reset timer to proper time of day.

#### **Bypass Valves**

Check to see if they are in the proper position. Cul-Flo-Valv® Bypass, if used, should be in the "Service" position (see page 18). If hand valves are used, see that inlet and outlet valve are opened and that the bypass valve is closed.

#### **No Water**

If you aren't getting any water flow at all, make sure your water supply is working. Open a tap ahead of the conditioner (outside tap) to see if you have any water pressure. If you have water pressure, check the bypass valve. If it is in the Service position, put it into the bypass and call your Culligan dealer for service.

#### **Increased Usage**

Guests, family additions, new water-using appliances, etc., all will result in more water usage and will require more capacity from your filter. You can reprogram your recharging schedule by following the directions beginning on page 13. Call your Culligan dealer for advice and save a service call.



The following error messages may display on both the HE controller display as well as the Remote Display (if connected).

**Error Codes** 

PROBLEM FOUND
APR-01-12 10:01A

When a new controller identifies an error, it is programmed to attempt to correct the error without user input. If the problem persists, the HOME SCREEN displays PROBLEM FOUND. Press to display the first error present.

REPLACE FILTER MEDIA

2. Press **\text{V}** to display any additional errors present.

-->CLEAR ERRORS

3. Press and to view action: CLEAR ERRORS, GO TO MENU, or EXIT. If you select CLEAR ERRORS, the controller checks the error status and attempts to clear the error. If the error still exists, the home screen displays PROBLEM FOUND. If the error no longer exists the screen displays SYSTEM OK.

-->GO TO MENU

4. Press to select CLEAR ERRORS, GO TO MENU, or EXIT.

Error	Reason for Error	Comment/ Clearing Error Message
No Remote RF Signal	Main board is not receiving a signal from the remote.	Remote is off, out of range or on a different channel from the main board. If interference is suspected, try moving the remote closer or switching to a different channel on both the main and remote units
Motor Home Error	Motor did not move when it should. The control home position could not be found.	Use manual motor control to see if motor is actually working and not jammed. Use Diagnostics/ Sensor menu to verify that the optical or sensor is working. Verify the valve type for the control (High Efficiency = HE 1).
Replace Filter Media	Total gallons thru the unit has exceeded the specified capacity of the media.	Replace the media. Reset the media filter life at Main Menu/Advanced Setup/Regen Settings/ Media Life
Replace Ext. Filter Media	Total gallons through the second- ary filter (i.e. "Big Blue" filter) has exceeded the specified capacity of the Big Blue.	Replace optional filter cartridge. Reset the Aux. Filter media life at Main Menu/Accessories/ Ext. Filter menu
Call Culligan at	This message is displayed if an error has been detected that requires servicing and no modem installed in the system.	Call the number shown. If possible, place this call using a phone that will allow you to see and enter changes to the main controller if required by the service technician during the call
Position Sensor Error	The motor is directed to run but no change in position is detected.	Check the motor using manual motor control and the position sensors using Main Menu/Diagnostics/Check Sensors
Low Battery	Battery needs replacement.	Replace with Panasonic Model# CR 2032 3V battery.



## When and How to Bypass Your Water Filter

Normally, all water except outside lines passes through the water filter. There are times when the water filter should be bypassed, using the Cul-Flo-Valv® Bypass, or a three-way bypass valve. You should bypass:

- 1. If lines to outside faucets do not bypass the water filter, and you do not want to waste filtered water on lawn sprinkling or other outside uses.
- 2. If you are going away on vacation and do not want the unit to recharge.

#### **Bypass Valve**

In the back of Culligan water filter is a Cul-Flo-Valv® Bypass valve. To bypass the unit, turn the blue knob clockwise. To return to filtered water service, turn the blue knob counter-clockwise.

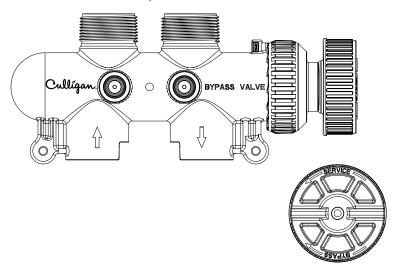


Figure 1. Bypass valve.

#### **Bypassed**

To BYPASS, turn the blue knob clockwise (see directional arrow on end of knob) until the knob stops as shown in Figure 1. DO NOT OVERTIGHTEN!

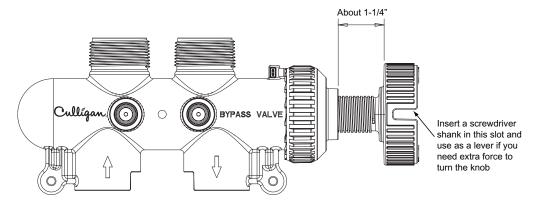


Figure 2. Service valve.

#### **Filtered Water**

To return to SERVICE, turn the blue knob counter-clockwise (see directional arrow on end of knob) until the knob stops as shown in Figure 2. DO NOT OVERTIGHTEN!



Culligan knows the more informed you are about your water treatment systems, the more confident you will be about its performance. It's because of this and more than seventy years of commitment to customer satisfaction that Culligan is providing this Performance Data Sheet to its customers.

Read this Performance Data Sheet and compare the capabilities of this unit with your actual water treatment needs. It is recommended that before purchasing a water treatment unit, you have your water supply tested to determine your actual water treatment needs.

#### **Manufacturer: Culligan International Company**

9399 West Higgins Road, Suite 1100, Rosemont, IL 60018 USA

(847) 430-2800 www.culligan.com

Product: Culligan High Efficiency 9" Cullar & 10" Cullar Filter

Testing Conditions & Results:

Capacity: 120,000 gallons for the 9" Filter Pressure: 60 psi

180,000 gallons for the 10" Filter Temperature: 63°-73°F (17°-23°C)

pH: 7.6

Service Flow: 4.0 gpm @ 2.0 psi for the 9" Filter

5.9 gpm @ 4.0 psi for the 10" Filter

**Operating Conditions:** 

Operating Temperature Range: 33–120°F (1–50°C)
Water Pressure Range: 20–120 psi (140–830 kPa)
Water Pressure Range (Canada): 20–90 psi (140–620 kPa)
Electrical Characteristics: 24V/50–60 Hz, 21.6 Watts

#### **Substance Reduction**

While testing was performed under standard laboratory conditions, actual performance may vary. This system has been tested according to NSF/ANSI 42 for reduction of the substances listed below.

Substance	Influent Challenge Concentration	Reduction Requirement
Chlorine	2.0 mg/L ± 10%	≥ 50%

The Culligan High Efficiency Cullar filter has been tested and certified by WQA against NSF/ANSI Standard 372, CSA B483.1, and NSF/ANSI Standard 42 for the effective reduction of chlorine taste and odor up to 120,000 gallons for the 9" filter and 180,000 gallons for the 10" filter, as verified and substantiated by test data. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI 42.

**Performance Indicator:** If water flow decreases or a noticeable taste change occurs, the filter should be backwashed. If conditions do not improve, contact your local Culligan Man®. He can determine if your filter requires servicing. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Refer to the specifications and warranty sections of this owners guide for more specific product information.

To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan Man. Performance will vary based on local water conditions. The substances reduced by this product are not necessarily in your water.

## Performance Data Sheet

High Efficiency 9" Cullar and 10" Cullar Filter

USA



## Performance Data Sheet

High Efficiency 9"
Cullneu and 10"
Cullneu Filter

Culligan knows the more informed you are about your water treatment systems, the more confident you will be about its performance. It's because of this and more than seventy years of commitment to customer satisfaction that Culligan is providing this Performance Data Sheet to its customers.

NOTE Read this Performance Data Sheet and compare the capabilities of this unit with your actual water treatment needs. It is recommended that before purchasing a water treatment unit, you have your water supply tested to determine your actual water treatment needs.

#### **Manufacturer: Culligan International Company**

9399 West Higgins Road, Suite 1100, Rosemont, IL 60018 USA

USA

(847) 430-2800 www.culligan.com

Product: Culligan High Efficiency 9" Cullneu & 10" Cullneu Filter Testing Conditions & Results:

Capacity: 14,500 gallons for the 9" Filter Pressure: 60 psi

21,750 gallons for the 10" Filter Temperature: 63°–73°F (17°-23°C)

pH: 4.9–5.5

Service Flow: 4.0 gpm @ 2.0 psi for the 9" Filter

5.9 gpm @ 5.0 psi for the 10" Filter

#### **Operating Conditions:**

Operating Temperature Range: 33–120°F (1–50°C)
Water Pressure Range: 20–120 psi (140–830 kPa)
Water Pressure Range (Canada): 20–90 psi (140–620 kPa)
Electrical Characteristics: 24V/50–60 Hz, 21.6 Watts

#### **Substance Reduction**

While testing was performed under standard laboratory conditions, actual performance may vary.

Substance	Influent Challenge pH	Effluent pH Requirement
рН	3.5–4.5	6.5–8.5

The Culligan High Efficiency Cullneu filter has been tested and certified by WQA against NSF/ANSI Standard 372, CSA B483.1, and NSF/ANSI Standard 42 for acid neutralization up to 14,500 gallons for the 9" filter and 21,750 gallons for the 10" filter. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI 42.

**Performance Indicator:** If water flow decreases or a noticeable taste change occurs, the filter should be backwashed. If conditions do not improve, contact your local Culligan Man®. He can determine if your filter requires servicing. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Refer to the specifications and warranty sections of this owners guide for more specific product information.

To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan Man. Performance will vary based on local water conditions. The substances reduced by this product are not necessarily in your water.



Culligan knows the more informed you are about your water treatment systems, the more confident you will be about its performance. It's because of this and more than seventy years of commitment to customer satisfaction that Culligan is providing this Performance Data Sheet to its customers.

NOTE Read this Performance Data Sheet and compare the capabilities of this unit with your actual water treatment needs. It is recommended that before purchasing a water treatment unit, you have your water supply tested to determine your actual water treatment needs.

**Manufacturer: Culligan International Company** 

9399 West Higgins Road, Suite 1100, Rosemont, IL 60018 USA

(847) 430-2800 www.culligan.com

Product: Culligan High Efficiency 9" Filtr-Cleer & 10" Filtr-Cleer Filter

**Testing Conditions & Results:** 

Pressure: 60 psi

Temperature: 63°-73°F (17°-23°C)

Service Flow: 9.0 gpm @ 9.0 psi for the 9" Filter

12.0 gpm @ 15.0 psi for the 10" Filter

pH: 4.9–5.5

**Operating Conditions:** 

Operating Temperature Range: 33–120°F (1–50°C)
Water Pressure Range: 20–120 psi (140–830 kPa)
Water Pressure Range (Canada): 20–90 psi (140–620 kPa)
Electrical Characteristics: 24V/50–60 Hz, 21.6 Watts

#### **Substance Reduction**

While testing was performed under standard laboratory conditions, actual performance may vary. This system has been tested according to NSF/ANSI 42 for reduction of the substances listed below.

Substance	Influent Challenge Concentration	Reduction Requirement	
Particulate, Class V particles 30 to <50µm	At least 1,000 particles/mL	≥ 85%	

The Culligan High Efficiency Filtr-Cleer filter has been tested and certified by WQA against NSF/ANSI Standard 372, CSA B483.1, and NSF/ANSI Standard 42 for Class V (≥30 µm – <50 µm) particulate reduction, as verified and substantiated by test data. The concentration of the indicated substances in water entering the system was reduced to a concentration less than or equal to the permissible limit for water leaving the system, as specified in NSF/ANSI 42.

**Performance Indicator:** If water flow decreases or a noticeable taste change occurs, the filter should be backwashed. If conditions do not improve, contact your local Culligan Man®. He can determine if your filter requires servicing. Do not use with water that is microbiologically unsafe or of unknown quality without adequate disinfection before or after the system. Refer to the specifications and warranty sections of this owners guide for more specific product information.

To avoid contamination from improper handling and installation, your system should only be installed and serviced by your Culligan Man. Performance will vary based on local water conditions. The substances reduced by this product are not necessarily in your water.

### Performance Data Sheet

High Efficiency 9" Filtr-Cleer and 10" Filtr-Cleer Filter



## Records and Data

## **Important Data on Your Water Filter**

It is advisable to have the salesperson or installer fill in the information below for your future reference. If this has not been done, please ask for it, as it is necessary if you contact your dealer.

Identification Model Name	Catalog No	
Control Model No.	Control Serial No.	
Date of Installation	Tank Serial No	
Settings Time of Recharge:	a.m. /	p.m
Regeneration Interval		day
Number of people in household		
Tank Size		inche
Water Analysis Total Hardness		(gpg
Total Iron		
pH (acidity)		
Other		



#### Culligan High Efficiency® Automatic Water Filters

You have just purchased one of the finest water filters made. As an expression of our confidence in Culligan International Company products, your water filter is warranted to the original end-user, when installed in accordance with Culligan specifications, against defects in material and workmanship from the date of original installation, as follows:

For a period of ONE YEAR The entire filter

For a period of FIVE YEARS Soft-Minder® meter, if so equipped

Remote display or modem

For a period of TEN YEARS The High Efficiency® Plus circuit board,

The control valve body, excluding internal parts

For the LIFETIME of the The Quadra-Hull® conditioner tank

original consumer purchaser

If a part described above is found defective within the specified period, you should notify your independently operated Culligan dealer and arrange a time during normal business hours for the dealer to inspect the water conditioner on your premises. Any part found defective within the terms of this warranty will be repaired or replaced by the dealer. You pay only freight from our factory and local dealer charges.

We are not responsible for damage caused by accident, fire, flood, freezing, Act of God, misuse, misapplication, neglect, oxidizing agents (such as chlorine, ozone, chloramines and other related components), alteration, installation or operation contrary to our printed instructions, or by the use of accessories or components which do not meet Culligan specifications, is not covered by this warranty. Refer to the specifications section in the Installation and Operating manual for application parameters.

Our product performance specifications are furnished with each water filtering unit. To the extent permitted by law, culligan disclaims all implied warranties, including without limitation warranties of merchantability and fitness for particular purpose; to the extent required by law, any such implied warranties are limited in duration to the one-year period specified above for the entire conditioner. As a manufacturer, we do not know the characteristics of your water supply or the purpose for which you are purchasing a water conditioner. The quality of water supplies may vary seasonally or over a period of time, and your water usage rate may vary as well. Water characteristics can also differ considerably if your water conditioner is moved to a new location. For these reasons, we assume no liability for the determination of the proper equipment necessary to meet your requirements, and we do not authorize others to assume such obligations for us. Further, we assume no liability and extend no warranties, express or implied, for the use of this product with a non-potable water source. Our obligations under this warranty are limited to the repair or replacement of the failed parts of the water conditioner, and we assume no liability whatsoever for direct, indirect, incidental, consequential, special, general, or other damages.

Some states do not allow the exclusion of implied warranties or limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Similarly, some states do not allow the exclusion of incidental or consequential damages, so the above limitation or exclusion may not apply to you. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state. Consult your telephone directory for your local independently operated Culligan dealer, or write Culligan International Company for warranty and service information.

#### **Culligan International Company**

9399 West Higgins Road, Suite 1100, Rosemont, IL 60018 USA (847) 430-2800

www.culligan.com

Culligan Limited Warranty



## With Culligan You Get More Than A Quality Product

### You Get Your Water Expert, The Culligan Man

We're here to provide you with fast, dependable service, making sure any problems you have are taken care of. The Culligan Man has been around for over seventy years, delivering quality products and dependable service all along. That's why people say "Hey, Culligan Man!®" Because we're the water experts. And that's who you want taking care of your water.

### **The Culligan Promise**

At Culligan, we understand that a water quality improvement system is an investment in your family's well-being. That's why our 1,350 independently operated dealers worldwide don't just sell products; they sell water quality you can count on. We stand behind our products with written limited warranties and our unequaled Culligan service. No matter where you live, you can depend on Culligan expertise to work for you—today and tomorrow.



#### В

Bypassed 18 Bypass Valve 18 Bypass Your Water Filter 18

#### C

Call Culligan at 17
CANCEL or X button 4
CHECK MARK button 4
Completed First Time Setup 8
Cullar® 2
Cullar Filter 19
Cullar® Filter 3
Cullneu® 5 2
Cullneu Filter 20
Cullneu® Filter 3

#### D

Date and Time 11
Delayed Regeneration 13
DOWN ARROW button 4

#### Ε

Electrical Installation 8 Error Codes 17

#### F

Filtr-Cleer 21
Filtr-Cleer® 2, 3
First Time Setup 6
First Time Setup Procedure 6
First Time Setup Serial Number 8

#### ī

Immediate Regeneration 13 Information 9

#### L

Low Battery 17

#### M

Maintenance Inspection 16 Motor Position Error 17

#### Ν

Navigating the Menus and Keypad 4 No Remote RF Signal 17

#### P

Position Sensor Error 17

#### R

Records and Data 22 Regeneration 13 Regeneration Setup 8
Replace Aux Filter Media 17
Replace Filter Media 17

#### S

Set Date and Time 11 Set Up Serial Number 8 Set Up Time and Date 8 Specifications 2 Standard Manual Regeneration 13, 14

#### Т

Test Modem 13, 15, 19, 20, 21 Time, Date and 11

#### u

UP ARROW button 4

#### X

xxx-xxx-xxxx 17

Index



# This page contains materials and DCO information. IT DOES NOT PRINT AS PART OF THE DOCUMENT!

Materials & Description: High Efficiency Filter Owner's Guide PN 01022748

Size: 11" x 17" Booklet, folded down to 8 1/2" x 11"

Color: Black Ink; 2 Sided

Stock: 20# White

Other: Bookletmaker, Saddle Stitch (2 Staples)

Let	Change	Ву	Aprvd	DCO	Date
А	New Art Created	JS		012125	12/31/10
В	Revisions	AS	JS	012985	02/15/12
С	FWR217 and h/w revisions	AS	JS	013332	11/01/12