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PRODUCT SPECS

NRCR	NRCR92DV / NRCR111DV
Installation Type	DV (Default 2"), SV, OD, Flex Vent
Gas Input	NRCR111DV: 18"-199kBTU NRCR92DV: 18"-165kBTU (*Effective BTU Output: Less than 10kBTU)
Dimensions	18.5" (W) x 27" (H) x 14.1" (D)
Weight	73 lbs.
Heat Exchangers	Ferrite and Austenite (Primary and Secondary HEX Integrated Together)
UEF	0.95/0.96
Venting (Max Length)	2" PVC / CPVC / PP: 65 ft. 3" PVC / CPVC / PP: 150 ft. 2" Flex: 35 ft.
Pump Head Max	33.5 feet
Max Recirc Pipe Length	1/2": 200 feet 3/4": 500 feet
Recirc Setting	Auto (Default) (RC-9018M or Wifi Adapter is needed for manual setting)
Recirc Modes	External Recirculation Crossover Title 24 (On Demand)
Common Vent	Yes (w/o NRV) Up to 2 units with QC Cord
Wifi Capable	Yes (Manual setting capable with app)
HEX Warranty	15 Years or 12,000 Combustion Hours

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KEY FEATURES

1 Flex Vent Capability

Just like the EZ Series, the NRCR can be used with the Flex Vent Kit.

2 Ultra High Efficiency

With a UEF rating of up to .96, the NRCR helps reduce harmful emissions by featuring one of the best thermal efficiencies in the tankless market.

3 High Quality Stainless Steel Heat Exchangers

The NRCR features a 15 year warranty on its heat exchangers, which are composed of high quality stainless steel and designed for easy serviceability.



4 Integrated Recirculation Pump

Built with an integrated pump allowing a 1/2" loop with a length of up to 200ft or 3/4" up to 500ft, the longest in the industry.

5 Steady BTU Mode

An industry first, the NRCR's revolutionary burner control eliminates issues with high incoming water temperature in the summer by reducing effective BTU output to less than 10 KBTU.



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NRCR VENTING OPTIONS



SV (CK-SV-2-1)



DV (Default)



OD (VC-6-1)



Flex (EZ2-CK-1)



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NRCR VENTING OPTIONS

Optional Flex Vent:

- EZ2-CK-1: Flex Vent Adapter
- EZ2FVK-1: 25ft Kit
- EZ2FVK-2: 35ft Kit

Outdoor Vent Cap:

- VC-6-1

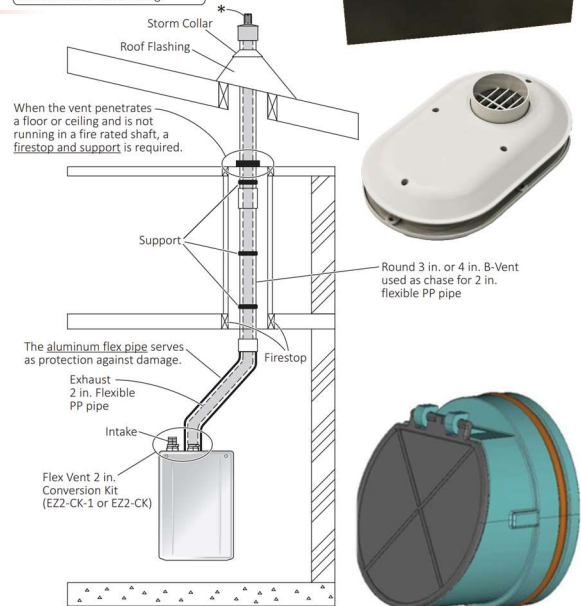
Low Profile Termination:

- 2" PVC/CPVC/PP up to 65ft
- 3" PVC/CPVC/PP up to 150ft

Common Vent with 3, 4, 6 or 8"



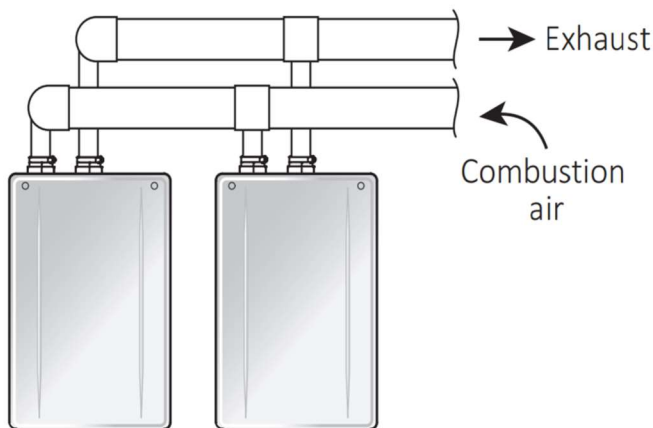
***About the termination**
To prevent excessive condensation formation, only the vent termination should be located on the exterior of the building.



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NRCR COMMON VENT

NRCR Installation for 2 units.



Search by ☐ Heater ☐ Accessories

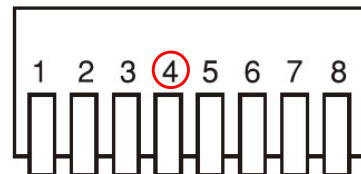
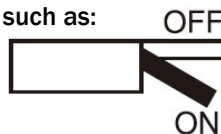
Common Vent (GQ-60 Series)

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DIPSWITCH SETTINGS

Dipswitches tell the unit the installation conditions, such as:

- Common Venting
- Exhaust Type
- Elevation
- Vent Length & Size



SW1	SW2	SW3	SW4	SW5	SW6	SW7	SW8
*Common Vent System	Exhaust Type		DO NOT TOUCH	Elevation Adjustment		Vent Length Adjustment and Vent Size	
	OD			2,001 – 4,000 Ft.		2" Long Length	
		SV			4,001 – 7,000 Ft.		3" Short Length
	EZTR (Flex Vent)			7,001 – 10,000 Ft.		3" Long Length	

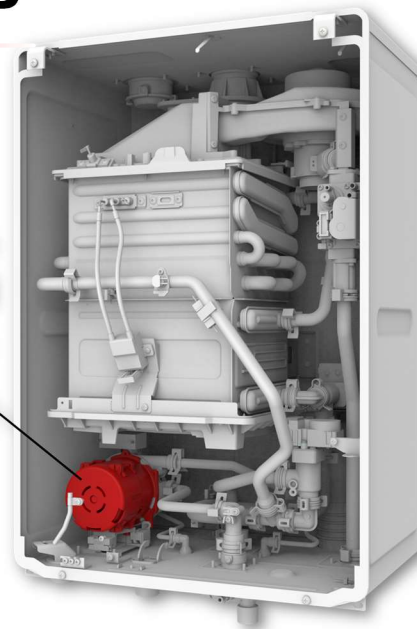


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INTEGRATED RECIRC PUMP

- 33.5ft Head
- 1/2" Loop = 200ft
- 3/4" Loop = 500ft

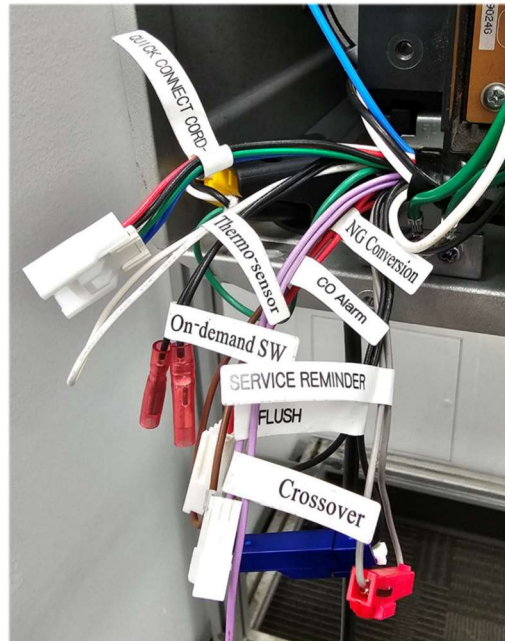
INTEGRATED PUMP



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OPTIONAL WIRES

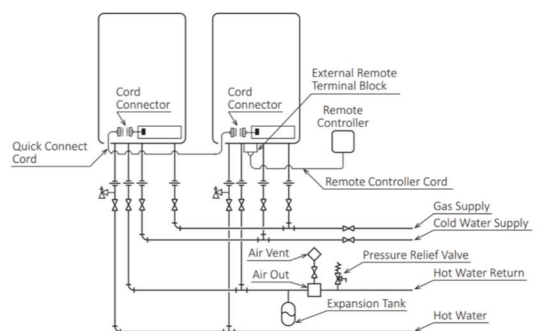
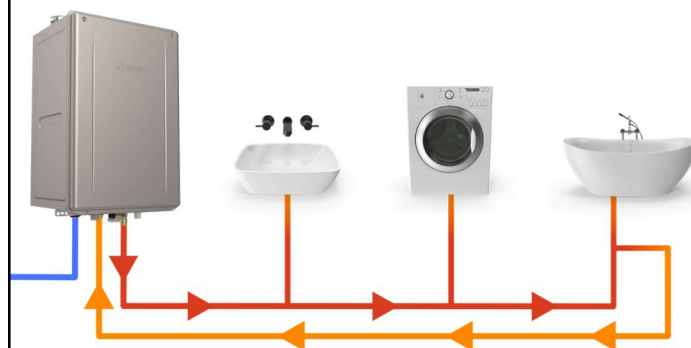
- Quick Connect Cord-2
- Service Reminder
- Flush
- Crossover
- On-Demand SW
- NG Conversion
- Thermo-Sensor
- CO Alarm



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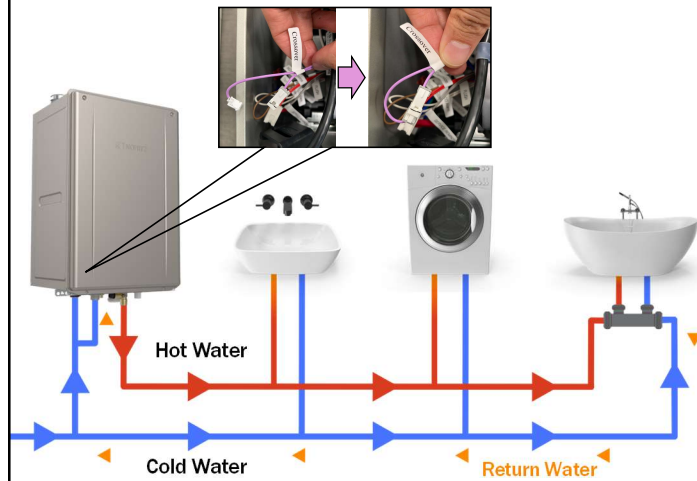
EXISTING RETURN LINE

Return Line should have a shut off and hose bibb.

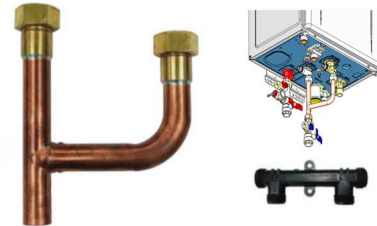


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CROSSOVER VALVE



NORITZ
TANKLESS WATER HEATERS



CROSSOVER KIT CSV-BPK

Our crossover kit brings recirculation to homes without a return line. Set your NRCR to crossover mode after installation and your home is ready for faster, hot water.

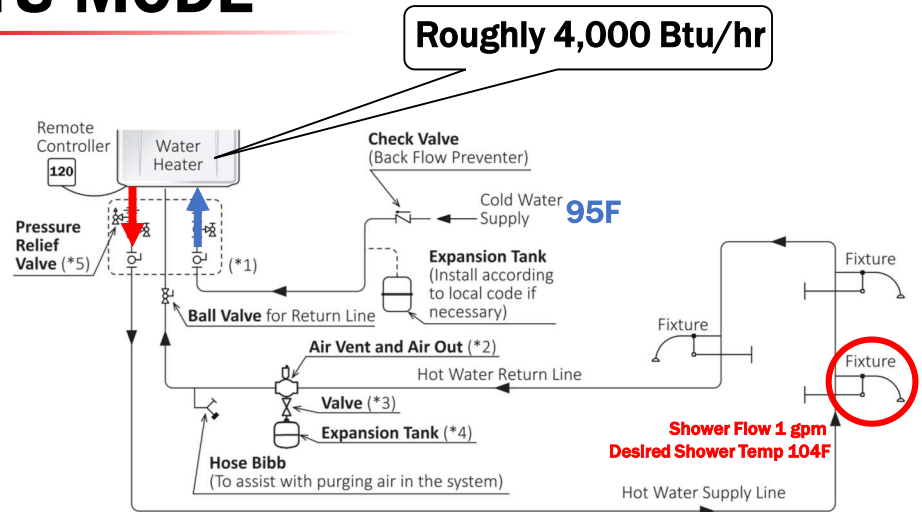
11

STEADY BTU MODE

- Low temperature rise stability.
- Can handle BTU demands under 4,000 BTUh.
- Min 0.29gpm hot demand.



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TANKLESS WATER HEATERS



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SETTING TEMP ABOVE 120

Residential units are limited to 120 by default but they can be bypassed following these steps.



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RECIRCULATION MODES

Refer to page 59 of the Installation manual.

Item #	3B	24	23	22
Auto Recirc (Default)	OFF	OFF	OFF	OFF
On-Demand (Title 24) Mode	ON	OFF	ON	ON
Manual Timer Recirc	OFF	ON	OFF	ON
Recirc Always ON	OFF	OFF	ON	OFF
Recirc Always OFF	OFF	OFF	ON	ON



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SETTING RECIRC ALWAYS OFF



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RC-9018M Commercial Remote.

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SETTING RECIRC ALWAYS OFF



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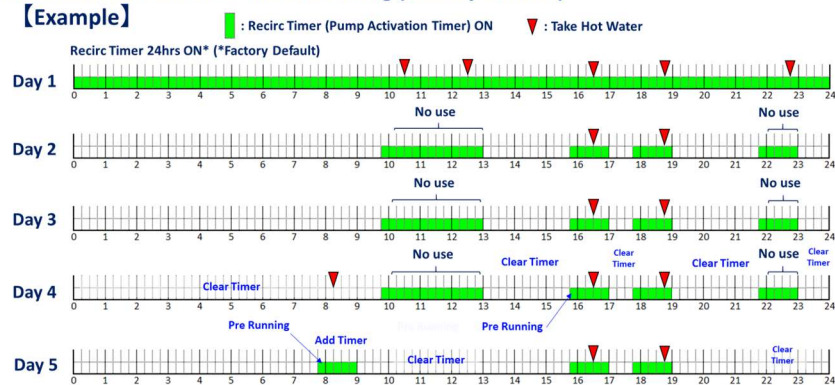
RC-7651M-A Residential Remote.

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AUTO LEARNING MODE

- Recirculation ON for first 24 hours.
- Automatic 3 day learning period.
- Hot water usage more than 10 seconds.
- Pre-heats the loop 15 minutes before.

Recirculation Schedule - Auto Learning (Factory Default)



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CUSTOMIZING RECIRC SETTINGS

- “Time of Learning Flag” determines how long a hot water fixture needs to be used before the NRCR memorizes the use and runs the pump the next day.
- “Interval to Erase Learning Flag” determines how long the NRCR will wait to erase a learned time if hot water is not used during that time.

Time of Learning Flag	Maintenance Writer #		Remark
	25	26	
3 Seconds	OFF	OFF	Sensitive
0.5 Seconds	ON	OFF	Very Sensitive
10 Seconds	OFF	ON	Default
60 Seconds	ON	ON	Insensitive

Interval to Erase Learning Flag	Maintenance Writer #	Remark
	27	
3 Days	OFF	Default (Eco Setting)
7 Days	ON	Comfort Setting



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PRE-HEATING FEATURE

- “Pre-Heating Adjustment” determines how long the NRCCR will run the pump *before* a learned time to ensure the loop is heated and ready to be used at the start of the learned hour.

Pre-Heating Adjustment	Maintenance Writer #		Remark
	38	39	
15 Minutes Before	OFF	OFF	Default
Pre-Heating OFF	ON	OFF	-
30 Minutes Before	OFF	ON	-
60 Minutes before	ON	ON	-



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NRCCR SPECIFIC ERROR CODES

- **Error Code 06: Low Recirculation Flow (Only Warning Indication)**
 - Check Return Line Filter.
 - Purge air in the domestic hot and return line (Dedicated Mode)
 - Check crossover valve filter (Crossover Mode)
- **Error Code 63: Recirculation Abnormality (No Recirculation Flow)**
 - Check Return Line Filter.
 - Purge air in the domestic hot and return line (Dedicated Mode)
 - Check that the “Crossover” connector is connected together
 - Check crossover valve filter (Crossover Mode)



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COMMONLY USED MAINTENANCE MONITORS

Maintenance Monitors (MM) tell you exactly what the unit is doing. They should be used in any situation regarding flow rates, temperatures and verifying what Recirculation Mode the unit is set to.

Error Code history is also found in Maintenance Monitor mode.



MM	Item	Data		Minimum Value for Indication
		Multiplier	Unit	
03	Total Plug-in Time	x100	Hour	100 Hours
04	Total Combustion Time	x1	Hour	1 Hour
05	Total Combustion Time	x1000	Hour	1000 Hours
06	Total Pump Operating Time	x100	Hour	100 Hours
07	Number of Ignition Times	x10	Times	10 Times
08	Number of Ignition Times	x10000	Times	10000 Times
14	Total Flow Rate	x0.1	0.1gpm	0.1gpm
17	Recirculation Flow Rate	x0.1	0.1gpm	
30	Cold Water Thermistor	x1	F (C option)	1 F (0.5 C)
31	Hot Outlet Thermistor		F (C option)	1 F (0.5 C)
32	Heat Exchanger Thermistor		F (C option)	1 F (0.5 C)
86	Recirculation Mode	Dedicated Mode	Crossover Mode	
	Auto Recirc (Default)	11	21	
	Manual Timer Recirc	12	22	
	Recirc Always ON	13	23	
	Recirc Always OFF	14	24	
	On-Demand (Title 24) Mode	15	25	
91	Error Code History 1	Most Recent Error Code		
92	Error Code History 2	Next Most Recent Error Code		
93	Error Code History 3	Next Most Recent Error Code		
94	Error Code History 4	Next Most Recent Error Code		
95	Error Code History 5	Next Most Recent Error Code		
96	Error Code History 6	Next Most Recent Error Code		
97	Error Code History 7	Next Most Recent Error Code		
98	Error Code History 8	Next Most Recent Error Code		

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ENTERING MAINTENANCE MONITOR MODE

Using the RC-9018M Commercial Remote.



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ENTERING MAINTENANCE MONITOR MODE

Using the RC-7651M-A Residential Remote.



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ON-DEMAND (TITLE 24) MODE



Rocker Switch
(IHK-RS)



Doorbell Button
(IHK-GB)



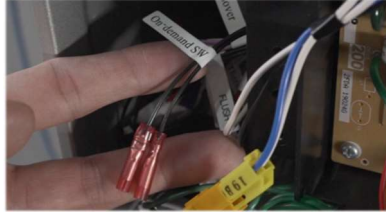
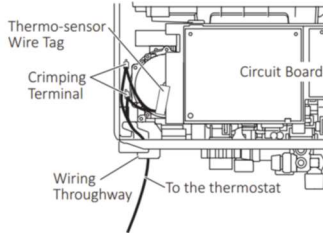
Wireless Push Button Kit (WLB)
Optional Motion Sensor (WLB-MS)



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ON-DEMAND (TITLE 24) MODE

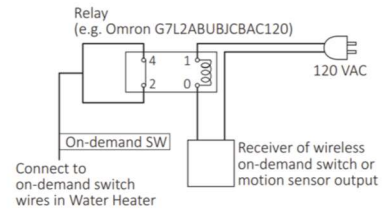
4. Cut the Thermo-sensor wire (Looped White) in the Water Heater.
5. Connect to break contact (Normally closed Contact) on the thermostat.
6. Reattach the front cover (4 screws).



- Prepare a relay when installing wireless on-demand switch or motion sensor. Do not apply any voltage to the On-demand SW terminal. This terminal is only for No-voltage contact.
- (For Quick Connect Multi-System) Connect the on-demand switch to the Water Heater connected with Remote Controller.

Use a relay when connecting wireless switch or motion sensor

1. Refer to the step 1- 3 of "Connecting the on-demand switch".
2. Choose a suitable installation location for the relay where it will be protected from moisture.
3. Connect the on-demand switch wires from the heater to the signal output on the relay.
4. Cut one of the electrical supply leads and connect to the signal input on the relay.
5. Secure all connections and reattach the front cover.



Inspector Requirement for
Sensor

Relay for On-Demand switch (If needed)



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MANUAL SCHEDULE MODE

Clock needs to be set first before a schedule can be created.



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MANUAL SCHEDULE MODE

Once the clock is set, you can set a schedule, modify it or reset it.



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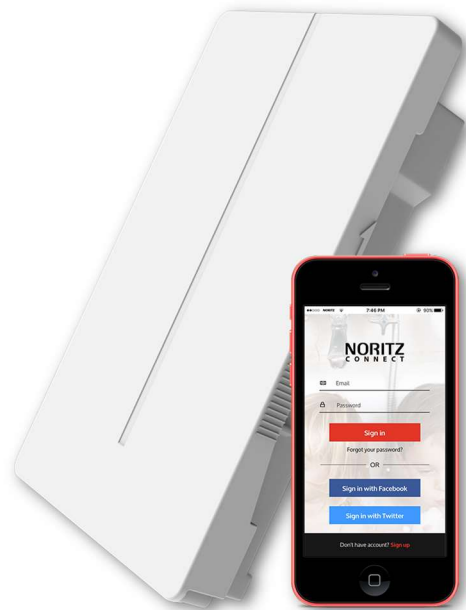


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WIFI COMPATIBLE

Similar to the current Noritz Connect app, you can adjust the temperature and receive error code notifications. You will additionally be able to manually set the recirculation timer if you do not want to use the “Auto” mode.



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TANKLESS WATER HEATERS

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PROCARD DIPSWITCH SETTINGS

Use the PROCARD APP to make dipswitch settings simple!

The PROCARD app interface consists of four main screens:

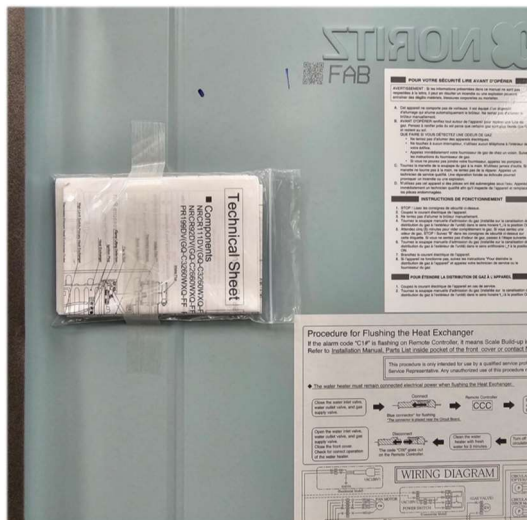
- Screen 1: Main Menu** - Shows options like 'Scan QR Code', 'Gas Pipe Sizing Calculator', 'Circuit Board Dip Switch Setting' (highlighted), 'Technical Literature', and 'Interactive Troubleshooting'.
- Screen 2: Dipswitch Settings Form** - Fields include: Common Vent System for up to 2 units?, Vent Type?, Elevation (feet), Vent Size?, Total Vent Length (feet), and # of 90 degree elbows (2x45° 1x90° elbow).
- Screen 3: Dipswitch Settings Form (Filled)** - Fields are filled with: NO, SV (Single Vent - PVC), 2001-4000, 2" PVC or CPVC, 15, and 3.
- Screen 4: Submit and QR Code** - Shows the 'Submit' button and a QR code for downloading the app.

QR codes for downloading the app are provided for Google Play and the App Store.



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INSIDE THE NRCCR



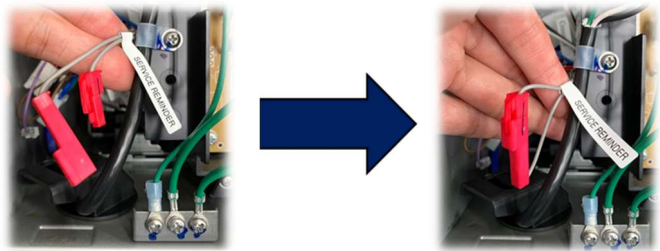
- Component List
- Error Codes
- Maintenance Monitors
- Dipswitch Settings
- Voltage Checkpoints
- Gas Pressures

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IMPROVED SERVICE REMINDER

Simply plug in the "Service Reminder" connector and the unit will do the rest.

Heater will use the Set Temp, Average BTU Use and Combustion Time to determine when a flush should be performed.



Once the flush has been performed correctly, the service reminder code will go away.

NOTE:

Water quality guidelines in the manual still need to be followed. Damage to the unit when used with water hardness over 12 gpg may not be covered by the warranty.

Type of Water	Hardness Level	Treatment Device*	Flush Frequency**
Soft	0-1 gpg (0-17 mg/L)	None	None
Slightly Hard	1-3 gpg (17-51 mg/L)		
Moderately Hard	3-7 gpg (51-120 mg/L)	Scale Shield or Water Softener	Once a Year***
Hard	7-10 gpg (120-171 mg/L)		
Very Hard	10-12 gpg (171-200 mg/L)		
Extremely Hard	> 12 gpg (> 200 mg/L)		

* When selecting a treatment device, you must consult with the device's spec sheet and installation manual for guidelines and limitations. Not all water supplies are compatible. A water test may be required.
** Install Noritz Isolation Valves to allow for flushing.
*** Flushing is required if a water treatment device is not installed.

NOTE Damage to the Water Heater as a result of the items below is not covered by the Noritz America Limited Warranty.
• Water in excess of 12 gpg (200 mg/L) of hardness.
• Poor water quality (See the Water Quality List on page 12.)
• The Remote Controller has displayed a "C1# (Service Reminder)" indicating Scale Build-up, but the Heat Exchanger has not been flushed.

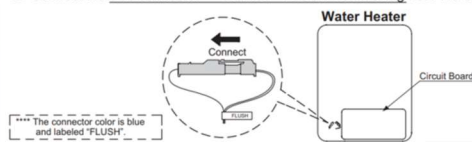


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DESCALING THE NRCR



1. Open the Front Cover.
2. Connect the blue connector**** marked "FLUSH" for flushing near the Circuit Board.



3. Then the code "CCC" is displayed on the Remote Controller.
4. Turn on the circulating pump to circulate the flushing solution through the water heater for 1 hour at a rate of 1.5 gallons per minute or more.
5. The code "C60" is displayed on the Remote Controller when the water heater detects the flow of the flushing solution.

When 1 minute passes, the code "C60" will change to "C59" on the Remote Controller.

CCC → C60 → C59 → C00 - Flashing



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FILLING AND PURGING



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IMPORTANT CONTACT INFO

866-7NORITZ (866-766-7489)

- Monday – Friday: 5am to 6pm PST
- Saturday: 6am to 3pm PST



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NOTES

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