



INSTALLATION MANUAL

RM2351 RM2554 RM2852
RM2354 RM2652 RM2862
RM2451 RM2662 RM3862
RM2454 RM2663 NDR1062
RM2551

REFRIGERATOR FOR LP-GAS
& ELECTRIC OPERATION

FOR YOUR SAFETY

If you smell gas:

1. Open windows.
2. Don't touch electrical switches.
3. Extinguish any open flame.
4. Immediately call your gas supplier.

POUR VOTRE SÉCURITÉ

Si vous sentez une odeur de gaz:

1. Ouvrez les fenêtres.
2. Ne touchez à aucun interrupteur.
3. Éteignez toute flamme nue.
4. Avertissez immédiatement votre fournisseur de gaz.

FOR YOUR SAFETY

Do not store or use gasoline or other flammable vapors and liquids in the vicinity of this or any other appliance.

POUR VOTRE SÉCURITÉ

Ne pas entreposer ni utiliser de l'essence ni d'autres vapeurs ou liquides inflammables à proximité de cet appareil ou de tout autre appareil.

WARNING

Improper installation, adjustment, alteration, service or maintenance can cause injury or property damage. Refer to this manual. For assistance or additional information consult a qualified installer, service agency or the gas supplier.

AVERTISSEMENT

Une installation, un réglage, une modification, une réparation ou un entretien non conforme aux normes peut entraîner des blessures ou des dommages matériels. Lisez attentivement le mode d'emploi fourni avec l'appareil. Pour obtenir de l'aide ou des renseignements supplémentaires, consultez un installateur ou un service d'entretien qualifié ou le fournisseur de gaz.



USA

Service Office
Dometic Corporation
2320 Industrial Pkwy.
Elkhart, IN 46516
Phone: 574-294-2511

Corporate Office

2320 Industrial Parkway Elkhart, IN 46515

For Service Center Assistance

Call: 800-544-4881

CANADA

Dometic Corporation
48 Zatonski, Unit 3
Brantford, ON N3T 5L8
CANADA
Phone: 519-720-9578

INTRODUCTION

This manual describes the installation procedure of the following refrigerator models: RM2351, RM2354, RM2451, RM2454, RM2551, RM2554, RM2652, RM2662, RM2663, RM2852, RM2862, RM3862 and NDR1062. For information about maintenance and operating instructions, refer to the USER MANUAL (825 12 57-00).

The unit must be installed by qualified personnel only. This manual should be read and understood before installation. Follow the instructions and comply with installation specifications and dimensions to ensure that the refrigerator is installed safely and runs efficiently. Be aware of possible safety hazards when seeing alert symbols on the refrigerator as well as in this manual. Modification of this product can be hazardous and could result in personal injury or property damage.

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SYMBOLS

The following symbols are used throughout the manual:



Indicates a potentially hazardous situation, which, if not avoided, could result in death or serious injury.



Indicates a potentially hazardous situation, which, if not avoided, may result in minor or moderate injury.



Used without the safety alert symbol indicates, a potentially hazardous situation which, if not avoided may result in property damage.



Information



Step-by-step instructions

CERTIFICATION AND CODE REQUIREMENTS

This appliance is certified under the latest edition of ANSI Z21.19•CSA 1.4 Refrigerators using gas fuel. The installation must conform with local codes, or in absence of local codes, the following standards as applicable.

In the U.S. the installation must conform with:

- National Fuel Gas Code, ANSI Z223.1/NFPA 54 (latest edition).
- Recreational Vehicles Code, ANSI A119.2 (latest edition).
- Manufactured Home Construction and Safety Standard, Title 24 CFR, Part 3280.

If an external electrical source is utilized, the refrigerator, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, the National Electrical Code, ANSI/NFPA 70 - (latest edition).

In CANADA, the installation must conform with:

- Natural Gas and Propane Installation Code, CSA B149.1
- CSA Z240 RV Series, Recreational Vehicles.
- Current CSA Z240.4, Gas-equipped Recreational Vehicles and Mobile Housing.

If an external electrical source is utilized, the refrigerator, when installed, must be electrically grounded in accordance with local codes or, in the absence of local codes, the Canadian Electrical Code, CSA C22.1, Parts I and II - (latest edition).



VENTILATION REQUIREMENTS

GENERAL INFORMATION

Ventilation is one of the requirements for proper cooling unit operation. The installation should be made in such a manner as to separate the combustion system from the living space of the mobile home or recreational vehicle. Openings for air supply or for venting of combustion products should have a minimum dimension of not less than 1/4 inch.

Proper installation requires one *lower fresh air intake* and one *upper exhaust vent*. Certified installations require one *roof vent* and one *lower side vent*. The ventilation kits shown in this manual have been certified for use with the different models as displayed in the “Certified Vent System Kits” table.

The ventilation kits must be installed and used without modification! An opening toward the outside at floor level in the refrigerator compartment has be provided for ventilation of heavier-than-air fuel gases. The lower vent of the recommended kits is provided with proper size openings. The flow of combustion and ventilating air must not be obstructed.

The lower side vent is fitted with a panel, which provides an adequate access opening for ready serviceability of the burner and control manifold of the refrigerator. This should be centered on the back of the refrigerator.

Certified Vent System Kits			
Model	Kit No.	Components	Part no.
RM2351 RM2354	2A	Roof Base Roof Cover Lower Side Vent Lower Side Vent	3103633.XXX* 3103634.XXX* 3109350.XXX* RM183
	3A	Upper Side Vent Lower Side Vent Power Vent Asm. Upper Side Vent Upper Side Vent Lower Side Vent Lower Side Vent	RM123A RM183 3108705.751** RM123A 3109492.003 RM183 3109492.003
RM2451 RM2454 RM2551 RM2554	3A	Roof Base Roof Cover Lower Side Vent	3103633.XXX* 3103634.XXX* 3109350.XXX*
RM2652 RM2662 RM2663 RM2852 RM2862 RM3862 NDR1062	4A	Roof Base Roof Cover Lower Side Vent	3103633.XXX* 3103634.XXX* 3109350.XXX*

* Replace “XXX” with the color code numbers. For color codes, contact your supplier.

** Alternate instructions forwarded with the Ventilator Kit.

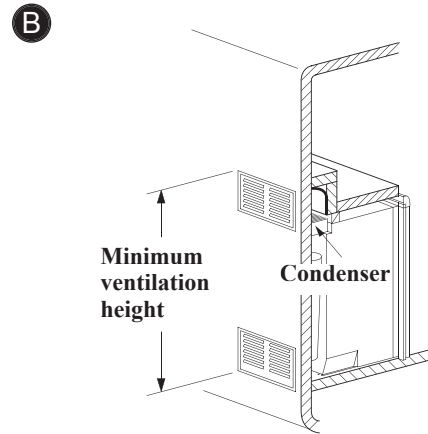
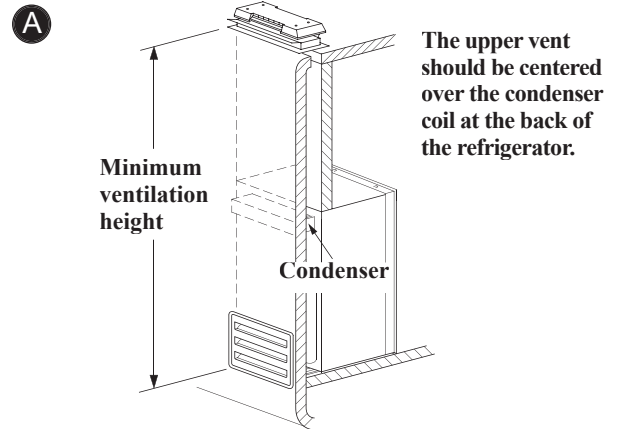
For further information, contact your dealer or distributor.

VENTILATION REQUIREMENTS

VENTILATION HEIGHTS

It is essential that all maximum or minimum dimensions are strictly maintained, as the performance of the refrigerator is dependent on adequate flow of air over the rear of the refrigerator.

Minimum ventilation heights				
	Roof vent and lower side vent A		Upper and lower side vent B	
	inches	mm	inches	mm
RM2351 RM2354	31	787	34	864
RM2451 RM2454	37-3/4	960		
RM2551 RM2554	44-1/2	1130		
RM2652 RM2662 RM2663	57-3/4	1465		
RM2852 RM2862 RM3862 NDR1062	63-3/4	1620		

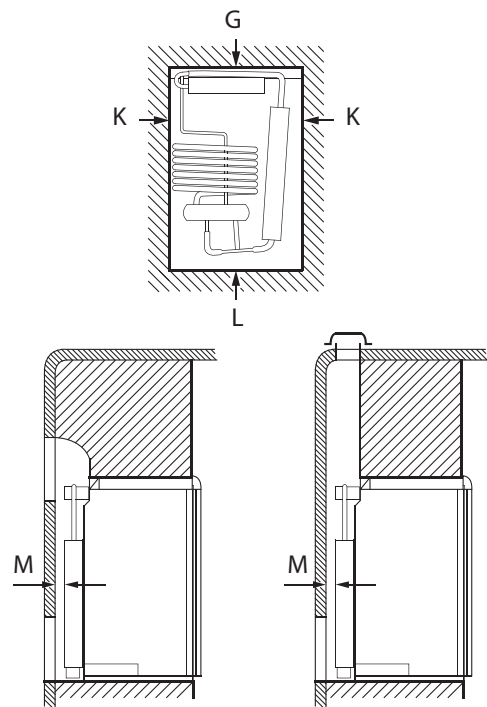


CLEARANCES

Minimum clearances (in inches) to combustible materials:

Top (G)	0
Side (K)	0
Bottom (L)	0
Rear (M ¹)	0 / 1 (RM2351 & RM2354)

¹ M: The distance between the rearmost part of the refrigerator and the wall behind it.



General view. Features may vary according to model.

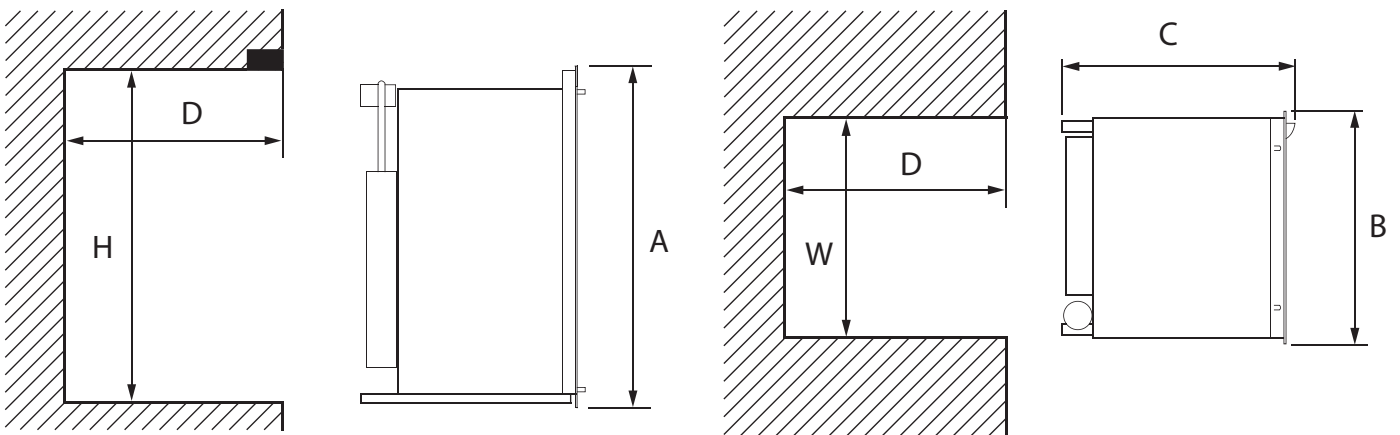
VENTILATION REQUIREMENTS

OVERALL AND RECESS DIMENSIONS

Dimensions Model		Overall			Recess		
		Height A	Width B	Depth C	Height H	Width W	Depth D
RM2351 RM2354	inches	30-5/32	21-7/8	22-22/32	29-3/4	20-1/2	21-3/8
	mm	766	556	577	756	521	542
RM2451 RM2454	inches	37-3/8	24-7/8	24-11/16	39-9/16	23-11/16	24
	mm	948	632	627	928	602	610
RM2551 RM2554	inches	43-1/2	24-7/8	24-11/16	42-5/8	23-11/16	24
	mm	1104	632	627	1083	602	610
RM2652 RM2662 RM2663	inches	54-21/32	24-7/8	26-1/32	53-3/4	23-11/16	24
	mm	1388	632	661	1365	602	610
RM2852 RM2862 RM3862	inches	60-51/64	24-7/8	26-1/32	59-15/16	23-11/16	24
	mm	1544	632	661	1522	602	610
NDR1062	inches	60-54/64	24-7/8	26-5/8	59-15/16	23-11/16	24
	mm	1544	632	676	1522	602	610

Side view

View from above



General view. Features may vary according to model.

INSTALLATION INSTRUCTIONS

INSTALLING THE REFRIGERATOR

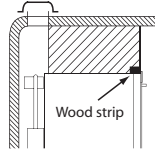


Be careful when installing the refrigerator model **NDR1062**. It is equipped with the latest vacuum insulated panel technology. These insulating panels are located on the top, back, bottom, sides and doors. If the surface is punctured, loss of insulation will occur, resulting in poor refrigerator performance.

For a proper installation, follow these instructions:

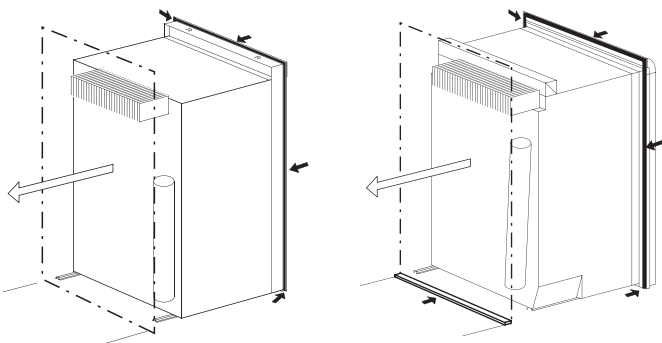
- Make sure the floor is solid and level.
- The refrigerator must be level and installed in a substantial enclosure.
- Do not install the appliance directly on carpeting. Carpeting must be removed or protected by a metal or wood panel beneath the appliance, which extends at least full width and depth of the appliance.
- **RM2451-2454-2551-2554-2652-2662-2663-2852-2862-3862 & NDR1062**

A **wood strip** must be in place across the upper opening of the enclosure. The top frame of the refrigerator will be anchored to the wood strip with screws.



- All areas within the recess have to be sealed. The sealing should provide a complete isolation of the appliance's combustion system from the vehicle interior. Make sure there is a complete seal between the front frame of the refrigerator and the top, sides and bottom of the enclosure. A length of sealing strip is applied to the rear surface of the front frame for this purpose.
- RM2351 and RM2354:** In addition, apply a sealing strip to the foremost floor of the enclosure.

Be careful not to damage the sealing strip when the refrigerator is put in place!



RM2451-2454-2551-2554-2652-2662-2663-2852-2862-3862 & NDR1062

RM2351-2354

SECURING THE REFRIGERATOR

When installing the refrigerator, make sure the heat can not be trapped in the space between the refrigerator and storage area. This would make the top of the refrigerator hot and reduces the efficiency of the refrigerator. Any space between the counter, storage area or ceiling and top of the refrigerator greater than 1½ inches should be blocked.

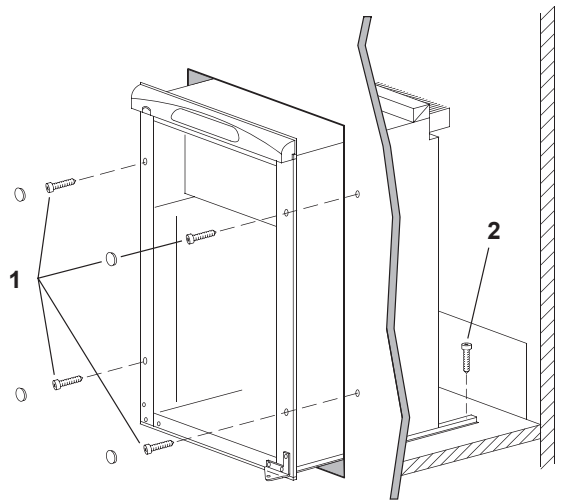
After the refrigerator has been installed (ensuring a combustion seal at the front frame) it must be secured in the enclosure with screws (not included). Note that it is important to follow the sequence in securing refrigerator since failure in doing that can cause leakage between the frame and cabinet!

RM2351-2354

Install the five screws in the following order:



1. Four screws installed through the front frame. (To cover the screw heads, use the plugs in the parts bag.)
2. One screw installed in the rear base.



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Install the six screws in the following order:

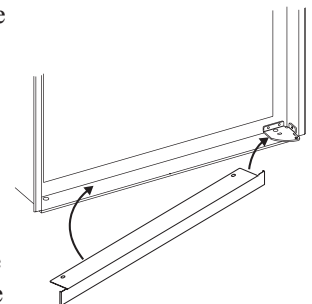


1. Two screws installed through the front base. (Installation of the lower front strip.)
 - a) The refrigerator is provided with a lower front strip (shipped as a loose part). The front strip is to be attached after the refrigerator is set into the cutout opening.

Install the lower front strip by sliding it under the bottom hinge plate.

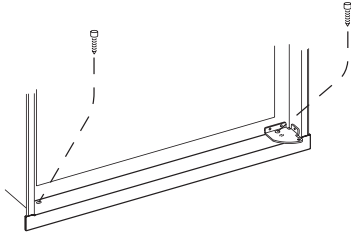
The hinge plate can be on the right or left side depending on the door swing.

Once the lower front strip is slipped under the hinge, the part is possible to swing into place.



INSTALLATION INSTRUCTIONS

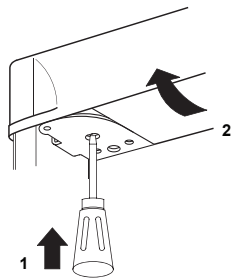
- b) Secure the refrigerator and the lower front strip with two screws: One screw through the hinge and on the opposite side and then, one screw through the lower front strip.



2. Two screws installed in the top frame.

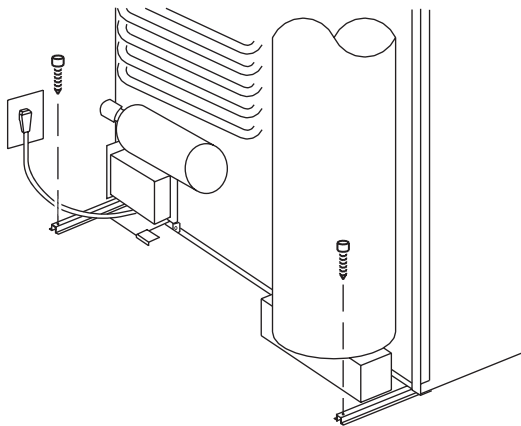
- a) Remove the top decoration panel.

- b) Open the door.
Gently push the tabs out of the hole in the hinge with a flat blade screwdriver (both sides).



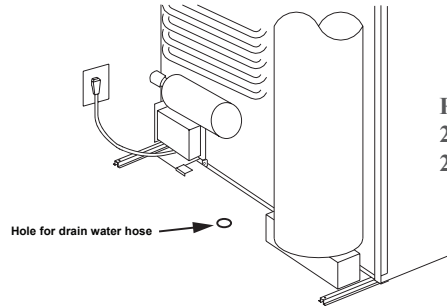
- c) Carefully tilt the top decoration panel and lift to remove from top frame. Be careful not to damage the circuit board and wires.
- d) Install the two screws in the top frame, the holes are accessible from underneath.
- e) Seal the opening for the screws with aluminum tape.
- f) Replace the top decoration panel. Be careful not to pinch the wires behind the panel. Make sure the tabs snap back into the holes in the hinge plate.

3. Two screws installed in the rear base.

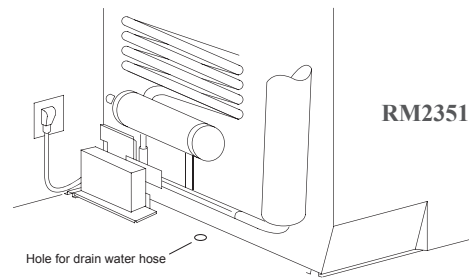


DRAIN WATER HOSE

A hole must be drilled through flooring and the installer needs to make sure the hose does not kink when run through the floor. Seal around the hose that goes through the drilled hole. If a longer hose than supplied is required to get the water to drain outside of the vehicle, the installer will have to supply the extra length of hose.



RM2451-2454-2551-2554-
2652-2662-2663-2852-
2862-3862 & NDR1062



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CONNECTIONS

Gas connection

Hook up to the gas supply line is accomplished at the manual gas valve, which is furnished with a 3/8" SAE (UNF 5/8" -18) male flare connection. All completed connections should be examined for leaks using a solution of liquid detergent and water.

⚠ WARNING

Be very careful when working on or near the gas system. Do not use an open flame to check for gas leaks!

The gas supply system must incorporate a pressure regulator to maintain a supply pressure of not more than 11 inches water column. When testing the gas supply system at test pressures:

- > 1/2 psi - the refrigerator and its individual shutoff valve must be disconnected from the gas supply piping system.
- ≤ 1/2 psi - the appliance must be isolated from the gas supply piping system by closing its individual shutoff valve.

If detailed instructions on the installation and connection to the gas supply are required, please contact your dealer or distributor.

INSTALLATION INSTRUCTIONS

Testing LP gas safety shut off

The gas safety shut off must be tested after the refrigerator is connected to LP gas supply.

RM2354-2454-2554-2662-2663-2862-3862 & NDR1062

To test the gas safety shut off, follow these steps:

1. Start the refrigerator. Switch to GAS mode.
2. Check that the gas flame is lit and the GAS mode indicator lamp is on.
3. Close the manual gas shutoff valve at the back of the refrigerator.
4. Wait for approx. 6 minutes. The CHECK indicator lamp should be lit and the GAS mode indicator lamp should be off.
5. Remove the protection cover.
6. Open the manual gas shutoff valve. Do not change any button positions on the control panel.
7. Apply a non corrosive commercial bubble solution to the burner jet orifice. No bubbles should appear at the opening of the burner jet orifice. The presence of bubbles indicates a defective gas safety shutoff, and service is required.
8. If no bubbles are present at the burner jet orifice, rinse it with fresh water. Be careful not to damage the burner jet orifice.
9. Put back the cover.
10. Press the ON/OFF button once to turn the refrigerator off and then press it again to turn the it back on. Normal operation of the burner should return.
11. Allow the burner to operate for a minimum of five minutes.

RM2351-2451-2551-2652-2852

To test the gas safety shut off, follow these steps:

1. Start the refrigerator without connecting to 120 V AC.
2. Check that the gas flame is lit. In AUTO mode the AUTO mode indicator lamp is on.
3. Then, follow steps 3-11 in instruction above.

Electrical connection

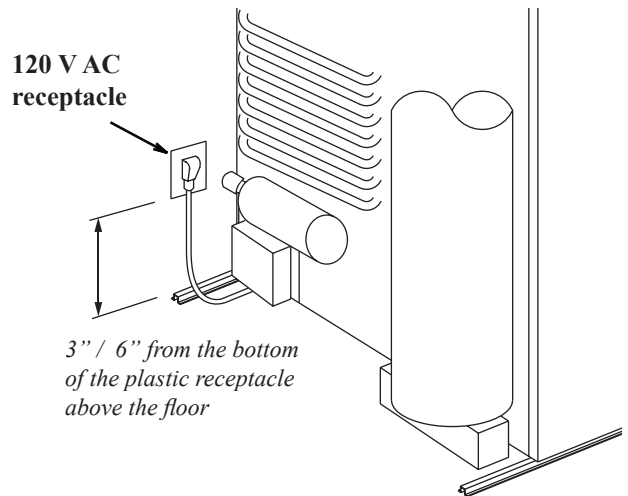
120 V AC connection

The refrigerator is equipped with a grounded three-prong plug for protection against shock hazards. It should be plugged directly into a properly grounded three-prong receptacle. Do not cut or remove the grounding prong from this plug!

The free length of the cord is 2 feet. It should be routed to avoid direct contact with the burner cover, flue cover or any other components that could damage the cord insulation.

To allow easy access through the vent door, it is recommended that the receptacle is placed:

- To the left of the refrigerator. (On the opposite side of the refrigerator burner assembly.)
- **3"** above the refrigerator mounting floor (RM2662-2663- 2862-3862 & NDR1062).
- **4-6"** above the refrigerator mounting floor (RM2351-2354)
- **6"** above the refrigerator mounting floor (RM2451-2454- 2551-2554-2652-2852).



INSTALLATION INSTRUCTIONS

12 V DC connection

RM2451-2551-2652-2852: These refrigerator models are not designed for 12 V DC operation of the cooling system. However, 12 V DC must be supplied to operate the controls.

RM2354-2454-2554-2662-2663-2862-3862 & NDR1062: These refrigerator models require a continuous 12 V DC supply to maintain the automatic energy system.

The connection is made to the positive (+) and negative (-) terminals of the terminal block on back of the refrigerator, see APPENDIX A - REARVIEW EQUIPMENT. Correct polarity must be observed when connecting to the DC supply. Do not use the chassis or vehicle frame as one of the conductors. Connect two wires at the refrigerator and route to the DC supply. Ensure the connections are clean, tight and free from corrosion.

The distance the current must travel from the battery to the refrigerator dictates the AWG wire size to be used. Should the wire be too small for the distance, a voltage drop will result causing a decreased cooling capacity.

For 3-way models, the voltage drop affects the wattage output of the 12V cartridge heater and the refrigerator performance. The 12V DC heater is fused with a 30 amp. in-line blade fuse.

Recommended wire sizes are displayed in the following table:


CONDUCTOR WIRE SIZE AND LENGTH			
MODEL	WIRE	Length	
	Size	ft	m
	AWG		
RM2351	14	17	5
RM2451	12	27	8
RM2551			
RM2652			
RM2662			
RM2852			
RM2862			
RM3862			
NDR1062			
RM2354	10	17	5
RM2454	8	27	8
RM2554			
RM2663			

MOUNTING INSTRUCTIONS

REVERSING THE DOOR SWING

The refrigerator is equipped with hinges that makes it possible to change the direction the door opens by moving the hinges to the opposite side. A special hinge kit must be used in order to change the door swing. For conversion kit number, refer to the USER MANUAL (825125700), APPENDIX B - SPARE PARTS.

MOUNTING THE DOOR PANEL(S)

 Optional door insert panels are available for **RM2351-2354-2451-2454-2551-2554-2652-2662-2663-2852-2862 & NDR1062**. The refrigerator is normally delivered without door panel(s).

Before starting the mounting work, read this instruction thoroughly and check that the panel dimensions are in compliance with those given in the "Panel dimensions" table

Panel dimensions max. thickness 5/32" (4 mm)					
		Height		Width	
		max	min	max	min
UPPER					
	mm	403	401	527	524
	inch	15-27/32	15-25/32	20-3/4	20-5/8
LOWER / SINGLE DOOR					
RM2351 RM2354	mm	642	640	498	496
	inch	25-9/32	25-3/16	19-5/8	19-17/32
RM2451 RM2454 RM2652 RM2662 RM2663	mm	827	825	527	524
	inch	32-9/16	32-1/2	20-3/4	20-5/8
RM2551 RM2554 RM2852 RM2862 NDR1062	mm	983	981	527	524
	inch	38-11/16	38-5/8	20-3/4	20-5/8

MOUNTING INSTRUCTIONS

RM2351-2354

We recommend to mount the panel on the door before the refrigerator is installed in the enclosure.

To mount the panel, follow these steps:

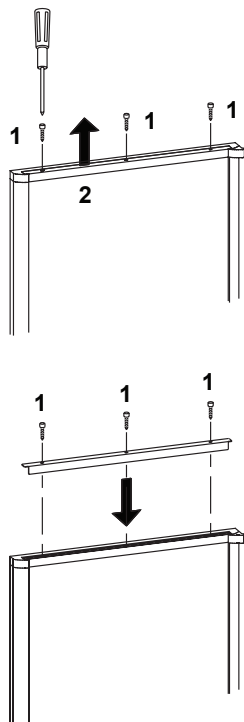
1. Slide the panel from the bottom of the door into the grooves on the vertical edges of the door .
2. Push the panel upwards.
3. Put the two plastic panel stops (from the parts bag) in the two holes at the lower door frame.
4. Put the decoration strip across the door and fasten it with three screws (from the parts bag).

RM2451-2454-2551-2554-2652-2662- 2663-2852-2862 & NDR1062

With screws

To mount the panel, follow these steps:

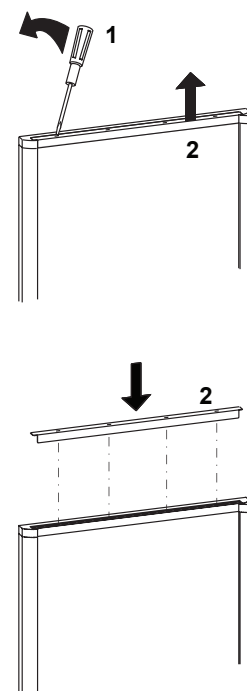
1. Open the door 90 degrees.
2. On new refrigerators, the decoration strip is taped inside the door; if installed on the door, remove the door decoration strip (2) by removing its three screws (1).
3. Insert the vertical edges into the grooves of the door frame (3).
4. Push the panel downwards so that the lower horizontal edge of the panel (4) is fitted into the bottom groove (5).
5. Put the decoration strip across the door so that the gap is covered. Secure the decoration strip with the three screws removed in step 2.



Snap in

To mount the panel, follow these steps:

1. Open the door 90 degrees.
2. On new refrigerators, the decoration strip are taped inside the door; if installed on the door, remove the door decoration strip (2) by gently pushing the four tabs away with a flat blade screwdriver (1).
3. Insert the vertical edges into the grooves of the door frame (3).
4. Push the panel downwards so that the lower horizontal edge of the panel (4) is fitted into the bottom groove (5).
5. Snap in the decoration strip (2).



REFRIGERATOR REMOVAL

Before removing the refrigerator:

- Verify that the AC and DC voltage leads are disconnected.
- Shut off the gas supply.
- Disconnect the gas supply line at the rear of the refrigerator. Always use a back up wrench when loosening and tightening connections.

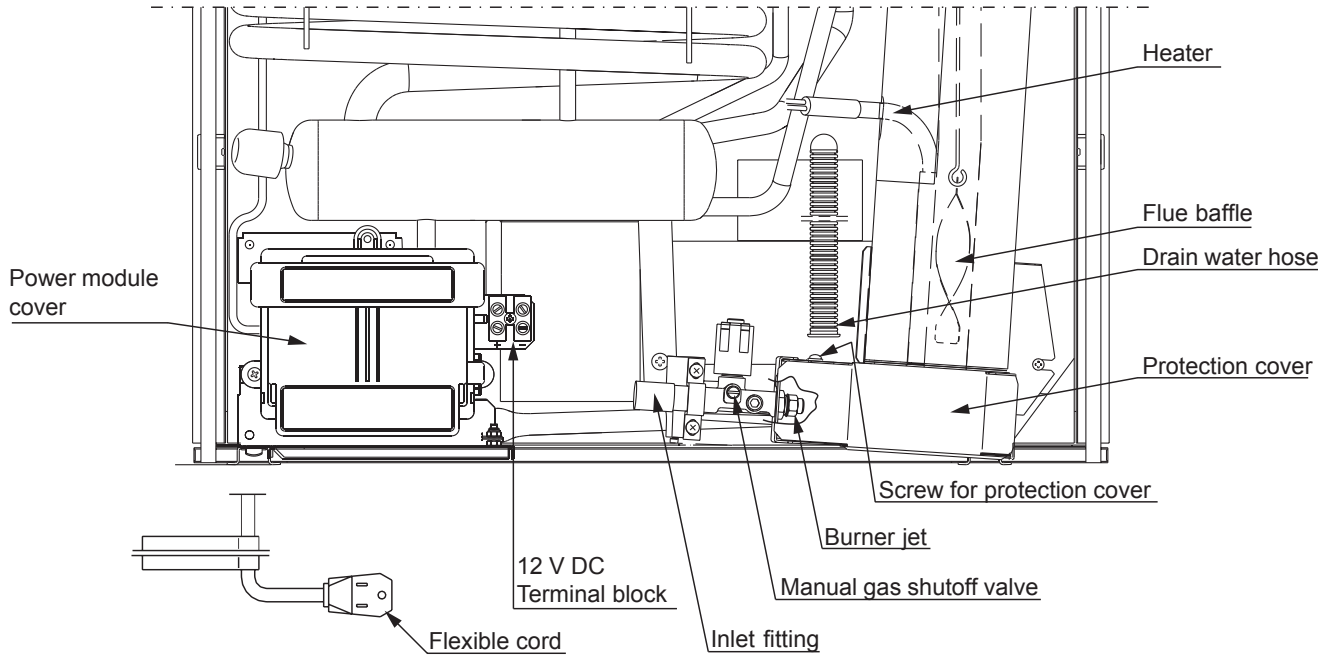
To remove the refrigerator, follow these steps:

1. Cap the gas supply line.
2. Loosen the screws anchoring the refrigerator to the enclosure.
3. Slide the refrigerator out of the compartment.

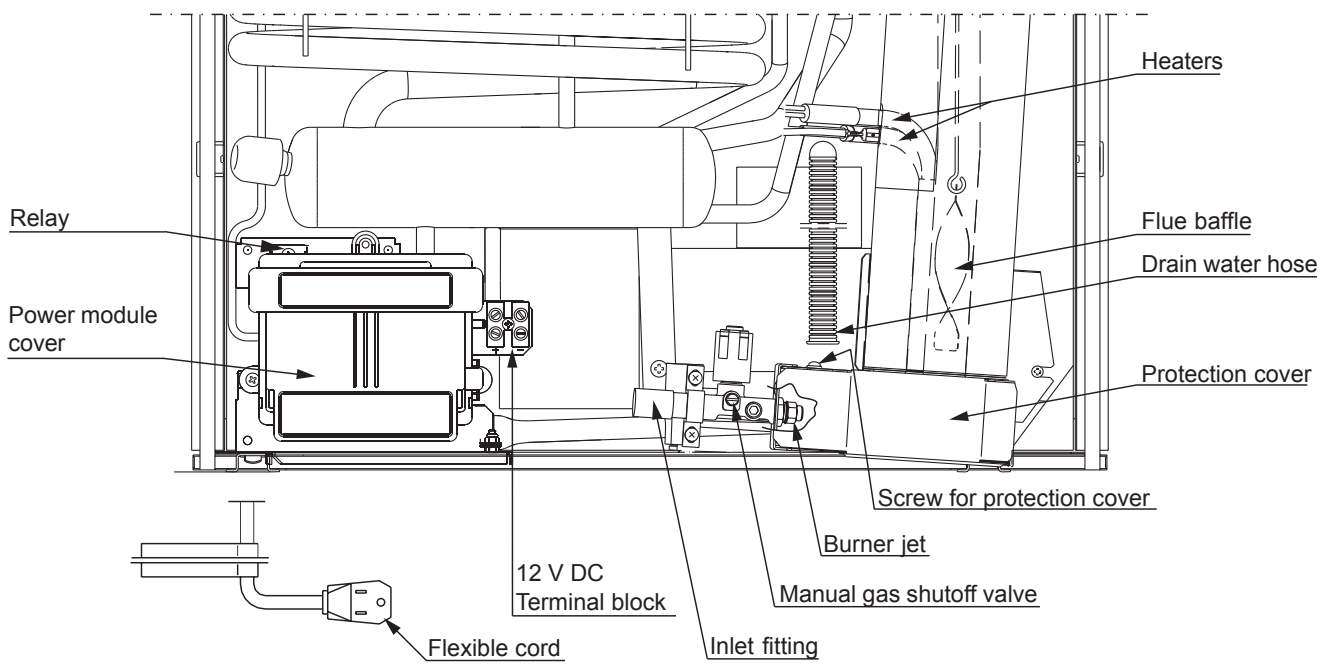
Replacement is the reverse of removal. When reinstalling the refrigerator, make sure the sealing strips are properly positioned. Check all connections for gas leaks.

APPENDIX A - REARVIEW EQUIPMENT

RM2351

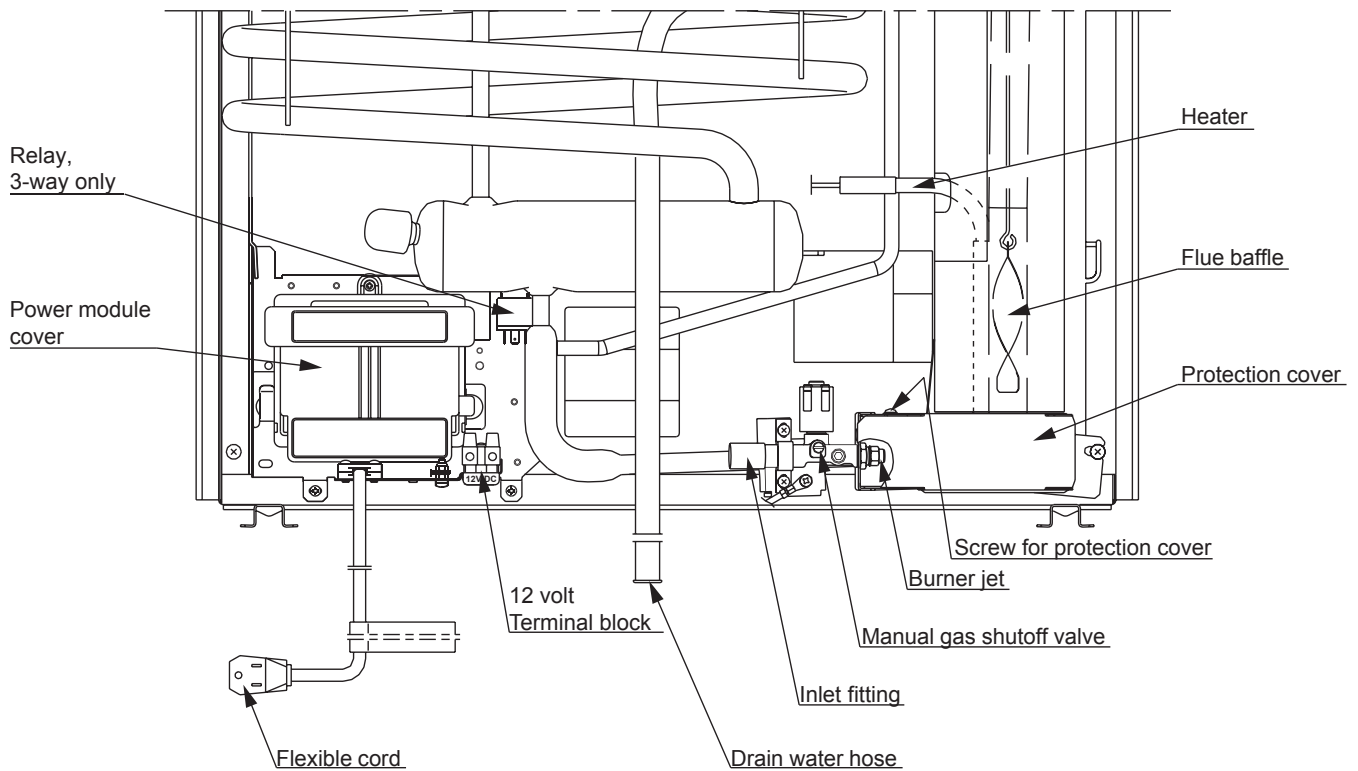


RM2354

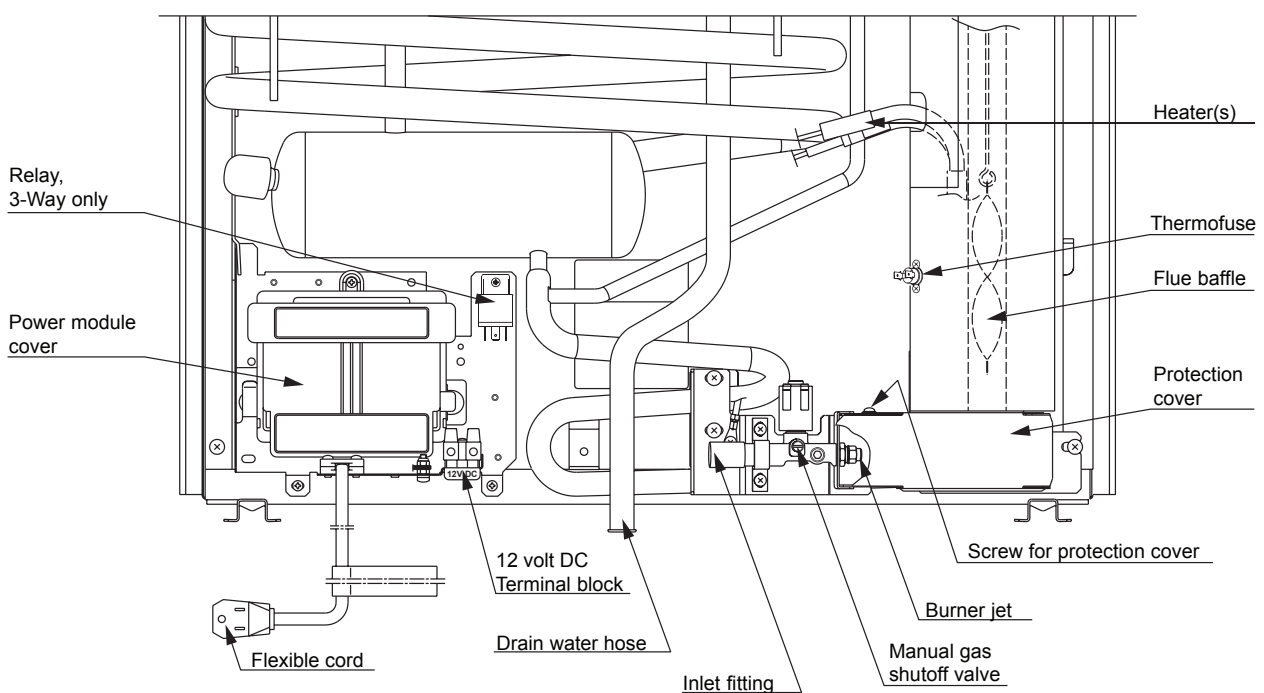


APPENDIX A - REARVIEW EQUIPMENT

RM2451-2454-2551-2554

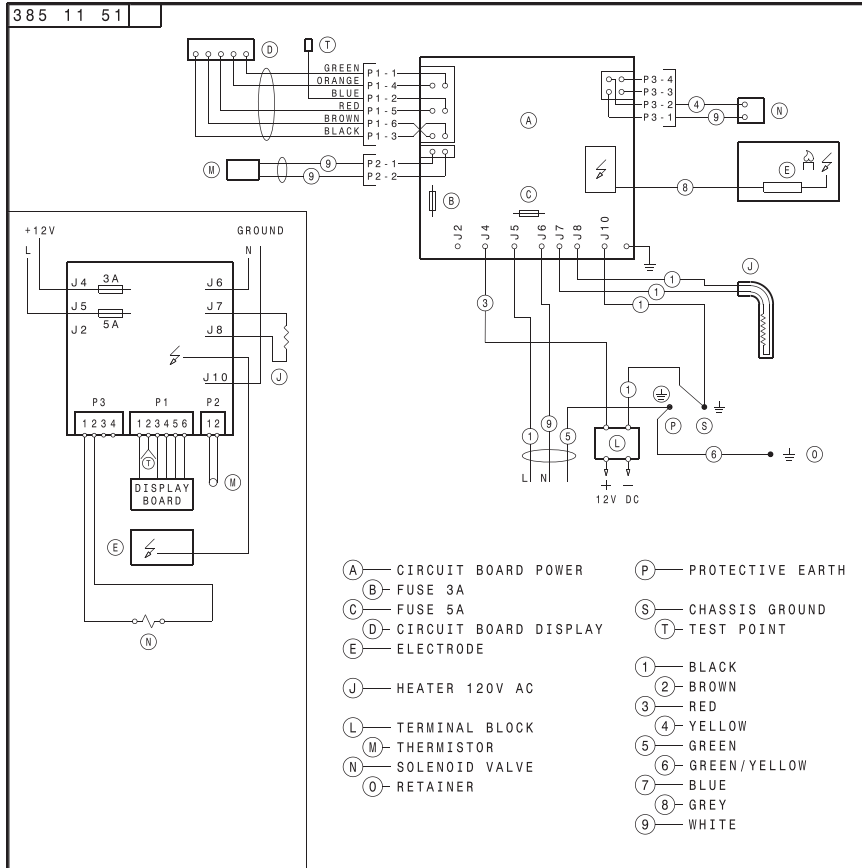


RM2652-2662-2663-2852-2862-3862-NDR1062

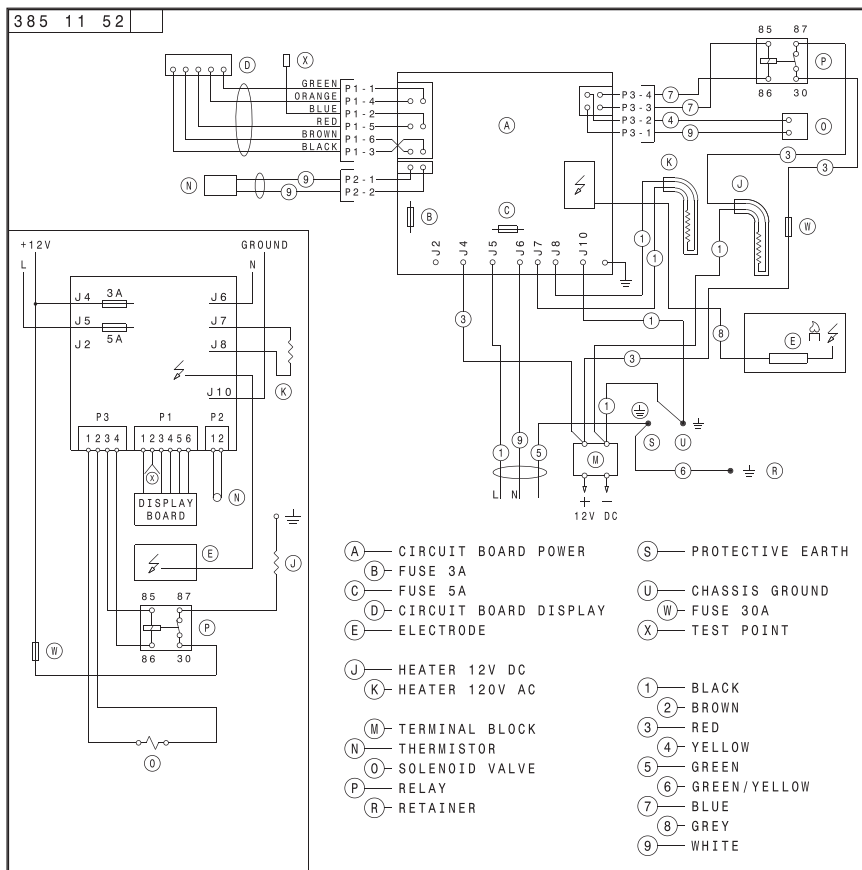


APPENDIX B - WIRING DIAGRAMS

RM2351-2451-2551

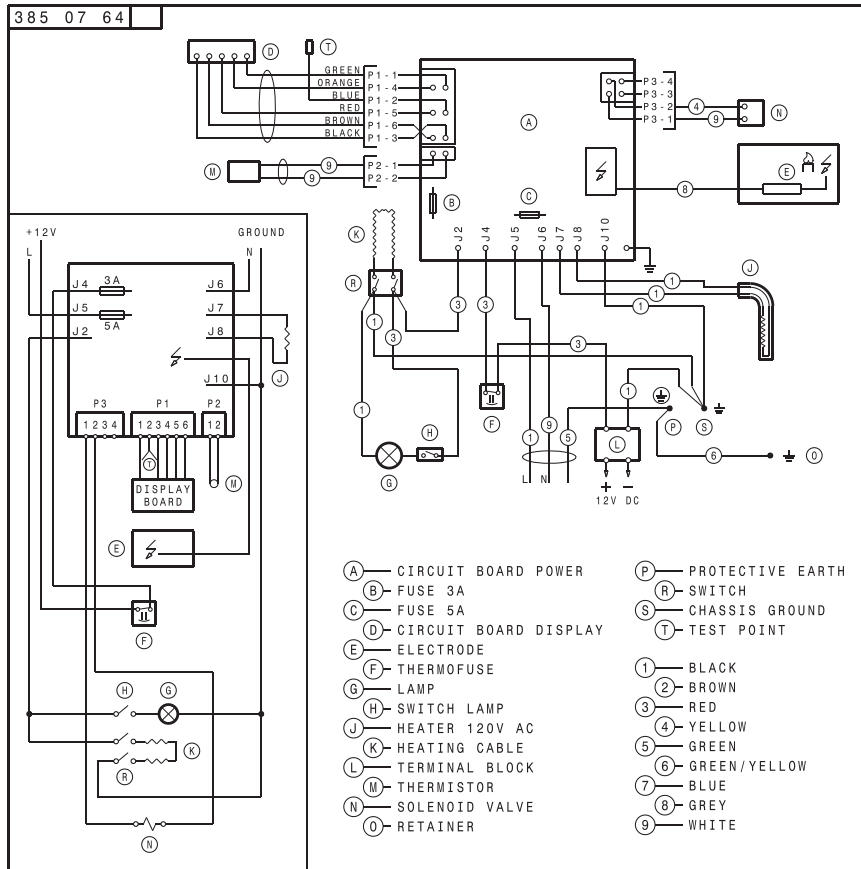


RM2354-2454-2554

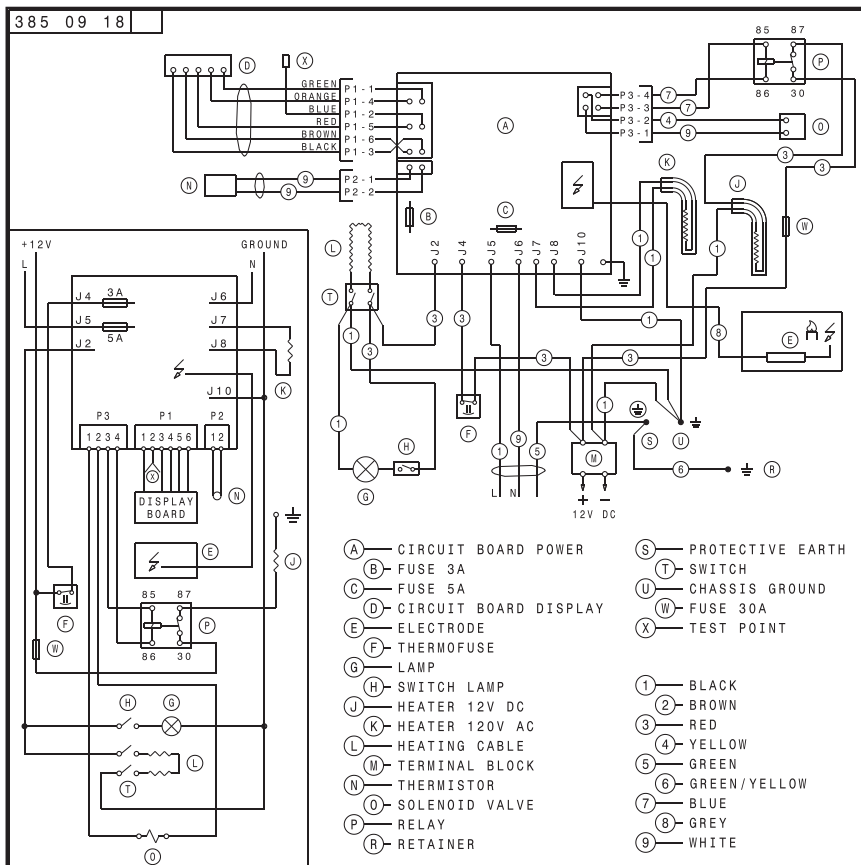


APPENDIX B - WIRING DIAGRAMS

RM2652-2662-2852-2862

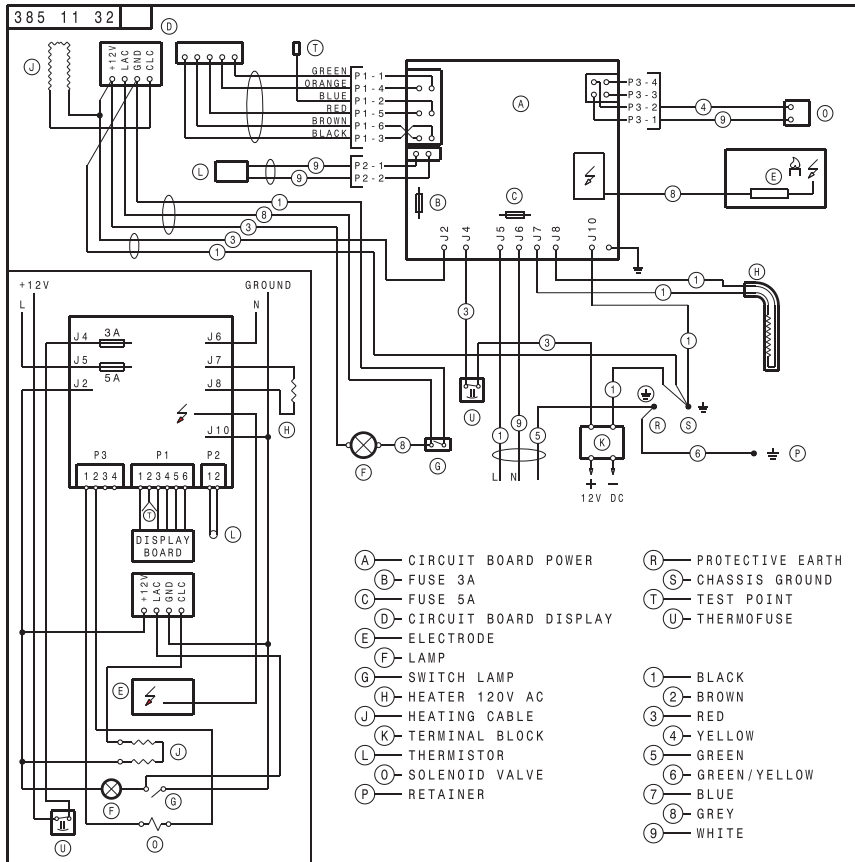


RM2663

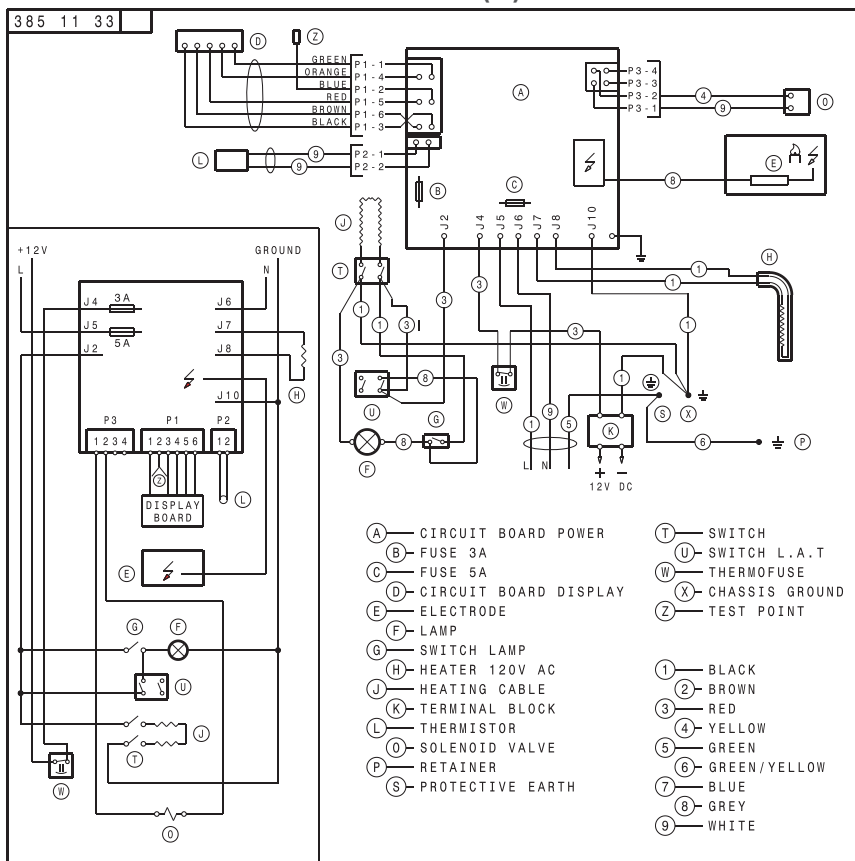


APPENDIX B - WIRING DIAGRAMS

RM3862 - NDR1062 (BS, SS)*



NDR1062 (B)*



* BS = Black stainless steel doors
 SS = Stainless steel doors
 B = Door insert panels

TO THE INSTALLER

PLEASE AFFIX THESE INSTRUCTIONS
TO THE REFRIGERATOR

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TO THE CONSUMER

PLEASE RETAIN THESE INSTRUCTIONS
FOR FUTURE REFERENCE