Thermador®

UNIVERSAL COOK'N'VENT [®] INSTALLATION INSTRUCTIONS MODELS: UCV30 • UCV36 • UCV45

Rating: 120 Volt, 60 Hz., 10.0 Amps.

For Integral Blower Installations:

- Requires Integral Blower: Model # VTN600CVA
- Requires Round Duct Size (6" Diam.)
- Requires Dedicated Branch Circuit Power Supply 120 Volt AC• min. 15 Amps., 3 prong receptacle 60 Hz.
- See Steps 3 and 5 for electrical receptacle and duct outlet location

For Remote Blower Installations:

- Requires Remote Blower: Model # VTR1000Q or VTR600R
- Requires Duct Transition: Model # CVT314 (for 3⁻¹/4" x 14" duct) or Model # CVT7 (for 7" Diam. Round)
- Requires 4 wires and 1 ground wire connecting blower and vent
- Requires Dedicated Branch Circuit Power Supply 120 Volt 15 Amps., 3 prong receptacle • 60 Hz., AC.
 For CVT314:
- Recommend $3^{-1}/4$ " x 14" to 10" diam. transition for VTR1000Q Remote Blower
- Recommend 3-1/4" x 14" to 8" diam. transition for VTR600R Remote Blower For CVT7:
- Recommend 7" diam. to 10" diam. transition for VTR1000Q Remote Blower
- Recommend 7" diam. to 8" diam. transition for VTR600R Remote Blower
- See Steps 3 and 5 for electrical receptacle and duct outlet location

INSTALLATION MUST COMPLY WITH ALL APPLICABLE CODES.

PLEASE READ ENTIRE INSTRUCTIONS BEFORE PROCEEDING.

IMPORTANT:Save these instructions for the local electrical inspector's use.INSTALLER:Please leave these Installation Instructions with this unit for the owner.OWNER:Please retain these instructions for future reference.SAFETY WARNING:Disconnect power by removing plug from receptacle before installing or servicing this unit.

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SAFETY INSTRUCTIONS



TO REDUCE THE RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS, OBSERVE THE FOLLOWING:

- A. Installation work and electrical wiring must be done by qualified person(s) in accordance with all applicable codes and standards, including fire-related construction.
- B. Sufficient air is needed for proper combustion and exhausting of gases through the flue (chimney) of fuel burning equipment to prevent backdrafting. Follow the heating equipment manufacturer's guideline and safety standards such as those published by the National Fire Protection Association (NFPA), and the American Society for Heating, Refrigeration and Air Conditioning Engineers (ASHRAE), and the local code authorities.
- C When cutting or drilling into wall or ceiling, do not damage electrical wiring and other hidden utilities.
- D. Ducted fans must always be vented to the outdoors.
- E. Always unplug or disconnect the downdraft from the power supply before servicing.

THIS PRODUCT IS INTENDED FOR GENERAL VENTILATING USE ONLY. DO NOT USE TO EXHAUST HAZARDOUS OR EXPLOSIVE MATERIALS OR VAPORS.

TO REDUCE RISK OF FIRE AND TO PROP-ERLY EXHAUST AIR, BE SURE TO DUCT AIR OUTSIDE. DO NOT VENT EXHAUST AIR INTO SPACES WITHIN WALLS, CEIL-INGS, ATTICS, CRAWL SPACES OR GA-RAGES.

TO REDUCE THE RISK OF FIRE, USE ONLY METAL DUCT WORK.

WARNING TO REDUCE THE RISK OF FIRE, ELEC-TRIC SHOCK AND INJURY TO PERSONS, VENTILATOR ASSEMBLIES, MODELS UCV30, UCV36 AND UCV45 MUST BE INSTALLED WITH INTEGRAL BLOWER, MODEL VTN600CVA OR REMOTE BLOW-ERS MODEL VTR600R OR VTR1000Q. OTHERVENTILATOR BLOWERS CANNOT BE SUBSTITUTED.

READ AND SAVE THESE INSTRUCTIONS



INTRODUCTION

GENERAL DESCRIPTION

The complete Universal Cook'n'Vent®

System consists of the **ventilator intake** and a **blower**. See Fig. I. The blower is either an **integral** (mounted on the vent intake in the cabinet under the cooktop) or a **remote** (roof or outside wall mounted). When a remote blower is used, a **duct transition** is mounted on the ventilator intake in place of the integral blower to connect the intake to the ductwork. The duct transition must be purchased separately. (see Table I.)

The integral blower or duct transition can be mounted in different positions on the intake to route ductwork to avoid cabinet, building framing, utilities, etc. **Important: To allow for cleaning access, locate blower in the position closest to the duct outlet**.

The Universal Cook'n'Vent® System is available in 30-inch, 36-inch and 45-inch models, with countertop trim in either stainless, black, or white. It is intended for use with any residential 30-inch, 36-inch or 45-inch model (Thermador or other) gas or electric cooktop. It is not intended to be used with any professional style cooktop or range.

STEP I

PLAN THE INSTALLATION

Carefully follow the planning procedures listed below. See Figure 2.

- A. Determine whether a remote or integral blower will be used. **Remote blower installation requires 5** wires plus a ground wire to run from the Cook'n'Vent[®] to the blower.
- B. Make sure adequate cabinet and counter space has been provided for unit service if required.
- C. Minimize cross drafts created by adjacent open windows, doors, air conditioning, old heating vents, recessed ceiling lights, and traffic patterns which may affect performance.
- D. For gas cooktop installations make sure that a minimum 10 square inch opening is provided in the toekick or other cabinet area. Inadequate ventilation of the cabinet below the cooktop may result in flame outage when operating the vent system.

- E. Provide "make-up air" to installation location to improve performance and prevent problems, such as fireplace chimney downdrafts.
- F. Investigate potential ductwork routes and choose the shortest possible route from the unit to an outside wall or roof. For guidance, typical ducting installations are shown in figures 3 through 6.
- G. Determine whether the chosen route of ducting will meet vent system performance requirements. To do this, measure the duct lengths needed and determine specific fittings required. Enter this data in the spaces provided in Table 1.
- H. Follow the duct installation guidelines in Table 2.

PARTS INCLUDED:

- #8, I" phillips head wood screws (4 ea.)
- wire nut (spring type wire nuts, rated for a min. of (2 #18 AWG wires, UL and CSA rated to 600V and 302 deg.F/ 150 deg. C)

PARTS NEEDED:

- Small flat head screwdriver
- Small phillips head screwdriver

Parts Needed for Remote Blower:

- 5 min. 18 AWG, max 14 AWG wires and I ground wire.
- I-I/2" box connector
- (3-1/4" x 14") to a 10" Diam. duct transition for VTR1000R Remote Blower
- (3-1/4" x 14") to a 8" Diam. duct transition for VTR600R Remote Blower

Parts Needed for Integral Blower:

• 6"-8" Duct Transition for Integral VTN600CVA Blower



FIGURES 3 THROUGH 6 ARE EXAMPLES OF POSSIBLE DUCTING









TABLE I. VENTILATOR PERFORMANCE CALCULATION

DUCT PIECES	SIZE	EQUIVALENT LENGTH	QUANTITY USED	TOTAL EQUIVALENT LENGTH	DUCT PIECES	SIZE	EQUIVALENT LENGTH	QUANTITY USED	TOTAL EQUIVALENT LENGTH
	6" 7" 8" 10"	1.2' 0.95' 0.7' 0.6'			3-1/4"X 10" CENTER REVERSE ELBOW LEFT	N/A	15'		
3-1/4" 5TRAI 3-1/4" 5TRAI 3-1/4"	x 10" GHT x 14"	I' 0.7'			3-I/4"X 10" CENTER REVERSE ELBOW RIGHT	N/A	25'		
90° ELBOW	6'' 7''	2' 8'			3-1/4"X 10" RIGHT REVERSE	N/A	25'		
	8" 6" 7"	6' 5'			ELBOW 3-1/4"X 10" LEFT	N/A	15'		
ELBOW	7" 8"	4' 3'			REVERSE ELBOW ROUND	6"	15'		
3-1/4"X10" 90° ELBOW	N/A	5'			WALL CAP Model #WC8 Model #WC10	7" 8" 10"	2'		
3-1/4"X 10" 45° ELBOW	N/A	15'			ROUND ROOF CAP	6" 7" 8"	2'		
3-1/4"X10" FLAT ELBOW	N/A	20'			3-1/4"x10" Model #I		20'		
ROUND TO 3-1/4"X10"	6'' 7''	r r			10" 3-1/4" 3-1/4" to Ro (" Model 3107	ound	Ľ		
3-1/4"X10" TO ROUND	6''	5'			3-1/4" Wall	'x10'' Cap	2'		
ROUND TO 3-1/4"X10"	7" 6"	3' 10'			Model Wo	e			
90° ELBOW	7''	8'			Backdraf Damper Model #	I 40	5'		
3-I/4"XI0" TO ROUND 90° ELBOW	6'' 7''	10' 5'			3-I/4"x10" Roof Jack & Shutter, Model # R		5'		
					ough your Thermador r hardware stores.		TOTA (of both colu	L ımns) =	

TABLE 2.DUCT WORK INSTALLATION GUIDELINES

• Keep duct runs as short and straight as possible.

• Duct fittings (elbows and transitions) reduce air flow efficiency.

• Back to back elbows and "S" turns significantly reduces air flow and are not recommended.

• A short straight length of duct at the inlet of the remote blower gives the best delivery.

- Transition to round duct as close to the Cook'n'Vent $\ensuremath{\mathbb{B}}$ as possible. In order of preference, use

 1 st.
 10" round duct

 2 nd.
 8" round duct

 3 rd.
 7" round duct

 4 th.
 3-1/4" x 14" duct

 5 th.
 3-1/4" x 10" duct

 6 th.
 6" round duct

• The use of flexible metal round duct should only be used when no other duct fitting exists. Limit use to short lengths and do not crush when making corners.

• Where local codes permit, plastic pipe (PVCschedule 40 pipe or ABS pipe 7" or 8" diameter) can be used in areas of high ground moisture and in slab floors to eliminate future rusting. • Use only duct work constructed of materials that are acceptable by the applicable codes. All duct should be 26 gauge or heavier to minimize flex due to air flow.

If the VTR1000Q is used, then a 10" diam. round duct to match the inlet ring is required or a transition to a 10" diam. is necessary from other duct sizes.
If the VTR600R is used, then a 8" diam. round duct to match the inlet ring is required or a transition to a 8" diam. is necessary from other duct sizes.

• Use sheet metal screws as required to support the duct weight, and seal all joints with duct tape.

• Be certain that the duct work does not interfere with floor joists or wall studs.

• Do not exhaust more than one vent into a single duct run.

• Thermal breaks, such as a short section of nonmetallic duct, should be used in areas of extreme cold.

• Always use an appropriate roof or wall-cap with damper. Laundry type wall caps should <u>never</u> be used.

STEP 2 PREPARE COUNTERTOP CUTOUT

For installation of the Cook'n'Vent[®] with a Thermador cooktop, refer to Part A and Figure 7. For installation with another brand of cooktop, refer to Part B and Figure 8.

For all installations, verify cutouts will clear the inside of the front countertop support rail. (See cutout depth in Figure 2). The front and rear cutouts must be straight and parallel to the front edge of countertop and the rear backsplash or wall. Assure that the side cutouts are square to the front and rear cutouts. All illustrations and dimensions are based upon standard 24" deep by 36" high American style base cabinets with 25" countertops.

When installing laminated or solid surface countertops

such as Surell[™] and Corian[®], be sure to follow the countertop manufacturer's instructions regarding minimum corner radii, reinforcement of corners, etc.

For overhead cabinet and cooktop side clearances consult cooktop Installation Instructions.

A. INSTALLATION WITH A THERMADOR COOKTOP (FIGURE 7 AND TABLE 3)

Provide an opening in the countertop as specified in Table 3. Make sure the distance from the front of the countertop to the front of the cutout is not less than dimension "SB." Verify that the available flat countertop is greater than dimensions "OW" by "OD." Make certain the backsplash thickness does not exceed dimension "BT".

UCV30/30	6/45 INSTALI		LE 3 (in i MENSIONS		RMADOR CO	OKTOPS
Cooktop Model No.	CW Cutout Width	D Cutout Depth	OV Overall Width	D Overall Depth	SB Minimum Set Back	BT, Max++ Backsplash Thickness
30" Cooktops:	Installed with U	CV30	·			•
SGS304* SGSX304* CET304 CEP304 CEM304	28-15/16 28-15/16 28-3/4 28-3/4 28-3/4	22-1/4 22-1/4 22-1/8 22-1/8 22-1/8	31 31 31 31 31 31	23-3/4 23-3/4 23-7/8 23-7/8 23-7/8	1-1/2 1-1/2 2-1/2 2-1/2 2-1/2	3/4 3/4 0 0 0
36"Cooktops: I	nstalled with U	CV36				
SGS365** SGSX365** CET365 CEP365 CEM365	34-15/16 34-15/16 34-3/4 34-3/4 34-3/4	22-1/4 22-1/4 22-1/8 22-1/8 22-1/8	37 37 37 37 37 37	23-3/4 23-3/4 23-7/8 23-7/8 23-7/8	1-1/2 1-1/2 2-1/2 2-1/2 2-1/2	3/4 3/4 0 0 0
45" Cooktops:	Installed with U	CV45	I	I		
SGS456 SGSX456 CET456 CEP456 CEM456	43-15/16 43-15/16 43-3/4 43-3/4 43-3/4	22-1/4 22-1/4 22-1/8 22-1/8 22-1/8	46 46 46 46 46	23-3/4 23-3/4 23-7/8 23-7/8 23-7/8	- /2 - /2 2- /2 2- /2 2- /2	3/4 3/4 0 0

Table 3 Notes

- * Dimension **"SB**" is the minimum distance from the leading edge of the counter to the leading edge of the cutout.
- ++ Dimension "**BT**" is the thickness of back-splash that provides

1/8" clearance between vent and backsplash. Any backsplash with a curved radius where it meets the counter will require additional clearance. Thicker backsplashes may be used by increasing the counter and cabinet depths. All dimensions are in inches and are based upon a standard 24" deep base cabinet with 25" countertop.

* * SGC and SGCS cooktops are I" wider at center of cooktop than shown in chart above.

Refer to cooktop Installation Instructions for complete information prior to making any cutouts.

Clearance is provided to allow raising of the hinged main top.



B. INSTALLATION WITH ANOTHER BRAND OF COOKTOP (Figure 8)

The installer will need to have the cooktop installation instructions available to complete the installation. All cooktop dimensions should be verified through measurement prior to cutting the countertop:

CCW = Cooktop Cutout Width CCD = Cooktop Cutout Depth COW = Cooktop Overall Width COD = Cooktop Overall Depth

with the above dimensions confirmed, determine the cutout size as follows:

I. Find the cutout width, (CW):

If CCW is **smaller** than the UCV cutout width then:

Installation	CW
UCV30	28.1/2
UCV36	34 .1/2
UCV45	43 .1/2

If CCW is larger than the UCV cutout width then: CW = CCW

See Figure 8 for UCV cutout widths and dimension definitions.

* Refer to Table 3 Notes on previous page.

 Calculate the cutout depth, CD: Determine the cooktop overhang (CO)
 CO = (COD-CCD)/2 (Assumes front and rear cooktop overhangs are equal) Calculate the cutout depth, (CD):

CD = COD - CO + 1.7/8''

- 3. Determine setback (SB) distance from front of countertop to front of cutout. SB is specified in the installation instructions shipped with the cooktop.
- 4. Backsplash thickness must not exceed BT as calculated below:

BT = 24 7/8" - SB+CO - OD - 2-1/4(Provides 1/8" clearance between vent and backsplash.) A negative value for BT means countertop is too small for the installation.

5. Verify that the available flat countertop has a width greater than OW and a depth greater than OD.

OW depends on the installation:

<u>UCV30</u>: OW equals the greater of COW or 30". <u>UCV36</u>: OW equals the greater of COW or 36". <u>UCV45</u>: OW equals the greater of COW or 45".

OD is determined by: OD=COD+2.1/4".

6. Cut countertop using dims: CD, CW and SB as defined in Figure 8.



STEP 3

PREPARE DUCT CUTOUTS IN CABINET

- A. Refer to Figure 9. Drop a plumb-line from Point "P" C. Temporarily set intake and cooktop in place and at the center of the rear countertop cutout. Mark this point on the bottom of the cabinet. Draw Line AA through this point and parallel to the front of the cabinet. Through the same point draw Line BB perpendicular to Line AA.
- B. Use Table 4 to layout the necessary cabinet cutouts for the ductwork. Where a range of measurements is noted, choose a measurement that allows best clearance from wall studs, floor joists, utilities, or other obstructions.
- attach integral blower (or duct transition fitting if a remote blower is installed). Refer to steps 6 and 7. Verify that the duct cutouts as marked will match the hardware installation. Adjust the duct cutout as necessary to match hardware installation.
- D. Remove temporarily placed hardware and make cutouts in cabinet.
- E. Make all other cabinet modifications needed to provide proper clearances for drawers or removable shelving.



			TABLE 4	l I				
INTEGRAL BLOWER VTN600CVA								
	С	D	Е	F	G	Н		
UCV30	7-1/2	6	1/4	15-1/2	9	-		
UCV36	7-1/2	6	1/4	15-1/2	9	-		
UCV45	7-1/2	6	1/4	15-1/2	9	-		
	RE	MOTE BLOV	VER VTR600		00Q			
	C	D	E	, F	G	Н		
UCV30	7-1/4	6	_	2- /4	12-1/4	3		
UCV36	7-1/4	6	-	12-1/4	12-1/4	3		
UCV45	7-1/4	6	-	2- /4	2- /4	3		

<u>STEP 4</u>

INSTALL DUCTWORK (REMOTE BLOWER - if used)

- A. Install the ductwork and remote blower (if used) in accordance with the ductwork routing plan developed in Step 1.
- B. Make sure that the installation complies with all installation guidelines in Table 2. Check the opening where ducting passes through the outside wall or roof has been properly flashed and sealed to prevent leakage.
- C. If using integral blower model VTN600CVA proceed to Step 5.
- D. If using remote blower model VTR600R or VTR1000Q, refer to Installation Instructions with that model.

STEP 5

INSTALL ELECTRICAL SERVICE

Check your local building codes for proper method of installation. In the U.S., if there are no applicable local codes, this unit should be installed in accordance with the National Electric Code ANSI/NFPA No. 70, Current Issue. (In Canada, installation must be in accordance with the CAN 1-B149.1 and .2 - Installation Codes for Gas Burning Appliances and/ or local codes).

This appliance is factory equipped with a power supply cord having a three-prong grounding plug (with polarized parallel blades). IT MUST BE PLUGGED INTO A MATING GROUNDING TYPE RECEPTACLE, CONNECTED TO A CORRECTLY POLARIZED 120 VOLT CIRCUIT.

The receptacle should be located under the countertop so that the 30 inch long power cord from the vent will reach it. See Figure 9. The cord should be routed beneath the appliance and away from heat generated by the cooktop. Access should not be obstructed by blower, cabinet work, ductwork or electrical/gas utilities for the cooktop. All power for the vent system (including the remote blower, if used) is supplied via the cord to the intake unit. The outlet must have its own dedicated branch circuit from the main service panel.

Do not plug vent cord into receptacle until Step 8.

STEP 6 MOUNT VENT & COOKTOP

- A. Remove grease filters and any packing materials from inside the intake.
- B. Set the vent intake into rear of countertop opening. Carefully lower it into position so that the flanges on the rear sides and edges fully support the unit hanging from the countertop.
- C Loosely fasten lower support legs to vent. Hold the unit against the rear of the countertop opening, and, with it in vertical position, slide the brackets down to meet the bottom of cabinet and fasten to cabinet with hardware provided. Then tighten brackets on vent. Refer to Figure 1. Fasten support legs to cabinet floor.
- D. Place the cooktop in countertop opening with the rear edge of cooktop overlapping the front edge of the vent. Make sure rear edge of cooktop does not bind against front of snorkel. Follow the manufacturer's installation instructions for installing the cooktop.

STEP 7 MOUNT INTEGRAL BLOWER OR Remote Blower Transition

MOUNT INTEGRAL BLOWER OR Remote Blower Transition

Integral Blower VTN600CVA Only

A. Place blower in front of intake inside of cabinet, take conduit and blower wires and guide them towards the right at the floor of the cabinet.B. On each side of blower housing there is a flanged edge. When placing the housing onto the intake, these flanges need to be positioned in line with intake flanges.

C. Place the support bars over the screws on the left and right sides of the housing. Secure blower with wing nuts.

D. Snap 90° conduit connector onto end of conduit and wires. Secure connector to hold at bottom of J-Box, ensuring that wires are pulled through and any slack is taken up.

E. To hook up electrical wiring, press down on terminal block tab with small flathead screwdriver and hook up wires into the terminal blocks (as per wiring diagram and color key). Make sure to connect blower wire and the J-Box ground wire with the wire nut provided. Replace J-Box cover. F. Connect ductwork to blower.

Remote Blower VTR600R or VTR1000Q Only

A. Secure 1/2" box connector to hold at bottom of J-Box. Pull 5 wires through connector ensuring that any slack is taken up.

B. To hook up electrical wiring, press down on terminal block tab with small flathead screwdriver and hook up wires into the terminal blocks (as per wiring diagram and color key). Make sure to connect blower wire and the J-Box ground wire with the wire nut provided. Replace J-Box cover. C. Connect ductwork to blower.

Note: Use spring type wire nuts supplied to connect wires per Fig. 11 wiring diagram. (Lost or missing wire nuts should only be replaced with: Spring type wire nuts, rated for a minimum of (2) #18ga wires and max. of (4) #14ga wires, UL & CSA rated to 600V and 302 deg.F/150 deg. C).







<u>STEP 8</u>

VERIFY INSTALLATION, OPERATION & COOKTOP ALIGNMENT

Before performing this procedure, verify that all packing materials were removed from inside the lower enclosure front and that the grease filters have been properly installed. Refer to the Care and Use Manual for instructions regarding filter installation.

Plug the vent power cord into a proper electrical receptacle and ensure that the circuit is energized.

- A. Raise the snorkel to its fully extended position by pressing the Snorkel Up/Down button once (Figure 12). Do not hold the button. The elevating motor will stop when the snorkel reaches its full height. (Note: the blower will <u>not</u> operate unless the snorkel is fully raised).
- B. Remove filters from packaging and install (refer to Care and Cleaning section for details).
- C. Turn the blower ON by pushing the Low Blower Speed button on the snorkel (Figure 12). Let the blower run several minutes at each speed to evaluate its operation.
- D. With the blower running, lower the snorkel to its fully retracted position by pushing the Snorkel Up/Down button once. The blower will immediately turn off.





- E. Raise and lower the vent again. Check to make sure that the top cap on the snorkel does not catch on the back edge of the cooktop when it is lowered. If interference occurs, adjust the position of the cooktop by moving it against the front edge of the countertop cutout. Re-secure the cooktop to the countertop. Failure to eliminate interference may result in permanent damage to the vent. Also, ensure that the vent support legs have been properly secured to the cabinet base using the screws provided.
- F. The height of the snorkel top can be adjusted so that the snorkel top cap is visible when installed with cooktops that have a higher cooking surface. Make this adjustment after installation is complete. First unplug the power cord, remove the J-Box cover, loosen the adjustment screw and push up on the adjustment bracket, (see Figure 13).
- NOTE: To prevent damage to any internal parts, the snorkel should be in the raised position when this adjustment is made.

If the vent system does not operate satisfactorily during any of the above procedures, review all steps in these Installation Instructions to ensure that nothing has been omitted or overlooked. Also, refer to the Care & Use Manual for additional information or call Thermador Customer Support 1-800-735-4328.

NOTES



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