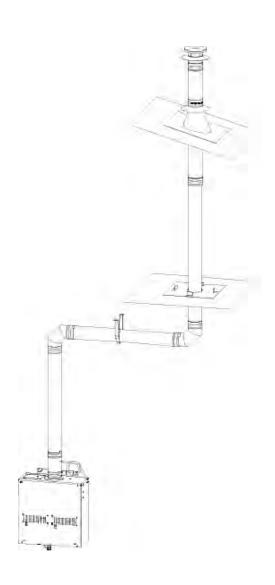
Venting Installation Diagrams & Examples for On-Demand Water Heaters: NovaVent Line



JUNE 2012 324192-000

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NOTES:

- For longer horizontal vent runs, please use support straps every 4 ft., and pitch the run so that any condensate formed will roll back toward the condensate trap.
- Please locate the intake and exhaust sidewall terminations on the same side wall (same pressure zone). The intake and exhaust sidewall terminations should be at least 3 feet apart.
- Please follow all local codes when draining condensate.

These illustrations are intended as basic guides only. There is a wide variety of situations that will require different parts and/or modifications to these basic designs. Designers must add all necessary safety and auxiliary equipment to conform to code requirements and design practices.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

▲ DANGER	DANGER indicates an imminently hazardous situation which, if not avoided, will result in injury or death.
▲ WARNING	WARNING indicates a potentially hazardous situation which, if not avoided, could result in injury or death.
ACAUTION	CAUTION indicates a potentially hazardous situation which, if not avoided, could result in minor or moderate injury.
CAUTION	CAUTION used without the safety alert symbol indicates a potentially hazardous situation which, if not avoided, could result in property damage.

Qualified Installer or Service Agency

Installation and service of this water heater requires ability equivalent to that of a Qualified Agency (as defined by ANSI below) in the field involved. Installation skills such as plumbing, air supply, venting, gas supply and electrical supply are required in addition to electrical testing skills when performing service.

ANSI Z223.1 2006 Sec. 3.3.83: "Qualified Agency" - "Any individual, firm, corporation or company that either in person or through a representative is engaged in and is responsible for (a) the installation, testing or replacement of gas piping or (b) the connection, installation, testing, repair or servicing of appliances and equipment; that is experienced in such work; that is familiar with all precautions required; and that has complied with all the requirements of the authority having jurisdiction."

If you are not qualified (as defined by ANSI above) and licensed or certified as required by the authority having jurisdiction to perform a given task do not attempt to perform any of the procedures described in this manual. If you do not understand the instructions given in this manual do not attempt to perform any procedures outlined in this manual.

VENTING INSTRUCTIONS



Improper venting of this appliance can result in excessive levels of carbon monoxide which can result in severe personal injury or death.

Improper installation can cause nausea or asphyxiation, severe injury or death from carbon monoxide and flue gases poisoning. Improper installation will void product warranty.



When installing the vent system, all applicable national and local codes must be followed. If you install thimbles, fire stops or other protective devices and they penetrate any combustible or noncombustible construction, be sure to follow all applicable national and local codes.

The water heater must be vented in accordance with the section "Venting of Equipment" of the latest edition of the National Fuel Gas Code: ANSI Z223.1/NFPA 54 in the United States and/or Section 7 of the CAN/CSA B149.1 Natural Gas and Propane Installation Code in Canada, as well as applicable local building codes.

General rules for venting water heaters are:

- Place the water heater as close as possible to the vent terminator.
- The vent collar of the water heater must be fastened directly to an unobstructed vent pipe.
- Do not weld the vent pipe to the water heater's vent collar.
- Do not cut the vent collar of the unit.
- The vent must be easily removable from the top of the water heater for normal service and inspection of the unit.
- The water heater vent must not be connected to any other gas appliance or vent stack.
- Avoid using an oversized vent pipe or using extremely long runs of the pipe.
- For rooftop venting, a rain cap or other form of termination that prevents rain water from entering into the water heater must be installed.
- Do not common vent or connect any vent from other appliances to the water heater vent.

General rules for vent terminations:

- Avoid locating the water heater vent terminator near **any air intake devices**. These fans can pick up the exhaust flue products from the water heater and return them to the building. This can create a health hazard.
- Locate the vent terminator so that it cannot be blocked by any debris, at any time. Most codes require that the terminator be at least 12 inches above grade or anticipated snow level, but the installer may determine if it should be higher depending on the job site condition and applicable codes.
- A proper sidewall terminator is recommended when the water heater is vented through a sidewall.
- Regarding the clearances from the exhaust terminator to the air inlet or opening, refer to the unit installation manual and venting manufacturer installation manual.

NovaVent

	Ø4"	Ø5"	DESCRIPTION	
Wall Thimble	9007998005	9008189005	Wall Thimble (4"-7")	8
Wall T	9007997005	9008190005	Wall Thimble (5"-10")	
Support	9007989005	9008204005	Support Strap (1")	P
	9007987005	9008181005	6" Straight Vent Pipe	
¥	9007986005	9008182005	12" Straight Vent Pipe	
Straight	9007984005	9008183005	24" Straight Vent Pipe	111
Ş	9007983005	9008184005	36" Straight Vent Pipe	
	9007982005	9008185005	48" Straight Vent Pipe	
Adjustable	9007985005	9008186005	Adjustable Vent Pipe (7.0"-9.9")	O
Elbow	9007981005	9008187005	45 Degree Elbow	
EIB	9007980005	9008188005	90 Degree Elbow	
Adaptor	9008146005	9008201005	Universal Adaptor-3-in-1 (F-F Adaptor, condensate drain, & back-flow preventer)	
Ada	9007979005	9008203005	Female-Female Adaptor	
Backflow Preventer	9007996005	9008202005	4" Backflow Preventer & F-F Adaptor	
Firestop	9007988005	9008194005	Vertical Firestop	

	Ø 4"	Ø 5"	DESCRIPTION	
	9007999005	9008197005	Terminator Hood	
	9008004005	N/A	Sidewall Vent Terminator (Hood) and Wall Thimble (4"-7")	
Termination	9008005005	N/A	Sidewall Vent Terminator (Hood) and Wall Thimble (5"-10")	
Termi	9008144005	9008198005	Terminator Tee	
	9007995005	N/A	Rain Cap	U
	9008145005	9008200005	Extreme Weather Rain Cap	
tion Drain	9007994005	9008191005	Drain Tee (Horizontal)	
Condensation Drain	9007993005	9008192005	Drain Tee (Vertical) M-F	
ashing	9007992005	9008195005	Flat Roof Flashing	
Roof Flashing	9007991005	9008196005	Angled Roof Flashing	
Storm Collar	9007990005	9008193005	Storm Collar	

Water Heaters DV Conversion Kit		
9007667005	Direct Vent Conversion Kit For T-KJr2(110)/T-K4 (310)/ T-D2 (510)	
9007668005	Direct Vent Conversion Kit For T-M32 (710/710A)	
9007669005	Direct Vent Conversion Kit For T-M50 (910/910A)	
Concentric Direct-Vent Terminaton		

	3" Intake, 4" Exhaust	4" Intake & 4" Exhaust	5" Intake & 5" Exhaust
5.0" to 10.0"	9008147005	9008149005	9008208005
12.0" to 18.0"	9008148005	9008150005	9008209005



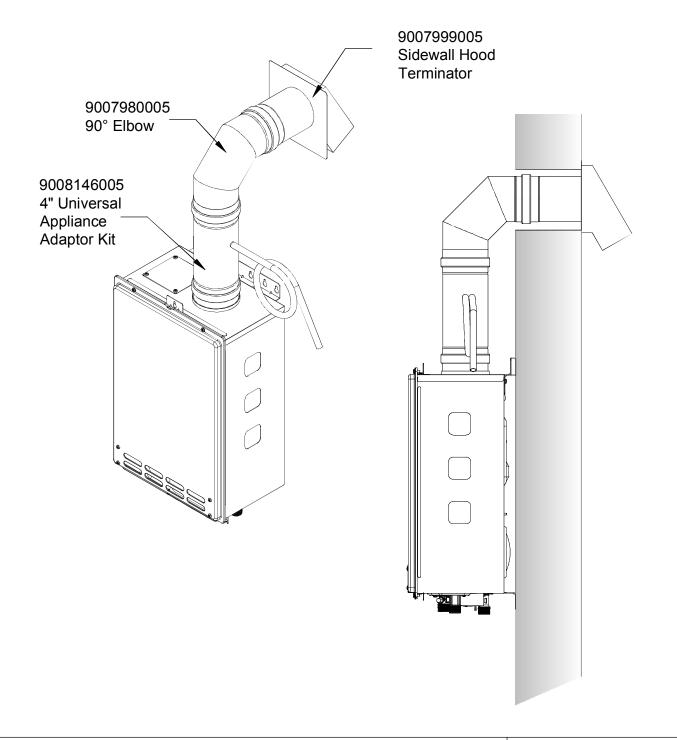
Concentric Direct-Vent Termination Kit

Includes : DV Conversion Kit,	Concentric Termination, Unive	ersal Adaptor 3-in-1, Aluminum Fle	ex and Gear Clamp
	3" Intake, 4" Exhaust	4" Intake & 4" Exhaust	5" Intake & 5" Exhaust
5.0" to 10.0"	9008001005	9008206005	9008210005
12.0" to 18.0"	9008000005	9008207005	9008205005



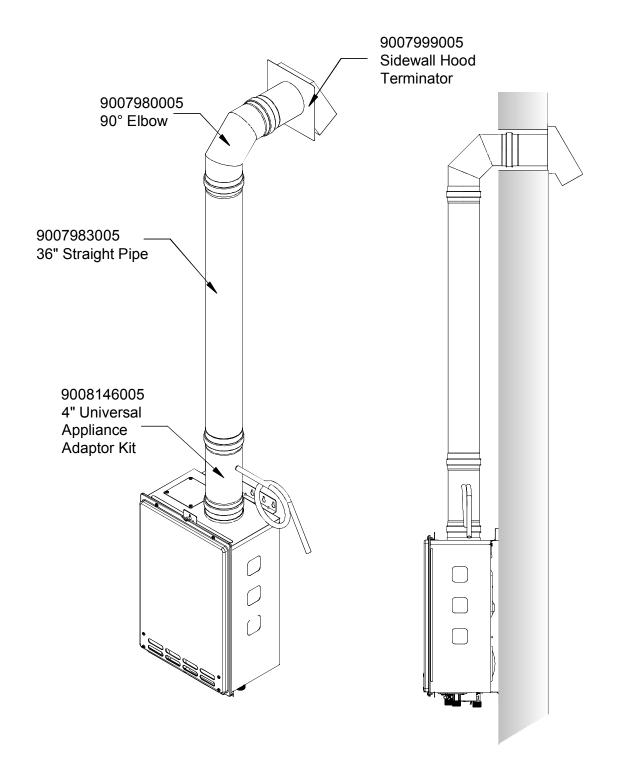
Intake Hood (Galvanized)

- 6			
	Ø3"	Ø4"	Ø5"
	9008142005	9008143005	9008180005

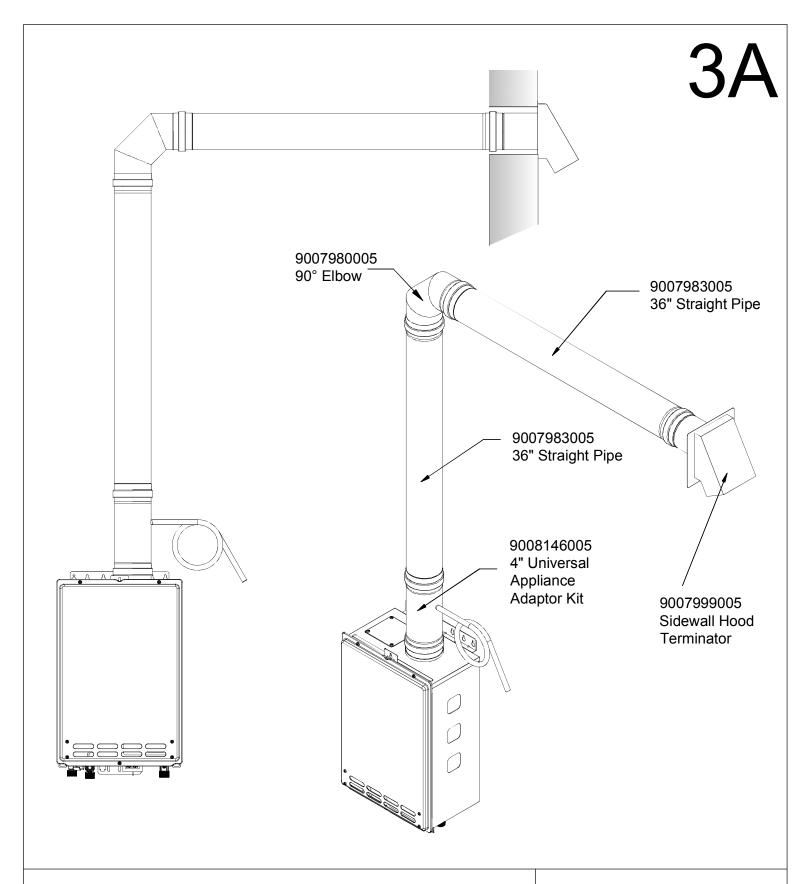


Standard Sidewall Termination Noncombustible Wall (Example 1)

2A

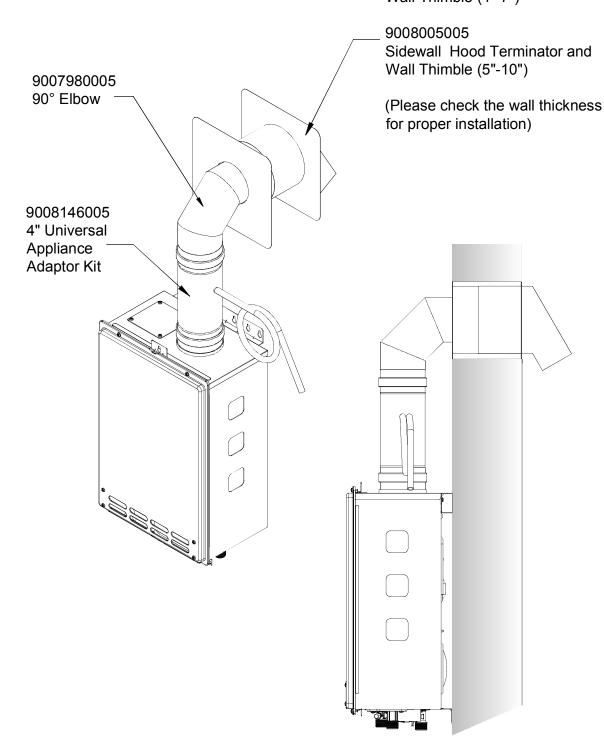


Standard Sidewall Termination Noncombustible Wall (Example 2)

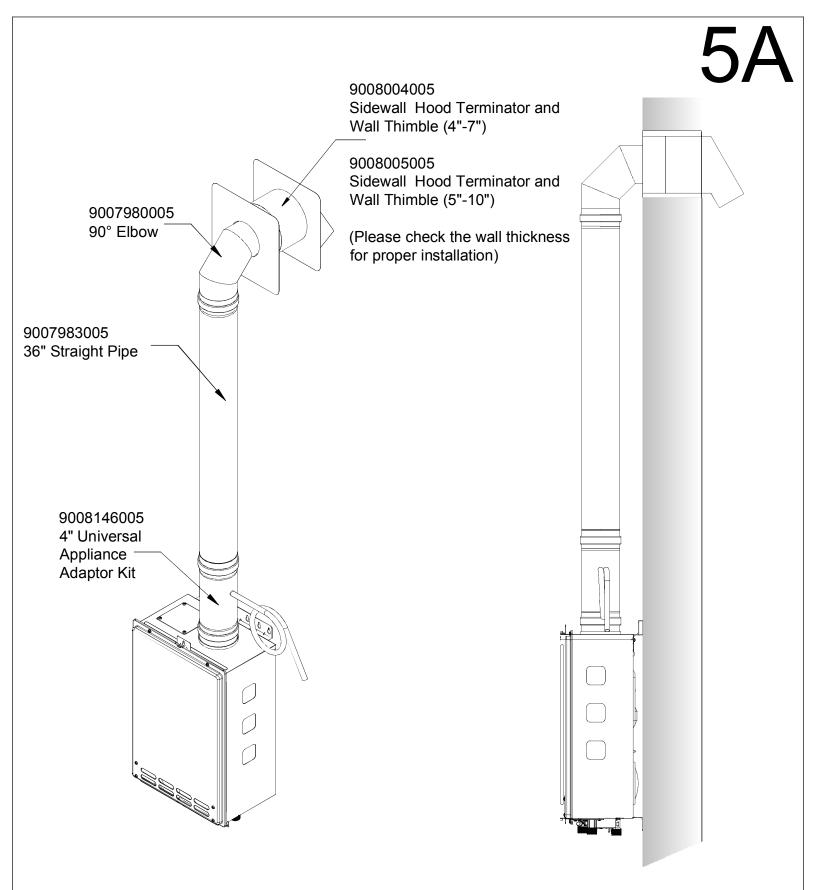


Standard Sidewall Termination Noncombustible Wall (Example 3)

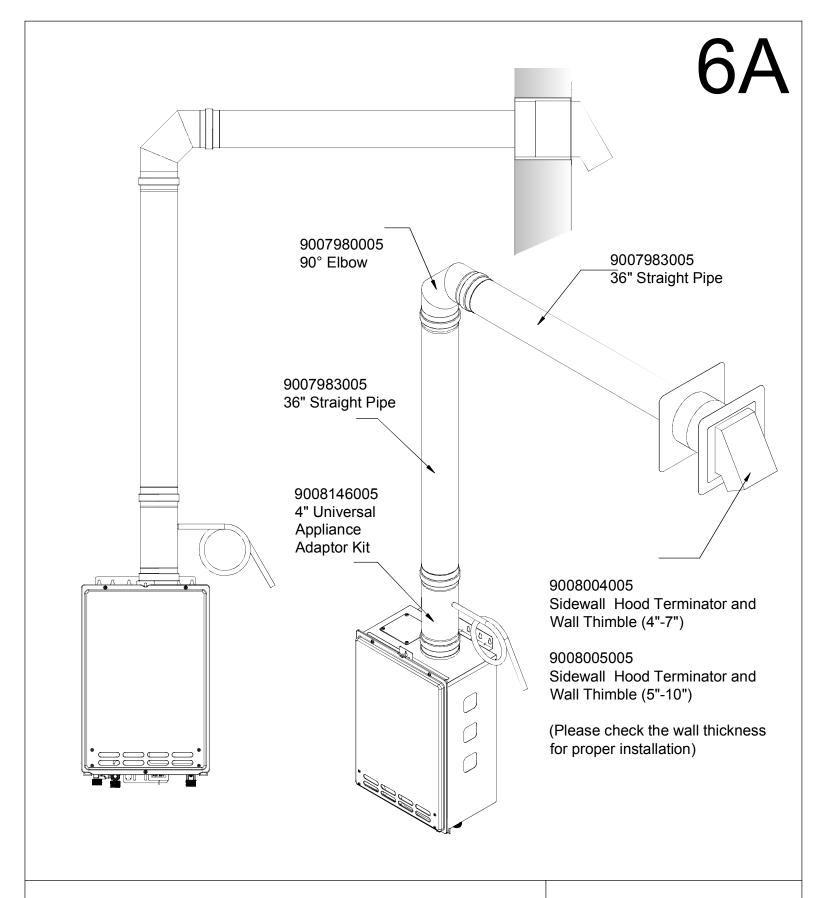
9008004005 Sidewall Hood Terminator and Wall Thimble (4"-7")



Standard Sidewall Termination Combustible Wall (Example 1)

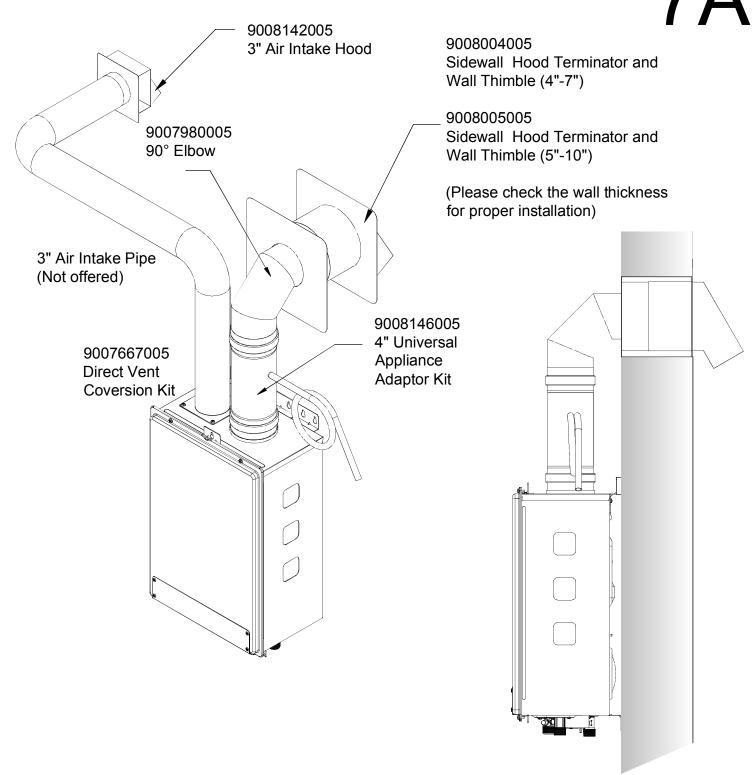


Standard Sidewall Termination Combustible Wall (Example 2)

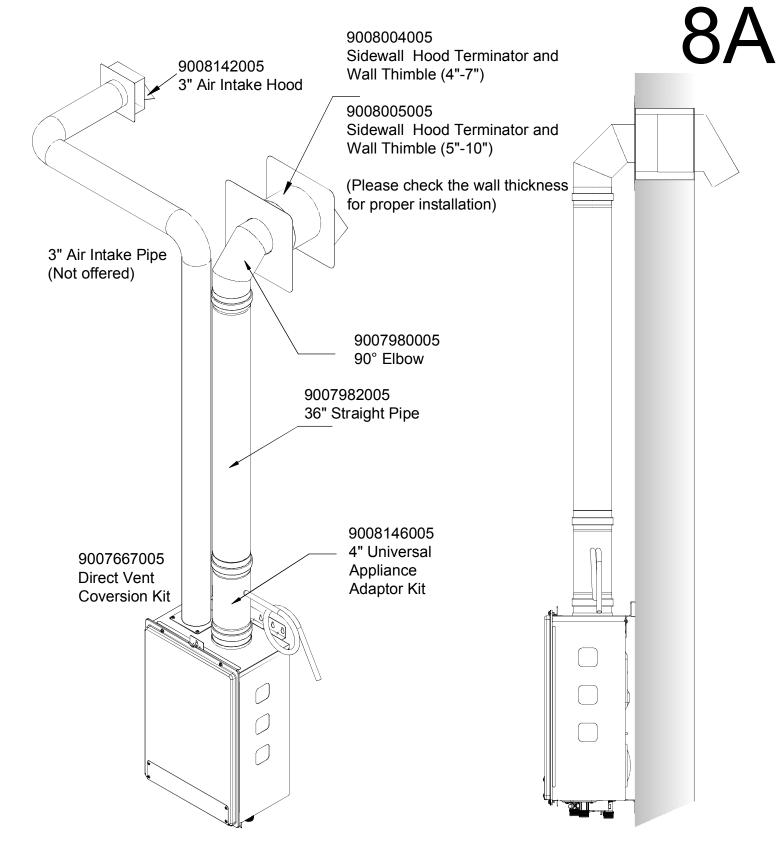


Standard Sidewall Termination Combustible Wall (Example 3)

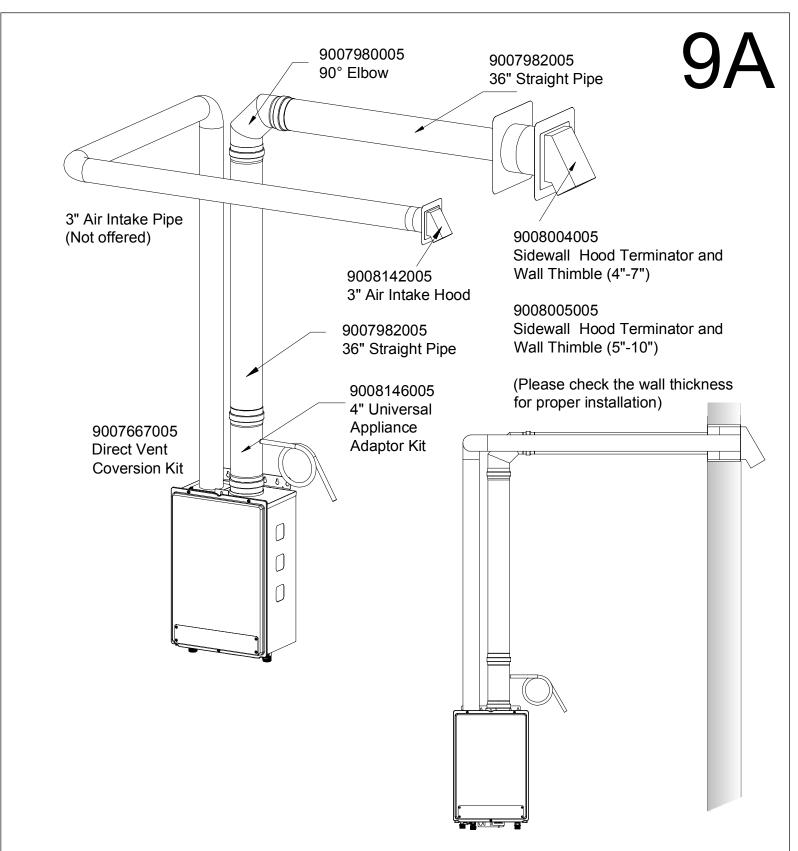




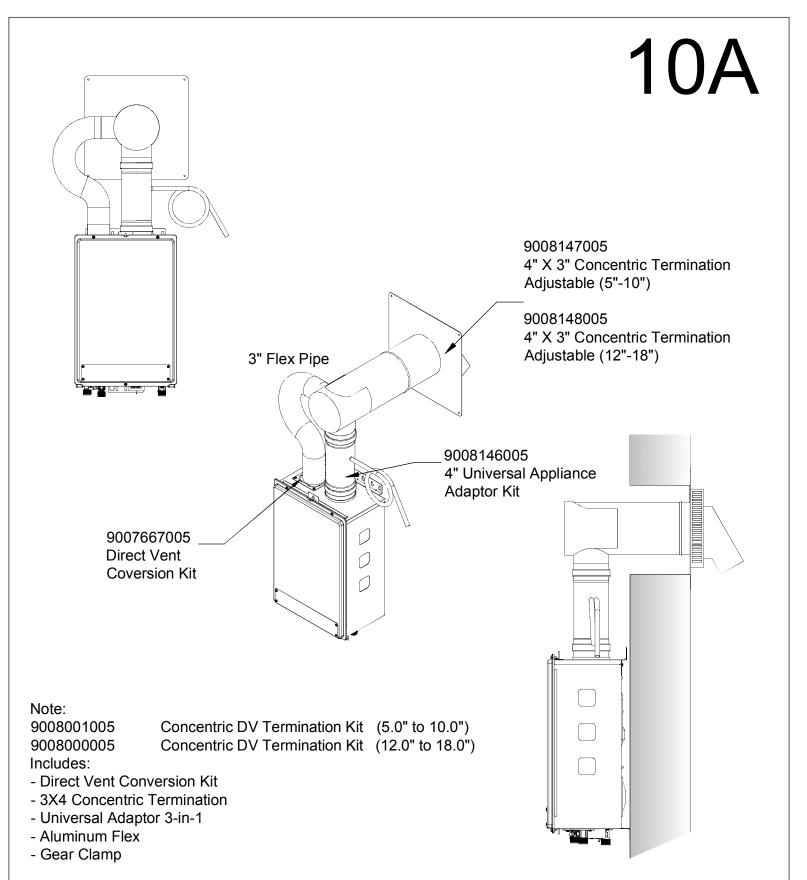
Direct-Vent Sidewall Termination Combustible Wall (Example 1)



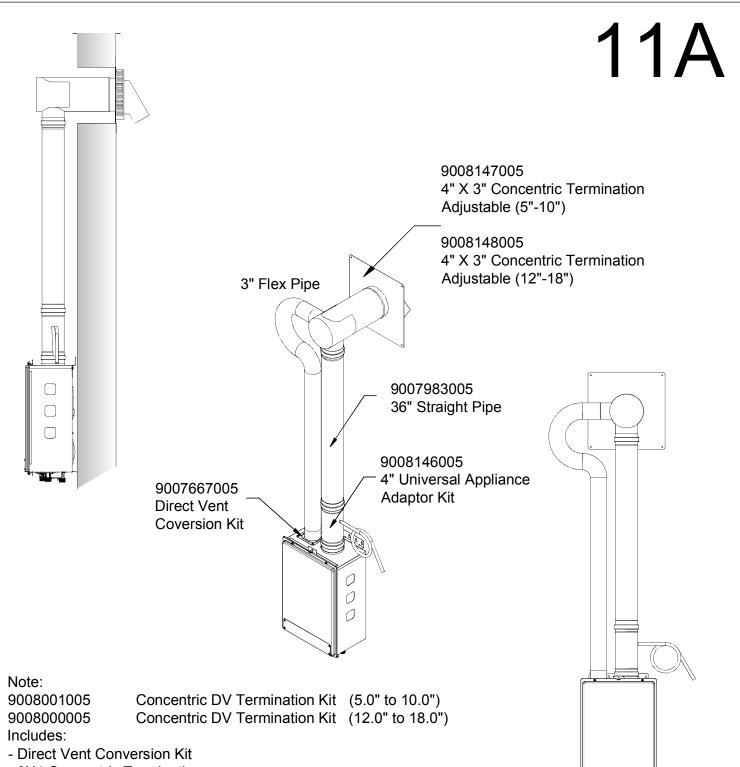
Direct-Vent Sidewall Termination Combustible Wall (Example 2)



Direct-Vent Sidewall Termination Combustible Wall (Example 3)



Concentric Direct-Vent Sidewall Termination -(Example 1)



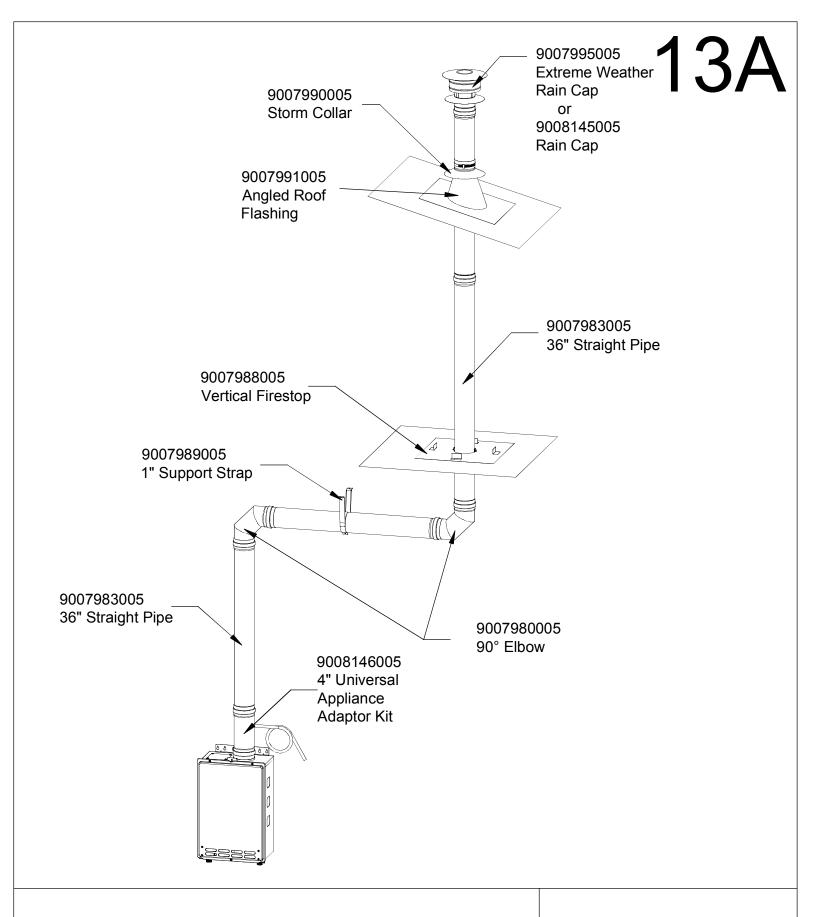
- 3X4 Concentric Termination

- Universal Adaptor 3-in-1
- Aluminum Flex
- Gear Clamp

Concentric Direct-Vent Sidewall Termination -(Example 2)

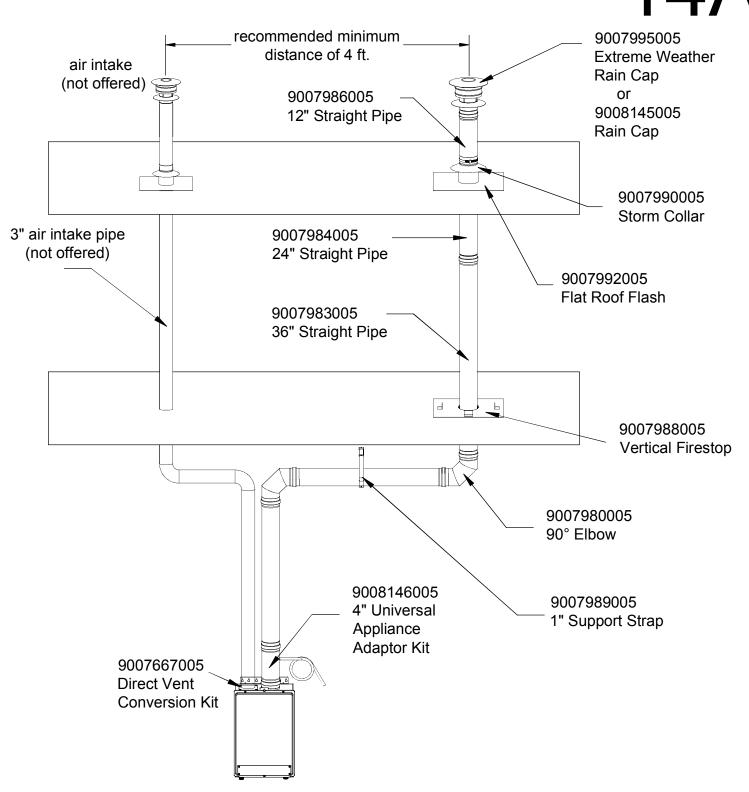
12A 9007995005 Extreme Weather Rain Cap - or 9008145005 Rain Cap 9007992005 9007990005 Flat Roof Flashing Storm Collar 9007983005 36" Straight Pipe 9007988005 **Vertical Firestop** 9007989005 1" Support Strap 9007983005 36" Straight Pipe 9007980005 90° Elbow 9008146005 4" Universal **Appliance** Adaptor Kit

Standard Roof Termination (Flat Roof)

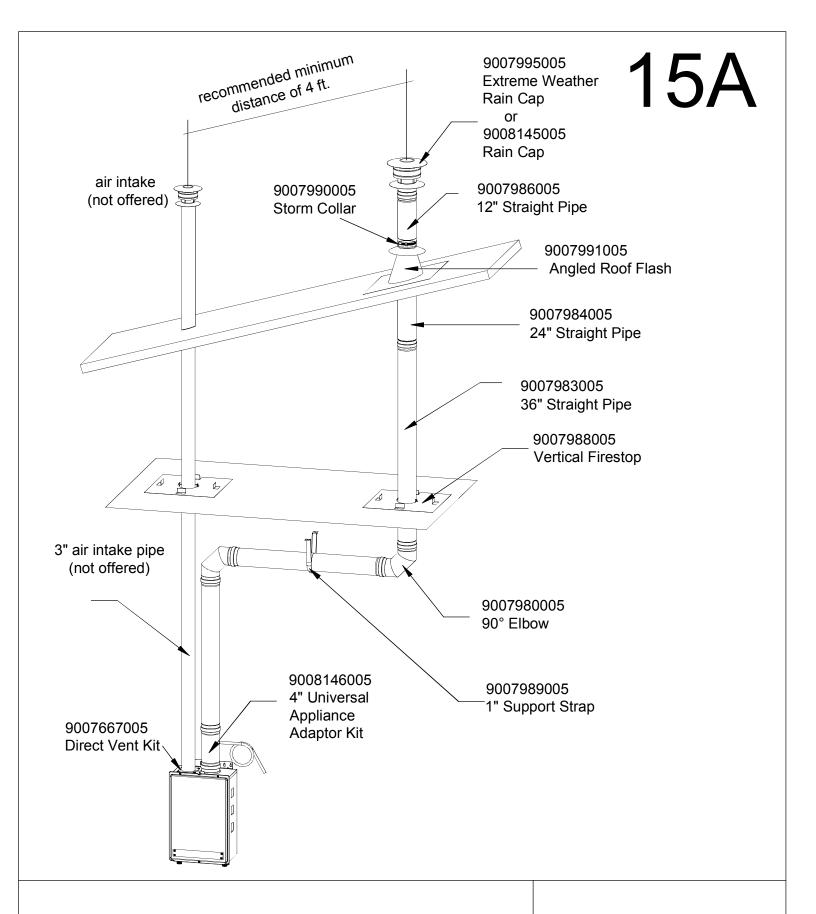


Standard Roof Termination (Angeled Roof)

14A

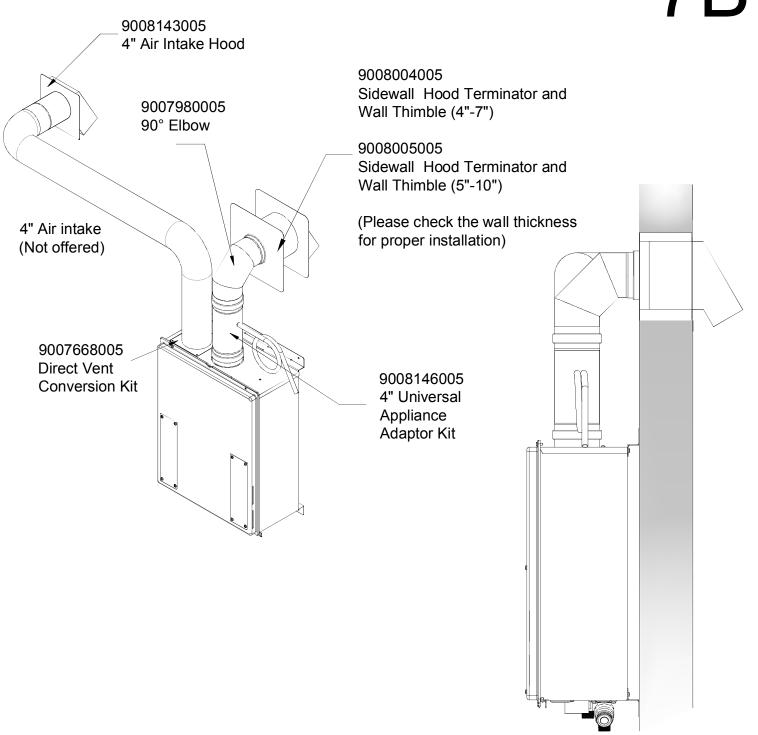


Direct-Vent Roof Termination (Flat Roof)



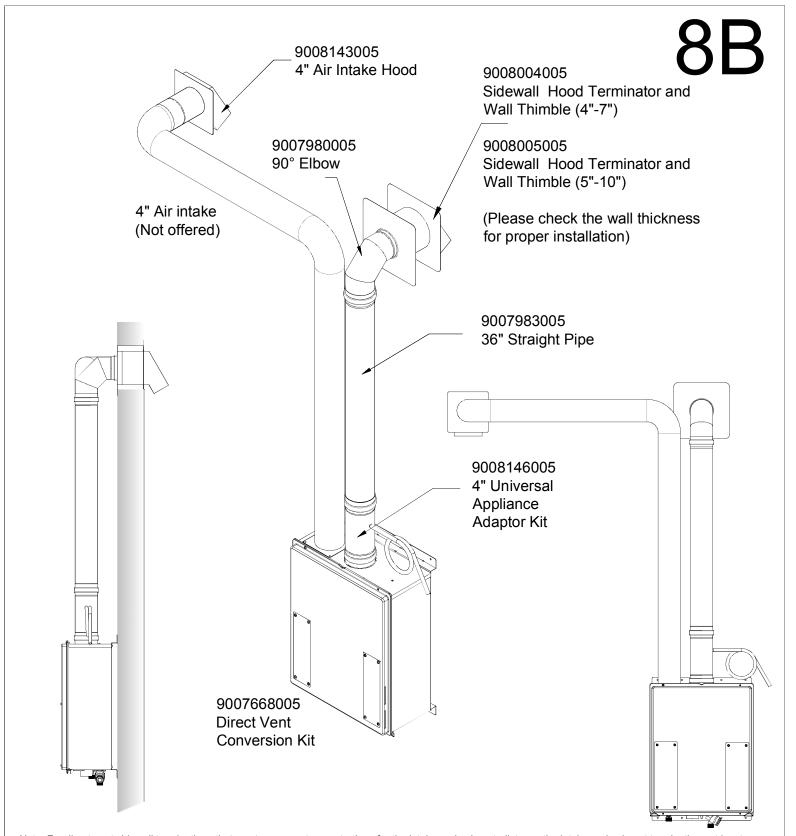
Direct-Vent Roof Termination (Angled Roof)

7B

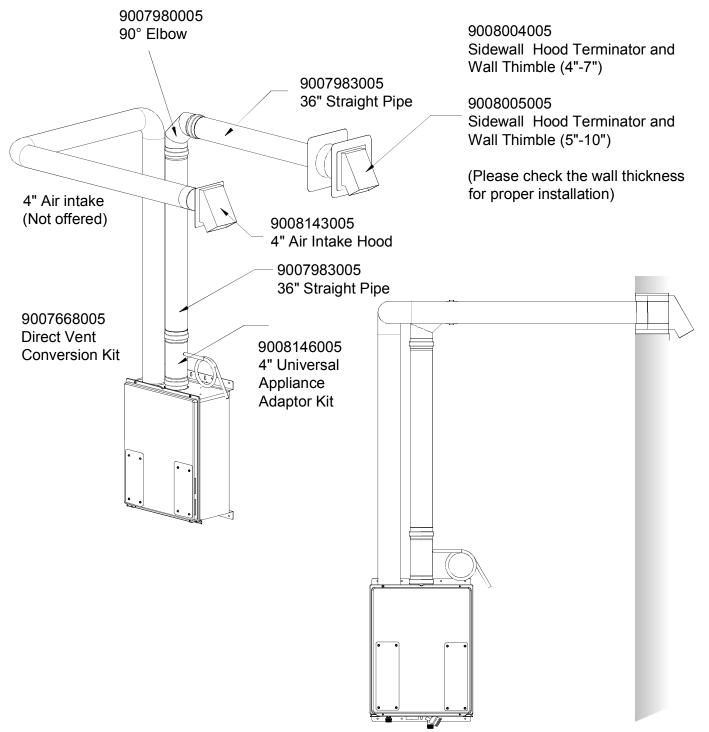


Note: For direct-vent sidewall terminations that use two separate penetrations for the intake and exhaust, distance the intake and exhaust terminations at least 3 ft. away from each other, no matter the orientation.

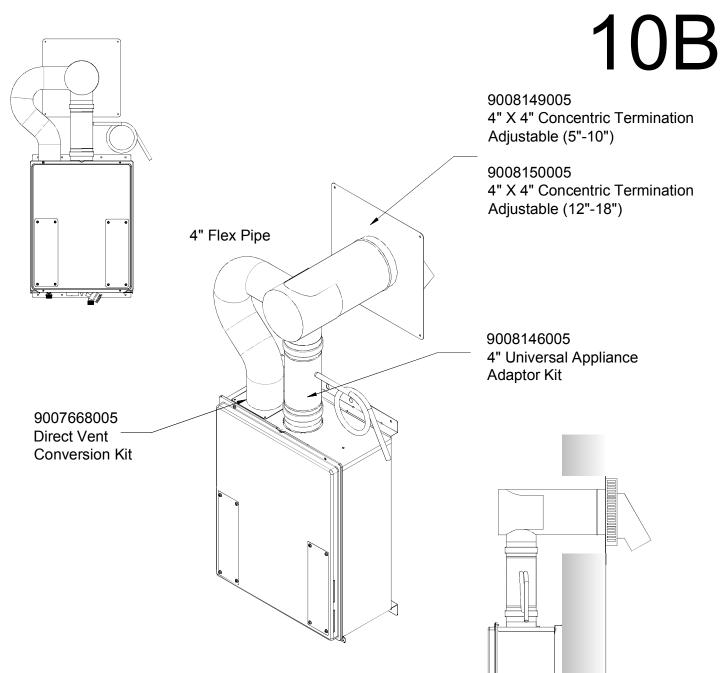
Direct-Vent Sidewall Termination Combustible Wall (Example 1)



Direct-Vent Sidewall Termination Combustible Wall (Example 2)



Direct-Vent Sidewall Termination Combustible Wall (Example 3)



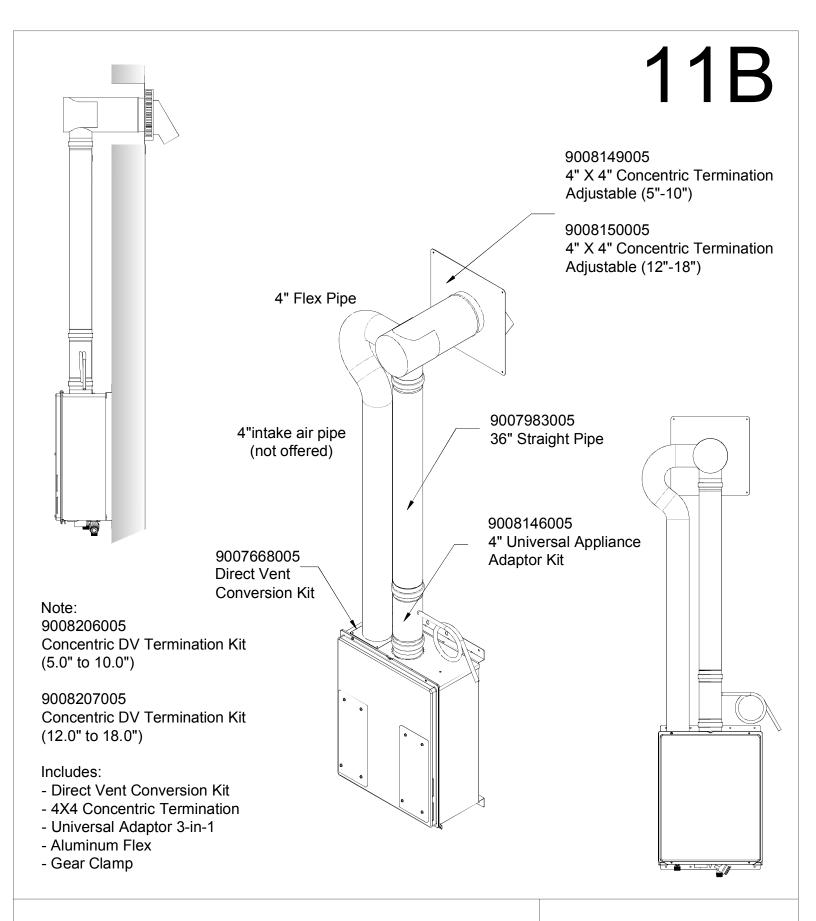
Note:

9008206005 Concentric DV Termination Kit (5.0" to 10.0") 9008207005 Concentric DV Termination Kit (12.0" to 18.0")

Includes:

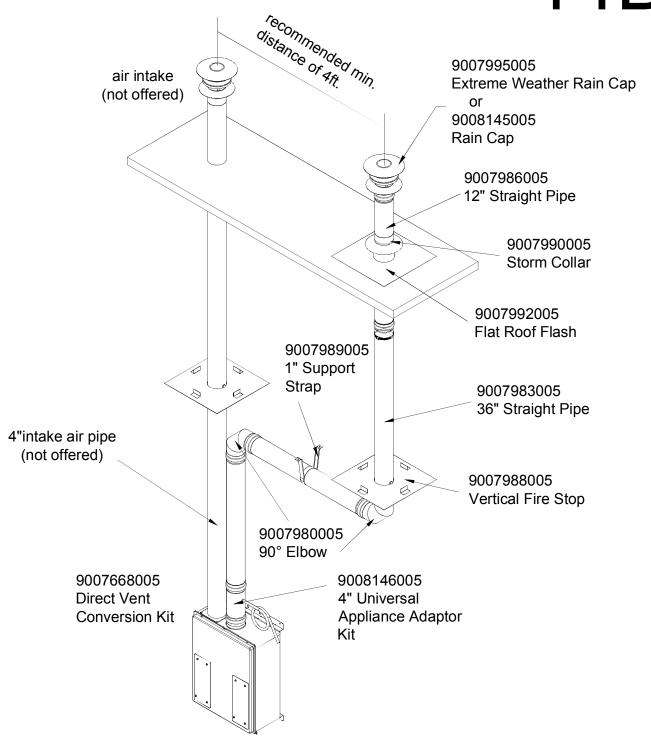
- Direct Vent Conversion Kit
- 4X4 Concentric Termination
- Universal Adaptor 3-in-1
- Aluminum Flex
- Gear Clamp

Concentric Direct-Vent Sidewall Termination (Example 1)



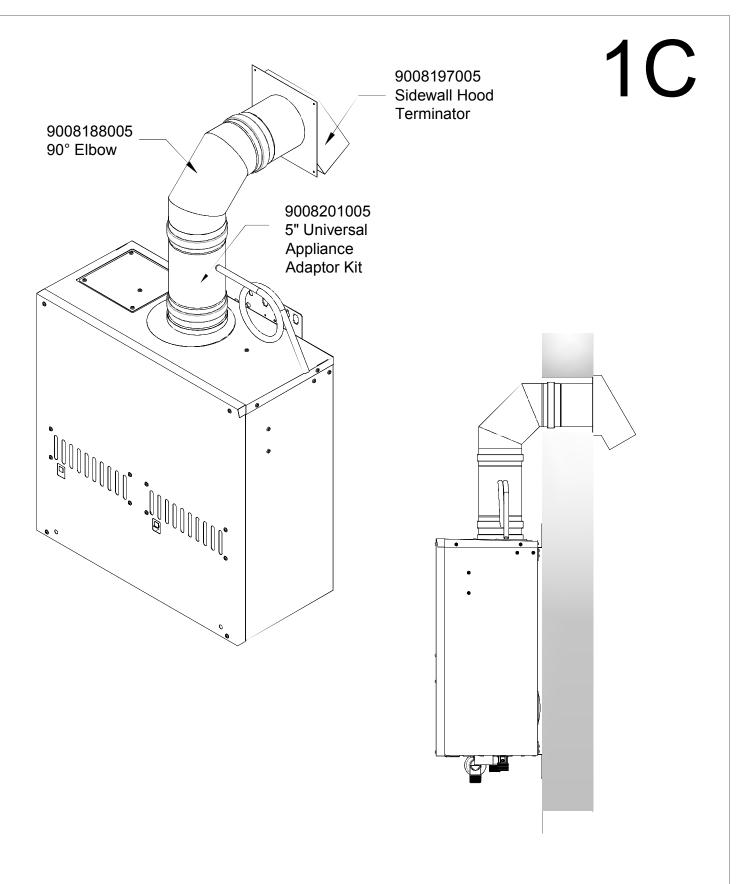
Concentric Direct-Vent Sidewall Termination (Example 2)

14B



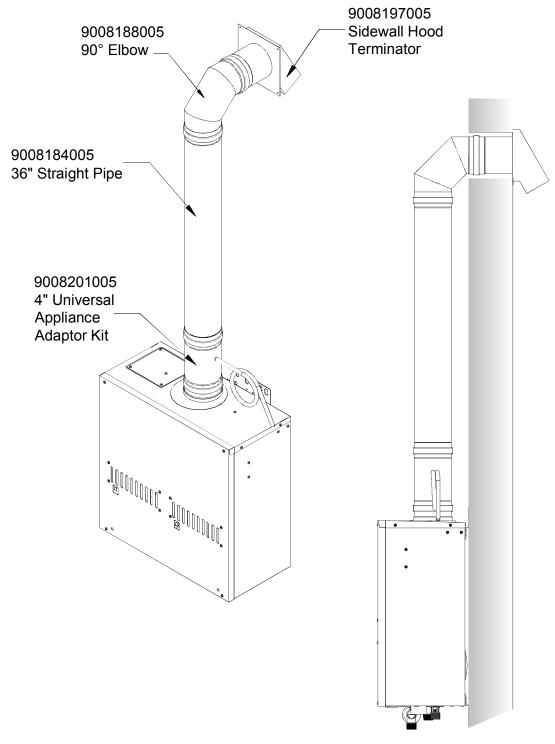
Direct-Vent Roof Termination (Flat Roof)

Direct-Vent Roof Termination (Angled Roof)

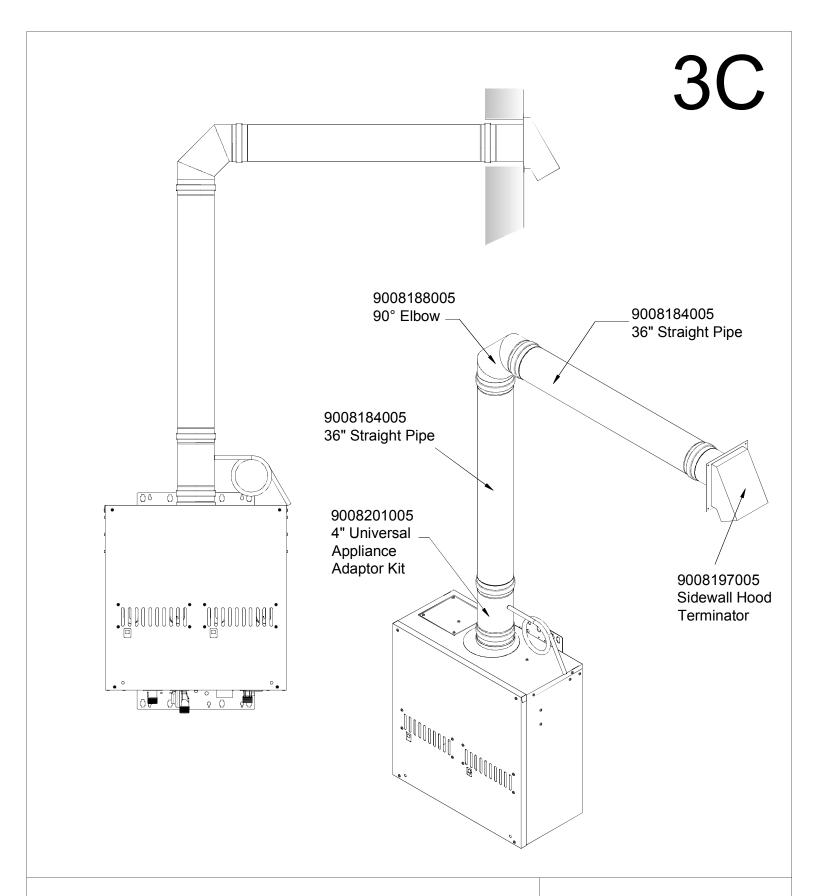


Standard Sidewall Termination Noncombustible Wall (Example 1)

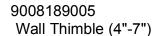
2C

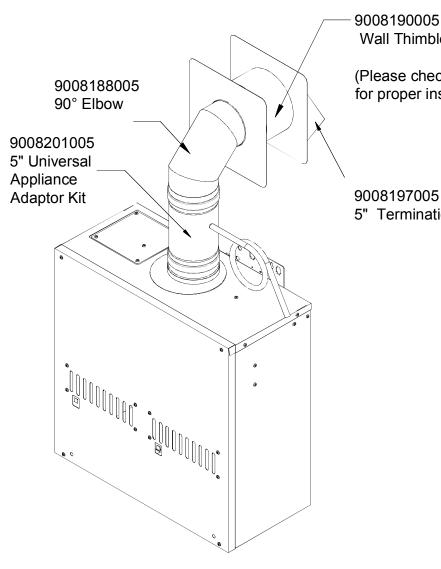


Standard Sidewall Termination Noncombustible Wall (Example 2)



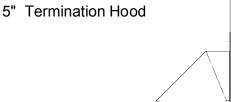
Standard Sidewall Termination Noncombustible Wall (Example 3)

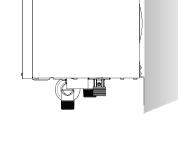




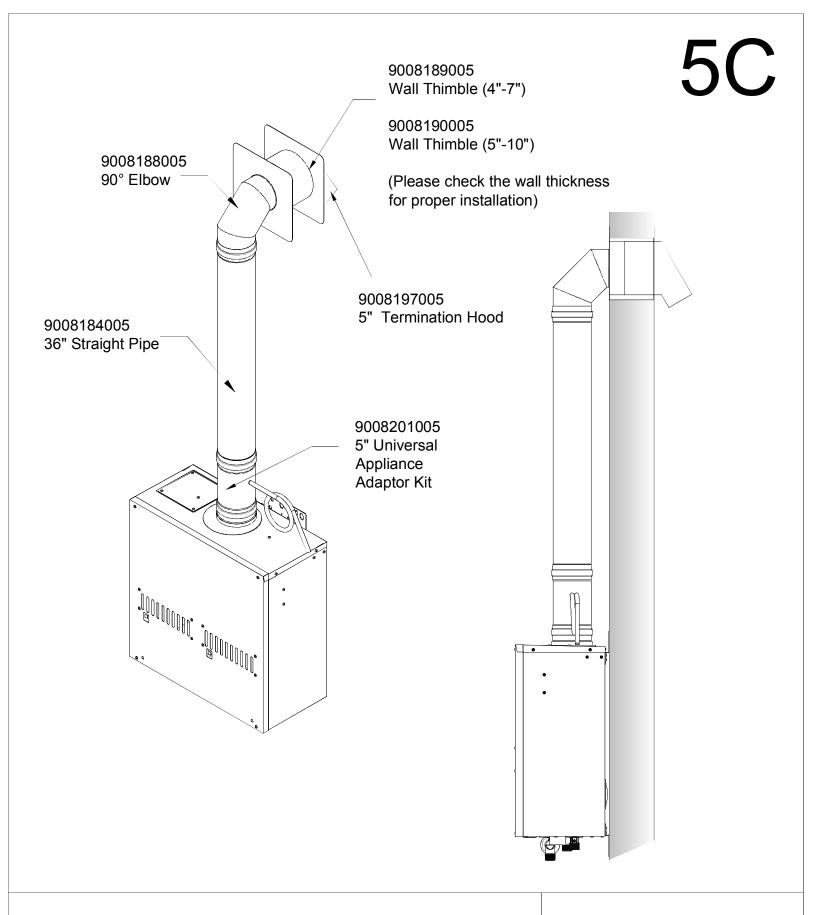
9008190005 Wall Thimble (5"-10")

(Please check the wall thickness for proper installation)

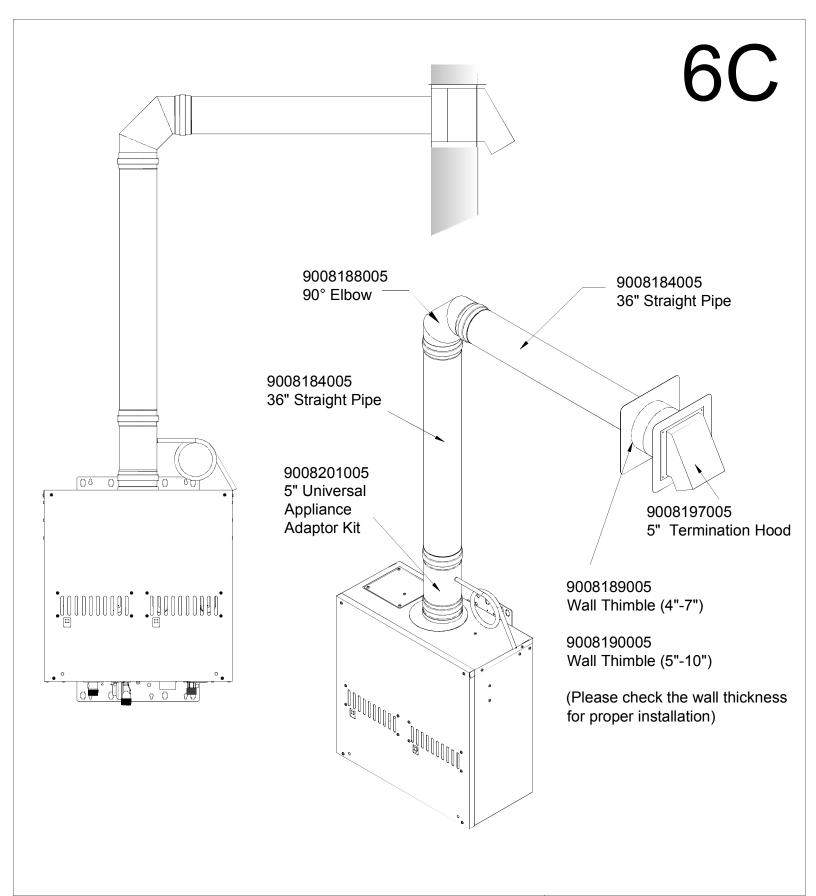




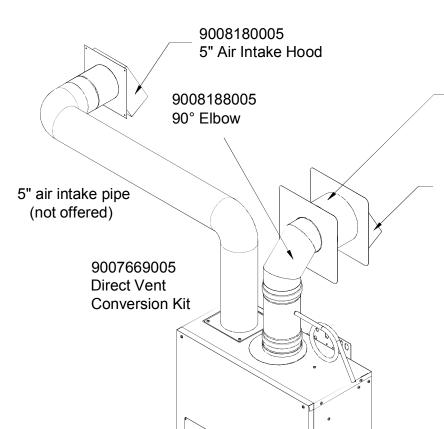
Standard Sidewall Termination -Combustible Wall (Example 1)



Standard Sidewall Termination Combustible Wall (Example 2)



Standard Sidewall Termination Combustible Wall (Example 3)

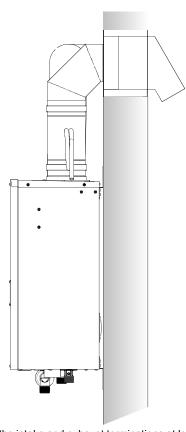


9008189005 Wall Thimble (4"-7")

9008190005 Wall Thimble (5"-10")

(Please check the wall thickness for proper installation)

9008197005 5" Termination Hood



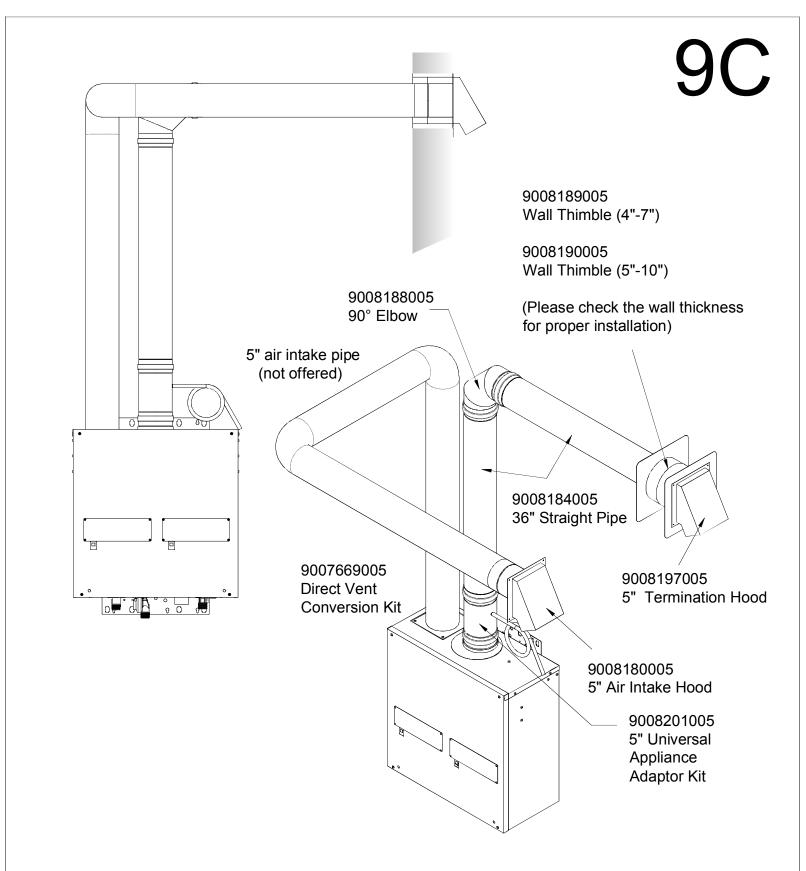
Note: For direct-vent sidewall terminations that use two separate penetrations for the intake and exhaust, distance the intake and exhaust terminations at least 3 ft. away from each other, no matter the orientation.

Direct-Vent Sidewall Termination Combustible Wall (Example 1)

9008189005 9008180005 Wall Thimble (4"-7") 5" Air Intake Hood 9008190005 Wall Thimble (5"-10") 9008188005 90° Elbow (Please check the wall thickness for proper installation) 5" air intake pipe 9008197005 (not offered) 5" Termination Hood 9008184005 36" Straight Pipe 9008201005 9007669005 5" Universal Direct Vent **Appliance** Conversion Kit Adaptor Kit

Note: For direct-vent sidewall terminations that use two separate penetrations for the intake and exhaust, distance the intake and exhaust terminations at least 3 ft. away from each other, no matter the orientation.

Direct-Vent Sidewall Termination Combustible Wall (Example 2)



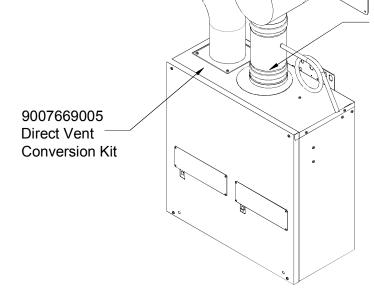
Direct-Vent Sidewall Termination Combustible Wall (Example 3)

10C

9008208005 5" X 5" Concentric Termination Adjustable (5"-10")

9008209005 5" X 5" Concentric Termination Adjustable (12"-18")

9008201005 5" Universal Appliance Adaptor Kit



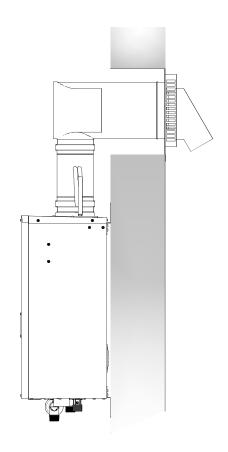
5" Aluminum Flex

Note:

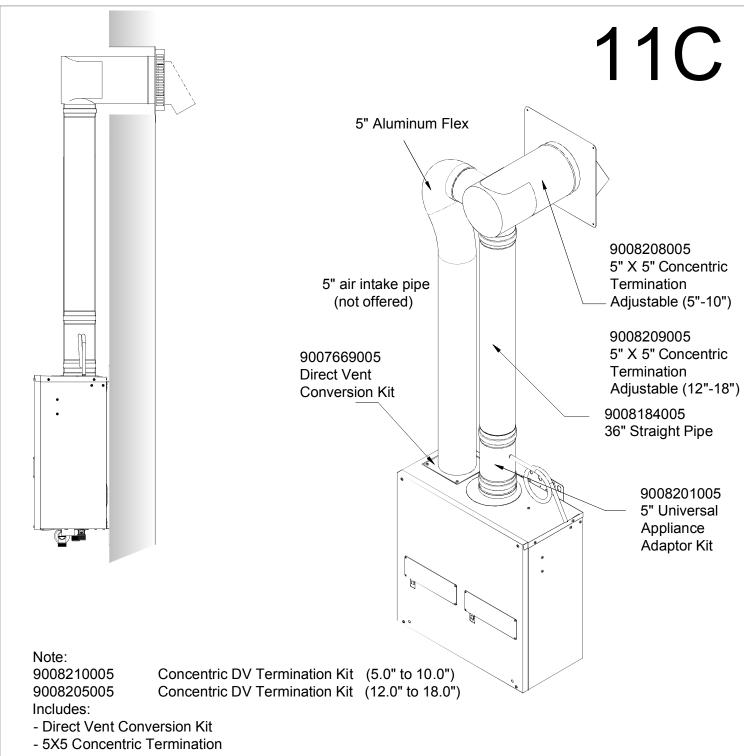
9008210005 Concentric DV Termination Kit (5.0" to 10.0") 9008205005 Concentric DV Termination Kit (12.0" to 18.0")

Includes:

- Direct Vent Conversion Kit
- 5X5 Concentric Termination
- Universal Adaptor 3-in-1
- Aluminum Flex
- Gear Clamp

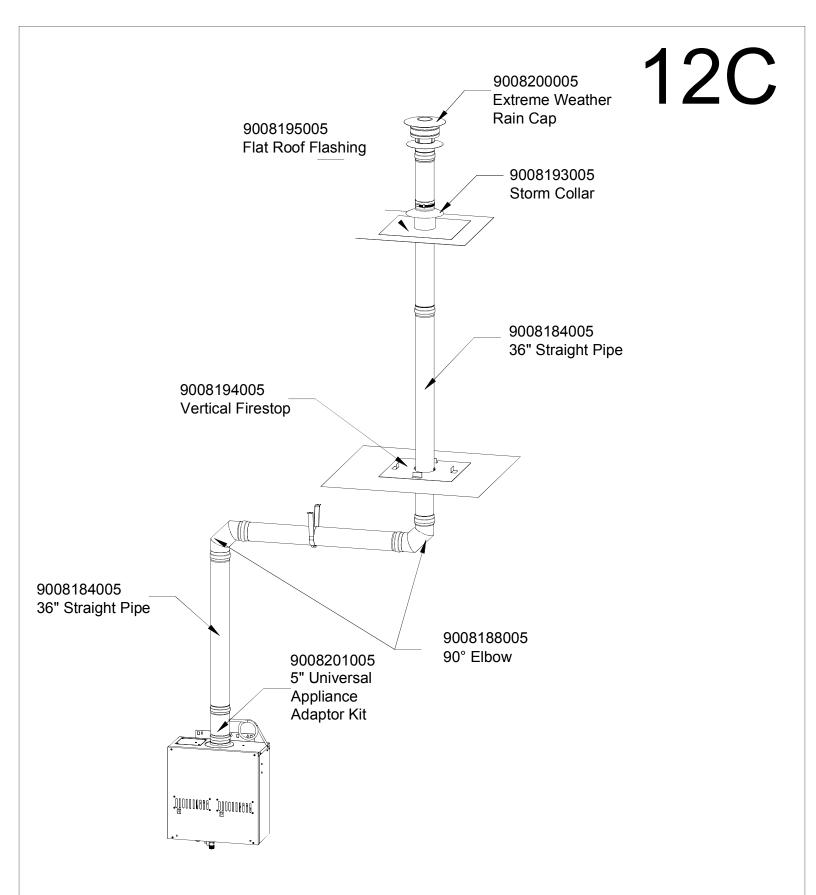


Concentric Direct-Vent Sidewall Termination (Example 1)

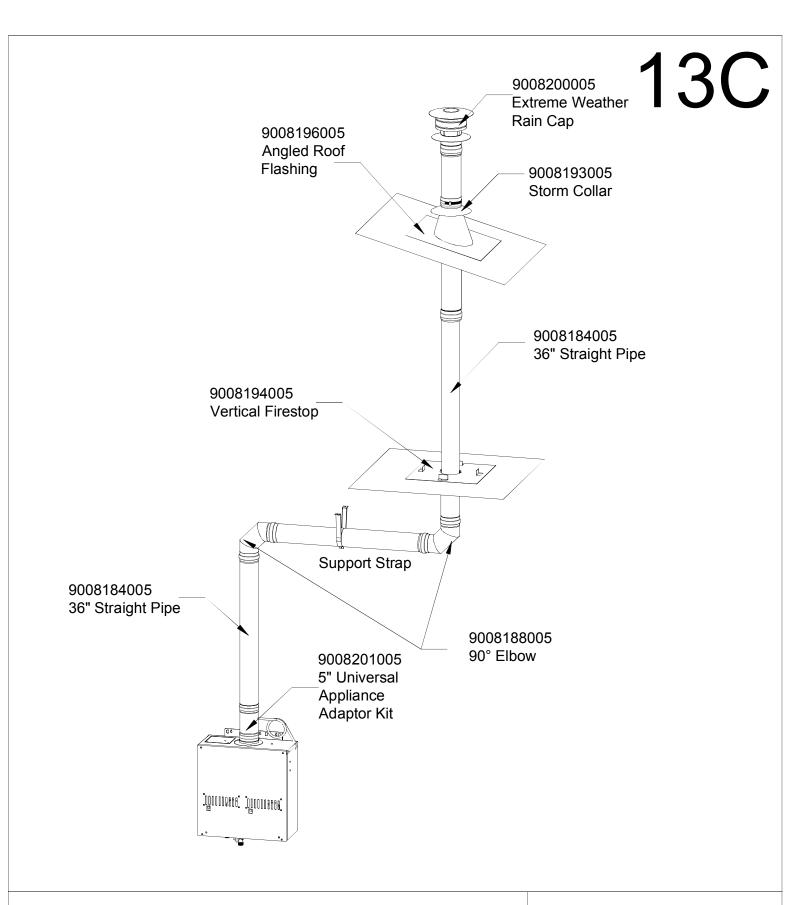


- Universal Adaptor 3-in-1
- Aluminum Flex
- Gear Clamp

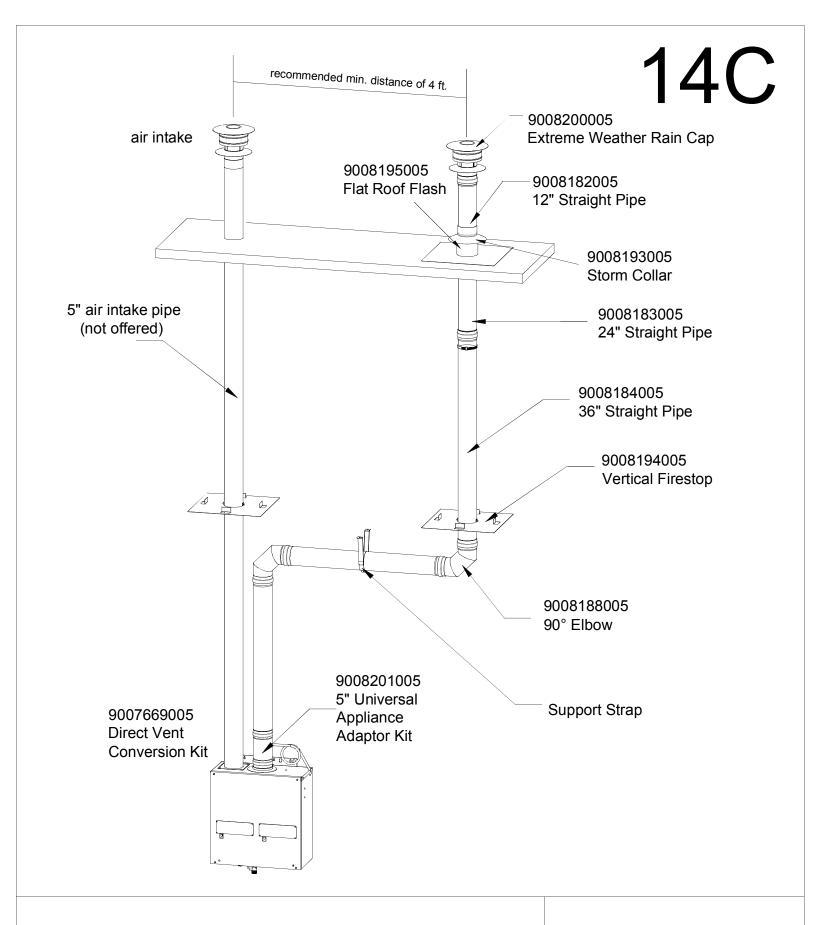
Concentric Direct-Vent Sidewall Termination (Example 2)



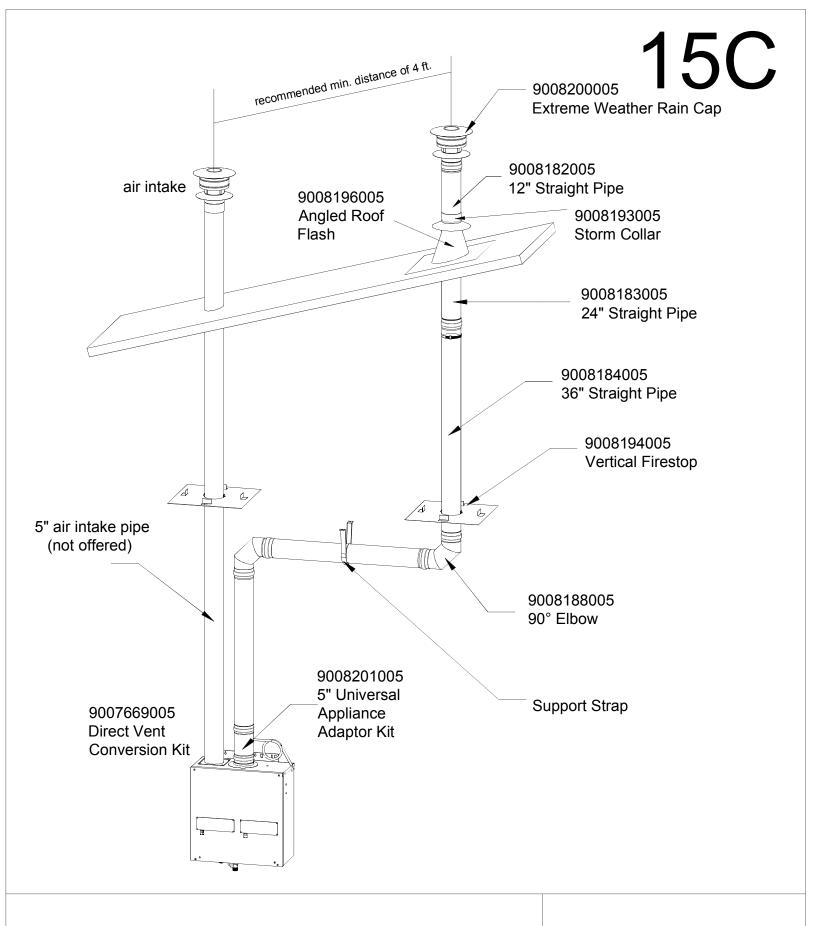
Standard Roof Termination (Flat Roof)



Standard Roof Termination (Angled Roof)



Direct-Vent Roof Termination (Flat Roof)



Direct-Vent Roof Termination (Angled Roof)