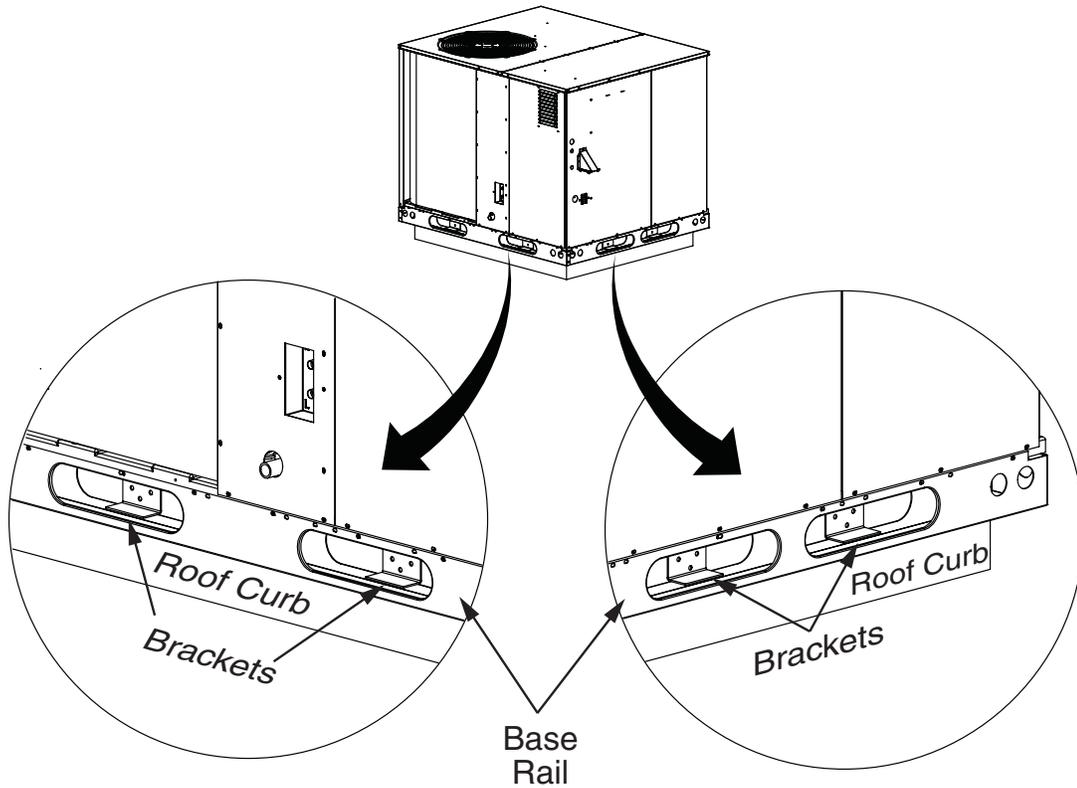


INSTALLATION INSTRUCTIONS

For Anchoring (*)DF2SF(*), DF6SF(*), (*)P6SD(*), P8SE(*), PDF2SF(*), PPA3SE(*), PPG2GF(*), PPG2GI(*), PPG3G(*), PPG3HE(*), PPH2SEX(*), Q6SD(*), Q6SE(*), R6GD(*), R6GF(*), R6GI(*), (*)R8GE(*), R8HE(*), PPG3GE(*)



ABOUT THE KIT

The extreme wind condition mounting kit is used to anchor single package convertible units to a roof curb at a maximum height of 60 ft.

- This anchor system is designed to meet the requirements of Section 1620 of the Florida Building Code, 5th Edition (2014), regarding the wind resistance and anchoring requirements for mechanical equipment in Florida hurricane zones.
- This kit will secure these units to an adequately designed roof curb so that it can withstand a 3 second gust of a maximum wind speed of 186 MPH. See page 3.
- It is recommended that this kit be installed on the unit before connecting electrical wiring and ducting. It may be installed later if necessary.

1. Position the unit on the roof curb as shown on page 3.
2. Position the anchor bracket and pre-drill 3/16" dia. holes through the flashing, wood strip and curb. **NOTE:** These anchors are designed to accommodate clearances between the base rail and curb of 0 - 2".
3. Using the provided gasketed sheet metal screws, secure the bracket to the unit and the roof curb. Install 3 sheet metal screws in each bracket.

DESCRIPTION	QUANTITY
High Wind Strap (for anchoring single package convertible units to roof curbs)	8
Gasketed Washer Head Screw #14x2"	24
Installation Instructions	1

Kit Contents

MODELS	BRACKET QTY PER SIDE		TOTAL BRACKETS
	SHORT SIDE	LONG SIDE	
ALL TONNAGES: P6SD, P8SE, PPA3SE, PPG3GE, PPH2SEX, Q6SD, Q6SE, R6GD, (*)R8GE, TGRG UP TO AND INCLUDING 3 TON COOLING: R6GF, R6GI, PPG2GF, PPG2GI UP TO AND INCLUDING 4 TON COOLING: DF6SF, PDF2SF, R8HE, PPG3HE	0	2	4
4+ TON COOLING: PPG2GF, PPG2GI, R6GF, R6GI 5 TON COOLING: DF6SF, PDF2SF, PPG2GI, R8HE, R6GI	2	2	8

Bracket Quantity Required (By Unit Capacity)

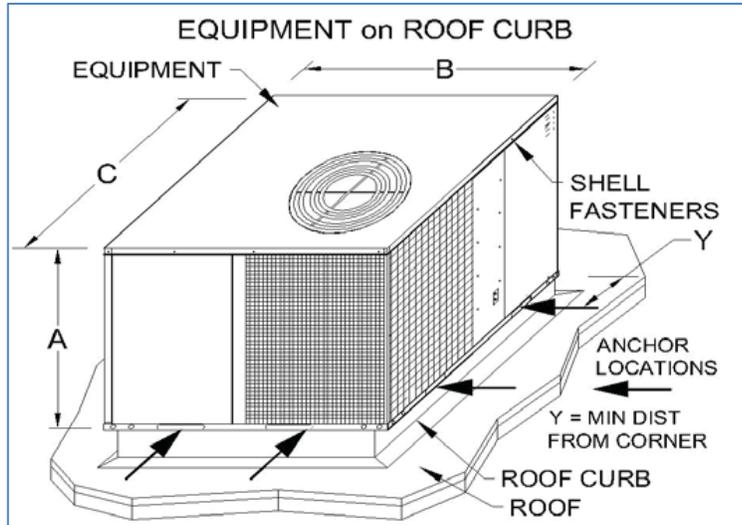
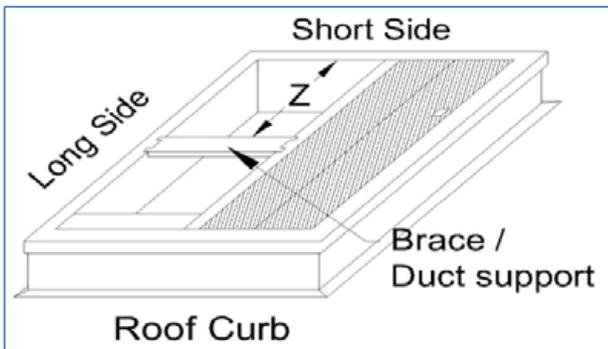
ENGINEERING CONFORMANCE ANALYSIS:

THE TABLE SHOWS ANCHOR CONFIGURATION FOR VARIOUS MODELS OF NORTEK AC EQUIPMENT MOUNTED ON A ROOF CURB ON A FLAT ROOF, VERIFYING OVERTURN, SLIDING & EQUIPMENT INTEGRITY.

NORTEK Models:

TABLE A-2

Model families Q6SD, Q6SE, R6GD, R6GF, DF6SF, P6SD, P8SE, R8GE, R6GI, and R8HE	Weight Range (lbs)	Length C (in.)	Width B (in.)	Height A (in.)
Cabinet Size 1	380 to 411	55.8	47.5	35.0
Cabinet Size 2	360 to 480	55.8	47.5	39.0
Cabinet Size 3	415 to 612	55.8	47.5	43.0
Cabinet Size 4	485 to 609	55.8	47.5	47.0
Cabinet Size 5	612 to 659	63.6	47.5	47.0



MIN. ROOF CURB CRITERIA	
Min. Wood Nailer Thkness:	1 in nom.
Roof Curb Min. Mtl Ga:	18 ga.
Max Curb Ht:	24 in.

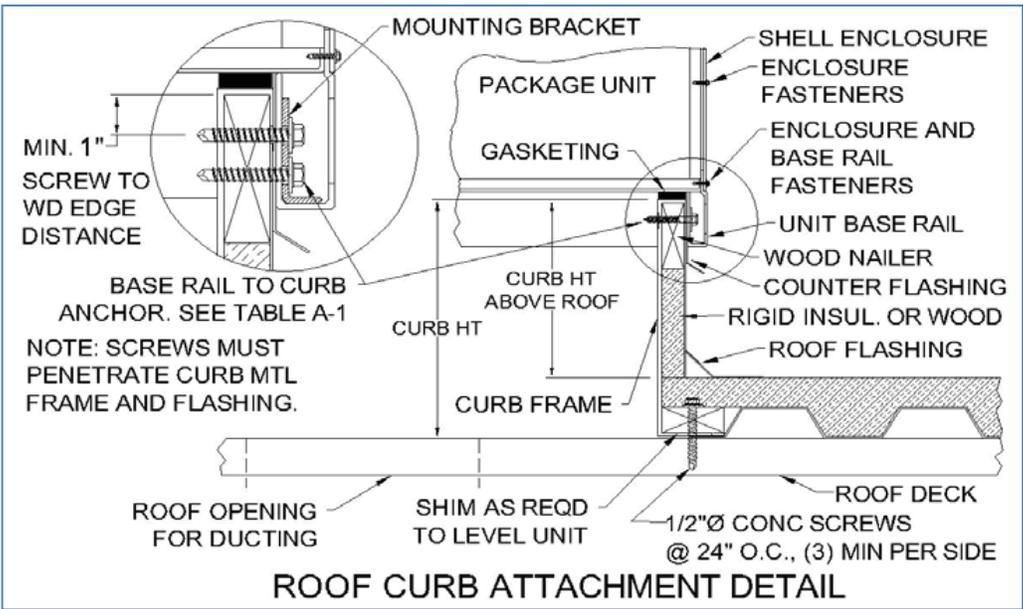
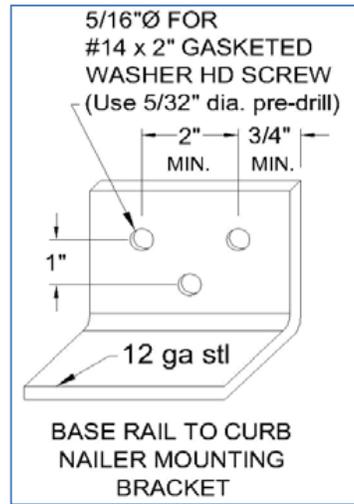


TABLE A-1 ANCHOR STRENGTH (per screw)				STRENGTH AT MIN EDGE DISTANCE	
SYM	ANCHOR DESCRIPTION	LENGTH EMBED	MIN EDGE DIST	PULL OUT (LBS)	SHEAR (LBS)
A-1	#14 Screw, 18-8 Type A SS	0.75"	7/8"	420	486

Notes: Screw strength includes resistance from wood and curb frame and flashing metal as per NDS for wood construction 2005 for Southern Pine and AISI 5100

NORTEK Models:

TABLE A-2

Model families Q6SD, Q6SE, R6GD, R6GF, DF6SF, P6SD, P8SE, R8GE, R6GI, and R8HE	Anchor to Curb Requirements				Bracing Required	Min # screws per long side to secure shell	# screws per long side to secure base rail
	# of anchors on each long side	# of anchors on each short side	# Screws per Mntng Bracket	Anchor type			
Cabinet Size 1	2	0	3	A-1	No	9 #10	8
Cabinet Size 2	2	0	3	A-1	No	10 #10	8
Cabinet Size 3	2	0	3	A-1	No	11 #10	8
Cabinet Size 4	2	2	3	A-1	No	12 #10	8
Cabinet Size 5	2	2	3	A-1	No	13 #10	8

Design Check: Nomnal / Reqd \geq 1.00 = OK		
Overturn	Anchor Sliding	SMS Pullout
1.29	OK	1.56
1.13	OK	1.40
1.00	OK	1.27
1.83	OK	1.17
1.61	OK	1.08

Anchoring Notes:

1. Mounting Brackets must be \leq 12" from Corners.
2. Anchor Type ia A-1.

GENERAL NOTES:

1. THIS ENGINEERING REPORT DOCUMENTS THE ANALYSIS OF THE PERFORMANCE OF HVAC MECHANICAL EQUIPMENT TO MEET WIND LOAD OVERTURN AND ANCHOR STRENGTH.
2. THE ANALYSIS CONFORMS TO THE REQUIREMENTS OF THE 2014 FLORIDA BUILDING CODE (HIGH VELOCITY HURRICANE ZONE) AND ASCE 7-10 DESIGN WIND LOADS - OTHER STRUCTURES SECTION 29.5.
3. THE LOAD PATH VERIFIED IS FROM THE EQUIPMENT AS A SINGLE UNIT, ENCLOSURE FASTENERS - UNIT FRAME - BASE RAIL - ANCHORS - ROOF CURB.
4. THIS DOCUMENT IS NOT A SPECIFICATION FOR THE ROOF CURB AS IT IS ASSUMED TO BE IN-PLACE, AND ALTHOUGH NOT VERIFIED FOR CONNECTION TO ROOF SLAB MUST MEET MINIMUM CRITERIA SET FORTH HERE. AN ANALYSIS IS DONE TO DETERMINE IF THERE IS A REQUIREMENT FOR A TRANSVERS BRACE.
5. ANCHORS USED TO FASTEN THE BASE RAIL TO THE ROOF CURB ARE DEFINED IN TABLE A-1, SPECIFIED IN TABLE A-2. THESE ANCHORS ARE TYPICALLY MANUFACTURED FROM HEAT-TREATED STEEL AND CORROSION RESISTANCE SPECIFIED BY THE MANUFACTURER..
6. UNIT BASE RAIL MOUNTS TO THE SIDE OF THE TOP OF THE ROOF CURB WHICH MUST HAVE A WOOD NAILER TO AFFIX ANCHORS TO.
7. CALCULATIONS HAVE BEEN PERFORMED USING MINIMUM WEIGHTS OF THE MODELS.

CALCULATIONS:

OVERTURN:

1. THE CRITICAL WIND LOAD IS ON THE LONG FACE OF THE UNIT.
2. THE MOMENT ABOUT THE PIVOT POINT CREATED BY THE WIND LOAD IS RESISTED BY THE MOMENT CREATED FROM THE WEIGHT OF THE UNIT AND THE ANCHOR HOLD-DOWN.

SLIDING:

3. THE SLIDING FORCE IS TRANSFERRED TO THE ROOF CURB FROM THE SIDES OF THE UNIT BASE RAILS. THE ROOF CURB TRANSFERS THE FORCE TO THE ROOF SLAB AND IS DEEMED ADEQUATE IF MEETING MINIMUM CRITERIA.
4. STABILITY OF THE ROOF CURB IS VERIFIED BY ANALYZING THE CRITICAL BUCKLING STRESS OF THE ROOF CURB SIDES TO DETERMINE IF A TRANSVERSE BRACE IS REQUIRED..

EQUIPMENT INTEGRITY:

7. TO PREVENT THE METAL SHELL FROM BECOMING WIND-BORNE DEBRIS, THE SHELL FASTENERS AND BASE RAIL TO FRAME ATTACHMENTS MUST RESIST THE NEGATIVE WIND PRESSURES ON THE EQUIPMENT SIDES AND TOP.

