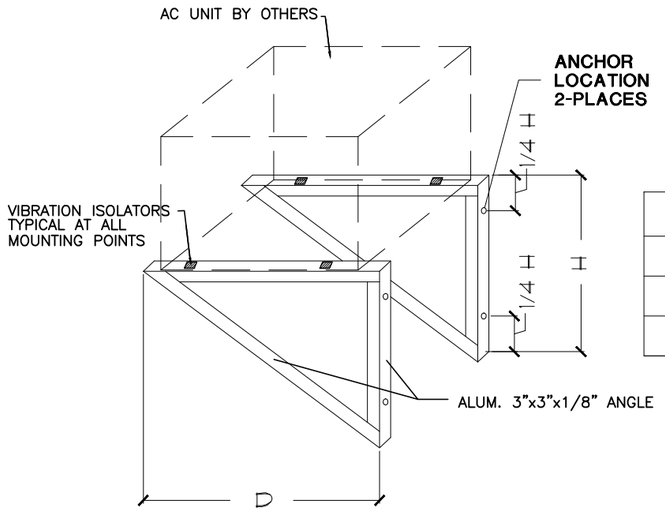

WALL BRACE SIZE SHART

PART No.	H DIM	D DIM
7-840	18"	24"
7-845	30"	36"
7-850	36"	48"

WALL BRACE REACTIONS TABLE

WALL MATERIAL	ALLOWABLE BUILDING HEIGHT AT 160 MPH	MAXIMUM ALLOWABLE WEIGHT PER UNIT	UPLIFT	LATERAL	COMP.	BENDING MOMENT
MASONRY BLK	30'	400 LBS	465#	903#	605#	685 FT-LB
CONCRETE 2000 psi MIN.	30'	425 LBS	465#	903#	642#	702 FT-LB
STEEL STUD	30'	350 LBS	465#	903#	498#	653 FT-LB
WOOD STUD	30'	350 LBS	465#	903#	498#	653 FT-LB

MAXIMUM DESIGN WIND PRESSURE	
WALL BRACE ATTACHED TO : MASONRY, CONCRETE STRUCTURE	MAX WIND PRESSURE 90 PSF
STEEL STUD OR WOOD HOST STRUCTURE	MAX WIND PRESSURE 79.0 PSF

DESIGN WIND PRESSURE CALCULATED PER CHAPTER 29 OF ASCE 7-2010 FOR 186 MPH, CATEGORY III, EXPOSURE C & D
CONTACT THE METAL SHOP FOR SITE SPECIFIC ENGINEERING FOR MOUNTING ABOVE 30'.

FASTENERS:

STEEL
use Min. (2) 5/16"x 1 1/4" TEC Screw with self locking washer.
Install additional blocking and/or studs as required to support wall brace. Achitect/Engineer of Record required for design of metal stud wall framing to support equipment loads from wall brace.

WOOD STUD
Use Min. (2) 1/2"x 3 3/4" Hex Head Lag screw W/ SS washer. 2 3/4" min. embed into stud. Install additional blocking and additional studs as required to support wall brace. Achitect/Engineer of Record required for design of wood frame structure to support equipment loads from wall brace.

INSTALLATION INSTRUCTIONS:

1. Layout all parts as shown prior to assembly.

2. Make sure at least 1 1/2" of condenser housing is resting on each wall stand.

3. Mount equipment wall stands to host structure per anchor schedule.
(Anchor hardware is not supplied with wall braces)

4. Add vibration pads at condenser mounting points as specified by condenser manufacturer.

5. Attach side of condensing unit to 1" wide G-90 Hot dipped galvanized - 16 Gauge metal hurricane strap with (2) #14x3/4" SS TEK screws. Attach opposite end of anchor strap to to wall braces with minimum 1-#14x3/4" SS bolt. Hurricane anchors shall be installed taught, with no slack. Maximum spacing between TEK screws is 12".

CONCRETE
Min. (2) 1/2" dia x 3 3/4" SS Hilti Kwik Bolt or Equivalent with 2 3/4" minimum embedment into 2500 psi concrete.

MASONRY
Min. (2) 1/2" dia x 3 3/4" SS Hilti Kwik Bolt or Equivalent with 2 3/4" minimum embedment into solid filled cells

use 5/8"x10" Galv. or SS hex bolt where thru CMW where no filled cells.

NOTES:

1. ALL WALL BRACES SHALL BE FROM 6063-T5 ALUMINUM: 0.125"x3"x3' angle. MIG WELD ALL JOINTS AND SEAMS.

2. YIELD STRENGTH OF STANDS SHALL BE 21 KSI AND CONFORM TO ASME AND ADM STANDARDS.

3. WALL BRACES SHALL BE ANCHORED TO WALL TO RESIST WIND LOADS OF 186 MPH AS PER ASCE 7-2010.

4. ALL BOLTS SHALL BE STAINLESS STEEL A-304 OR EQUIVALENT, UNLESS OTHERWISE SPECIFIED.

5. HURRICANE STRAPS SHALL BE 16 GA. G-90 HOT DIPPED GALVANIZED. METAL SHOP p/n 770 OR 771 RECOMMENDED.
ANCHOR STRAP FOR A/C UNIT NOT INCLUDED.

6. BOLTS SHALL HAVE A MINIMUM EDGE DISTANCE OF 1" IN ALUMINUM ANGLE BRACKET.

7. WIND LOAD CALCULATIONS BASED ON THE TYPICAL SURFACE AREA OF A/C CONDENSOR OR HEAT PUMP UNITS.

8. WELD FILLER SHALL MEET AWS STANDARDS FOR ALUMINUM AND SHALL HAVE A TENSILE STRENGTH OF 40 Ksi.

9. ALL GALVANIZED OR PLAIN STEEL IN CONTACT WITH ALUMINUM SHALL HAVE PLASTIC OR RUBBER WASHERS, SPACES, OR BUSHINGS TO PREVENT GALVANIC CORROSION
OF DISSIMILAR METALS.

10. THE DESIGN OF THE WALL BRACES AS INDICATED, ANY DEVIATION INVALIDATES DESIGN AND ENGINEERING.

JOSEPH D. HILLER LICENSE No 74583 STATE OF FLORIDA PROFESSIONAL ENGINEER

Digitally signed by Joseph Hiller
Date: 2018.07.23 09:30:55 -04'00'

REVISIONS
DATE:

THIS DRAWING IS NOT VALID UNLESS SIGNED, SEALED AND DATED BY A REGISTERED PROFESSIONAL ENGINEER

Joseph D. Hiller P.E.
Florida P.E. License # 74583
P.O. Box 290855
Port Orange, FL 32129
Phone: 386-248-1700
Email: hillerengineering@gmail.com

Aluminum Wall Braces

THE METAL SHOP
2541 W. Dunnellon Rd.
Dunnellon, FL 34434

DATE: 1/8/2018
SCALE: AS NOTED
DRAWN BY: J. HILLER
JOB NO.
SHEET

WB-2

2 OF 2