



State of Florida
DEPARTMENT OF
HIGHWAY SAFETY AND MOTOR VEHICLES
TALLAHASSEE, FLORIDA 32399-0500

MEMORANDUM

FRED O. DICKINSON, III
Executive Director

June 14, 2002

TO: All Anchor and Component Manufacturers

FROM: Philip A. Bergalt, Program Manager *PAB*
Bureau of Mobile Home and Recreational Vehicle Construction

SUBJECT: Lateral Arm Stabilizer Systems

To ensure consumer protection and to ensure that minimum standards are met in the installation of Lateral Arm Stabilizing Systems, it is necessary for us to create uniform installation standards for these systems. A secondary benefit of uniform standards will be the clarification of installation procedures for installers and for county and city inspectors performing field oversight.

Effective immediately all Florida lateral arm stabilizing instructions will include the following prescriptive number of systems:

Four (4) systems up to 52 feet
Six (6) systems from 52 to 80 feet

Five (5) 12 pitch roofs will require a minimum of the following number of lateral arm stabilizing systems, unless a greater number is specified by your engineering:

Six (6) systems up to 52 feet
Eight (8) systems from 52 to 80 feet

Your instructions should contain the following three (3) notes:

Note: 1) The use of this system requires sidewall vertical ties at no greater than 5'4" on center and allows for the use of 4" anchors.

Note: 2) Centerline anchors to be sized according to soil torque condition. Any manufacturer's specifications for sidewall anchor loads in excess of 4,000 lbs. require a 5" anchor.

Note: 3) Each system is required to have a frame tie and stabilizer attached at each lateral arm stabilizing location.

DIVISIONS: FLORIDA HIGHWAY PATROL • DRIVER LICENSES • MOTOR VEHICLES • ADMINISTRATIVE SERVICES
Neil Kirkman Building, Tallahassee, Florida 32399-0500

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DEC-19-2005 03:22P FROM: OLIVER TECH

OLIVER TECHNOLOGIES, INC.
FLORIDA INSTALLATION INSTRUCTIONS FOR THE
MODEL 1101 "V" SERIES ALL STEEL FOUNDATION SYSTEM
MODEL 1101 "V" (STEPS 1-15)
MODEL 1101-L "V" LONGITUDINAL ONLY
FOLLOW STEPS 1-9
FOR ADDING LATERAL ARM :
Follow Steps 10-15

ENGINEERS STAMP

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1. **SPECIAL CIRCUMSTANCES:** If the following conditions occur - **STOP!** Contact Oliver Technologies at 1-800-284-7437 :
- a) Pier height exceeds 48" b) Length of home exceeds 76' c) Roof eaves exceed 16" d) Sidewall height exceed 96"
 - e) Location is within 1500 feet of coast

INSTALLATION OF GROUND PAN

2. Remove weeds and debris in an approximate two foot square to expose firm soil for each ground pan (C) .
3. Place ground pan (C) directly below chassis I-beam . Press or drive pan firmly into soil until flush with or below soil.
- SPECIAL NOTE:** The longitudinal "V" brace system serves as a pier under the home and should be loaded on any other pier. It is recommended that after leveling piers, and one-half inch (1/2") before home is lowered completely on to piers, complete steps 4 through 9 below.

INSTALLATION OF LONGITUDINAL "V" BRACE SYSTEM

NOTE: WHEN INSTALLING THE MODEL 1101-L "V" LONGITUDINAL SYSTEM ONLY, A MINIMUM OF 2 SYSTEMS PER FLOOR SECTION IS REQUIRED. SOIL TEST PROBE SHOULD BE USED TO DETERMINE CORRECT TYPE OF ANCHOR PER SOIL CLASSIFICATION. IF PROBE TEST READINGS ARE BETWEEN 175 & 275 A 5 FOOT ANCHOR MUST BE USED. IF PROBE TEST READINGS ARE BETWEEN 275 & 350 A 4 FOOT ANCHOR MAY BE USED. USE GROUND ANCHORS WITH DIAGONAL TIES AND STABILIZER PLATES EVERY 8'4". VERTICAL TIES ARE ALSO REQUIRED ON HOMES SUPPLIED WITH VERTICAL TIE CONNECTION POINTS (PER FLORIDA REG.) .

4. Select the correct square tube brace (E) length for set - up (pier) height at support location. (The 18" tube is always used as the bottom part of the longitudinal arm). Note: Either tube can be used by itself, cut and drilled to length as long as a 40 to 45 degree angle is maintained.

PIER HEIGHT (Approx. 45 degrees Max.)	1.25" ADJUSTABLE Tube Length	1.50" ADJUSTABLE Tube Length
24 3/4" to 32 1/4"	32"	18"
40" to 48"	54"	18"

5. Install (2) of the 1.50" square tubes (E (18" tube)) into the "U" bracket (J), insert carriage bolt and leave nut loose for final adjustment.
6. Place I-beam connector (F) loosely on the bottom flange of the I-beam.
7. Slide the selected 1.25" tube (E) into a 1.50" tube (E) and attach to I-beam connectors (F) and fasten loosely with bolt and nut.
8. Repeat steps 6 through 7 to create the "V" pattern of the square tubes loosely in place. The angle is not to exceed 45 degree and not below 40 degrees.
9. After all bolts are tightened, secure 1.25" and 1.50" tubes using four (4) 1/4" - 14 x 3/4" self-tapping screws in pre-drilled holes.

INSTALLATION OF LATERAL TELESCOPING TRANSVERSE ARM SYSTEM

THE MODEL 1101 "V" (LONGITUDINAL & LATERAL PROTECTION) ELIMINATES THE NEED FOR MOST STABILIZER PLATES & FRAME TIES.
NOTE: THE USE OF THIS SYSTEM REQUIRES VERTICAL TIES SPACED AT 8'4".
FOUR FOOT (4') GROUND ANCHOR MAY BE USED EXCEPT WHERE THE HOME MANUFACTURER SPECIFIES DIFFERENT.

10. Install remaining vertical tie-down straps and 4" ground anchors per home manufacturer's instructions. **NOTE:** Centerline anchors to be sized according to soil torque condition. Any manufacturer's specifications for sidewall anchor loads in excess of 4,000 lbs. require a 5" anchor.
11. **NOTE:** Each system is required to have a frame tie and stabilizer attached at each lateral arm stabilizing location. This frame tie & stabilizer plate needs to be located within 18" from of center ground pan.
12. Select the correct square tube brace (H) length for set-up lateral transverse at support location. The lengths come in either 60" or 72" lengths. (With the 1.50" tube as the bottom tube, and the 1.25" tube as the inserted tube.)
13. Install the 1.50 transverse brace (H) to the ground pan connector (D) with bolt and nut.
14. Slide 1.25" transverse brace into the 1.50" brace and attach to adjacent I-beam connector (I) with bolt and nut.
15. Secure 1.50" transverse arm to 1.25" transverse arm using four (4) 1/4" - 14 x 3/4" self-tapping screws in pre-drilled holes.

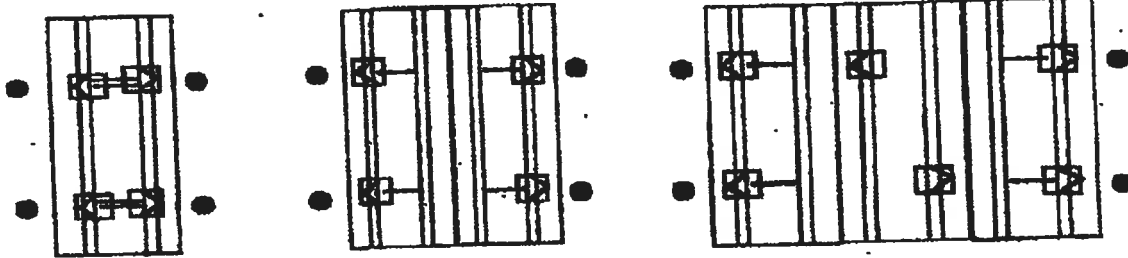
MANUFACTURED HOUSING FOUNDATION SYSTEMS
A DIVISION OF OLIVER TECHNOLOGIES, INC.
1-800-284-7437

Telephone: 901-798-4555
 Fax: 901-798-8811
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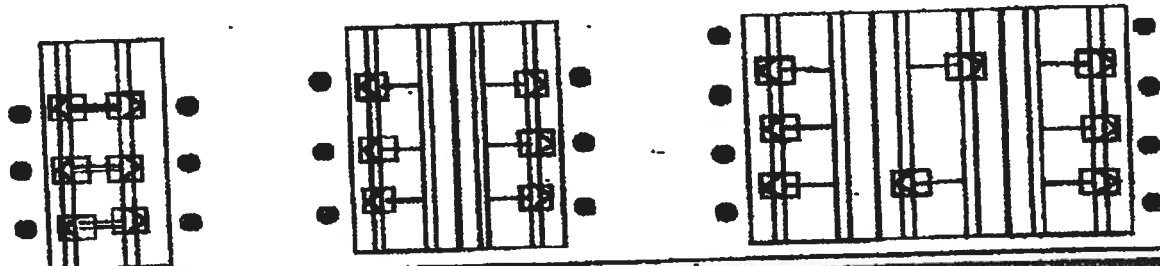


REQUIRED NUMBER AND LOCATION OF MODEL 1101 "V" BRACES FOR UP TO 4/12 ROOF PITCH

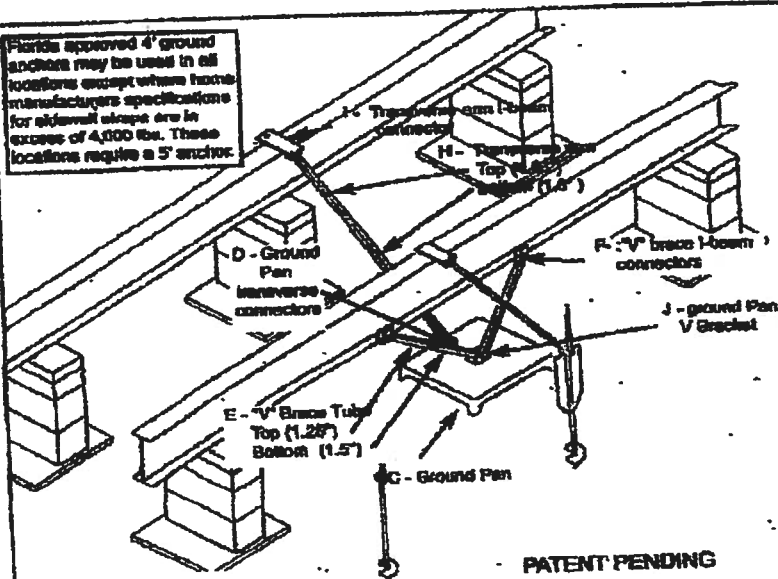
ALL WIDTHS; AND LENGTHS UP TO 52'



ALL WIDTHS; AND LENGTHS OVER 52' TO 80'



Florida approved 4" ground anchors may be used in all locations except where frame manufacturers specifications for sill/rafter straps are in excess of 4,000 lbs. These locations require a 5" anchor.



- C = GROUND PAN
- D = GROUND PAN CONNECTOR
- U BRACKETS
- E = TELESCOPING V BRACE TUBE ASSEMBLY W/ 1.5 BOT-TOM TUBS AND 1.25 TUBE INSERT
- F = "V" BRACE I-BEAM CONNECTORS ASSEMBLY
- H = TELESCOPING TRANSVERSE ARM ASSEMBLY
- I = TRANSVERSE ARM I-BEAM CONNECTOR
- J = V PAN BRACKET

REVISED INSTRUCTIONS 4/23/03

NOTES:

1. LENGTH OF HOUSE IS THE ACTUAL BOX SIZE
2. ● = STABILIZER PLATE AND FRAME TIE LOCATION (needs to be located within 18" from center of ground pan)
3. □ = LOCATION OF ASF MODEL 1101 "V" (LATERAL & LONGITUDINAL BRACING).
4. □ = LOCATION OF MODEL 1101-L "V" (LONGITUDINAL BRACING ONLY).

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