Wind Tests in Excess of 100 mph.

Foundation Products

www.tiedown.com
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**Manufactured Housing Division**

**TIE DOWN ENGINEERING**

www.tiedown.com

255 Villanova Dr. SW • Atlanta, Georgia 30336
800-241-1806 • (404) 344-0000 • Fax (404) 349-0401

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All manufactured housing anchors are tested to HUD Regulation 3280 to withstand a working load of 3,150 lbs. and ultimate load of 4,725 lbs. in their tested soil class.

### Earth Anchors

#### Iron Root Double Head Manufactured Home Earth Anchors*

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
<th>Black Paint</th>
<th>Galvanized</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>Model MI2H5/8 with 5/8” rod, 48” long, 6” helix, Class 4A</td>
<td>#59080</td>
<td>#59081</td>
</tr>
<tr>
<td>B</td>
<td>Model MI2H3/4 with 3/4” rod, 48” long, 6” helix, Class 4A</td>
<td>#59085</td>
<td>#59094</td>
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<tr>
<td>C</td>
<td>Model M607 with 3/4” rod, 60” long, 7” helix, Class 4B</td>
<td>N/A</td>
<td>#59099</td>
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</table>

#### Iron Root Double Head Double Helix Manufactured Home Earth Anchors*

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
<th>Black Paint</th>
<th>Galvanized</th>
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<tbody>
<tr>
<td>D</td>
<td>Model MI225/8 with 5/8” rod, 30” long, 2 - 4” helix, Class 2</td>
<td>#59090</td>
<td>#59078</td>
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<tr>
<td>D</td>
<td>Model MI223/4 with 3/4” rod, 30” long, 2 - 4” helix, Class 2</td>
<td>#59095</td>
<td>#59079</td>
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<tr>
<td>E</td>
<td>Model MI423/4 with 3/4” rod, 42” long, 2 - 4” helix, Class 4A</td>
<td>#59128</td>
<td>#59128G</td>
</tr>
<tr>
<td>F</td>
<td>Model MI483/4 with 3/4” rod, 48” long, 2 - 4” helix, Class 4A</td>
<td>#59086</td>
<td>#59086G</td>
</tr>
<tr>
<td>G</td>
<td>Model MI603/4 with 3/4” rod, 60” long, 2 - 4” helix, Class 2</td>
<td>#59097</td>
<td>#59097G</td>
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<tr>
<td>H</td>
<td>Model MI2H64 with 3/4” rod, 36” long, 4” &amp; 6” helix, Class 4A</td>
<td>#59250</td>
<td>#59250G</td>
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</table>

#### Eye Anchors*

<table>
<thead>
<tr>
<th>#</th>
<th>Description</th>
<th>Black Paint</th>
<th>Galvanized</th>
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</thead>
<tbody>
<tr>
<td>I</td>
<td>15” long with 1/2” rod, 4” helix</td>
<td>#59050</td>
<td>N/A</td>
</tr>
<tr>
<td>J</td>
<td>30” long with 1/2” rod, 4” helix</td>
<td>#59055</td>
<td>#59057</td>
</tr>
<tr>
<td>K</td>
<td>40” long with 5/8” rod, 6” helix</td>
<td>#59060</td>
<td>#59061</td>
</tr>
<tr>
<td>L</td>
<td>48” long with 5/8” rod, 6” helix</td>
<td>#59065</td>
<td>#59064</td>
</tr>
</tbody>
</table>

* Other sizes available  
1 Not all anchors are stocked in galvanized
Deep Set Anchor/Stabilizer
Combines the earth anchor and stabilizer plate into one installation step. Large stabilizing disc 7” x 1-5/8” sets faster in hard ground with 4 digging points.
- Reduces installation time
- Slotted head for easy carry 4 packs
- Less inventory - plate & anchor in one!

30” long with 3/4” rod and 2 - 4” helix, for Soil Class 3
Black Paint Part #59091   Galvanized Part #59091G

36” long with 3/4” rod and 4” & 6” helix, for Soil Class 4A
Black Paint Part #59092   Galvanized Part #59092G

Concrete Anchor w/Threaded Rod
This anchor is designed to be inserted through a 3/4” hole drilled or formed into an existing concrete slab.

Model # MIT2
Black Paint Part #59115
Galvanized Part #59117

J Rod Concrete Anchor
The J Rod Concrete Anchor is designed to be installed into a concrete slab at the time the concrete is being poured.

Model  Black Paint  Galvanized
MIJ2 12” Anchor  #59120  #59121
MIJ2 8” Anchor  #59123  #59123G
MIJ2 12” w/Swivel Head  #59109  #59109G
MIJ2 8” w/Swivel Head  #59147  #59147G

Double Head Anchor with Expansion Bolt
This anchor is designed to be bolted to an expansion sleeve in an existing concrete slab.

Model  # MICS2
Black Paint Part #59125
Galvanized Part #59124

Double Head Only
Black Paint Part #59103
Galvanized Part #59104

Single Head Anchor with Expansion Bolt
Black Paint Part #59029

Expansion Bolt Only
Part #2M58SA
Cross Drive Rock Anchor
Engineered for installation into solid rock within 1” from bottom of the anchor base. Exact alignment is achieved with the swivel tensioning head.

Model #MRA with 30” rods, for Soil Class 1
Black Paint Part #59110
Galvanized Part #59110G

Model #MRA with 48” rods, for Soil Class 1
Black Paint Part #59111
Galvanized Part #59111G

X-Plate Anchor
Stabilized Cross Drive Anchor For difficult class 2 Soils. 2200 lb. working load at 50 degrees max angle.
Black Paint Part #59118 Galvanized Part #59119

Asphalt Anchor
Black painted asphalt anchor must be installed with hammer drill. Used for horizontal anchorage at a maximum of 50 degrees, not for vertical anchorage.
Part #59367

Eye Anchor Kits
All Purpose Anchor Kit
4 - 15” anchors, 8 – 1/8” galvanized clamps, 50’ 1/8” galvanized aircraft cable
Part #59070

Storage Building Anchor Kit
4 - 30” anchors, 8 – 1/8” galvanized clamps, 60’ 1/8” galvanized aircraft cable
Part #59075

Tie Down/ArborTie® Anchor Kit
ArborTie® is a revolutionary material for staking and guying trees. Specifically designed to replace traditional methods such as wire and hose, ArborTie® is safe, soft, easy to use and less expensive than traditional tree ties.

Small Tree Anchor Kit Part #59451
(3-15” Eye Anchors with 30’ of ArborTie®)

Medium Tree Anchor Kit Part #59452
(3-30” Eye Anchors with 30’ of ArborTie®)
<table>
<thead>
<tr>
<th>Soil Class &amp; Test Value (in. lbs.)</th>
<th>Recommended Anchor / Stabilizers</th>
<th>Part Number</th>
</tr>
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<tbody>
<tr>
<td></td>
<td></td>
<td>Black</td>
</tr>
<tr>
<td>N/A</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>30” Cross Drive Rock Anchor</td>
<td>59110</td>
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<tr>
<td></td>
<td>48” Cross Drive Rock Anchor</td>
<td>59111</td>
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<tr>
<td>2</td>
<td>30” X 5/8” rod / 2 - 4” helix</td>
<td>59090</td>
</tr>
<tr>
<td></td>
<td>30” X 3/4” rod / 2 - 4” helix</td>
<td>59095</td>
</tr>
<tr>
<td></td>
<td>60” X 3/4” rod / 2 - 4” helix</td>
<td>59097</td>
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<tr>
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<td>All anchors above should use one of the following when subjected to lateral loads:</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12” Stabilizer Plate</td>
<td>59292</td>
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<tr>
<td></td>
<td>Quik-Set Stabilization Plate</td>
<td>59291</td>
</tr>
<tr>
<td></td>
<td>X-Plate Anchor with 2 - 23/32” Rods</td>
<td>59118</td>
</tr>
<tr>
<td>3</td>
<td>48” X 5/8” rod / 1 - 6” helix</td>
<td>59080</td>
</tr>
<tr>
<td></td>
<td>48” X 3/4” rod / 1 - 6” helix</td>
<td>59085</td>
</tr>
<tr>
<td></td>
<td>36” X 3/4” rod / 1 - 6” helix &amp; 1 - 4” helix</td>
<td>59250</td>
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<td>All anchors above should use one of the following when subjected to lateral loads:</td>
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<tr>
<td></td>
<td>12” Stabilizer Plate</td>
<td>59292</td>
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<tr>
<td></td>
<td>Quik-Set Stabilization Plate</td>
<td>59291</td>
</tr>
<tr>
<td></td>
<td>Deepset Anchor 30” X 5/8” rod / 2 - 4” helix</td>
<td>59091</td>
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<tr>
<td>4a</td>
<td>48” X 5/8” rod / 1 - 6” helix</td>
<td>59080</td>
</tr>
<tr>
<td></td>
<td>48” X 3/4” rod / 1 - 6” helix</td>
<td>59085</td>
</tr>
<tr>
<td></td>
<td>36” X 3/4” rod / 1 - 6” helix &amp; 1 - 4” helix</td>
<td>59250</td>
</tr>
<tr>
<td></td>
<td>3/4” rod, 42” long, 2 - 4” helix, Class 4A</td>
<td>59128</td>
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<tr>
<td></td>
<td>3/4” rod, 48” long, 2 - 4” helix, Class 4A</td>
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<td>All anchors above should use one of the following when subjected to lateral loads:</td>
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<td></td>
<td>12” Stabilizer Plate</td>
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<td>17 -1/2” Stabilizer Plate (Florida Only)</td>
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<tr>
<td></td>
<td>Quik-Set Stabilization Plate</td>
<td>59291</td>
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<tr>
<td></td>
<td>ABS Stabilization Plate (Florida Only)</td>
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<tr>
<td></td>
<td>Deepset Anchor 36” X 3/4” rod / 4” &amp; 6” helix</td>
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<tr>
<td>4b</td>
<td>60” X 3/4” rod / 1 - 7” helix</td>
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<td>All anchors above should use one of the following when subjected to lateral loads:</td>
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<tr>
<td></td>
<td>17 -1/2” Stabilizer Plate (Florida Only)</td>
<td>NA</td>
</tr>
<tr>
<td></td>
<td>ABS Stabilization Plate</td>
<td>59293</td>
</tr>
</tbody>
</table>

**NOTE:** Each State, County or Municipality may require a specific anchor from the groups shown for each soil classification. Check local and State regulations first.
Earth Anchor Stabilizer
Prevents anchor from slicing through soil laterally in the direction of the frame tie. 12” wide.
Black Paint Part #59292   Galvanized Part #59292G

XL Stabilizer Plate
This plate is required in Florida for installation in Class 4 soils. The plate measures 17.5” x 13.5”.
Galvanized Part #59286

Anchor/Stabilizer Installation
1. Position anchor at a slight back angle (10˚) so that when fully installed, the anchor head will be inside any skirting or side wall.
2. Install anchor to +/- 2/3 depth, then install stabilizer vertically, within 3”-4” of anchor shaft, parallel to wall of home.
3. Fully drive anchor, attach strap (see proper strap tensioning), and pretension strap to pull anchor rod against the stabilizer plate.

Quik-Set Stabilization Plate
- Sets Quickly
- Requires little or no hammering
- Quick-N-Easy installation, let the Drive Machine do the work
- Inclined steady rest engineered to allow ground anchor to be installed at a slight back angle (10-15 degrees)

Black Paint Part #59291   Galvanized Part #59291G

ABS Stabilizer Plate
Designed for loose soil conditions.
For Class 4 Soils. 10” x 24”
Part #59293
Certified Galvanized Strapping

HUD Code 3280 and 3285(2) require 1-1/4” X .035” or larger steel strapping conforming to ASTM D3953-97, standard specifications for strapping, flat steel and seals. Type 1, Grade 1, Finish B, with a minimum total capacity of 4,725 lbs. and a working capacity of 3,150 lbs. marked every 5 ft. The straps must be provided with protections against weather deterioration and corrosion at least equivalent to that provided by a coating of zinc on steel of not less than .30 oz./ft. of surface coated. Slit or cut edges of coated strapping need not be zinc coated.

<table>
<thead>
<tr>
<th>Galvanized</th>
<th>Part #</th>
<th>Length</th>
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<tbody>
<tr>
<td>G60</td>
<td>59150</td>
<td>35’</td>
</tr>
<tr>
<td>G60</td>
<td>59155</td>
<td>37’</td>
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<tr>
<td>G60</td>
<td>59165</td>
<td>60’</td>
</tr>
<tr>
<td>G60</td>
<td>59170</td>
<td>600’</td>
</tr>
<tr>
<td>G120</td>
<td>59218</td>
<td>37’</td>
</tr>
<tr>
<td>G120</td>
<td>59219</td>
<td>600’</td>
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Crimping Seals

Semi-Closed style for ease of use and strong bonds. Fits 1-1/4” strapping. Part #59175

Double Slot Strap Buckle

High strength steel buckle with rust resistant hot dipped galvanized finish. Secures strap around mobile home frame. Part #59140

Swivel Head Bracket

For use with Beam Clamps, Longitudinal Clamps and Vector Foundation Systems. Part #59002

Crimping Tool

Tie Down crimp tools are designed for use with .035 thickness, 1-1/4” wide strap and steel crimp seals. Part #59180
Frame Tie with Hook

For fast and safe installation of frame ties, this heavy duty 1/4" steel hook locks securely onto frame. Certified Galvanized Steel Strapping conforms to NCS BCS A225.1 (ANSI A119.3) and HUD specifications.

<table>
<thead>
<tr>
<th>Model</th>
<th>Part #</th>
<th>Length</th>
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<tbody>
<tr>
<td>MHT6</td>
<td>59185</td>
<td>6'</td>
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<tr>
<td>MHT7</td>
<td>59190</td>
<td>7'</td>
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<td>MHT8</td>
<td>59195</td>
<td>8'</td>
</tr>
<tr>
<td>MHT10</td>
<td>59210</td>
<td>10'</td>
</tr>
<tr>
<td>MHT12</td>
<td>59211</td>
<td>12'</td>
</tr>
<tr>
<td>MHT14</td>
<td>59214</td>
<td>14'</td>
</tr>
<tr>
<td>MHT16</td>
<td>59196</td>
<td>16'</td>
</tr>
</tbody>
</table>

Frame Tie with Buckle

For fast & easy installation of frame ties with buckle.

<table>
<thead>
<tr>
<th>Description</th>
<th>Part #</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>MBU7</td>
<td>59141</td>
<td>7'</td>
</tr>
<tr>
<td>MBU8</td>
<td>59146</td>
<td>8'</td>
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<tr>
<td>MBU10</td>
<td>59138</td>
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<td>MBU12</td>
<td>59144</td>
<td>12'</td>
</tr>
<tr>
<td>MBU16</td>
<td>59234</td>
<td>16'</td>
</tr>
</tbody>
</table>

Slotted Bolt & Nut

Required for the tensioning of frame or sidewall with all tension head anchors. 
Model #BISB
Part #59135

Double Tension Head

Featured on all tension head anchors. Built tough for maximum tensioning on either frame and/or roof ties. Strap bolts are securely locked every fourth of a turn with the square lock head. 
Model #MIDH
Black Paint Part #59100
Galvanized Part #59100G

Swivel Adapter Head

Adapter converts existing eye anchors into tension head anchors. Includes two slotted bolts & nuts. 
Model #MIS2
Black Paint Part #59105
Galvanized Part #59106
Strap & Hardware

**Beam Clamps**
For use with Universal & Standard Swivel Strap Connectors

<table>
<thead>
<tr>
<th>Part #</th>
<th>Size</th>
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</thead>
<tbody>
<tr>
<td>59003</td>
<td>3” Beam</td>
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<tr>
<td>59004</td>
<td>4” Beam</td>
</tr>
<tr>
<td>59005</td>
<td>DBL Beams</td>
</tr>
</tbody>
</table>

**Gator Beam Clamps**
For attaching strap to I-beam at each end of the home for longitudinal anchors.

4 Bolt Gator Clamp for Zone I and II Part #58999
8 Bolt Gator Clamp for Zone III and Florida Part #59011

**G-60 Strap w/ 59002 Swivel Connectors**
Zone I & II Longitudinal - Beam Clamp - Vector
- Part #59725 5’ Strap w/Swivel Connector
- Part #59726 6’ Strap w/Swivel Connector
- Part #59727 7’ Strap w/Swivel Connector
- Part #59728 8’ Strap w/Swivel Connector
- Part #59730 10’ Strap w/Swivel Connector
- Part #59732 12’ Strap w/Swivel Connector
- Part #59736 16’ Strap w/Swivel Connector

**G-120 Strap w/ 59002 Swivel Connectors**
Zone III & Florida Longitudinal Beam Clamp - Vector
- Part #59209V 7’ Strap w/Swivel Connector
- Part #59213V 8’ Strap w/Swivel Connector
- Part #59217V 10’ Strap w/Swivel Connector
- Part #59223V 12’ Strap w/Swivel Connector
- Part #59231V 16’ Strap w/Swivel Connector

**Universal Swivel Strap Connector**
One Strap . . . Four installation Options
Made with G-120 strap for Zones II & III installations

**Universal Swivel Strap**
Connector w/G120 Strap
- Part #59207 5 Feet
- Part #59208 6 Feet
- Part #59209 7 Feet
- Part #59213 8 Feet
- Part #59217 10 Feet
- Part #59223 12 Feet
- Part #59231 16 Feet

**Swivel Strap & I-Beam Bracket**
4 Bolt Gator Clamp for Zone I and II Part #58999
8 Bolt Gator Clamp for Zone III and Florida Part #59011

**Sidewall Slotted**
I Beam

**Sidewall w/ Nut & Bolt**

**Longitudinal I-Beam**
Sidewall Brackets for Modular & Manufactured Homes

**Sidewall Swivel Strap Assembly**
Includes: Connector, Strap, Bolt, 2 Washers & Nylock Nut
Part #59337A 1,717 lb. Capacity
Part #59338A 2,500 lb. Capacity

**Swivel Strap Connector (Only)**
Part #59336 10 ga. Zinc

**Tie Straps (Only)**
Part #59337 26.5” x 1.25” 14 ga. Pre-galvanized
Part #59338 28.75” x 1.50” 12 ga. Pre-galvanized

**Swivel “L” Tie Plate Assembly**
Includes: Connector, “L” Tie Plate, Bolt, 2 Washers & Nylock Nut
Part #59339A 2,350 lb. Capacity

**Swivel Strap Connector (Only)**
Part #59336 10 ga. Zinc

**Swivel “L” Tie Plate (Only)**
Part #59339 13.3” x 3” x 3” 14 ga. Pre-galvanized

**Swivel Tie Plate Assembly**
Includes: Connector, Tie Plate, Bolt, 2 Washers & Nylock Nut
Part #59342A 2,000 lb. Capacity
Part #59340A 3,150 lb. Capacity

**Swivel Strap Connector (Only)**
Part #59336 10 ga. Zinc

**Tie Plates (Only)**
Part #59340 6” x 8” 12 ga. Pre-galvanized
Part #59342 6” x 8” 14 ga. Pre-galvanized

**Tie Plate**
Part #59341 3” x 16” 14 ga. Pre-galvanized
2,400 lb. Capacity
**Hardware**

**Strap Protectors**
Attaches between strap and I-beam to prevent cutting or breaking of strap on sharp edges.
- Bulk Part #59232
- 24 Pack Part #59232P

**Galvanized Roof Bracket**
Designed to hold strap or cable ties away from the roof and sides of mobile homes.
- Part #59145

**Angle Frame Bracket**
For attaching longitudinal anchors to I-beam at each end of the home.
- Part #59009

**Jacking Plate**
Jacking plate is used to add support to frame when adjusting trailer height with a jack. Required by many manufacturers when setting, to keep from bending the I-beam. Heavy gauge steel.
- 3-1/2" Wide Part #59000
- 5" Wide Part #59001

**Speed Wrench**
Tie Down’s SPEED WRENCH simplifies anchor installation with a design that allows for one handed operation for installing slotted bolts and tensioning strap. The SPEED WRENCH has a 15/16” (or 24 mm) impact socket on one side and a 15/16” “nut” on the other. Combine this with your own ratchet and 15/16” (or 24 mm) socket and you have the fastest way to tighten slotted bolts!
- Part #48900

**No more knuckle busting pliers!**

**Strap Installation**
1. Place Speed Wrench over the bolt head. Insert the strap end into the slot in bolt until flush with opposite side of bolt.
2. Hold Speed Wrench in place, tighten bolt with socket wrench on outside of Speed Wrench (bolt head side).
Make quick work of earth anchor installation with the 1/2 HP, 18 RPM Electric Drive Machine from Tie Down Engineering. Adapter head fits all double head anchors and has a socket on the inside to fit the Soil Test Probe. Ground fault interrupter cord is standard on the EDM-18.

- 1/2 HP Motor
- 18 RPM
- 20% More Torque
- Quieter, Smoother Operation
- Ground Fault Interrupter (GFI)
- Solid Metal Housing
- Box Tube & Stamped Steel Frame
- Forward & Reverse Switch
- 90 Day Limited Warranty

**Anchor Adapter Head**
(Included with the EDM-18)
Part #59205

**Eye Anchor Adapter Head**
Optional
Part #59206

**Soil Test Probe Kit**
Part #59200

The purpose of the Soil Test Probe Kit is to determine the soil conditions below the surfaces near the anchor’s helix plate. This will provide maximum anchor holding strength by insuring use of proper anchors for each soil condition. Includes multi pocketed carrying case.

**Soil Test Probe Information**
The Soil Test Probe is used to determine the soil conditions below the surface near the anchor’s helix. Using the Soil Test Probe will ensure maximum anchor holding strength by indicating the proper anchor model for each soil condition. The Anchor Chart on page 5 and a test probe reading can be used to get a recommend anchor for every soil condition. Instructions

1. Place probe tip into ground where you intend to place the anchor. Using a 15/16” (or 24 mm) hex socket with a ratchet or breaker bar, rotate the probe in a clockwise direction. (An electric drive machine with an adapter head may also be used)
2. Drive (rotate) the torque probe into the soil until reaching a depth equal to the length of the anchor being installed.
3. To determine the soil classification:
   - Place wrench adapter onto torque wrench.
   - Insert hex portion of wrench adapter onto the earth probe.
   - Support probe shaft with one hand, while rotating probe steadily with the wrench. (Do not exceed 600 in. lbs.)
   - Read the torque wrench while rotating probe clockwise.
   - Use the Anchor Chart on page 5 to cross reference probe readings.
4. If probe reading does not match the anchor for that depth, rotate probe to next anchor depth and check reading. Continue until reading on probe matches anchor length for depth of reading.
5. To remove probe, use wrench or electric drive machine in reverse (counter clockwise).
ABS Foundation Pads

- Lighter than concrete, saves on labor.
- Larger pads to increase spacing, saving time and material.
- Made from recycled materials.
- Easily stackable for larger pad area and wider pier spacing.
- Multi stack for 5 sq. ft. & 6 sq. ft.
- Approved for use by HUD 3285.312(3)

### Pad Bearing Capacity

<table>
<thead>
<tr>
<th>ABS Pad Size</th>
<th>Part#</th>
<th>1,000 lbs Soil</th>
<th>2,000 lbs Soil</th>
<th>3,000 lbs Soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>16&quot; x 18&quot; - 2 Sq. Ft. 288 Sq. In.</td>
<td>59300</td>
<td>2,000 lbs.</td>
<td>4,000 lbs.</td>
<td>6,000 lbs.</td>
</tr>
<tr>
<td>16&quot; x 22.5&quot; - 2.5 Sq. Ft. 360 Sq. In.</td>
<td>59301</td>
<td>2,500 lbs.</td>
<td>5,000 lbs.</td>
<td>7,500 lbs.</td>
</tr>
<tr>
<td>17&quot; x 25&quot; - 3 Sq. Ft. 432 Sq. In.</td>
<td>59302</td>
<td>3,000 lbs.</td>
<td>6,000 lbs.</td>
<td>N/A</td>
</tr>
<tr>
<td>24&quot; x 24&quot; - 4 Sq. Ft. 576 Sq. In.</td>
<td>59303</td>
<td>4,000 lbs.</td>
<td>8,000 lbs.</td>
<td>N/A</td>
</tr>
</tbody>
</table>

#### Multi Pad Layout

<table>
<thead>
<tr>
<th>Multi Pad Layout</th>
<th>Part#</th>
<th>5,000 Lbs.</th>
<th>10,000 Lbs.*</th>
</tr>
</thead>
<tbody>
<tr>
<td>32&quot; X 22.5&quot; (See 1 below)</td>
<td>3 X 59301</td>
<td>5,000 Lbs.</td>
<td>10,000 Lbs.*</td>
</tr>
<tr>
<td>34.4 X 25.2 (See 2 below)</td>
<td>3 X 59302</td>
<td>6,000 Lbs.</td>
<td>12,000 Lbs.*</td>
</tr>
<tr>
<td>6 Sq. Ft. - 864 Sq. In.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Concrete Block rated @ 8,000 lbs. Double block any higher loads.

1. The 32 X 22.5 Pyramid configuration uses 2 - 16 X 22.5 pads placed side by side with 1 – 16 X 22.5 pad on top in the opposite direction.

2. The 34.4 X 25.4 Pyramid configuration uses 2 – 17.2 X 25.2 pads placed side by side with 1 – 17.2 X 25.2 pad on top in the opposite direction.
Tie Down’s Patented Vector Dynamics Foundation System Provides Windstorm & Seismic Protection For Manufactured Homes (Wind Zones I, II & III, Florida & Seismic Loads)

**Vector System**  
**For Lateral Stabilization Block Pads**  
Part #59018  
Kit includes: 2 pans, swivel straps, strap protectors, pan connectors, slotted bolts & hardware.  
Optional: Steel Compression Member

**Vector System**  
**For Lateral Stabilization for Concrete (Single Block)**  
Part #59036  
Kit includes: 2 concrete pans, swivel straps, strap protectors, concrete brackets, slotted bolts & hardware.  
Optional: Steel Compression Member

**Vector System**  
**For Lateral Stabilization for Concrete (Double Block)**  
Part #59049  
Kit includes: 2 concrete pans, swivel straps, strap protectors, concrete brackets, slotted bolts & hardware.  
Optional: Steel Compression Member

**Vector System**  
**For Lateral Stabilization Difficult/Rocky Soils.**  
For use on single section units only.  
#59287 - V-Drive System  
Kit includes: 2 adapter heads and 6 rods  
Must be used with:  
#59018 - Vector for single/double block pads

**3 Sq. Ft. Pad Vector System**  
Part #59271 - Vector 3 Sq. Ft. pad  
(sold individually, 2 required for lateral, 1 for longitudinal systems)

Part #59024 - Vector Lateral Hardware Kit (Florida)  
Kit Includes: U-bolts, strap protectors, pan connectors, PVC adapter, nuts & bolts (swivel strap and slotted bolts not included).
Longitudinal Stabilization Hardware Kit
Part #10733
(for use with #59018 Vector System, single stack block sets only, longitudinal struts not included)

Longitudinal Stabilization Hardware Kit for Concrete
Part #59023 - Includes 2 beam clamps, tension brackets, nuts and bolts. (for use with #59036 & 59049, longitudinal struts not included)

3 Sq. Ft. Pad Vector Longitudinal System
Part #59026
Kit includes: 2 beam clamps, 2 tension brackets, nuts & bolts. (for use with #59271, longitudinal struts not included)

Struts for Longitudinal Systems

<table>
<thead>
<tr>
<th>Part #</th>
<th>Length</th>
<th>Pier Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>59016</td>
<td>30”</td>
<td>up to 2 Blocks</td>
</tr>
<tr>
<td>59012</td>
<td>39”</td>
<td>up to 3 Blocks</td>
</tr>
<tr>
<td>59013</td>
<td>44”</td>
<td>up to 4 Blocks</td>
</tr>
<tr>
<td>59014</td>
<td>53”</td>
<td>up to 5 Blocks</td>
</tr>
<tr>
<td>59015</td>
<td>65”</td>
<td>up to 6 Blocks</td>
</tr>
</tbody>
</table>

PVC Adapter Bracket
Part #59281 - For use with Schedule 40 PVC

Center Compression Strut
Part #48612 - Single Section, 62” - 108”
Part #48613 - Double Section, 34” - 60”
(Includes short u-bolts, nuts, washers and 6 self tapping screws)
Xi2 Ground Foundation System

- Easiest system to install
- Stabilizer plates and diagonal frame ties are not required in most set-ups
- Longitudinal stabilization is easily added with Tie Down’s LSD strut kit
- Heavy galvanized coating on bracket and struts
- For use in Wind Zones I, II & III, Florida & Seismic Loads

Xi2 Ground Lateral System
Part #59306
Includes: 5’ Strut, Pad, & Hardware

Longitudinal Hardware Kit
Part #59031- Includes hardware for 1 strut: I-beam brackets, U-bolt, nuts, bolts and washers
Part #59331- Includes hardware for 2 struts: I-beam brackets, U-bolts, nuts, bolts and washers

Longitudinal Struts for “Ground Systems”

<table>
<thead>
<tr>
<th>Part #</th>
<th>Length</th>
<th>Pier Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>59330-30</td>
<td>30”</td>
<td>up to 2 Blocks</td>
</tr>
<tr>
<td>59330-39</td>
<td>39”</td>
<td>up to 3 Blocks</td>
</tr>
<tr>
<td>59330-44</td>
<td>44”</td>
<td>up to 4 Blocks</td>
</tr>
<tr>
<td>59330-53</td>
<td>53”</td>
<td>up to 5 Blocks</td>
</tr>
<tr>
<td>59330-65</td>
<td>65”</td>
<td>up to 6 Blocks</td>
</tr>
</tbody>
</table>
**Xi2 Concrete Lateral Systems**

Includes: 5’ Strut, Bracket, & Hardware
“Dry Set” Concrete System Part #59307
“Wet Set” Concrete System Part #59328

**Xi2 Longitudinal Hardware Kit**
Part #59163 - Includes hardware for 1 strut:
I-beam bracket, nuts, bolts and washers
Part #59263 - Includes hardware for 2 struts:
I-beam bracket, nuts, bolts and washers

**Longitudinal Struts for “Concrete Systems”**

<table>
<thead>
<tr>
<th>Part #</th>
<th>Length</th>
<th>Pier Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>59016</td>
<td>30”</td>
<td>up to 2 Blocks</td>
</tr>
<tr>
<td>59012</td>
<td>39”</td>
<td>up to 3 Blocks</td>
</tr>
<tr>
<td>59013</td>
<td>44”</td>
<td>up to 4 Blocks</td>
</tr>
<tr>
<td>59014</td>
<td>53”</td>
<td>up to 5 Blocks</td>
</tr>
<tr>
<td>59015</td>
<td>65”</td>
<td>up to 6 Blocks</td>
</tr>
</tbody>
</table>
Xi2 Steel Pier System

Xi2 Steel Pier with Longitudinal System
Includes: steel pier/longitudinal struts and foundation base pad
Part #59321 - Xi2, for 12” Height
Part #59314 - Xi2, for 25.5” Height
Part #59317 - Xi2, for 36” Height

Lateral Stabilization Struts
Steel Piers can be combined with one of the following for lateral support:
Part #59345 - Xi2, Lateral Strut, 5’ w/hardware
Part #59348 - Xi2, Lateral Strut, 6’ w/hardware

Frost Free Foundation System

Xi Steel Pier with Longitudinal Struts
Foundation Base Pad
Lateral Strut

Heavy Duty
Part #59373

Standard
Part #59372
Finishing Products

**Skirt Hang’r**
- Easily attaches to rim joist
- Pre-drilled and slotted for easy adjustment
- Galvanized to last a lifetime
- Mounts directly to the back rail or use the Skirt Hang’r for mounting support rails
- Meets HUD requirements 3285.504
- Stops vinyl to vinyl expansion and contraction problems
- Eliminates water between siding and trim wall cavities

Part #43779

**Racking Alignment Brackets**
- Make alignment of problem roofs easier.
- Eliminate popped seams from lifting on corners of the home.
- Thick galvanized steel for years of service.
- One person operations saves time and money.

Part #59366

**Latch Sav’r**
Prevents damage to the latch area of most outswing doors and helps cover existing door damage. Simply remove door lock, lay plate on the door behind the lock, replace lock and tighten in place.

Stainless Steel Part #59394
White Powder Coat Part #59398

**Adjustable Outrigger/Diagonal Strut**
Use under doors and windows instead of perimeter blocking. Allows for easy door adjustments. Easy to install, installation instructions included. Includes all hardware.

24” for 14 ft. wide - Part #59361
36” for 16 ft. wide - Part #59362

**Floor Joist I-Beam**
Adjustable Outrigger/Diagonal Strut
Use under doors and windows instead of perimeter blocking. Allows for easy door adjustments. Easy to install, installation instructions included. Includes all hardware.

24” for 14 ft. wide - Part #59361
36” for 16 ft. wide - Part #59362

**Latch Sav’r**
Prevents damage to the latch area of most outswing doors and helps cover existing door damage. Simply remove door lock, lay plate on the door behind the lock, replace lock and tighten in place.

Stainless Steel Part #59394
White Powder Coat Part #59398

**Skirt Hang’r**
- Easily attaches to rim joist
- Pre-drilled and slotted for easy adjustment
- Galvanized to last a lifetime
- Mounts directly to the back rail or use the Skirt Hang’r for mounting support rails
- Meets HUD requirements 3285.504
- Stops vinyl to vinyl expansion and contraction problems
- Eliminates water between siding and trim wall cavities

Part #43779
Axle Removal Skid

Used when removing axles after completion of setting unit on site. Simply unbolt axle and lay in skid pan with hub behind bracket, move to opposite side and after removing bolts, slide axle out from under home. Turns a rough job into a safe one person operation.

Part #59399

Emergency Spring Hanger

For temporary attachment of spring hangers, allowing for additional axle installations when broken down in the field. 4 bolt and 8 bolt models designed for use on 3” or 4” beams, simply bolt to the I-beam and add an axle where needed.

4 Bolt Model
Part #59600

8 Bolt Model
Part #59601
## Wheel & Axle Components

### Inside I-Beam Frame

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Double Eye, Four Leaf Spring</td>
<td>25-1/4” Long x 1-3/4” Wide 3,000# Capacity</td>
<td>13072</td>
</tr>
<tr>
<td>Double Eye Cast Equalizers</td>
<td>EQ-104</td>
<td>44018</td>
</tr>
<tr>
<td></td>
<td>EQ-310</td>
<td>44055</td>
</tr>
<tr>
<td>Spring Hanger</td>
<td>1.44” High x 1.75” Wide</td>
<td>17013</td>
</tr>
<tr>
<td></td>
<td>3.344” High x 2.0” Wide</td>
<td>44415</td>
</tr>
<tr>
<td>Zinc Shackle Link</td>
<td>1.5”W x 3.56”(hole to hole) X 5.188”L</td>
<td>44530</td>
</tr>
<tr>
<td></td>
<td>1.25”W x 2.125”(hole to hole) X 3.75”L</td>
<td>44536</td>
</tr>
<tr>
<td>Shackle Bolt</td>
<td>9/16” x 3” Grade 5 Zinc Fluted</td>
<td>10830</td>
</tr>
<tr>
<td>Shackle Bolt</td>
<td>1/2” x 3-1/4” Grade 5 Plain</td>
<td>10825</td>
</tr>
<tr>
<td>Shackle Nut</td>
<td>9/16” Zinc</td>
<td>BBN563SZ</td>
</tr>
<tr>
<td>Shackle Nut</td>
<td>1/2” Zinc</td>
<td>10645</td>
</tr>
</tbody>
</table>

### Outside I-Beam Frame

<table>
<thead>
<tr>
<th>Product</th>
<th>Description</th>
<th>Part #</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rim Clamp</td>
<td>1-1/4” Rim Clamp, Fits Most Hubs with Lugs or Studs</td>
<td>10875</td>
</tr>
<tr>
<td>Rim Clamp Bolts</td>
<td>1/2”-13 X 1-7/8” Black</td>
<td>10873</td>
</tr>
<tr>
<td></td>
<td>1/2”-20 X 1-7/8” Black</td>
<td>10874</td>
</tr>
<tr>
<td></td>
<td>1/2”-13 X 2-1/4” Black</td>
<td>10876</td>
</tr>
<tr>
<td>Lug Stud</td>
<td>1/2”-20 X 2” Zinc</td>
<td>11123</td>
</tr>
<tr>
<td>Lug Nut</td>
<td>1/2”-20 Zinc</td>
<td>10641</td>
</tr>
<tr>
<td>Tapered Lug Bolt</td>
<td>1/2”-20 X 1-5/8” Zinc</td>
<td>10965</td>
</tr>
</tbody>
</table>
Transportation & Towing Products

Product | Description | Part #
--- | --- | ---
Dust/Grease Caps | 46494
Castle Nut | 10665
Spindle Washer | 10520
Cotter Pin | 10560
Bearings | Outer Bearing 1-1/4” (L67048) 11058
| Inner Bearing 1-3/8” (L68149) 11060
| Inner Bearing 1-3/4” (L25580) 11064
Race/Cups | For 1-1/4” Bearings (L67010) 11057
| For 1-3/8” Bearings (L68111) 11061
| For 1-3/4” Bearings (L25520) 11067
Grease Seal | 2.52” OD - 1.688 ID 11094
| 2.569” OD - 1.719 ID 11092
| 3.38” OD - 2.245 ID 11091

Product | Description | Part #
--- | --- | ---
U-bolts | 1/2” x 6.5” Long for 3” dia. tube 10831
| 1/2” x 7.12” Long for 3” dia. tube 10832
Hex Head Nuts | 1/2” Zinc 10643
Zinc Washers | 10019
Spring Tie Plate | 3” Axle Tie Plate 17114
Spring Axle Seat | 3” Axle Seat 17115
Washers

Wheel & Axle Components

Bearing Components

Race/Cups
Seals

U-bolt

Spring Axle Seat

Spring Tie Plate

Hex Head Bolts
The tiedown.com web site contains information for all six divisions within Tie Down Engineering which include:
- OEM Trailer Products
- Marine Aftermarket Products
- Manufactured Housing
- Roofing Products
- Cable and Hardware
- Industrial Laser Solutions

**Manufactured Housing Division:**
- Earth Anchors
- Galvanized Anchors & Strap
- ABS Foundation Pads
- Foundation Systems
- States and Approvals
- Test Reports (Restricted)

### Downloads Library

http://www.tiedown.com/technical-support.html

Complete library includes instructions for all of Tie Down’s products and foundation systems.

### States and Approvals

http://tiedowneng.com/dapproval.html

Not all States have specific requirements for manufactured housing, but most do. Simply click on your state to view state approvals and or requirements. We list every state required approval and installation specific instructions for each state.

### Test Reports (Restricted Access)

http://tiedowneng.com/dreports/dreports.html

Over 75 test reports for Manufactured Housing products. Test reports include:
- ABS pads, anchor certification, each earth anchor/stabilizer plate and every foundation system. Clicking on the listed report opens the full test report in Adobe Acrobat file format. Access to this site is restricted please call the contact listed for complete access.