



5075 Lower Valley Road | Atglen, PA 19310 | 610-595-4650

## PARK MODEL RV SETUP, BLOCKING AND TIE DOWN INSTRUCTIONS

### SITE REQUIREMENTS:

The park trailer site must be properly graded and sloped to provide for storm drainage runoff. The area beneath the park trailer must be graded to prevent water accumulation. Soil conditions in the immediate area are important. Place pier footings on firm undisturbed soil (not loose fill) or soil that has been compacted to at least 90 percent of its maximum relative density. (Support piers can also be placed directly on concrete slabs that are designed for pier loads.)

Climatic conditions must be factored. If footings are placed on frost-susceptible soil such as clay or silt, heaving or settling may occur. In areas where temperatures go below freezing, the following should be considered if the park trailer is anchored with a tie-down system:

1. Construct your tie-down system with adjustable devices so that strap tension can be adjusted periodically to compensate for heaving or settling, or
2. Place the park trailer on a properly designed raft foundation (slab) or
3. Have the foundation designed so that it is not susceptible to frost action, and
4. Consult with local building officials to determine the location of the frost line.

### SUPPORT REQUIREMENTS:

The design loads used in determining required pier capacity are 40 psf (pounds per square foot) floor live load plus the indicated roof live load and total unit dead load. Load bearing supports and footings may be subject to approval by your local enforcement agency. Each pier must have sufficient capacity to support the design loads corresponding to the selected pier spacing. The required dimensions of footings will depend on soil bearing capacity test results. In lieu of soil tests, confer with your local Building Authority for the recommended soil bearing capacity in your locale. All grass and organic material must be removed from the area beneath the footings.

PIER SPACING UNDER MAIN "I"-BEAMS	PIER LOAD (Lbs) 20 PSF ROOF ZONE	PIER LOAD (Lbs) 30 PSF ROOF ZONE
4'-0" O.C.	2130	2420
5'-0" O.C.	2660	3020
6'-0" O.C.	3190	3620
7'-0" O.C.	3720	4230
8'-0" O.C.	4250	4830
9'-0" O.C.	4780	5440
10'-0" O.C. (Max)	5320	6040

Fig. 1 Table 1

#### Notes for Fig. 1 Table 1

1. Footings and piers must be designed to support the loads (right hand column) at the selected spacing.
2. The tabulated pier loads include the indicated live loads plus trailer dead loads.

3. The maximum spacing of supports shall not exceed 10 feet.
4. Where it is impractical to maintain spacing, such as in the axle area, the average of the distance to each adjacent support can be used to determine support requirements:

*For example, if the distances to the adjacent supports were 6'-0" and 8'-0" the average spacing would be 7'-0". The average spacing for pier B would be  $(6 + 8) / 2 = 7\text{ft}$ . Therefore, the pier would be designed for 7ft. pier spacing.*

5. Add additional piers at each side of a single sidewall opening and between multiple openings (window or door) larger than 4'-0". The required pier capacity equals 125 lbs. x opening width (ft.).

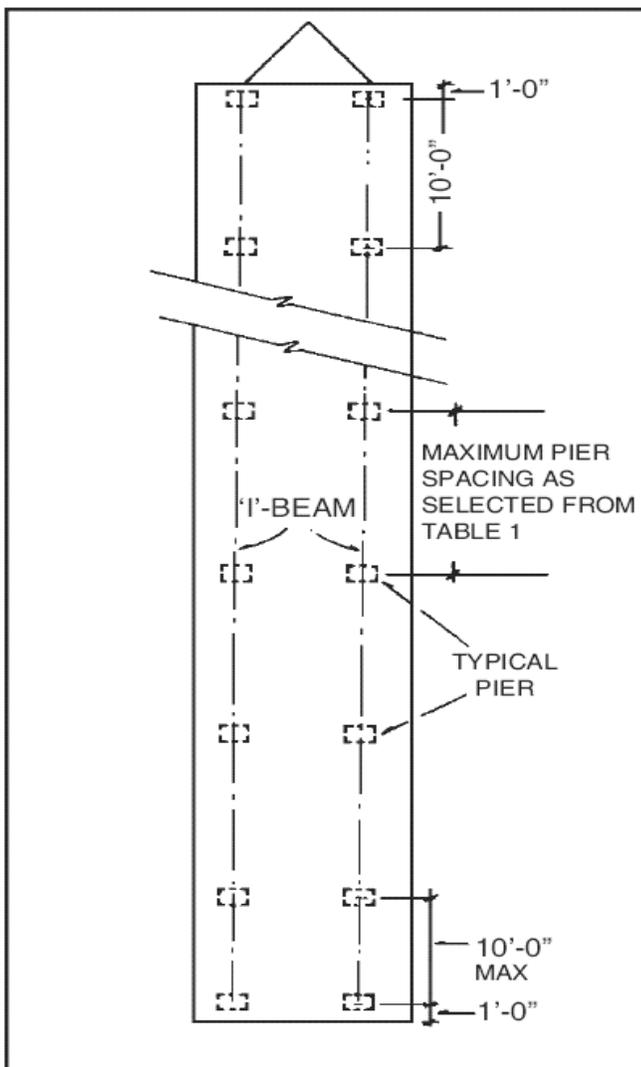


Fig. 2

### Reminders before jacking:

1. Use only jacks in good condition with a minimum rating of 5 tons.
2. Use a steel plate (3/8" x 2 1/2") between jack and steel "I"-beam to distribute the concentrated loads. (see Fig. 2)
3. Use a firm support under the jack base to prevent tipping or settling of the jack.
4. Always follow the sequence of jacking outlined below to avoid overstressing structural members.

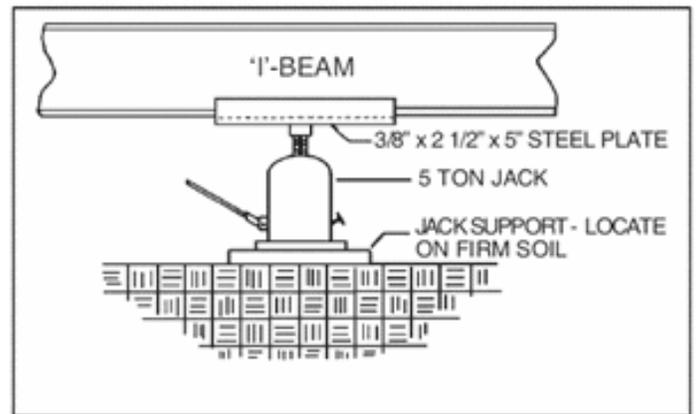


Fig. 3

*The jacking procedure is as follows:*

1. After the park trailer is located in its final position, you can preliminarily level it by using the hitch jack but only after adequately blocking the trailer.
2. Jack up one side of the park trailer by placing one jack just forward of the front spring hanger and the other just behind the rear spring hanger. These two jacks must be operated simultaneously to raise the home. Jack the low side of the home first. Install footings and piers; one just forward of the front jack and another just behind the rear jack (taking care not to exceed the correct spacing selected).
3. Next, jack the main "I"-beam at the front and position a pier within 1'-0" of the end of the "I"-beam. At the completion of this step, this side of the park trailer should be approximately level.
4. Repeat Steps 2 and 3 for the other side of the park trailer. At the completion of this step, the

park trailer should be roughly level from front to rear and from side to side.

5. Place the remaining pier supports under the main "I"-beam on each side taking care to maintain a maximum distance of no more than the spacing determined from Table 1 with piers located within 1'-0" of each end of each "I"-beam.
6. Level the park trailer within reasonable tolerances, using a 6-foot carpenter's level, water level or similar equipment. The final height adjustment is obtained by jacking the "I"-beam and placing hardwood shims between the piers and "I"-beam, or other approved methods such as adjustable piers. **This leveling process is important for appearance and is essential for the proper operation of doors, windows and the drainage system.**
7. Within 90 days after initial setup, the park trailer should be re-leveled, if necessary, to compensate for any pier settlement. Follow the procedure in Item 6 above. **During the leveling or re-leveling process, loosen the frame ties and over-the-roof ties (if provided) prior to jacking the unit.**

#### **Tie-down instructions:**

All park trailers should be securely anchored to the ground with 6 tie-downs and ground anchors (minimum 3 per side), to resist the sliding and overturning effects of high winds. Where tie-downs are required, it will be necessary to follow the instructions herein.

#### **Frame tie-down procedure:**

The tie-downs should wrap around the main trailer "I"-beam. Any one of the three methods featured may be used. In the tie-down system, it is important to use materials of proper design and of adequate quality. The material specifications contained herein should be considered as minimum requirements.

Materials not furnished with the park trailer, which will be necessary to complete the tie down system, must meet the requirements set forth below. Such materials would include:

1. Cable or steel strap with a breaking strength of at least 4,725 pounds, e.g. galvanized aircraft cable at least 1/4" inch in diameter or Type 1, Finish B Grade 1 steel strapping, 1 1/4 inches wide and 0.035 inches thick, conforming with F.S. QQ-S-781-H.
2. Galvanized connection devices such as turnbuckles, eyebolts, strap buckles and cable clamps should be rated at 3,150 working load minimum.
3. Ground anchors capable of withstanding at least a 4,725 pound pull. Anchors must be installed as specified by the anchor manufacturer.

#### **THE UNIT MUST BE IN ITS FINAL LEVEL POSITION PRIOR TO TYING IT DOWN.**

The procedure for tying down the park trailer is as follows:

1. Position and install the ground anchors to line up with the provided tie-down brackets.
2. Connect the straps to the frame and ground anchors.
3. Tighten the straps using the tensioning device provided with the ground anchors. Use caution to avoid over-tensioning the straps as this may pull the trailer off the piers. It is recommended that all straps be tightened only enough to remove the slack. Then, after all the straps are installed and the slack removed, tension the straps.
4. The strap tension should be rechecked at frequent intervals until all pier settlement has stopped. **CAUTION! During the re-leveling process, do not jack the park trailer against tight straps.**