

Installation Recommendation. Model RR1212V1 Bariatric Ramp Systems.

Qualified installers should use this instruction guide to supplement training and instructions provided by manufacturers of the “system” components. Installers using this manual should be familiar with the installation of “ambulance cot fastener systems” and regulations pertaining to the installation of such devices, EG. Federal Ambulance Specification KKK-A-1822C, Ambulance Manufacturers Division (AMD) standards. Installers should be generally familiar with ambulances, ambulance cots cot fastener installation procedures, installation of DC electrical powered accessories and safety standards pertaining to the installation and use of electrical accessories. Installers will encounter many varying ambulance interior configurations, body and underbody structures. The installers should be prepared with fastener selections and tools that will allow modification to the installation guidelines contained herein. A recommended “Supplies and Tools inventory list” is available from TranSafe upon request.

Components and parts supplied with Model RR1212V1 Bariatric Ramp Systems.

- 2 each, 12 inch wide X 12 foot long **Ramps**
- 1 each, **Transition Plate** w/ cable roller & wheel guides (connects ramps to ambulance floor)
- 3 each, ½-13 **hand-tight** screws (quick fasten Transition Plate to ambulance floor plates)
- 2 each, Lift **Slings** (attaches cot to winch hook when cot is not factory equipped)
- 1 each, 3700lb pull **Winch Assembly** , motor & power cord w/ connector (housed in custom winch mounting box)
- 1 each, 12 ft long winch **Power Switch** to control on/off, direction and braking of winch motor
- 1 each, DC power Connectors (to supply power to winch motor)
- 1 each, 12 ft. **Power Cable** kit (connects outlet socket to vehicle power source)
- 1 each 100 amp reset able **Circuit Breaker** (pre wired & mounted on rear of winch box)
- 2 each, ½-13 hand-tight screws (quick fasten winch box to ambulance floor plates)
- 5 each, **Floor Plates** w/ backing plates & hardware (installed into ambulance floor)
- 10 each, 3/8 x 2 ½ in. socket flat head screws, 3/8 nuts, locking washer and flat washers (to fasten floor plates to vehicle flooring, shorter or longer screws may be required depending on vehicle floor thickness and configuration)
- 5 each, ¼ in. steel **Backing Plates**, for securing floor plates to vehicle floor (if required, special sized and shaped backing plates to be supplied by installers).

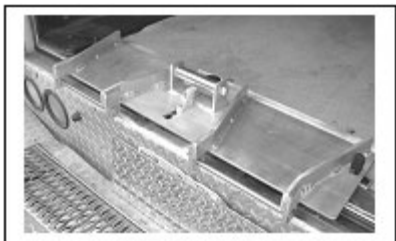
LONGER FASTENERS MAY BE REQUIRED TO INSTALL FLOOR PLATES

Note: when using fasteners, hardware or parts not supplied with this system, use only high-grade fasteners (grade 5 or better), high quality materials or those materials required by industry code and regulation.

Locating “Floor Plates”

Step 1. Using the Transition Plate as a template to locate Floor Plate positions.

Place the Transition Plate in center of rear door opening of vehicle, in exactly the position in which it will be in used. *View #1*. You will want to position the Transition Plate as far forward (toward front of vehicle) as possible, without interfering with the connection between the ramps and the Transition Plate. *View #2*. Test by dropping a ramp in-place before determining a final location. The ramp should drop in place freely, without interference at any and all operating angles and inclines. This procedure will require the help of one additional person to hold Transition Plate in position, as the unfastened plate will flip or fall and may cause injury. You may have to remove the cot “Stop Block” (AKA safety floor hook) in order to position the Transition Plate properly. You will then use the slot provided to spot new position for the Stop Block



View # 1



View # 2

The Transition Plate is made with multiple fastening holes along the outer sides of the plate. This allows the installer to select a position for the outboard floor plates that provide the best underbody clearance. With Transition Plate in desired location and the desired mounting holes selected, use a transfer punch (or any practical and precise method of marking) at the mounting holes (one each outer edge and one center) to mark the location of Floor Plates.

With hole positions selected and marked, remove the Transition Plate. Use a 1/4” steel drill bit to pick-up the center of the marks for each of the three Floor Plate mounting positions. Use the 1/4” bit to drill through the vehicle decorative flooring, sub flooring and sheet metal body flooring. **CAUTION!** Before drilling, determine that you will not be drilling into tanks, wire harnesses, critical cross members or other obstructions. Ideally, Floor Plates can be positioned were no obstructions exist under the vehicle floor. ***[If a clear location is not available, reposition or create alternative mounting configuration. Call this manufacturer for suggestions and instructions.]*** Using a 3/4” wood Spade Bit at all three mounting locations, drill through the decorative and sub-flooring, stopping at the vehicles metal flooring. *View # 3*.

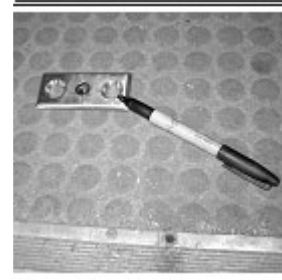
This will create a pocket for the ½-13 nut that is welded to the underside of the Floor Plates. **View # 4.** Using a 9/16” steel drill bit, open the previously drilled ¼” holes in the vehicle metal flooring. This will create clearance for the ½-13 fastener used to lock components to the floor plates.



View#3



View#4



View#5

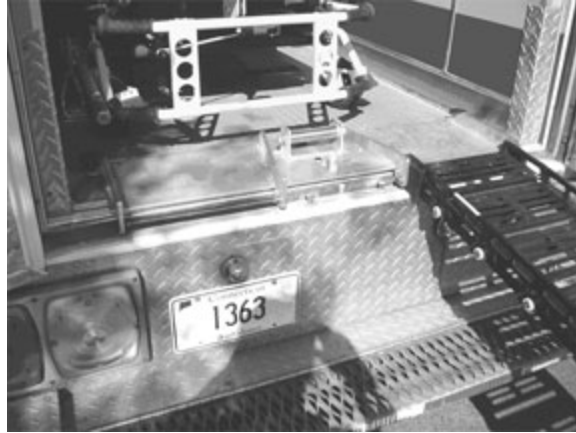
Drop the Floor Plate into the drilled pocket and orient Floor Plate in desired position (some Transition Plates models may dictate orientation. Try positioning Transition Plate over the floor plates before spotting the thru-bolt holes). Spot hole locations with transfer punch or marker, **View#3 and View#5.**

Use a ¼” drill bit to pick-up the center of each mark for Floor Plate thru-bolt holes. Drill a ¼” pilot hole through all flooring materials. Using a 7/16” in. drill bit, open the ¼” pilot holes (you will now have clearance for 3/8” dia. mounting fasteners).

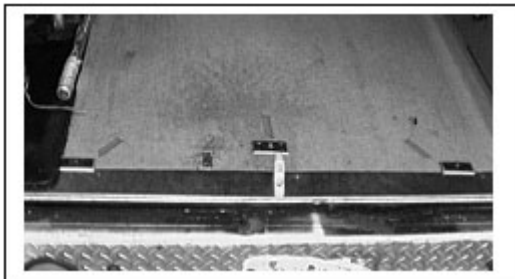
Place a Floor Plate at each location. Using the 3/8” socket flat head bolts supplied (or a longer length as required), you are ready to permanently mount the Floor Plates. You will attach the Floor Plates at the underside of the vehicle with the following sequence:

1. Slip “Backing Plate” over two 3/8” bolts.
2. Place a 3/8 washers over each bolt (over backing plates)
3. Place a 3/8 lock washer over each bolt.
4. Thread a 3/8 nut onto each bolt and tighten so that all components are compressed, flat and secure.

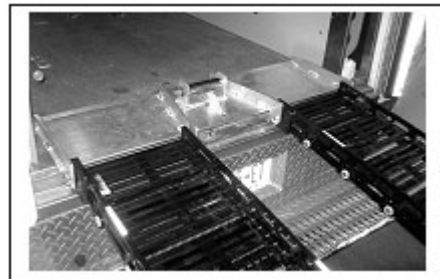
Note: 3/8 nuts must be fully engaged, leaving at least several threads of the 3/8 bolt showing beyond the nut. If the bolts supplied are not long enough to pass through all flooring, backing plate, washers and nut, replace with proper length bolts of the same grade and quality. **DO NOT USE BOLTS WITH UNTHREADED SHOULDER LENGTHS THAT WILL NOT ALLOW ALL COMPONENTS TO BE COMPRESSED TOGETHER.** If at least 3/8” or more additional thread is exposed, add an additional nut for locking security (“double- nut”). Reinstall Cot Stop Block (floor hook) in position required.



Transition Plate, Floor Plates and Stop Block are in-place as in *View#6. and View#7*



View#6

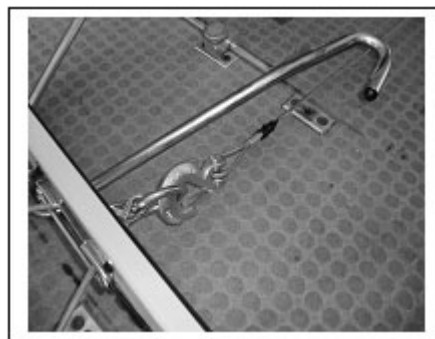
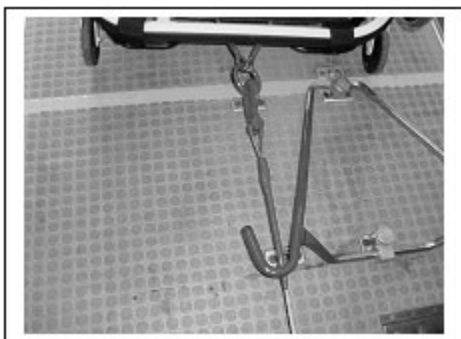


View#7

Step 2. Using **Winch Assembly** as a template to locate Floor Plate positions.

Like the Transition Plate mounting procedure, the Winch Assembly (specifically the winch box) will be used to locate the position of the Winch Assembly Floor Plates.

When installing the Winch Assembly in a vehicle with side mount cot fastener system (or off center system) the Winch Assembly will be mounted behind the cot fastener “Antler” (toward front of vehicle) and so that winch cable will pass to the inboard side (center of vehicle) and under the Antler horns.

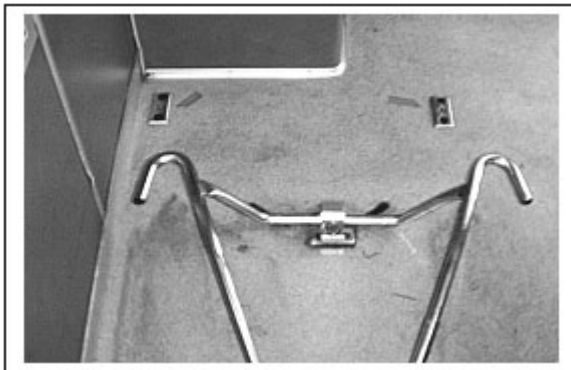


If you are standing in the vehicle, behind the Antler, facing the rear doors, the Winch Assembly will be positioned so that when the cable is extended out the back of the vehicle (over the center guide roller), the cable is as parallel to the side walls as is possible, while still guiding the cot load wheels toward the Antler. The winch cable must pass under the inboard side of the Antler horn.

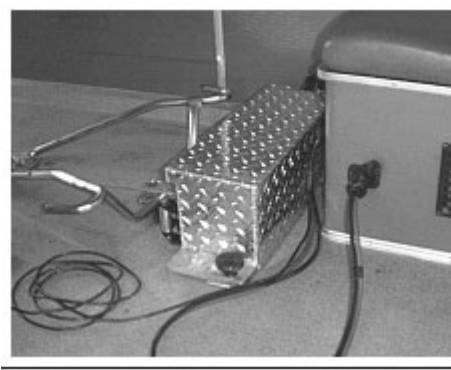
When installing the Winch Assembly in a vehicle with a center mounted cot fastener configuration, the Winch Assembly is mounted so that the cable outlet is off center and to the vehicle right side of the Antler. Again, the cable must pass under the Antler horn, with out coming in contacting any part of the Antler tubing.

When you have selected the best position possible for the Winch Assembly, mark the mounting hole positions using the same procedure as used for the Transition Plate Floor Plate installation.

With Winch Assembly Floor Plates installed, *View#8* and *View#9*, electrical power can be supplied to the winch motor, per specifications.



View#8



View#9

Step 3. Installing power outlet for winch motor.

When using a wall mounted electrical outlet (not supplied) select a convenient location for the power plug outlet, as suggested in *View#9*.

TranSafe System is supplied with snap in connectors pre-installed. It is up to the installer to select a connection point to supply power to the winch power cables.

Following instructions provided by power winch manufacturer and receptacle manufacturer (manuals and instructions attached) for power requirements and connections.