Bariatric Transport System
Bariatric Program

- A717 will be the prototype unit
- Additional units will be outfitted later
- Program should be implemented county-wide by end of CY2016
Deployment Plan

The cache of equipment will be stored at the stations housing Rescue Squads.

When a Bariatric Capable unit requires the equipment they will request it through ECC.

The dispatched Rescue Squad will place all bariatric equipment on their unit and respond.

**An additional manpower piece will also be dispatched**

Minimum manpower for a bariatric patient is 5 IECS certified personnel.

The Rescue Squad dispatched to assist will remain on the call and follow the transport unit to the hospital until patient transfer.
Deployment Plan

If the transport unit on scene is not Bariatric Capable they must request an appropriate Bariatric Capable transport unit.
Equipment Required

- Winch
- Ramps
- Transition Plate
- Ferno Large Body Surface (LBS) board
- Cot tow ring harness
Additional Equipment

- Hoverjack system
- Hovermatt system
- Inflation Device
- Manta Rescue Aid
- BEAR-iatric Restraining Device
- BEAR-iatric Stair Chair Device
Safety Inspection

- ALL components of this system must be inspected for damage before use.
- Any damaged equipment must not be used and placed Out Of Service.
- Follow all manufacturer’s recommendations.
System Capacities

- **Ramps**
  - 1400 pound rating *(cot only rated to 1100 pounds)*
  - 10 feet long, 8 inches wide, 2 inches deep
  - Weigh 40 pounds each

- **Transition Plate**
  - 43" wide x 8" deep x 3/8" high
  - Weighs 17 pounds

- **Winch Box**
  - Pulling capacity of 2,500 pounds *(cot only rated to 1100 pounds)*
  - Weighs 30 pounds
  - 15 3/8" wide x 8–3/8" deep x 6" high
  - Cable can extend 22 feet beyond rear of unit
General Considerations

- A minimum area of 40 feet by 14 feet is required
- Every attempt should be made to use a level surface
- Side to side leveling is equally important
- If you must park on a hill, always face DOWNHILL
- Keep all thread holes clean
- Avoid getting water in thread holes
- NEVER move the ambulance with the ramps attached
Stretcher Capacities

The Ferno 35X Pro Flexx Cot will be the only cot to be used with the Bariatric System

Ensure that the cot being used has the tow ring brackets and LBS mounts installed

Rated at 700 pounds in the loading position and 1100 pounds in the lowest position.

The cot MUST be in the lowest position for winching

Note: The Ferno 35X Pro Flexx cot can be found in colors other than red. Verify that the cot being used has been prepped for bariatric use.
Ferno LBS System

The Ferno Large Body System is designed to increase the width of the cot.

It DOES NOT increase the weight rating of the cot.

Only to be used with Ferno 35X Pro Flexx cot equipped with mounting brackets.

Will arrive as part of the Bariatric Cache
Ferno LBS System

- A Bariatric Capable cot will have four LBS mounting blocks already attached to the cot frame.
Ferno LBS System

- Begin by removing the mattress from the cot
- Remove the pins from the mounting points and lower the LBS board onto the blocks
Ferno LBS System

Once all 4 mounting points are properly seated on the blocks ensure that all pins are in place.
Ferno LBS System

- Replace the cot lap belt with the bariatric lap belt provided by the rescue squad.
- All cot straps MUST remain attached to the main cot frame and not the LBS.
- Straps must wrap around the outside of the LBS.
**USING RESTRAINT EXTENDERS**

The restraint extenders are compatible with all Ferno® Model 430 metal buckle restraints. When using the restraint extenders:

1. Verify that your existing lap and leg restraints are attached to the cot main frame, and the existing harness shoulder straps are attached to the backrest.
2. Attach the bariatric board to the cot.
3. Wrap the lap and leg restraints around the main frame of the bariatric board (Figure 24 and 25).

*Figure 23 - Attach Cot Restraints to the Main Frame Using the New Lap Belt*
Ferno LBS System
### Ferno LBS System

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**Notes:**
- Position operators at head and foot ends to work the controls. Helpers lift using the cot main frame and bariatric board main frame, not the wings.
- Position the foot-end operator nearest the cot control handle.
- **All cots:** Foot-end operator stands at the side with the control handle and works the control.
- 35P, 35X: Head-end operator kneels and lifts/lowers the undercarriage (POWERFlexx: in manual mode only).
**Ferno Tow Ring System**

- A Bariatric Capable cot uses a Ferno Tow Ring System as the attachment point for the winch.
- The cot will have the hook plates permanently installed as seen below.
Ferno Tow Ring System

- Pass the carabiners through the guide bracket at the head end of the cot
Ferno Tow Ring System

- Ensure carabiner gates face the inside of the cot
Ferno Tow Ring System

Carabiner Gates
Face Center of Drop Frame

Route Cables Only
Below Crosstube, Above Safety Bar
Winch Installation

- Warn XT25 winch mounted in a box
- 2500 pound pulling capacity
- Winch can remain in place during patient transport
Winch Installation

- Two floor mounts can be found forward of the Captain’s Chair
- These mounts are for the Winch Box
Winch Installation

- Align winch box holes with floor mount holes
- Secure winch box with thumb screws
Winch Installation

- Plug in power cord to receiver mounted on cabinet in front of captain’s chair
Winch Installation

- Plug in controller on rear of winch box
Winch Installation

- Place winch in Free Wheel mode and pull cable under captain’s chair
Winch Installation
Winch Installation

- Cable should ALWAYS be routed OVER antlers
Winch Installation

- If the winch has no power, check the breaker in the bottom of this compartment.
Winch Installation

Reset the breaker by pressing the switch towards the front of the unit. This will close the circuit and the winch should have power.
Transition Plate Information

- Lightweight, removable aluminum plate
- Used to create an easy transition from the ramps to the ambulance floor
- Held in place by 2 thumb screws
- Ramps hook on hanger rods
- Has roller for winch cable
Transition Plate Information

- Verify that spacers are on outside of hanger rods

![Image showing yes and no examples for transition plate information.](image-url)
Transition Plate Installation

- Lay transition plate over safety hook at rear of unit
Transition Plate Installation

- Align plate over mounting pods

Use this hole

NOT this hole
Transition Plate Installation

- If hanger rods do not lay in sill plate next to nader bolts the transition plate is not properly installed.
Transition Plate Installation

- Tighten fasteners until hand tight (DO NOT USE TOOLS)
Ramp Installation

- Folded Dimensions:
  - 5 feet Long, 8 inches Wide, and 8 inches Deep

- Deployed Dimensions:
  - 10 feet Long, 8 inches wide, 2 inches Deep deployed

- Hinges are pinch points and marked RED

- Ensure Rear Airbag system is dumped to lower ramp angles.
**Ramp Installation**

- Begin by standing ramps, hinge up, approximately 10 feet behind transport unit
- Ensure slotted groove is closest to unit
- Separate ends of ramps 1 to 2 feet as seen here
- Pick up groove end and walk towards unit
- Secure groove in plate hanger
- Lifting ground end will easily seat ramps on hanger
Ramp Installation

Left Side

Right Side
Ramp Installation

- Ready for use
Ramp Installation

- Ramps can be used to bridge landings, loading docks, patios, etc
- Landing MUST be lower than transport unit floor
- Ramps must be parallel and level to prevent stretcher from tilting
Attachment Point

- The winch hook attaches directly to the Tow Ring
- Ensure Tow Ring Cables are not twisted
- Ensure gate on hook is closed
Winching Operation

- One person must be designated as the overall safety/control officer
- All safe winching actions should be adhered to when winching patient into transport unit
The Winch Operator

- The winch operator MUST step out of the curb door to operate the control and watch the operation
- WATCH the cable’s path during winching
- LISTEN to those guiding the stretcher
Winching Operation
Winching Operation

- Ensure that winch cable remains on roller
Winching Operation

- NO personnel can occupy the action area between the stretcher and the winch during operations.
- No personnel should be positioned at the foot end of the stretcher.
- AT LEAST one person should be positioned at EACH side of the stretcher during winching.
Winching Operation

- As the cot transitions to the EMS unit floor it has a tendency to shift towards the left side of the unit.
- The crew member on the left side must watch this and adjust the cot accordingly.
Winching Operation

- Ensure that the loading wheel does not end up between the wall and cot fastener
Winching Operation

- As the loading wheels near the antlers, the winch operator must avoid winching against them.
- The winch can stay attached to the tow ring during transport if desired.

Need picture of head of cot in antlers with winch attached to tow ring.
Patient Transport

- If the LBS system is used there is only a few inches of clearance on each side of the cot
Patient Transport

- The Winch and Transition Plate can remain in the unit during patient transport.
- The hangers must be flipped up before the rear doors are closed.
- NEVER transport the ramps in the patient compartment while loaded with patient.
Patient Unloading

- The Rescue Squad used to load the patient should also report to the hospital with the transport unit to assist with unloading.
- The winch should also be used to bring the patient out of the unit.
- All personnel should be placed in the same locations as patient loading.
Patient Unloading

- Ensure that the winch cable is attached to the tow ring
- Release the cot latch and begin to remove the cot as usual
- The winch operator should simultaneously be winching out as the cot is removed
- Continue a controlled descent until the cot is completely on the ground and clear of the ramps
Patient Unloading

When unloading the patient the safety bar will not catch on the safety hook due to the ramp angle and roller configuration.