ROK HARDWARE & CABINETS
BUILD IT BETTER, FOR LESS.

DESIGN NUANCES FOR A PARDO WALL BED PROJECT

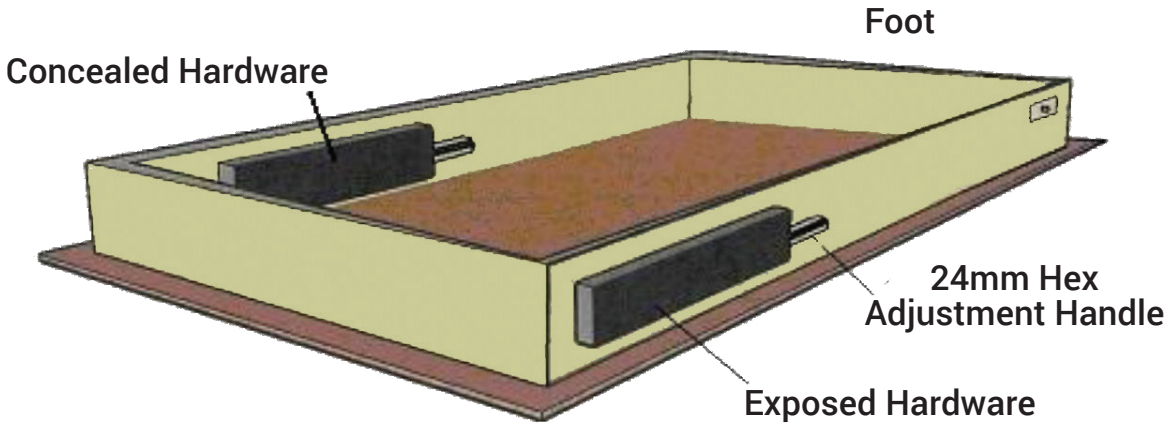
1. Determine the preference for either, a mattress AND Foundation (innerspring) OR a mattress supported on Euro-style slats and no foundation.

2. Obtain a mattress to the customers liking for style and size before the start of construction.

3. The thickness of the mattress or mattress and foundation will determine the depth of the bed cabinet. The Pardo system will fit into a cabinet as shallow as 14". However, a mattress of 14" thickness on a 9" thick foundation will require a cabinet depth of 25". Plan your cabinetry accordingly.

4. The choice of mattress and foundation or mattress and slats will determine the location and type of the counter balance mechanism to employ, either "inside" or "outside" mounting.

5. The top of the mattress on a deployed wall bed is typically 20" from the finished floor but may be from 17" to 24" depending on the owner's preference/physical height. What we've found is that by being able to sit on the side of your bed, and having your feet being able to reach the floor (heel and toes), keeps your body in a good posture, both getting in and out of bed. For this arrangement the height to the top of the mattress from the floor should be 17" to 20" and actually as high as 25" may be acceptable.



A wall bed mechanism must be adjustable to provide the fabricator with the ability to adjust the lifting and lowering function (weight) and to accommodate different construction materials and to allow for different mattresses. MDF weighs much more than veneer core plywood and faux finishes are heavier than a clear coat. More complicating is the mattress due to style, thickness and composition. Meeting with the client to determine the mattress source and specification is imperative, and, will the client provide the mattress or will the fabricator?

CAUTION: Do not start fabrication before the mattress or mattress/foundation is on hand and available for measuring!

The bed platform functions best with the mattress weight positioned higher than the mechanism when the bed platform is deployed. Most hardware distributors sell the popular Pardo system and that is the focus of this discussion. A counter balancing mechanism is made to be installed either on the inside or the outside of the mattress box. The Pardo mechanism is available in two sizes and several weight capacities. For a given weight capacity, inside and outside types differ only in the length of the square axel. The square axel on inside models is ¾" longer than the square axel on outside models to compensate for the sidewall thickness of the mattress box. The axel protrudes 1-5/8" from the face of the "inside" mechanism and 7/8" from the face of an "outside" mechanism.

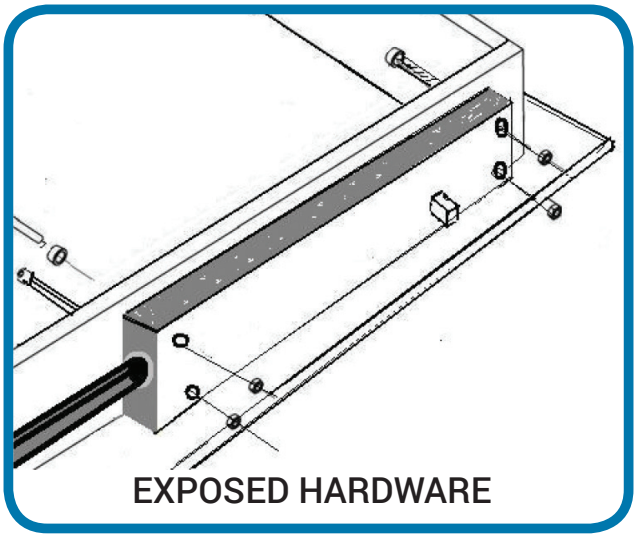
The flat end of the square axel is intended to “bottom out” in the pivot bearing on the cabinet side panel. The platform “door” is normally inset into the cabinet.

Outside Mechanisms offer easy adjustment, an unobstructed mattress box interior; wider platform faces and outwardly exposed hardware. If the client prefers a mattress foundation or “innerspring” under the mattress the outside mounted hardware is the best choice. Commercially available foundations are typically 5.5” to 13.5” thick and 9” thick is extremely popular. Custom foundations are usually available from local mattress shops. The mattress/foundation construction is generally heavier than euro-slat construction.

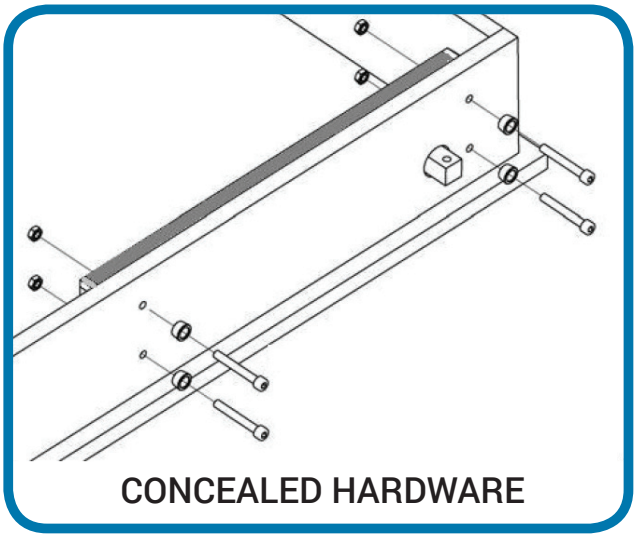
Inside mounted mechanisms allow for a narrower curb design, concealed hardware placement and a lighter euro slat style mattress support. The inside mechanism is slightly more difficult to reach for adjusting by the installer. See instruction booklet for platform position when adjusting either inside or outside mechanism type. A furring strip around the interior walls of the mattress box is provided for slat support.

A 60” square sheet of ¾” Russian birch plywood will yield 7 each Slats 5-7/8” X 60” and an 18” X 60” headboard for a queen size bed platform. A hardwood ledger board (3/4 X 1-1/2”+) is attached to the inside of the mattress box with the top 1” below the side rail top. The slats are screwed to the ledger board or side rail on the mattress box interior. The headboard is attached to the headpiece of the mattress box with a 1-1/2” X 60” continuous (piano) hinge. Teflon* or roller glides on the back of the headboard will allow free movement when the platform is lowered or lifted.

The addition of a headboard will contain bedding and eliminate it from falling behind the mattress. The headboard must be installed to allow movement of the platform.



EXPOSED HARDWARE



CONCEALED HARDWARE

There is a leg set shipped in the box with the bed mechanism. The legs are connected with a piece of hardwood cut from the same wood species as the platform door face by the fabricator. If a thicker mattress is used than the legs will accommodate, a strap with a Velcro closure is available and will hold the mattress in place. Part # XSMVOMATSTRAP and one size fits all.

Lighting, if used, in the wall bed cabinet must not be left “ON” with the platform door closed. Low temperature, high intensity LED Lights with a safety switch to shut electric power off when the door closes will reduce fire hazard. Lights can be turned on and off with the door open but will power off when the door closes when the light set is properly installed.

Fasten the top of the cabinet in compliance with local building codes or to every wall stud available with 3" long X 3/16" or larger screws. Fasten cabinet sides through baseboard to wall plate when installing on hard surface floors to stop movement of the cabinet on the floor.

Please see our assembly and installation instruction booklet before you start construction.

Final tension adjustment of the counter balance function will require the use of a 24mm socket and ratchet wrench for precision and efficiency.