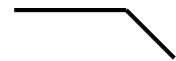
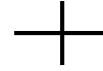


Maplestead Mini-Ring

Component Parts

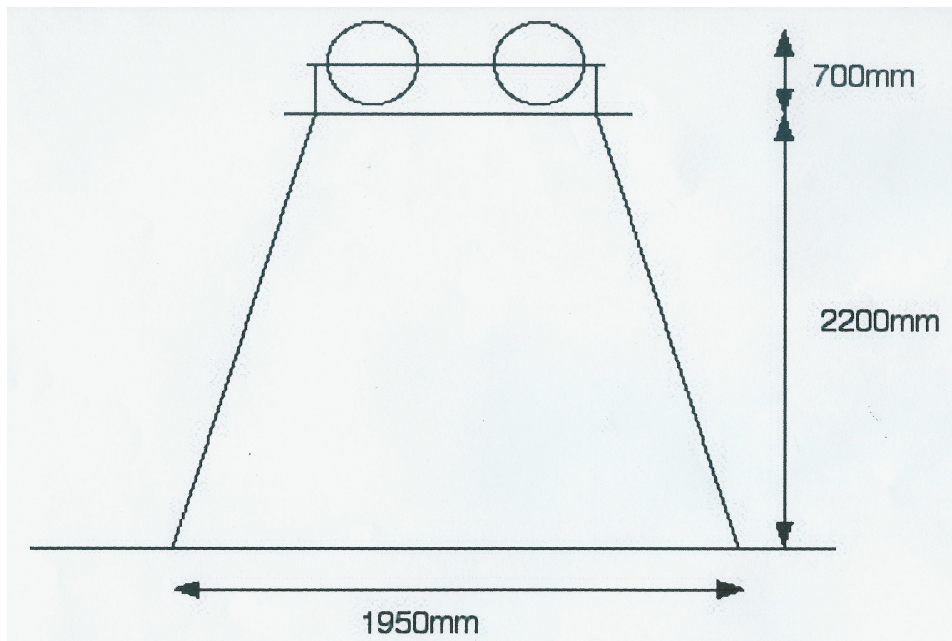
This Portable Mini-Ring breaks down into several smaller parts for transport:

- 4 **Bell frame pairs** - on base boards, each containing 2 bells.
Each frame is of wooden construction max 700mm wide x 600mm deep x 600mm high
The bells are complete with wheels, ropes, pulleys, etc. but no stays or sliders.
- 1 **Upper cruciform** with 2 integral support 25mm angles : max 1050mm x 1050mm across.
- 1 **Lower cruciform** : max 1050mm x 1050mm across.
- 2 25 x 25mm **Outer support angles** : 1440mm long
- 4 150 x 50mm box-section **Upper Structure Elements/legs** (“knees”) :
1000mm horiz x 960mm vert → extreme 1570mm “tip-to-tip”
- 4 150 x 50mm straight box-section **Leg Extensions**



Space Required

Generally:



Note that additional space is necessary:

- approx 1m strip at one side to erect the support frames
- approx 600mm strip to each side, but ideally all round,
 - to move ringers around the structure
 - to erect stepladder when (if) a bell is over-thrown(!)

Notes

The Support Structure is quite heavy, but can be lifted and “walked” from an initial assembly position to its final ringing position.

It is strongly advised to cushion the load from the legs:

- Using carpet squares on indoor surfaces – the legs are quite “sharp”.
- Using paving slabs on soft outdoor surfaces such as grass.

The bells use hard steel clappers which, while ideal in an open air setting, can be TOO LOUD in an indoor setting. It is recommended to apply thin foam or fabric (medical first aid) plaster as deemed necessary by the neighbours in the hall....

Maplestead Mini-Ring

Method Statement

Description

The Mini-Ring and Support Structure comprise the following elements:

- 4 Bell frames on base boards each containing 2 bells
- 1 Upper cruciform with 2 integral support angles
- 1 Lower cruciform
- 2 Outer support angles
- 4 Upper structure elements/legs (“knees”)
- 4 Leg extensions
- Bolt and surface protection. (*tennis balls / hosepipe / tape / concrete slabs / carpet squares*)

Tools required

- 2 x 19mm spanners and/or socket drivers
- 1 x 17mm spanners or socket driver
- (*optional*) 10mm socket driver
- Stepladder – needed for erection and also if bell over-thrown!

Erecting

allow 30-50 minutes...

Two, but ideally three people are required to safely erect the Mini-Ring.

First find a suitable location – this should be a flat area, not necessarily level, with space all round to allow ringers and spectators to move around outside the legs.

Two people should hold together the upper and lower cruciforms and one upper structure element (knee), noting and matching the dimpled match marks 1 – 4 on each element, and bolt together VERY loosely using the longest 19mm bolts and nuts. Washers should be used under both head and nut. Use surface protection under legs as necessary.

Insert remaining upper structure elements (knees), between upper and lower cruciforms, again carefully noting and matching the dimpled match marks, and bolt together VERY loosely as before.

Mount and bolt on outer support angles, one is match marked with a dimple at one end, using the short 17mm bolts. You will need to manipulate the frame to properly locate the studs - now you know why the initial bolting was loosely only! Finally firmly tighten the bolts on the angles only.

Now decide which way the mini-ring should be aligned. As the mini-ring is best seen from afar with the wheels towards arriving spectators I now turn the structure so the angles are aligned away from the entrance, not across. 3-4 people can lift and rotate the structure as necessary.

Raise/tilt up one side of the upper support structure – this needs your strongest person or two! Then one or two assistants insert two adjacent leg extensions, once again noting and matching the dimpled match marks, and bolt firmly to upper structure using the shorter 19mm bolts and nuts.

****Be very careful not to get any fingers trapped between the two leg sections.****

Washers should be used under both head and nut. The leg extensions fit quite snugly so you must get alignment accurate to locate bolts, and check the chamfered leg ends are right way, flat to floor.

Now lift / tilt up the other side of support structure to its full height. Insert and bolt on the last two leg extensions. **** FINGERS!**** Recheck leg alignment and tighten all leg extension .

Now is a good time to move/insert any required floor protection such as concrete pads or carpet tiles under each leg,

Next do a “Shake Test”! Hang on the long angles and/or grasp the legs in turn and see if you can make the frame rock – there’s always an unwanted dip under a leg. Note that the main structure bolts are still only loosely tightened so the frame can still flex a bit. If there is any movement now is the time to pick up the whole frame or rotate the frame on one “good” leg and move it until the frame is absolutely firm on all 4 legs. When all is sat down firmly you can finally fully tighten the 8 main bolts in the centre of the frame. You will probably need a ring spanner as well as a socket to do this.

Now gather your tallest helpers to lift the wooden bell frame pairs and slide them along the angle runners from each end into position: note that the bell frames have similar dimpled match marks on the outer frame ends that match the leg marks below - if correct then upper bolt heads will fit in pockets on frame base.

Next secure each frame securely with the 10mm bolts and nuts (no washers), 2 to each bell frame. These should be tightened to ensure movement of frames on the structure is minimised. Check these during the day and re-tighten as necessary.

Lastly fit head protection (tennis balls!) to exposed threads of main support bolts, and small hosepipe segments to leg bolts secured with gaffer tape, and un-muffle the bells

Blutac posters explaining min-ring to a leg or two.

If you wish to balance or reduce the sound of the bells there are reels of foam tape, fabric tape, and gaffer tape that can be used – try it and see...

Dismantling

allow 25-35 minutes...

Firstly set all bells at backstroke so that the ropes are completely round the wheels with the sallies pressed into the wheels to keep them from getting caught up.

Then muffle each bell with the foam pads.

Then essentially reverse above procedure!

- Remove all protection and posters.
- Unbolt bell frames and slide out. Bag up 10mm bolts and nuts
- Remove one bolt from each leg extension, loosen the other.
- Support one side, remove 2 leg extensions being careful not to drop them on any toes!
- Lower and remove other 2 leg extensions. Bag all bolts with nuts and washers on each.
- Remove side angles, bolts in tool box tray
- Loosen all main bolts.
- Remove each “knee” leg in turn till just one left.
- Now the hardest bit! One person holds top cruciform, another the bottom cruciform, while another removes the last 2 bolts and puts the leg down (toes!) Bag all bolts with nuts and washers on each and put in toolbox.

That’s it!