

Installing an Air/Oxygen Blender into the Viamed Resuscitation Cabinet

The Viamed infant resuscitation cabinet can be supplied with an oxygen-only Tom Thumb resuscitator, model TT490-15, or with an optional air/oxygen blender partnered with a TT480 Tom Thumb resuscitator.

In line with recommendations contained within current resuscitation guidelines, Viamed offer the option to upgrade resuscitation cabinets fitted with oxygen-only Tom Thumb resuscitators to include an air-oxygen blender for greater flexibility.

Cabinets manufactured prior to January 2010 (fig.1) may require replacement Medirail in order to accommodate an air/oxygen blender: these contain 3 sections of mounting rail approximately 24 cm in length, with 2 countersunk holes for mounting onto the cabinet back plate (fig.2).



fig.1 - pre-January 2010 cabinet with TT490-15 and 24 cm rails



fig.2 – 24 cm mounting rail

To accommodate an air/oxygen blender into a pre-January 2010 cabinet, the bottom 2 rails must be replaced with longer versions, 40 cm in length.

Note: for cabinets sold after January 2010, longer rails are pre-installed as standard and replacement is not necessary.

To identify whether replacement rails are required:

Purchase date	Middle and lower rail	Replacement rails required?
Pre Jan 2010	2 fixing points, 24 cm	Yes
Post Jan 2010	3 fixing points, 40 cm	No

The rails are available from Viamed as a kit, complete with mounting bolts, nuts and spacers, using part number 0332057.

The backing plate inside the cabinet has pre-drilled holes to allow the rails to be mounted at various heights. The top rail does not need to be any longer so can remain in the topmost position.

When installing a longer section of rail into the middle position, it should ideally be dropped 1 set of holes below midway to prevent the blender from fouling on the Apgar timer.

The bottom rail should be replaced with a longer section of rail, affixed in the lowest mounting position.

The blender can now be mounted onto the middle rail underneath the Apgar timer with the Tom Thumb to the right of the blender on the same section of rail.



fig.3 - mounting option 1 with the Tom Thumb sited on the middle rail

Note: if the existing Tom Thumb infant resuscitator is a model TT490 version with an integral oxygen hose, it needs to be converted into a TT480 version, which has a tapered inlet connector to connect via oxygen tubing to the blender flowmeter. To allow the Tom Thumb to be sited right up to the blender, Viamed recommends configuring the TT480 with the inlet on the underside of the Tom Thumb (fig.3).

As an alternative option, the Tom Thumb can be mounted onto the bottom rail (fig.4). In this position it is not necessary to reposition the Tom Thumb inlet to the underside, as there is more space available on the bottom rail. The choice may be resolved by consulting with the end-users as to their preference.



fig.4 - mounting option 2 with the Tom Thumb sited on the bottom rail

Regardless of which mounting option is adopted, the storage bins will have to be rearranged to allow the patient circuit to connect to the Tom Thumb. One bin can be moved up to the top shelf, or can be removed if not deemed essential.

If mounting option 1 is adopted but further space saving is desired to allow the Tom Thumb to sit even closer to the blender, this can be achieved with a very minor modification to the air/oxygen blender.

The blender has 2 gas outlets. The outlet on the left hand side of the device delivers flows in the range of 3 to 30 L/min without a bleed: this is the outlet to which the flowmeter should be connected.

The outlet on the right-hand side allows greater accuracy at flow rates of less than 3 L/min, with a continuous bleed. As flow rates of less than 3 L/min are not generally required for infant resuscitation, this outlet can be removed to save space if necessary. If this outlet is removed, a blanking cap needs to be inserted in its place, part number 0332010.



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Options for accomplishing a resuscitation cabinet upgrade

Parts Only

Viamed can supply all of the parts required to upgrade resuscitation cabinets and to convert Tom Thumb resuscitators.

If a Tom Thumb resuscitator requires conversion, medical engineering staff can do this in-house: service manuals are available from Viamed.

Service Visit

Viamed can perform the conversion by way of a service visit from a Viamed engineer. Labour and travelling costs apply.

If you would like a quotation for a service visit, please contact Viamed on 01535 634542.

With return-to-base Tom Thumb conversion

Viamed can supply parts to upgrade resuscitation cabinets but with the conversion of the Tom Thumb resuscitator accomplished by return to Viamed.

Notes



CAUTION

Following the conversion of a TT490-15 to a TT480, the Tom Thumb will require re-calibrating. Service manuals are available and can be provided upon request.

If you would like any further information or advice concerning the upgrading of resuscitation cabinets, please contact Viamed on 01535 634542.

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Appendix 1 - Parts required

Upgrading a Viamed resuscitation cabinet with a TT490 Tom Thumb resuscitator to include a blender requires the following parts:

Qty	Part Number	Description
1	0310200	Low-flow blender, air & oxygen. Includes: Flowmeter 3 m air hose 3 m oxygen hose Flowmeter outlet adapter Mounting bracket (Medirail)
1	0310250	Tom Thumb conversion kit. Parts to convert TT490 series into TT480. Note: Viamed needs to be notified of the serial numbers of any converted units for reasons of traceability under Viamed's quality management system.
1	0330035	Suction clear tubing, 1 m Note: supplied in 1 m lengths, but only approx 30 cm required per system
If required:		
2	0332057	Resuscitation cabinet rail – 40 cm in length Note: only required for cabinets manufactured prior to Jan 2010
1	0380000	Annual service Tom Thumb (return to base) Note: includes modification, service and calibration. Will incur a carriage cost for each return shipment

If the Tom Thumb resuscitator is due for an annual service, this can be done at the same time as the conversion, which will require the following parts:

Qty	Part Number	Description
1	0330213	O-ring, thick
6	0330214	O-ring, thin