

LeBLANC CIH LIGHTING STRUCTURES (Pty) Ltd

Reg No. 2005/002613/07

**Specialists in the design, supply and installation of Towers and Masts for
Broadcasting and Lighting**

Maintenance Procedure for a Midhinge Type Mast

The Lighting Structures Midhinge type mast works on the principle of a hinge point at approximately the midpoint of the height of the mast and the upper section which houses the luminaries is lowered (hinged) to ground level as the lower lid section raises upwards.

The Luminaries are mounted on a cross arm assembly and power to these is supplied via a trailing cable which runs up the inside of the mast.

The mast is fitted with a Distribution board mounted on the inside of back of the base section of the mast and is accessible once the lid section is hinged open as described below.

Lowering (hinging) of the mast is a simple and safe operation provided that the following procedure is followed:

1. Fit the portable hand winch in its position on the mast base and lock into place with the bolt provided on the winch.
2. Attach the loose end of the winch cable to the lug (eye) on the mast lid section allowing a short length of no more than 1,0m of slack cable between the winch and the mast base.
3. Loosen and remove the large nut on the bolt which runs through the mast lid and mast base.
4. Pull the Lid section away from the mast base and begin to unwind the winch cable.
5. Continue to push the lid section upwards releasing cable on the winch at the same time.
6. The lid will reach a point where it will begin to open of its own accord as winch cable is released and this process can continue until the top of the mast is at working level.
7. To return the mast to the upright position, wind in the winch cable which will begin to bring the lid section down.
8. Continue winding in the cable until the lid section is near its closed position and then push the lid section all the way to its natural closed position.
9. Replace and tighten the nut on the locking bolt.

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Safety Measures and Precautions:

The removal of luminaries from the mounting ring must never be done unless the top section of the mast is secured with a rope back to the mast base.

The reason for this being that the mast is counter balanced and removal of luminaries from the top of the mast will effect the balancing and the mast lid will begin to hinge closed.

Should it be necessary to remove any weight from the top of the mast, this weight must be replaced before the rope is removed or any attempt is made to hinge the mast closed.

Do not at any time stand between the mast base and lid section.

Do not at any time during the operation attempt to remove the winch.

Ensure that the cable on the winch and the winch operating mechanism are all in good order before using these.

Place barrier tape around the area of the mast to distance of at least 15m radius from the base and allow only the personnel working on the mast inside the barricaded area.