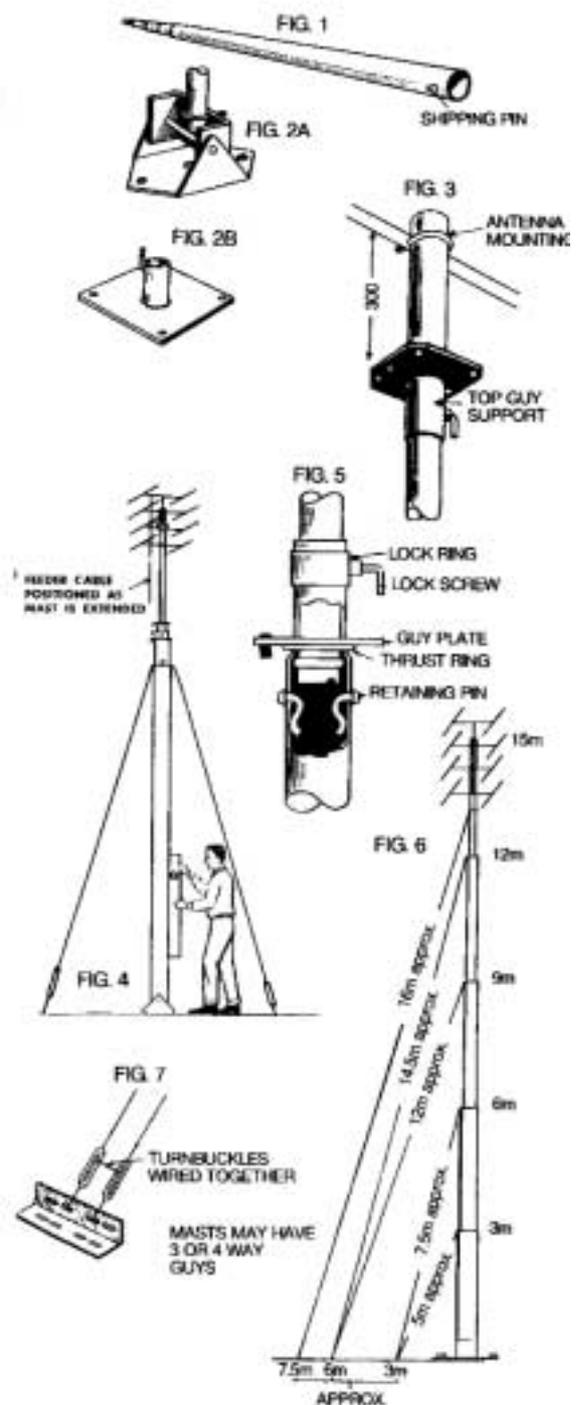


## 6, 9, 12, & 15 metre TELOMASTS

### Installation Instructions

1. Select site: see staying diagram (Fig 6) for space required. Determine location for foot mount and anchor points. Select foot mount; see Fig 2A for adjustable type and Fig 2B for fixed type. Make foundation for mast of concrete or heavy timber.
2. Install foot mount or base plate on foundation. Establish guy wire anchor points and attach turnbuckles to all anchors. Note: to avoid possible over-stressing of the mast, it is important that the guy anchors be located no closer to the mast base than specified in Figure 6.
3. Remove shipping pin (split pin) from bottom of mast and the small screw from the top lock rings. Slide the top guy support and the top guy plate off the mast and replace them in opposite order. Screw the 5/16 BSW lock screws (from the accessory bag) into the lock rings, making sure that the lock screw just protrudes into the top hole in each mast section, except the top section which will have its lock ring tightened about 300mm below antenna position (Fig 3) If required, fit mast straps and standoffs (optional extra) to mast just below each guy plate assembly and tighten making sure that they line up when mast is extended. Install thimbles in guy plates and turnbuckles and attach guy wires with rope grips.
4. Stand mast in foot mount or base plate. Attach bottom set of guy wires to turnbuckles on anchors. Tighten and check for vertical with spirit level (Fig 4).
5. Stand ladder against mast and attach antenna and feeder cable and line up guy plates so that all fittings are facing in the same direction.
6. Extend top section of mast until stop is reached and tighten lock screw to hold it there. Extend next section of mast a few inches until the holes for the retaining pins are visible, clamp with lock screw, and insert retaining pins. Release lock screw holding top section and allow to drop down onto retaining pins, then turn until section engages on the pins (Fig 5). The lock screw may then be retightened for added rigidity. Continue as above until mast is fully extended. Attach guy wires, but do not tighten fully.

Attach feeder cable to TV set. Turn mast until antenna gives best results, then tighten all guy wires evenly, ensuring that the mast remains straight and vertical. Guy Pretension is to be 10% of the specified guy minimum breaking force. For 7/1.25 G380 guying strand, pretension is to be 32 kg. Pretension may be checked by attaching the lifting hook of a suitable spring balance to the lower guy thimble and applying sufficient force to pull the lower guy thimble out of contact with the lower anchor. For added security, wire turnbuckles to each other (Fig 7).



## Telomast Maximum Design Loads

Hills Telomast has been designed to conform to the requirements of the relevant Australian Standards:

- AS 1170.1 1989 SAA Loading Code Part 1: Dead and live loads and load combinations
- AS 1170.2-1989 SAA Loading Code Part 2: Wind loads
- AS 4055-1992 Wind loads for housing
- AS 4100-1990 Steel structures
- AS/NZ 4600-1996 Cold-formed steel structures

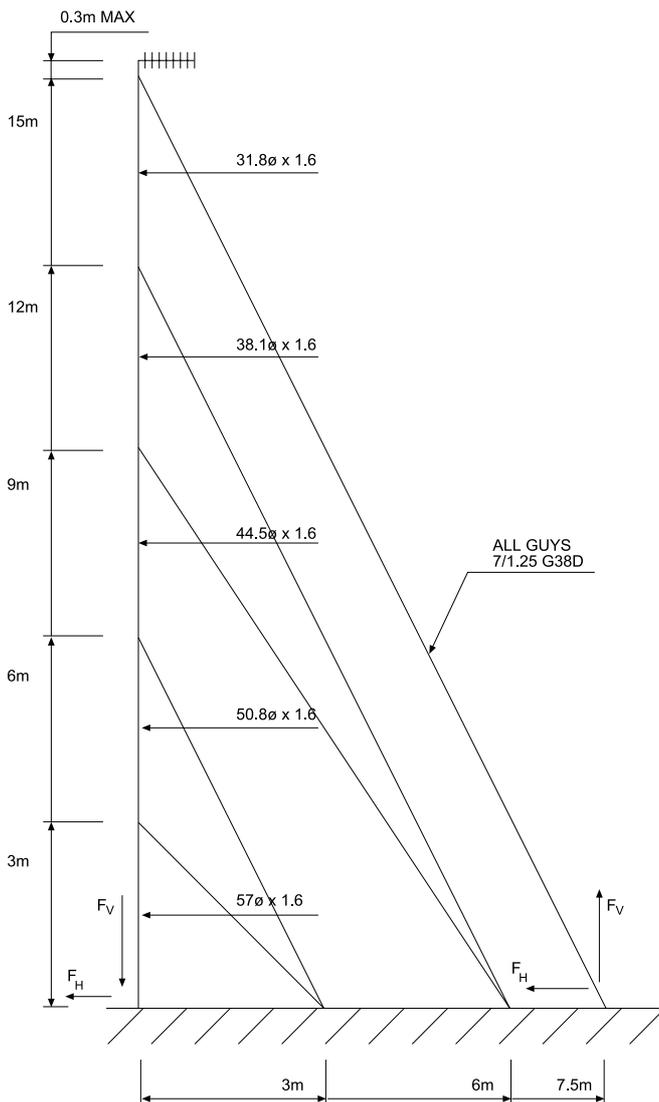
Rationalised gust wind speeds have been used to simplify the determination of the maximum allowable head loads (antenna projected wind area and weight).

Maximum Permissible Head Loading for wind classifications up to W41: Maximum antenna Cd\*Area† 0.30 m<sup>2</sup>  
Maximum antenna weight 15kg

Typical Antenna Head Loadings:

Hills Part#	Antenna	Projected Area	Cd*Area†	Weight
FB601308	CA16 VHF Antenna	0.23m <sup>2</sup>	0.28m <sup>2</sup>	6.2kg
FB603878	TCX34 WB UHF Antenna	0.08m <sup>2</sup>	0.10m <sup>2</sup>	1.8kg
FB605670	PF17 HD VHF/UHF Antenna	0.20m <sup>2</sup>	0.24m <sup>2</sup>	6.5kg
FB606962	REF 25 Microwave Reflector	0.11m <sup>2</sup>	0.14m <sup>2</sup>	3.7kg

† Cd\*Area is the sum of the projected areas of each of the components of the antenna multiplied by a drag force coefficient in accordance with AS1170.2.



Worst case ultimate limit state loads at mast base and guy anchor points resulting from maximum permissible head loading:

Load Direction	At 3m Guy Anchor	At 6m Guy Anchor	At 7.5m Guy Anchor	At Mast Base
FH	1.38 kN	1.08 kN	1.50 kN	0.15 kN
FV	1.92 kN	1.88 kN	2.73 kN	6.24 kN

It is the responsibility of the installer to ensure that any structure to which the Telomast is fixed, as well as the fixing devices, are capable of supporting the design loads. The maximum ultimate limit state loads at the mast base and guy anchor points for the worst case loading situation are shown in the table above. The loadings are applicable to three and four way guying arrangements. Non-standard loading arrangements may be possible. Refer to your nearest Hills branch office.