CAMPBELL SCIENTIFIC®
WHEN MEASUREMENTS MATTER

UT20 and UT30

Instrumentation Towers

Overview

The UT20 and UT30 are corrosion-resistant instrument towers that provide sturdy long-term support for Campbell Scientific's sensors, enclosures, and measurement electronics. The UT20 and UT30 have measurement heights of 6 m (20 ft) and 10 m (30 ft), respectively. The towers include one extendable mast and two cable tie kits. They require a mounting base (B18 or RFM18) and grounding kit (UTGND), and Campbell Scientific recommends guying the towers with the UTGUY Guy Kit.

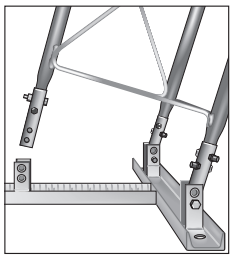
The towers can be used as an instrument mount in a variety of applications. For meteorological applications, they can be augmented with mounts (e.g., CM204 crossarm) that allow attachment of sensors such as wind sets, pyranometers, and temperature/relative humidity probes. Barometers, soil temperature and moisture probes, and rain gages can also be used with a tower-based station.

Ordering Information (see note 1)

Towers	
UT20	Universal 20 ft Instrument Tower & Adjustable Mast
UT30	Universal 30 ft Instrument Tower & Adjustable Mast

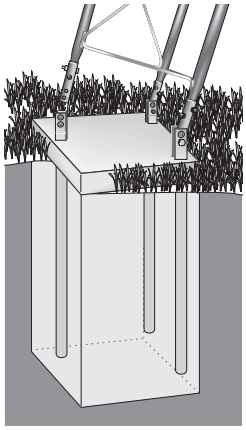
Accessories	
B18	Concrete Mounting Base for UT20 or UT30
RFM18	Flat Roof Mounting Base for UT20 or UT30
UTGUY	Tower Guy Kit (requires either the UTEYE or UTDUK)
UTEYE	Eyebolt Anchors for UTGUY
UTDUK	Duckbill Anchors for UTGUY
UTGND	Tower Grounding Kit

Use the RFM18 to mount the tower on a roof.



The UTDUK's drive bar is used to drive the duckbill guy anchors in the soil.

The three UTEYE guy anchors embed in concrete.



The B18's stakes embed in a concrete pad.

Specifications

	UT20	UT30
Height	6 m (20 ft)	10 m (30 ft)
Shipping Weight	23 kg (50 lb)	29 kg (65 lb)
Material	hardened drawn 6063-T832 aluminum	
Extendable Mast	1.5 m (5 ft) length, 3.175 cm (1.25 in) outer diameter [swagged to 2.5 cm (1 in) OD]	
Vertical Pipe Outer Diameter	2.5 cm (1 in)	
Cross Support Pipe Outer Diameter	0.925 cm (0.375 in)	
Guyed Tower Area Requirements	~3.5 m (11.5 ft) radius	~5 m (17 ft) radius
Required Concrete Foundation Dimensions for B18 Concrete Mounting Base (see note 2)	91 L x 91 W x 122 D cm (36 x 36 x 48 in)	
Maximum Wind Load Recommendations (see note 3)	110 mph (B18 base unguyed); 110 mph (RFM18 base w/UTGUY)	

Notes:
1. See the Crossarms, Solar Radiation Sensor Mounts, Radiation Shields, and General Mounts brochures for mounting options.
2. The concrete foundation requirements assume heavy soil; light, shifting, or sandy soils require a bigger concrete pad.
3. The recommended wind load assumes proper installation, proper anchoring, and total instrument projected area of less than two square feet. For the RFM18 base, the wind load recommendation also assumes that the UTGUY's turnbuckles are preloaded just enough to equalize tension and that the tower is guyed at 60 degree angle relative to the ground (maximum). The amount of wind load that these towers can withstand is affected by quality of anchoring and installation, guy wire tension, soil type, guy angle, and the number, type, and location of instruments fastened to the tower.
4. The UT30 is Universal Towers' model #9-30. A more detailed drawing of this tower is available at www.universaltowers.com.

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