

UT20 and UT30

Instrumentation Towers

The UT20 and UT30 are corrosion-resistant instrumentation towers that provide sturdy long-term support for Campbell Scientific's sensors, enclosures, and measurement electronics. The UT20 and UT30 have a cross-arm measurement height of 20 ft and 30 ft, respectively. The towers include UV-resistant cable ties and require a mounting base (B18 or RFM18) and grounding kit (UTGND). Campbell Scientific recommends guying the towers with our 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.



For this air quality weather station, a UT30 30-ft tower uses the B18 base and UTGUY kit to secure it to the ground. An environmental enclosure, CM206 crossarm, Wind Monitor, and two 43502 Aspirated Radiation Shields are mounted directly to the tower. A 27106T vertical anemometer is mounted to each end of the crossarm.

Ordering Information (see note 1)

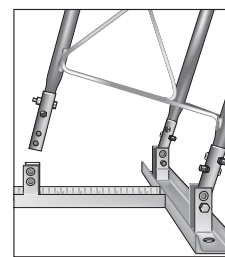
Towers

- UT20** Universal 20 ft Instrument Tower & Adjustable Mast
UT30 Universal 30 ft Instrument Tower & Adjustable Mast

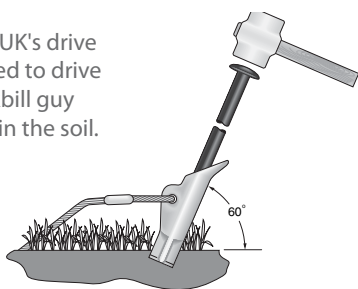
Accessories

- B18** Concrete Mounting Base for UT20 or UT30
RFM16 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

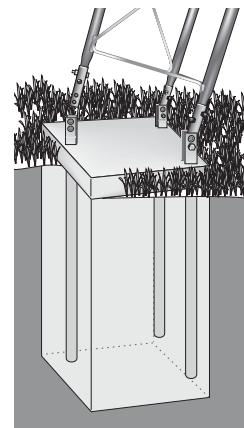
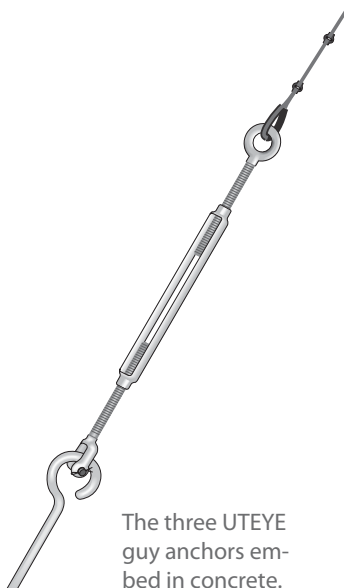
Use the RFM16 to mount the tower on a roof.



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	20 ft (6 m)	30 ft (10 m)
Shipping Weight	50 lbs (23 kg)	65 lbs (29 kg)
Material	hardened drawn 6063-T832 aluminum	hardened drawn 6063-T832 aluminum
Vertical Pipe Outer Diameter	1 in. (2.5 cm)	1 in. (2.5 cm)
Cross Support Pipe Outer Diameter	0.375 in. (0.953 cm)	0.375 in. (0.953 cm)
Guyed Tower Area Requirements	~11.5 ft radius	~17 ft radius
Required Concrete Pad Dimensions for B18 Concrete Mounting Base (see note 2)	36 L x 36 W x 48 D in. (91 x 91 x 122 cm)	36 L x 36 W x 48 D in. (91 x 91 x 122 cm)
Maximum Wind Load Recommendations (see note 3)	110 mph (B18 base unguyed); 110 mph (RFM18 base w/UTGUY)	110 mph (B18 base unguyed); 110 mph (RFM18 base w/UTGUY)

Notes:

1. Refer to the "Instrumentation Mounts" product brochure for crossarm, solar radiation mounts, and radiation shield options.
2. The concrete pad 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.

