



Model

# SG477-B-TPM

Omnidirectional ground independent threaded base collinear

477 MHz

UHF CB Radio

2.1 dBi Gain

## Applications :

1. Replacement for SG477 or ZM09-477 antenna top, or
  2. Mount into any bracket with minimum 12.7 mm (1/2") diameter hole, or
  3. Mount into the 4266 threaded aluminium mast mount adaptor tube (available separately).
- 5 metres RG58 low loss stranded cable.
  - UHF male solder connector supplied, not fitted.
  - 20 watts maximum input power.

## INSTALLATION GUIDE

[www.zcg.com.au](http://www.zcg.com.au)

### ANTENNA DESCRIPTION

Factory tuned for 477 MHz UHF CB radio, the **SG477-B-TPM** can be used to replace a damaged antenna top on our SG477 mobile bull bar mount model with barrel spring, or the ZM09-477 model with folding deck mount base.

This SG477-B-TPM antenna top can also be mounted outdoors at your home or office to improve UHF CB radio transmit and receive performance.

No metal ground plane is necessary for the antenna to operate effectively.

There are two ways to mount this antenna top outdoors...

### TUNING

The antenna has been tuned in the factory for 477 MHz UHF CB Radio (476.4125-477.4125 MHz) all 40/80 channels. VSWR has been optimised to less than 1.5:1.

This tuning cannot be altered.

### Mount Method 1

Bolt the antenna top into any bracket with 12.7 mm (1/2") minimum diameter hole. The stainless steel **GM1 "L" bracket** has 2 drilled holes for securing to any vertical panel.

### Mount Method 2

Order part A-**4266**, the threaded aluminium mast mount adaptor. 150 mm long x 25 mm in diameter.

Screw the antenna top into the mast mount adaptor.

Clamp the adaptor and antenna to a mast or hockey stick bracket.

### SELECTING THE MOUNTING POSITION

To achieve best performance from your antenna, these are the important principles you should consider when selecting the mounting point:

1. **Mount the antenna in as high a place as possible.**
2. **Mount the antenna as far away from other antennas and metallic objects as possible to avoid interference and distortion of the 360° omnidirectional pattern. At least 350 mm side clearance is desirable, preferably more.**
3. **Mount the antenna properly vertical, not at an angle.**

### INSTALLATION TOOLS REQUIRED

- 13mm drill bit for mounting hole of spring base (if required)
- 19mm or 3/4" spanner for base securing
- Cable ties for securing coaxial cable route
- Small cutters for cable tie excess removal
- Amalgamation tape and PVC tape for connector sealing

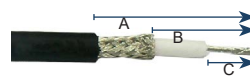
### INSTALLATION GUIDE

**IMPORTANT :** Leave some slack in the cable at the point where the cable exits the mount ferrule so as not to place undue tension on the cable.

Route the RG58 low loss stranded cable carefully. Ensure that the cable is not stretched excessively and there are no sharp kinks. Use cable ties, but do not pull so tight as to crush the cable. A damaged feeder cable is a cause of high VSWR and reduced performance.

We recommend that you cut the cable to the shortest length necessary, prior to fitting the UHF male connector provided.

Carefully strip the end of the coaxial cable as shown in the diagram.



A = 20.0 mm  
B = 15.0 mm  
C = 13.0 mm



1. Fold back the uncovered braid over the outer jacket.
2. Screw the UHF male connector over the braid until tight. Trim any exposed braid.
3. Solder the centre core of the cable to the connector pin. Remove any excess solder.

Attach the connector to your radio. The maximum input power is **20 watts**.

Installation is now complete.