# General fitting guide **Non-penetrating** satellite mounts SAT/5A, SAT/5A60, SAT/5B, SAT5/C & SAT/5E

This guide covers non-penetrating roof mounts SAT/5A, SAT5A60, SAT/5B, SAT/5C and SAT/5E. Note: an additional pair of trays (SAT/5D) may be bolted on to SAT/5C.

#### **General notes**

Some assembly arrangements are shown below. SAT/5A and SAT/5A60 are similar to SAT/5B. Mounts may be bolted down using slots in the bases or may be held in position with standard concrete paving flags (see tables for details).

Note: align special slots in one SAT/5B corner of each frame at centre, to ensure correct assembly. SAT/5E

SAT/5C

	SAT/5A	SAT/5A60	SAT/5B	SAT/5C	SAT/5E
Kit contents	<ul> <li>ø50 mm x 1 metre high mast and channel assembly (weight 11 kg)</li> <li>2-trays 1000 mm x 485 mm (weight 8 kg each)</li> <li>3 x bolts M10 x 100 mm long</li> <li>3 locking nuts M10</li> </ul>	<ul> <li>Ø60 mm x 1 metre high mast and channel assembly</li> <li>(weight 11 kg)</li> <li>2-trays 1000 mm x 485 mm</li> <li>(weight 8 kg each)</li> <li>3 x bolts M10 x 100 mm long</li> <li>3 locking nuts M10</li> </ul>	<ul> <li>Ø75 mm x 1 metre high mast and channel assembly (weight 17 kg)</li> <li>2-trays 1000 mm x 485 mm (weight 8 kg each)</li> <li>3 x bolts M10 x 100 mm long</li> <li>3 locking nuts M10</li> </ul>	<ul> <li>Ø75 mm x 1 metre high mast assembly (weight 11 kg)</li> <li>4-trays 645 mm x 645 mm (weight 5 kg each)</li> <li>4-support arms (total weight 3 kg)</li> <li>12 x bolts M10 x 30 mm long</li> <li>12 locking nuts M10</li> </ul>	ø114 mm x 1.4 metre high mast and channel assembly (weight 41 kg) 4-trays 1000 mm x 485 mm (weight 8 kg each) 3 x bolts M10 x 150 mm long 12 x bolts M10 x 30 mm long 15 locking nuts M10
Overall size	1000 x 1060 x 1045 mm high	1000 x 1060 x 1060 mm high	1000 x 1084 x 1050 mm high	1292 x 1292 x 1052 mm high	1000 x 2095 x 1451 mm high
Total weight (un-ballasted)	27 kg	27 kg	33 kg	34 kg	73 kg
Ballast (if required)	450 x 450 mm paving flags	450 x 450 mm paving flags	450 x 450 mm paving flags	600 x 600 mm paving flags	450 x 450 mm paving flags

Note: sizes and weights are subject to variation. Blake UK Limited reserves the right to change product designs and specifications.



Suitable roof surfaces should be smooth, any gravel or dirt should be removed from soft roof coverings or damage and thus rain ingress may ensue due to weight of mounts. Note that extra paving flags may be used if needed.

## **Bespoke NPR and Bracket Designs**

### Blake UK can now customise NPR Mounts to your specific requirements.

You request the following:

- 1) Specify heights up to 5M.
- 2) Specify dish diameter up to 2M.
- 3) Specify tube diameter up to 5".
- 4) Specify base surface area requirements.

### We provide the calculations:

- 1) Wind loading calculation.
- 2) Turning moment calculation.

### We then design, fabricate and manufacture the product.

# Loading information for SAT/5 series mounts

### Safe loading guide

The following applies with the mount ballasted with four or eight 50 mm thick paving flags of the recommended size (see over).

	Notes	SAT/5A		SAT/5A60		SAT/5B		SAT/5C		SAT/5E		Unit
Number of paving flags		4	8	4	8	4	8	4	8	8	16	
Approximate weight including ballast	1	120	215	120	215	130	220	200	365	265	450	kg
Imposed load on substrate	1 & 2	1.1	2.0	1.1	2.0	1.2	2.0	1.2	2.2	1.2	2.1	kN/m²
Maximum recommended dish size	3	0.6	0.8	0.6	0.8	0.65	0.85	0.8	1.1	0.75	1.0	m
Maximum antenna wind loading	4	300	520	300	520	320	540	480	900	440	750	N
Maximum overturning moment	5	300	520	520	520	320	540	360	1140	640	1100	Nm

### Notes

- 1. Excludes weight of dish or antennas, etc. (this will usually be negligible in comparison with the weight of the mount and ballast). (Assumed density of concrete flags = 2300 kg/m<sup>3</sup>.)
- 2. It is the user's responsibility to ensure that the flat roof or other sub-structure is able to carry the imposed load safely.
- 3. Calculated in accordance with BS EN 60728-11:2005 for a wind pressure of 800 N/m<sup>2</sup> (v = 36 m/s [80mph]) for failure by sliding or toppling (assumed coefficient of friction = 0.5) and including a factor of safety of 2.
- 4. Calculated as Note 3 with factor of safety of 2. For wind loading of particular antennas please refer to the manufacturer's data.
- 5. This applies where the mast is extended upwards to support an antenna (failure by toppling). Factor of safety of 2 included.

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### **Product Failure Protection**

Where the installation may be subject to constant winds or gusts in excess of >36m/s (80mph) at **ANY HEIGHT** then additional safety and security measures will be required. These could include any or a combination of the following:

1) Additional ballast (ensure the structure that the base is mounted on is suitable for the extra mass).

2) Additional trays to increase the footprint of the base. Check the design of the NPRM to select the correct tray size (NB if the footprint is increased significantly, strengtheners may need to be fitted to the base to prevent deformation).

- 3) Additional securing with brace strap(s). Check if there is any structure in the location suitable for bracing purposes.
- 4) Guying to other fixing points, brackets or structures. An ideal minimum would be 3 points evenly spaced around the diameter of the mast.

Note in cases of severe weather conditions, actions should be taken as indicated to prevent the product sliding or toppling and causing damage or risk to life or existing structure. If there is any doubt then a qualified structural engineer must be consulted.

#### Disclaimer

Loading information is given for general guidance only and applies for sites of normal exposure and mounting heights not exceeding 20 metres above the surrounding ground level. For very exposed sites and/or heights above 20 metres, and in all situations where failure could have serious consequences in terms of danger to life or property, a qualified structural engineer should be consulted.

Products are guaranteed against manufacturing defect in accordance with our standard warranty terms. Blake UK Ltd. will accept no liability for consequential loss or damage to property, or for injury arising from the use of these products, however caused.

Further advice may be downloaded from: www.blake-uk.com/downloads on the following:

- reception problems
- fitting coaxial connectors
- distributing TV signals around the home
- general recomendations

Safety

Working at height - carry out work outdoors at height only if you are competent in the use of ladders and related access equipment. Always work safely within your own limitations, ensuring that all equipment used is appropriate and is in good condition. PD2011-8022-02