

MATSING[®]

LENS TECHNOLOGY ENABLED

Antenna Repainting Guide (MatSing Base Station Antenna)



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Revision History:

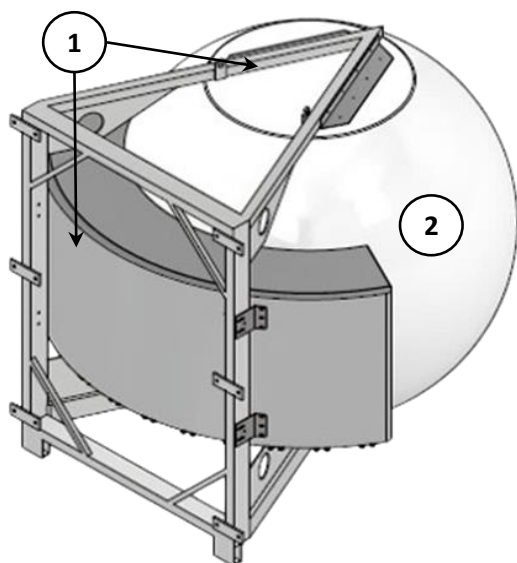
<u>Date</u>	<u>Description</u>	<u>Rev By</u>	<u>Check By</u>	<u>Rev no</u>
03-Apr-2025	Initial Release	RL	Patrick	0

1.00 MatSing Antenna Overview

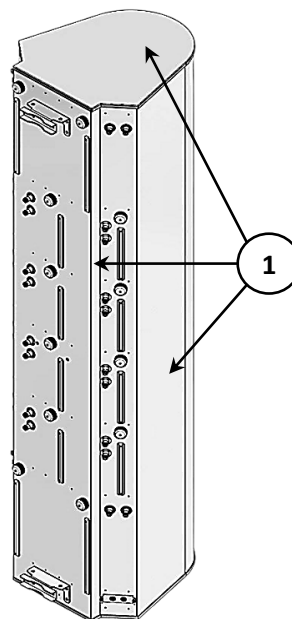
1.10 Antenna Finishing Color

- ① Light Grey ② White

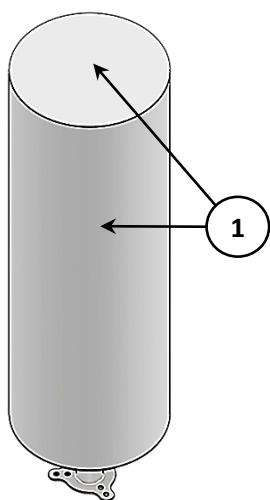
1.20 Large Sphere Antenna



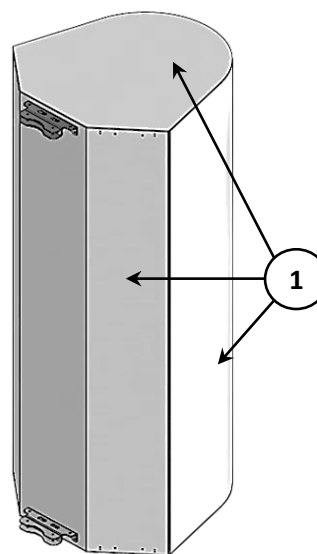
1.30 Multi-Beam Antenna



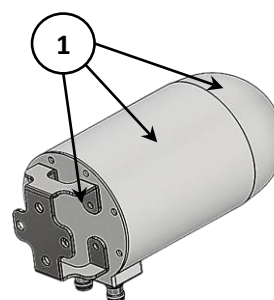
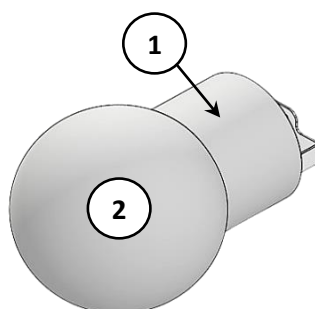
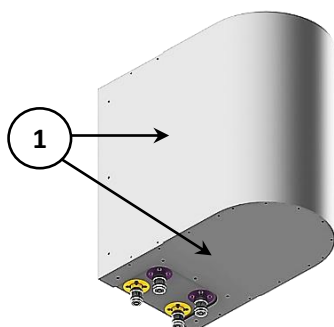
1.40 Light Pole Antenna



1.50 Multi-Beam Cylindrical Antenna



1.60 Single Beam Antenna



2.00 Introduction

This guide outlines the proper procedures for repainting base station antennas while maintaining the MatSing Antenna standard. It ensures that repainting does not affect antenna performance, structural integrity, or compliance certification.

3.00 Safety Precaution

- ⚠ Wear appropriate personal protective equipment (PPE) (gloves, respirator, goggles).
- ⚠ Ensure the work area is well-ventilated.
- ⚠ Avoid using conductive or metallic paint that can interfere with RF performance.
- ⚠ Follow local environmental and disposal regulations for paint materials.

4.00 MatSing Painting Materials and Tools

4.10 Paint Materials

* Paint must be non-metallic and RF-transparent to maintain signal integrity			
Item	Description	Color & Code	Purpose
1	JOTUN PENGUARD HB WHITE A	370001EVA	Base coat
2	JOTUN PENGUARD COMP B	0JXCPBBVA	Base coat mixer
3	JOTUN HARDTOP XP	White 0001	Finishing coat
4	JOTUN HARDTOP XP	Light grey 0967	Finishing coat
5	JOTUN HARDTOP XP, COMP B	0UVCPBAPF	Finishing coat mixer

4.20 Cleaning Material and Tools

Item	Description	Purpose	Item	Description	Purpose
1	Detergent & water	General cleaning & degreasing	4	Fine sand paper	Smooth surface
2	Degreasers		5	Paint brush	Paing touch-up
3	Clean white cloth		6	Paint roller brush	Painting

5.00 Surface Preparation

- ① **Clean** the antenna surface with degreasers or detergent.
- ② **Remove** dust, grease, and contaminants.
- ③ **Sanding** – Lightly sand with fine-grit sandpaper to improve adhesion.
- ④ **Priming** – Apply a "JOTUN PENGUARD HB WHITE A & COMP B if necessary.

6.00 Painting Process

- ① Use **roller brush** or **spray gun** for even coating.
- ② Apply **thin layers** to prevent excess material buildup.
- ③ Allow **proper drying time** between coats. (Refer to manufacturer specs.)
- ④ Ensure **temperature and humidity** conditions comply with paint specifications.

7.00 Color Selection Considerations

- **Dark colors**, especially black, absorb more heat, which can affect the internal temperature of the antenna and potentially impact performance and longevity.
- **Light colors**, such as white or light grey, are recommended as they minimize heat absorption and maintain optimal operating conditions.
- Ensure the selected color **complies with local regulations** and does not affect site visibility or safety.

8.00 Inspection and Quality Control

Inspection Step	Method	Criteria
Visual Check	Manual	No peeling, even coating
RF Test	Dielectric Meter	No signal interference
Adhesion Test	Peel Test	Meets adhesion standards

9.00 Troubleshooting and FAQs

- ① **Issue:** Paint peeling after drying
Solution: Ensure surface preparation was thorough and apply proper primer.
- ② **Issue:** RF interference detected post[painting
Solution: Verify paint composition and remove any conductive material.
- ③ **Issue:** Overheating due to dark paint color
Solution: Use light-colored, heat-resistant paint to reduce thermal absorption.

10.00 Contact Information

For further assistance, please contact:

Website: www.matsing.com

Office Phone: (949) 585-5144

Technical Support: (800) 867-6429

Technical Support: technicalsupport@matsing.com

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