

SERVICE AND MAINTENANCE

Keep your mast performing
in any environment



SERVICE AND MAINTENANCE

SMC masts are known for being the most robust on the market. Every mast manufactured is tested and we only use the highest quality components and latest precision machinery. However, like any quality product engineered to last, proper maintenance will ensure it's continued lifespan year after year.

A poorly maintained mast or antenna can result in degraded performance and can even become a safety hazard. Regular maintenance and servicing can help ensure that your mast is functioning optimally and delivering the best possible performance.

YOUR OPTIONS

Request a Self-service Spares Kit

Our self-service spares kits are designed to give you the freedom to maintain your mast on your own terms.

Each kit comes with easy-to-follow instructions, enabling you to enhance the durability of your mast for many years.

Schedule an In-house Service

Our skilled team can offer on-site maintenance services, providing you with convenience and assurance that your mast is mission ready.

This saves you time and gives peace of mind.

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REQUEST A SERVICE

SMC offer full in-house mast servicing. Alternatively, if you prefer a more hands-on approach, choose our convenient self-service spares kit. We're here to help you find the perfect servicing solution for your needs.

Call our team today or email direct:

+44 (0)23 8024 6200
sales@smcgroupglobal.com

SIX THINGS TO LOOK FOR

At SMC Group, we take pride in manufacturing masts using our heritage skills, top-grade machinery and only the very best materials fit for purpose. Though, like with all systems, it's important to take care of your mast to keep it in optimal condition. Whether you're looking to self-service your mast, or would rather leave it to our specialists to service, here are six things to look out for.



1. Damaged tubes

Check your tubes. One of the primary areas to inspect, the tubes can help to determine the condition of your mast. Look for signs of damage, such as cracks, sheers, dents and corrosion. Damaged tubes can compromise the structural integrity of the mast, leading to potential failures or collapses.

With an SMC in-house service, we always remove and check each individual tube. If any damage is detected, it is crucial to address it promptly by repairing or replacing the affected tubes to maintain the overall strength and stability of the mast. SMC Group can help you with any refurbishment and maintenance. We can provide replacement tubes to you, providing you share with us the serial number and model number.



2. Locking handles and pins

Locking handles and locking pins (dependent on the mast that you have) are vital components that enable easy adjustment and secure positioning of the mast. When servicing the mast, inspect the locking handles/pins for proper functionality. Check if they lock and release smoothly and securely. Any signs of wear, stiffness, or damage should be addressed promptly and replaced. If a collared section fails to lock, you should also replace the locking collar for safety.

Lubrication may be necessary to ensure smooth operation and it's worth noting that bottles of lubrication are included in SMC's self-service kits. Faulty or ineffective locking handles/pins can compromise the stability and safety of the mast, so it is important to keep them in good working condition.

3. Electrical connections

If your mast is equipped with electrical components, inspect the connections for any signs of damage or corrosion. Loose or damaged connections can result in electrical issues or safety hazards. Secure and repair any faulty connections as needed.

4. Collars

Collars play a significant role in securing the mast and preventing unwanted movement. During the servicing process, carefully examine the condition of the collars. Look for signs of wear, cracks and looseness.

Ensure that the collars are securely fastened and properly aligned. If any issues are identified, take necessary measures to tighten or replace the collars, as loose or damaged collars can result in instability or failure of the mast. Refer to your mast manual to ensure that dog points and set screws are installed correctly, as improper installation may pose safety hazards.

5. Guy wires and tensioning

Check the tension of any guy wires your mast may have to ensure proper support and stability of the mast. Adjust and tighten them if necessary to maintain the desired tension.

6. Paint and coatings

Assess the condition of your mast's paint or coatings. Look for areas where the protective layer may be peeling, flaking or showing signs of corrosion.

Address any damaged or compromised areas to prevent further deterioration and maintain the mast's durability. We can respray your mast for you as part of an SMC in-house service.





CHECKING MAST SEALS

To prevent the seals from deforming during long-term storage, make sure to position your mast upright. Carry out air pressure tests every year if the mast is being stored in normal conditions and every quarter if stored in harsher environments.

Performing an air pressure test

To perform, erect the mast with no head load. If fitted **DO NOT** lock the locking collars.

- Connect a pressure gauge and air hose from the air source to the mast. Raise and lower the mast two or three times to ensure smooth operation.
- Use mild soapy water to check for leaks, and ensure the soapy water is drained from the system after testing.
- Pressurise the mast, referring to the mast label for pressure figure, and leave the mast extended at this pressure for ten minutes.
- After this time check the pressure gauge. If the pressure has dropped more than 2psi check the mast for leaks and service or repair as necessary.



Leaking seals

- When the mast has been stored in a horizontal position, the seals may deform slightly and allow air to pass.
- If the mast is placed in colder storage conditions, it is possible for the grease used in manufacturing to harden and prevent the seal lip from touching the tube wall.
- To correct this, stand the mast at a vertical position and inject SMC Super Fluid into the oiler located in each collar, allowing it to drain down inside the tubes.
- Then pull out each section in turn and, with the air release valve closed, thrust the sections downward.
- This forces the lip of the seal back to its original position against the wall of the tube. If the seal continues to leak, contact us about our full service kit options.



THREE TOP TIPS

Regular upkeep can prevent costly repairs and ensure optimal functionality. Here are three key maintenance practices you should implement to ensure your mast performs reliably.

Speak to our experts to learn more about how to keep your mast in optimal condition +44 (0)23 8024 6200 or email direct at sales@smcgroupglobal.com



1. Lubricate your mast

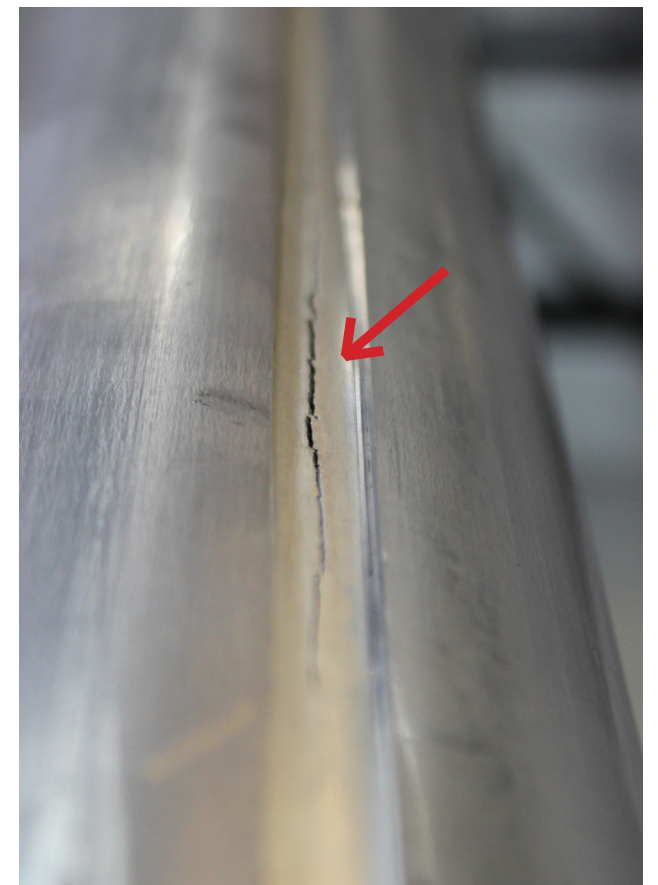
- Only use oils/lubricants recommended by SMC Group. Failure to do so may invalidate the warranty.
- Inspect and lubricate mast sections at four-week intervals or every 200 operations, whichever occurs soonest.
- If the mast has been used in a dusty environment, resulting in a build up of contaminants and/or old lubricant on the surface of the tubes, remove by wiping each section with an oil soaked cloth. Also, drain the contaminated lubrication via the exhaust valve, then reapply 6 to 8oz of fresh Superlube.
- On some SMC masts, you can protect the seals by injecting oil into the spring-loaded Lubrication Points located in each collar. Alternatively, proprietary oil misters may be incorporated within the air supply line. Reference your mast manual for full details.
- During periods of sustained cold and freezing conditions SMC recommends the use of SMC Kilfrost Lubricant. Please note: Kilfrost has a recommended upper operating temperature of 70°C; however be aware that the temperature inside the mast may vary in relation to the ambient environment temperature.
- Periodically oil the locking handle threads if fitted.
- To prevent the build up of water inside the mast when not in use, SMC Group recommends the use of a mast cover as well as leaving the exhaust valve open.



2. Allow water to drain freely

Water expands when it freezes which can cause serious damage to equipment which is housed outside, including pipes. A mast is no different.

Therefore, it is very important during deployment, if your mast is not being extended/retracted on a regular basis or has been deployed in stormy weather, to allow water to drain freely through it via the exhaust valve and refill the system with Kilfrost.



3. Store it correctly

If the mast is not being used and is stored outdoors in cold temperatures, we highly recommend a mast cover to prevent water entering the mast and freezing, as this can result in serious damage to the sections. If you store your mast indoors, we recommend keeping it in a vertical position if possible, so as to avoid deforming the seals.

OPTIMISING MAST PERFORMANCE

To ensure that your mast operates at its best, it's essential to focus on proactive service and maintenance.

We're committed to helping you find the best servicing option for your needs. SMC Group offers full in-house mast servicing, or if you prefer a hands-on approach, choose our convenient self-service spares kit.



1. Proactive repairs and replacements

Address any identified issues promptly. Replace damaged antennas, connectors, or cables to maintain optimal performance quality.

SMC can help you promptly repair or replace any structurally compromised mast components to prevent catastrophic failures.

We do not generally inspect or repair antennas and cables.

2. Contingency planning

Install backup power systems, such as uninterruptible power supplies (UPS) or backup generators, to ensure continued operation during power outages.

Consider implementing redundancy measures such as duplicate antennas or equipment for uninterrupted connectivity.

3. Lightning protection

Consider installing lightning protection systems, such as lightning rods and grounding, and be sure to regularly inspect and maintain these systems to ensure their effectiveness.



4. Regular SMC Service and in-house inspections

Regular maintenance and servicing can help ensure that your mast and antenna are functioning and delivering the best possible performance.

We can support you by sending you a self-service kit, or by arranging an in-house service with our experts.

We also recommend conducting visual checks, equipment testing and structural assessments throughout the year.

You can contact us at any time if you have any questions or concerns and we will be more than happy to help.



5. Work with certified professionals

Our team of specialists in our UK and US facilities can help you identify and address issues accurately and adhere to safety standards, with an inhouse service.

BENEFITS OF PROACTIVE MAST SERVICING

Masts are critical infrastructure which enable reliable wireless communication, broadcasting, data transmission and a whole lot more. These towering structures support antennas and equipment that facilitate our interconnected world.

These may be installed permanently at sports stadiums, for short-term military operations or perhaps something more temporary, such as at adhoc community events.



1. Prevent downtime

A well-maintained mast minimises the risk of outages. Malfunctions due to neglected maintenance, equipment failures, or environmental factors can lead to service disruptions, affecting businesses, emergency services, operations and individuals who rely on them.

Timely servicing helps identify potential points of failure, allowing for proactive repairs or replacements, ultimately reducing downtime, and avoiding the negative impacts of such scenarios.

2. Mitigate environmental risks

Masts are exposed to various environmental factors such as wind, lightning, and extreme temperatures. Although your mast is made from materials to help protect against such factors, failure to annually service your mast can increase its vulnerability.

Regular maintenance, including grounding inspections and weatherproofing, helps mitigate potential damage caused by environmental elements, safeguarding the mast and the equipment it supports.

3. Comply with safety standards

Masts are subject to safety regulations and standards to protect both workers and the public. Neglecting servicing could compromise the structural integrity of the mast, leading to potential collapses or falling objects.

Regular inspections and maintenance activities, including structural assessments, checking for corrosion and verifying anchor points, help ensure compliance with safety standards, minimising the risk of accidents and injuries.



4. Ensure reliable communications

Masts play a pivotal role in providing uninterrupted wireless connectivity. Regular servicing helps identify and address issues that can disrupt communication, such as damaged antennas, faulty connectors, or degraded cables.

By proactively maintaining and repairing these components, you can ensure that users receive consistent and reliable communications. SMC Group can help you with replacement components, servicing and maintenance.

5. Cost-effectiveness and future-proofing

Regular servicing of your mast can save you money in the long run. You've invested in quality craftsmanship, materials and manufacturing, so by annually servicing your mast you can reduce the need for premature product replacement, minimise waste and improve your environmental impact.

When you're proactive, you can identify and address small issues early on to prevent them from escalating into more significant problems that require costly repairs or replacements.



SELF-SERVICE SPARES KITS

All service kits come with all components to do complete rebuilds of the systems. This includes a complete set of dampers, PTFE, pan head, retaining screws, keyway guides, complete set of seals, as well as a sample of high quality Super Fluid lubricant and winter Kilfrost.

HD Service Kit

NY Service Kit

NH Service Kit

SWIFT Service Kit

NK Service Kit

UL9 Service Kit

NL Service Kit

NX25 Service Kit

NX Service Kit



FREQUENTLY ASKED QUESTIONS

SMC Group understand the importance of reliable communication and are committed to ensuring that your mast performs at its best year-round.

Whether you're looking to schedule routine maintenance, understand our service offerings, or ensure your equipment is prepared for harsh weather, we've compiled answers to some of the most common questions regarding the care, inspection and upkeep of your mast.



How often should I service my mast?

To keep your mast in peak condition, we recommend a service every 12 months or every 200 operations, whichever is soonest. This routine maintenance ensures that your mast remains safe, strong and reliable through regular wear and seasonal changes.

By scheduling a regular mast service, you can extend the lifespan of your mast, enhance safety, and minimise the risk of unexpected failures.



When should I service my mast?

We recommend preventative maintenance before harsh weather. Cold temperatures, ice and snow can exacerbate corrosion, loosen components, and weaken guy wires so it is best to address these in advance to prevent costly problems from worsening.

Do you offer different servicing options?

Yes, we offer a variety of servicing options to meet your specific needs and applications. Whether you require a basic maintenance inspection or a comprehensive service package, we can tailor a servicing plan to suit your requirements and ensure optimal performance and reliability. Let us know what you're looking for, and we can customise a plan just for you.

How does weather and environment impact my mast's maintenance needs?

Servicing frequency depends on factors like climate and usage. Salt water, dust, and sand can cause dry, sticky sections, so more frequent servicing is recommended in these conditions. We recommend at least one annual service.

Does servicing and maintenance affect my warranty?

Yes, your warranty is valid subject to an SMC Group service plan and terms and conditions.

Full inspection of masts to assess any damage before servicing. Any damage will be reported back to you with a quote. This needs to be approved before any extra work commences. An extended warranty will only be issued subject to your mast meeting SMC Group specifications.



How can I arrange mast service if I'm based in the U.S?

If you are based in the United States, servicing your mast remains fully supported through SMC Global. We have partnered with Compass Security Solutions, a U.S.-based company fully equipped to carry out all servicing and warranty work on SMC and Hilomast masts, both in the field and at their Georgia facility.

All service enquiries and arrangements continue to be managed directly through SMC, ensuring a seamless and well-coordinated customer experience. For assistance, please contact us at sales@smcgroupglobal.com



DEPLOY

ANYWHERE



SMC
Ultralock

Stand Tall, Stand Stable, Stand Strong
in all Environments

ABOUT US

Established in 1958, SMC Group is a manufacturer of specialist mast systems, HF antennas and RF communications equipment built to perform in any environment, tactical or commercial.

With manufacturing facilities both in the UK, SMC Group offers a seamless end-to-end process from initial design to deployment. We are trusted by defence forces, emergency services and security companies globally.

We are proud to have pledged to the Armed Forces Covenant in the UK.

Why choose SMC Group?

For more than 65 years, our heritage has been the foundation of our commitment to delivering exceptional value and building lasting trust with our clients.

Our reputation is built and upheld through:

- Knowledge and expertise
- High quality manufacturing
- On-time and in-full delivery

You can rely on SMC Group for dependable problem-solving, long-term cost efficiency and scalable production solutions no matter the size of your project.

Our Key Principles

At SMC Group, our key principles define our culture and how we work with you.

1. Professional Maturity
2. Togetherness
3. Transparency
4. Accountability

We promise to work with our clients in a way that reflects these values.

In return, we expect our clients to advocate these principles, ensuring a strong working partnership.

CONTACT US

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✓ ISO 9001 QMS

✓ ISO 27001 ISMS

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