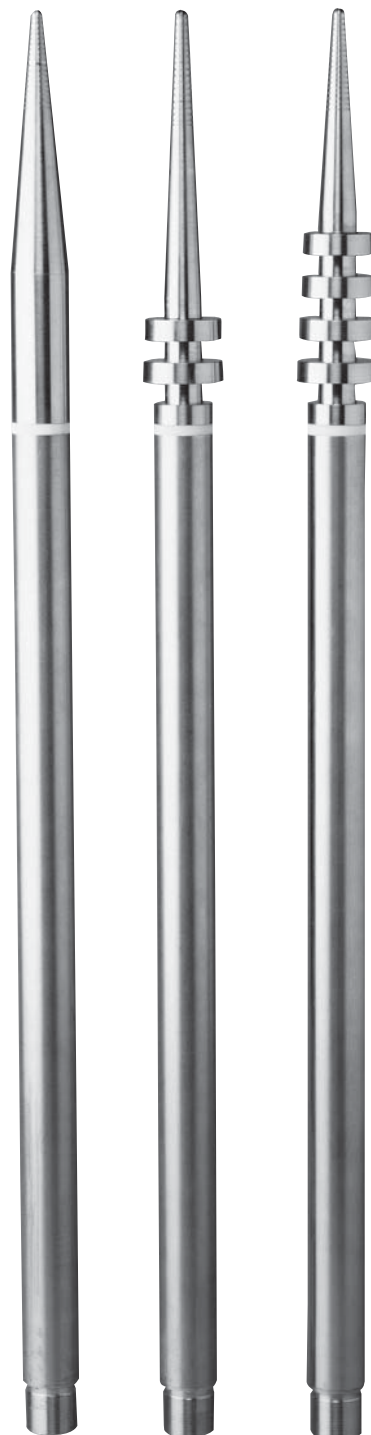


ERICO® SYSTEM 1000

Instruction Manual



ERICO®

Installation Guidelines

This manual is a guide to the installation, operation and maintenance of the ERICO® SYSTEM 1000 Lightning Protection System. It assumes that the system to be installed has been designed by an authorized ERICO representative. The system design will include:

- Grounding systems design – a configuration should be designed as a result of soil resistivity analysis.
- Downconductor routes - chosen to avoid other services, maintain minimum bending radii of 20 cm (8 inches) or greater and minimize down conductor run length.
- Downconductor securing requirements.
- LPSD - CAD analysis design software which determines terminal placement, mast & height requirements as well as protection level calculation.

All of the above are recommended for a successful installation. If there is any doubt about any of the points mentioned, please contact ERICO or its nearest representative for clarification.

For additional details on installing your ERICO SYSTEM 1000, please refer to ERICO's technical notes and the French standard NFC17-102. It is also recommended to adhere to local standards for relevant local downconductor and grounding requirements.



Warning - Do not attempt to install the ERICO SYSTEM 1000 during periods of lightning activity.

Maintenance

It is essential that the ERICO SYSTEM 1000 Lightning Protection System be regularly maintained. Maintenance should be undertaken after each known strike to the ERICO SYSTEM 1000 or at least once per year or if any changes or additions have been made to the structure.



Do not attempt maintenance during potential lightning activity.

Maintenance should be undertaken as follows:

1. Check that the building is the same physical shape and that no additional structures such as antennae, advertising signs, satellite dishes, building maintenance units or similar have been installed within 2 m (80 in.) height of the ERICO SYSTEM 1000.
2. Inspect the ERICO SYSTEM 1000 terminal to ensure that it is not dented or physically damaged in any way.
3. Inspect the finial tip on top of the ERICO SYSTEM 1000 to ensure that it is not excessively burnt, deformed or missing.
4. Check that the mast is securely attached to the structure. Check that the guys are secure and undamaged. Replace if necessary. Check that all fastenings are secure and tight.
5. Look for signs of damage to the downconductor (whether by lightning, careless handling, vandalism or other causes).
6. Check that the Lightning Event Counter is secured and if the display is registering a reading, then record the reading and date.
7. Ensure the grounding resistance is less than 10 ohms.
8. Check the continuity of all bonding conductors.

WARNING

1. ERICO products shall be installed and used only as indicated in ERICO product instruction sheets and training materials. Instruction sheets are available at www.erico.com and from your ERICO customer service representative.
2. ERICO products must never be used for a purpose other than the purpose for which they were designed or in a manner that exceeds specified load ratings.
3. All instructions must be completely followed to ensure proper and safe installation and performance.
4. Improper installation, misuse, misapplication or other failure to completely follow ERICO's instructions and warnings may cause product malfunction, property damage, serious bodily injury and death.

SAFETY INSTRUCTIONS: All governing codes and regulations and those required by the job site must be observed. Always use appropriate safety equipment such as eye protection, hard hat, and gloves as appropriate to the application.

Installation

The recommended order of installation is as follows:

1. Full installation of the grounding system.
2. Full installation of the downconductor(s).
3. Termination of the downconductor(s) to the grounding system.
4. Terminate the top of the downconductor(s) to the ERICO SYSTEM 1000 mast.
5. Attach the terminal to the top of the mast.
6. Raise the mast into position and secure.
7. The ERICO SYSTEM 1000 must be at least two meters higher than any point on the structure it is intended to protect.
8. The resistance of the lightning protection grounding system must be less than 10 ohms. This should be measured without downconductor(s) connected and without interconnection to other grounding systems.

Operation

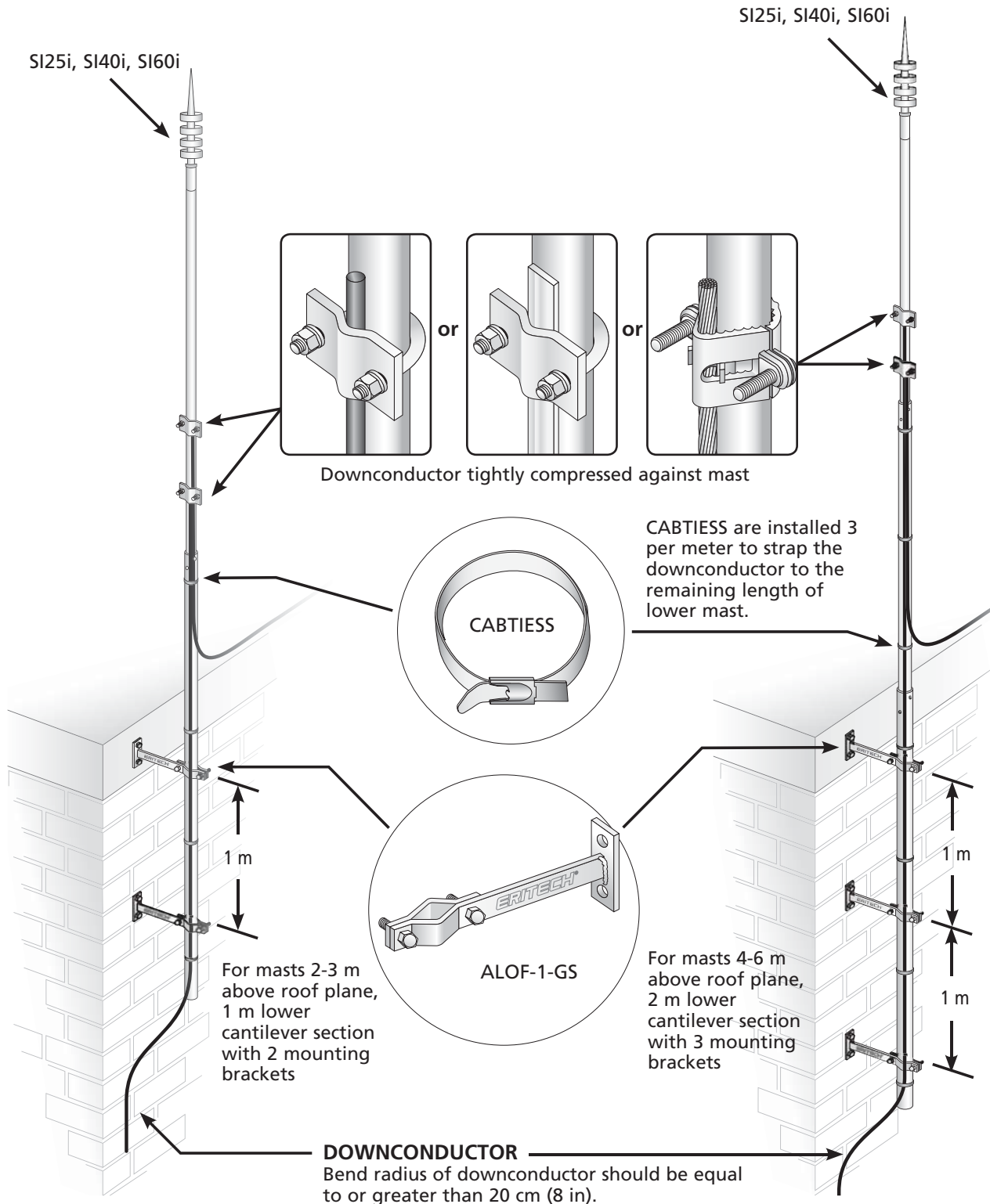
The ERICO SYSTEM 1000 lightning protection system requires no user operation: it is completely automatic in operation.

1. The ERICO SYSTEM 1000 becomes active only during storm activity.
2. The system does not require any external power requirements or replacement components for normal operation.



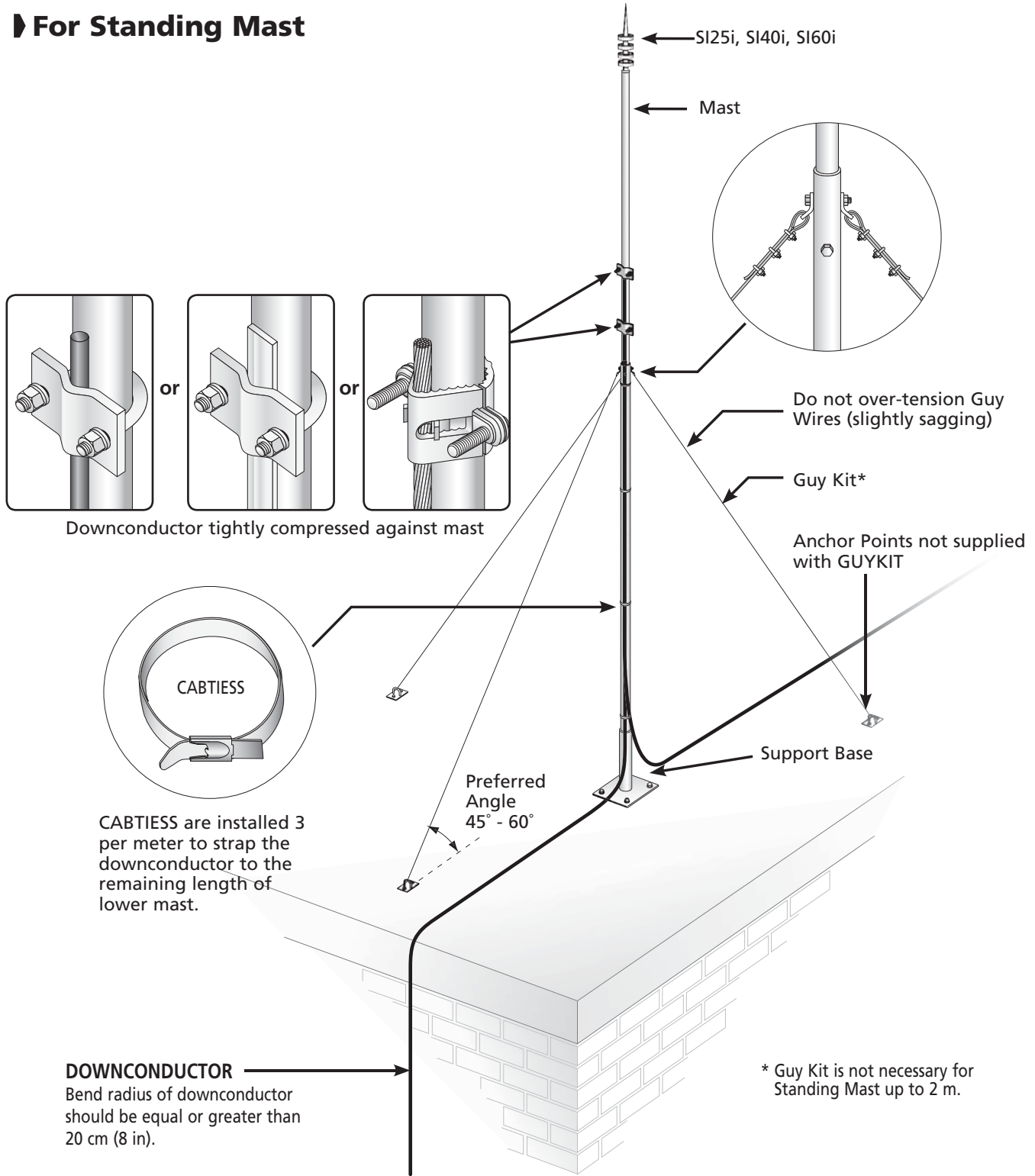
Typical MAST Installation Arrangement

► For Cantilevered Mast



Typical MAST Installation Arrangement

► For Standing Mast



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