

# Antenna Installation and Lightning Protection

*TimeSource 3500 and TimeSource 3600*



INSTALLATION NOTE

# Antenna Installation and Lightning Protection

## TimeSource 3500 and TimeSource 3600

### Introduction

Symmetricom's TimeSource® 3500 and TimeSource 3600 standard wall antenna kits do not include lightning protectors. When the antenna is installed on the side of the building, the antenna is in the zone of protection and is protected from lightning strikes as described in the Standard for the Installation of Lightning Protection Systems (NFPA 780), 2000 Edition.

### Rolling Sphere Model Zone of Protection

The zone of protection shall include the space not intruded by a rolling sphere having a radius of 150ft (46m). Where the sphere is tangent to earth and resting against a strike termination device, all space in the vertical plane between the two points of contact and under the sphere shall be considered to be in the zone of protection. A zone of protection shall also be formed where such a sphere is resting on two or more strike termination devices and shall include the space between those devices (see Figure 1). All possible placements of the sphere shall be considered when determining the zone of protection using the rolling sphere model.

For structure heights exceeding 150ft (46m) above earth or above a lower strike termination device, the zone of protection shall be considered to be the space in the vertical plane between the points of contact and under the sphere where the sphere is resting against a vertical surface of the structure and the lower strike termination device or earth. The zone of protection shall be limited

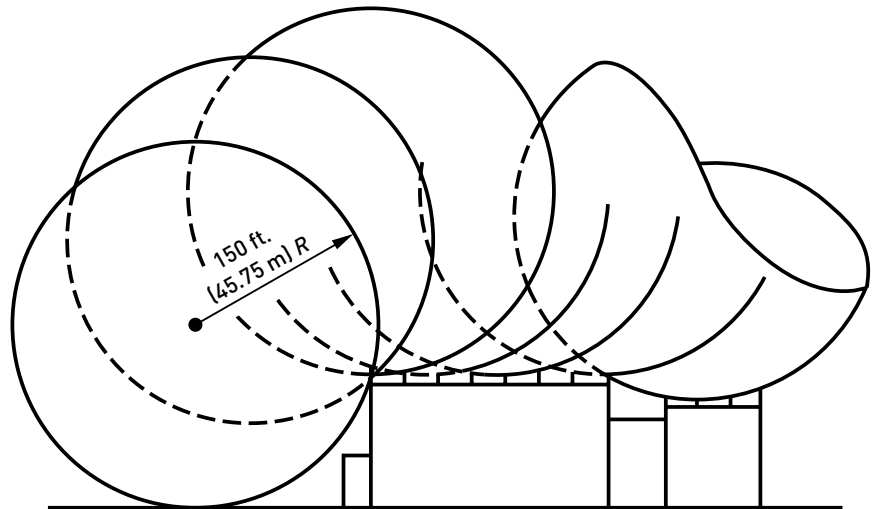


FIG.1 Zone of protection

to the space above the horizontal plane of the lowest terminal unless it can be extended by further analysis, such as in rolling the sphere to be tangent to earth.

If the wall antenna is installed outside the zone of protection, Symmetricom offers a lightning protector kit for these installations. The kit part number is 093-72050-94 and includes the following:

1. Lightning protector
2. Mounting bracket
3. Two ft. RG 59 cable

### Reference

1. Standard for the Installation of Lightning Protection Systems (NFPA 780), 2000 Edition



**SYMMETRICOM, INC.**  
2300 Orchard Parkway  
San Jose, California  
95131-1017  
tel : 408.433.0910  
fax : 408.428.7896  
info@symmetricom.com  
www.symmetricom.com