



Before mounting an antenna, see **Safety Information**. For complete safety, regulatory, and other product marking information, see the user manual for your ETS-Lindgren antenna.

Safety Information



ONLY QUALIFIED PERSONNEL should install, operate, or service this equipment.

CONTACT ETS-LINDGREN PRIOR TO SERVICING. Servicing (or modifying) the unit by yourself may void your warranty. If you attempt to service the unit by yourself, disconnect all electrical power before starting. There are voltages at many points in the instrument that could, if contacted, cause personal injury. Only trained service personnel should perform adjustments and/or service procedures upon this instrument. Capacitors inside this instrument may still be CHARGED even when instrument is disconnected from its power source.

Warranty Information

For complete warranty information, see the user manual for your ETS-Lindgren antenna.

This guide describes the hardware required to mount your ETS-Lindgren antenna to a tripod, mast, or boom. These antennas and mount destinations are included:

Antenna Type

BiConiLog™ Antennas – 3140B, 3149, 3142C

Biconical Antennas – 3109, 3104C, 3110B, 3110C

Log Periodic Antennas – 3144, 3148, 3148B

Double-Ridged Waveguide Horns – 3106, 3115, 3116, 3117

3164 Series Horns – Quad-Ridge Horns, Dual-Polarized Horns

Pyramidal Horn Antennas – 3160 Series, 3161 Series

Dipoles – 3121C, 3121D

Loop Antennas and Rod Antennas

Conical Log Spirals – 3101, 3102, 3103

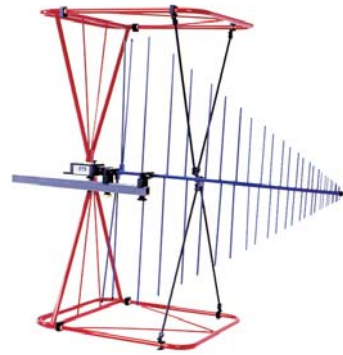
Mount Destination

- **Model 7-TR Tripod Positioner** – includes 109042, 106328, 108197, and 108507 booms:
 - **109042** – straight; for general antenna mounting on a 7-TR
 - **106328** – offset; for general antenna mounting on a 7-TR with pneumatic or manual polarization
 - **108197** – center rotate; for rear-mount stinger-type antennas only
 - **108507** – for the 3106 only
- **Mast** – 2070 Series, 2075, and 2175 Antenna Towers
- **2x2 Boom** – typical 2-inch by 2-inch boom; non-ETS-Lindgren and previous generation EMCO positioning systems


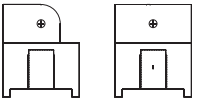
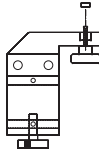

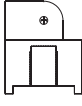


BiConiLog™ Antennas

3140B



+

4-TR	7-TR, Mast	2x2 Boom
<p><i>Do not mount to a 4-TR.</i></p>	<p>104136 Boom Antenna Mount Knob (2) OR 104169 Boom Antenna Mount Knob (2)</p>  <p>+</p> <p>100989 Polarizing Antenna Adapter OR 106470 Non-Polarizing Antenna Adapter</p> 	<p>101913 Fixed Antenna Mount</p>  <p>+</p> <p>105861B Thread Insert (2)</p>  <p>+</p> <p>100989 Polarizing Antenna Adapter OR 106470 Non-Polarizing Antenna Adapter</p> 

Stinger Mounts

- **4-TR:** Do not mount to a 4-TR
- **7-TR:** Mounts directly to a 7-TR without additional hardware
- **Mast:** Additional hardware required to mount to a mast



Standard Parts

- Antennas shown here ship with these antenna adapters:
- 105861B Thread Insert (3140B ships with two)
 - 100989 Polarizing Antenna Adapter (3140B ships with two)

Notes

- **7-TR** refers to 109042, 106328, and 108197 booms:
 - **109042** – straight; for general antenna mounting on a 7-TR
 - **106328** – offset; for general antenna mounting on a 7-TR with pneumatic or manual polarization
 - **108197** – center rotate; for rear-mount stinger-type antennas only
- **Mast** refers to 2070 Series, 2075, and 2175 Antenna Towers
- **2x2 Boom** refers to a typical 2-inch by 2-inch boom; non-ETS-Lindgren and previous generation EMCO positioning systems

3149, 3142C

3149

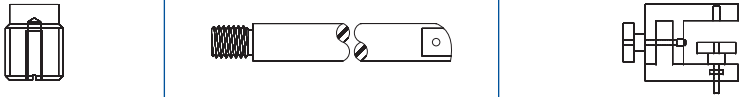
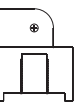
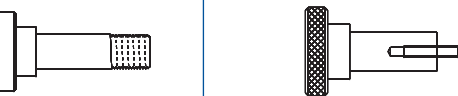

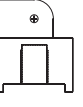
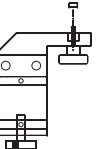

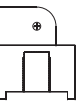
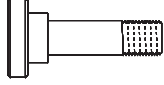
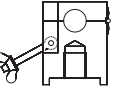


Stinger mounts to 7-TR or mast

3142C



+

4-TR	7-TR, Mast	2x2 Boom	Other
<p>105861B Thread Insert OR 101950 Support Rod OR 102308 Swivel Antenna Mount</p>  <p>+</p> <p>100989 Polarizing Antenna Adapter</p> 	<p>104136 Boom Antenna Mount Knob OR 104169 Boom Antenna Mount Knob</p>  <p>+</p> <p>105861B Thread Insert</p>  <p>+</p> <p>100989 Polarizing Antenna Adapter OR 106470 Non-Polarizing Antenna Adapter</p> 	<p>101913 Fixed Antenna Mount</p>  <p>+</p> <p>105861B Thread Insert</p>  <p>+</p> <p>100989 Polarizing Antenna Adapter OR 106470 Non-Polarizing Antenna Adapter</p> 	<p>To use the stinger with a non-stinger mount:</p> <p>BiConiLog Antenna with stinger mount</p> <p>+</p> <p>104136 Boom Antenna Mount Knob (2)</p>  <p>+</p> <p>102108 Clamp Block (2)</p> 

The 3149 can mount directly to a 4-TR. Use of a 102308 Swivel Antenna Mount simplifies polarization, and is optional.

Biconical Antennas

3109



+

4-TR

102308 Swivel Antenna Mount

Can mount directly to a 4-TR. Use of a 102308 Swivel Antenna Mount simplifies polarization, and is optional.

7-TR, Mast

104169 Boom Antenna Mount Knob

2x2 Boom

106102 Universal Antenna Mount

+

104136 Boom Antenna Mount Knob

Stinger Mounts

- **4-TR:** Do not mount to a 4-TR
- **7-TR:** Mounts directly to a 7-TR without additional hardware
- **Mast:** Additional hardware required to mount to a mast



Standard Parts

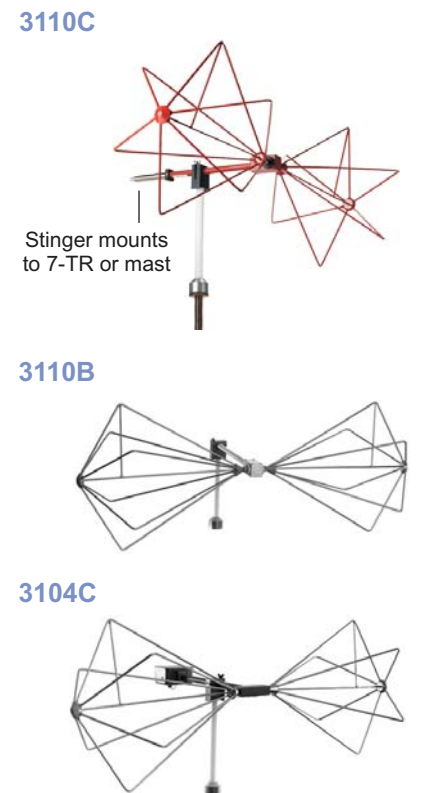
3110C, 3110B, and 3104C antennas ship with these antenna adapters:

- 100733 Support Rod
- 101942B Support Base
- 102108 Clamp Block

Notes

- **7-TR** refers to 109042, 106328, and 108197 booms:
 - **109042** – straight; for general antenna mounting on a 7-TR
 - **106328** – offset; for general antenna mounting on a 7-TR with pneumatic or manual polarization
 - **108197** – center rotate; for rear-mount stinger-type antennas only
- **Mast** refers to 2070 Series, 2075, and 2175 Antenna Towers
- **2x2 Boom** refers to a typical 2-inch by 2-inch boom; non-ETS-Lindgren and previous generation EMCO positioning systems

3110C, 3110B, 3104C



4-TR

100733 Support Rod

+

101942B Support Base

+

102108 Clamp Block

OR

102308 Swivel Antenna Mount

+

102108 Clamp Block

OR

105861B Thread Insert

+

102108 Clamp Block

Can mount directly to a 4-TR. Use of a 102308 Swivel Antenna Mount simplifies polarization, and is optional.

7-TR, Mast

104169 Boom Antenna Mount Knob

+

105861B Thread Insert

+

102108 Clamp Block

OR

106102 Universal Antenna Mount

+

104136 Boom Antenna Mount Knob

2x2 Boom

101913 Fixed Antenna Mount

+

105861B Thread Insert

+

102108 Clamp Block

OR

101937 Swivel Antenna Mount

+

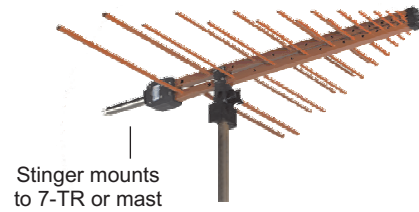
105861B Thread Insert

+

102108 Clamp Block

Log Periodic Antennas



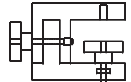



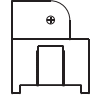
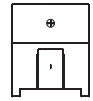
3148B



3148, 3144

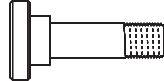
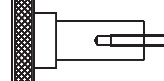
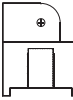
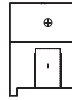

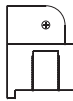
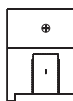


4-TR

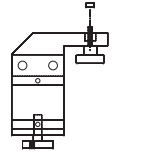
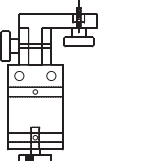


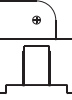
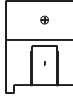
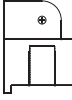
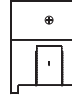
<p>105861B Thread Insert</p> 	OR	<p>101950 Support Rod</p> 	OR	<p>102308 Swivel Antenna Mount</p> 
+		+		+
<p>100989 Polarizing Antenna Adapter</p> 		<p>101942B Support Base</p> 		<p>105861B Thread Insert</p> 
				+
				<p>100989 Polarizing Antenna Adapter OR 106470 Non-Polarizing Antenna Adapter</p>  

Can mount directly to a 4-TR. Use of a 102308 Swivel Antenna Mount simplifies polarization, and is optional.


7-TR, Mast

<p>104136 Boom Antenna Mount Knob</p> 	OR	<p>104169 Boom Antenna Mount Knob</p> 
+		+
<p>100989 Polarizing Antenna Adapter OR 106470 Non-Polarizing Antenna Adapter</p>  		<p>105861B Thread Insert</p> 
		+
		<p>100989 Polarizing Antenna Adapter OR 106470 Non-Polarizing Antenna Adapter</p>  

2x2 Boom

<p>101913 Fixed Antenna Mount</p> 	OR	<p>101937 Swivel Antenna Mount</p> 
+		+
<p>105861B Thread Insert</p> 		<p>105861B Thread Insert</p> 
+		+
<p>100989 Polarizing Antenna Adapter OR 106470 Non-Polarizing Antenna Adapter</p>  		<p>100989 Polarizing Antenna Adapter OR 106470 Non-Polarizing Antenna Adapter</p>  

Stinger Mounts

- **4-TR:** Do not mount to a 4-TR
 - **7-TR:** Mounts directly to a 7-TR without additional hardware
- 
- **Mast:** Additional hardware required to mount to a mast

Standard Parts

Antennas shown here ship with these antenna adapters:

- 105861B Thread Insert
- 100989 Polarizing Antenna Adapter

Notes

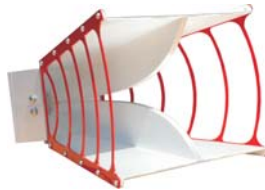
- **7-TR** refers to 109042, 106328, and 108197 booms:
 - **109042** – straight; for general antenna mounting on a 7-TR
 - **106328** – offset; for general antenna mounting on a 7-TR with pneumatic or manual polarization
 - **108197** – center rotate; for rear-mount stinger-type antennas only
- **Mast** refers to 2070 Series, 2075, and 2175 Antenna Towers
- **2x2 Boom** refers to a typical 2-inch by 2-inch boom; non-ETS-Lindgren and previous generation EMCO positioning systems

Double-Ridged Waveguide Horns

3106



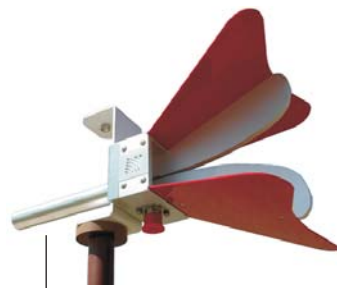
3115



3116

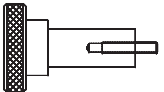
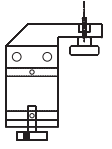
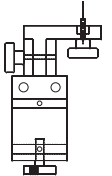


3117




Stinger mounts to 7-TR or mast

+

4-TR	7-TR, Mast	2x2 Boom	
<p>The 3115, 3116, and 3117 mount directly to a 4-TR. Mounting hardware is included; no additional hardware required.</p> <p>Do not mount the 3106 to a 4-TR.</p>	<p>104169 Boom Antenna Mount Knob</p> 	<p>101913 Fixed Antenna Mount</p> 	<p>OR</p> <p>101937 Swivel Antenna Mount</p> 

Stinger Mounts

- **4-TR:** Do not mount to a 4-TR
 - **7-TR:** Mounts directly to a 7-TR without additional hardware
- 
- **Mast:** Additional hardware required to mount to a mast

Notes

- **7-TR** refers to 109042, 106328, and 108197 booms:
 - **109042** – straight; for general antenna mounting on a 7-TR
 - **106328** – offset; for general antenna mounting on a 7-TR with pneumatic or manual polarization
 - **108197** – center rotate; for rear-mount stinger-type antennas only
- **Mast** refers to 2070 Series, 2075, and 2175 Antenna Towers
- **2x2 Boom** refers to a typical 2-inch by 2-inch boom; non-ETS-Lindgren and previous generation EMCO positioning systems

3164 Series Horns

Quad-Ridge Horns
3164-05, -06, -07, -08



+

4-TR

Do not mount 3164-06, -07, or -08 antennas to a 4-TR.

See About 3164 Mounts.

7-TR, Mast

106974 or 112859 Mount OR 106974 or 112859 Mount

+

104136 Boom Antenna Mount Knob

+

105861B Thread Insert

See About 3164 Mounts.

2x2 Boom

106974 or 112859 Mount

+

101913 Fixed Antenna Mount

+

105861B Thread Insert

See About 3164 Mounts.

About 3164 Mounts

- **3164-05**—ships with mounting hardware; no additional hardware required to mount to 4-TR, 7-TR, mast, or 2x2 boom
- **106974 Mount**—only for 3164-03, -04, -06, and -07
- **112859 Mount**—only for 3164-08

Notes

- **7-TR** refers to 109042, 106328, and 108197 booms:
 - **109042** – straight; for general antenna mounting on a 7-TR
 - **106328** – offset; for general antenna mounting on a 7-TR with pneumatic or manual polarization
 - **108197** – center rotate; for rear-mount stinger-type antennas only
- **Mast** refers to 2070 Series, 2075, and 2175 Antenna Towers
- **2x2 Boom** refers to a typical 2-inch by 2-inch boom; non-ETS-Lindgren and previous generation EMCO positioning systems

Standard Parts

- **105861B Thread Insert**—ships with 3164-08
- **106974 Mount**—ships with 3164-06 and 3164-07

Dual-Polarized Horns
3164-03, -04



+

4-TR

106974 Mount

+

105861B Thread Insert

7-TR, Mast

106974 Mount

+

104136 Boom Antenna Mount Knob

2x2 Boom

106974 Mount

+

101913 Fixed Antenna Mount

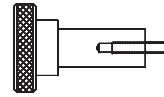
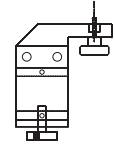
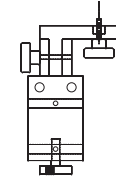
+

105861B Thread Insert

Pyramidal Horn Antennas

3160 Series, 3161 Series



4-TR	7-TR, Mast	2x2 Boom	
<p>Pyramidal horn antennas mount directly to a 4-TR; no additional hardware required.</p> <p>Do not mount 3160-01, 3160-02, and 3161-01 antennas to a 4-TR.</p> <p>See About 3160 Mounts.</p>	<p>104169 Boom Antenna Mount Knob</p>  <p>See About 3160 Mounts.</p>	<p>101913 Fixed Antenna Mount</p> 	<p>OR</p> <p>101937 Swivel Antenna Mount</p>  <p>See About 3160 Mounts.</p>

About 3160 Mounts

- **3160-09** and **3160-10**—ship with a supplemental mount that may be used with the 4-TR, 7-TR, mast and 2x2 boom

Notes

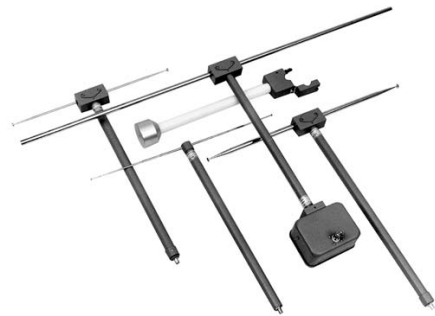
- **4-TR**: Do not mount large pyramidal horn antennas to a 4-TR.
- **7-TR** refers to 109042, 106328, and 108197 booms:
 - **109042** – straight; for general antenna mounting on a 7-TR
 - **106328** – offset; for general antenna mounting on a 7-TR with pneumatic or manual polarization
 - **108197** – center rotate; for rear-mount stinger-type antennas only
- **Mast** refers to 2070 Series, 2075, and 2175 Antenna Towers
- **2x2 Boom** refers to a typical 2-inch by 2-inch boom; non-ETS-Lindgren and previous generation EMCO positioning systems

Dipoles

3121D



3121C



+

4-TR		
<p>100733 Support Rod</p>	OR	<p>102308 Swivel Antenna Mount</p>
+		+
<p>101942B Support Base</p>		<p>105861B Thread Insert</p>
+		+
<p>102108 Clamp Block</p>		<p>102108 Clamp Block</p>
+		+
<p>102108 Clamp Block</p>		<p>102108 Clamp Block</p>
		<p><i>Can mount directly to a 4-TR. Use of a 102308 Swivel Antenna Mount simplifies polarization, and is optional.</i></p>

7-TR, Mast	
<p>104169 Boom Antenna Mount Knob</p>	OR
+	<p>106102 Universal Antenna Mount</p>
+	<p>104136 Boom Antenna Mount Knob</p>
+	
<p>105861B Thread Insert</p>	
+	
<p>102108 Clamp Block</p>	
+	
<p>102108 Clamp Block</p>	

2x2 Boom	
<p>101913 Fixed Antenna Mount</p>	OR
+	<p>101937 Swivel Antenna Mount</p>
+	
<p>105861B Thread Insert</p>	<p>105861B Thread Insert</p>
+	+
<p>102108 Clamp Block</p>	<p>102108 Clamp Block</p>
+	+
<p>102108 Clamp Block</p>	<p>102108 Clamp Block</p>

Stinger Mounts

- **4-TR:** Do not mount to a 4-TR
- **7-TR:** Mounts directly to a 7-TR without additional hardware
- **Mast:** Additional hardware required to mount to a mast



Standard Parts

Antennas shown here ship with these antenna adapters:

- 100733 Support Rod
- 101942B Support Base
- 102108 Clamp Block

Notes

- **7-TR** refers to 109042, 106328, and 108197 booms:
 - **109042** – straight; for general antenna mounting on a 7-TR
 - **106328** – offset; for general antenna mounting on a 7-TR with pneumatic or manual polarization
 - **108197** – center rotate; for rear-mount stinger-type antennas only
- **Mast** refers to 2070 Series, 2075, and 2175 Antenna Towers
- **2x2 Boom** refers to a typical 2-inch by 2-inch boom; non-ETS-Lindgren and previous generation EMCO positioning systems

Loop Antennas and Rod Antennas

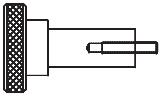
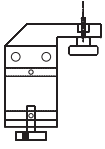
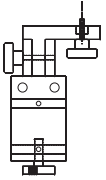
Loop Antennas



Rod Antennas



+

4-TR	7-TR, Mast	2x2 Boom	
<p><i>Loop antennas and rod antennas mount directly to a 4-TR; no additional hardware required.</i></p>	<p>104169 Boom Antenna Mount Knob</p> 	<p>101913 Fixed Antenna Mount</p> 	<p>OR</p> <p>101937 Swivel Antenna Mount</p> 

Notes

- **7-TR** refers to 109042, 106328, and 108197 booms:
 - **109042** – straight; for general antenna mounting on a 7-TR
 - **106328** – offset; for general antenna mounting on a 7-TR with pneumatic or manual polarization
 - **108197** – center rotate; for rear-mount stinger-type antennas only
- **Mast** refers to 2070 Series, 2075, and 2175 Antenna Towers
- **2x2 Boom** refers to a typical 2-inch by 2-inch boom; non-ETS-Lindgren and previous generation EMCO positioning systems

Conical Log Spirals

3101



4-TR	7-TR, Mast	7-TR, Mast
<p>Conical log spirals mount directly to a 4-TR; no additional hardware required.</p>	<p>Conical log spirals mount directly to a 7-TR. Mounting hardware is included; no additional hardware required.</p>	<p>Conical log spirals not intended for 2x2 boom.</p>

3102



+

3103



Notes

- **7-TR** refers to 109042, 106328, and 108197 booms:
 - **109042** – straight; for general antenna mounting on a 7-TR
 - **106328** – offset; for general antenna mounting on a 7-TR with pneumatic or manual polarization
 - **108197** – center rotate; for rear-mount stinger-type antennas only
- **Mast** refers to 2070 Series, 2075, and 2175 Antenna Towers
- **2x2 Boom** refers to a typical 2-inch by 2-inch boom; non-ETS-Lindgren and previous generation EMCO positioning systems

Standard Parts

- **101942B Support Base**—ships with 3101, 3102, and 3103
- **101941 Support Rod**—ships with 3101
- **101943B Support Rod**—ships with 3102
- **101944 Support Rod**—ships with 3103