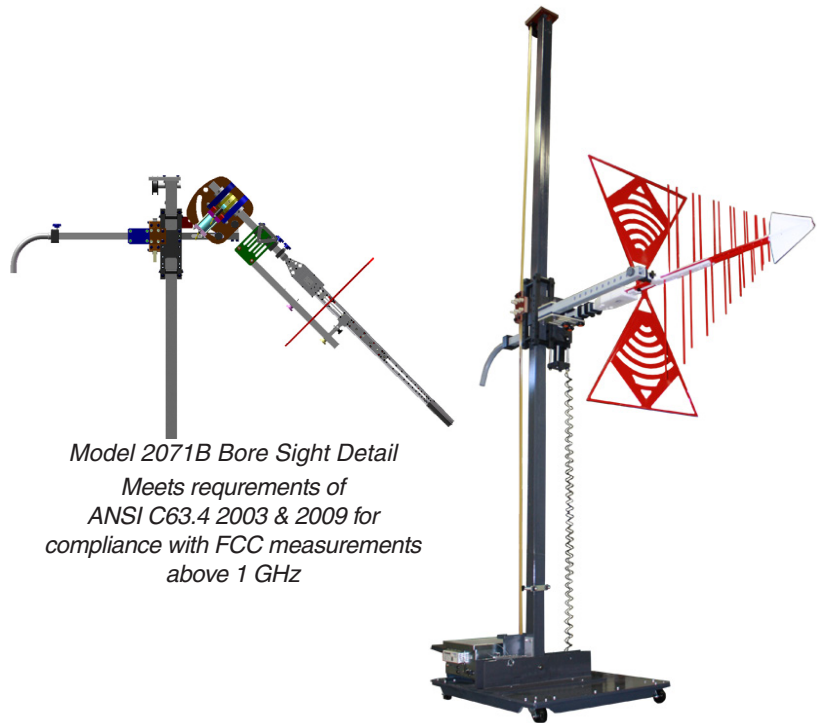


**FEATURES:**

- **Patented Bore Sight System for Better Antenna Aim (Model 2071B)**
- **Accepts Stinger or Classic Antenna Mounts**
- **Fiber Optic Control Lines Eliminate RF Noise**
- **Variable Speed with Toothed Belt Drive Provides Smooth Operation**
- **Fiber Optic Travel Limits for Safe Operation**
- **Hand-Held IR Control for Convenience**
- **Single-Piece Mast**



*Model 2071B Bore Sight Detail  
Meets requirements of  
ANSI C63.4 2003 & 2009 for  
compliance with FCC measurements  
above 1 GHz*

*Model 2070B Antenna Tower shown  
with Model 3142D Antenna  
(Non Bore Sight Model)*

**THE ETS-LINDGREN MODEL 2070B (NON BORE SIGHT) AND 2071B (BORE SIGHT) ANTENNA TOWERS**

are identical in their rugged construction, toothed belt drives and important safety features. These towers utilize fiber optic signal lines between controller and antenna mast, eliminating a potential source of EMI noise. The fiber optic lines are jacketed to provide extra protection against cable damage. The Model 2070B and 2071B both feature centerline pneumatic polarization, which enhances measurement accuracy. The Model 2071B features ETS-Lindgren's patented Bore Sight system, that provides direct antenna aim on an EUT during scanning.

**FEATURES  
Patented Bore Sight System  
Patent # 5,379,048**

Mounting adapters on towers normally place the antenna parallel to the ground plane. This means that as the tower raises the antenna above the EUT, measured field strength levels will be lower than actual values. This problem is solved with ETS-Lindgren's innovative Bore Sight System which properly aims the antenna at a designated test point. During scans, ETS-Lindgren's Bore Sight System maintains constant directional antenna positioning while varying the angle between the antenna and the mast. This is particularly important when using higher gain antennas of more than 3 dBi.

The tilting of the antenna will maintain the EUT within the half power (-3 dB) beamwidth, as the antenna is raised above the ground.

**Flexible Antenna Mounting**

Model 2070B and 2071B accept stinger or classic EMCO antenna mounts. Both mounting methods maintain the antenna's centerline axis during polarization.

Model 2070B and 2071B feature a pneumatic polarization capability that reduces test time. Polarization occurs in a 90 degree arc at a maximum rate of approximately 30 degrees per second. An external source of compressed air at 410 kPa - 550 kPa (4.1 bar - 5.5 bar or 60 psi - 80 psi) is required.

### **Fiber Optic Lines**

Fiber optic lines are used between the antenna mast and Model 2090 Positioning Controller to eliminate RF noise coupling.

### **Smooth Operation**

A toothed belt drive provides smooth ascent and descent of the carrier assembly. The belt is an industrial grade composite that was selected for strength and longevity.

Additionally, the 2070B and 2071B feature variable speed operation with speed rates range from 3 cm/sec to 22 cm/sec as controlled by the Model 2090 Positioning Controller.

Existing ETS-Lindgren Positioning Controllers can be used, however the Model 2090 must have firmware revision 3.12 or higher.

### **Travel Limits**

To prevent damage to antenna elements which may accidentally rotate into the ground plane or ceiling during polarization, the Model 2090 Positioning Controller allows programming two upper and two lower limit settings. These settings

allow safe maximizing antenna scan height in either horizontal or vertical polarization – especially useful with BiConiLogs<sup>™</sup>, biconicals, log periodics, and other antennas with protruding elements.

Both tower models are also provided with proprietary fiber optic limit switches to mechanically limit the travel of the carrier. The upper limit is at a fixed location to stop the carrier at its maximum height. The lower limit is adjustable to fit test requirements.

### **IR Control**

For added convenience, the Model 2070B and 2071B include a hand-held infrared remote control that is useful when mounting/demounting antennas, without having to access the positioning controller.

### **Single-Piece Mast**

ETS-Lindgren towers are constructed with a single-piece mast made of high density fiberglass-reinforced polymer square tubing. This material has a high degree of immunity from extended exposure to sunlight.

### **STANDARD CONFIGURATION**

#### **Model 2070B (Non Bore Sight)**

- Tower Assembly
- Variable Speed Motor
- Fixed Boom with Centerline Pneumatic Polarization
- 10 m Fiber Optic Cable
- Shield Room Penetration Kit
- Manual
- Hand-held IR Remote Control Unit

#### **Model 2071B (Bore Sight)**

- Tower Assembly
- Variable Speed Motor
- Bore Sight with Centerline Pneumatic Polarization
- 10 m Fiber Optic Cable
- Shield Room Penetration Kit
- Manual
- Hand-held IR Remote Control Unit

### **OPTIONS**

- Model 2090 Positioning Controller
- Universal Antenna Mount Part Number 106102
- Additional Fiber Optic Cable Lengths

## Physical Specifications

MODEL	OVERALL HEIGHT	MAX SCAN HEIGHT	BASE DIMENSIONS	WEIGHT	CROSS-BOOM LOADING	LINEAR SPEED	POLARIZATION VELOCITY
2070B	4.6 m 15.1 ft	4.0 m 13.1 ft	1.1 m x 0.9 m 3.5 ft x 3.0 ft	86.2 kg 190.0 lb	33.9 Nm 25.0 ft/lb	3 cm/sec to 22 cm/sec	3 deg/sec to 30 deg/sec
2071B	5.2 m 17.0 ft	4.0 m 13.1 ft	1.1 m x 0.9 m 3.5 ft x 3.0 ft	90.0 kg 198.0 lb	33.9 Nm 25.0 ft/lb	3 cm/sec to 22 cm/sec	3 deg/sec to 30 deg/sec

## Electrical Specifications

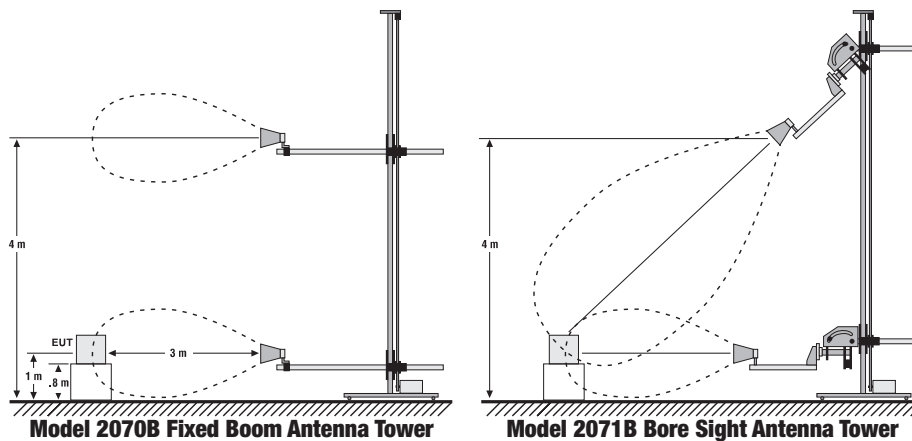
MODEL	VOLTAGE	AMP MAX	HERTZ	PHASE
2070B	230 VAC	3.0	50/60	1
2071B	230 VAC	3.0	50/60	1

## OPTIONS

MODEL	CENTERLINE POLARIZATION	PNEUMATIC POLARIZATION <sup>1</sup>	BORE SIGHT	UNIVERSAL ANTENNA MOUNT	VARIABLE SPEED	ADDITIONAL FIBER OPTIC CABLE	FIBER OPTIC FEEDTHROUGH	IR REMOTE	2090 CONTROLLER
2070B	●	●		○	●	●	●	●	❖
2071B	●	●	●	○	●	●	●	●	❖

● Standard ○ Optional ❖ Required

<sup>1</sup>Requires external source of compressed air 410 - 550 kPa (4.1 - 5.5 bar, 60 - 80 PSI)



Compared to standard antenna towers, ETS-Lindgren's Bore Sight System improves accuracy with antenna pattern constantly directed at a designated test point.