



## 3000w High Power NAVTEX Automatic Antenna Tuning Unit

### Remote Monitoring (when used in conjunction with a Nautel Vector Navtex series transmitter)

- RF Antenna Current
- Resistive match servo inhibited
- Inductive tune servo inhibited
- Resistive match status/ limit
- Inductive tune status/ limit
- Local/remote
- ATU temperature
- Fan fail

### Remote Control (when used in conjunction with a Nautel Vector Navtex series transmitter)

- Resistive match servo inhibit
- Inductive tune servo inhibit
- Increase/decrease resistive match
- Increase/decrease inductive tune

### Metering

- Forward power
- Reflected power
- Antenna current

### Servo Inhibit

- Automatic resistive match and reactive tuning servos inhibited when Vector Navtex transmitter RF output is not enabled

### Local Control

- Resistive match servo inhibit
- Inductive tune servo inhibit
- Increase/decrease resistive match
- Increase/decrease inductive tune
- Set-up mode
- Transmitter On/Off

### Local Monitoring

- Resistive match servo inhibited
- Inductive tune servo inhibited
- Resistive match status/limit
- Inductive tune status/limit
- Set-up mode
- Transmitter Off
- Local/Remote
- Fan fail
- CPU ok
- DC supply status

### Equipment Interface

Remote control/monitoring with RS485 serial communication to the Nautel Vector Navtex Series transmitter (DB-9 connector with 5 connections used and additionally available on terminal block).

- AC Input - (Terminal Block)
- RF Input - (N Connector)
- Antenna feeder connection (Mechanical Bolt)
- Antenna system ground (Mechanical Bolt)

### Shipping

- Export packed in wooden crate
- All assemblies to remain in ATU for shipment
- ISTA Procedure 1B compliant

### Standard Warranty

- 13 months after shipment

### Options

- Sunshield to reduce thermal load
- Extended warranty
- Adjustable external series resistance of 0.8 to 5.6 ohms in seven fixed increments provides additional antenna bandwidth adjustment (this option includes the sunshield).
- CSA inspection



## 3000w High Power NAVTEX Automatic Antenna Tuning Unit

### Maximum Carrier Power

3,000 W

### Maximum Reflected Power after Auto Resistive Match and Reactive Tune

<3 W at carrier frequency

### Frequency Range

Dual Channel 490 kHz + 518 kHz

### Automatic Tuning Range

±5% antenna capacity variation

### Input Impedance

50 ohms nominal

### Channel Change Time

Not exceeding 3 seconds (includes Vector Navtex transmitter tuning time)

### Power Requirements

115 V/230 V ac single phase ± 15%, 50 Hz/  
60 Hz, 35 VA maximum

### Automatic Resistive Matching Range

0.5 R-2 R where R equals antenna system series resistance (including ATU).

### Maximum Series Loss Resistance

Not greater than 1/1000 x antenna reactance

### Antenna System Resistance

2 to 39 ohms.

### Antenna Capacitance

350-3400 pF

### MTBF

Greater than or equal to 56,405 hours using MIL HDBK 217E calculation methods.

Field data for Nautel LF/MF systems indicate MTBF in excess of 3,000,000 hours

### MTTR

Less than or equal to 30 minutes at PWB/module level

### Cooling and Heat Flushing

Cooled by radiation from the enclosure. Internally circulated air at approximately 220 cu. ft. /min when internal ATU temperature is greater than 60°C.

### Altitude

Up to 3048 m (10,000 ft.)

### Environmental Limits

Operating:  
-50°C to +55°C  
0% to 100% Relative Humidity  
Storage:  
-50°C to +100°C  
0% to 100% relative Humidity

### Climate

Any – including tropical

### Dimensions (without external series resistor and/or sunshield)

Wall Mount  
97.64 cm H x 123.83 cm W x 67.8 cm D  
(38.44 H x 48.75 W x 26.69 D in.)

### Base Mount

103.35 cm H x 123.83 cm W x 62.4 cm D  
(40.69 H x 48.75 W x 24.56 D in.)

### Dimensions (with external series resistor and/or sunshield)

Wall Mount  
112.78 cm H x 139.9 cm W x 83 cm D  
(44.44 H x 53.5 W x 32.69 D in.)

### Base Mount

118.6 cm H x 135.9 cm W x 81.9 cm D  
(46.69 H x 53.5 W x 32.25 D in.)

### Weight (without external series resistor and/or sunshield)

50.3 kg (111 lbs) unpacked  
93 kg (205 lbs) packed

### Weight (with external series resistor and/or sunshield)

65.4 kg (144 lbs) unpacked  
138 kg (304 lbs) packed

Notes: Specifications established at rated power unless otherwise noted. All measurements at standard antenna load; AC input at nominal voltage.

SPECIFICATIONS SUBJECT TO CHANGE WITHOUT NOTICE.