

# CoBox Network Time Servers



## CoBox Network Time Servers

The CoBox network time servers are compact and stand-alone devices which can receive standard world time information from a GPS source and make that timing information available to other network nodes. Each CoBox network time server supports NTP and time/udp protocols for communicating time information to other devices. Models supporting Ethernet or Token Ring are available.

- Connects a GPS time source to an Ethernet or Token Ring network
- Support for NTP and udp/time protocols
- RS-232 and RS-422 serial standards supported for connecting antennae
- Models available with GPS antenna and cable included
- Serial and telnet management
- Flash ROM for easy software upgrades

# NTP-TR1 and NTP-E1 Specifications

## NTP-TR1\*

### PROTOCOLS SUPPORTED:

IP-ARP, UDP, ICMP, SNMP, TCP, TFTP  
NTP, udp/time  
Proprietary broadcast protocol

### COMPATIBILITY:

Token Ring: 802.2 LLC

### NETWORK INTERFACE:

STP (SubD9 connector)  
UTP (RJ45)

### SERIAL INTERFACE:

DB25 RS-232/RS-422 serial port  
Pulse input to support 1pps Antenna signals (approx 100uS accuracy)

### DATA RATES:

Serial speeds up to 115Kbps

### NTP SERVER ACCURACY:

Less than one microsecond, depending on network load and GPS source accuracy

### MANAGEMENT:

Serial and Telnet login

### SOFTWARE:

Flash ROM standard: new software can be downloaded via TFTP or over serial port

### DIAGNOSTIC LEDs:

Collisions  
Fault  
Receiver Status

### PHYSICAL DIMENSIONS:

H 4.0 cm x W 15.5 cm x D 18.0 cm  
(1.57 in x 6.10 in x 7.00 in)  
Weight: .5 Kg

### SHIPPING DIMENSIONS:

H 10.15 cm x W 34.0 cm x D 19.0 cm  
(4.0 in x 13.25 in x 7.25 in)  
Weight: 1.75 Kg

### POWER REQUIREMENTS:

16VAC 1000mA  
(External adapter included)  
Power Consumption: 9 Watts

### ENVIRONMENTAL:

Operating Temperature: 5° to 50°C  
(41° to 122°F)  
Storage Temperature: -40° to 66°C  
(-40° to 151°F)

### AGENCY APPROVALS:

C/UL, CE, FCC A (Token Ring)

### WARRANTY:

5-year limited warranty

## NTP-E1\*

### PROTOCOLS SUPPORTED:

IP-ARP, UDP, ICMP, SNMP, TCP, TFTP  
NTP, udp/time  
Proprietary broadcast protocol

### COMPATIBILITY:

Ethernet Version 2.0/IEEE 802.3

### NETWORK INTERFACE:

RJ45 (10BASE-T)  
AUI Ethernet

### SERIAL INTERFACE:

DB25 RS-232/RS-422 serial port  
Pulse input to support 1pps Antenna signals (approx 100uS accuracy)

### DATA RATES:

Serial speeds up to 115Kbps

### NTP SERVER ACCURACY:

Less than one microsecond, depending on network load and GPS source accuracy

### MANAGEMENT:

Serial and Telnet login

### SOFTWARE:

Flash ROM standard: new software can be downloaded via TFTP or over serial port

### DIAGNOSTIC LEDs:

Transmit Data  
Receive Data  
Good Link  
Collisions  
Fault  
Receiver Status

### PHYSICAL DIMENSIONS:

H 4.0 cm x W 15.5 cm x D 18.0 cm  
(1.57 in x 6.10 in x 7.00 in)  
Weight: .5 Kg

### SHIPPING DIMENSIONS:

H 10.15 cm x W 34.0 cm x D 19.0 cm  
(4.0 in x 13.25 in x 7.25 in)  
Weight: 1.75 Kg

### POWER REQUIREMENTS:

16VAC 1000mA  
(External adapter included)  
Power Consumption: 9 Watts

### ENVIRONMENTAL:

Operating Temperature: 5° to 50°C  
(41° to 122°F)  
Storage Temperature: -40° to 66°C  
(-40° to 151°F)

### AGENCY APPROVALS:

C/UL, CE, FCC B (Ethernet)

### WARRANTY:

5-year limited warranty

## ORDERING INFORMATION

**NTP-E1-01** Network time server, 1 DB25 (RS-232/RS-423/RS-485) serial port, AUI (10BASE5) and RJ45 (10BASE-T) network ports, diagnostic LEDs, Installation Guide, external 110VAC power supply

**NTP-E1-02** Same as above with 230VAC power supply

**NTP-E1-03** Same as above with European 2-prong 230VAC power supply

**NTP-TR1-01** Network time server, 1 DB25 (RS-232/RS-423/RS-485) serial port, 1 DB9 (RS-232) serial port, STP (SubD9) or UTP (RJ45) Token Ring ports, diagnostic LEDs, Installation Guide, external 110VAC power supply

**NTP-TR1-02** Same as above with 230VAC power supply

**NTP-TR1-03** Same as above with European 2-prong 230VAC power supply

**NTP-E1A-01** Network time server, 1 DB25 (RS-232/RS-423/RS-485) serial port, AUI (10BASE5) and RJ45 (10BASE-T) network ports, GPS antennae and cable included, diagnostic LEDs, Installation Guide, external 110VAC power supply

**NTP-E1A-02** Same as above with 230VAC power supply

**NTP-E1A-03** Same as above with European 2-prong 230VAC power supply

**NTP-TR1A-01** Network time server, 1 DB25 (RS-232/RS-423/RS-485) serial port, 1 DB9 (RS-232) serial port, STP (SubD9) or UTP (RJ45) Token Ring ports, GPS antennae and cable included, diagnostic LEDs, Installation Guide, external 110VAC power supply

**NTP-TR1A-02** Same as above with 230VAC power supply

**NTP-TR1A-03** Same as above with European 2-prong 230VAC power supply

\*Does not include GPS antenna

