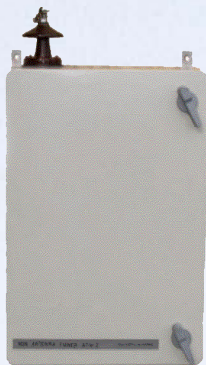




NDB Transmitter Type JTM-50C

NDB Transmitter Type JTM-50C may be delivered as a 400W PEP (100W carrier) or as 1000 W PEP (250W RMS Carrier) Transmitter. It consists of an Antenna Tuning Unit (ATU), a 19" Transmitter Rack and Remote Control(s).



TELE SUPPLY A.S

Fetveien 300, N-1900 FETSUND, NORWAY.

Telephone: +47 63 88 43 99

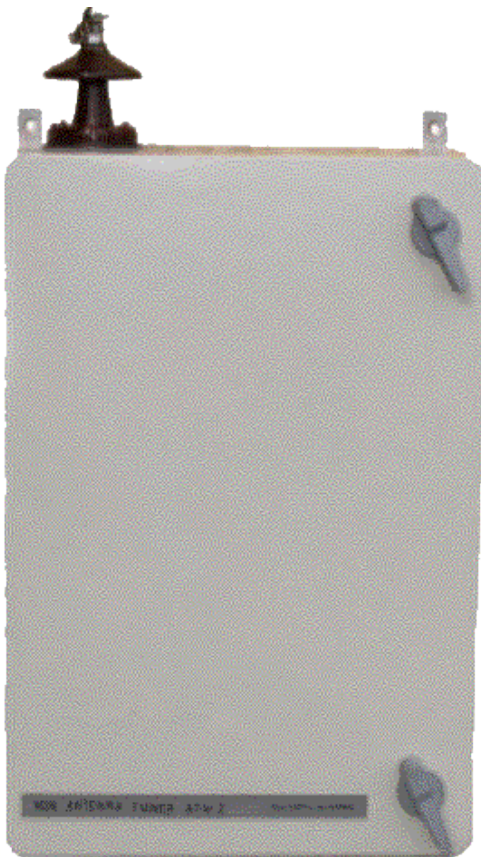
E-Mail: post@telesupply.no

Org.nr.: NO 935787610 MVA

<http://www.telesupply.no>



**ATU-2 Cabinet
IP66 protected**



Antenna Tuning Unit (ATU-2)

ATU-2 contains an Antenna tuning Coil and a Matching Transformer to match the reactive Antenna impedance into 50 ohm to the Transmitter. The ATU-2 circuits are mounted inside an IP66 weatherproofed and ruggedized cabinet. ATU shall be installation at the Antenna.

Tuning and match the antenna impedance to 50 ohms is a manual procedure.

A heater element is installed inside the cabinet to reduce humidity at low temperature.

The heater element should be powered from 24 VDC via the Transmitter Cabinet

An Auto Tune function is offered as an option.

19" Transmitter Cabinet (TX Rack)

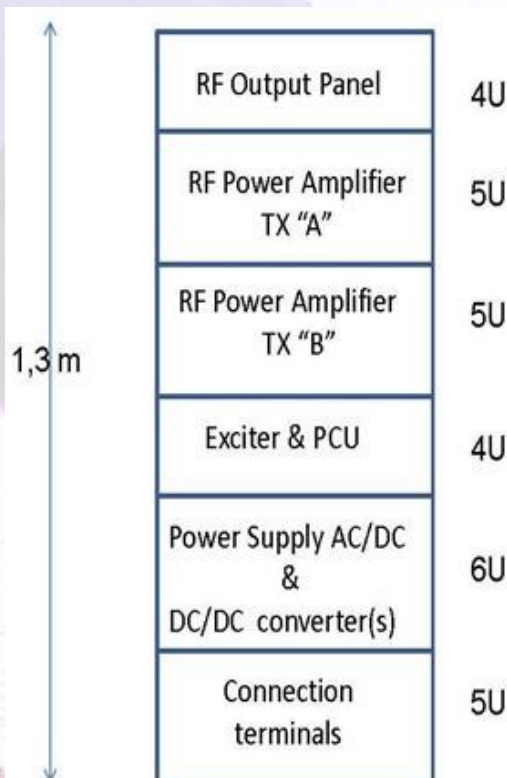
The Transmitter Cabinet is a 19" rack provided with panels for RF generating unit (Exciter(s), Transmitter Amplifier(s), RF Output Panel, DC/DC Converter(s), Power Supply / Battery Charger, Cable Harness, and terminals for connection to external equipment such as Remote Control Unit, PC, External Alarm circuits etc. etc.

The transmitter can be powered from AC Mains (115/230 VAC) via an internal Power Supply/Battery Charger which supplies 24V DC to the equipment, or direct from an external 24V Battery Bank.

Main source of energy for the Cabinet is 24VDC. The DC/DC converter(s) 24VDC to 150VDC supplies voltage to the RF Power Amplifier(s).

The 19" Rack is designed for indoor installation

Transmitter Rack



Remote Control Unit

The equipment may be connected to one or several Remote Control Unit(s) by using a multi-cable. DC source of energy to the Remote Unit is via the Transmitter Remote Control Interconnections.

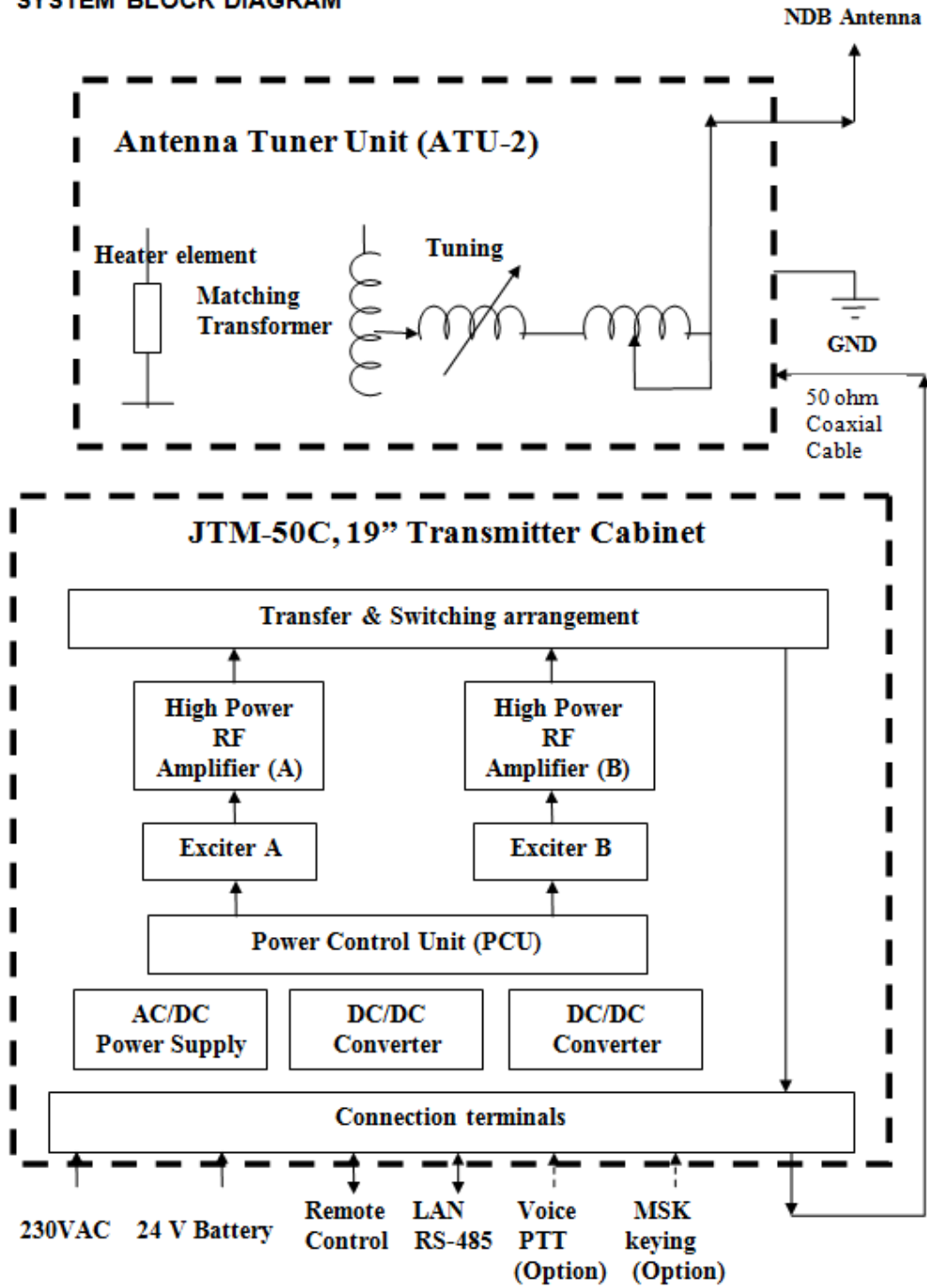
The unit is provided with a switch for ON/OFF/Remote operation of the Transmitter, LED for indicating of the status, and a loudspeaker.

It is also provided with three (3) voltage free Alarm Relays ("DC input failure", "Reserve TX in operation" and "Alarm").

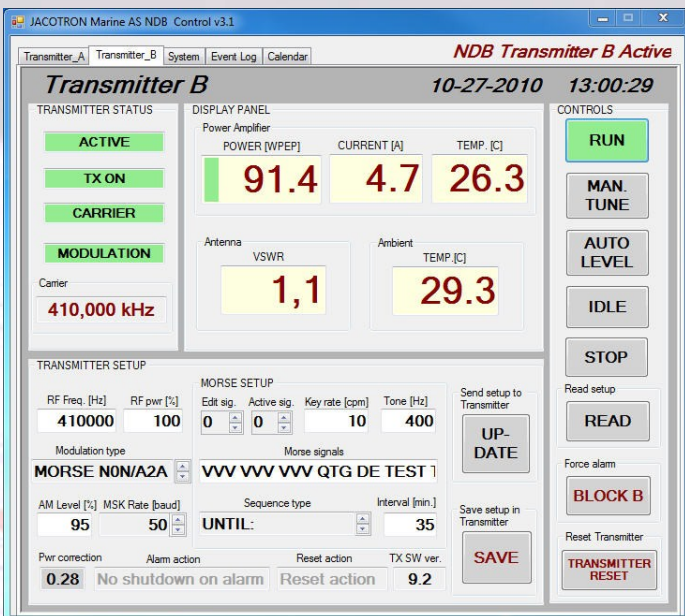
A typical configuration with Remote Control Unit JTM-30R is with all 24 multi wire cable fed from the 19" Transmitter Cabinet to a Remote Control JTM-30C. The Remote Control JTM-30R has extra terminal which can be wired further to next Remote Control.

The Remote Control Unit is provided with 9-pin D-SUB contact for RS-485 connection to PC.

1.3 SYSTEM BLOCK DIAGRAM



PC display



NDB Remote Control



ELECTRICAL & MECHANICAL CHARACTERISTICS

| | |
|--------------------------|---|
| Frequency range | : 190 to 2000 kHz in step of 1 Hz |
| Frequency stability | : 2,5 p.p.m. |
| Antenna impedance | : R 2 to 12,5 ohm, C~150 to 500 pF |
| Types of emission | : N0N/A2A or N0N/A3A. (MSK Option) |
| Modulation tone | : Any modulation tone 300-1350 Hz |
| Identification code | : Any combination of code (512 bits) |
| Inter-modulation | : Better than 31 dB rel. to PEP |
| Distortion (A2A) | : Less than 5% |
| Harmonic attenuation | : More than 60 dB |
| Frequency generation | : By synthesizer |
| Antenna tuning | : Manual (Auto tune option) |
| Operation from | : AC Mains 115/230 or 24 VDC |
| DC voltage tolerance | : AC = +/-10%, DC =+30% / -10% |
| Power into 50 ohm, (ATU) | : Up to 400/1000 W PEP (100/250 W carrier) |
| Power Dissipation | : Approx. 320 / 550 Watts |
| Temperature range | : ATU = -35 oC to + 55 oC 19" Rack = -10 oC to + 55 oC Remote = -10 oC to + 55 oC |

| | | |
|--------------------|-----------------|------------------|
| Antenna Tuner Unit | Height : 606 mm | Protection IP 66 |
| | Width : 406 mm | |
| | Depth : 250 mm | |
| | Weight : 15 kg | |

| | | |
|---------------------|------------------|------------------|
| Transmitter Cabinet | Height : 1300 mm | Protection IP 41 |
| | Width : 600 mm | |
| | Depth : 600 mm | |
| | Weight : 66 kg | |

| | | |
|---------------------|----------------------|-----------------|
| Remote Control Unit | Height : 85 mm | Protection IP41 |
| | Width : 482 mm (19") | |
| | Depth : 45 mm | |
| | Weight : 1 kg | |

Subject to change without notice!

