

TR-910

Multipurpose VHF Airband Radio



- ETSI EN 300 676 compliant
- VoIP according to ED-137
- Secure by design
- Voice recorder output
- Supports VCS and remote control and monitoring
- 118-137/144 MHz frequency range
- Superior RF capabilities

TR-910 Multipurpose VHF Airband Radio

A compact, rugged and reliable radio

The TR-910 is a compact, high-quality radio available in a variety of configurations to meet the high demands of the ATC and oil and gas industries. This radio is based on Jotron's upgraded 7000-series architecture. Thus, customers have the option to order a radio which is fully VoIP-compliant according to ED-137C, and which also complies to ETSI EN 300 676. For important parameters, like broadband noise and spurious emissions, the radio is far better than the requirements of ETSI EN 300 676. A TR-910 will give you the flexibility and reliability of our top-of-the line Jotron 7000-series radios in a compact, portable device. This radio uses a standard connector for headsets and microphone. It has output for recording compliant to ED-137, which means that it can be easily included in an airport-wide record and replay system like the Jotron Ricochet Recorder. With the VoIP option enabled, the TR-910 is ready for interfacing VCS systems and remote control or monitoring systems like Jotron's Radio Remote Control (RRC) and Remote Control and Monitoring System (RCMS). Different accessories define the purpose and use of the TR-910 radio.

TR-910 Desktop Radio

The desktop version can be used as the main radio in low volume tower operations. It is supplied with an external AC/DC adaptor. The AC/DC adaptor covers 100 to 240 VAC. The following items are included; microphone, bracket for desktop mounting and an antenna cable connector.



TR-910 Subrack and Last Resort Subrack Radio

The TR-910 and TR-910LR are available as sub-rack versions for installation into existing 19 inch equipment racks or control room consoles. This option includes microphone, connection cables and the subrack mounting kit. The subrack solution is an excellent choice if you want to control the radio from our outstanding Radio Remote Control system RRC-7700.



Cyber security

Jotron is ISO 27001 certified. All our products are designed and developed with a strong focus on cyber security.

Measures implemented in the TR-910 radio are:

- Secure development (Based on BSA and NIST 800-218 Framework for Secure Software)
- Coding conventions and secure coding recommendations (CERT C/ C++)
- Static code analysis
- Fuzz testing on network protocols
- Secure update with cryptographically signed executables for enhanced installation security
- All interfaces supported with cryptographic protocols. Individually configurable.
- Modular design to enhance security and isolation (layered structure)
- Detection of Denial of Service (DoS) attacks
- Role-based access control and authentication
- Secure monitoring through Simple Network Management Protocol Version 3 (SNMPv3)
- Encrypted communication and storage protection
- Firewall enabled
- Audit trails, alarms, event logs and backups

TR-910 Vehicle Radio

Any vehicle with 12 or 24 VDC supply can accommodate the TR-910VE. It is the perfect radio for airport utility vehicles like Follow-Me cars and passenger buses.

The following items are included with the TR-910VE; microphone, interconnection cables, external loudspeaker and vehicle antenna.



TR-910 Last Resort Radio

A last resort radio is similar to a desktop radio, but contains a lithium ion battery pack supplying the radio with DC voltage if AC power fails. The battery status is monitored on the battery pack or on the TR-910 display.

The superior RF capabilities gives the TR-910 a range of more than 150 nautical miles*, making it the perfect choice for emergency tower communications.

* Calculated using an antenna height of 30 m and aircraft altitude of 15 000 ft



TR-910 Offshore Radio

Our offshore version of the TR-910 includes a standard DIN-flange for console mounting. Custom made flanges are available on request. It includes a handheld microphone, an external AC/DC adaptor and connection cables. The radio integrates easily with the Jotron Ricochet SmartOil recorder system.



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TR-910 Man Portable Radio

This is a portable version of the TR-910LR, where the radio with an antenna and bracket is fitted into a carrying bag. The carrying bag has two pockets; one containing a charger and a cable and the other a microphone. It is ideal for use as a last resort if the tower is unavailable or in remote areas without the infrastructure of common airports.

Since the battery capacity is 72 Wh, this radio will last 8 hours in 10% Tx/ 30% Rx/ and 60% idling duty cycle at 5 W output power. 9 hours can be achieved if output power is reduced to 2.5 W.



TR-910 radio system

The TR-910 is perfectly suited as a standalone radio, but because of its enhanced VoIP capabilities it may be set up and used in a wider system configuration where several radios, VCS, recording and external system monitoring is required. See the illustration below.

TR-910 Model overview

Part number	Description
103400DE	TR-910 Desktop Radio
103400MP	TR-910 Man Portable Radio
103400VE	TR-910 Vehicle Radio
103400LR	TR-910 Last Resort Radio
103400SR	TR-910 Subrack Radio
103400LR-SR	TR-910 Last Resort Subrack Radio
103400OF	TR-910 Offshore Radio
103400	TR-910 Multipurpose VHF Airband Radio (no accessories)

TR-910 Measurements



Radios



VCS



Recorder



LAN



Controller working position

Optional features

- VoIP (2 sessions)
- Enhanced VoIP (4 sessions and 5 ms packets)
- 144 MHz extended frequency range
- G.729 support