

# INTERCOM TUIJA-2

## COMMUNICATION SYSTEM

MIL  
Electronics



- Communication system for armoured vehicles
- Engineered to operate in noisy environments
- Rugged, strong design
- Easy to use, reliable
- Wide range of additional units



## Best choice for voice communication

High quality communication units for challenging conditions. Used in daily service by Finnish Defence Forces.

Intercom TUIJA-2 meets the highest demands for communication in armoured vehicles, battle tanks and other tough environments. The system consists of a central box, personal equipment, additional units and various interfaces to other systems and networks.

Intercom TUIJA-2 is a modular star-configured network which provides a complete, proven communication integration between crew members and external staff.

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## CENTRAL BOX



- Modular star-configured network
- Two internal crew networks: driving network and team network
- Capacity for 14 interfaces
- Distribution box increases interface capacity to 18



## HELMETS AND HEADSETS



- Headsets with boom or throat microphone
- Safety helmet with boom or throat microphone
- Lightweight headsets for office environments

## PTT BOX



- Push-To-Talk box
- Voice microphone ON/OFF-control
- Make emergency calls simultaneously to all crews
- Radio transmit/receive, Tx/Rx Control

## USER BOX



### MAIN USER BOX

- Connect with the driving or team network or both
- Optional use of one to three radio channels simultaneously with network connection
- Volume control

### VARIANTS:

#### 1. User Box with PC Audio Connection

The User Box has two radio channels and one PC channel for VoIP communication. It includes one extra headset connection which lets you use the foot pedal PTT and operate hands free.

#### 2. User Box with loudspeaker

The User Box has the same features as the basic User Box. In addition, all the communication is directed to a high power amplifier and can be heard from a rugged, efficient loudspeaker.

#### 3. User Box with Handset Connection

This version has, in addition to the basic User Box, a handset connection which allows visitors and external users to communicate with the crew. The possibility exists also to use other units such as PTT Box, headsets and helmets.



## OTHER UNITS



- Various radio interface adapters available. Compatible with for example PRC-77, CNR-9000/VRC-950 or VRC-980.
- Data terminal adapters
- Line interface box for external field telephones and radio remote control
- Cables with standard MIL connectors
- Cable feed-through parts for both normal and EMP walls





# TUIJA-2

## TECHNICAL SPECIFICATIONS

### STANDARDS

EMC meets the MIL-STD 461 D and directive 95/54/EU  
EMP meets the MIL-STD-188-125

### ELECTRICAL

Nominal supply voltage: 24 V DC  
Voltage range: 15–35 V DC

Nominal and max current depends on the intercom configuration needed and can be calculated as follows:

$$I = n * I_{UB} + I_{CB} + I_{UBLA}$$

$n$  = quantity of User Boxes others but not the loudspeaker version  
 $I_{UB}$  = User Box current others expect loudspeaker version,  
nominal 30 mA, max 70 mA

$I_{CB}$  = Central Box current, nominal 19 mA, max 50 mA  
 $I_{UBLA}$  = Current of User Box with Loudspeaker Amplifier,  
nominal 200 mA, max 850 mA

The maximum current consumption is below 2 A. Therefore 2A Fuse protection in the vehicle power supply is enough for Intercom TUIJA-2.

### ENVIRONMENTAL

Temperature range: -40...+70 °C (dry air),  
-40...+55 °C (humidity 95 %)

**Sarco Ltd provides high quality electronic devices and systems for professional use in demanding environments.**

With over 80 years of experience in product development and design, we offer solutions and services that meet our customer's requirements. We specialize in alarm, safety and communication technology and offer solutions for rescue and police services as well as national and civil defence.

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### MECHANICAL

Product name	Features	Weight in g	Dimensions* in mm or size			Notes
			width	height	depth	
CENTRAL BOX		1900	347	85	111	
DISTRIBUTION BOX		900	189	85	111	
HEADSETS	lightweight flat ear protector	250 500	Size is adjustable Size is adjustable			Can be worn with protective ballistic helmets
SOFT HELMET		900	Sizes: S, M and L			Sizes are adjustable
PTT BOXES		240–780	standard cable lengths 1 m, 2 m, 3 m and 10 m			
USER BOXES		1300–1500	122-135	166	85	four variants, NB cable connections room needed
FOOT PEDAL PTT		800	70	220	69	weight with 2 m cable
LOUDSPEAKER		1700	142	116	101	weight with 0,5 m cable
HANDSET		490	44	200	75	spiral cable 1 to 2 m
RADIO AND DATA ADAPTERS		200	110	40	50	weight with 0,6 m cable
LINE INTERFACE BOX		1200	122	150	90	line connectors outside the wall in the dim depth

Note that the dims of the Boxes are without the cable connectors. <sup>\*)</sup> Dimensions then the products are assembled on the wall without shock absorbers. For tank assembly, there are shock absorbers which increase the dims depth by 15mm. The directions of connectors need extra room.

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