



# SAAB



WHAT RELIABLE COMMUNICATIONS  
THROUGH **AUTOMATED TESTING**  
BY STATIC OR PORTABLE TEST & REPAIR WORKSHOP

## DEPLOYABLE **FIELD RADIO** REPAIR FACILITY

With potentially hundreds of combat net radios in an operational area the ability to carry out field diagnosis and repair is essential in keeping battlefield communication lines open. Saab upgraded and supports the Australian Army's 'Medium Repair Facility', a complete radio repair system which allows isolation and replacement of faulty modules.

### **Field Portable**

The system is a rugged portable diagnostic and test facility which allows field technicians to quickly assess and repair a wide range of faults to rapidly return radio equipment to the field.

### **Deployable**

A transportable self-contained workshop provides a fully customisable diagnostic testing and repair capability for virtually any deployable radio system used in urban or field

environments. The system can be configured for static use within a controlled environment or deployed to virtually anywhere in the world within a customised ISO shipping container.

### **Flexible**

The facility uses the latest generation of fully programmable test equipment which simplifies the task of adapting the test suite as new radios are introduced into service.

### **Automated**

The highly automated test processes, driven by a very simple and intuitive software interface, reduces repair turnaround time and simplifies technician training requirements.

### **Supportable**

Saab has developed a comprehensive In-Service Support capability for intermediate and depot level test and repair facilities for Military Communications.

### **Key Advantages**

- Highly Automated > The simple Graphical User Interface permits the rapid selection of the largely autonomous test sequences.
- Flexible > The system can be configured to repair any type of communication device (including ancillaries such as modem, encryption devices etc.).
- Growth potential > The facility is fully expandable to allow for the incorporation of future radio systems.
- Portable > The Transportable MRF contains all of the Test Equipment and ancillary equipment required to perform repair of radio systems anywhere in the world.
- Cost effective > Field mobility reduces the maintenance and logistic footprint of large fleets.
- Data capture > The system captures all repair data for the purpose of trend analysis and logistic forecasting.
- Self test > The system is equipped with a built-in self-test capability.



#### KEY SYSTEM FEATURES

- Highly automated
- Flexible
- Growth potential
- Portable
- Cost effective
- Data capture
- Self-testing



## TECHNICAL DATA

Dimensions	
Height	2244 mm
Length	4010 mm
Width	2435 mm
Weight	3000 kg

Operators	
Primary workstation	1
Secondary workstation	1

Transportation	
Road, Rail or Sea	4 tonne or larger capacity
Air	Hercules C130 aircraft / CH47 (Medium Lift Helicopter) or equivalent

Loading/Unloading	
Forklifts	Shelter includes forklift pockets
Crane or high lift jack	ISO corner fittings

Electrical Characteristics	
Supply Voltage	415 VAC $\pm$ 10% 3-phase
Supply Frequency	50 Hz $\pm$ 5%
Power Consumption	16 kVA maximum
Protection	All external ports are shielded to provide 60 dB attenuation to electrical and magnetic fields and plane waves in the range 150 kHz – 10 GHz.

Environmental Performance	
Operating Temperature	-6° to 44°C
Storage Temperature	-6° to 63°
Humidity	(@ 40°C) 95%
Ventilation	0.86 m3/min maximum

### Major Functional Elements

- Main Interface Panel (MIP) > Routes the low-power signals from the Radio System Under Test (RSUT) to the appropriate test equipment.
- Power Interface Panel (PIP) > Provides power to all RSUT.
- RF Interface Panel (RIP) > Provides the interface between the RSUT and the facility for RF testing and signal conditioning.
- Loopback Panel > Used to confirm the functionality of the test cable sets.
- Automatic Test Equipment (ATE) Controller (PXI-8176) > The primary control computer used in the facility.
- Maintenance Controller (PXI-8176) > Required for redundancy, database replication and ancillary functions.