# GMU

# General Maintenance Unit

Typical Applications:

- Mobile Maintenance
- Equipment Settings Adjustment
- Comprehensive and Complex Scheduled Maintenance



## Description

The GMU is a portable test equipment specifically designed to check the overall performance of a PA/GA type system such as the CEAS.

The GMU allows confirming performance of the different inputs and outputs of the CEAS system under tests. It also simplifies diagnostics for the different peripherals attached to the system. History of specific measurements is also available to help determine if repair or preventive maintenance actions are needed.

The graphical user interface of the test unit makes system operation easy. System status and actions that can be performed on the system appear as easy to identify buttons and indicators. Tests results are available under table and graphical formats.

The GMU allows checking CAES system performance in its entirety. It also allows anticipating system degradation by comparing test results with results obtained from previous tests. Early replacement of potentially defective units is targeted.

Peripherals normally attached to the CEAS can also be connected to the GMU therefore allowing continued operation of the system while it is under tests.

### **Automated Test Routine**

- Actions on digital inputs of the system under tests
- Actions on ring detection inputs of the system under tests
- Monitoring of present state and change of state for the system digital outputs
- Monitoring levels of system analog outputs
- Performing overall tests in about one hundredth the time needed when manually using DMM and other laboratory instruments

### **Data Logging**

- Recording and comparison of test results
- Anticipating degradation of a loudspeaker
- Detecting presence of water in loudspeaker
- Exporting test results in table format

### **User Interface**

- Easy to operate Labview graphical interface
- Interactive user interface
- Examination of test results
- Operator Identification

### **Seamless Connection**

- Serial connection with other equipments
- Normal system operation has priority over maintenance test activity
- Automatic resuming of tests activities after system operation has completed
- Generation of inaudible signals

### **Specifications**

#### **Power Supply**

Supply Voltage : 120 VCA  $\pm$  15 % Supply Frequency : 60 Hz  $\pm$  5 % Power Consumption: 500 W max

#### **Physical Characteristics**

Processing Unit : 568 x 559 x 464 mm (length/width/height)

Measurement Unit : 568 x 559 x 286 mm (length/width/height) Suitcase and Cables : 553 x 435 x 261 mm (length/width/height)

Processing Unit Weight : 33 kg Measurement Unit Weight : 32 kg Suitcase and Cables Weight : 21 kg

#### **Storage Conditions**

Ambient Temperature : -20 to +40°C Humidity : 10 to 95%, no condensation Shocks : 30 g max, 11 ms half sinusoidal impulsion Vibrations : 5 to 500 Hz, 2.4 grms

#### **Operating Conditions**

Ambient Temperature : 0 to 30°C Humidity : 20 to 80%, no condensation Altitude : 2000m max at 25°C Pollution Degree : 2 Vibration : 5 to 500 Hz, 0.3 grms

#### Compatibility

900W and 300W CEAS PA/GA systems Modbus Communication Protocol 70 and 25 VCA Audio Lines

# **Typical system**

