



# WOJSKOWE ZAKŁADY LOTNICZE NO. 2 S.A.

DESIGN AND MANUFACTURING OF AVIATION PRODUCTS



# Warsaw

**Maintenance, repair and overhaul of jet, turbine and starting engines, as well as low-power turbines**

F100-PW-229 for F16C/D Block 52+

PW127G for CASA C295M

RD-33 for MiG-29

AL-21F3/F3A for Su-22M4/Su-24M

TS-21 for Su-22M4/Su-24M

TW2-117A/AG for Mi-8

Al-9W for Mi-14, Mi-17, Mi-24

# Bydgoszcz

**Maintenance, repair and overhaul of military aircraft: F-16, C-130, MiG-29, Su-22**

Civil aviation

Unmanned aerial systems

Military and civilian paint shop

Electroplating and mechanical services

Non-Destructive Testing

Metrology

# BLOK 2E-ME



## **Blok 2E-ME on-board integrated control and warning system "EKTRAN"**

The 2E-ME unit is used for presentation of messages from the block 1E on a LED display and for recording them in the operational memory. There are three luminous guides on the block 2E (FAIL, TURN, MEMORY), two buttons for block menu operation and connection (DATA) which enables data readout from the internal memory.

2E-ME replaces the 2E-01 block in the Ekran system and can be used on any aircraft equipped with this system, e.g. MiG-29 or Su-27.

## **THE BLOK 2E-ME KIT CONSISTS OF**

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Block 2E-ME

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Service manual

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## **Advantages of the 2E-ME block use:**

- full compatibility with the block 2E-01;
- the possibility of recording up to 500 messages in the internal memory of the block 2E-ME (twice as much as on LM-35P tape of the block 2E-01);
- the possibility of viewing recorded messages on the 2E-ME block display;
- ergonomics and operating comfort;
- safe data archiving and documentation on a computer or printout;
- quick playback of check results on a computer and printout;
- elimination of an expensive LM-35P tape use;
- lack of necessity of periodical works performance (e.g. cleaning of print head needle, cleaning of a roller pressing a tape, adjustment of a supply spool clutch, etc. in the block 2E-01).

## **THE ADDITIONAL EQUIPMENT**

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External memory 2E-MP (1 unit per 4 aircraft)

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Memory reader 2E-MC with connection cable

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Software

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For external communication, the PS-CIT-01 uses interface ARINC429 or RS485. Information is displayed on the 3ATI display with the resolution of 480x480 pixels. The PS-CIT-01 is adapted for operation on the NVIS mode. The remote control unit satisfies environmental conditions in accordance with NO-06-A103, NO-06-A105, NO-06-A107.



## Remote Control Unit for IFF System type PS-CIT-01

Remote Control Unit (RCU) PS-CIT-01 is used for control of IFF system type e.g AN/APX 125 on MiG 29M aircraft, DPX 7 on MiG 29UBM aircraft. It can also be used on other aircraft equipped with a transponder, interrogator of IFF system. The PS-CIT-01 enables control and selection of data for the following modes: M1, M2, M3, M4, M5 Level 2, MC and MS EHS of IFF system and displaying settings for an interrogator operation mode for AN/APX 125 unit.



Remote Control Unit PS-CIT-01 installed on the Polish Air Force MiG-29M aircraft.

## TECHNICAL PARAMETERS

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DC power supply: nominal +27V

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Power input: max. 27W

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Communication type: ARINC 429 2xOUT/1xIN RS485

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Radiness to work: < 2s

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Weight: < 1kg

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# T-PS-CIT-01 TESTER



T-PS-CIT-01 tester is used for comprehensive checking, periodical maintenance and fault location of PS-CIT-01 remote control unit. The tester is placed in the Explorer Cases which provides high mobility.

The unit is intended for overhaul plants and air bases using PS-CIT-01 remote control unit.

The tester is intended for repair plants and aviation units operating aircraft equipped with the PS-CIT-01 control panel, including the MiG-29

## THE T-PS-CIT-01 TESTER SET CONSISTS OF

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T-PS-CIT-01 tester

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Operation manual

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Wireless keyboard

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Connection harnesses

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### The T-PS-CIT-01 tester provides checking of:

- RS485 communication between PS-CIT-01 remote control unit and peripheral devices,
- ARINC 429 communication between PS-CIT-01 remote control unit and peripheral devices;
- discrete input and output signals of PS-CIT-01 remote control unit;
- keyboard and the remaining manual elements of PS-CIT-01 remote control unit;
- backlight control systems of the PS-CIT-01 remote control unit display;
- PS-CIT-01 remote control unit power supply.



Tactical number setting module

### Voice Messages & Alerts Unit (VMAU)

The VMAU is a digital voice message unit. The device is provided with 52 discreet inputs and the ARINC 429 interface. It enables generation of 64 audio messages activated via the ARINC 429 interface or up to 52 messages activated via the discreet inputs. Moreover, the discreet inputs status is sent through the ARINC 429 interface to the mission computer and other devices.

The VMAU unit may be applied as a replacement for the existing voice messaging systems of Russian production, installed on the MiG-29 aircraft, such as:

- P-591\_B with unit P.-591-24;
- P-591\_B with unit P.-591-48;
- AŁMAZ-UP;
- RI 65.

The VMAU block can be installed on MiG-29 aircraft or other post-Soviet aircraft and helicopters.

# VMAU TESTER



The VMAU Tester serves the purpose of complex checking, periodical maintenance services, and VMAU failure finding. Moreover, the tester enables preparation of voice commands and their implementation in the VMAU unit. The device is placed inside the Explorer Express transport suitcase, providing for its high mobility.

The tester is designed for MROs as well as for aviation units operating aircraft equipped with VMAU, including MiG-29.

**VMAU Tester** provides for checking the following parameters:

- ARINC 429 input/output;
- Voice messages calling discreet inputs;
- Configuration inputs;
- Audio outputs.

## THE VMAU TESTER CONSISTS OF THE FOLLOWING

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The VMAU Tester device

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Operating manual

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Grit power feeding unit

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Connecting bundles to the VMAU

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