

	<b>SERVICE BULLETIN</b>	25-04-2025
		No. 01-2025

Compliance with this bulletin is

# MANDATORY

## DATE OF EFFECT

10.04.2025

## APPLICATION

This service bulletin applies to all Aviation Artur Trendak gyrocopters with engines with an AAT injection system.

## SUBJECT

Crankshaft position sensor replacement.

## REASON

The temperature resistance of the previously used crankshaft position sensors was found to be insufficient.

## RISK OF NEGLECT

Failure to follow this instruction may result in:

- Problems starting the engine.
- Intermittent engine operation.
- Engine stop during flight.

## REQUIREMENTS

**Bulletin for immediate execution.**

The type of installed crankshaft position sensor should be verified according to the procedure below. If a faulty sensor is used, it must be replaced.

The replacement operation may only be performed by authorized personnel.

In case of doubts in the assessment, please contact Aviation Artur Trendak.

**BEFORE CARRYING OUT ANY OPERATIONS IN THE ENGINE COMPARTMENT, DISCONNECT ONE WIRE FROM THE STARTER CONTACTOR AS SHOWN IN FIGURE 2!**

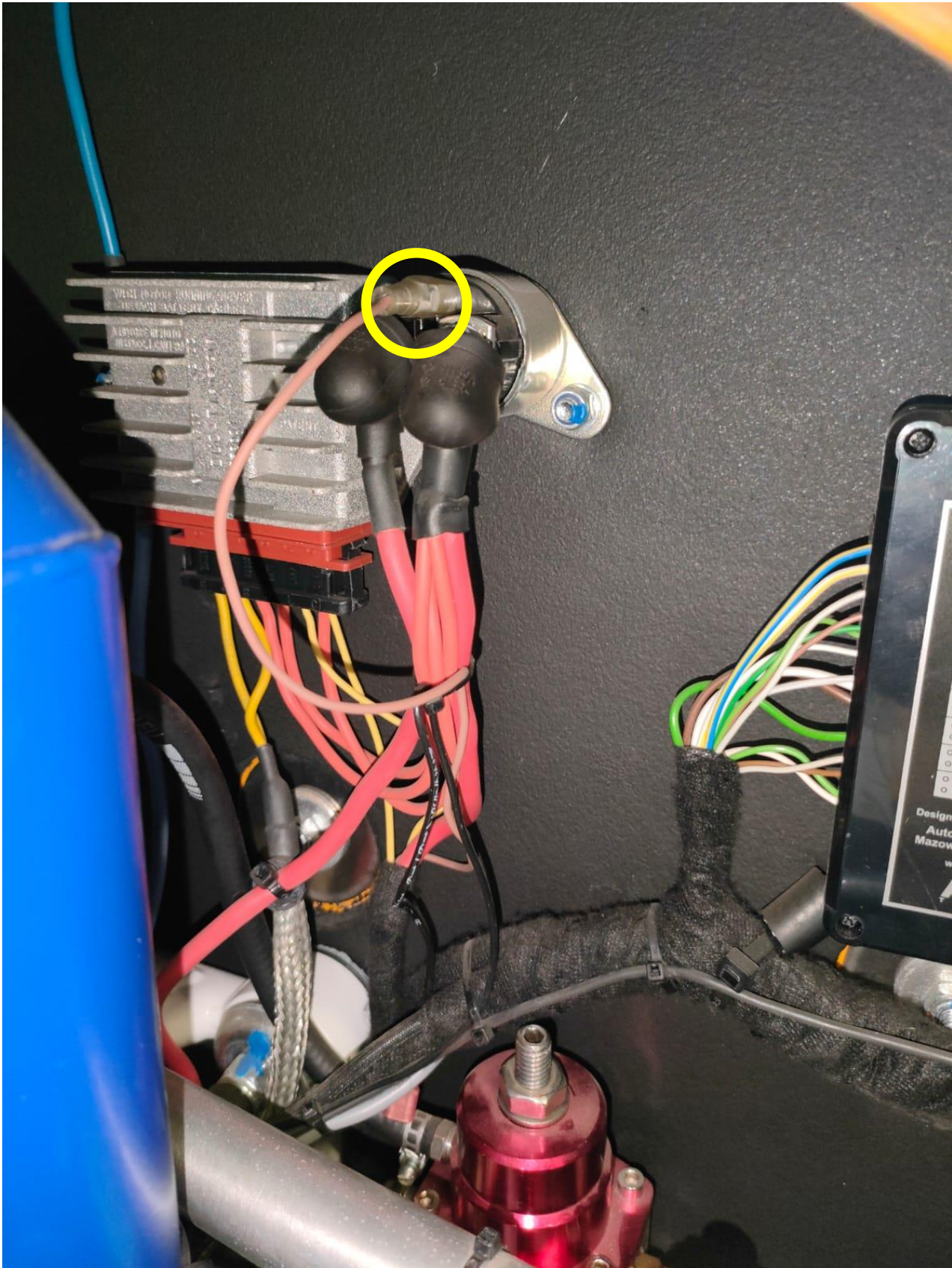


Figure 1. Wire connected to contactor.



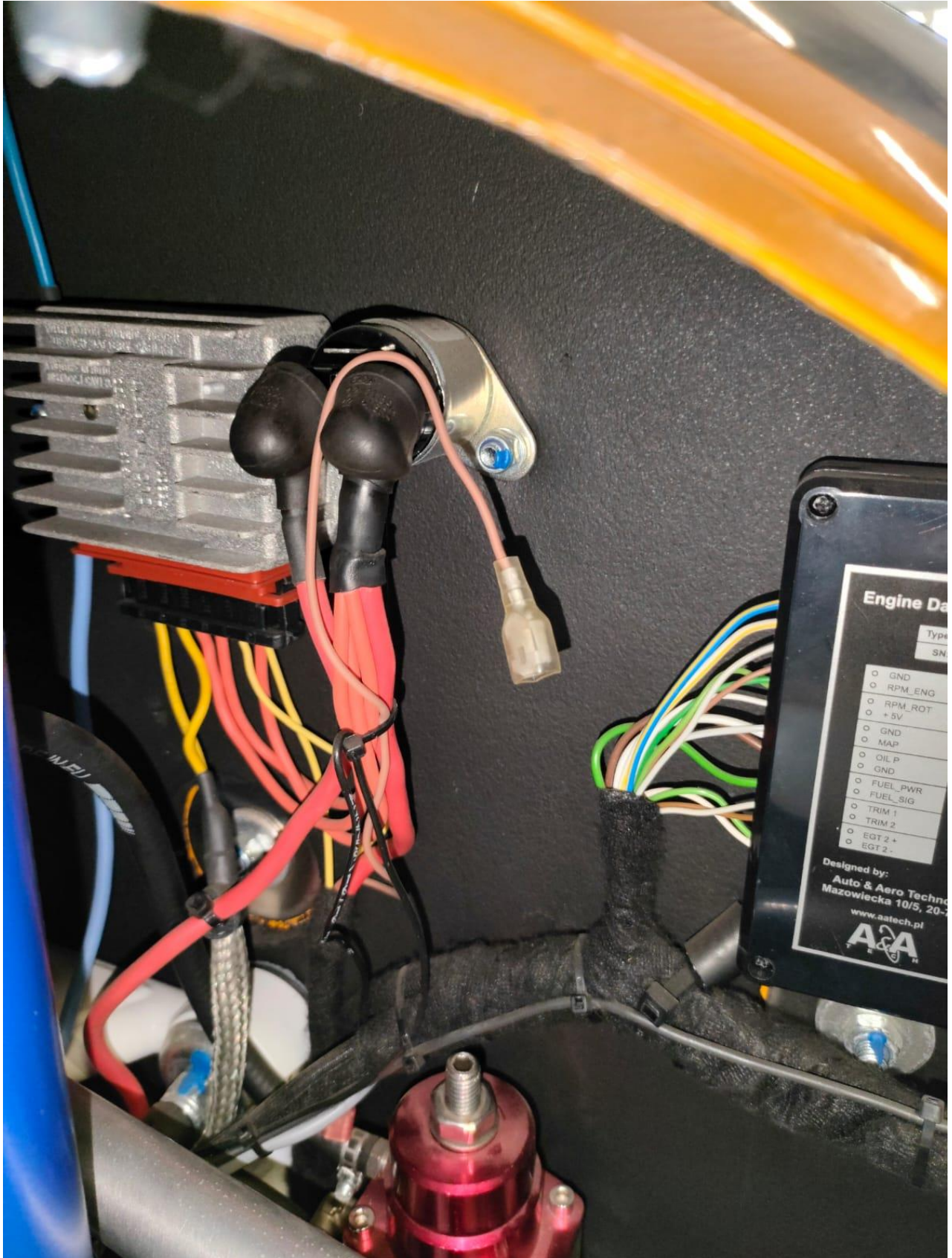


Figure 2. Wire disconnected from contactor.

**CHECKING PROCEDURE:**

- 1) After stopping the gyroplane, open the right inspection window in the engine cover.
- 2) After opening the window, locate the shaft position sensor. This location is shown in Figure 3



Figure 3. Crankshaft Position Sensor - location



- 1) Measure the length of the installed sensor using a caliper as shown in Figure 4. It is important that the measurement is taken from the sensor holder to the end where the cable exits.

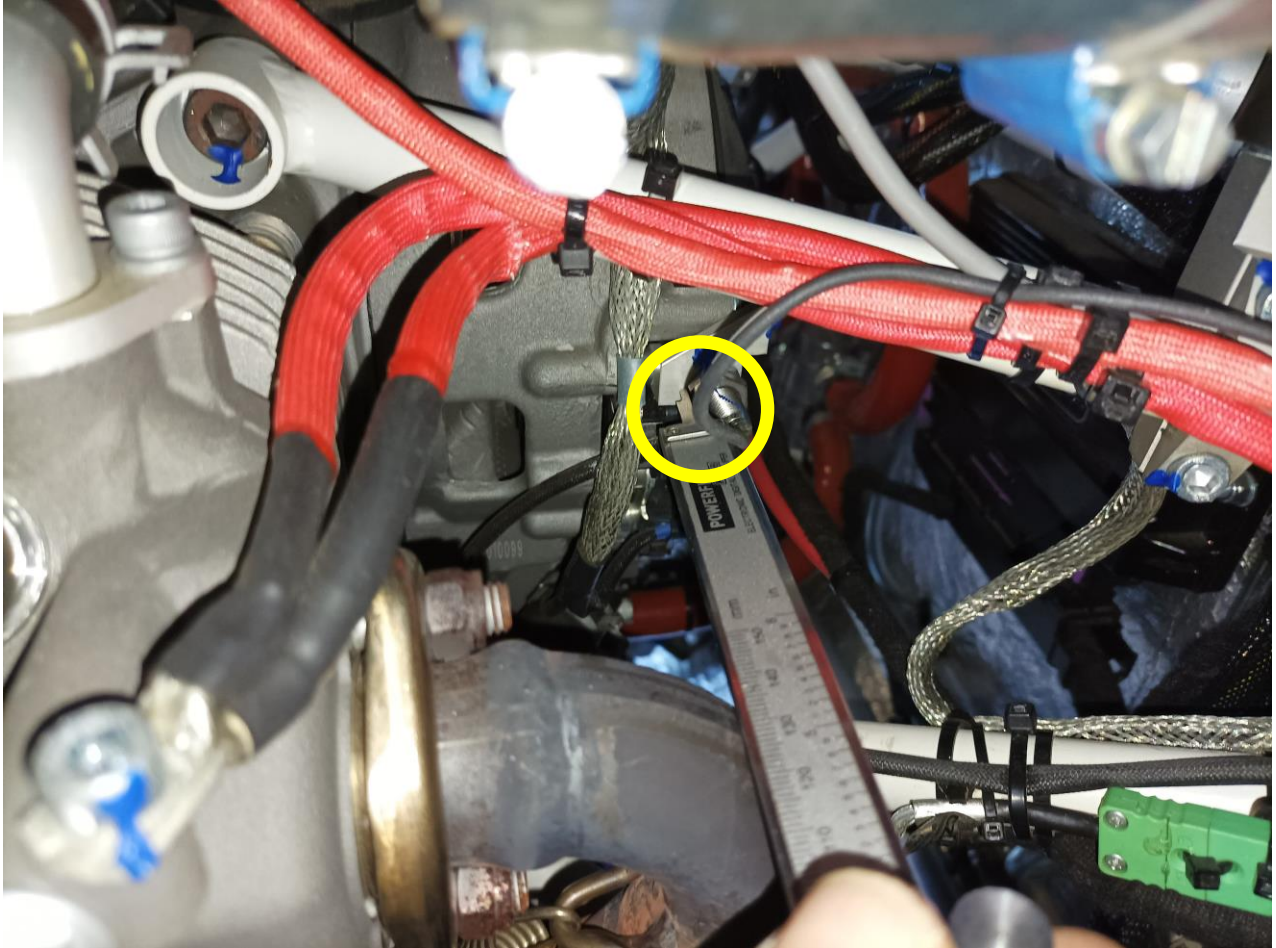


Figure 4. Crankshaft position sensor measurement.

- 2) A result above 21mm indicates the use of a new type of sensor. Do not replace it with a new one.

A measurement result below 15mm indicates the use of a faulty type of sensor. Replace this sensor with a new one.

In case of obtaining different measurement results, please contact your nearest Aviation Artur Trendak dealer.

**ALTERNATIVE INSPECTION PROCEDURE:**

- 1) Disconnect the sensor from the system.
- 2) Unscrew the sensor completely by first loosening the lock nuts.
- 3) Measure the total length of the sensor.

Faulty sensors are 31 mm long

New sensors are 43 mm long

**REPLACEMENT PROCEDURE:**

**BEFORE CARRYING OUT ANY OPERATIONS IN THE ENGINE COMPARTMENT, DISCONNECT ONE WIRE FROM THE STARTER CONTACTOR AS SHOWN IN FIGURE 2!**

- 1) Stop the gyroplane and check if the engine has cooled down after the last start.
- 2) Disconnect the faulty sensor from the installation using the plug on the cable. Figure 5.

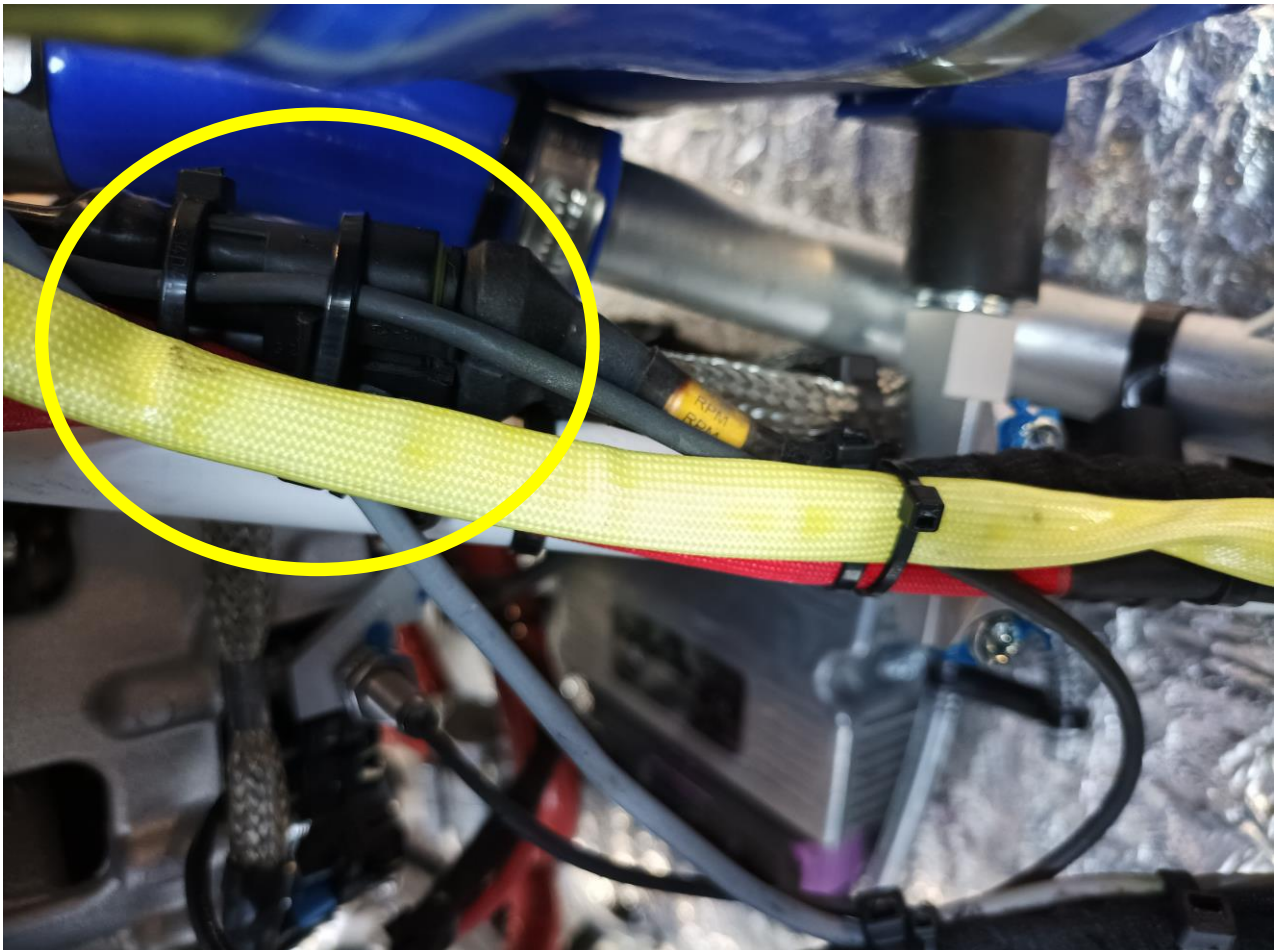


Figure 5. Location of the crankshaft position sensor plug.



- 3) Unscrew the faulty sensor completely by first loosening the lock nuts.
- 4) Rotate the gyroplane propeller to set the magnet wheel as shown in Figure 6..



Figure 6. Correct position of the magnet wheel.

- 5) The most important thing is that the element marked in Figure 6 with the letter A is in the area of operation of the crankshaft position sensor.

Figure 7. Shows the incorrect position of the magnetic wheel.



Figure 7. Incorrect position of the magnet wheel.



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- 6) Screw in the new crankshaft position sensor without using tools until it rests on the element marked with the letter A in Figure 6.
- 7) Make a mark at any visible point on the thread, then unscrew the sensor one turn so that the mark is in the same position.
- 8) Tighten the lock nuts using an agent for gluing threaded connections, e.g. Wurth thread sealant, medium (Art. No. 0893243025) or another with the same parameters.

Contact person:

Arkadiusz Golbert

arek@trendak.eu

+48 530 907 000