

Brushless Motor

PHASOR

User Manual - English

CONTRA  **PROP**

The text "CONTRA" is in a bold, red, sans-serif font, and "PROP" is in a bold, black, sans-serif font. Between them is a stylized propeller icon with four blades, two red and two black, set against a circular background with motion lines.

1. Introduction

The Contra-propeller drive is very useful for acrobatic models for many reasons, for example, reducing the effect of motor torque on the fuselage and eliminating the gyroscopic effect of the propeller. The **Phasor Contra Prop** drive are designed with a planetary gearbox, where the speed and power of both propellers are split. This type of drive has a higher efficiency (**6 to 16%**) compared to a standard single-propeller drive. **Lubrication of the gearbox is very easy and it is not necessary to disassemble the entire drive**, all you have to do is remove the front spinner and the supplied lubricant is applied through the hollow shaft directly to the gearbox. Lubrication of the gearbox is recommended every five hours of motor operation. The drive is tested and used for many years by our test pilots.

2. Benefits of Phasor Contra Prop

- elimination the gyroscopic effect of the propeller
- reduce the maximum torque that goes through the fuselage of the airplane from the motor
- elimination of P-factor (a single propeller at a high angle to the direction of the flowing air has a different thrust of each blade and therefore the aircraft has to be stabilised by rudder input)
- the planetary gearbox of the drive performs the differential split of the power on the each propeller. This solution guarantees a more stable flow of air around the fuselage compared to belt systems that have the same rotation speed for both propellers.
- the optimized planetary gearbox for long service life is based on the technology of manufacturing industrial gearboxes
- the gearbox lubrication system does not require the drive to be removed from the airplane
- powerful PHASOR motor with high efficiency allows the use of low capacity batteries
- more than double the braking effect of counter-rotating propellers during a steep descent
- higher drive efficiency 6 to 16%

3. Technical data

- **Motor:** Phasor 2035 (1150 kV)
- **Power:** 2,2 – 2,9 kW
- **Power supply:** max. 10S (42V)
- **Current:** 60 A (80 A max. 15 s)
- **Weight** (including propeller holders and spinners): 596 g
- **Recommended propellers:** 20-22/18 front + 20-22/20 rear
- **Alternative propellers (F3A):** 23/20 front + 23/20 rear
- **Shaft diameter for front propeller:** 8,0 mm
- **Shaft diameter for rear propeller:** 17,5 mm

4. Gearbox lubrication

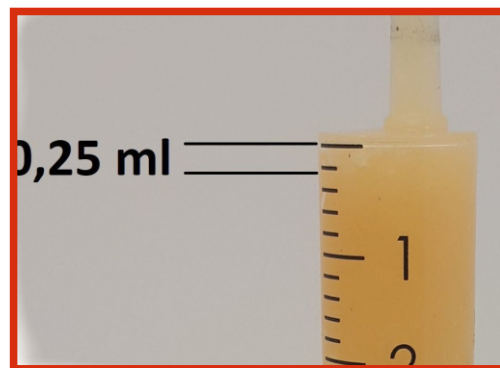
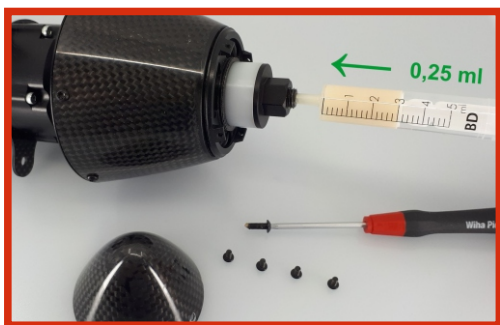
Lubrication of the gearbox is very easy and it is not necessary to disassemble the entire drive, all you have to do is remove the front spinner and the supplied lubricant is applied through the hollow shaft directly to the gearbox. Lubrication of the gearbox is recommended **every 5 hours** of motor operation. A syringe with a special lubricant is supplied with the drive. It is recommended to use **0.25 ml** for each lubrication. The supplied lubricant is therefore sufficient for up to 12 repeated lubrications (the volume of the supplied lubricant is **3 ml**). We strongly recommend that you do NOT use different lubricant, only the lubricant supplied with the drive can be used. After **50 hours** of operating time, send the entire drive directly to the **JETI model company** for service inspection and gearbox cleaning.



1. Remove the front spinner.
Screwdriver **Torx T8**.



2. Unscrew a bolt from the gearbox shaft (lubrication hole).
Screwdriver **Torx T8**.



3. Press **0.25 ml** of the supplied lubricant into the hole in the shaft. We strongly recommend that you do NOT use different lubricant, only the lubricant supplied with the drive can be used.

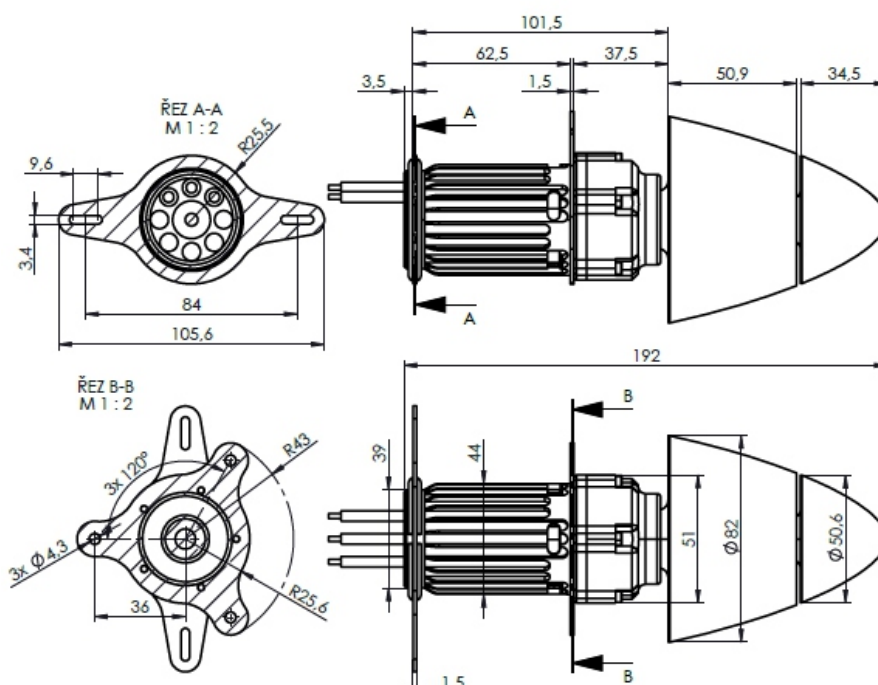
Marked volume **0.25 ml** intended for one lubrication interval. Do not exceed the recommended volume.

After successful lubrication, proceed in the reverse order for assembly.

1. Screw the bolt into the gearbox shaft.
2. Install the front spinner.

Recommendation: Store the lubricant carefully for future use. We recommend storing in a dark and cool place (avoid storage in direct sunlight).

5. Dimensions (units in millimeters)



For Contra-propeller drive we grant a warranty of 24 months from the day of purchase under the assumption that they have been operated in conformity with these instructions at recommended voltages, current, lubrication of the gearbox and that they were not damaged mechanically. Warranty and post warranty service is provided by the manufacturer.

We wish you successful flying with the products of:

JETI model s.r.o. , Lomená 1530, 74258 Příbor, info@jetimodel.cz, www.jetimodel.com