REVISION	CHANGE	APPROVED	DATE
1	Published release	JTS	26/11/2025

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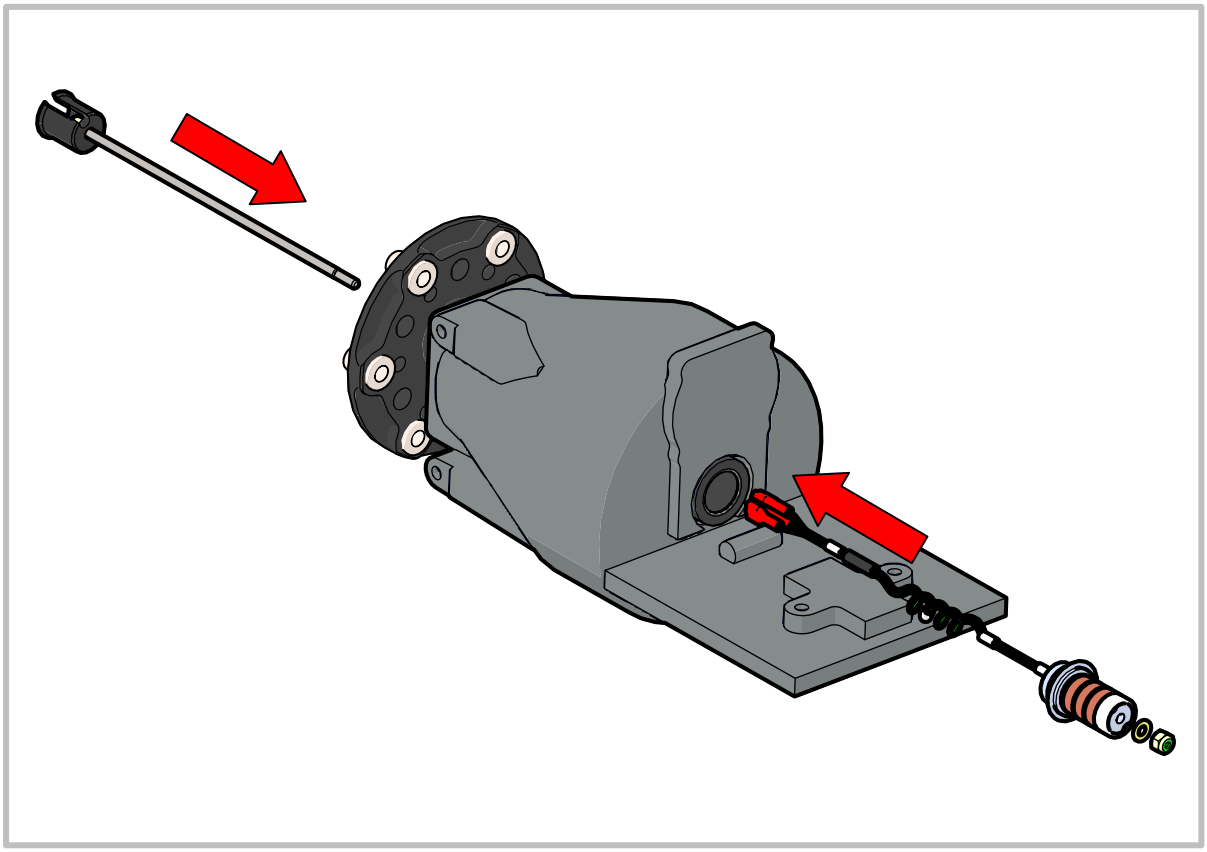
ASI-4-3-1

ROTAX MINI SLIPRING INSTALLATION

PROCEDURE



SUBJECT:	
Slipring Installation	
ASSEMBLY NO:	**APPLICABILITY:**
AR-RM(E)	All propeller models using a mini slipring assembly (applicable for Rotax 912 or 914 series engines).

1. TOPIC

1.1 Introduction

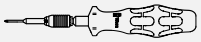
This document covers the installation procedure for an Airmaster mini slipring assembly, as applicable for Rotax 912 and 914 series engines which feature a hollow propeller shaft. Installers must perform this task before mounting the propeller hub to the engine flange.

2. MATERIAL REQUIREMENTS

2.1 Parts

ITEM	QTY	PART NO.	DESCRIPTION	IMAGE
1.	1	AR-RM(E)	Airmaster Rotax Mini Slipring Assembly (Extended)	

2.2 Tooling

ITEM	QTY	DESCRIPTION	IMAGE
1.	1	Torque Screwdriver (3/8” Socket Bit) [2Nm]	

2.3 Consumables

ITEM	QTY	DESCRIPTION	IMAGE
1.	As required	Cleaning Agent (Non-Corrosive) *(e.g. Loctite® SF 7063, Methylated Spirits)*	
2.	As required	Paper Towels, Clean Cloth (or similar)	
3.	As required	Torque-Seal	
4.	As required	Aviation Grease *(e.g. Mobilgrease28)*	
5.	1	Small Paintbrush (Glue Brush)	

2.4 Paperwork

ITEM	QTY	CODE	DESCRIPTION
1.	1	AR-RM(E)	Airmaster Rotax Mini Slipring Assembly Drawing & BoM

3. PROCEDURE

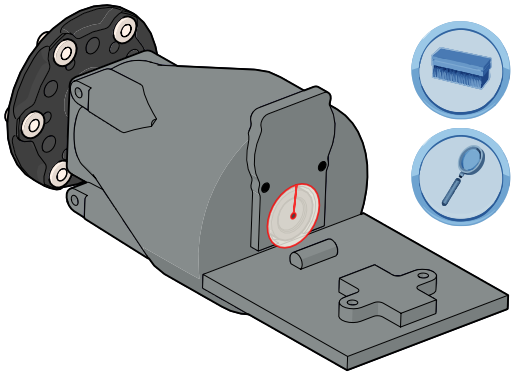
3.1 Install Mini Slipring Assembly

PROCEDURE

Step 1 Prepare Gearbox Output Shaft

- Ensure that Rotax prop shaft is hollow and there is no surrounding equipment that will interfere with the mini slipring installation.
- Clean all surfaces at the rear of the engine output shaft.

Attention *Cleaning agent, Clean cloth*

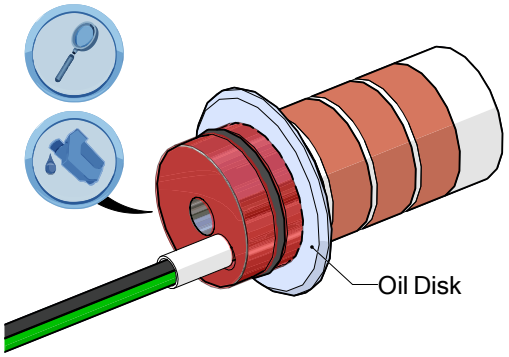


Step 2 Prepare Mini Slipring Barrel

- Check the 32mm oil disk is fitted forward of the lip of the mini slipring barrel.
- Lightly grease the area of the mini slipring barrel forward of the oil disk, and the o-ring.

Caution *Avoid grease on slipring surfaces.*

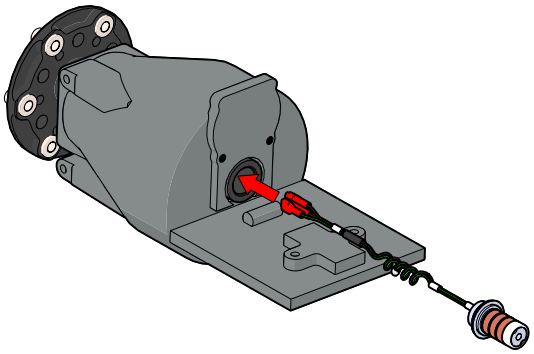
Attention *Brush, Grease*



Step 3 Seat Mini Slipring Barrel

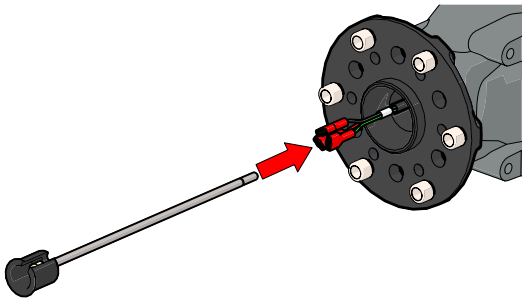
- Carefully feed mini slipring assembly (connectors first) into hollow output shaft from the rear of the gearbox.
- Carefully feed/pull connectors through to the opposite side and seat the slipring barrel home against the rear face of the shaft.

Note
If the oil disk is obstructed by the motor body casting, slide the oil disk off the mini slipring and align it against the output shaft before passing the base of the mini slipring through it.



Step 4 Insert Retaining Rod

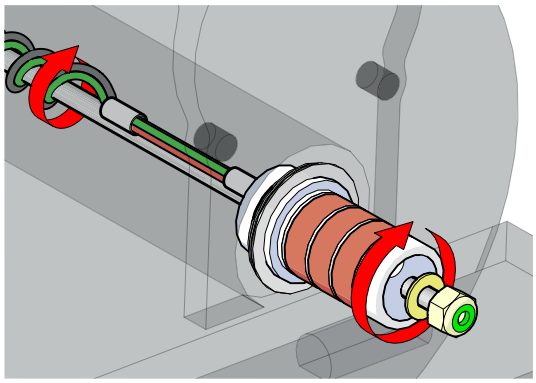
- Insert retaining rod and cup through the front of the hollow shaft and exit though the centre of the mini slipring barrel at the rear.



> *Note*
> *Ensure that protective rubber sleeve and slipring wires are fed into the cutaway of the recessed cup.*

Step 5 Fit Mini Slipring to Rod

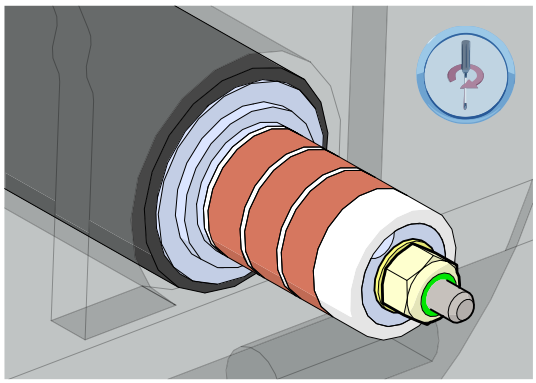
- Fit (1) washer (*P0205L*) and (1) 10-32 UNF locknut (*P0156*) to starting threads of the rod.
- Rotate mini slipring barrel (CW) while restraining the cup at the opposite end, so that wires form a spiral around the rod inside the shaft.



> *Note*
> *Feed excess wiring through the cup cutaway as you do this.*

Step 6 Secure Mini Slipring

- Tighten locknut whilst restraining the cup to prevent it from rotating.
- Torque locknut to **2.5Nm (1.9ft-lbs)**.
- Wiggle slipring barrel by hand. Check it feels secure and there is no free movement.
- Check there is no gap under locknut.
- Indicate with torque-seal.



> ***Caution***
> *Do not overtighten the locknut as this may damage the threaded feedback rod.*

> *Attention*
> *Torque screwdriver (3/8” socket), Torque-seal*

3.2 Subsequent Action

Perform the following tasks once this procedure is complete:

- Attach sensor-brush assembly to Rotax (mini) mounting bracket in accordance with procedure ***ASI-4-8-1***.
- Mount sensor-brush assembly to engine in accordance with procedure ***ASI-4-8-2***.