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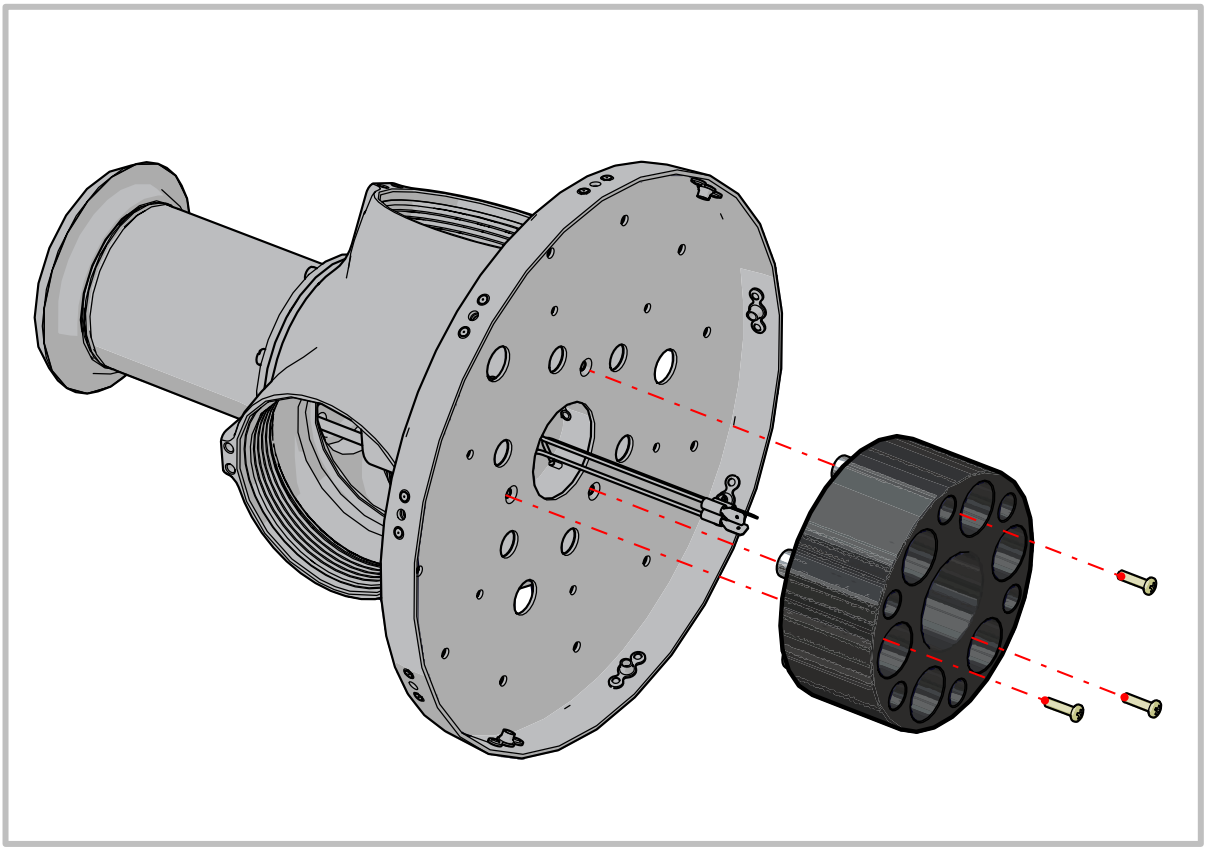
ASI-4-2-1

PRE-FITTING SPACER ASSEMBLY TO HUB

PROCEDURE



SUBJECT:	
Mount Kit Installation	
ASSEMBLY NO:	**APPLICABILITY:**
AE-xSx	All propeller models using a spacer assembly that is 0.75in or greater

1. TOPIC

1.1 Introduction

This document covers the procedure for fitting an Airmaster spacer assembly to the propeller hub. Installers must complete this task before mounting the hub to the engine flange.

Airmaster offer several types of spacer assemblies. Generally, spacers that are 0.75 inches or longer must be pre-fitted to the propeller hub. This procedure is not required for spacers shorter than this length.

Some spacer assemblies incorporate electrical wiring (such as when a standard slipring assembly is used), while others do not (such as when a mini slipring assembly is used). Installers should follow the steps applicable for their specific setup.

1.2 Prerequisites

Complete the following tasks before proceeding:

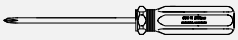
- Verify that the spacer should be fitted to the propeller hub, as indicated by the following:
    - Spacer length is 0.75in or greater.
    - Spacer kit assembly includes (3) 8-32 UNC panhead screws (*P0237*).
    - For new propellers, the (3) countersunk screws retaining the backplate to the hub are labelled “temporary”. These are replaced with P0237 screws when the spacer is subsequently fitted to the hub.

2. MATERIAL REQUIREMENTS

2.1 Parts

ITEM	QTY	PART NO.	DESCRIPTION	IMAGE
1.	1	AE-xSx	Airmaster Spacer Assembly	
2.	1	AH-xxx	Airmaster Hub Assembly	

2.2 Tooling

ITEM	QTY	DESCRIPTION	IMAGE
1.	As required	Heat Gun	
2.	1	Torque Wrench (1/2” Socket) **Size requirements may vary*	
3.	1	PH2 Screwdriver	

2.3 Consumables

ITEM	QTY	DESCRIPTION	IMAGE
1.	As required	Anti-Seize Compound (Paste) *(e.g. Duralac, Tef-Gel, Loctite® Moly-50)*	
2.	As required	Cleaning Agent (Non-Corrosive) *(e.g. Loctite® SF 7063, Methylated Spirits)*	
3.	As required	Paper Towels, Clean Cloth (or similar)	
4.	As required	Small Paintbrush (Glue Brush)	
5.	As required	Loctite 222	

2.4 Paperwork

ITEM	QTY	CODE	DESCRIPTION
1.	1	AE-xSx	Airmaster Spacer Kit Assembly Drawing & BoM
2.	1	AH-xxx	Airmaster Hub Assembly Drawing & BoM
3.	1	As applicable	Airmaster Control System Circuit Diagram

2.5 PPE

ITEM	QTY	DESCRIPTION	IMAGE
1.	As required	Protective Gloves	

3. PROCEDURE

3.1 Preparation

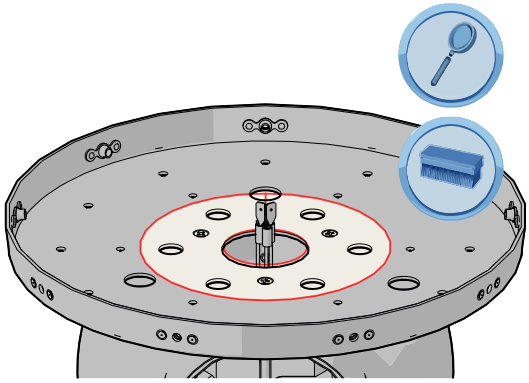
PROCEDURE

Step 1 Prepare Hub / Backplate

- Carefully rest propeller hub on motor cap (upside down) atop a flat, clean surface.
- Clean mounting face of spinner backplate.
- Inspect this area for damage or defect.

> ⚠ ***Caution***
> *Take care not to topple the hub, a temporary hub cradle may be fashioned using a piece of custom wood with a 100mm dia. circle in the centre and supporting legs.*

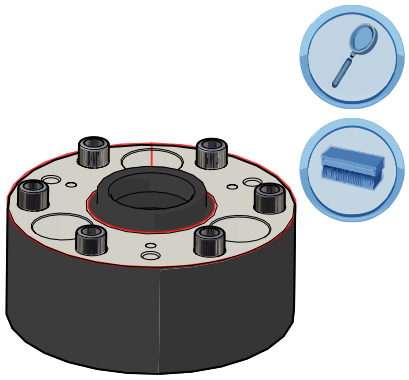
> ⓘ *Attention* *Cleaning agent, Paper towels*



Step 2 Prepare Spacer Assembly

- Clean mounting face (spigot-side) of spacer assembly and allow to air dry.
- Inspect assembly for damage or defect.

> ⓘ *Attention* *Cleaning agent, Paper towels*

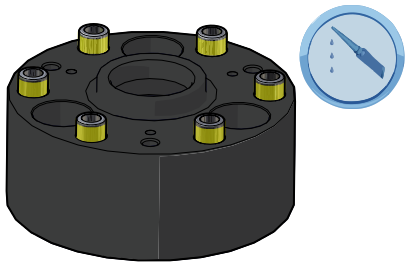


Step 3 Lubricate Spacer Drive Lugs

- Apply a light film of anti-seize compound to the spacer assembly drive lugs for corrosion protection.

> ⚠ ***Caution*** *See approved anti-seize compounds.*

> ⓘ *Attention* *Anti-seize compound, Brush*

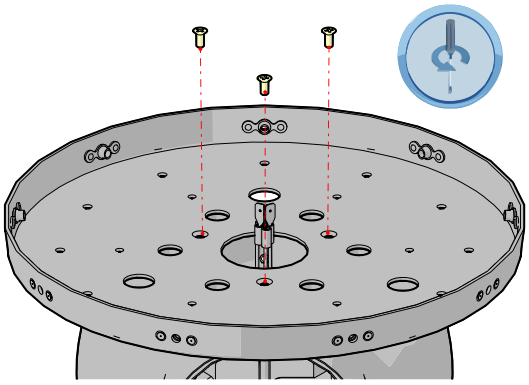


Step 4 Remove Temporary Screws

- Remove (3) temporary countersunk screws retaining backplate to hub.

> ⚠ ***Caution***
> *Take care not to knock the hub or backplate once these screws are removed as this is only loosely attached to the hub by gasket sealant.*

> ⓘ ***Attention*** *PH2 Screwdriver*



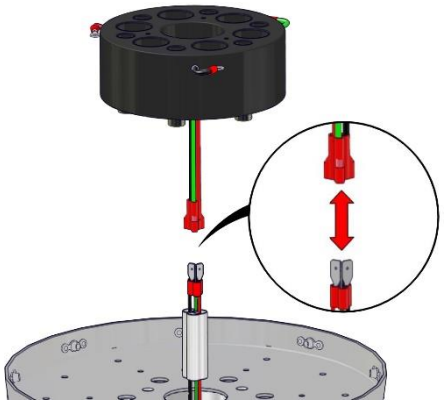
3.2 Connect Wiring (As Required)

> ⓘ ***Note*** *This task only applies when a wired spacer assembly is used.*

PROCEDURE

Step 1 Connect Hub Wiring

- Slide a 50mm tube of heat shrink (*P2041-50*) over each hub wire.
- Connect hub and spacer assembly spade terminals of matching wire colour.

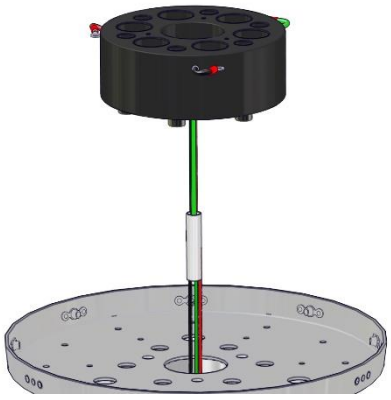


Step 2 Secure Heat Shrink

- Slide heat shrink tubes over terminal connections
- Shrink the tubes in place.

> ⚠ ***Caution***
> *Take care not to apply excessive or prolonged heat as this can melt the wire insulation.*

> ⓘ ***Attention*** *Heat gun*



3.3 Fit Spacer Assembly to Hub

PROCEDURE

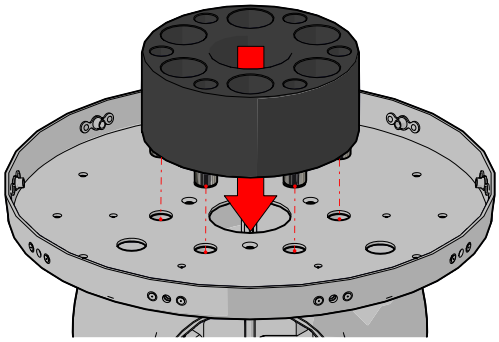
Step 1 Locate Spacer into Hub

- Locate spacer assembly drive lugs into hub mounting holes and push into place.

Note
For wired spacer assemblies:
- Align black spacer wire with port 1 of hub.
- Arrange excess wiring into centre recess to prevent obstruction between mating faces.

- Check spacer assembly is fully seated and square with backplate.

**Showing Non-Wired Spacer Assembly*

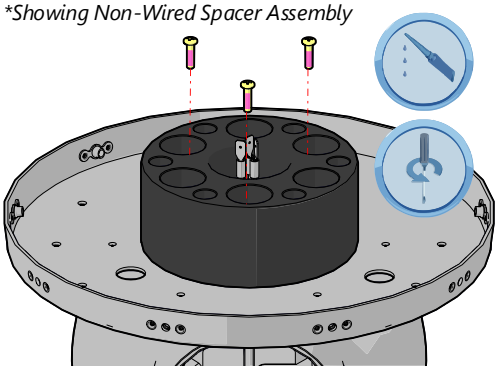


Step 2 Attach Spacer to Hub

- Apply a thin stripe of Loctite 222 to the threads of (3) 8-32 UNC pan head screws (*P0237*).
- Attach spacer to hub with these screws.
- Torque screws to **1.2Nm (0.9ft-lbs).**

Attention *Loctite 222, Torque screwdriver (PH2)*

**Showing Non-Wired Spacer Assembly*



3.4 Subsequent Action

Perform the following tasks once this procedure is complete:

- If applicable, attach standard slipring assembly to plated spacer assembly in accordance with procedure ***ASI-4-3-2-2***.
- If applicable, install mini slipring assembly in accordance with procedure ***ASI-4-3-1***.
- Mount hub to engine flange in accordance with procedure ***ASI-4-4-2***.