

PS Planetary Gearbox

High Accuracy • High Rigidity • High Efficiency

Instruction Sheet

1 General Precautions

Thank you for purchasing PS planetary gearbox which is especially designed for industrial industry from Delta Electronics. Users must be aware of the specification and user manual of the planetary gearbox before operation. For your safety and machine safety, please read carefully through this precaution before installation to ensure correct operation. Please pay special attention to the following instructions.

2 Delivery, Installation and Storage Precautions

- Do not solely hold on its rotary shaft while you are holding or placing your planetary gearbox.
- Avoid direct impact such as knocking or beating at the planetary gearbox from interfering with its accuracy.
- The load on the shaft, whether it is on axial direction or radial direction, must not exceed its specified range. (Please refer to the catalogue for further information.)
- Please do not use the planetary gearbox in location with water drop, oil liquid, excessive moisture, or corrosive or inflammable gas.
- Please store your planetary gearbox in location without moisture, dust or corrosive gas or liquid.
- The shaft of the planetary gearbox is not rust-proofing. Though it is applied with anti-rusting oil before shipping, please inspect the shaft and apply anti-rusting oil every three months to prevent rust when the storage time is over six months.

3 Operation Precautions

- Please use the product in accordance with the specification. Be sure to keep its temperature within -25°C ~ 90°C.
- The shaft is not rust-proofing, thus anti-rusting oil is required during operation to ensure its long-term performance.
- The temperature of the planetary gearbox may increase after long operation time, please do not touch its body.
- When irregular smell, noise, smog, heat or vibration is detected, please stop the operation and power off immediately.

4 Other Precautions

- Do not disassemble the planetary gearbox; otherwise, the warranty may be voided and permanent malfunction and damage may be caused.
- Do not let water drop or oil splash or drop onto the product.



To ensure correct operation of Delta planetary gearbox, please read carefully through this safety precaution before installation, operation and maintenance.

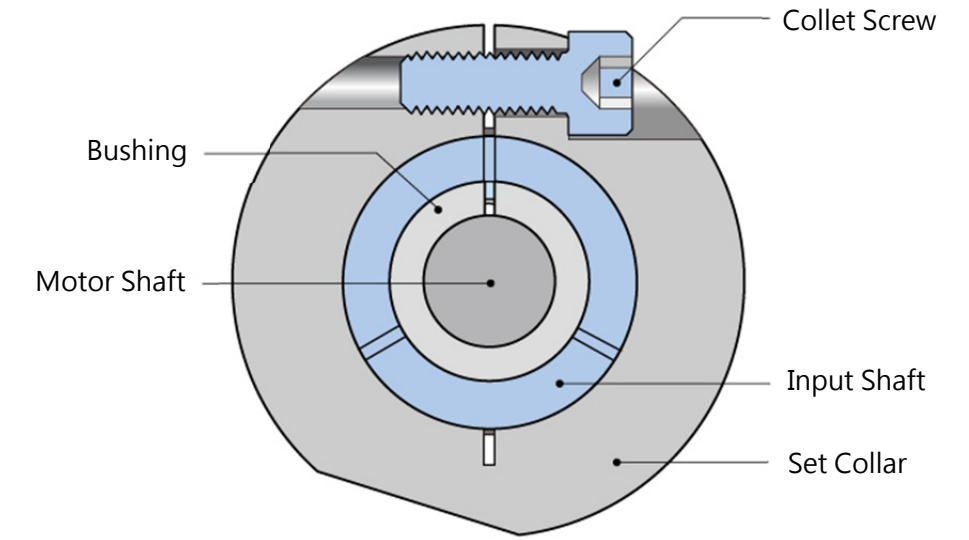
5 Installation Procedure

1. Confirm the motor model and the gearbox specification. Clean up the mounting surface.	2. Remove the motor key	3. Check output shaft size and insert bushing into input bore if necessary.
4. Remove the plug. Then, loosen the collet screw with hex-key wrench. Ensure the screw is aligned with the screw hole.	5. Put the motor into the gearbox vertically.	6. Tighten the hexagon head screws in order with the torque wrench.
7. Tighten the collet screw with torque wrench.	8. Put in the plug.	



- NOTE**
- Please fix the motor prior to the set collar.
 - Please observe the installation sequence and note that procedure 6 and 7 are irreversible.
 - Make sure that the plug is put in to avoid any objects from entering the gearbox.

6 Collet Screw & Set Collar Torque Table



Model	Spec. of Collet Screw	Screw Grade	Tighten Torque(Nm)	Clench Torque(Nm)
PS062	M5 x P0.8	12.9	10	164
PS090	M6 x P1.0	12.9	16.3	233
PS120	M8 x P1.25	12.9	41	423
PS142	M10 x P1.5	12.9	81	678

※ It may cause slip when motor torque exceeds clench torque.

7 General Failure and Solution for Planetary Gearbox

Failure Description	Causes	Solutions
Overheating	Overload.	Adjust to proper load.
	Excessive friction of oil seal.	Lubricate the oil seal.
	Improper connection between output shaft and transmission device.	Adjust to proper position.
	Large impact load.	Use a larger gearbox.
Noise	Overload.	Adjust to proper load.
	Bearing damaged or loose clearance.	Replace the bearing.
	Shortage or deterioration of lubricating oil.	Fill in adequate lubricating oil as indicated.
	Improper connection between output shaft and transmission device.	Adjust to proper position.
	Loose bolts.	Tighten the bolts.
Oil Leakage	Improper installation of transmission device.	Fix transmission device securely.
	Oil seal damaged.	Replace oil seal.
	Excessive oil.	Fill in adequate amount of lubrication oil as indicated.
	Loose screws.	Tighten the screws.
Output Shaft Failure	Outer shell is fractured.	Replace the outer shell.
	Overload.	Adjust to proper load.
	Bearing damaged.	Replace the bearing.
	Intrusion of foreign objects.	Remove foreign objects.
	Gear is worn-out.	Replace the gear.
	Large impact load.	Use a larger gearbox.