

CHAPTER

70

STANDARD PRACTICES

ENGINE

CHAPTER 70 - STANDARD PRACTICES ENGINE
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SPECIAL NOTE

WITHIN THIS MANUAL ALL REFERENCES TO LEFT AND RIGHT, CLOCKWISE AND COUNTERCLOCKWISE, FRONT AND REAR, ARE AS VIEWED FROM THE REAR OF THE AIRPLANE.

WITHIN THE ENGINE/PROPELLER MANUALS ALL SUCH REFERENCES ARE AS VIEWED FROM THE ACCESSORY GEARBOX/SPINNER BULKHEAD.

BECAUSE THE PIAGGIO P180 AVANTI IS CONFIGURED WITH "PUSHER" PROPELLERS, THE ENGINES ARE INSTALLED WITH THE ACCESSORY GEARBOX TOWARDS THE FRONT OF THE AIRPLANE; THEREFORE, IN THIS MANUAL ALL REFERENCES TO LEFT AND RIGHT, CLOCKWISE AND COUNTERCLOCKWISE, FRONT AND REAR (WHEN APPLIED TO ENGINE AND PROPELLER COMPONENTS) WILL BE THE OPPOSITE TO THE SAME REFERENCES IN THE ENGINE/PROPELLER MANUALS.

FOR EXAMPLE, ACCORDING TO THIS MANUAL, THE ENGINE ACCESSORY GEARBOX IS AT THE FRONT OF THE ENGINE; THE ENGINE MANUALS CONSIDER THE ACCESSORY GEARBOX TO BE THE REAR OF THE ENGINE.

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ENGINE - STANDARD PRACTICES

1. General

For the general engine standard practices, refer to the Pratt & Whitney Engine Maintenance Manual (Part N° 3036122).

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ELECTRICAL CONNECTORS - STANDARD PRACTICES

1. General (Ref. Fig. 201)

- A. This topic gives the general procedure for the connection of electrical plugs during the maintenance of the engine.
 - (1) If an electrical plug is installed incorrectly it can cause moisture to go in to the plug or the mating connection.
 - (2) This can cause incorrect electrical signals or failure of the applicable circuits.
 - (3) Do not remove the protective cap(s) until immediately before you connect the plug to the mating connection.

2. Prepare the Plug and the Receptacle

A. Fixtures, Test and Support Equipment

Lint free cloth	Not specified
Cleaning tissues	Not specified

B. Materials

Cleaning fluid (Isopropyl Alcohol)	02-008
Lockwire	Not specified

C. Referenced Information

Maintenance Manual Chapter [20-00-00](#)

D. Procedure

- (1) Remove the protective caps from the plug and the related receptacle. Keep the caps in a clean and dry bag.

WARNING: BE CAREFUL WHEN YOU USE ISOPROPYL ALCOHOL. OBEY THE HEALTH AND SAFETY INSTRUCTIONS GIVEN IN CHAPTER 20.

- (2) Examine the plug and the receptacle for contamination caused by liquid or solid unwanted materials. If necessary, clean with Isopropyl Alcohol but obey the instructions that follow:

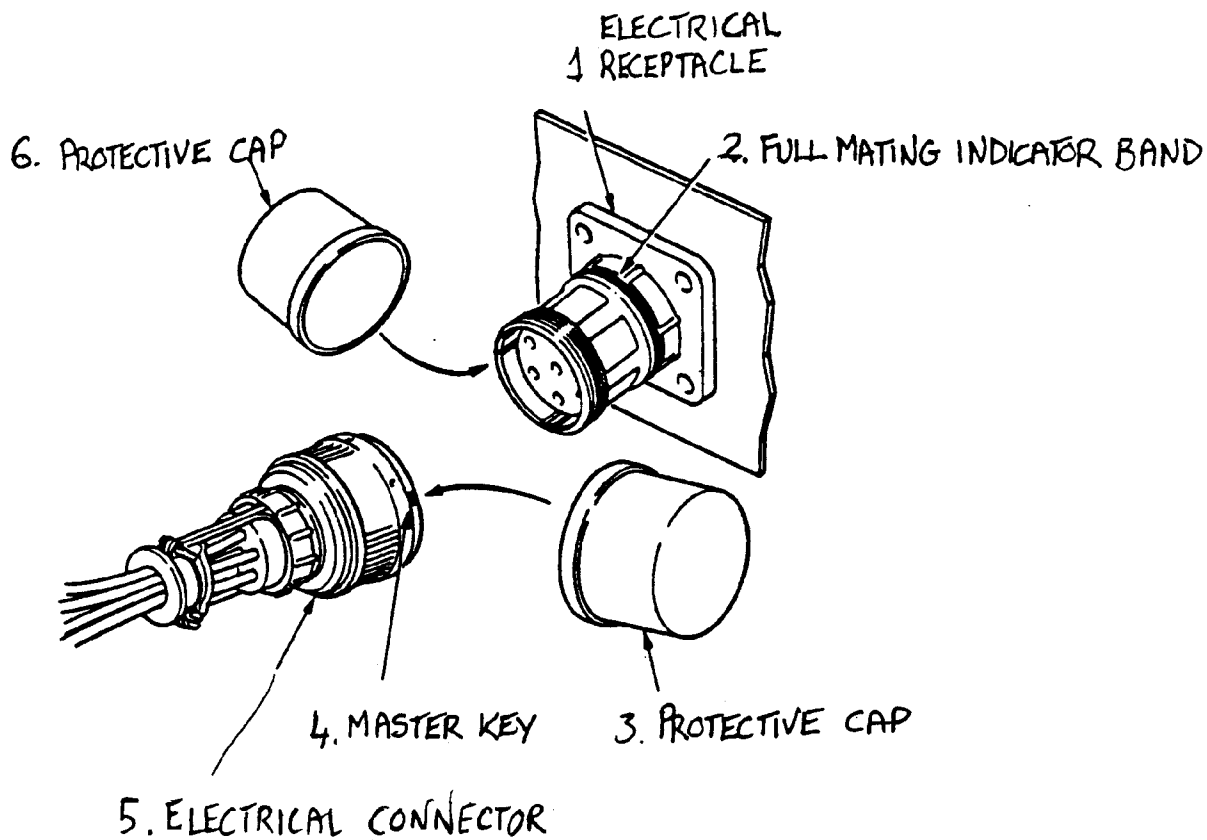
CAUTION: DO NOT APPLY A SPRAY GUN, OR USE COMPRESSED AIR, AT A PRESSURE OF MORE THAN 15 PSI.

- (a) Remove all contamination from the surfaces with a brush or a spray gun.
- (b) If the plug or the receptacle is in such a position that the unwanted fluid can not drain away, use a clean lint free cloth or disposable cleaning tissues to remove the fluid.

- (3) Examine the plugs and receptacles that are attached to the harness.
 - (a) Examine the parts for corrosion and damage; also, inserts that are damaged or soaked with oil. Repair or replace the defective parts as necessary, (Refer to Inspection/Check, Repair and Assembly in the related Component Maintenance Manual).
- (4) Examine the receptacles that are attached to the unit.
 - (a) Examine the parts for corrosion and damage; also, inserts that are damaged or soaked with oil. Repair or replace the defective parts as necessary (Refer to related Vendor's Overhaul Manual).
- (5) Connect the plug
 - (a) Align the master key on the plug with the receptacle master key-way.
 - (b) Use light hand pressure to engage the plug with the receptacle.

CAUTION: THE FULL MATING INDICATOR BAND ON THE RECEPTACLE IS NOT A STOP LINE. THE BAND MUST ALWAYS BE FULLY CONTAINED BY THE LEADING EDGE OF THE PLUG KNURLED NUT.

- (c) With the threads correctly engaged, install the plug nut, in a clockwise direction, on to the receptacle threads. Continue to turn the nut until the full mating indicator band is fully contained and the first audible click is heard. Continue to turn the nut for one quarter to one third of a turn more, then stop.
- (d) When necessary, safety with lockwire (Refer to [20-00-00](#)).



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Fig. 201 - Example - Plug and Receptacle

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