



INSTRUCTION – PREHEAT KIT INSTALLATION

Subject: TSTPWJT15-2131-115 and TSTPWJT15-2131-230
PREHEAT KITS ON PW JT15D SERIES ENGINES

Document No: TNT2131

Revision: B

Date: FEB-12-2018

RECORD OF REVISIONS

When revised document changed in its entirety.

REV	DATE	DESCRIPTION	BY	CKD
B	FEB-12-2018	Add installation photos and update part numbers	DNE	GDO
A	SEP-19-2014	Update format replace instruction 133	DNE	DNE
	NOV-31-2007	Instruction 113 Previous revisions date controlled	DNE	N/A

Current revision approval: _____

1. PURPOSE

This instruction provides guidance for installation of subject kits listed above.

2. REQUIREMENTS

Installation requires parts and related documents called out in top-level drawing 2131-115 (115-volt kit) or 2131-230 (230-volt kit).

Technicians and users of this instruction should be familiar with Installation Guide TNG1000.

Installation is to be recorded and data retained as indicated in Instructions for Continued Airworthiness (ICA) TCA1000 and Operating Guide TPG1000.

Tools, hardware, and consumables, not supplied:

- Pad element installation requires bonding sealant refer to TN02788.
- Plug mounting hardware not supplied refer to this instruction and TNG1000.
- Cable termination requires crimp tool refer to TN02793 and TNG1000.

3. INSTALLATION

Start installation with parts and document inventory.

- Review TNG1000 Installation Overview and this instruction.
- AV/Cabin and battery heaters, and additional options refer to TNG1000.
- Refer to Section (§) 4 Tables and Figures for examples of installation actual installation may vary due to existing equipment and/or operating requirements.

3.1 Weight and Balance

Change requirements refer to TNG1000:

- As configured, approximate installed weight: 1.0 pounds (lbs.) / 0.45 Kilograms (Kg).
Use engine arm for CG calculations.

PROPRIETARY DATA

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3.2 Elements



Caution: Energized elements can cause 2nd and 3rd degree burns.

Before locating elements:

- a. Refer to § 4 Table 1, using ohmmeter verify element resistant values.
- b. Locate elements with reference to § 4 and instruction TN02788 or TNDC730.
- c. Element positioning and/or lead orientation may vary from figures and narratives.
- d. Should alternates or additional element(s) be required contact Tanis engineering.
- e. Perform Functional System Check before connecting to power refer to TNG1000.

3.3 Electrical System

Electrical routing to be determined (TBD) installer refer to § 4 and wire diagram drawing 2130.

1. Shore power plug (inlet):

Identify location for shore power plug (inlet), fused link, and indicator light, TBD installer. Common location is on oil filler tube with cushioned clamps or optional location on airframe. Twin engine/system interconnect, plug and door options available refer to TNG1000.

Note: 230 Volt kits supplied with adapter receptacle plug (outlet) for installation on extension cord supplied by the operator refer to TN02829.

2. Circuit Protection Devices (CPD):

Locate CPD (fused link) near plug.

3. Indicator Lights:

Refer to instruction TN03039 locate adjacent to plug, kit supplied with light bracket TU03145 for use as required.

4. Grounding:

Attach grounding wire to engine or aircraft structure with proper metal-to-metal bonding attachment. Resistance of ground connection is not to exceed .003 ohms.

5. Junction, connectors, and leads:

Locate junction in area that allows leads to reach corresponding components. Secure electrical system components with cushioned clamps and/or lacing/cable-ties.

6. Placard TU02615:

Affix supplied placard or alternate near shore power plug or on inside or outside of door.

7. Inspect:

Visually inspect and verify components are connected and secure.

8. Complete:

Perform Functional System Check refer to TNG1000.

4. TABLES and FIGURES

This section contains electrical values and installation figures. Actual installation may vary due to existing equipment or operating requirements.

Table 1. Electrical values for individual elements, and system totals for 115 and 230-volt.

Total preheat system and individual element values +/- 10%.

115-volt TSTPWJT15-2131-115			Total:	3.6 Amps	410 Watts	32.6 Ohms
Qty	Element Part Number	Location	Each:	Watts	Ohms	
1	TEP2655-115/90	AGB near hydraulic pump		90	146.9	
2	TEP3179-115/40	AGB LH/RH sides		40	330.6	
2	TEP3181-115/120	Engine case LH/RH below mount pads		120	110.2	

230-volt TSTPWJT15-2131-230			Total:	1.8 Amps	410 Watts	129.0 Ohms
Qty	Element Part Number	Location	Each:	Watts	Ohms	
1	TEP2655-230/90	AGB near hydraulic pump		90	587.8	
2	TEP3179-230/40	AGB LH/RH sides		40	1322.5	
2	TEP3181-230/120	Engine case LH/RH below mount pads		120	440.8	

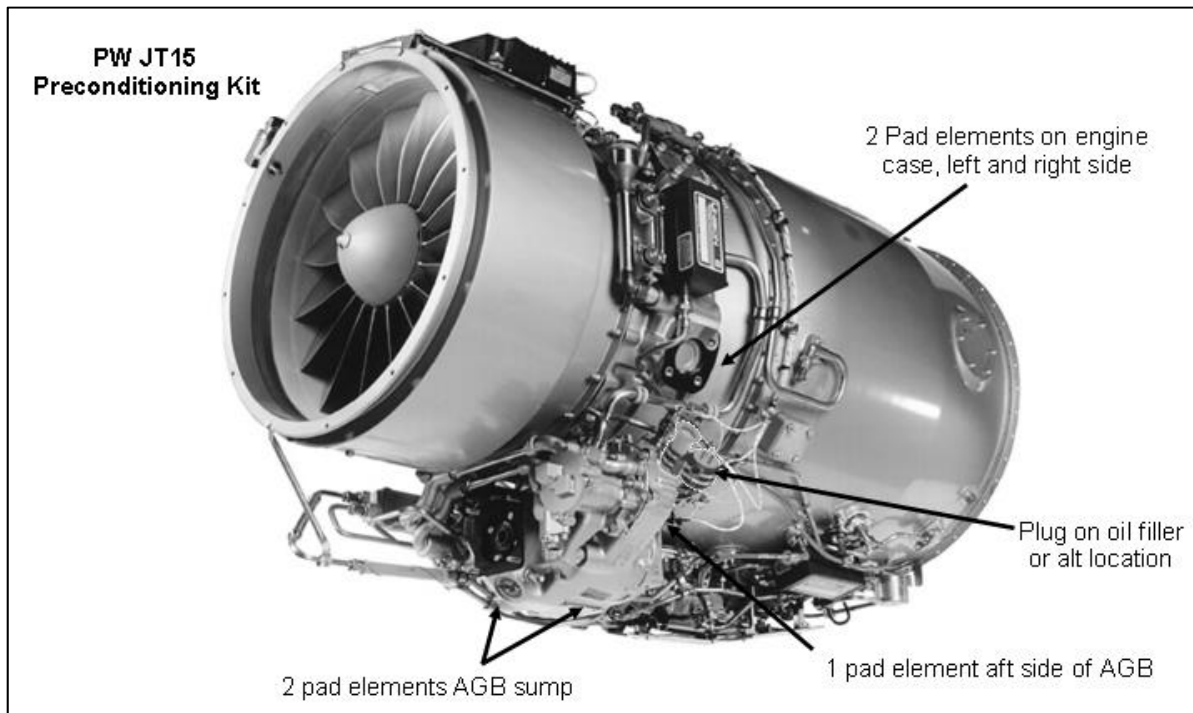


Figure 1. General kit layout.

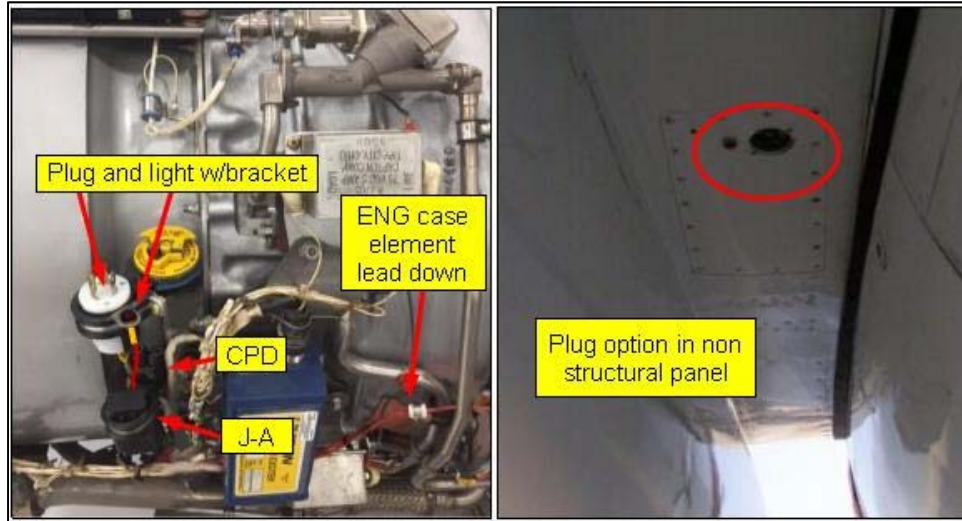


Figure 2. Locate plug on oil filler tube. Refer to TNG1000 for additional plug and door options.



Figure 3. Engine case elements. Locate TEP3181- low on left and right side of case ring.



Figure 4. AGB elements. Locate TEP2655- on aft side of case, 2 each TEP3179- on sump.

***** NOTHING FOLLOWS *****