

CHAPTER 50

CLEANING INSTRUCTIONS – AIRCRAFT AIR-CONDITIONING

UNITS VARIOUS

- 50.1 This chapter provides basic and specific cleaning requirements for selected GSE. Where there is a specific requirement or need to highlight particular problem areas detailed cleaning guides are provided as tables and figures in this chapter.
- 50.2 While Aircraft Air-conditioning Units may appear to be quite innocuous, they are complex pieces of machinery. While all contamination and BRM must be removed, the main areas of concern are:
- a. external areas;
 - b. electronics;
 - c. engine bay;
 - d. hoses/ducting; and
 - e. tyres (new, old and spares).
- 50.3 All points are not specific to all Aircraft Air-conditioning Unit.

External Areas

- 50.4 The cleaning instructions for Aircraft Air-conditioning Units include the points detailed in Table 50-1.

Table 50–1: Aircraft Air-conditioning Unit

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
1	The external canopy is to be washed and be and free of soil, plant and insect material.	
2	Mud and other debris collect in the inside area on the inner side of the wheel. Ensure that this area is cleaned well.	
3	Ensure axles and mounts on chassis are clean and free of soil, plant and insect material.	
4	Towbars are to be cleaned taking particular notice of any piping or hollow cavities.	
5	The ducting hose and couplings are to be washed with low pressure water or air cleaned internally and externally to ensure it is free of BRM or if deemed un-cleanable, disposed of.	

Electronics

- 50.5 The cleaning instructions for the Aircraft Air-conditioning Units electronics include the points detailed in Table 50-2.

**EXTREME CAUTION
ELECTRICAL COMPONENTS**

Do not use water or steam to clean any interiors areas of the Aircraft Air-conditioning Unit's electrical compartments – Use air clean only and only under the supervision of a qualified technician

Table 50–2: Aircraft Air-conditioning Unit's Electronics

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
1	Use air clean only and only under the supervision of a qualified technician	

Engine Bay

- 50.6 The cleaning instructions for Aircraft Air-conditioning Unit's Engine and Engine Bay include the points detailed in Table 50-3.

50–3: Cleaning Instructions for Aircraft Air-conditioning Unit's Engine and Engine Bay

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
1	Use air clean only and only under the supervision of a qualified technician	
2	Clean the engine compartment and engine to ensure they are free of dust, built up dirt and grease, insect and plant material.	
3	Ensure the starter motor and alternator are covered and taped to stop ingress of water.	2.0
4	Do not direct high-pressure water jets at any of the engine openings/breathers, or at any of the electrical/electronic components.	2.0
5	Remove and dispose of air cleaner element in. Replace air cleaner element with a new part.	0.5
6	Remove the grill (if applicable) and high-pressure air or pick clean the radiator to ensure there are no seed or insect debris embedded. Inspect behind number plate and tactical signage.	
7	The radiator cowling may need to be removed to facilitate the cleaning of the radiator.	0.5
8	Flush radiator and oil cooler from both sides to verify fin/core cleanliness.	
9	Loosen radiator shroud to let any loose debris fall through after flushing.	
10	Check either side of radiator for vertical hollow support structures. Flush to verify internal cleanliness if present.	
11	Check all wiring harnesses for internal cleanliness.	
12	All water reservoirs must be emptied (excluding radiator).	

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
13	Remove the battery from the compartment and clean the leads.	
14	Clean the battery boxes and cradles and ensure they are free of dirt, dust, plant and insect material.	
15	Where possible/practical re-fit batteries only after inspection by DA.	

Hoses/Ducting

50.7 The cleaning instructions for a Hydraulic Rig Unit's hoses/ducting include the points detailed in Table 50-4.

Table 50-4: Cleaning Instructions for the Hydraulic Rig Unit's Hoses/Ducting

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
1	All hoses/ducting are to be fully extended and cleaned to ensure they are free of BRM	
2	Plastic-coated cabling should be wiped down and all cable ties removed.	
3	Electrical tape, which has been used to secure hoses/ducting, is to be removed and destroyed, as this provides an ideal area for plant and soil particles to collect	
4	The hoses/ducting compartment is to be cleaned are free of BRM	

Tyres (New, Old and Spares)

50.8 The cleaning instructions for Tyres (new, old and spares), if applicable, include the points detailed in Table 50-5.

50-5: Cleaning Instructions for Tyres (New, Old and Spares)

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
1	All tyres are to be washed and scrubbed to remove all BRM.	
2	Damaged tyres are to be inspected and their suitability for return to Australia determined. If necessary, damaged tyres (for example, perished, cracked or split) are to be removed and disposed of in accordance with the tyre disposal policy.	
3	Cracked tyres have the risk of containing BRM therefore perished tyres are to be subject to disposal.	
4	All tyres are to be treated with an approved residual insecticide after cleaning.	
5	Fitted tyres that are damaged should be replaced with new tyres.	
6	Used and fitted tyres on rims are to be individually verified that the tyres are on rims, inflated with beading sealed and that the tyres are clean, free of water and other BRM.	
7	Tyres that are not fitted to rims are to be stored in such a manner that water cannot collect inside the tyre. The preferred DA solution is that tyres are stored within containers. Tyres not fitted on rims will require	

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<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
	fumigation on return to Australia.	
8	DA considers a Non-Commercial consignment of tyres to contain a maximum of 8 tyres (inclusive of the wheels on the vehicle) and be imported with an accompanying vehicle. If tyres are to be transported back to Australia in containers or crates, please refer to the DA BICON (Biosecurity Import Conditions system) internet site (http://www.agriculture.gov.au/import/online-services/bicon) for the commodity "tyres".	

Annexes:

- A. Cleaning Instructions - TEC 300 AC Aircraft Air-conditioning Unit
- B. Cleaning Instructions - 5080DE Aircraft Air-conditioning Unit

ANNEX A TO CHAPTER 50

CLEANING INSTRUCTIONS – TEC 300 AC AIRCRAFT AIR- CONDITIONING UNIT

1. This annex provides basic and specific cleaning requirements for selected GSE. Where there is a specific requirement or need to highlight particular problem areas detailed cleaning guides are provided as tables and figures in this annex.
2. The cleaning requirements that follow are in addition to those points for aircraft air-conditioners that are included Chapter 50 of this publication.

External Areas

3. The cleaning instructions for the TEC 300 AC Aircraft Air-conditioning, illustrated in Figure 50A-1, include the points detailed in Table 50A-1.



Figure 50A–1: TEC 300 AC Aircraft Air-conditioning Unit

Table 50A–1: TEC 300 AC Aircraft Air-conditioning Unit’s External Areas

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
1	All areas of this unit may be washed with low pressure water except for the electrical components detailed in Chapter 1.4 below.	
2	Refer to Chapter 50 for detailed cleaning guidelines	

Electronics

EXTREME CAUTION
ELECTRICAL COMPONENTS

Do not use water or steam to clean any interiors areas of the Aircraft Air-conditioning Unit’s electrical compartments – Use air clean only and only under the supervision of a qualified technician

4. The cleaning instructions for TEC 300 AC Aircraft Air-conditioning Unit's electronics, illustrated in Figures 50A-2 to 50A-5, include the points detailed in Table 50A-2.

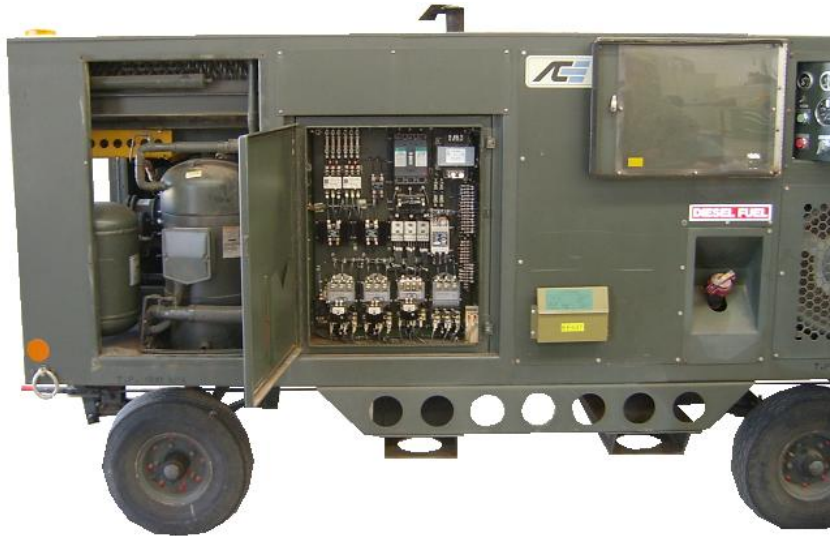


Figure 50A-2: TEC 300 AC Aircraft Air-conditioning Unit Electronics



Figure 50A-3: TEC 300 AC Aircraft Air-conditioning Unit Electronics



Figure 50A-4: TEC 300 AC Aircraft Air-conditioning Unit Condensers

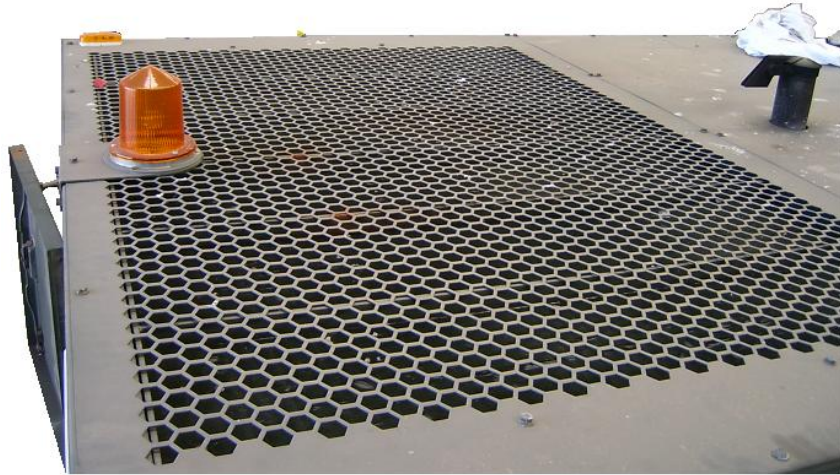


Figure 50A-5: TEC 300 AC Aircraft Air-conditioning Unit Condenser Filter

50A-2: Cleaning Instructions for TEC 300 AC Aircraft Air-conditioning Unit's Electronics

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
1	Use air clean only and only under the supervision of a qualified technician	
2	Remove panel to allow access the evaporator filter	
3	Remove panel to allow access the condenser filter (refer Figure 50A-5)	

Engine and Engine Bay

5. The cleaning instructions for TEC 300 AC Aircraft Air-conditioning Unit's engine and engine bay, illustrated in Figures 50A-6 and 50A-7, include the points detailed in Table 50A-3.



Figure 50A-6: TEC 300 AC Aircraft Air-conditioning Unit Condenser Engine



Figure 50A-7: TEC 300 AC Aircraft Air-conditioning Unit Condenser Alternator

50A-3: Cleaning Instructions for TEC 300 AC Aircraft Air-conditioning Unit's Engine and Engine Bay

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
1	Use air clean only and only under the supervision of a qualified technician. Do not direct high-pressure water jets at any of the engine openings/breathers, or at any of the electrical/electronic components.	
2	Do not direct high-pressure water jets at any of the engine openings/breathers, or at any of the electrical/electronic components.	
3	Ensure that water is not directly applied to the starter motor and alternator (refer Figure 50A-7)	
4	Refer to Chapter 50 for detailed cleaning guidelines	

ANNEX B TO CHAPTER 50

CLEANING INSTRUCTIONS – 5080DE AIRCRAFT AIR- CONDITIONING UNIT

1. This annex provides basic and specific cleaning requirements for selected GSE. Where there is a specific requirement or need to highlight particular problem areas detailed cleaning guides are provided as tables and figures in this annex.
2. The cleaning requirements that follow are in addition to those points for aircraft air-conditioners that are included Chapter 50 of this publication.

External Areas

3. The cleaning instructions for the 5080DE Aircraft Air-conditioning Unit, illustrated in Figures 50B-1 and 50B-2, include the points detailed in Table 50B-1.



Figure 50B-1: 5080DE Aircraft Air-conditioning Unit



Figure 50B-2: 5080DE Aircraft Air-conditioning Unit's Filter

Table 50B-1: 5080DE Aircraft Air-conditioning Unit's External Areas

Serial	Comments or Tasks	Technical Time (hours)
1	Clean the canopy of the unit (if using water – only low pressure water is to be used).	
2	Ensure the louvers of the unit are removed, washed and free of BRM.	
3	Remove external panels and clean. Clean frames prior to replacement.	
4	Remove filter panels and air clean or dispose of (refer Figure 50B-2).	
5	Refer to Chapter 50 for detailed cleaning guides.	

Engine Bay

- The cleaning instructions for the 5080DE Aircraft Air-conditioning Unit's Engine Bay, illustrated in Figures 50B-3 to 50B-6, include the points detailed in Table 50B-2.

**EXTREME CAUTION
ELECTRICAL COMPONENTS**

Do not use water or steam to clean any interiors areas of the Aircraft Air-conditioning Unit's engine compartments The engine compartment contains a highly sensitive **COMPUTER** – Use air clean only and only under the supervision of a qualified technician



Figure 50B-3: 5080DE Aircraft Air-conditioning Unit's Engine Bay Computer

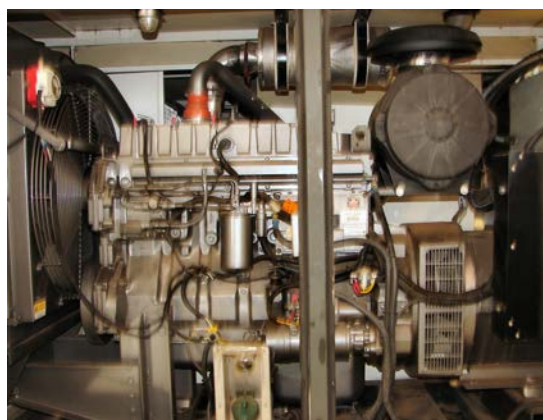


Figure 50B-4: 5080DE Aircraft Air-conditioning Unit's Engine Bay



Figure 50B-5: 5080DE Aircraft Air-conditioning Unit's Radiator and Fan

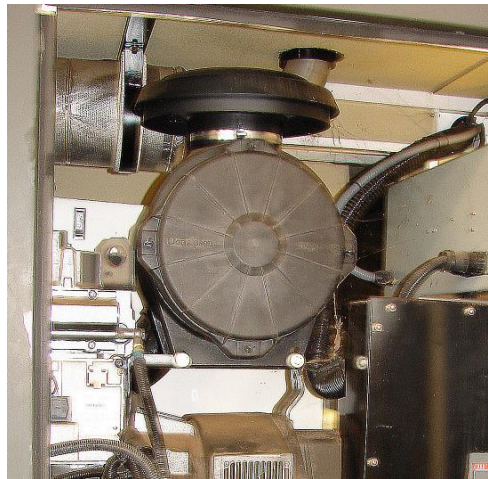


Figure 50B-6: 5080DE Aircraft Air-conditioning Unit's Air Filter

Table 50B-2: 5080DE Aircraft Air-conditioning Unit's Engine Bay

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
1	Do not use water or steam to clean any interiors areas of the Aircraft Air-conditioning Unit's engine compartments The engine compartment contains a highly sensitive computer (refer Figure 50B-3)	
2	The engine bay is only to be cleaned under the supervision of a qualified technician	

Batteries

5. The cleaning instructions for 5080DE Aircraft Air-conditioning Unit's batteries, illustrated in Figure 50B-7, include the points detailed in Table 50B-3.



Figure 50B-7: 5080DE Aircraft Air-conditioning Battery Bay

Table 50B-3: 5080DE Aircraft Air-conditioning Unit's Batteries

1	Remove the batteries from the vehicle and clean.	
2	Clean the battery boxes and cradles and ensure they are free of dirt, dust, plant and insect material.	
3	Where possible/practical re-fit batteries only after inspection by DA.	

Internal Areas

6. The cleaning instructions for the 5080DE Aircraft Air-conditioning's internal areas, illustrated in Figures 50B-8 and 50B-9, include the points detailed in Table 50B-4.



Figure 50B-8: 5080DE Aircraft Air-conditioning Tanks



Figure 50B-9: 5080DE Aircraft Air-conditioning Unit Evaporators

Table 50B-4: 5080DE Aircraft Air-conditioning Unit's Internal Areas

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
1	Use air clean or hand wipe only and only under the supervision of a qualified technician	

Electronics

- The cleaning instructions for 5080DE Aircraft Air-conditioning Unit's electronics, illustrated in Figures 50B-10 to 50B-12, include the points detailed in Table 50B-5.

**EXTREME CAUTION
ELECTRICAL COMPONENTS**

Do not use water or steam to clean any interiors areas of the Aircraft Air-conditioning Unit's electrical compartments – Use air clean only and only under the supervision of a qualified technician



Figure 50B-10: 5080DE Aircraft Air-conditioning Unit's Electrical Circuit Box



Figure 50B-11: 5080DE Aircraft Air-conditioning Unit's Motor Control Panel



Figure 50B-12: 5080DE Aircraft Air-conditioning Unit's Operator Control Panel

Table 50B-5: Cleaning Instructions for 5080DE Aircraft Air-conditioning Unit's Electronics

<i>Serial</i>	<i>Comments or Tasks</i>	<i>Technical Time (hours)</i>
1	Use air clean only and only under the supervision of a qualified technician	