

PQAR Line Maintenance Troubleshooting Guide

All buttons, lamps and displays referenced below are located on the PQAR front panel. To use this guide, follow each step in the order listed, unless indicated otherwise by "go to" instructions. More detail on these checks can be found in SIL 52000-07.

This document is intended for guidance and training purposes only and does not supersede the Aircraft Maintenance Manual, Component Maintenance Manual or Installation Manual.

(1) Is POWER ON lamp illuminated?

- If lamp is lit, go to (2).
- If lamp is not lit, check power supply to PQAR. If electrical power supply is confirmed, **replace PQAR**.

(2) Is LOW CAPACITY or FAIL lamp illuminated? If not, then go to (3).

- If LOW CAPACITY lamp is lit, **insert or replace PCMCIA card**.
- If FAIL lamp is lit, reset electrical power to PQAR. If FAIL lamp still remains lit, **replace PQAR**.

(3) Press & release EXIT button, then check the 8-character display. If 01 OPERATOR is displayed, go to (4).

- If DRIVE TOO HOT is displayed, switch off electrical power to PQAR for 20 minutes, then start again at check (1). If problem persists, **replace PQAR**.
- If DRIVE TOO COLD is displayed and does not clear within 20 minutes, **replace PQAR**.

(4) Press & release ENTER button. The lower 8-character display should show ARQ with either "*", "E" or "-" after each letter.

- A = A573/717, R = RS422, Q = A429. (NOTE: If PQAR is not configured for A429 or RS422 recording, then ignore the R & Q indications).
- "*" = active (data present), "E" = error (unable to sync), "-" = inactive (no data present).
- **Investigate DMU and/or other equipment on aircraft for any that are indicating "E" or "-".**

(4a) Does display show "A*R*Q*"?

- If A*R*Q* is displayed, all data is being received from the DMU. Go to (9).
- If no "*" are displayed, the PQAR is not receiving data from DMU. Go to (5).

(5) Continue pressing & releasing EXIT button until 01 OPERATOR is displayed.

(6) Continue pressing & releasing "+" button until 02 STATUS is displayed.

(7) Continue pressing & releasing ENTER button until AD_TFS is displayed.

- Number shown in lower display indicates total number of A573 subframes recorded previously.
- Note the number displayed, then go to (8).

(8) Continue pressing & releasing "+" button until AD_BFS is displayed.

- Number shown in lower display indicates total number of **bad** A573 subframes recorded previously.
- Good previous PQAR operation will be indicated by AD_BFS total less than 2 and AD_TFS total of many. If this is not indicated, **check that DMU is transmitting data to PQAR**.

(9) Open access door on PQAR front panel.

(10) Press & release EJECT button.

- Message PLEASE WAIT / CLOSING FILES or PLEASE WAIT / FLUSHING will display.
- Wait until display changes to REMOVE CARD.
- Remove PCMCIA card from PQAR. **Warning: Do not remove card unless display indicates REMOVE CARD, otherwise file corruption or lost data can occur.**
- Display should change to INSERT CARD.
- Insert PCMCIA card into PQAR and close the access door.
- Display should change to CHECKING CARD and PLEASE WAIT.

- Wait for 1 minute, then go to (11).

(11) Is TIME and DATE displayed on PQAR front panel?

- Reset PQAR clock if incorrect TIME or DATE are displayed.
- Remove electrical power for 1 minute after resetting PQAR clock, then restore power. If TIME & DATE are incorrect **replace PQAR**.
- **If correct TIME and DATE are displayed, then PQAR is serviceable and no further checks are necessary.**
- **Do not do checks (12) to (15) if correct TIME and DATE are displayed.**

(12) If TIME and DATE are not displayed, then go to (13) Is WRITE PROTECT / PRESS EJECT displayed?

- If no, then go to (13).
- If yes, then **disable write protection on card**.
- If problem remains after disabling write protection on card, **replace PCMCIA card**.

(13) Is BAD MEDIA / PRESS EJECT displayed?

- If no, then go to (14).
- If yes, then **reformat PCMCIA card (FAT)**.
- If problem persists, then **either the PCMCIA card or the PQAR has a fault**.

(14) Is LOAD CONFIG displayed?

- If no, then go to (15).
- If yes, then **replace PCMCIA card**.

(15) Is LOAD PROGRAM displayed?

- If no, then **replace PQAR**.
- If yes, then **replace PCMCIA card**.

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PC Card Quick Access Recorder (PQAR)
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