

## ABSTRAK

*Air conditioning system* bertujuan untuk mengontrol *temperature*, aliran udara dan kelembaman di dalam *cabin* pesawat, agar *passanger* merasa nyaman pada saat pesawat di udara. Pada dasarnya prinsip *air conditioning system* yaitu mentransfer *system* panas dari *temperature* yang tinggi menjadi *temperature* yang rendah. Ada perbedaan *temperature* pada pack 1 dan pack 2 yang masuk ke *cabin*, yang disebabkan oleh *Condensor fault* atau *crack* disalah satu packnya. Hal itu menyebabkan terjadinya perbedaan *temperature* yang signifikan.

Untuk mengatasi terjadinya *High Difference Temperature* maka dilakukan *Troubleshoot* sesuai TSM (*Trouble Shooting Manual*) yang mengindikasikan *Condensor Fault*. Kegagalan ini bisa dilihat pada *ECAM* pada saat melakukan *leak check*, *ECAM* menunjukkan pesan bahwa terjadi *Condensor fault*. *Condensor fault* disebabkan oleh faktor internal dan eksternal. Faktor internal seperti komponen yang sudah tidak *unserviceable*, dan faktor eksternal disebabkan oleh benda asing yang dapat merusak *Condensor* itu sendiri.

Setelah melakukan *Troubleshooting* pada *Condensor*, maka dilakukan pengecekan dan pengetesan ulang selama 15 menit dan memantau *ECAM* display. Apabila *temperatur* cenderung sama atau equal dan tidak ada message yang muncul di *ECAM* mengenai *high difference in pack discharge temperatur (Condensor fault)* maka tes berhasil dan *Air conditioning* tersebut bagus.

**Kata Kunci : Sistem Air Conditioning, High Difference Condensor, ECAM**

## ABSTRACT

Air conditioning system aims to control temperature, air flow and inertia in the aircraft cabin, so the passenger feels comfortable when the airplane is in the air. Basically, the principle of air conditioning system is transferring heat from a high temperature system to a low temperature. There is a difference in temperature in pack 1 and pack 2 that enter the cabin, which is caused by a condenser fault or crack in one of the packs. That causes a significant temperature difference.

To overcome the High Difference Temperature, Troubleshoot is performed according to TSM (Trouble Shooting Manual) which indicates Condenser Fault. This failure can be seen on the ECAM at the time of the leak check, the ECAM shows a message that a condenser fault has occurred. Condenser fault is caused by internal and external factors. Internal factors such as components that are not unserviceable, and external factors caused by foreign objects that can damage the condenser itself.

After Troubleshooting the Condenser, checking and retesting are done for 15 minutes and monitor the ECAM display. If the temperature tends to be the same or equal and no message appears on ECAM about high difference in pack discharge temperature (Condenser fault), the test is successful and the air conditioning is good.

**Keywords: Air Conditioning System, High Difference Condenser, ECAM**