LAPORAN *ON JOB TRAINING*

DI PT GARUDA MAINTENANCE FACILITY

05 Mei 2025 – 25 Juli 2025

Disusun Oleh :

NAUFAL ALIANDA PRATAMA

NIT 30422015

PROGRAM STUDI DIPLOMA 3 TEKNIK PESAWAT UDARA

POLITEKNIK PENERBANGAN SURABAYA

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2025

LEMBAR PERSETUJUAN

LAPORAN *ON JOB TRAINING (OJT)*

DI PT GARUDA MAINTENANCE FACILITY AEROASIA

Oleh:

Naufal Alianda Pratama

NIT. 30422015

Laporan *On The Job Training (OJT)* ini telah diterima dan disetujui sebagai salah satu syarat penilaian *On The Job Training (OJT)*.

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Laporan *On The Job Training* telah dilakukan pengujian didepan Tim Penguji pada tanggal 10 Juli 2025 dan dinyatakan memenuhi syarat sebagai salah satu komponen penilaian *On The Job Training.*

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KATA PENGANTAR

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Penyusunan laporan *On the Job Training (OJT)* memiliki maksud dan tujuan sebagai cara kami untuk lebih mendalami dan mengimplementasikan ilmu yang telah didapatkan dalam pelaksanaan *On the Job Training (OJT)*. Selain itu juga bermanfaat untuk menambah wawasan dan pengetahuan bagi para pembaca, khususnya bagi pribadi kami. Ucapan terima kasih kami sampaikan kepada pihak yang telah membantu selama proses penyusunan laporan *On the Job Training (OJT)* ini, terutama kepada:

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Tangerang, 17 Juli 2025

Naufal Alianda Pratama

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SUJANMA AKASA MANDALA
SURABAYA

BAB I
PENDAHULUAN

1.1 Latar belakang

Politeknik Penerbangan Surabaya merupakan institusi pendidikan yang berada di bawah naungan Badan Pengembangan Sumber Daya Manusia Perhubungan (BPSDM Perhubungan). Lembaga ini menyelenggarakan program pendidikan dan pelatihan di bidang penerbangan dengan tujuan mencetak sumber daya manusia yang kompeten dan siap terjun langsung dalam industri transportasi udara. Lulusan dari lembaga ini diharapkan memiliki keahlian teknis dan operasional, serta mengantongi sertifikasi kecakapan khusus di bidangnya.

Salah satu program studi yang tersedia di Politeknik Penerbangan Surabaya adalah Teknik Pesawat Udara (TPU). Mahasiswa atau taruna dalam program ini mendapatkan pembelajaran yang bersifat teoritis maupun praktis, dengan penekanan pada peningkatan kualitas individu agar siap bekerja di dunia industri. Salah satu bentuk kegiatan pendidikan praktikal adalah On the Job Training (OJT) atau Praktek Kerja Lapangan. OJT merupakan bagian dari kurikulum wajib yang bertujuan agar taruna mampu mengaplikasikan ilmu yang telah dipelajari, terutama dalam hal pemeliharaan dan perawatan pesawat udara. Melalui kegiatan ini, taruna dapat memperluas wawasan, memperdalam keterampilan, serta mempersiapkan diri untuk terjun ke dunia kerja setelah lulus nanti.

Peran teknisi pesawat udara sangat krusial dalam kegiatan perawatan pesawat, baik yang dilakukan di base maintenance maupun line maintenance**.** Sebagai contoh, taruna Program Studi Teknik Pesawat Udara dari Politeknik Penerbangan Surabaya melaksanakan kegiatan OJT di GMF AeroAsia. Dalam kegiatan tersebut, para taruna turut terlibat dalam proses perawatan pesawat jenis Airbus dan Boeing yang termasuk dalam lingkup Base Maintenance di fasilitas milik GMF AeroAsia. Setelah menyelesaikan program On the Job Training, setiap taruna diwajibkan menyusun

laporan sebagai bukti dokumentasi kegiatan dan pengalaman kerja yang telah dijalani selama OJT. Laporan ini ditulis secara sistematis, objektif, serta menggunakan bahasa Indonesia yang baik dan benar sesuai dengan kaidah KBBI. Selain sebagai syarat akademik, laporan ini juga dimaksudkan sebagai referensi bagi taruna lain yang akan melaksanakan OJT di kemudian hari.

1.2 Maksud dan Manfaat

1.2.1 Maksud Pelaksanaan OJT

Pelaksanaan *On The Job Training* (OJT) didasarkan pada pedoman yang membaginya menjadi dua maksud utama, yaitu maksud umum dan maksud khusus, sebagai berikut:

1. Maksud Umum

a. Meningkatkan kemampuan berinteraksi dan membangun kerja sama yang baik antara taruna dengan sesama rekan maupun dengan tenaga kerja, baik di lingkungan Politeknik Penerbangan Surabaya maupun di GMF AeroAsia.
b. Memberikan kesempatan kepada taruna untuk mendapatkan pengalaman langsung dari dunia industri sebagai langkah untuk memperdalam pengetahuan dan keterampilan dalam bidang perawatan serta perbaikan pesawat udara.

2. Maksud Khusus

a. Mendorong peserta OJT agar dapat mengaplikasikan seluruh teori dan pengetahuan teknik pesawat udara yang telah dipelajari selama masa pendidikan di Politeknik Penerbangan Surabaya.
b. Memberikan pemahaman tentang prosedur kerja dalam pelaksanaan perawatan dan perbaikan pesawat.
c. Meningkatkan kompetensi dan wawasan taruna melalui praktik langsung di lapangan.

d. Membiasakan peserta OJT dengan sistem kerja dan budaya profesional di lingkungan industri perawatan pesawat udara seperti GMF AeroAsia.

1.2.2 Manfaat Pelaksanaan OJT

1. Manfaat bagi Taruna

a. Mendapatkan pengalaman praktis dalam melaksanakan kegiatan perawatan dan perbaikan pesawat udara.

b. Memperoleh gambaran nyata mengenai kondisi dan prosedur kerja di dunia industri.

c. Mengembangkan dan memperdalam ilmu yang telah diperoleh selama masa studi di Politeknik Penerbangan Surabaya.

2. Manfaat bagi Lokasi OJT

a. Instansi tempat OJT dapat menerima masukan dan ide-ide konstruktif dari taruna peserta program.

b. Mendapatkan dukungan tenaga tambahan dari taruna yang berpartisipasi dalam kegiatan OJT.

BAB II
PROFIL LOKASI OJT

2.1 Sejarah PT. GMF Aeroasia

PT Garuda Maintenance Facility AeroAsia (GMF AeroAsia) merupakan salah satu perusahaan jasa perawatan, perbaikan, dan overhaul (MRO – Maintenance, Repair and Overhaul) pesawat terkemuka di Asia Tenggara. Perusahaan ini memiliki sejarah panjang yang berawal dari tahun 1949, ketika didirikan sebagai bagian dari Divisi Teknik Garuda Indonesia. Pada masa awal operasionalnya, unit ini berlokasi di Bandara Kemayoran dan Halim Perdanakusuma, Jakarta, dan bertugas untuk menangani seluruh perawatan armada pesawat Garuda Indonesia. Seiring dengan pertumbuhan industri penerbangan nasional dan kebutuhan akan layanan perawatan yang lebih komprehensif dan efisien, pada tahun 1984, Divisi Teknik tersebut dipindahkan ke Bandara Internasional Soekarno-Hatta, Cengkareng, dan berubah nama menjadi Divisi Maintenance & Engineering (M&E). Transformasi ini dilakukan untuk meningkatkan skala dan kualitas layanan pemeliharaan pesawat secara profesional.

Perjalanan GMF memasuki tahap baru pada tahun 1998, ketika Divisi Maintenance & Engineering dikembangkan menjadi Strategic Business Unit (SBU-GMF), sebagai bagian dari upaya restrukturisasi Garuda Indonesia. Langkah ini bertujuan untuk meningkatkan kemandirian operasional, daya saing, serta efisiensi dalam menyediakan jasa perawatan pesawat, baik untuk Garuda Indonesia maupun pelanggan pihak ketiga. Akhirnya, pada tanggal 26 April 2002, SBU-GMF resmi dipisahkan dari Garuda Indonesia dan berdiri sebagai perusahaan mandiri dengan nama PT Garuda Maintenance Facility AeroAsia, yang kemudian lebih dikenal dengan singkatan GMF AeroAsia. Sebagai entitas bisnis independen, GMF terus berkembang dan memperluas kapasitasnya, termasuk melalui pembangunan Hanggar 4 yang diresmikan pada tahun 2015, yang saat itu menjadi hanggar pesawat narrow-body terbesar di dunia, dengan kapasitas untuk menangani hingga 16 pesawat sekaligus.

Keberhasilan GMF AeroAsia dalam mengembangkan infrastruktur dan layanan turut didukung oleh pencapaian penting lainnya, yaitu pencatatan saham perdana (IPO) di Bursa Efek Indonesia pada 10 Oktober 2017 dengan kode emiten GMFI. Dengan melantai di bursa, GMF menjadi perusahaan MRO pertama di Indonesia yang melakukan penawaran saham kepada publik, memperkuat posisi dan transparansinya di pasar global. Hingga saat ini, GMF AeroAsia terus memperluas cakupan layanannya, tidak hanya melayani perawatan pesawat komersial milik maskapai nasional dan internasional, tetapi juga pesawat militer, helikopter, serta turbin gas industri. Perusahaan ini telah mengantongi berbagai sertifikasi internasional seperti FAA (Federal Aviation Administration – Amerika Serikat), EASA (European Union Aviation Safety Agency), dan CASA (Civil Aviation Safety Authority – Australia), serta dari lebih dari 30 otoritas penerbangan sipil dunia lainnya.

Dengan pengalaman lebih dari tujuh dekade, GMF AeroAsia kini menjadi pusat layanan MRO strategis di kawasan Asia Pasifik, dengan komitmen tinggi terhadap keselamatan penerbangan, inovasi teknologi, dan kualitas pelayanan berstandar internasional. Perusahaan ini juga memainkan peran penting dalam mendukung kemandirian industri penerbangan Indonesia dan pengembangan sumber daya manusia melalui kerja sama dengan berbagai institusi pendidikan vokasi dan teknis di bidang penerbangan.

2.2 Data Umum

2.2.1 Visi dan Misi

Visi PT. GMF Aeroasia

"To be the Most Valuable MRO Company."

Misi PT. GMF Aeroasia

"To provide integrated and reliable aircraft maintenance solutions as a contribution to the nation."

2.2.2 Fasilitas

GMF AeroAsia memiliki fasilitas yang luas dan lengkap untuk mendukung kegiatan perawatan, perbaikan, dan overhaul (MRO) pesawat udara. Fasilitas ini berlokasi di Bandara Internasional Soekarno-Hatta, Cengkareng, dan mencakup area lebih dari 1,15 juta m^2 meter persegi.

1. Hanggar

GMF memiliki beberapa hanggar utama yang digunakan untuk perawatan pesawat:

a. Hanggar 1

Kapasitas: 3 pesawat berbadan lebar (*wide body*) seperti Airbus A330 atau Boeing 777. Fasilitas ini biasa digunakan untuk C-check hingga D-check.



Gambar 2. 1 Hanggar 1
(sumber: https://www.gmf-aeroasia.co.id/gmf-defense-en)

b. Hanggar 2

Dibagi menjadi 2 bagian (2A dan 2B), masing-masing bisa menampung 3 pesawat narrow-body seperti Boeing 737 dan Airbus A320.

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA



Gambar 2. 2 Hanggar 2
(sumber: https://www.gmf-aeroasia.co.id/gmf-defense-en)

c. Hanggar 3

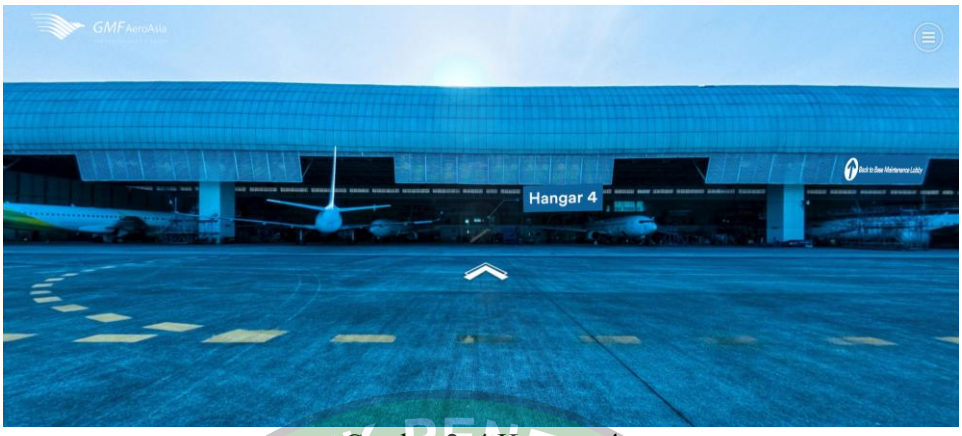
Khusus untuk pesawat narrow-body dengan kapasitas 16 pesawat. Dilengkapi dengan docking system dan digunakan untuk heavy maintenance.



Gambar 2. 3 Hanggar 3
(sumber: https://www.gmf-aeroasia.co.id/gmf-defense-en)

d. Hanggar 4

Merupakan hanggar terbaru yang bisa digunakan untuk pesawat berbadan lebar. Dilengkapi dengan teknologi modern dan ramah lingkungan.



Gambar 2. 4 Hanggar 4
(sumber: https://www.gmf-aeroasia.co.id/gmf-defense-en)

2. Workshop dan Fasilitas Pendukung

a. Component Shop

Untuk perawatan dan perbaikan komponen pesawat seperti landing gear, hydraulic system, fuel control unit, avionic dan lain sebagainya.



Gambar 2. 5 *Component shop*
https://www.gmf-aeroasia.co.id/gmf-defense-en

b. Engine Shop

Dikhususkan untuk perawatan mesin pesawat seperti CFM56, Trent 700, dan lainnya.



Gambar 2. 6 *Engine Shop*
(sumber: https://www.gmf-aeroasia.co.id/gmf-defense-en)

c. *Interior & Cabin Maintenance*

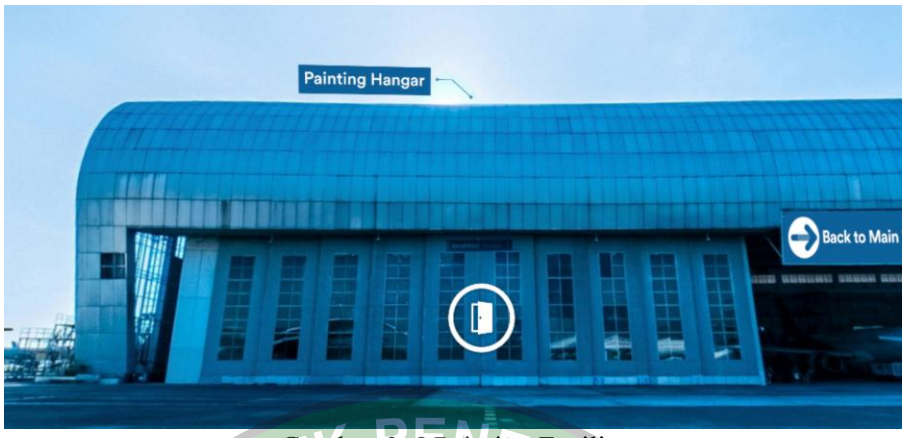
Melayani refurbish dan modifikasi interior kabin termasuk kursi, galley, dan lavatory.



Gambar 2. 7 *Interior & Cabin Maintenance*
(sumber: https://www.gmf-aeroasia.co.id/gmf-defense-en)

d. *Painting Facility*

Fasilitas pengecatan ulang pesawat dengan peralatan mutakhir dan lingkungan tertutup.



Gambar 2. 8 Painting Facility
(sumber: https://www.gmf-aeroasia.co.id/gmf-defense-en)

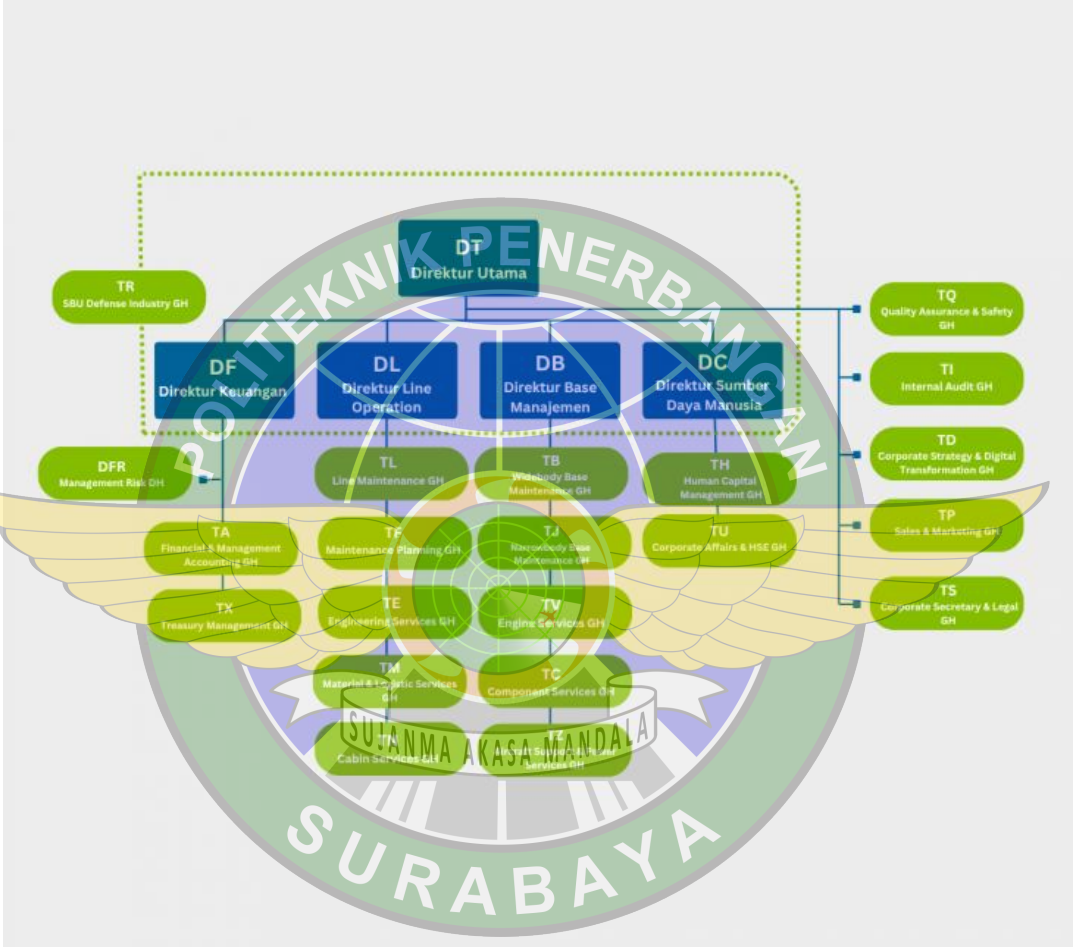
2.2.3 Struktur Organisasi

Struktur organisasi PT Garuda Maintenance Facility AeroAsia (GMF AeroAsia) terdiri atas beberapa tingkatan utama yang mendukung kelancaran operasional perusahaan sebagai penyedia layanan perawatan pesawat terkemuka di Asia. Di tingkat tertinggi terdapat Dewan Komisaris yang bertugas mengawasi dan memberikan arahan strategis kepada manajemen.

Dewan ini diketuai oleh seorang Komisaris Utama dan beranggotakan komisaris lainnya, termasuk komisaris independen. Di bawahnya, GMF dipimpin oleh Direktur Utama (CEO) yang bertanggung jawab penuh atas jalannya operasional perusahaan. Direktur Utama dibantu oleh beberapa direktur lain, antara lain Direktur Base Management, Direktur Line Operation, Direktur Keuangan, serta Direktur Human Capital & Corporate Affairs.

Setiap direktur membawahi berbagai divisi atau unit kerja yang dipimpin oleh Vice President (VP) atau Executive Vice President (EVP) yang mengelola bidang-bidang khusus seperti perawatan pesawat (base maintenance, line maintenance), perawatan komponen dan mesin, layanan logistik & material, engineering & quality assurance, teknologi informasi, serta pemasaran dan penjualan. GMF juga memiliki unit khusus untuk layanan militer yang disebut SBU Military. Seluruh struktur ini

disusun untuk memastikan pelayanan MRO (Maintenance, Repair, and Overhaul) dapat dilakukan secara efisien, aman, dan sesuai dengan standar internasional yang berlaku dalam industri penerbangan.



Bagan 2. 1 Struktur organisasi *PT Garuda Maintenance Facility AeroAsia (GMF AeroAsia)*

Struktur organisasi GMF AeroAsia dipimpin oleh Direktur Utama (DT) yang bertanggung jawab atas seluruh jalannya operasional perusahaan. Di bawah Direktur Utama terdapat empat direktorat utama dan beberapa unit pendukung.

1. **Direktur Keuangan (DF)**

   Bertanggung jawab dalam pengelolaan keuangan, akuntansi, treasury, serta manajemen risiko. Unit-unit di bawahnya meliputi:

- TA: Financial & Management Accounting GH
- TX: Treasury Management GH
- DFR: Management Risk DH

2. **Direktur Line Operation (DL)**

   Mengelola operasional pemeliharaan pesawat harian, perencanaan perawatan, serta layanan rekayasa dan logistik. Unit-unit di bawahnya antara lain:

   - TL: Line Maintenance GH
   - TF: Maintenance Planning GH
   - TE: Engineering Services GH
   - TM: Material & Logistic Services GH
   - TN: Cabin Services GH

3. **Direktur Base Manajemen (DB)**

   Fokus pada perawatan besar (base maintenance) termasuk perawatan pesawat berbadan lebar dan sempit, mesin, serta komponen. Unit-unit di bawahnya meliputi:

   - TB: Widebody Base Maintenance GH
   - TJ: Narrowbody Base Maintenance GH
   - TV: Engine Services GH
   - TC: Component Services GH
   - TZ: Aircraft Support & Power Services GH

4. **Direktur Sumber Daya Manusia (DC)**

   Mengelola pengembangan SDM dan hubungan perusahaan. Unit yang berada di bawahnya:

- TH: Human Capital Management GH
- TU: Corporate Affairs & HSE GH

Di samping direktorat utama, terdapat beberapa unit pendukung yang berada langsung di bawah Direktur Utama, yaitu:

- TR: SBU Defense Industry GH
- TQ: Quality Assurance & Safety GH
- TI: Internal Audit GH
- TD: Corporate Strategy & Digital Transformation GH
- TP: Sales & Marketing GH
- TS: Corporate Secretary & Legal GH

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BAB III
LANDASAN TEORI

3.1 Boeing 737-800

Boeing 737-800 merupakan salah satu varian paling sukses dari keluarga Boeing 737 Next Generation (737NG), yang juga mencakup seri 737-600, -700, dan -900. Pesawat ini pertama kali terbang pada tahun 1997 dan mulai digunakan secara komersial pada tahun 1998. Dirancang untuk melayani rute jarak pendek hingga menengah, Boeing 737-800 menjadi pilihan utama bagi banyak maskapai karena efisiensi bahan bakarnya, kapasitas penumpangnya yang ideal, serta keandalannya dalam berbagai kondisi operasional.



Gambar 3. 1 Boeing 737-800 P2-PXC
(sumber: https://www.planespotters.net/)

Secara teknis, pesawat ini memiliki panjang sekitar 39,5 meter dan rentang sayap sekitar 35,8 meter (dengan winglet), serta mampu mengangkut antara 162 hingga 189 penumpang tergantung konfigurasi kabin. Dengan mesin CFM56-7B yang hemat bahan bakar dan mudah dalam perawatan, Boeing 737-800 mampu terbang sejauh ±5.420 kilometer (sekitar 2.935 nautical miles) dengan kecepatan maksimum Mach 0.82 atau sekitar 871 km/jam. Kapasitas maksimum lepas landas (MTOW) mencapai 79.000 kilogram dan mampu menampung bahan bakar hingga sekitar 26.020 liter (6.875 US galon).

Salah satu keunggulan utama Boeing 737-800 terletak pada efisiensi operasionalnya. Pesawat ini dilengkapi dengan winglet di ujung sayap yang membantu mengurangi konsumsi bahan bakar sekaligus meningkatkan daya jelajah. Kabinnya dirancang dengan Boeing Sky Interior, memberikan kenyamanan lebih kepada penumpang melalui pencahayaan LED dan tempat penyimpanan bagasi yang lebih lega. Selain versi penumpang, Boeing 737-800 juga tersedia dalam versi kargo setelah dikonversi menjadi 737-800BCF (Boeing Converted Freighter), menjadikannya ideal untuk kebutuhan logistik dan e-commerce.

Pesawat ini digunakan secara luas oleh berbagai maskapai besar dunia seperti Ryanair, American Airlines, Lion Air, Garuda Indonesia, KLM, Turkish Airlines, hingga Air Niugini, maskapai nasional Papua Nugini. Salah satu pesawat Boeing 737-800 milik Air Niugini terdaftar dengan registrasi P2-PXC, dan digunakan dalam berbagai rute domestik maupun internasional di wilayah Pasifik dan Asia Tenggara. Pesawat ini menjadi tulang punggung armada Air Niugini dalam menghubungkan negara kepulauan tersebut dengan dunia luar secara efisien dan andal.



Gambar 3. 2 *Maintenance air Niugini*
(dokumen pribadi)

Tabel 3. 1 Spesifikasi *Boeing 737-800*

Parameter	Satuan Metrik (kg/L/m³/nmi)	Satuan Imperial (lb/gal/ft³/km)
Maximum taxi weight[1]	79,240 kg	174,700 lb
Maximum takeoff weight[1]	79,000 kg	174,200 lb
Maximum landing weight[1]	66,350 kg	146,300 lb
Maximum zero fuel weight[1]	62,750 kg	138,300 lb
Fuel capacity	26,025 L	6,875 US gal
Volume limit payload[1]	20,768 kg	45,787 lb
Design range (MTOW, Volume limit payload)	2,570 nmi	4,760 km
Structural Limit Payload	23,950 kg	52,800 lb
Design Range (Max Structural Payload)	1,995 nmi	3,700 km
Main deck cargo volume	141.5 m³	4,997 ft³
Lower deck cargo volume[2]	43.7 m³	1,543 ft³
Total cargo volume	185.2 m³	6,540 ft³

3.2 Jenis Maintenance Pada Pesawat Terbang

Berdasarkan Organization Structural Procedure Manual PT. GMF Aeroasia umumnya maintenance pada pesawat terbang dibagi menjadi 2, yaitu:

a. Major maintenance merupakan salah satu bentuk perawatan atau modifikasi pada pesawat. Jenis perawatan dari major maintenance diantaranya adalah pemeriksaan terjadwal phase check, modifikasi dari pesawat atau sistem pesawat berdasarkan service bulletin, airwithiness directive, atau engineering order, special inspection yang diperlukan airline, painting, dan aircraft interior modifications.
b. Minor maintenance merupakan perawatan pesawat yang dilakukan di line maintenance work area. Jenis perawatan ini dilakukan pada pesawat tanpa merubah jadwal penerbangan. Minor maintenance meliputi daily, transit, weekly, atau preflight check tergantung pada program pemeliharaan penerbangan dari customer.

3.3 *Daily Check* dan *Weekly Check*

Daily Check pada pesawat Boeing 737-800 adalah inspeksi ringan yang dilakukan setiap 24 hingga 48 jam atau sebelum penerbangan pertama dalam satu hari. Pemeriksaan ini bertujuan memastikan kondisi umum pesawat dalam keadaan laik terbang. Prosedur meliputi pemeriksaan visual terhadap struktur pesawat, sistem *hydraulic, engine oil, brake, landing gear, navigation lights, avionics system*, serta pengecekan *cockpit panel* terhadap *fault* atau peringatan. Teknisi juga memverifikasi tidak ada kebocoran pada sistem *fluid* dan memastikan semua *emergency equipment* berada di tempat serta dalam kondisi baik. Jika ditemukan anomali, akan dicatat dalam *technical logbook* dan dilakukan tindakan korektif sesuai prosedur.

Weekly Check dilakukan setiap tujuh hari dan mencakup pemeriksaan lebih mendalam dibandingkan *daily check*. Selain item pada *daily check, weekly check* meliputi inspeksi *drainage system, air filter*, kondisi *wheel, emergency electrical system*, serta pengujian sistem yang jarang digunakan seperti *oxygen system*. Sistem data penerbangan seperti *flight data* dan *Navigational Database (NDB)* juga akan diperiksa dan diperbarui jika diperlukan. Pemeriksaan ini dilakukan di area *base maintenance* atau *line maintenance* dan merupakan bagian penting untuk menjaga keselamatan serta efisiensi operasional pesawat dalam jangka menengah.

3.4 *Navigational Database (NDB)*

Navigational Database (NDB) pada pesawat Boeing 737-800 adalah kumpulan data digital yang digunakan oleh *Flight Management Computer* (FMC) untuk mendukung navigasi penerbangan secara otomatis. Database ini mencakup informasi penting seperti waypoint, jalur udara (airways), prosedur keberangkatan dan kedatangan (SID/STAR), data landasan pacu, serta navigational aids seperti ILS, VOR, dan NDB beacons. NDB disuplai oleh penyedia resmi seperti Jeppesen, Navblue, atau Lido dan di-update secara berkala setiap 28 hari berdasarkan siklus AIRAC (Aeronautical Information Regulation and Control) yang ditetapkan oleh ICAO.

Untuk melihat expired date atau masa berlaku NDB dalam FMC Boeing 737-800, pilot atau teknisi cukup menyalakan unit FMC, lalu masuk ke halaman **IDENT** melalui tombol INDEX > IDENT. Di sana akan ditampilkan cycle number (misalnya: 2407 untuk AIRAC ke-7 tahun 2024), tanggal mulai (active date), serta tanggal kedaluwarsa (expiry date). Jika expired date sudah lewat, FMC biasanya akan menampilkan peringatan seperti **"NAV DATA OUT OF DATE"**. Dalam kondisi tersebut, database perlu segera diperbarui sebelum pesawat dioperasikan, terutama untuk penerbangan IFR (Instrument Flight Rules).

3.5 *Sensor Door*

Sensor door pada pesawat, termasuk Boeing 737-800, berfungsi untuk mendeteksi apakah setiap pintu dalam kondisi terbuka, tertutup, atau terkunci dengan aman. Sensor ini merupakan bagian penting dari sistem keselamatan penerbangan karena informasi yang dihasilkan akan ditampilkan di *cockpit* sebagai *door status indication*. Jika pintu tidak tertutup dengan sempurna atau terjadi gangguan pada sensor, sistem akan memberikan peringatan kepada awak pesawat, dan dalam beberapa kondisi pesawat tidak akan diizinkan *takeoff*. Sensor ini umumnya menggunakan sistem *proximity switch, reed switch*, atau *mechanical limit switch* yang bekerja dengan membaca posisi mekanis pintu dan mengirimkan sinyal ke sistem komputer pesawat.

Sensor door tersebut dipasang di berbagai titik pada *struktur pintu*. Untuk *main entry door (L1 dan L2)* serta *service door (R1 dan R2),* sensor terletak di sekitar *door frame*, dekat dengan *locking latch* dan *hinge*. Pada *cargo door (forward dan aft),* sensor biasanya ditempatkan di sisi atas dan bawah door, berdekatan dengan *hydraulic actuator* dan sistem pengunci. Sementara itu, pada *emergency exit door* (di atas *wing*), sensor dipasang di sekitar handle dan latch, untuk memantau apakah door dalam kondisi armed atau disarmed. Setiap door umumnya memiliki 2 hingga 3 sensor untuk memastikan posisi dan penguncian door terdeteksi secara akurat.

Di kokpit, informasi dari sensor door ditampilkan melalui door status panel yang biasanya terletak di bagian atas overhead panel di sisi kiri. Panel ini menunjukkan kondisi pint dengan label seperti *OPEN, CLOSED*, atau *UNLOCKED*. Selain itu, sistem seperti *EICAS* (jika tersedia pada varian pesawat) juga dapat menampilkan peringatan di layar utama, misalnya "*L1 DOOR UNLOCKED*" atau "*FWD CARGO DOOR OPEN*". Untuk teknisi, status sensor juga dapat diperiksa melalui maintenance control panel (MCP). Jika terjadi gangguan, seperti sinyal palsu atau pembacaan yang tidak konsisten, teknisi akan melakukan pemeriksaan pada wiring, konektor, dan komponen *sensor door* sesuai dengan prosedur di *AMM (Aircraft Maintenance Manual)*. Jika kerusakan tidak kritis, referensi terhadap *Minimum Equipment List (MEL)* digunakan untuk menentukan apakah pesawat tetap dapat dioperasikan sementara waktu.

BAB IV
PELAKSANAAN OJT

4.1 Lingkup Pelaksanaan OJT

On the Job Training (OJT) dilaksanakan di Hanggar 4 GMF AeroAsia dengan lingkup kegiatan meliputi pengamatan dan keterlibatan langsung dalam proses perawatan pesawat udara pada *base maintenance*.

4.2 Waktu dan Tempat

On the Job Training (OJT) dilaksanakan dengan data sebagai berikut :

Peserta : Taruna Politeknik Penerbangan Surabaya.

Jumlah : 3 (tiga) orang.

Waktu : 05 Mei 2025 sampai dengan 25 Juli 2025

Tempat : PT. GMF AeroAsia

4.3 Jadwal Kegiatan

Kegiatan On the Job Training (OJT) bagi taruna Program Studi D3 Teknik Pesawat Udara Angkatan 8 diselenggarakan secara intensif mulai tanggal 5 Mei 2025 hingga 25 Juli 2025, bertempat di Hanggar 4 GMF AeroAsia. Pelaksanaan OJT berlangsung setiap hari kerja, yakni Senin sampai dengan Jumat, pada pukul 07.30 hingga 15.00 WIB, sementara hari Sabtu dan Minggu ditetapkan sebagai hari libur. Rangkaian kegiatan selama masa OJT secara rinci dapat dilihat pada Tabel 4.1.

Tabel 4. 1 Jadwal Kegiatan *OJT*

No.	Jam	Kegiatan
1.	07.30	Briefing Pagi
2.	07.40 – 08.00	Prepared Jobcard
3.	08.00 – 12.00	Waktu Kerja
4.	12.00 – 13.00	Ishoma
5.	13.00 – 14.50	Waktu Kerja
6.	14.50 – 15.00	Briefing Pulang

4.4 Permasalahan

Pelaksanaan On The Job Training (OJT) melibatkan taruna secara langsung dalam kegiatan inspeksi dan perawatan pesawat Boeing 737-800. Dalam pelaksanaannya, peserta menjumpai beberapa studi kasus yang diangkat sebagai bahan penulisan laporan. Studi kasus diambil dari satu kegiatan pada setiap minggu sebagai bentuk dokumentasi kegiatan OJT di PT GMF AeroAsia – Hanggar Cengkareng. Secara umum, selama mengikuti OJT di PT GMF AeroAsia – Hanggar Cengkareng, peserta mempelajari tahapan-tahapan perawatan pesawat udara. Adapun kerangka kerja tersebut dijelaskan sebagai berikut:

1. Identifikasi Masalah

   Tahap awal sebelum melaksanakan perbaikan atau perawatan adalah proses identifikasi masalah (troubleshooting), di mana teknisi melakukan diagnosis untuk menentukan letak dan sumber permasalahan sebelum melanjutkan ke tahap berikutnya.

2. *Inspection*

   Inspeksi dilakukan karena setiap komponen pada pesawat memiliki batas usia pakai. Salah satu tujuan utama dari inspeksi adalah untuk mendeteksi, mengganti, atau memperbaiki bagian yang sudah aus atau rusak, serta memastikan kondisi pesawat tetap laik terbang. Seluruh kegiatan inspeksi dilakukan berdasarkan task card dan merujuk pada dokumen Aircraft Maintenance Manual (AMM) Boeing 737-800.

3. *Repair/Servicing*

   Repair atau servicing merupakan kegiatan perbaikan dan penggantian komponen yang mengalami kerusakan. Proses ini biasanya melibatkan penggantian suku cadang sesuai dengan standar dan prosedur teknis yang berlaku.

4. *Functional Test*

   Setelah kegiatan perbaikan atau penggantian selesai, dilakukan functional test untuk memastikan bahwa komponen yang telah diperbaiki berfungsi normal dan sesuai spesifikasi teknis.

5. *Return to Service (RTS)*

Return to Service merupakan tahap akhir dari proses perawatan. Setelah seluruh pekerjaan selesai dan hasil functional test menunjukkan bahwa sistem berfungsi dengan baik, maka pesawat dinyatakan layak operasi dan siap untuk dioperasikan kembali.

Kelima tahapan di atas diterapkan secara langsung oleh peserta selama kegiatan OJT berlangsung. Adapun beberapa studi kasus yang dikerjakan dan memenuhi seluruh tahapan tersebut antara lain:

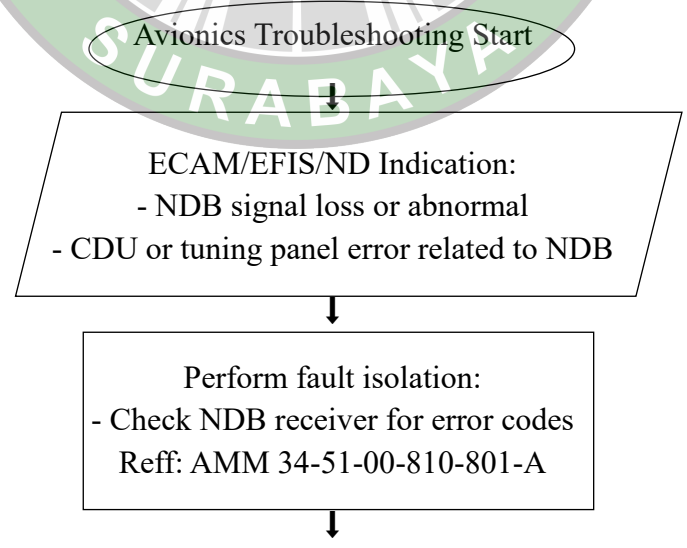
1. *Failure of the NDB to update navigation map data*
2. *Failure of the Door Sensor to detect aircraft door status*

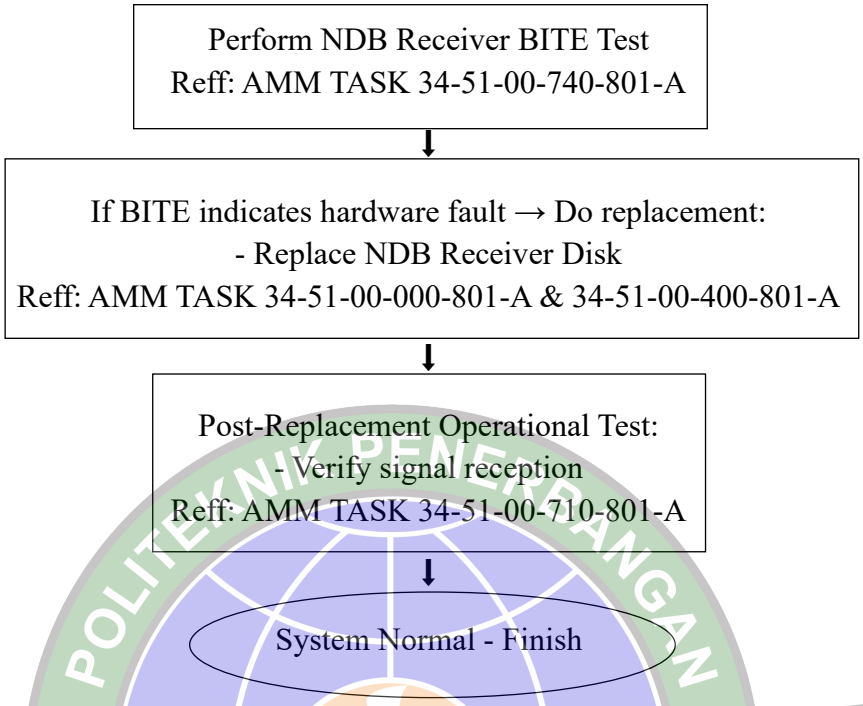
4.5 Penyelesaian Masalah

Dari beberapa troubleshooting yang ditemukan pada saat melaksanakan On The Job Training maka harus diberikan beberapa penanganan masalah sebagai berikut :

4.5.1 Troubleshooting Failure of the NDB to Update Navigation Map Data

Pada pesawat Boeing 737-800 dengan registrasi P2 – PXC harus dilakukan perbaikan dengan alur berikut :





Bagan 4. 1 *Flowchart Troubleshooting Failure of the NDB to update navigation map data*

1. Inspection

Langkah inspeksi dilakukan berdasarkan temuan fault dari sistem NDB (Non-Directional Beacon). Indikasi kegagalan sistem biasanya ditemukan melalui CDU (Control Display Unit) atau EFIS (Electronic Flight Instrument System) yang menunjukkan error seperti "NDB signal lost" atau receiver tidak dapat mentransmisikan sinyal.

Tindakan inspeksi:

1. Cek fault messages melalui BITE test (Built-In Test Equipment).
2. Gunakan referensi FIM Chapter 34-51-00 untuk memverifikasi fault code yang muncul.
3. Periksa visual konektor dan instalasi wiring dari NDB Receiver menuju antena. –
4. Verifikasi jika disk yang terpasang masih dalam masa berlaku atau rusak secara fisik.



GMF AeroAsia

MAINTENANCE JOB CARD

SEQUENCE NO.: 0061 COPY COUNT: 0001

[TS9LC0032KYA] 34-ANG-04-01 : Change Navigation Database in FMC

PM/PS: P-737-4TS-04-COC/102
737 OPC & FUC Cockpit Non Routine B737-800 P2-PXC

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805606071
WORK PACKAGE NO : 00216375 Special Procedure
WORK CENTER / PLANT : GAH403ZE / GAH4 ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI
EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:20-15-11-400 INT REF.:-
AD REF.:- REF.:-
SB REF.:- ORIGIN DOCUMENT : N/A

MATERIAL REQUIREMENT QTY UOM

TOOLS REQUIREMENT TOOL REGISTER QTY UOM

JOB DESCRIPTION		MECH	INSP
0010 "Customer Work Order : GMF/TF/PROP-2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 &FE : BBZ // BN : YK002 // SN : 30290 // LN : 1406 NOTES: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"	GAH403E1	I.E11163 13 JUN 2025	I.E6944 13 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0010		I.E6944 13 JUN 2025

FORM GMF/Q-002-R6 1 OF 2

GMF AeroAsia

MAINTENANCE JOB CARD

SEQUENCE NO.: 0061 COPY COUNT: 0001

[TS9LC0032KYA] 34-ANG-04-01 : Change Navigation Database in FMC

PM/PS: P-737-4TS-04-COC/102
737 OPC & FUC Cockpit Non Routine B737-800 P2-PXC

JOB DESCRIPTION		MECH	INSP
0020 "Perform On-Airplane Software - Installation IAW. AMM TASK 20-15-11-400-801"	GAH403E1	I.E11163 13 JUN 2025	I.E6944 13 JUN 2025
0030 "Examine the work area to ensure: - Plug/cover, lockwire installed properly - Nut tightened correctly - Clear from any unwanted object such as materials, tools,FOD - Put the system back to it's usual condition"	GAH403E1	I.E11163 13 JUN 2025	I.E6944 13 JUN 2025

Gambar 4. 1 *Job Card Change Navigation Database in FMC*
(Dokumen Pribadi)



Gambar 4. 2 *FMC Databases*
(Dokumen Pribadi)

Jika fault code sesuai FIM menunjukkan adanya kesalahan pada media penyimpanan, maka langkah berikutnya adalah penggantian disk (Rectification).

2. Rectification

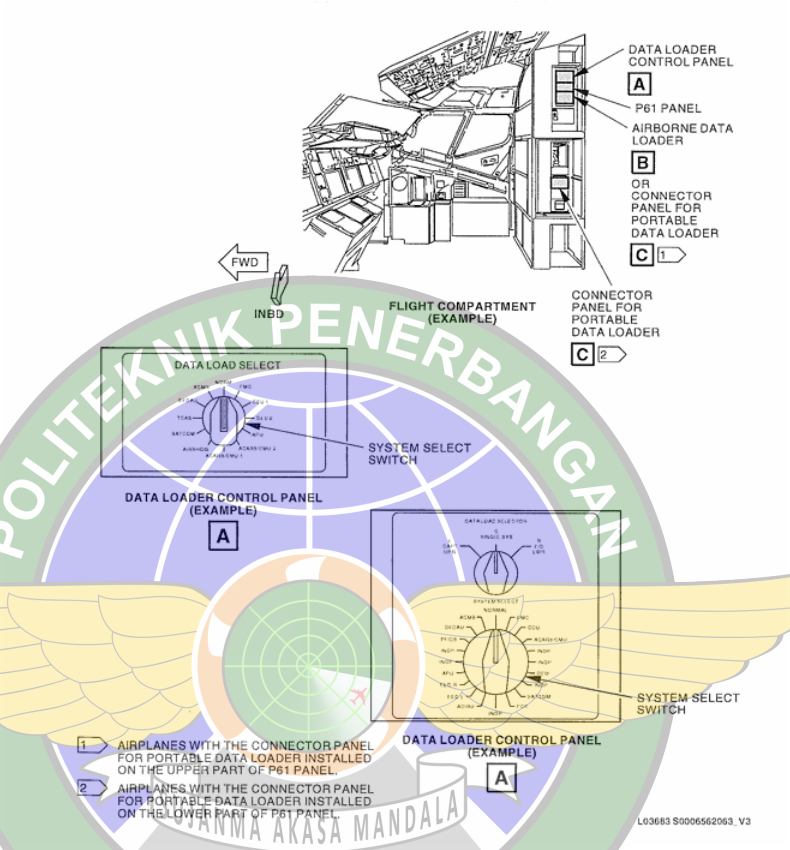
Rectification dimulai dengan pelaksanaan penggantian disk navigasi NDB yang terpasang pada FMC (Flight Management Computer) berdasarkan Jobcard 34-ANG-04-01. Berikut Langkah Langkah pada Rectification :

1. Referensi AMM 34-51-00-000-801-A: Lepas disk NDB dari slot FMC sesuai urutan penguncian dan antistatic handling.

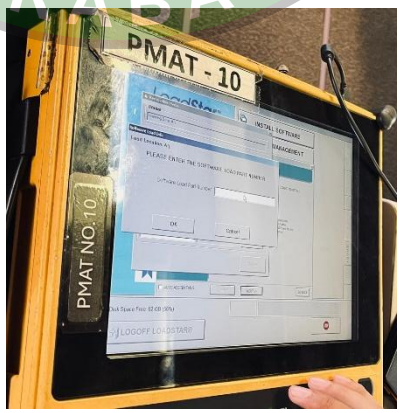


Gambar 4. 3 *disk NDB*
(Dokumen Pribadi)

2. Referensi AMM 34-51-00-400-801-A: Instalasi disk NDB baru, pastikan orientasi dan posisi pin benar.



3. Gunakan alat PDL (Portable Data Loader) atau ADL (Airborne Data Loader) melalui P61 panel untuk memasukkan database navigasi baru.



Gambar 4. 4 PDL *(Portable Data Loader)*
(Dokumen Pribadi)

4. Perhatikan waktu transfer data dari media ke FMC, biasanya 3–75 menit per disk untuk NDB data sesuai AMM 20-15-11-400-801.

Tabel 4. 2 *Replace NDH* (Sumber: AMM Chapter 34)

AMM CHAPTER	COMPONENT	SOFTWARE	DATA TRANSFER TIME (MINUTES)
34-61	Flight Management Computer (FMCS)	OPS OPC MEDB NAV DB ACARS Datalink DB*[4] Perf Defaults DB *[4]	10 to 32 1 to 3 3 to 15 3 to 75 3 to 15 3 to 15

3. Repair

Dalam kasus disk navigasi, tidak dilakukan repair karena media penyimpanan bersifat satu kali pakai dan memiliki validitas waktu terbatas (cycle). Maka dari itu Jika ditemukan kerusakan disk, maka satu-satunya opsi adalah replace, bukan repair. Disk rusak harus dibuang sesuai prosedur disposal dan tidak diperbolehkan untuk digunakan ulang.

4. Functional Test

Setelah pemasangan disk baru, dilakukan functional test untuk memastikan sistem dapat membaca dan menjalankan data navigasi dari disk tersebut. Berikut Langkah uji fungsi:

1. Jalankan BITE test pada FMC untuk verifikasi integritas database NDB.
2. Pastikan tidak ada message error muncul di CDU/ND terkait database.
3. Verifikasi cross-load antar FMC (jika dual FMC digunakan).
4. Periksa navigasi melalui CDU dengan memilih NDB waypoint dan memvalidasi tuning otomatis/manual.



Gambar 4. 5 *Valid Date NDB Disk*
(Dokumen Pribadi)

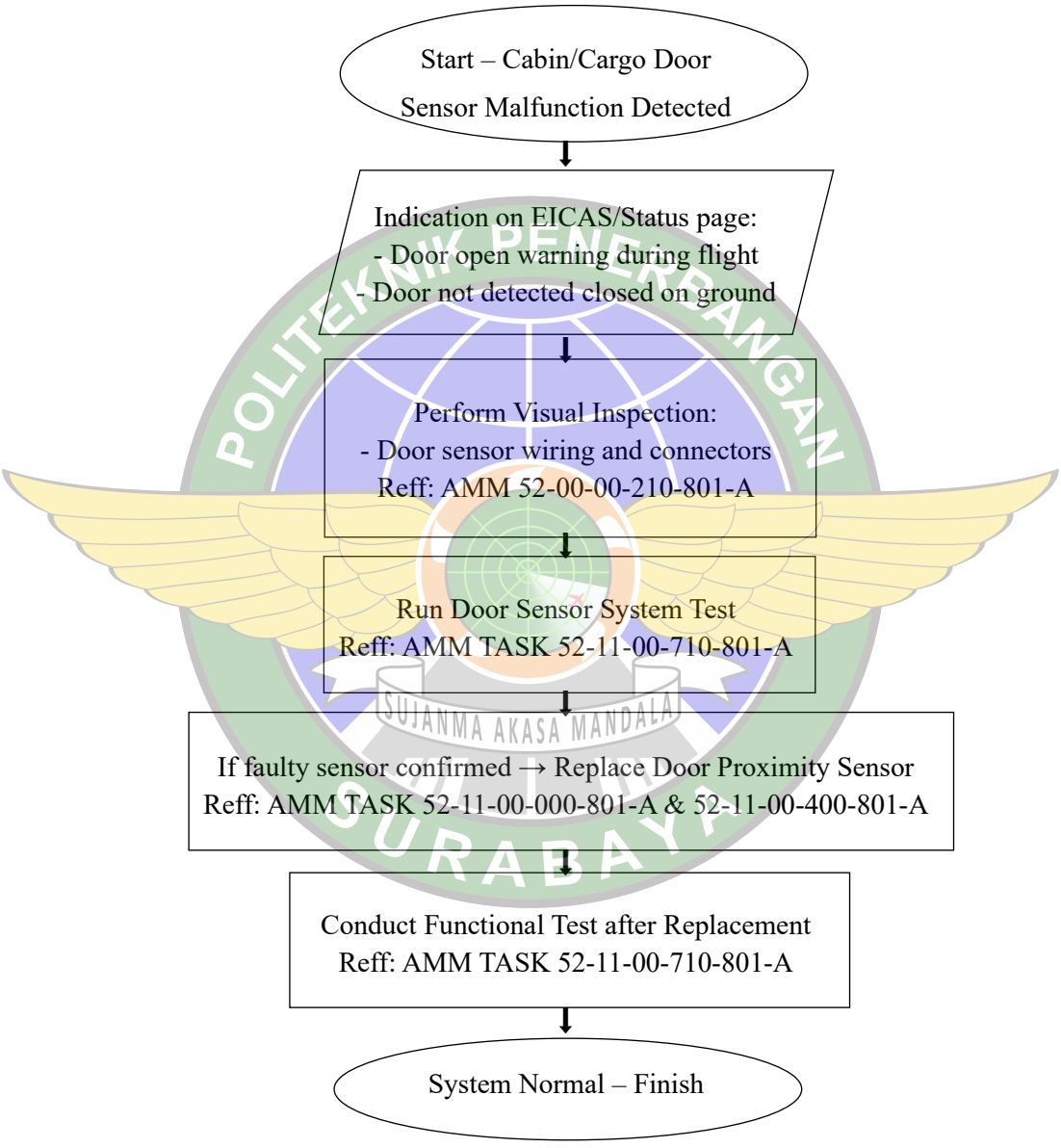
Masuk ke CDU melalui MENU → INDEX → IDENT, lalu periksa dan verifikasi Part Number serta Revision dari database navigasi yang telah dimuat. Setelah itu, jalankan BITE Test pada FMC untuk memastikan bahwa database NDB telah terinstal dengan benar dan sistem berfungsi tanpa adanya fault.

5. *Return to Service*

Sistem dinyatakan siap untuk Return to Service setelah seluruh tahapan rectification dan functional test selesai dilaksanakan tanpa ditemukan anomali. Verifikasi dilakukan terhadap disk database untuk memastikan revision date dan part number sesuai dengan dokumen resmi. Area kerja harus dipastikan bersih dari FOD, semua peralatan telah diamankan, serta Circuit Breaker (CB) dikembalikan ke posisi normal dan tag ‘DO NOT CLOSE’ dilepas. Akhirnya, Form GMF/Q-002 R6 dan jobcard harus ditandatangani oleh personel certifying staff berlisensi sebagai bukti penyelesaian pekerjaan dan legalitas pelepasan pesawat.

4.5.2 Troubleshooting Failure of the Door Sensor to Detect Aircraft Door Status

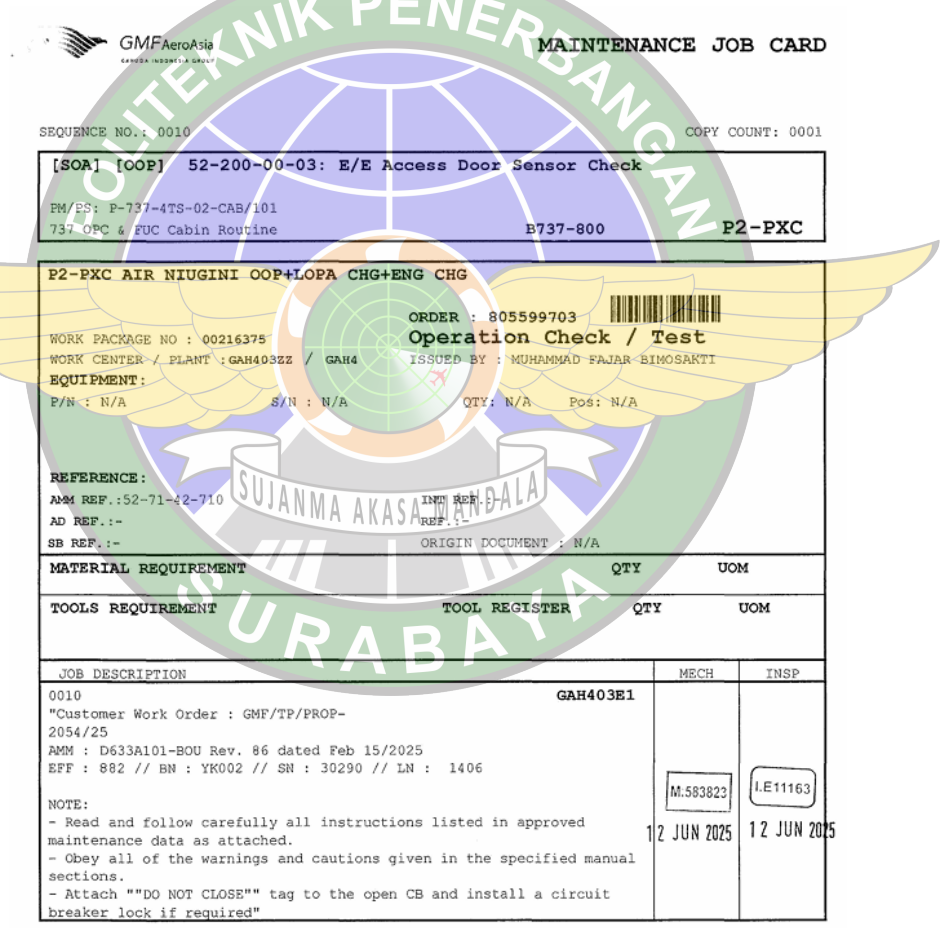
Pada pesawat Boeing 737-800 dengan registrasi P2 – PXC harus dilakukan perbaikan dengan alur berikut :



Bagan 4. 2 *Flowchart Troubleshooting Failure of Door Sensor to detect aircraft door status*

1. *Inspection (Pemeriksaan Awal)*

Langkah awal dalam menangani masalah sensor door pada pesawat Boeing 737-800 adalah melakukan inspeksi menyeluruh. Tujuannya adalah untuk mengetahui apakah masalah yang terjadi berasal dari sensor, wiring, switch, atau mekanisme pintu itu sendiri. Sensor pintu merupakan bagian dari sistem safety, berfungsi memastikan pintu telah tertutup dan terkunci dengan aman sebelum pesawat dapat melakukan pushback, taxi, takeoff, atau pressurization.



GMF AeroAsia

MAINTENANCE JOB CARD

SEQUENCE NO.: 0010 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-03: E/E Access Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine B737-800 **P2-PXC**

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805599703
Operation Check / Test
WORK PACKAGE NO : 00216375
WORK CENTER / PLANT : GAH403ZZ / GAH4 ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI
EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:52-71-42-710 INT REF.:-
AD REF.:-
SB REF.:- ORIGIN DOCUMENT : N/A

MATERIAL REQUIREMENT **QTY** **UOM**

TOOLS REQUIREMENT **TOOL REGISTER** **QTY** **UOM**

JOB DESCRIPTION	MECH	INSP
0010 **GAH403E1** "Customer Work Order : GMF/TP/PROP-2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 EFF : 882 // BN : YK002 // SN : 30290 // LN : 1406 NOTE: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"	M.583823 12 JUN 2025	I.E11163 12 JUN 2025

Gambar 4. 6 *E/E Access Door Sensor Check*
(Dokumen Pribadi)

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0009 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-02: Airstair Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine B737-800 **P2-PXC**

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805599702
Operation Check / Test

WORK PACKAGE NO : 00216375
WORK CENTER / PLANT : GAH403ZZ / GAH4 ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI
EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:52-71-61-710 INT REF.:-
AD REF.:- REF.:-
SB REF.:- ORIGIN DOCUMENT : N/A

MATERIAL REQUIREMENT	QTY	UOM

TOOLS REQUIREMENT	TOOL REGISTER	QTY	UOM

JOB DESCRIPTION	MECH	INSP
0010 GAH403E1 "Customer Work Order : GMF/TP/PROP-2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 EFF : 882 // BN : YK002 // SN : 30290 // LN : 1406 NOTE: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"	I.E11163 12 JUN 2025	I.E6944 12 JUN 2025

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

Gambar 4. 7 *Airstair Door Sensor Check*
(Dokumen Pribadi)

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0011 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-04: Cargo Door Sensor Check

PM/PS: P-737-4TS-03-CAR/101
737 OPC & FUC Cargo Routine B737-800 **P2-PXC**

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805599704
Operation Check / Test

WORK PACKAGE NO : 00216375
WORK CENTER / PLANT : GAH403ZZ / GAH4 ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI

EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:52-71-31-710 INT REF.:-
AD REF.:- REF.:-
SB REF.:- ORIGIN DOCUMENT : N/A

MATERIAL REQUIREMENT	QTY	UOM
TOOLS REQUIREMENT	**TOOL REGISTER**	**QTY**	**UOM**

JOB DESCRIPTION	MECH	INSP
0010 GAH403E1 "Customer Work Order : GMF/TP/PROP 2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 EFF : 882 // BN : YK002 // SN : 30290 // LN : 1406 NOTE: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"	M.583823 12 JUN 2025	I.E11163 12 JUN 2025

POLITEKNIK PENERBANGAN SUJANMA AKASA MANDALA SURABAYA

Gambar 4. 8 *Cargo Door Sensor Check*
(Dokumen Pribadi)

GMF AeroAsia

MAINTENANCE JOB CARD

SEQUENCE NO.: 0013 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-07: Emergency Exit Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine B737-800 **P2-PXC**

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805599706
Operation Check / Test

WORK PACKAGE NO : 00216375
WORK CENTER / PLANT : GAH403ZZ / GAH4
ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI

EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:52-71-22-710 INT REF.:-
AD REF.:- REF.:-
SB REF.:- ORIGIN DOCUMENT : N/A

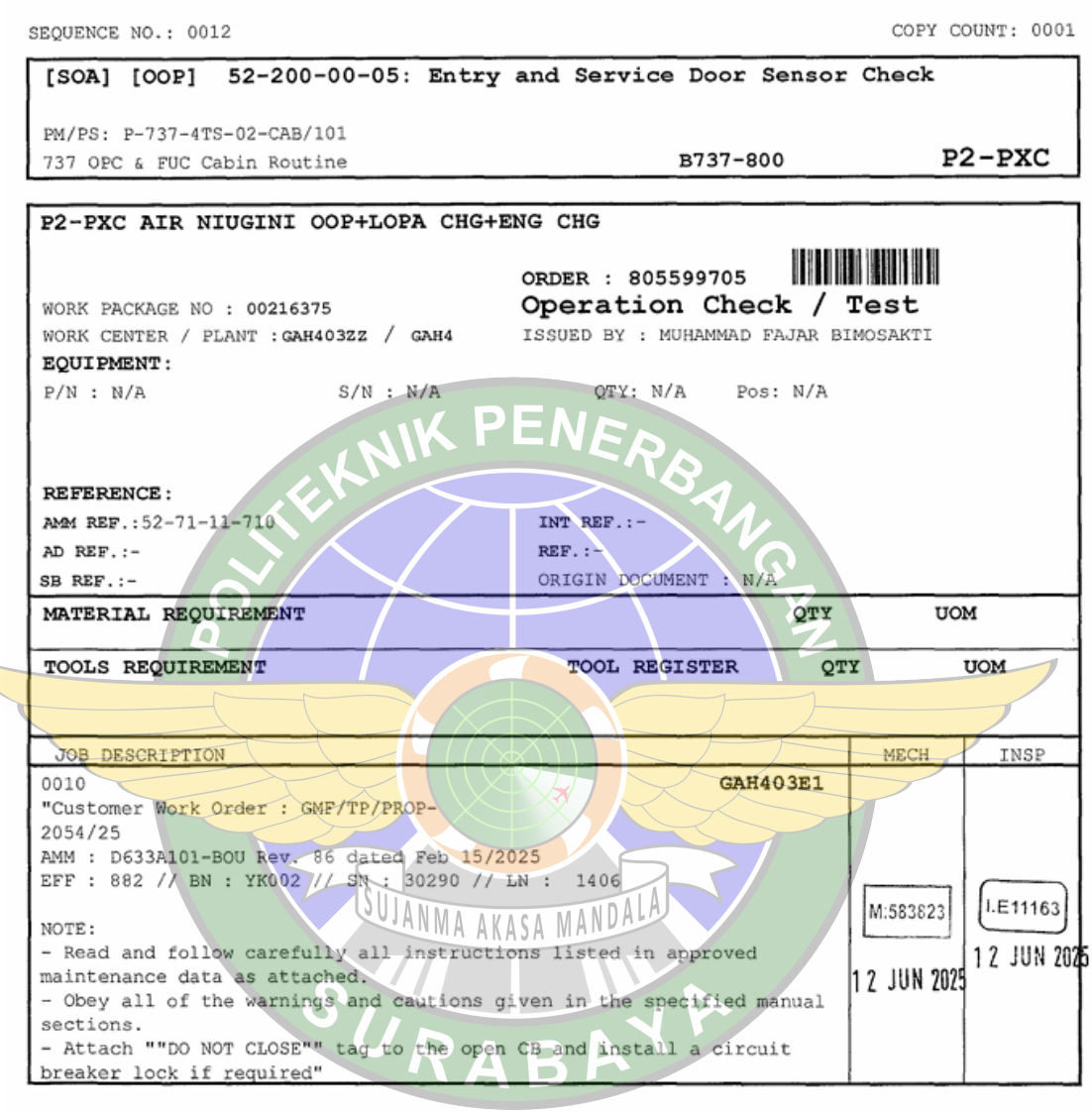
MATERIAL REQUIREMENT	QTY	UOM

TOOLS REQUIREMENT	TOOL REGISTER	QTY	UOM

JOB DESCRIPTION	MECH	INSP
0010 GAH403E1 "Customer Work Order : GMF/TP/PROP-2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 EFF : 882 // BN : YK002 // SN : 30290 // LN : 1406 NOTE: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"	M:583823 12 JUN 2025	I.E11163 12 JUN 2025

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

Gambar 4. 9 *Emergency Exit Door Sensor Check*
(Dokumen Pribadi)



SEQUENCE NO.: 0012 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-05: Entry and Service Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine B737-800 P2-PXC

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805599705
Operation Check / Test
WORK PACKAGE NO : 00216375
WORK CENTER / PLANT : GAH403ZZ / GAH4
ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI
EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:52-71-11-710
AD REF.:-
SB REF.:-
INT REF.:-
REF.:-
ORIGIN DOCUMENT : N/A

MATERIAL REQUIREMENT QTY UOM

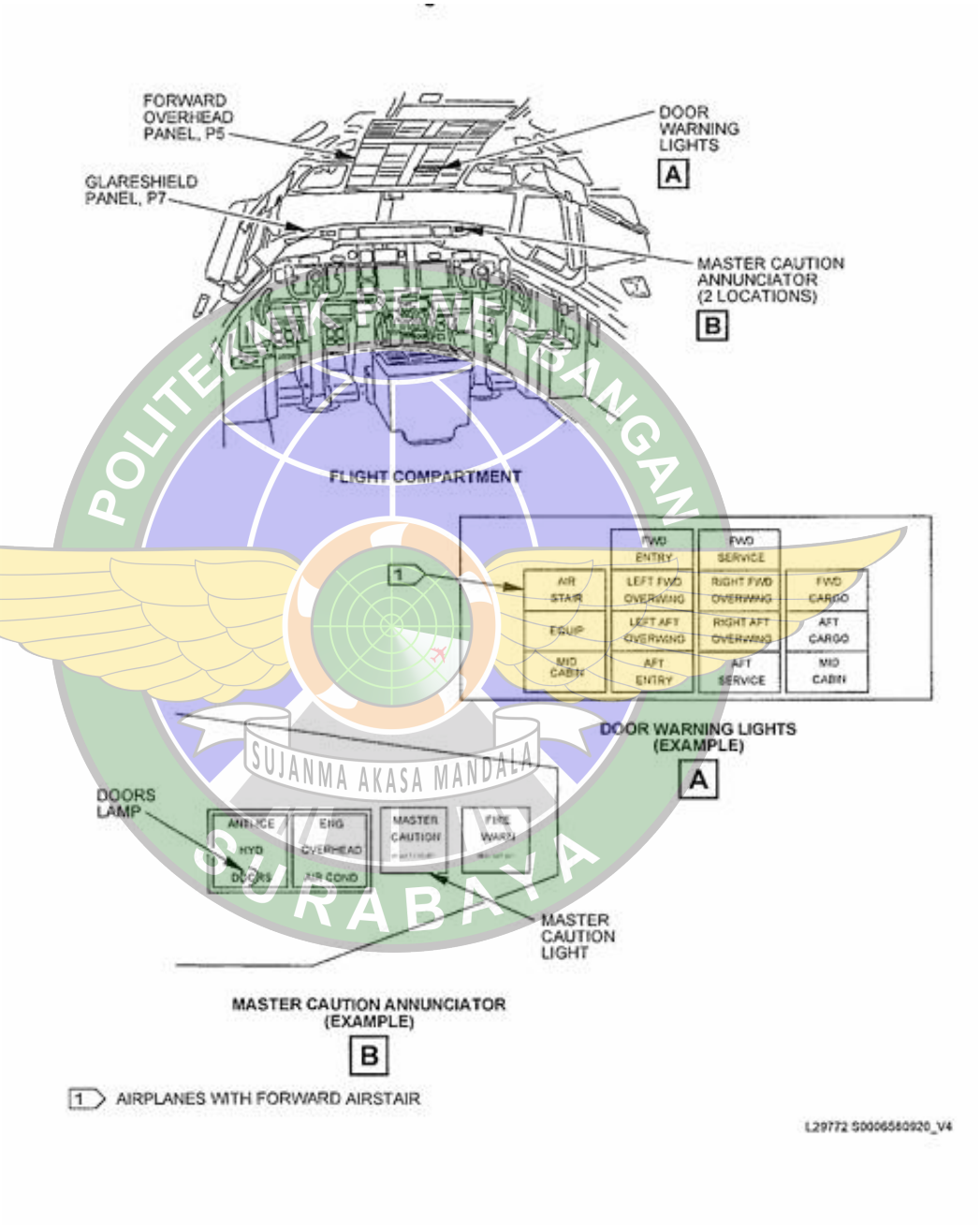
TOOLS REQUIREMENT TOOL REGISTER QTY UOM

JOB DESCRIPTION		MECH	INSP
0010 "Customer Work Order : GMF/TP/PROP-2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 EFF : 882 // BN : YK002 // SN : 30290 // LN : 1406 NOTE: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"	GAH403E1	M:583823 12 JUN 2025	I.E11163 12 JUN 2025

Gambar 4. 10 *Entry and Service Door Sensor Check*
(Dokumen Pribadi)

a. Lihat peringatan yang muncul di cockpit dari EICAS atau annunciator panel.
b. Periksa secara fisik kondisi pintu apakah benar-benar tertutup dan terkunci.
c. Jalankan ground test menggunakan PSEU untuk membaca input/output logic sensor.
d. Periksa wiring dan konektor apakah ada kerusakan, korosi, atau loose contact.
e. Gunakan referensi dari AMM dan FIM sesuai jenis pintu.

f. Gunakan jobcard yang relevan sesuai pintu *(Entry, Cargo, Emergency, E/E, Airstair)*.



Gambar 4. 11 *Lokasi Sensor Door Door di Cockpit*
(Sumber: AMM Chapter 52)

2. Rectification (Tindakan Perbaikan)

Jika setelah inspeksi ditemukan adanya error, logic yang tidak sesuai, atau pembacaan sensor yang tidak akurat, maka dilakukan rectification. Tujuannya adalah mengembalikan fungsi sistem sensor door ke kondisi normal. Langkah-langkah :



Gambar 4. 12 Door Sensor
(Dokumen Pribadi)

a. Lakukan penyetelan ulang posisi sensor atau switch.
b. Pastikan bracket mounting sensor tidak longgar dan dalam jangkauan area deteksi.
c. Ganti switch yang rusak (open/short) menggunakan multimeter untuk konfirmasi.
d. Bersihkan korosi pada konektor atau terminal.
e. Gunakan part sesuai IPC (Illustrated Parts Catalog).
f. Kencangkan ulang hardware seperti braket dan engsel pintu.

3. Repair (Perbaikan Fisik Komponen)

Perbaikan dilakukan ketika komponen mengalami kerusakan minor dan masih dapat difungsikan kembali tanpa perlu penggantian. Hal ini penting untuk efisiensi dan penghematan suku cadang.

a. Perbaiki atau ganti bracket sensor jika bengkok atau aus.
b. Solder ulang atau crimp ulang konektor dengan kualitas rendah.
c. Lindungi wiring dengan heat-shrink dan lacing sesuai EWIS.
d. Bila repair menyimpang dari AMM, wajib ada engineering approval.

4. Functional Test (Pengujian Fungsi)

Setelah perbaikan selesai, penting dilakukan pengujian fungsional untuk memastikan bahwa sensor beroperasi dengan benar. Pengujian ini menjadi acuan bahwa sistem sudah kembali sesuai standar pabrik.

a. Aktifkan mode test pada PSEU dan monitor perubahan logic saat pintu dibuka/tutup.
b. Jalankan prosedur pengujian AMM sesuai jenis pintu.
c. Verifikasi tidak muncul lagi warning/advisory di kokpit.
d. Pastikan perubahan logic ON/OFF sesuai dengan gerakan pintu.
e. Dokumentasikan hasil pengujian pada jobcard.

5. Return To Service (Pengembalian Pesawat Untuk Beroperasi)

Setelah sistem diuji dan dinyatakan normal, pesawat dapat dikembalikan ke status siap terbang. Proses ini melibatkan dokumentasi dan verifikasi akhir untuk menjamin tidak ada potensi bahaya atau error.

a. Tutup kembali access panel sesuai urutan.
b. Periksa ulang area kerja agar bebas dari FOD dan tools.
c. Aktifkan kembali circuit breaker (CB) dan cabut tag peringatan.
d. Uji fungsi buka-tutup pintu.
e. Update logbook dan jobcard.
f. Tanda tangan Return to Service oleh teknisi berlisensi.

BAB V
PENUTUP

5.1 Kesimpulan

Kesimpulan merupakan rangkuman pernyataan yang merujuk pada hasil umum dari suatu laporan atau karya ilmiah, sehingga esensi dan capaian dari laporan tersebut dapat diketahui melalui bagian ini. Berdasarkan pedoman penulisan laporan OJT terbaru, kesimpulan dibagi menjadi dua bagian, yaitu kesimpulan terkait pelaksanaan OJT secara menyeluruh dan kesimpulan berdasarkan studi kasus yang telah disajikan. Uraian mengenai kesimpulan tersebut dijelaskan pada Subbab 5.1.1 dan 5.1.2.

5.1.1 Kesimpulan Permasalahan On the Job Training

1. Berdasarkan uraian pada Bab 4, dapat disimpulkan bahwa pada studi kasus pertama, kegagalan *Navigation Database (NDB)* dalam memperbarui data peta navigasi disebabkan oleh kerusakan pada modul penyimpanan data. *Troubleshooting* dilakukan sesuai prosedur dalam *AMM Boeing 737-800*, melalui pemeriksaan perangkat lunak dan penggantian modul. Setelah perbaikan, sistem kembali berfungsi normal.
2. Pada studi kasus kedua, kegagalan sensor pintu dalam mendeteksi status pintu pesawat disebabkan oleh kerusakan pada *door sensor unit*. Setelah dilakukan pemeriksaan dan penggantian sensor, sistem kembali dapat menampilkan status pintu secara akurat di *cockpit*.

5.1.2 Kesimpulan Terhadap Pelaksanaan OJT

Berdasarkan pelaksanaan On The Job Training (OJT) yang dilaksanakan dari 1 April hingga 30 Juni 2024, dapat disimpulkan bahwa kegiatan ini mampu meningkatkan mutu pembelajaran serta memberikan pengalaman praktis yang belum diperoleh selama studi di Politeknik Penerbangan Surabaya. OJT juga memberikan gambaran nyata dunia kerja, mengembangkan wawasan, kedisiplinan, serta profesionalisme taruna melalui keterlibatan langsung dalam proses inspeksi dan

perbaikan pesawat di bawah bimbingan teknisi dan engineer di PT GMF AeroAsia – Hanggar Cengkareng.

5.2 Saran

5.2.1 Saran Terhadap Permasalahan *On the Job Training*

Pemeriksaan menyeluruh pada seluruh bagian pesawat, baik komponen utama maupun pendukung, harus dilakukan secara teliti untuk mendeteksi kerusakan sejak dini. Jika ditemukan masalah, segera koordinasikan dengan teknisi atau engineer, dan pastikan perbaikan dilakukan sesuai prosedur dalam *Aircraft Maintenance Manual* guna menjamin keselamatan dan standar teknis yang berlaku.

5.2.2 Saran Terhadap Permasalahan *On the Job Training*

1. Bagi taruna yang akan melaksanakan On the Job Training (OJT) di masa mendatang, disarankan untuk memaksimalkan waktu pelaksanaan dengan lebih aktif dalam proses bimbingan, menggali pengalaman sebanyak mungkin, serta mencatat dan mendokumentasikan setiap kendala atau permasalahan yang ditemui selama kegiatan OJT berlangsung.
2. Kepada Politeknik Penerbangan Surabaya, diharapkan dapat mempertimbangkan penambahan durasi pelaksanaan OJT untuk taruna yang ditempatkan di Akademi Penerbang Indonesia Banyuwangi. Hal ini dikarenakan durasi dua bulan dinilai belum cukup optimal untuk memperoleh pengalaman dan pemahaman mendalam terkait praktik kerja di lapangan.

5.3 Manfaat *On the Job Training*

On the Job Training (OJT) memberikan manfaat signifikan bagi taruna dalam mengasah keterampilan teknis dan pemahaman praktis melalui keterlibatan langsung dalam kegiatan perawatan pesawat. Selain itu, OJT turut membentuk kedisiplinan, tanggung jawab, dan kemampuan beradaptasi di lingkungan kerja profesional.

DAFTAR PUSTAKA

Buku Pedoman On The Job Training, (2020, April). Politeknik Penerbangan Surabaya

GMF AeroAsia | Beyond Maintenance Toward Customer Satisfaction

BOEING 737 -600/700/800/900 AIRCRAFT MAINTENANCE MANUAL (2024)

LAMPIRAN

Lampiran 1 *Job Card Change Navigation Database in FMC*

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0061 COPY COUNT: 0001

[TS9LC0032KYA] 34-ANG-04-01 : Change Navigation Database in FMC

PM/PS: P-737-4TS-04-COC/102
737 OPC & FUC Cockpit Non Routine **B737-800** **P2-PXC**

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805606071
Special Procedure
WORK PACKAGE NO : 00216375
WORK CENTER / PLANT : GAH403ZZ / GAH4 ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI
EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:20-15-11-400 INT REF.:-
AD REF.:- REF.:-
SB REF.:- ORIGIN DOCUMENT : N/A

MATERIAL REQUIREMENT	QTY	UOM
TOOLS REQUIREMENT	**TOOL REGISTER**	**QTY**	**UOM**

JOB DESCRIPTION		MECH	INSP
0010	GAH403E1		
"Customer Work Order : GMF/TP/PROP-2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 EFF : 882 // BN : YK002 // SN : 30290 // LN : 1406 NOTE: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"		I.E11163 13 JUN 2025	I.E6944 13 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
000	NIL	I.E6944 13 JUN 2025

FORM GMF/Q-002 R6 1 OF 2

805606071___11bgd sapgmfism6 G583615 2025-06-10T15:00:14_13359775

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0061 COPY COUNT: 0001

[TS9LC0032KYA] 34-ANG-04-01 : Change Navigation Database in FMC

PM/PS: P-737-4TS-04-COC/102
737 OPC & FUC Cockpit Non Routine **B737-800** **P2-PXC**

JOB DESCRIPTION	MECH	INSP
0020 **GAH403E1** "Perform On-Airplane Software - Installation IAW. AMM TASK 20-15-11-400-801"	I.E11163 13 JUN 2025	I.E6944 13 JUN 2025
0030 **GAH403E1** "Examine the work area to ensure: - Plug/cover, lockwire installed properly - Nut tightened correctly - Clear from any unwanted object such as materials, tools, FOD - Put the system back to it's usual condition"	I.E11163 13 JUN 2025	I.E6944 13 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0020 0030	nil	I.E6944 13 JUN 2025

CARD CLEARANCE	Accomplishment date	Supervisor Sign
	13 JUN 2025	532034

805606071__11bgd sapgmfism6 G583615 2025-06-10T15:00:14 _ 13359775

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

Air Niugini | A/C Reg: P2-PXC | A/C Type: B737NG | MSN: 30290 | WO - 18288992 | Var No: YK002

Work Package: Out of Phase Tasks - TS9LC002XG4R

Line #	Task Type	Title	Work Area
36	SVC	Change Navigation Database in FMC	

Task #	Special Notes	Assigned To
34-ANG-04-01		

Due Date		Maintenix Barcode
12-Jun-2025 23:59		TS9LC0032KYA

Technical References	Access	Zone

Skill	Total Hrs	Men	Sched Hrs	Additional Work instructions
AMT				

ALL RELEVANT TASKS AND / OR INSPECTION ON THIS WORK CARD HAVE BEEN CARRIED OUT TO THE REQUIRED STANDARD

- [x] BASE: B1 OR B2 SUPPORT STAFF(AS APPLICABLE)
- [ ] LINE: B1 OR B2 CERTIFYING STAFF(AS APPLICABLE)
- [ ] NDT CRS STAFF (AS APPLICABLE)

13 JUN 2025 (DATE (D/M/Y) TIME (HH:MM)) — I.E6944 (SIGNATURE OR STAMP)

Tool/FO Check: I.E6944 | II (Stamp or Signature)

Parts On/Off | **Inventory** Boeing 737-800 - P2-PXC

Part Group Description | **Assembly position** 1

ON/OFF	Part Description	PN	SN	Position

Rev. 7 | Form ME 020-MXI, Date 16-Feb-2023

POLITEKNIK PENERBANGAN SUJANMA AKASA MANDALA SURABAYA

Air Niugini Task #: 34-ANG-04-01 TS9LC0032KYA

A/C Reg: P2-PXC A/C Type: B737N MSN: 30290 WO - 18288992 Var No: YK002

Work Package: TS9LC002XG4R

FOR A/C ITS

REF AMM TASK 20-15-11-400-801

MECH	I.E11163

UPDATING OF FMC NAV DATA.

END OF TASK

POLITEKNIK PENERBANGAN SUJANMA AKASA MANDALA SURABAYA

TASK 20-15-11-400-801

1. On-Airplane Software - Installation

(Figure 201)

A. General

(1) This task provides the common instructions on how to install software on-airplane.

(a) The complete software installation procedure can be found in the AMM chapter of the component.

(2) Software Installation Times

(a) The time required to install software in a component is variable and is dependent on several factors which include:

1) Retrieval of the correct software media, applicable equipment and Maintenance Manual procedure.
2) Setup procedures.
3) Data transfer time.
4) Software configuration check.
5) Return to usual airplane configuration.
6) Airline completion procedures.

(3) Data Transfer Times - Modern Loaders

(a) As floppy disks are going obsolete, modern airborne and portable loaders are being developed which use many forms of media and often have a mass storage device that stores airplane software locally for software loading. These loaders typically have a user interface to start and status the software load operation.

1) The data transfer time is the time from a "Start Load" entry until a "Load Complete" message is displayed.
2) The data transfer time depends on the total size of the software.
3) Typical software transfer times are about 15 minutes per 2 Mbytes for analyzer, COM-1562, Line Replaceable Unit (LRU)s.

(4) Modern software loaders that meet the security requirements defined in ARINC 645-1 or newer are recommended to use. The procedures for modern software loaders will be marked as preferred for now and will be the only procedures available after removing floppy disk loaders procedures in the future. Please check with your Software Loader Supplier for current capabilities since this is still maturing across current and future software loaders.

(5) Data Transfer Times - Floppy Disk Loaders

(a) The data transfer time is the time from disk or disks insertion into the data loader until the data transfer is complete.

(b) The data transfer time depends on:

1) The number of disks.
2) The type and size of software files on each disk.
3) The unique protocols and processors of the data loader.
4) The unique internal protocols and processors of the component.
5) Disks inserted in a timely manner.

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(c) Typical data transfer times are:

1) Operational Program Software (OPS): approximately 5 to 16 minutes for each disk. For example, if the OPS has four disks, then the complete installation can take as long as 64 minutes.

2) Operational Program Configuration (OPC): approximately 1 to 3 minutes for each disk.

3) Databases (DB): approximately 3 to 15 minutes for each disk.

(d) Short Load

1) Some components can do a short load.

2) During a short load, only pieces of software that are different from what is already in the component are installed during data transfer. This can cause a data transfer time that is much shorter than the time given in Table 201. It is possible that some disks will not be used during software installation.

3) You know that the correct software is installed when the correct software part number shows for the software configuration check.

4) The display electronic unit (DEU) for the Common Display System is an example of a component that can do a short load.

(6) Table 201 - Data Transfer Times

(a) Table 201 shows data transfer times for components that are approved for on-airplane software installation. Not all components are installed on all airplanes. If a component is installed on an airplane, then there is a software installation procedure applicable to that airplane. The software installation procedure is in the AMM chapter-section given in the table.

(b) The types of software installed in a component on one airplane can be different than the types of software installed in the component on a different airplane.

1) A component on the list can have some hardware part numbers that are approved for software installation and other hardware part numbers that are not approved for software installation.

2) Refer to airline part number records to find software part numbers for applicable components.

(c) Data transfer times are approximate times in minutes for software installed with a data loader. Data transfers can fail, and failure of the data transfer will increase the total time necessary for software installation. Data transfer times are supplied only as an aid to help you schedule work.

(d) The times given are for the installation of one piece of software into one component.

1) If a component has more than one piece of software, then you must add the time for each piece to find the total data transfer time for the component.

2) If a system has more than one of the given component, and software is to be installed in each one, you must multiply the time given in the table by the total number of components to find the total data transfer time for the system.

a) For example, if a left and a right component are installed on the airplane, you must multiply the time given in the table by two to find the total data transfer time for the two components.

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b) Some systems can cross-load software between components. Usually it is faster to cross-load software than to install software with a data loader. The Flight Management Computer System (FMCS) is an example of a system that can cross-load.

Table 201/20-15-11-993-801 Table 201

AMM CHAPTER	COMPONENT	SOFTWARE	DATA TRANSFER TIME (MINUTES)
22-11	Flight Control Computer (FCC)	OPS	5 to 16
23-15	Satellite Data Unit (Rockwell Collins)	OPS ORT (DB)	15 to 48 1 to 5
23-15	Satellite Data Unit (Honeywell)	USER ORT (DB) SECURED ORT (DB)	1 to 5 1 to 5
23-15	Satellite Data Unit (Thales)	OPS ORT (DB)	15 to 48 1 to 5
23-27 23-27	ACARS Management Unit (AlliedSignal)	CORE & App (OPS) Airplane Database (DB)	5 to 16 1 to 15
23-27 23-27	ACARS Management Unit (Rockwell Collins)	CORE (OPS) AOC (DB)	2 to 16 3 to 15
23-27 23-27	ACARS Management Unit (Teledyne)	Application (OPS)	5 to 16
23-27	ACARS Multi-Purpose Display Unit (MIDU) (AlliedSignal)	OPS *[1]	5 to 6
23-32	Digital Interface Unit (Passenger Flight Information Display System)	Airshow DB *[2]	3 to 15
31-31	Digital Flight Data Acquisition Unit	DFDAU Mandatory (OPS) *[3] ACMS Monitoring (OPS) *[3]	5 to 32 3 to 20
31-31	Optical Quick Access Recorder (Teledyne)	OPS *[5]	30
31-62	Display Electronic Unit (Common Display System)	OPS OPC DB	35 to 128 1 to 3 2 to 15
34-46	Enhanced Ground Proximity Warning Computer (EGPWC)	DB *[1]	5 to 45
34-61	Flight Management Computer (FMCS)	OPS OPC MEDB NAV DB ACARS Datalink DB*[4] Perf Defaults DB *[4]	10 to 32 1 to 3 3 to 15 3 to 75 3 to 15 3 to 15

ECCN 9E991 BOEING PROPRIETARY - See title page for details

Table 201/20-15-11-993-801 Table 201 (Continued)

AMM CHAPTER	COMPONENT	SOFTWARE	DATA TRANSFER TIME (MINUTES)
34-61	LCD Control Display Unit	OPS	5 to 16
49-61	APU Electronic Control Unit	OPS	5 to 16

*[1] Software installed from PCMCIA card
*[2] Software installed from disk or CD-ROM
*[3] Software installed from disk or PCMCIA card
*[4] Optional software
*[5] Software installed from disk drive at component front panel

(7) Software Loaders

(a) Modern software loaders that meet the security requirements defined in ARINC 645-1 or newer are recommended to use. The procedures for modern software loaders will be marked as preferred for now and will be the only procedures available after removing floppy disk loaders procedures in the future. Please check with your Software Loader Supplier for current capabilities since this is still maturing across current and future software loaders.

(b) A software loader is a LRU or a Ground Support Equipment (GSE) device that connects to software loadable airplane components through interface wiring and can transfer the files of a software part to loadable components.

(c) These are the types of data loaders:

1) Airborne Data Loader (ADL)

a) An airborne data loader is a data loader that is installed in the flight compartment on the P61 panel.

2) Portable Data Loader (PDL)

a) A portable data loader (PDL) is equipment that is moved to the airplane to install software. The PDL is removed from the airplane when the task is complete.

(d) A data loader control panel is installed on the P61 panel. The control panel has interface wiring to components that can receive software installation from a data loader in the flight compartment. The control panel has a switch position for each applicable component. There are INOP labels on switch positions that are not available for software installation.

(e) There is an airborne data loader (ADL) or a connector for a portable data loader (PDL) on the P61 panel.

1) A P61 panel with a ADL and PDL switching function, there will only be one data load source at a time.

a) When a PDL is connected to the PDL connector, then the PDL will be the primary data source for data loading.

b) The ADL will be the primary data source for data loading when the PDL is not connected to the PDL connector.

(f) Figure 201 shows examples of data loader control panels, airborne data loaders, and the connector panel for a portable data loader.

(8) Alternative Software Installation

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(a) Usually software is installed with a data loader in the flight compartment. But some components have an interface connector, disk drive, CD-ROM drive, or PCMCIA (personal computer memory card international association) interface for software installation at the front of the component.

(9) Airborne Data Loaders (ADL)

(a) This procedure supplies generic procedures for modern and examples for operation of these older floppy-disk based ADLs:

1) AlliedSignal (Sundstrand)
2) Teledyne
3) SFIM

(10) Portable Data Loaders (PDL)

(a) A PDL has an interface cable that is connected to the DATA TRANSFER UNIT RECEPTACLE connector on the P61 panel. The circuit breaker that supplies power for the PDL must be open when a PDL is connected or disconnected.

(b) PDLs are not Boeing supplied tools. Refer to the data loader supplier for instructions for PDL operation.

(11) SEL CONFIG prompt on CDU

(a) The SEL CONFIG prompt shows on the INIT/REF INDEX page on the FMCS control display unit (CDU).

(b) The SEL CONFIG page will show software part numbers for some systems. For example, the flight data acquisition unit (FDAU) will show software part numbers when selected.

(c) To show software part numbers, first set the data loader control panel to the applicable system. Then push the line select key adjacent to SEL CONFIG.

1) If the configuration supports this page, then software part numbers will show for the selected system.
2) If the configuration does not support the SEL CONFIG function or if the selected system is not operational, then the selected page will be blank.
3) The selected system controls the format of the SEL CONFIG page.

B. References

Reference	Title
24-22-00-860-811	Supply Electrical Power (P/B 201)
24-22-00-860-812	Remove Electrical Power (P/B 201)

C. Tools/Equipment

NOTE: When more than one tool part number is listed under the same "Reference" number, the tools shown are alternates to each other within the same airplane series. Tool part numbers that are replaced or non-procurable are preceded by "Opt:", which stands for Optional.

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Reference	Description
COM-261	Data Loader - ARINC 615 (without ARINC 645-1 Compliant) **737-700, -800** Part #: 11615-50 Supplier: 0D4J3 Part #: CEI-715-DL-2 Supplier: 0BPH5 Part #: PXS-LDS-10 Supplier: 98571 Opt Part #: 11615-20 Supplier: 0D4J3 Opt Part #: 30100 Supplier: 0BAW0 Opt Part #: 80000-05 Supplier: 0BAW0 Opt Part #: 964-0400-020 Supplier: 97896 Opt Part #: 964-0400-025 Supplier: 97896 Opt Part #: 964-0400-030 Supplier: 97896 Opt Part #: 964-0400-055 Supplier: 97896 Opt Part #: 964-0400-060 Supplier: 97896 Opt Part #: 964-0400-064 Supplier: 97896 Opt Part #: 964-0400-065 Supplier: 97896 Opt Part #: P2K-615A-06 Supplier: 0BAW0
COM-1562	Analyzer - Data Bus, ARINC 429 **737-700, -800** Part #: 01-1001-05 Supplier: 0Z3C6 Part #: 01-1001-12 Supplier: 0Z3C6 Part #: 403557 Supplier: CG603 Part #: 800-0630 Supplier: 1JSZ6 Part #: DT400H-01 Supplier: 0Z3C6 Part #: UA1410 Supplier: 0H231 Opt Part #: 01-1001-10 Supplier: 0Z3C6 Opt Part #: 01-1404-00 Supplier: 41364 Opt Part #: 1116-4000-21 Supplier: A0197 Opt Part #: 429EBP Supplier: 41364 Opt Part #: 429EX Supplier: 41364 Opt Part #: 702125-01 Supplier: CG603 Opt Part #: DT400H Supplier: 0Z3C6 Opt Part #: MODEL 429HBA Supplier: 5J927 Opt Part #: TYPE 030/026 Supplier: 80494
COM-21223	Data Loader - ARINC 615 (with ARINC 645-1 Compliant) **737-700, -800** Part #: 403474 Supplier: CG603 Part #: 403562 Supplier: CG603 Part #: AE-615-MPDL Supplier: CD624 Part #: PDL-615-XT Supplier: 89Q20

D. Generic Load Procedure for use of modern PDLs - (Preferred)

SUBTASK 20-15-11-860-019

(1) Software may be transferred to the hard drive of the PDL via various modern forms of media. Software may be transferred electronically over a secure network the PDL hard drive.

(2) Use of ARINC 645 or ARINC 645-1 PDLs will require that all software is signed with digital signature for transfer to the PDL.

(3) Connect the PDL to the ARINC 615 data loader, COM-261, or ARINC 645-1 compliant portable data loader, COM-21223, connector on the P11 panel.

(4) Select the target LRU to load via the 20x3 switch.

(5) Select the software part number and target LRU to load via the PDL user interface.

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(6) Start the load process and monitor status. Refer to the PDL user guide for details on starting and monitoring load status.

(7) Receive a load complete message or failure message.

(8) If a failure occurs, resolve issue and re-start the load.

(9) Repeat for each software part to be loaded.

E. Generic Load Procedure for use of modern ADLs - (Preferred)

SUBTASK 20-15-11-860-020

(1) Software may be transferred to the hard drive of the ADL via a built-in media drive (e.g. USB port). In some cases, software may be transferred electronically over a secure network via a wireless LRU to the ADL hard drive.

(2) Use of ARINC 645 or ARINC 645-1 ADLs will require that all software is signed with digital signature for transfer to the ADL.

(3) Select the target LRU to load via the 20x3 switch.

(4) Select the software part number and target LRU to load via the ADL user interface.

(5) Start the load process and monitor status. Refer to the PDL user guide for details on starting and monitoring load status.

(6) Receive a load complete message or failure message.

(7) If a failure occurs, resolve issue and re-start the load.

(8) Repeat for each software part to be loaded.

F. AlliedSignal (Sundstrand) Airborne Data Loader Installaition - (Non-Preferred)

SUBTASK 20-15-11-860-002

(1) The AlliedSignal ADL has these status lights:

(a) PROG (In Progress) - shows as software installation occurs.

(b) CHNG (Change) - shows when it is time to install the subsequent disk.

(c) COMP (Complete) - shows when the software installation is completed.

(d) RDY (Ready) - shows when the disk is in the disk drive and the ADL is ready to install the software in the component.

1) If the RDY indication flashes, then the data loader is in standby mode while it waits for the component to validate the data.

(e) XFER (Transfer Fail) - shows the software installation is not completed. Open and close the circuit breaker for the component, and start the installation again.

(f) R/W (Read/Write) - shows when the ADL cannot read or write the data on the disk. Open and close the circuit breaker for the component, and start the installation again. If the problem continues, then replace the disk.

(g) HRDW (Hardware) - shows when the ADL fails the self test.

SUBTASK 20-15-11-860-003

(2) Do these steps to prepare for the software installation:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

1) Make sure that the power is not removed while you install software.

NOTE: A power interruption will cause a failure of the software installation.

(b) Make sure that the system select switch on the data loader control panel (P61) is set to NORM or NORMAL.

ECCN 9E991 BOEING PROPRIETARY - See title page for details

(c) Open this circuit breaker:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	9	C00923	DATA LOADER

(d) To open the ADL front cover, pull at the top edge.

(e) Push the eject button on the ADL.

1) If a plastic protective disk is ejected from the disk drive, then remove it.

(f) Close this circuit breaker:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	9	C00923	DATA LOADER

(g) Wait until all the status lights are off.

NOTE: The status lights will flash on and off while the ADL does a self test.

(h) Make sure that the circuit breakers are closed for the applicable component or system that will receive the new software.

SUBTASK 20-15-11-420-001

(3) Do these steps at the ADL to install the software:

NOTE: You must know the correct software part numbers for the component. For the component to be an approved installation, software with the correct part numbers must be installed.

NOTE: This is a general procedure for software installation. Some components have other steps that are necessary. The software installation task for the component will include all necessary steps.

(a) Set the switch or switches on the data loader control panel to the applicable position for your component or system.

(b) Carefully push the first disk (label up) into the disk drive.

NOTE: If the destination component is active, the installation sequence will begin and the RDY light will come on. When the data transfer begins, the PROG light will come on. The RDY light can flash when the component validates the data. If the software is on more than one disk, the CHNG light will come on when it is time to put in the subsequent disk.

(c) If the CHNG light comes on, wait approximately 10 seconds and then push the eject button.

NOTE: The installation can fail if you wait too long before you remove and install disks.

1) Remove the disk from the disk drive.
2) Put the subsequent disk into the disk drive.
3) If there are more than two disks for the software installation, then remove and install disks until the COMP light shows.

(d) When the COMP light comes on, wait approximately 10 seconds and then push the eject button.

(e) Remove the disk from the disk drive.

(f) If there was a plastic protective disk in the disk drive before you installed software, then put it back into the disk drive.

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SUBTASK 20-15-11-860-004

(4) Set the system select switch on the data loader control panel to NORM or NORMAL.

SUBTASK 20-15-11-410-001

(5) Close the front cover on the ADL.

SUBTASK 20-15-11-740-001

(6) Make sure that the correct software part numbers are installed in the component.

NOTE: The software installation task for the component has the steps to do a software configuration check.

SUBTASK 20-15-11-860-005

(7) Do this task: Remove Electrical Power, TASK 24-22-00-860-812.

G. Teledyne Airborne Data Loader Installation - (Non-Preferred)

SUBTASK 20-15-11-860-006

(1) Do these steps to prepare for the software installation:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

1) Make sure that the power is not removed while you install software.

NOTE: A power interruption will cause a failure of the software installation.

(b) Make sure that the system select switch on the data loader control panel (P61) is set to NORM or NORMAL.

(c) Open this circuit breaker:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	9	C00923	DATA LOADER

(d) To open the ADL front cover, turn the cover knob clockwise and pull.

(e) Push the eject button on the ADL.

1) If a plastic protective disk is ejected from the disk drive, then remove it.

(f) Close this circuit breaker:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	9	C00923	DATA LOADER

(g) Wait until the display shows INSERT DISK #1.

NOTE: The display lights and the ADL FAIL light will go on and off while the ADL does a self test. When the self test is complete, the display will show INSERT DISK #1.

(h) Make sure that the circuit breakers are closed for the applicable component or system that will receive the new software.

SUBTASK 20-15-11-420-002

(2) Do these steps at the ADL to install the software:

NOTE: You must know the correct software part numbers for the component. For the component to be an approved installation, software with the correct part numbers must be installed.

NOTE: This is a general procedure for software installation. Some components have other steps that are necessary. The software installation task for the component will include all necessary steps.

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(a) Set the switch or switches on the data loader control panel to the applicable position for your component or system.

(b) Carefully push the first disk (label up) into the disk drive.

NOTE: The display will show DISK INSERTED and then VOL:. If the destination component is active, the display will then show the file, extension and the percent of the file transfer completed. If there is more than one file, the ADL will install the next file until all files are completed. If the software is on more than one disk, then the display will show CHANGE DISK or INSERT DISK when it is time to put in the subsequent disk.

NOTE: If TRANSFER FAIL shows, then the installation is not completed. Open and close the circuit breaker for the component, and start the installation again. If READ/WRITE FAIL shows, then there is a problem with the disk. Open and close the circuit breaker for the component, and start the installation again. If the problem continues, then replace the disk.

(c) If CHANGE DISK or INSERT DISK shows on the display, wait approximately 10 seconds and then push the eject button.

NOTE: The installation can fail if you wait too long before you remove and install disks.

1) Remove the disk from the disk drive.
2) Put the subsequent disk into the disk drive.
3) If there are more than two disks for the software installation, then remove and install disks until LOAD COMPLETE shows on the display.

(d) When LOAD COMPLETE shows on the display, wait approximately 10 seconds and then push and eject button.

(e) Remove the disk from the disk drive.

(f) If there was a plastic protective disk in the disk drive before you installed software, then put it back in the disk drive.

SUBTASK 20-15-11-860-007

(3) Set the system select switch on the data loader control panel to NORM or NORMAL.

SUBTASK 20-15-11-410-002

(4) Close the front cover on the ADL.

SUBTASK 20-15-11-740-002

(5) Make sure that the correct software part numbers are installed in the component.

NOTE: The software installation task for the component has the steps to do a software configuration check.

SUBTASK 20-15-11-860-008

(6) Do this task: Remove Electrical Power, TASK 24-22-00-860-812.

H. SFIM Airborne Data Loader Installation - (Non-Preferred)

SUBTASK 20-15-11-860-009

(1) Do these steps to prepare for the software installation:

(a) Do this task: Supply Electrical Power, TASK 24-22-00-860-811.

1) Make sure that the power is not removed while you install software.

NOTE: A power interruption will cause a failure of the software installation.

(b) Make sure that the system select switch on the data loader control panel (P61) is set to NORM or NORMAL.

ECGN 9E991 BOEING PROPRIETARY - See title page for details

(c) Open this circuit breaker:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	9	C00923	DATA LOADER

(d) To open the ADL front cover, pull at the top edge.

(e) Push the eject button on the ADL.

1) If a plastic protective disk is ejected from the disk drive, then remove it.

(f) Close this circuit breaker:

CAPT Electrical System Panel, P18-2

Row	Col	Number	Name
A	9	C00923	DATA LOADER

(g) Wait until the display shows UNIT READY.

NOTE: While the ADL does a self test, the display indicators can flash on and off. TEST IN PROG, TEST COMPLETE and then UNIT READY will show on the display.

(h) Make sure that the circuit breakers are closed for the applicable component or system that will receive the new software.

SUBTASK 20-15-11-420-003

(2) Do these steps at the ADL to install the software:

NOTE: You must know the correct software part numbers for the component. For the component to be an approved installation, software with the correct part numbers must be installed.

NOTE: This is a general procedure for software installation. Some components have other steps that are necessary. The software installation task for the component will include all necessary steps.

(a) Set the switch or switches on the data loader control panel to the applicable position for your component or system.

(b) Carefully push the first disk (label up) into the disk drive.

NOTE: If the destination component is active, the installation sequence will begin. READY and then TRANSF IN PROG will show on the display. Then the display will show the data bus transmitter number and the amount of data. If there is more than one file, the ADL will install the next file until all files are completed. If the software is on more than one disk, the display will show DISK CHANGE or INSERT DISK when it is time to put in the subsequent disk.

NOTE: If TRANSF FAIL shows, then the installation is not completed. Open and close the circuit breaker for the component, and start the installation again. If DISK ERROR shows, then there is a problem with the disk. Open and close the circuit breaker for the component, and start the installation again. If the problem continues, then replace the disk.

(c) If DISK CHANGE or INSERT DISK shows in the display, wait approximately 10 seconds and then push the eject button.

NOTE: The installation can fail if you wait too long before you remove and install disks.

1) Remove the disk from the disk drive.

2) Put the subsequent disk into the disk drive.

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3) If there are more than two disks for the software installation, then remove and install disks until the display shows TRANSF COMPLETE.

(d) When TRANSF COMPLETE shows on the display, wait approximately 10 seconds and then push the eject button.

(e) Remove the disk from the disk drive.

(f) If there was a plastic protective disk in the disk drive before you installed software, then put it back into the disk drive.

SUBTASK 20-15-11-860-010

(3) Set the system select switch on the data loader control panel to NORM or NORMAL.

SUBTASK 20-15-11-410-003

(4) Close the front cover on the ADL.

SUBTASK 20-15-11-740-003

(5) Make sure that the correct software part numbers are installed in the component.

NOTE: The software installation task for the component has the steps to do a software configuration check.

SUBTASK 20-15-11-860-011

(6) Do this task: Remove Electrical Power, TASK 24-22-00-860-812.

I. Optional Loading Methods

NOTE: Use this procedure when an airplane is configured for an ADL, but a PDL is the only type of loader available.

SUBTASK 20-15-11-860-012

(1) Make an adapter cable to attach the PDL to an ADL connector.

(a) Use the PDL supplier's manual to find the pins on these connectors to assemble an adapter cable:

1) The MS27473T18A53S connector connects with the PDL connection.

2) The MS27508E18A53P connector connects with the airplane connection.

SUBTASK 20-15-11-860-013

(2) Make sure that the ADL is not energized and the select switch is in the NORMAL position.

SUBTASK 20-15-11-020-001

(3) Turn four mounting screws to the left to remove the ADL.

SUBTASK 20-15-11-020-002

(4) Remove the ADL.

SUBTASK 20-15-11-860-014

(5) Disconnect the airplane connector from the rear of the ADL.

SUBTASK 20-15-11-860-015

(6) Connect the adapter cable as follows:

(a) The MS27473T18A53S connector connects with the PDL connection.

(b) The MS27508E18A53P connector connects with the airplane connection.

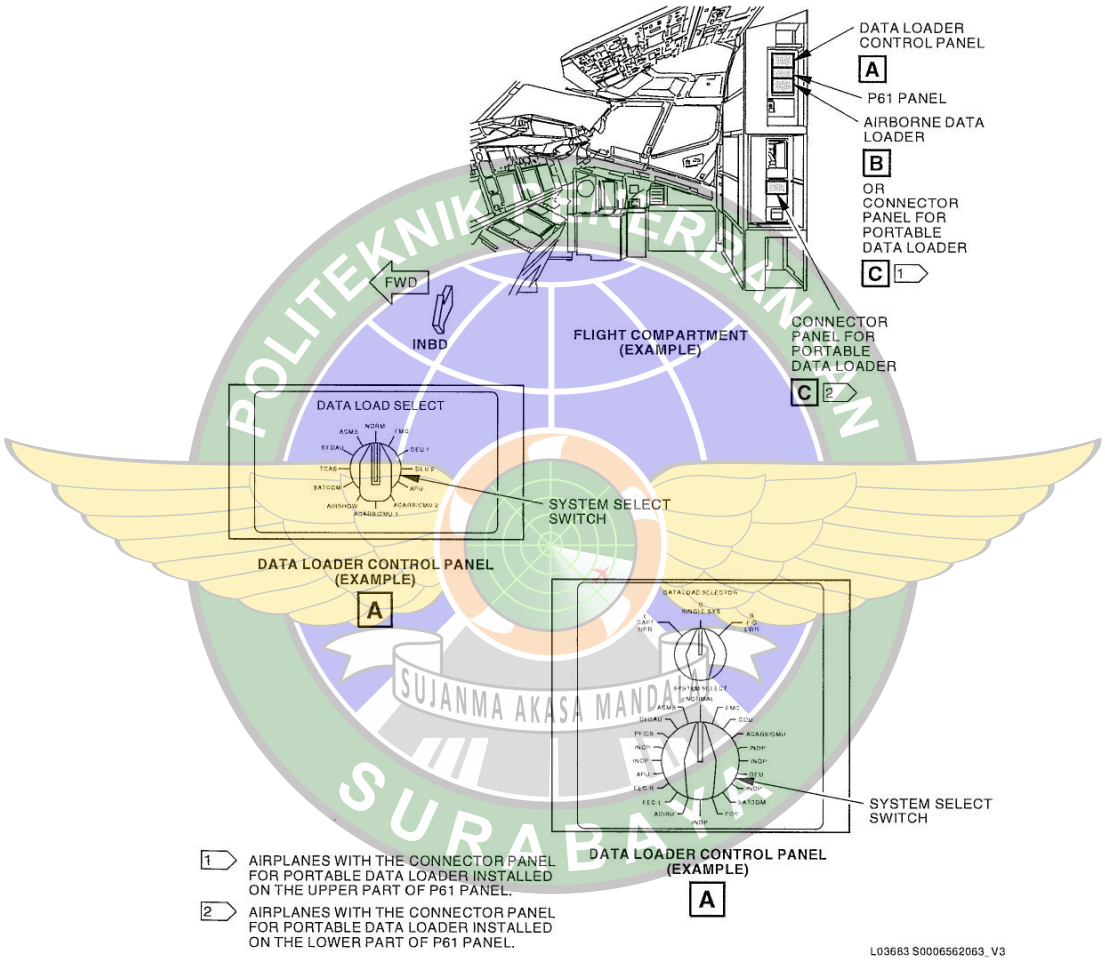
SUBTASK 20-15-11-860-016

(7) Use one of the PDL procedures to install the LRU software.

——— END OF TASK ———

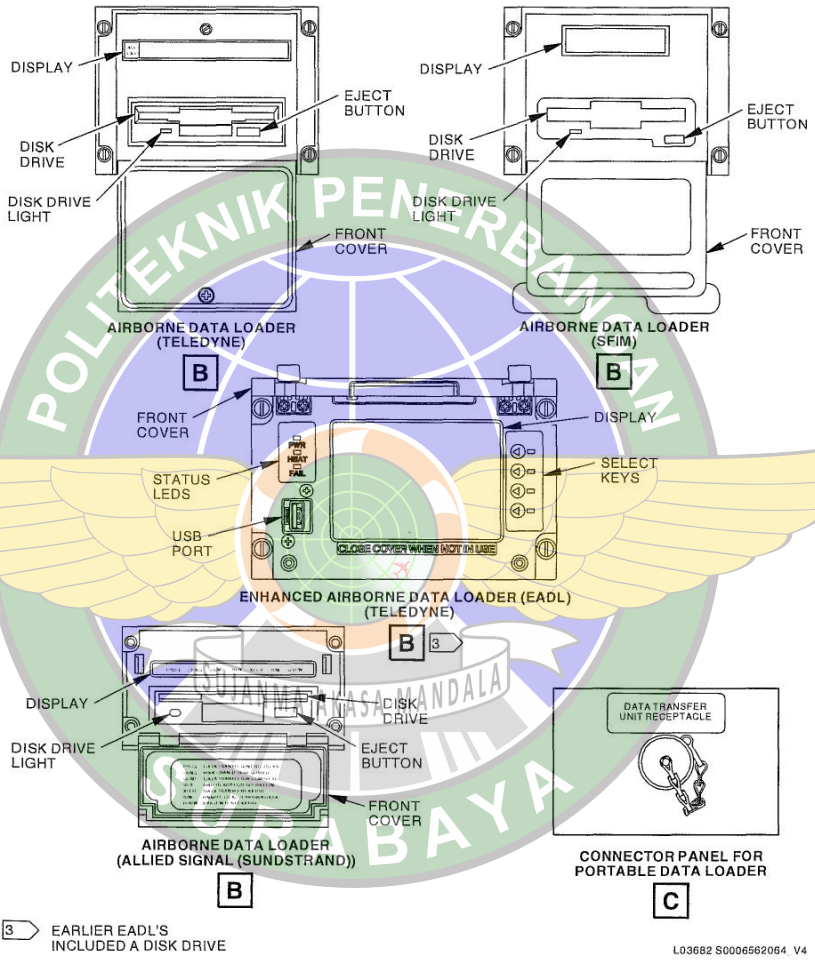
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On-Airplane Software Installation
Figure 201/20-15-11-990-801 (Sheet 1 of 2)

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On-Airplane Software Installation
Figure 201/20-15-11-990-801 (Sheet 2 of 2)

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GMF AeroAsia
GARUDA INDONESIA GROUP

TOOLS & EQUIPMENT BORROWING

Log Number	Name & ID Number	
BPP-1749784637901	Radinal Harya Mohtariyadi / 581372	
Aircraft Reg or ESN	**Unit**	**Date**
P2-PXC	JKTTJH-14	13 Jun 2025
Reference		
805606071		

No	Tools Name	Part Number	Key Number	Time Out	Time In
1	PMAT 2000	P2K-ABF-02	PMAT-10	10:16	17:29

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NOTE:(IF ANY IMTE BORROWED, WRITE DOWN KEY NUMBER & DUE DATE CALIBRATION)	
BORROWER	**TOOL STORE KEEPER**
(Radinal Harya Mohtariyadi/581372) (sign & name)	(Ujang Riyadi/9713543) (sign & name)

Lampiran 2 *Job Card Emergency Exit Door Sensor Check*

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0013 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-07: Emergency Exit Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine B737-800 **P2-PXC**

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805599706
WORK PACKAGE NO : 00216375 **Operation Check / Test**
WORK CENTER / PLANT :GAH4032Z / GAH4 ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI
EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:52-71-22-710 INT REF.:-
AD REF.:- REF.:-
SB REF.:- ORIGIN DOCUMENT : N/A

MATERIAL REQUIREMENT	QTY	UOM

TOOLS REQUIREMENT	TOOL REGISTER	QTY	UOM

JOB DESCRIPTION	MECH	INSP
0010 GAH403E1 "Customer Work Order : GMF/TE/PROP-2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 EFF : 882 // BN : YK002 // SN : 30290 // LN : 1406 NOTE: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"	M.583823 12 JUN 2025	I.E11163 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0010	NIL	I.E11163 12 JUN 2025

FORM GMF/Q-002 R6 1 OF 3

805599706__34frd sapgmfism9 G583615 2025-06-05T14:09:42_13356833

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GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0013 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-07: Emergency Exit Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine **B737-800** **P2-PXC**

JOB DESCRIPTION	MECH	INSP
0020 **GAH403E1** "PERFORM OPEN/REMOVAL ACCESS PANEL : 112A, 117A, 117BL, 821, 822, 831, 832, 833, 834, 841, 842, 843, 844 ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only."	M:583823 12 JUN 2025	I.E11163 12 JUN 2025
0030 **GAH403E1** "PERFORM TASKCARD 52-200-00-07 Operationally check the door sensors (Proximity or Mechanical switches as applicable) for the passenger cabin entry/ service, E/ E access, automatic overwing exit doors, forward access, cargo and Airstair doors as applicable. SPECIAL NOTE: Operational check of the door sensors are not applicable to the deactivated automatic overwing exit doors on 737-800BCF. ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only. REF. AMM TASK 52-71-11-710 52-71-22-710 52-71-31-710 52-71-41-710 52-71-42-710 52-71-61-710 PREP : ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only. RESULT : GOOD "	M:583823 12 JUN 2025	I.E11163 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0020 0030	NIL	I.E11163 12 JUN 2025

805599706___34frd sapgmfism9 G583615 2025-06-05T14:09:42_13356833

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MAINTENANCE JOB CARD

SEQUENCE NO.: 0013 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-07: Emergency Exit Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine **B737-800** **P2-PXC**

JOB DESCRIPTION	MECH	INSP
0040 **GAH403E1** "PERFORM CLOSING/INSTALL ACCESS PANEL : 112A, 117A, 117BL, 821, 822, 831, 832, 833, 834, 841, 842, 843, 844"	M.583823 12 JUN 2025	I.E1110 12 JUN 2025
0050 **GAH403E1** "Examine the work area to ensure: - Plug/cover, lockwire installed properly - Nut tightened correctly - Clear from any unwanted object such as materials, tools, FOD - Put the system back to it's usual condition"	M:583823 12 JUN 2025	I.E11163 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION (Use reverse side if necessary):	Insp
0040 0050	NIL	I.E11163 12 JUN 2025

CARD CLEARANCE	Accomplishment date	Supervisor Sign
	12 JUN 2025	583068

805599706__34frd sapgmfism9 G583615 2025-06-05T14:09:42_13356833

Air Niugini A/C Reg: P2-PXC A/C Type: B737NG MSN: 30290 WO - 18288992 Var No: YK002

Work Package: Out of Phase Tasks - TS9LC002XG4R

Line #	Task Type	Title	Work Area
13	OPC	Emergency Exit Door Sensor Check	Avionics

Task #	Special Notes	Assigned To
52-200-00-07		

Due Date		Maintenix Barcode
		TS9LC002UH3M

Technical References	Access	Zone
	832, 833, 842, 843	211, 212, 800

Skill	Total Hrs	Men	Sched Hrs	Additional Work Instructions
AMT				

ALL RELEVANT TASKS AND / OR INSPECTION ON THIS WORK CARD HAVE BEEN CARRIED OUT TO THE REQUIRED STANDARD

- [x] BASE: B1 OR B2 SUPPORT STAFF(AS APPLICABLE)
- [x] LINE: B1 OR B2 CERTIFYING STAFF(AS APPLICABLE)
- [ ] NDT CRS STAFF (AS APPLICABLE)

12 JUN 2025 (DATE (D/M/Y) TIME (HH:MM)) — I.E11163 (SIGNATURE OR STAMP)

Tool/FO Check: I.E11163 — II (Stamp or Signature)

Parts On/Off — **Inventory** Boeing 737-800 - P2-PXC

Part Group Description — **Assembly position** 1

ON/OFF	Part Description	PN	SN	Position

Rev. 7 — Form ME 020-MXI, Date 16-Feb-2023

POLITEKNIK PENERBANGAN SUJANMA AKASA MANDALA SURABAYA

FOR A/C BOU ALL

MPD ITEM NUMBER
52-200-00

SPECIAL NOTE: Operational check of the door sensors are not applicable to deactivated doors on 737-800BCF.

Operationally check the door sensors (proximity or mechanical switches as applicable) for the automatic overwing exit doors.

A. References

Reference	Title
AMM 52-71-22-820-805	Emergency Exit Door Indication Switch Adjustment (P/B 201)

TASK 52-71-22-710-803

1. Emergency Exit Door Indication Switch Test

A. General

(1) Do this test for the applicable emergency exit door.

B. Do the Test of the Emergency Exit Door Indication Switch

Subtask: 52-71-22-730-006

MECH	M:583823	INSP	I.E11163

(1) Do a test on the applicable indication switch:

(a) Make sure that all emergency exit doors are fully closed, latched and locked.

(b) Make sure that the OVERWING EXIT light does not show on the Forward Overhead Panel, P5, in the flight compartment.

WARNING **MAKE SURE THAT THE DOOR OPENING PATH IS CLEAR BEFORE YOU RELEASE THE DOOR HANDLE. THE DOOR IS SPRING-LOADED TO OPEN AUTOMATICALLY. THIS CAN CAUSE INJURIES TO PERSONS AND DAMAGE TO EQUIPMENT.**

(c) Open the applicable emergency exit door.

(d) Make sure that the OVERWING EXIT light shows on the Forward Overhead Panel, P5.

(e) Close the emergency exit door.

(f) Make sure that the OVERWING EXIT light goes off on the Forward Overhead Panel, P5.

(g) If necessary, adjust the actuator as required(AMM TASK 52-71-22-820-805).

END OF TASK

Lampiran 3 *Job Card Entry and Service Door Sensor Check*

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GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0012 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-05: Entry and Service Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine **B737-800** **P2-PXC**

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805599705
Operation Check / Test

WORK PACKAGE NO : 00216375
WORK CENTER / PLANT : GAH403Z / GAH4 ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI

EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:52-71-11-710 INT REF.:-
AD REF.:- REF.:-
SB REF.:- ORIGIN DOCUMENT : N/A

MATERIAL REQUIREMENT	QTY	UOM

TOOLS REQUIREMENT	TOOL REGISTER	QTY	UOM

JOB DESCRIPTION		MECH	INSP
0010 "Customer Work Order : GMF/TP/PROP-2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 EFF : 882 // BN : YK002 // SN : 30290 // LN : 1406 NOTE: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"	GAH403E1	M:583623 12 JUN 2025	I.E11163 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0010	NIL	I.E11163 12 JUN 2025

FORM GMF/Q-002 R6 1 OF 3

805599705___34frb sapgmfjsm9 G583615 2025-06-05T14:09:42 _13356832

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0012 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-05: Entry and Service Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine **B737-800** **P2-PXC**

JOB DESCRIPTION	MECH	INSP
0020 **GAH403E1** "PERFORM OPEN/REMOVAL ACCESS PANEL : 112A, 117A, 117BL, 821, 822, 831, 832, 833, 834, 841, 842, 843, 844 ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only."	M:583823 12 JUN 2025	I.E11163 12 JUN 2025
0030 **GAH403E1** "PERFORM TASKCARD 52-200-00-05 Operationally check the door sensors (Proximity or Mechanical switches as applicable) for the passenger cabin entry/ service, E/ E access, automatic overwing exit doors, forward access, cargo and Airstair doors as applicable. SPECIAL NOTE: Operational check of the door sensors are not applicable to the deactivated automatic overwing exit doors on 737-800BCF. ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only. REF. AMM TASK 52-71-11-710 52-71-22-710 52-71-31-710 52-71-41-710 52-71-42-710 52-71-61-710 PREP : ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only. RESULT : GOOD " [barcode]	M:583823 12 JUN 2025	I.E11163 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0020 0030	NIL	I.E11163 12 JUN 2025

805599705__34frb sapgmfism9 G583615 2025-06-05T14:09:42 _13356832

PT. TEKNIK PENERBANGAN SUJANMA AKASA MANDALA SURABAYA

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0012 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-05: Entry and Service Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine **B737-800** **P2-PXC**

JOB DESCRIPTION	MECH	INSP
0040 **GAH403E1** "PERFORM CLOSING/INSTALL ACCESS PANEL : 112A, 117A, 117BL, 821, 822, 831, 832, 833, 834, 841, 842, 843, 844"	M:583823 12 JUN 2025	I.E11163 12 JUN 2025
0050 **GAH403E1** "Examine the work area to ensure: - Plug/cover, lockwire installed properly - Nut tightened correctly - Clear from any unwanted object such as materials, tools,FOD - Put the system back to it's usual condition"	M:583823 12 JUN 2025	I.E11163 12 JUN 2025

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0040 0050	NIL	I.E11163 12 JUN 2025

CARD CLEARANCE	Accomplishment date	Supervisor Sign
	12 JUN 2025	583448

805599705__34frb sapgmfism9 G583615 2025-06-05T14:09:42 _13356832

Air Niugini A/C Reg: P2-PXC A/C Type: B737NG MSN: 30290 WO - 18288992 Var No: YK002

Work Package: Out of Phase Tasks - TS9LC002XG4R

Line #	Task Type	Title	Work Area
12	OPC	Entry and Service Door Sensor Check	Avionics

Task #	Special Notes	Assigned To
52-200-00-05		

Due Date		Maintenix Barcode
		TS9LC002UH3P

Technical References	Access	Zone
	831, 834, 841, 844	211, 212, 800

Skill	Total Hrs	Men	Sched Hrs	Additional Work Instructions
AMT				

ALL RELEVANT TASKS AND / OR INSPECTION ON THIS WORK CARD HAVE BEEN CARRIED OUT TO THE REQUIRED STANDARD

- [x] BASE: B1 OR B2 SUPPORT STAFF(AS APPLICABLE)
- [x] LINE: B1 OR B2 CERTIFYING STAFF(AS APPLICABLE)
- [ ] NDT CRS STAFF (AS APPLICABLE)

12 JUN 2025 (DATE (D/M/Y) TIME (HH:MM)) I.E11163 (SIGNATURE OR STAMP)

Tool/FO Check	II (Stamp or Signature)
I.E11163	

Parts On/Off	Inventory Boeing 737-800 - P2-PXC			
Part Group Description			Assembly position 1	
ON/OFF	Part Description	PN	SN	Position

Rev. 7 Form ME 020-MXI, Date 16-Feb-2023

POLITEKNIK PENERBANGAN SUJANMA AKASA MANDALA SURABAYA

FOR A/C BOU ALL

MPD ITEM NUMBER
52-200-00

SPECIAL NOTE: Operational check of the door sensors are not applicable to deactivated doors on 737-800BCF.

Operationally check the door sensors (proximity or mechanical switches as applicable) for the entry and service doors.

A. References

Reference	Title
AMM 52-71-11-710-802	Forward Entry Door Switch Test (S1147) (P/B 201)

TASK 52-71-11-710-801

1. Entry and Galley Service Door Indication Sensor Test (S194, S195, S199, or S200)

(Figure 1)

A. General

(1) This procedure is applicable for the indication sensor (S194, S195, S199, or S200) on the entry or galley service doors.

(2) FOR A/C BOU 701, 703, 708-799, 819; BOU 008, 707, 801, 802, 807-809, 817, 882, 883, 885, 887-899, 911-999 POST SB 737-52-1159

For the S1147 indication switch on the forward entry door, refer to Forward Entry Door Switch Test (S1147), AMM TASK 52-71-11-710-802.

FOR A/C BOU ALL

B. Do a Test of the Entry and Galley Service Door Indication Sensor

Subtask: 52-71-11-710-002

MECH	M:583823	INSP	I.E11163

(1) Do a test on the entry or galley service door sensor assembly:

(a) Make sure the following doors are fully closed, latched and locked:

Number	Name/Location
831	Forward Entry Door
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

(b) Make sure that the FWD ENTRY, AFT ENTRY, FWD SERVICE, and AFT SERVICE lights do not show on the Forward Overhead Panel, P5, in the flight compartment.

(c) Open these doors:

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SUJANMA AKASA MANDALA

Number	Name/Location
831	Forward Entry Door
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

(d) Make sure that the FWD ENTRY, AFT ENTRY, FWD SERVICE, or AFT SERVICE light shows on the Forward Overhead Panel, P5, for the applicable door.

(e) Close these doors:

Number	Name/Location
831	Forward Entry Door
834	Aft Entry Door
841	Forward Galley Service Door
844	Aft Galley Service Door

(f) Make sure that the FWD ENTRY, AFT ENTRY, FWD SERVICE, or AFT SERVICE light goes off.

FOR A/C BOU 701, 703, 708-799, 819; BOU 008, 707, 801, 802, 807-809, 817, 882, 883, 885, 887-899, 911-999
POST SB 737-52-1159

MECH M:583823 INSP I.E11163

Subtask: 52-71-11-710-005

(2) Do a test on the forward entry door sensor assembly:

(a) Make sure that the forward entry door is fully closed, latched and locked.

(b) Make sure that the FWD ENTRY light does not show on the forward overhead panel, P5.

(c) Open the forward entry door:

(d) Make sure that the FWD ENTRY light shows on the forward overhead panel, P5.

(e) Use your finger to push and hold the plunger on switch S1147 and switch S199.

NOTE: You will find S1147 on the aft latch receiver.

NOTE: You will find S199 on the forward latch receiver.

1) Make sure that the FWD ENTRY light on the forward overhead panel, P5, goes off.

(f) Release the S199 switch.

1) Make sure that the FWD ENTRY light shows on the forward overhead panel, P5.

(g) Close and latch the forward entry door.

(h) Make sure that the FWD ENTRY light does not show on the forward overhead panel, P5.

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SUJANMA AKASA MANDALA
SURABAYA

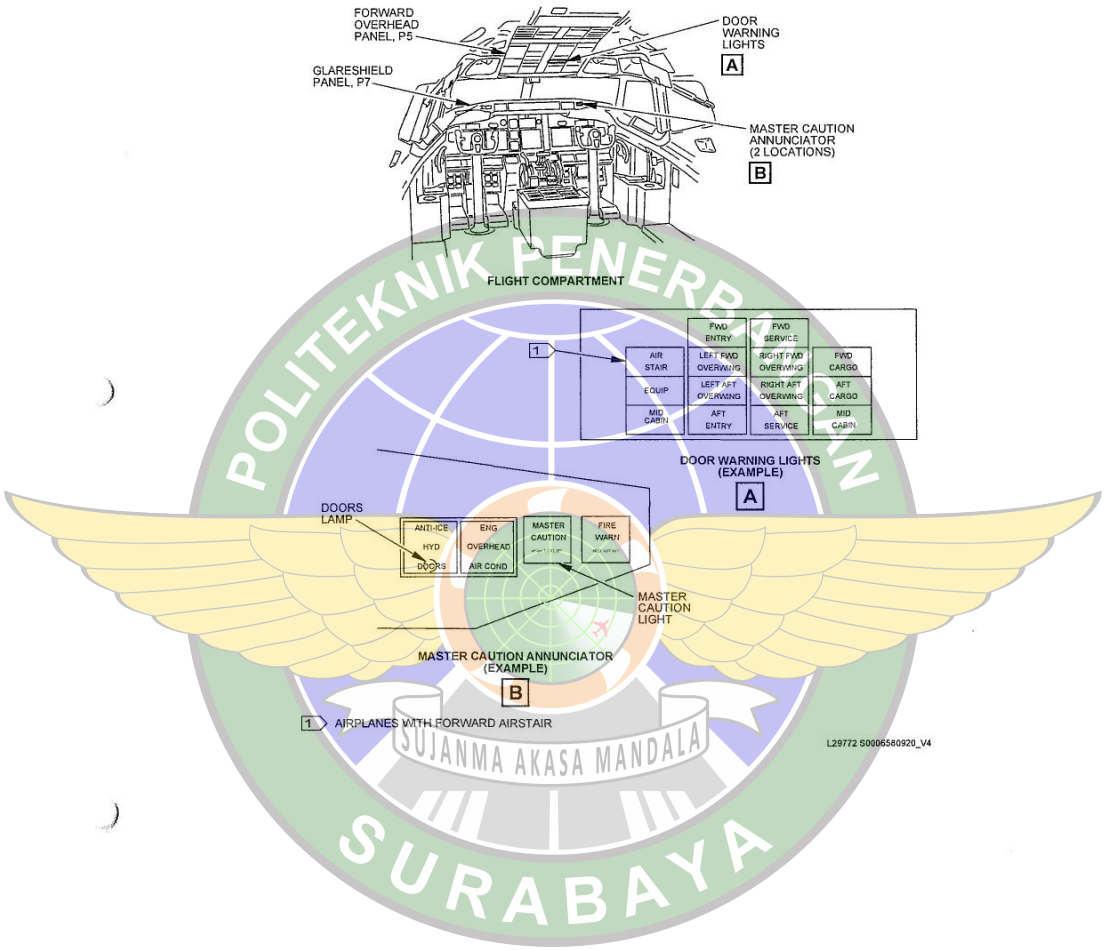


Figure 1. Door Switch Test

END OF TASK

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Lampiran 4 *Job Card Cargo Door Sensor Check*

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0011 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-04: Cargo Door Sensor Check

PM/PS: P-737-4TS-03-CAR/101
737 OPC & FUC Cargo Routine B737-800 **P2-PXC**

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805599704
Operation Check / Test

WORK PACKAGE NO : 00216375
WORK CENTER / PLANT : GAH403ZZ / GAH4 ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI

EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:52-71-31-710 INT REF.:-
AD REF.:- REF.:-
SB REF.:- ORIGIN DOCUMENT : N/A

MATERIAL REQUIREMENT	QTY	UOM
TOOLS REQUIREMENT	**TOOL REGISTER**	**QTY**	**UOM**

JOB DESCRIPTION	MECH	INSP
0010 **GAH403E1** "Customer Work Order : GMF/TP/PROP-2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 EFF : 882 // BN : YK002 // SN : 30290 // LN : 1406 NOTE: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"	M.583823 12 JUN 2025	I.E11163 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0010	NIL	I.E11163 12 JUN 2025

FORM GMF/Q-002 R6 1 OF 3

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POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0011 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-04: Cargo Door Sensor Check

PM/PS: P-737-4TS-03-CAR/101
737 OPC & FUC Cargo Routine **B737-800** **P2-PXC**

JOB DESCRIPTION	MECH	INSP
0020 **GAH403E1** "PERFORM OPEN/REMOVAL ACCESS PANEL : 112A, 117A, 117BL, 821, 822, 831, 832, 833, 834, 841, 842, 843, 844 ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only."	M.583823 12 JUN 2025	I.E11163 12 JUN 2025
0030 **GAH403E1** "PERFORM TASKCARD 52-200-00-04 Operationally check the door sensors (Proximity or Mechanical switches as applicable) for the passenger cabin entry/ service, E/ E access, automatic overwing exit doors, forward access, cargo and Airstair doors as applicable. SPECIAL NOTE: Operational check of the door sensors are not applicable to the deactivated automatic overwing exit doors on 737-800BCF. ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only. REF. AMM TASK 52-71-11-710 52-71-22-710 52-71-31-710 52-71-41-710 52-71-42-710 52-71-61-710 PREP : ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only. RESULT : SATISFIED " **GAH403E1**	M.583823 12 JUN 2025	I.E11163 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0020 0030	NIL	I.E11163 12 JUN 2025

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POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0011 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-04: Cargo Door Sensor Check

PM/PS: P-737-4TS-03-CAR/101
737 OPC & FUC Cargo Routine **B737-800** **P2-PXC**

JOB DESCRIPTION	MECH	INSP
0040 **GAH403E1** "PERFORM CLOSING/INSTALL ACCESS PANEL : 112A, 117A, 117BL, 821, 822, 831, 832, 833, 834, 841, 842, 843, 844"	M.583823 12 JUN 2025	I.E11163 12 JUN 2025
0050 **GAH403E1** "Examine the work area to ensure: - Plug/cover, lockwire installed properly - Nut tightened correctly - Clear from any unwanted object such as materials, tools, FOD - Put the system back to it's usual condition"	M.583823 12 JUN 2025	I.E11163 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0040 0050	NIL	I.E11163 12 JUN 2025

CARD CLEARANCE	Accomplishment date	Supervisor Sign
	12 JUN 2025	583498

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Air Niugini A/C Reg: P2-PXC A/C Type: B737NG MSN: 30290 WO - 18288992 Var No: YK002

Work Package: Out of Phase Tasks - TS9LC002XG4R

Line #	Task Type	Title	Work Area
11	OPC	Cargo Door Sensor Check	Avionics

Task #	Special Notes	Assigned To
52-200-00-04		

Due Date		Maintenix Barcode
		TS9LC002UH3N

Technical References	Access	Zone
	821, 822	211, 212, 800

Skill	Total Hrs	Men	Sched Hrs	Additional Work Instructions
AMT				

ALL RELEVANT TASKS AND / OR INSPECTION ON THIS WORK CARD HAVE BEEN CARRIED OUT TO THE REQUIRED STANDARD

- [x] BASE: B1 OR B2 SUPPORT STAFF(AS APPLICABLE)
- [ ] LINE: B1 OR B2 CERTIFYING STAFF(AS APPLICABLE)
- [ ] NDT CRS STAFF (AS APPLICABLE)

12 JUN 2025 (DATE (D/M/Y) TIME (HH:MM)) I.E11163 (SIGNATURE OR STAMP)

Tool/FO Check	II (Stamp or Signature)
I.E11163	

Parts On/Off **Inventory** Boeing 737-800 - P2-PXC

Part Group Description **Assembly position** 1

ON/OFF	Part Description	PN	SN	Position

Rev. 7 Form ME 020-MXI, Date 16-Feb-2023

POLITEKNIK PENERBANGAN SUJANMA AKASA MANDALA SURABAYA

FOR A/C BOU ALL

MPD ITEM NUMBER
52-200-00

SPECIAL NOTE: Operational check of the door sensors are not applicable to deactivated doors on 737-800BCF.

Operationally check the door sensors (proximity or mechanical switches as applicable) for the forward and aft cargo doors.

TASK 52-71-31-710-801

1. Cargo Door Indication Switch - Test
(Figure 1, Figure 2)

A. General

(1) This task gives the instructions to test the each cargo door indication switch.

B. Cargo Door Indication Switch Test

Subtask:
52-71-31-730-002

MECH	M.583823	INSP	I.E11163

(1) Do a test of the forward indication switch [1] or aft indication switch [1] as follows:

(a) Make sure that the applicable cargo door is fully closed, latched and locked.

(b) Make sure that the FWD CARGO or AFT CARGO light does not show on the Forward Overhead Panel, P5, in the flight compartment.

(c) Open the applicable cargo door.

(d) Make sure that the FWD CARGO or AFT CARGO light on the Forward Overhead Panel, P5, comes on for the forward or aft cargo door.

(e) Close the applicable cargo door.

(f) Make sure that the FWD CARGO or AFT CARGO light goes off.

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TSULATHAMA ARASA MATABAJA

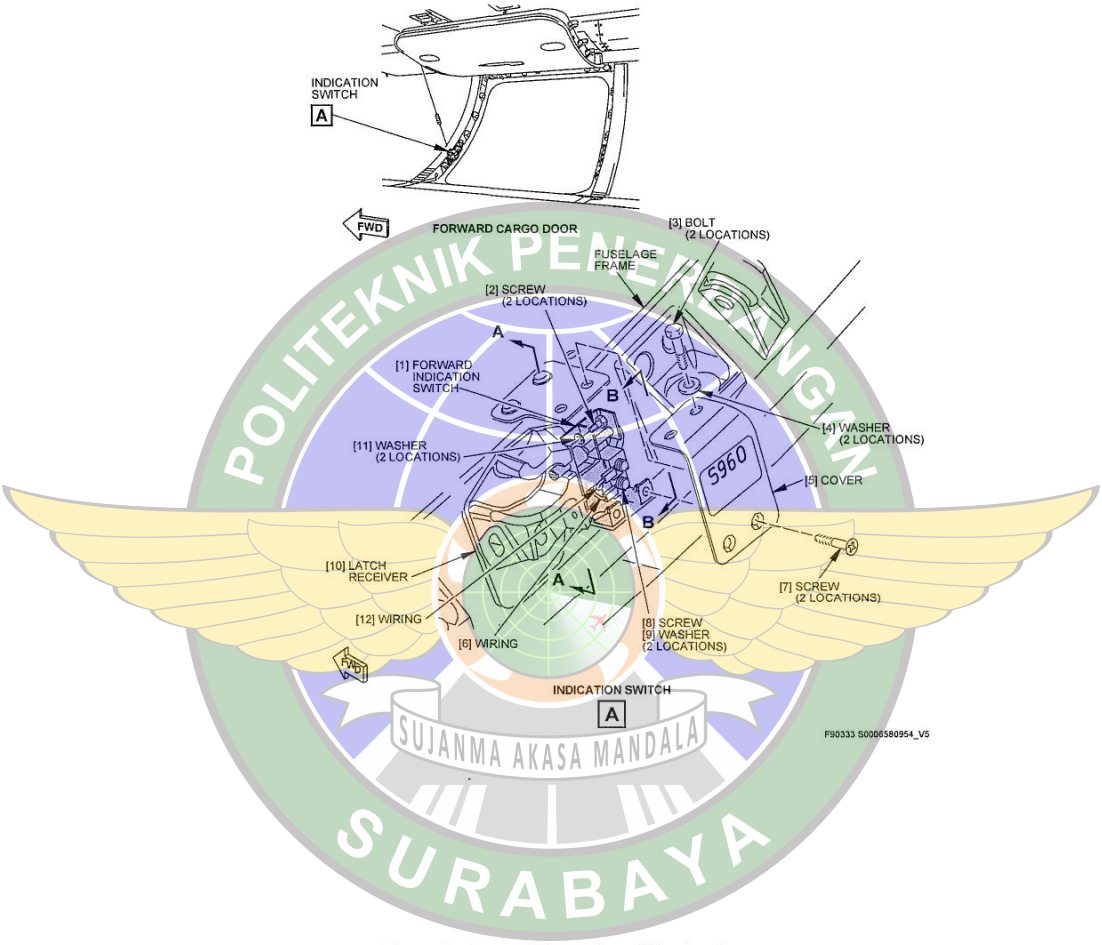


Figure 1. Forward Cargo Door Warning System
(sheet 1 of 2)

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

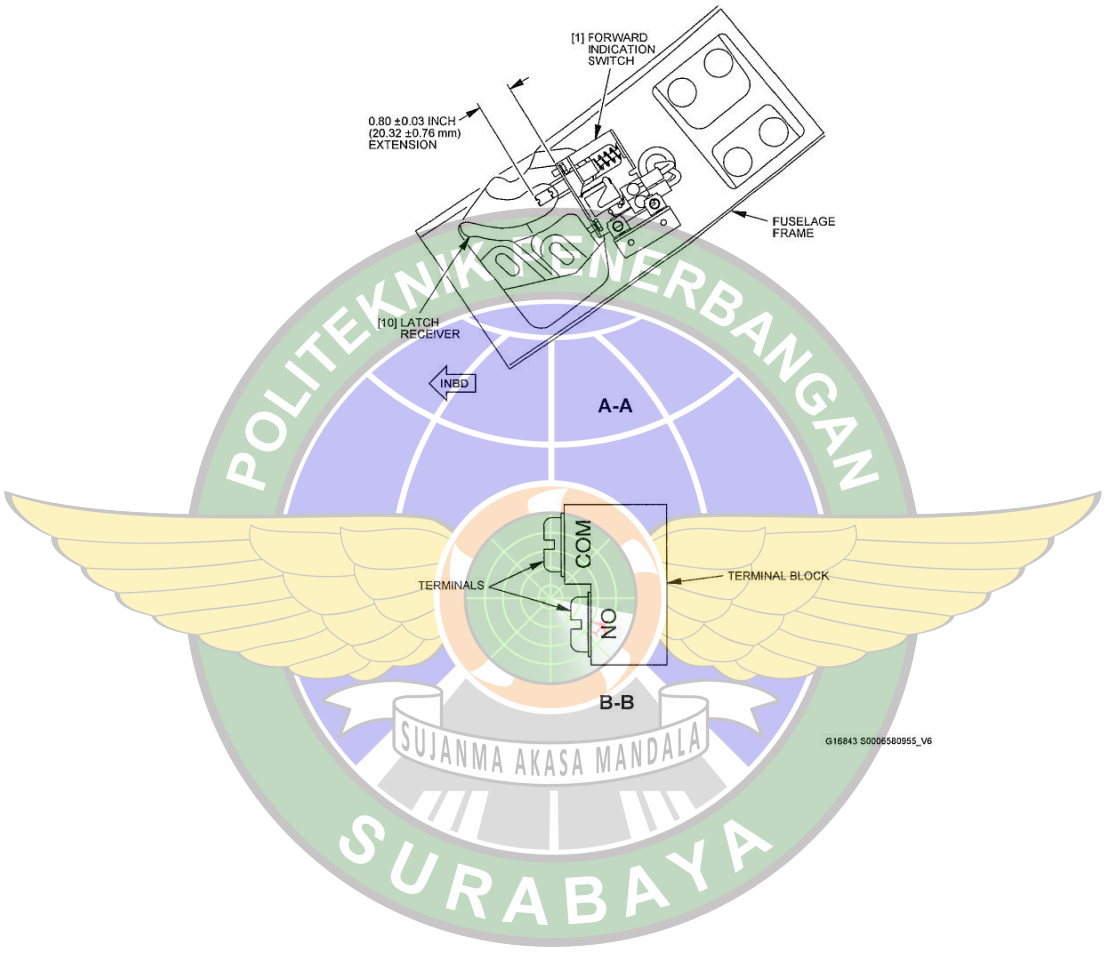


Figure 1. Forward Cargo Door Warning System
(sheet 2 of 2)

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

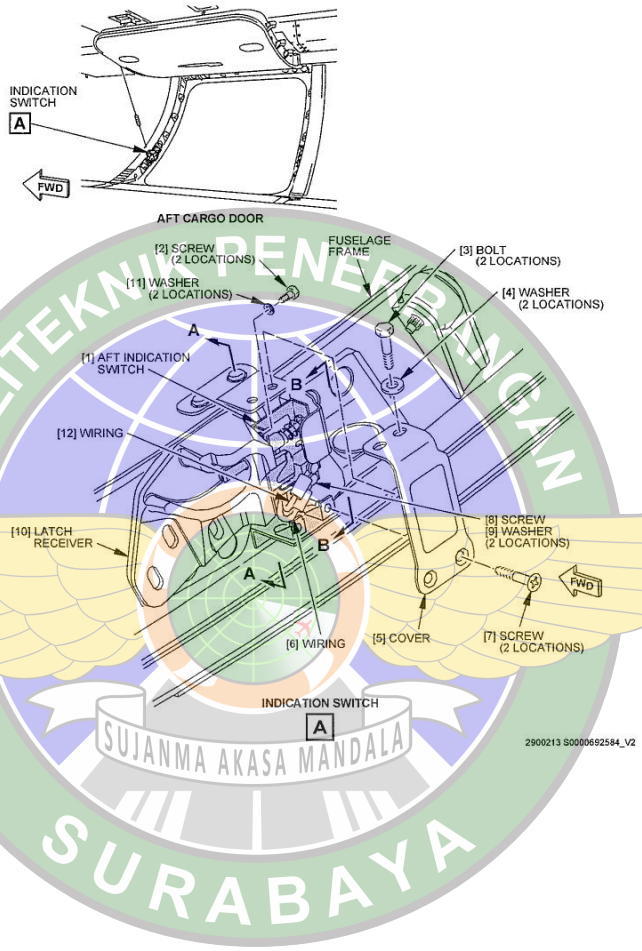


Figure 2. Aft Cargo Door Warning System
(sheet 1 of 2)

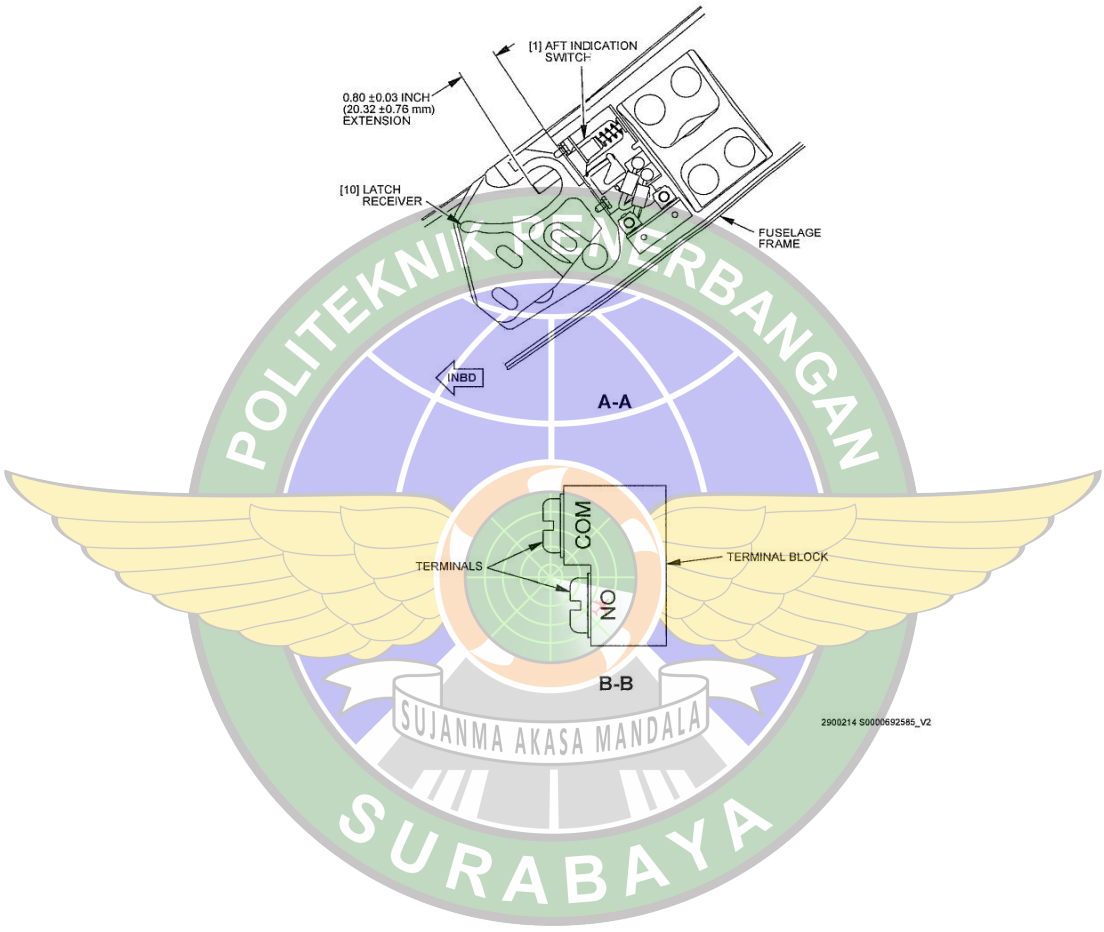


Figure 2. Aft Cargo Door Warning System
(sheet 2 of 2)

END OF TASK

Lampiran 5 *Job Card E/E Access Door Sensor Check*

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0010 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-03: E/E Access Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine B737-800 **P2-PXC**

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805599703
Operation Check / Test

WORK PACKAGE NO : 00216375
WORK CENTER / PLANT : GAH403ZZ / GAH4 ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI

EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:52-71-42-710 INT REF.:-
AD REF.:- REF.:-
SB REF.:- ORIGIN DOCUMENT : N/A

MATERIAL REQUIREMENT	QTY	UOM

TOOLS REQUIREMENT	TOOL REGISTER	QTY	UOM

JOB DESCRIPTION	MECH	INSP
0010 GAH403E1 "Customer Work Order : GMF/TP/PROP-2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 EFF : 882 // BN : YK002 // SN : 30290 // LN : 1406 NOTE: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"	M.583823 12 JUN 2025	I.E11163 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0010	NIL	I.E11163 12 JUN 2025

FORM GMF/Q-002 R6 1 OF 3

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POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0010 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-03: E/E Access Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine **B737-800** **P2-PXC**

JOB DESCRIPTION	MECH	INSP
0020 **GAH403E1** "PERFORM OPEN/REMOVAL ACCESS PANEL : 112A, 117A, 117BL, 821, 822, 831, 832, 833, 834, 841, 842, 843, 844 ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only."	M.583823 12 JUN 2025	I.E11163 12 JUN 2025
0030 **GAH403E1** "PERFORM TASKCARD 52-200-00-03 Operationally check the door sensors (Proximity or Mechanical switches as applicable) for the passenger cabin entry/ service, E/ E access, automatic overwing exit doors, forward access, cargo and Airstair doors as applicable. SPECIAL NOTE: Operational check of the door sensors are not applicable to the deactivated automatic overwing exit doors on 737-800BCF. ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only. REF. AMM TASK 52-71-11-710 52-71-22-710 52-71-31-710 52-71-41-710 52-71-42-710 52-71-61-710 PREP : ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only. RESULT : SATISFIED " 12 JUN 2025	M.583823 12 JUN 2025	I.E11163 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0020 0030	NIL	I.E11163 12 JUN 2025

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GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0010 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-03: E/E Access Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine **B737-800** **P2-PXC**

JOB DESCRIPTION	MECH	INSP
0040 **GAH403E1** "PERFORM CLOSING/INSTALL ACCESS PANEL : 112A, 117A, 117BL, 821, 822, 831, 832, 833, 834, 841, 842, 843, 844"	M.583823 12 JUN 2025	I.E11163 12 JUN 2025
0050 **GAH403E1** "Examine the work area to ensure: - Plug/cover, lockwire installed properly - Nut tightened correctly - Clear from any unwanted object such as materials, tools,FOD - Put the system back to it's usual condition"	M.583823 12 JUN 2025	I.E11163 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0040 0050	NIL	I.E11163 12 JUN 2025

CARD CLEARANCE	Accomplishment date	Supervisor Sign
	12 JUN 2025	503448

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POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

Air Niugini A/C Reg: P2-PXC A/C Type: B737NG MSN: 30290 WO - 18288992 Var No: YK002

Work Package: Out of Phase Tasks - TS9LC002XG4R

Line #	Task Type	Title	Work Area
10	OPC	E/E Access Door Sensor Check	Avionics

Task #	Special Notes	Assigned To
52-200-00-03		

Due Date		Maintenix Barcode
		TS9LC002UH3S

Technical References	Access	Zone
	117A	117, 211, 212

Skill	Total Hrs	Men	Sched Hrs	Additional Work Instructions
AMT				

ALL RELEVANT TASKS AND / OR INSPECTION ON THIS WORK CARD HAVE BEEN CARRIED OUT TO THE REQUIRED STANDARD

- [x] BASE: B1 OR B2 SUPPORT STAFF(AS APPLICABLE)
- [ ] LINE: B1 OR B2 CERTIFYING STAFF(AS APPLICABLE)
- [ ] NDT CRS STAFF (AS APPLICABLE)

12 JUN 2025 I.E11163 — DATE (D/M/Y) TIME (HH:MM) SIGNATURE OR STAMP

Tool/FO Check: I.E11163

II (Stamp or Signature)

Parts On/Off — Inventory Boeing 737-800 - P2-PXC

Part Group Description — Assembly position 1

ON/OFF	Part Description	PN	SN	Position

Rev. 7 Form ME 020-MXI, Date 16-Feb-2023

POLITEKNIK PENERBANGAN SUJANMA AKASA MANDALA SURABAYA

FOR A/C BOU ALL

MPD ITEM NUMBER
52-200-00

SPECIAL NOTE: Operational check of the door sensors are not applicable to deactivated doors on 737-800BCF.

Operationally check the door sensors (proximity or mechanical switches as applicable) for the E/E access door.

TASK 52-71-42-710-801

1. Electronic Equipment Access Door Indication Switch Test

(Figure 1)

A. Do a Test of the Electronic Equipment Access Door Indication Switch

Subtask: 52-71-42-860-002

MECH	M.583823	INSP	I.E11163

(1) Make sure the forward access door and the electronic equipment access door are fully closed, latched and locked.

Subtask: 52-71-42-210-001

MECH	M.583823	INSP	I.E11163

(2) Make sure that the EQUIP light does not show on the Forward Overhead Panel, P5, in the flight compartment.

Subtask: 52-71-42-710-002

MECH	M.583823	INSP	I.E11163

(3) Do a test on the indication switch [12]:

(a) Open the electronic equipment access door.

(b) Make sure the EQUIP light shows on the Forward Overhead Panel, P5.

NOTE: If the forward access door or electronic equipment access door is not closed, latched and locked, the EQUIP light will show.

(c) Close the electronic equipment access door.

(d) Make sure the EQUIP light on the Forward Overhead Panel, P5, does not show.

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Figure 1. Electronic Equipment Access Door Warning System
(sheet 1 of 2)

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

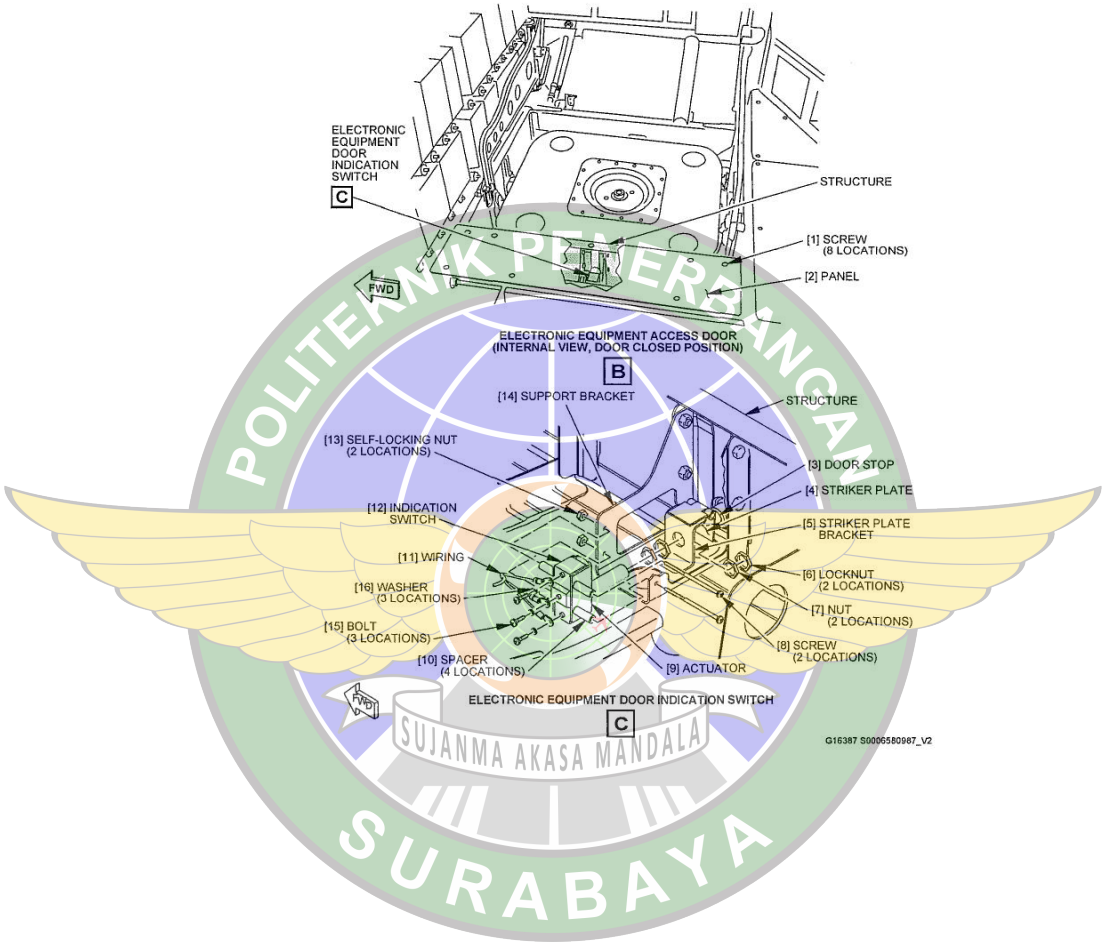


Figure 1. Electronic Equipment Access Door Warning System
(sheet 2 of 2)

END OF TASK

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

Lampiran 6 *Job Card Airstair Door Sensor Check*

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0009 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-02: Airstair Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine **B737-800** **P2-PXC**

P2-PXC AIR NIUGINI OOP+LOPA CHG+ENG CHG

ORDER : 805599702
Operation Check / Test

WORK PACKAGE NO : 00216375
WORK CENTER / PLANT : GAH403ZZ / GAH4 ISSUED BY : MUHAMMAD FAJAR BIMOSAKTI

EQUIPMENT:
P/N : N/A S/N : N/A QTY: N/A Pos: N/A

REFERENCE:
AMM REF.:52-71-61-710 INT REF.:-
AD REF.:- REF.:-
SB REF.:- ORIGIN DOCUMENT : N/A

MATERIAL REQUIREMENT	QTY	UOM

TOOLS REQUIREMENT	TOOL REGISTER	QTY	UOM

JOB DESCRIPTION	MECH	INSP
0010 GAH403E1 "Customer Work Order : GMF/TP/PROP-2054/25 AMM : D633A101-BOU Rev. 86 dated Feb 15/2025 EFF : 882 // BN : YK002 // SN : 30290 // LN : 1406 NOTE: - Read and follow carefully all instructions listed in approved maintenance data as attached. - Obey all of the warnings and cautions given in the specified manual sections. - Attach ""DO NOT CLOSE"" tag to the open CB and install a circuit breaker lock if required"	I.E11163 12 JUN 2025	I.E6944 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0010		I.E6944 12 JUN 2025

FORM GMF/Q-002 R6 1 OF 3

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JANMA AKASA MANDALA

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0009 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-02: Airstair Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine **B737-800** **P2-PXC**

JOB DESCRIPTION	MECH	INSP
0020 **GAH403E1** "PERFORM OPEN/REMOVAL ACCESS PANEL : 112A, 117A, 117BL, 821, 822, 831, 832, 833, 834, 841, 842, 843, 844 ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only."	I.E11163 12 JUN 2025	I.E6944 12 JUN 2025
0030 **GAH403E1** "PERFORM TASKCARD 52-200-00-02 Operationally check the door sensors (Proximity or Mechanical switches as applicable) for the passenger cabin entry/ service, E/ E access, automatic overwing exit doors, forward access, cargo and Airstair doors as applicable. SPECIAL NOTE: Operational check of the door sensors are not applicable to the deactivated automatic overwing exit doors on 737-800BCF. ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only. REF. AMM TASK 52-71-11-710 52-71-22-710 52-71-31-710 52-71-41-710 52-71-42-710 52-71-61-710 PREP : ACCESS NOTE: Access panels 832 and 842 are applicable to 737-800 and 737-900 only. RESULT : SATISFIED. "	I.E11163 12 JUN 2025	I.E6944 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION(Use reverse side if necessary):	Insp
0020 0030	NIL	I.E6944 12 JUN 2025

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POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA

GMF AeroAsia
GARUDA INDONESIA GROUP

MAINTENANCE JOB CARD

SEQUENCE NO.: 0009 COPY COUNT: 0001

[SOA] [OOP] 52-200-00-02: Airstair Door Sensor Check

PM/PS: P-737-4TS-02-CAB/101
737 OPC & FUC Cabin Routine **B737-800** **P2-PXC**

JOB DESCRIPTION	MECH	INSP
0040 **GAH403E1** "PERFORM CLOSING/INSTALL ACCESS PANEL : 112A, 117A, 117BL, 821, 822, 831, 832, 833, 834, 841, 842, 843, 844"	I.E11163 12 JUN 2025	I.E6944 12 JUN 2025
0050 **GAH403E1** "Examine the work area to ensure: - Plug/cover, lockwire installed properly - Nut tightened correctly - Clear from any unwanted object such as materials, tools, FOD - Put the system back to it's usual condition"	I.E11163 12 JUN 2025	I.E6944 12 JUN 2025

OPS. No.	DISCREPANCIES FOUND DURING INSPECTION (Use reverse side if necessary):	Insp
0040 0050	NIL	I.E6944 12 JUN 2025

CARD CLEARANCE	Accomplishment date	Supervisor Sign
	12 JUNE 2025	

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FOR A/C BOU 701, 703, 707-799, 801, 802, 807-809, 817, 819, 882, 883

MPD ITEM NUMBER
52-200-00

SPECIAL NOTE: Operational check of the door sensors are not applicable to deactivated doors on 737-800BCF.

Operationally check the airstair door proximity sensor (if airstair door installed).

A. References

Reference	Title
AMM 24-22-00-860-811	Supply Electrical Power (P/B 201)
AMM 24-22-00-860-812	Remove Electrical Power (P/B 201)
AMM 52-61-00-710-802	Airstair Door Operation Without Airstairs Installed (P/B 201)
AMM 52-61-00-860-802	Forward Airstair Retraction (P/B 201)

TASK 52-71-61-710-801

1. Forward Airstair Door Lockpin Sensor S282 Test

A. Prepare for the Test

MECH	I.E11165	INSP	I.E6944

FOR A/C BOU 701, 703, 708-799, 807-809, 817, 819, 882, 883

Subtask: 52-71-61-440-001

(1) Do these steps to activate the airstair door lock system:

NOTE: Refer to SSM 52-71-11, WDM 52-71-11 and WDM 52-61-11 for more information.

(a) If installed, remove the INOP collar from circuit breakers C00246 and C01254.

NOTE: The inoperative circuit breakers should remain open but these circuit breakers can be closed temporarily to complete the test procedure. These circuit breakers should have safety collars which must be re-installed after the airstair door is closed.

Close these circuit breakers:

F/O Electrical System Panel, P6-4

Air Niugini A/C Reg: P2-PXC A/C Type: B737NG MSN: 30290 WO - 18288992 Var No: YK002

Work Package: Out of Phase Tasks - TS9LC002XG4R

Line #	Task Type	Title	Work Area
9	OPC	Air Stair Door Sensor Check	Avionics

Task #	Special Notes	Assigned To
52-200-00-02		

Due Date		Maintenix Barcode
		TS9LC002UH3R

Technical References	Access	Zone
	117BL	117, 211, 212

Skill	Total Hrs	Men	Sched Hrs	Additional Work Instructions
AMT				

ALL RELEVANT TASKS AND / OR INSPECTION ON THIS WORK CARD HAVE BEEN CARRIED OUT TO THE REQUIRED STANDARD

	DATE (D/M/Y) TIME (HH:MM)	SIGNATURE OR STAMP
☐ BASE: B1 OR B2 SUPPORT STAFF(AS APPLICABLE)		
☑ LINE: B1 OR B2 CERTIFYING STAFF(AS APPLICABLE)	12 JUNE 2025	I.E6944
☐ NDT CRS STAFF (AS APPLICABLE)		

Tool/FO Check	II (Stamp or Signature)
I.E6944	

Parts On/Off Inventory Boeing 737-800 - P2-PXC

Part Group Description Assembly position 1

ON/OFF	Part Description	PN	SN	Position

Rev. 7 Form ME 020-MXI, Date 16-Feb-2023

POLITEKNIK PENERBANGAN SUJANMA AKASA MANDALA SURABAYA

Row	Col	Number	Name
A	17	C00246	FWD AIRSTAIR CONT NORMAL (INOP)
C	16	C01254	FWD AIRSTAIR CONT STBY (INOP)

NOTE: The safety collars must be re-installed on the circuit breakers after this test.

FOR A/C BOU 701, 703, 707-799, 801, 802, 807-809, 817, 819, 882, 883

MECH	I.E11163	INSP	LE6944

Subtask: 52-71-61-860-001

(2) Supply electrical power to the airplane(AMM TASK 24-22-00-860-811).

B. Forward Airstair Door Lockpin Sensor S282 Test

Subtask: 52-71-61-730-002

MECH	I.E11163	INSP	LE6944

(1) Do this test on the sensor [1]:

(a) Make sure the airstair door is closed.

1) If airstair not installed, do this task: Airstair Door Operation Without Airstairs Installed, AMM TASK 52-61-00-710-802

(b) If installed, remove the INOP collar from circuit breakers C00409 and C00411.

NOTE: The inoperative circuit breakers should remain open but these circuit breakers can be closed temporarily to complete the test procedure. These circuit breakers should have safety collars which must be re-installed after the airstair door is closed.

Close these circuit breakers:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name

Close these circuit breakers:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR (INOP)
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR (INOP)

NOTE: FOR A/C BOU 701, 703, 707-799, 801, 802, 807-809, 817, 819, 882, 883

The safety collars must be re-installed on the circuit breakers after this test.

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CENDIKIA DIRGANTARA AKASA MANDALA

CAUTION DO NOT HOLD THE AIRSTAIR CONTROLS IN THE NORMAL EXTEND POSITION FOR MORE THAN 120 SECONDS. IF YOU DO NOT OBEY, THEN DAMAGE TO THE LOCKPIN ACTUATORS CAN OCCUR.

CAUTION DO NOT APPLY POWER TO THE CONTROLS FOR MORE THAN 5 CONTINUOUS CYCLES. IF YOU APPLY POWER TO THE ACTUATORS FOR MORE THAN 5 CYCLES, DAMAGE TO THE EQUIPMENT CAN OCCUR.

(c) FOR A/C BOU 701, 703, 707-799, 807-809, 817, 819, 882, 883
Put exterior airstair controls in the EXTEND position.

(d) FOR A/C BOU 701, 703, 707-799, 801, 802, 807-809, 817, 819, 882, 883

Make sure the AIRSTAIR door warning light on the Forward Overhead Panel, P5, comes on.

(e) Release the airstair controls.

(f) Make sure the airstair door warning light on the Forward Overhead Panel, P5, remains on.

(g) FOR A/C BOU 701, 703, 708-799, 807-809, 817, 819, 882, 883

If the airstair is not installed, it will be necessary to install a jumper wire on the D934 connector from pin 9 to pin 10 to close the airstair door.

NOTE: The D934 connector is located at STA 362, WL 201, LBL 12.

(h) FOR A/C BOU 701, 703, 707-799, 807-809, 817, 819, 882, 883

Put the exterior airstair controls in the RETRACT position until the airstairs are fully retracted and the airstair door is fully closed.

1) Do this task: Forward Airstair Retraction, AMM TASK 52-61-00-860-802.

(i) FOR A/C BOU 701, 703, 708-799, 807-809, 817, 819, 882, 883

Make sure the airstair door warning light on the Forward Overhead Panel, P5, goes off.

1) If installed, remove the jumper wire from pins 9 and 10 of the D934 connector.

CAUTION MAKE SURE THE COLLARS ARE INSTALLED ON THE CIRCUIT BREAKERS AFTER THE TEST. DAMAGE MAY OCCUR IF AIRSTAIR DOOR IS ACCIDENTALLY OPENED.

2) Re-install the INOP collars on the circuit breakers.

FOR A/C BOU 701, 703, 707-799, 801, 802, 807-809, 817, 819, 882, 883

C. Put the Airplane Back to its Usual Condition

Subtask:
52-71-61-860-002

MECH	I.E11163	INSP	LE6944

(1) Open these circuit breakers and install safety tags:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name

These circuit breakers are inoperative and should remain open:

F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	16	C00409	FWD AIRSTAIR DOOR (INOP)
C	17	C00411	FWD AIRSTAIR STBY DOOR ACTR (INOP)

FOR A/C BOU 701, 703, 708-799, 807-809, 817, 819, 882, 883

MECH	I.E11163	INSP	I.E6944

Subtask: 52-71-61-040-001

(2) Do this step to deactivate the airstair door lock system:

(a) These circuit breakers are inoperative and should remain open:
F/O Electrical System Panel, P6-4

Row	Col	Number	Name
A	17	C00246	FWD AIRSTAIR CONT NORMAL (INOP)
C	16	C01254	FWD AIRSTAIR CONT STBY (INOP)

NOTE: The safety collar must be re-installed on the circuit breakers after this test.

FOR A/C BOU 701, 703, 707-799, 801, 802, 807-809, 817, 819, 882, 883

MECH	I.E11163	INSP	I.E6944

Subtask: 52-71-61-860-003

(3) Remove electrical power from the airplane if it not necessary(AMM TASK 24-22-00-860-812).

END OF TASK

POLITEKNIK PENERBANGAN SURABAYA
SUJANMA AKASA MANDALA