



EMB145 - EMB135

AIRCRAFT
MAINTENANCE MANUAL

(145) FMS (UNIVERSAL) / (135) DUAL FMS - MAINTENANCE PRACTICES

EFFECTIVITY: AIRCRAFT WITH FMS UNIVERSAL

1. General

- A. This section gives the procedures to load the navigation data base.
- B. The procedures in this section are given in the sequence below. The tasks identified with (♦) are part of the Scheduled Maintenance Requirements Document (SMRD).

TASK NUMBER	DESCRIPTION	EFFECTIVITY
34-62-00-400-801-A	DUAL FMS NAVIGATION DATA BASE - LOADING	AIRCRAFT WITH FMS UNIVERSAL
34-62-00-400-802-A	SINGLE FMS NAVIGATION DATA BASE - LOADING	AIRCRAFT WITH FMS UNIVERSAL
34-62-00-470-801-A	FMS WORLD MAGNETIC MODEL - LOADING	AIRCRAFT WITH FMS UNIVERSAL



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TASK 34-62-00-400-801-A

EFFECTIVITY: AIRCRAFT WITH FMS UNIVERSAL

2. DUAL FMS NAVIGATION DATA BASE - LOADING

A. General

- (1) This task gives the procedures to load the NAV data base.
- (2) (PDTU WITH FLOPPY DISK DRIVE) The NAV data base is updated through the Portable Data-Transfer Unit (PDTU) and is contained on one or more 3 1/2 floppy disks.
- (3) (PDTU WITH ZIP DRIVE) The NAV data base is updated through the Portable Data-Transfer Unit (PDTU) and is contained on one 100 megabyte zip disk.
- (4) (SSDTU) The NAV data base is updated through the Solid-State Data Transfer Unit (SSDTU).

B. References

REFERENCE	DESIGNATION
AMM SDS 34-62-00/1	
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223	223LZ - Maintenance Panel	Cockpit

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 119	Portable Data-Transfer Unit	To update the navigation data bases with Floppy disk drive	
GSE 513	Portable Data-Transfer Unit	To update the navigation data bases with Zip drive	
GSE 553	Solid-State Data-Transfer Unit	To update the navigation data bases with SD card or USB flash drive	
GSE 566	SSDTU Harness Assy	To connect the SSDTU to the Maintenance Panel.	

E. Auxiliary Items

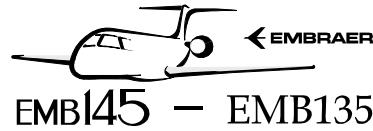
Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable



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H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Cockpit

I. Preparation

SUBTASK 841-002-A

- (1) Energize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Make sure that FMS1 and FMS2 are off, and that the FMS1 and FMS2 circuit breakers are open.
- (3) (PDTU) Connect the PDTU to the Maintenance Panel.
- (4) (SSDTU) Use the cable (GSE 566) to connect the SSDTU to the Maintenance Panel.
NOTE: To connect the cable to the SSDTU follow the instructions in the internal part of the SSDTU front cover.
- (5) Close the FMS1 and FMS2 circuit breakers.

J. Loading Procedure ([Figure 201](#)) ([Figure 202](#))

SUBTASK 470-002-A

- NOTE:**
- (PDTU) Before you start an update, make sure that the PDTU slot is clear of previous disks and that the protector is removed.
 - (SSDTU) Before you start an update, make sure that there is no SD card or USB flash drive in the SSDTU slots.
 - This procedure erases the previous Navigation Data Base stored in FMS. Make sure that the Navigation Data Base disks are not corrupted. It is recommended to have more than one copy of Navigation Data Base.

- (1) (PDTU WITH FLOPPY DISK DRIVE) Do the loading of the navigation data base as follows:
 - (a) Push the ON key on the PDTU.
Result:
1 A 12-second self-test will occur.
 - (b) Push the PWR/DIM function key on the two FMS CDUs.
Result:
1 When the initialization page comes into view, the system will be ready to get updates.
 - (c) Push the MENU function key on the two CDUs for the DISK MENU page.
 - (d) Push the DISK LOAD line select key on the two CDUs.
Result:
1 The first DISK LOAD instruction page will be shown. This page contains instructions to complete the update.

NOTE: On dual FMS installations, when the initialization page comes into view, the system will be ready to get updates. The FMSs are synchronized with this page. The data base will be loaded into the two systems.

- (e) First insert the disk with the standard data and push the CONTINUE line select key to continue the update process.

Result:

- 1 The CHECKING DISK TYPE page will be shown.

NOTE: • Do not disturb the PDTU or the FMS while the update continues.

- Single disk data bases includes STANDARD + EXTENDED on the same disk. The DISK LOAD page shows the load prompt and displays the LOAD STATUS as the percent completed.

- (f) Push the LOAD line select key.

Result:

- 1 The ERASING MEMORY screen will come into view before the loading starts.

NOTE: If there is an error that can prevent the successful completion of the load, a message will come into view on the DISK LOAD page. The error message list is shown in the operator's manual.

CAUTION: IF YOU PUSH THE CANCEL LINE SELECT KEY, THE DATA BASE LOAD WILL ABORT. THIS ACTION WILL DUMP THE NAV DATA BASE.

- (g) When a field loading is completed, it will show RCVD. If a multiple disk data is loaded, a prompt will come into view at line select key (5L) to load the next disk.

NOTE: If a failure occurred during the data loading, it will show FAIL instead of RCVD and all the process must be restarted.

CAUTION: MAKE SURE THAT THE DTU LED IS TURNED OFF BEFORE REMOVE THE DISK FROM IT.

- (h) Remove the first disk, insert the next disk and push the LOAD line select key.

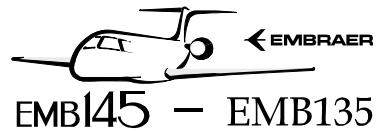
Result:

- 1 CHECKING DISK TYPE will come into view while you make sure that the inserted disk is the correct one. The DISK LOAD page will then be shown again.

- (i) Push the LOAD line select key.

Result:

- 1 When all standard disks are loaded, a TESTING prompt will come into view at line select key (5R) for a short time. After each standard data base is tested for integrity, PASS, FAIL, or NONE will be shown near each data base. FAIL shows an unloaded or partially loaded data base. NONE shows that there is no data base. When all testing is completed, the DISK LOAD screen will be shown again.



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- (j) If it is necessary to load other disk, such as extended data or pilot data, push the LOAD NEXT line select key. Do the above process again, until all disks are loaded.

NOTE: If disks are loaded before their effective date, the CHECK ALL line select key specified below will not come into view. The line select key will then read RETURN. Go to step (m).

- (k) After all disks are loaded (standard, extended, pilot-defined and FMS flight plan), a CHECK ALL procedure must be done.

NOTE: The CHECK ALL function makes sure that there is consistency between standard, extended, pilot-defined, and FMS flight plan data bases. Information that is not consistent in the pilot-defined or FMS flight plan data bases will be changed or purged.

- (l) Push the CHECK ALL line select key to start the check all function. (CHECKING) will be shown and flash at line select key (5R).

- (m) Push the RETURN line select key. The display will go back to the DISK MENU page to load additional data as necessary.

- (n) Remove the disk from the PDTU and set the PDTU to off.

- (o) On the two CDUs, push the DATA function key.

Result:

- 1 The DATA 1/4 page is shown.

- (p) Push the NAV DATA line select key.

Result:

- 1 The DATA/NAV 1/2 page is shown.

- (q) Push the NEXT function key.

Result:

- 1 The DATA/NAV 2/2 page is shown. Make sure that the navigation data was updated.

- (r) Push the PWR/DIM function key, the OFF (5R) key, and then the CONFIRM/OFF (1R) key to set the systems to off.

- (2) (PDTU WITH ZIP DRIVE OR SSDTU) Do the loading of the navigation data base as follows:

- (a) Push the ON key on the PDTU or on the SSDTU.

Result:

- 1 A 12-second self-test will occur.

- (b) Push the PWR/DIM function key on the two FMS CDUs.

Result:

- 1 When the initialization page comes into view, the system will be ready to get updates.

- (c) Push the MENU function key on the two CDUs for the DISK MENU page.

- (d) Push the DISK LOAD line select key on the two CDUs .

Result:

- 1 The first DISK LOAD instruction page will be shown. This page contains instructions to complete the update.

NOTE: On dual FMS installations, when the initialization page comes into view, the system will be ready to get updates. The FMSs are synchronized with this page. The data base will be loaded into the two systems.

- (e) (PDTU WITH ZIP DRIVE) Put the Nav Data Base zip disk into the PDTU and push the CONTINUE line select key on only one FMS to continue the update process.

Result:

- 1 This FMS will be the "Master". The other CDU will now be the "Slave" and obey the commands of the Master CDU with an approximate five-second delay.

- (f) (SSDTU) Put the Nav Data Base SD card or USB flash drive into the SSDTU and push the CONTINUE line select key on only one FMS to continue the update process.

Result:

- 1 This FMS will be the "Master". The other CDU will now be the "Slave" and obey the commands of the Master CDU with an approximate five-second delay.

CAUTION: DO NOT PUSH "CONTINUE" ON THE SLAVE CDU. THIS ACTION WILL MAKE RESULT IN THE DATA BASE LOAD UNSUCCESSFUL.

CAUTION: IF YOU PUSH THE CANCEL LINE SELECT KEY, THE DATA BASE LOAD WILL ABORT. THIS ACTION WILL DUMP THE NAV DATA BASE.

- (g) Push the LOAD line select key on the Master CDU.

NOTE: • The DISK LOAD page shows the load prompt and shows the LOAD STATUS as the percent completed.

- Do not disturb the PDTU or the SSDTU or the FMS while the update continues.
- If there is an error that can prevent the successful completion of the load, a message comes into view on the DISK LOAD page.

Refer to [AMM SDS 34-62-00/1](#) to read the error message list when applicable.

- (h) Wait for complete data base loading.

NOTE: The FMS will test the data for corruption.

Result:

- 1 After each standard data base is tested for integrity, PASS, FAIL, or NONE will be shown near each data base. FAIL shows an unloaded or partially loaded data base. NONE shows that there is no data base. When all testing is completed, the DISK LOAD screen will be shown again.

- (i) If applicable, push the LOAD NEXT line select key selection for loading of the Company Routes data base. If not, do as follows:

NOTE: If disk is loaded before its effective date or after its expiration date, the CHECK ALL line select key option will not come into view and the line select key will read RETURN.

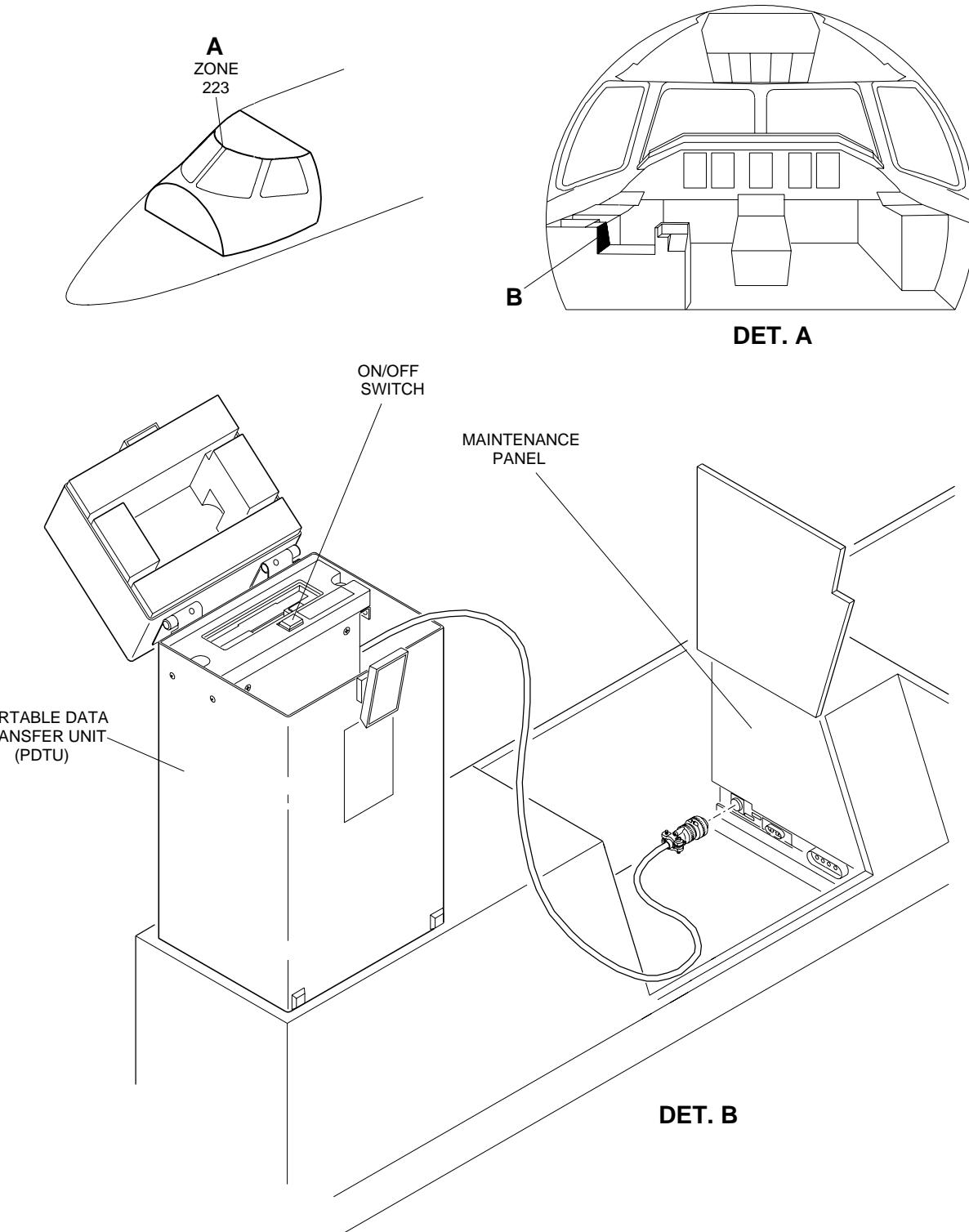
- (j) Push the CHECK ALL line select key if this option is shown. This action will cause the loaded data base to become the active data base.
- (k) To show the Nav data base status, push the DB STATUS line select key.
- (l) If the CHECK ALL option is not shown, push the RETURN line select key to go back to the DISK MENU page.
- (m) (PDTU WITH ZIP DRIVE) Remove the zip disk from the PDTU and stop the PDTU.
- (n) (SSDTU) Remove the SD card or the USB flash drive from the SSDTU and stop the SSDTU.
- (o) On the two CDUs, push the DATA function key.
Result:
 - 1 The DATA 1/4 page is shown.
- (p) Push the NAV DATA line select key.
Result:
 - 1 The DATA/NAV 1/2 page is shown.
- (q) Push the NEXT function key.
Result:
 - 1 The DATA/NAV 2/2 page is shown. Make sure that the navigation data was updated.
- (r) Push the PWR/DIM function key, the OFF (5R) key, and then the CONFIRM/OFF (1R) key to stop the systems.

K. Follow-on

SUBTASK 842-002-A

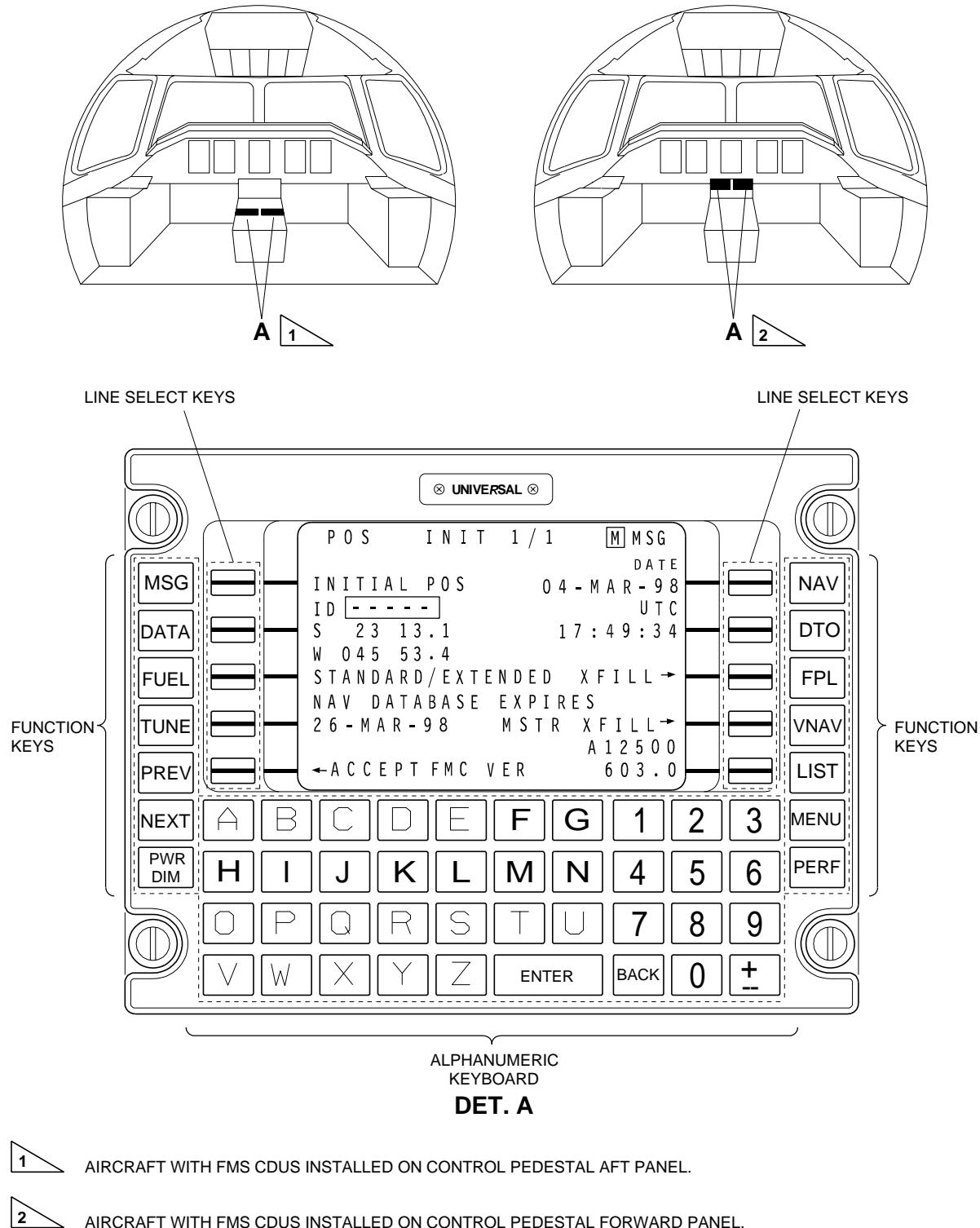
- (1) Make sure that FMS1 and FMS2 are off, and that the FMS1 and FMS2 circuit breakers are open.
- (2) (PDTU) Disconnect the PDTU from the Maintenance Panel.
- (3) (SSDTU) Disconnect the SSDTU from the Maintenance Panel.
- (4) Close the FMS1 and FMS2 circuit breakers.
- (5) De-energize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).

EFFECTIVITY: AIRCRAFT WITH FMS UNIVERSAL
Dual FMS Navigation Data Base - Loading
Figure 201



145AMM340290.MCE A

EFFECTIVITY: AIRCRAFT WITH FMS UNIVERSAL
 Dual FMS Control Display Unit
 Figure 202





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TASK 34-62-00-400-802-A

EFFECTIVITY: AIRCRAFT WITH FMS UNIVERSAL

3. SINGLE FMS NAVIGATION DATA BASE - LOADING

A. General

- (1) This task gives the procedures to load the NAV data base.
- (2) (PDTU WITH FLOPPY DISK DRIVE) The NAV data base is updated through the Portable Data Transfer Unit (PDTU) and is contained on one or more 3 1/2 floppy disks.
- (3) (PDTU WITH ZIP DRIVE) The NAV data base is updated through the Portable Data Transfer Unit (PDTU) and is contained on one 100 megabyte zip disk.
- (4) (SSDTU) The NAV data base is updated through the Solid-State Data Transfer Unit (SSDTU).

B. References

REFERENCE	DESIGNATION
AMM SDS 34-62-00/1	
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223	223LZ - Maintenance Panel	Cockpit

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 119	Portable data transfer unit	To update the navigation data bases with Floppy disk drive	
GSE 513	Portable data transfer unit	To update the navigation data bases with Zip drive	
GSE 553	Solid-State Data-Transfer Unit	To update the navigation data bases with SD card or USB flash drive	
GSE 566	SSDTU Harness Assy	To connect the SSDTU to the Maintenance Panel.	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

H. Persons Recommended

<i>QTY</i>	<i>FUNCTION</i>	<i>PLACE</i>
1	Does the task	Cockpit

I. Preparation
SUBTASK 841-003-A

- (1) Energize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).
- (2) Make sure that FMS1 is off, and that the FMS1 circuit breaker is open.
- (3) (PDTU) Connect the PDTU to the Maintenance Panel.
- (4) (SSDTU) Use the cable (GSE 566) to connect the SSDTU to the Maintenance Panel.

NOTE: To connect the cable to the SSDTU follow the instructions in the internal part of the SSDTU front cover.

- (5) Close the FMS1 circuit breaker.

J. Loading Procedure ([Figure 203](#)) ([Figure 201](#))
SUBTASK 470-003-A

NOTE:

- (PDTU) Before you start an update, make sure that the PDTU slot is clear of previous disks and that the protector is removed.
- (SSDTU) Before you start an update, make sure that there is no SD card or USB flash drive in the SSDTU slots.
- This procedure erases the previous Navigation Data Base stored in FMS. Make sure that the Navigation Data Base disks are not corrupted. It is recommended to have more than one copy of Navigation Data Base.

- (1) (PDTU WITH FLOPPY DISK DRIVE) Do the loading of the navigation data base as follows:
 - (a) Push the ON key on the PDTU.
Result:
1 A 12-second self-test will occur.
 - (b) On the FMS CDU, push the PWR/DIM function key.
Result:
1 When the initialization page comes into view, the system will be ready to get updates.
 - (c) On the CDU, push the MENU function key for the DISK MENU page.
 - (d) On the CDU, push the DISK LOAD line select key.
Result:
1 The first DISK LOAD instruction page will be shown. This page contains instructions to complete the update.
 - (e) First insert the disk with the standard data and push the CONTINUE line select key to continue the update process.

Result:

- 1 The CHECKING DISK TYPE page will be shown.

NOTE: • Do not disturb the PDTU or the FMS while the update continues.
 • Single disk data bases includes STANDARD + EXTENDED on the same disk. The DISK LOAD page shows the load prompt and displays the LOAD STATUS as the percent completed.

- (f) On the CDU, push the LOAD line select key.

Result:

- 1 The ERASING MEMORY screen will come into view before the loading starts.

NOTE: If there is an error that can prevent the successful completion of the load, a message will come into view on the DISK LOAD page. The error message list is shown in the operator's manual.

CAUTION: IF YOU PUSH THE CANCEL LINE SELECT KEY, THE DATA BASE LOAD WILL ABORT. THIS ACTION WILL DUMP THE NAV DATA BASE.

- (g) When a field loading is completed, it will show RCVD. If a multiple disk data is loaded, a prompt will come into view at line select key [5L] to load the next disk.

NOTE: If a failure occurred during the data loading, it will show FAIL, not RCVD, and all the process must be started again.

CAUTION: MAKE SURE THAT THE DTU LED IS OFF BEFORE YOU REMOVE THE DISK FROM THE DTU.

- (h) Remove the first disk, put the next disk, and push the LOAD line select key.

Result:

- 1 CHECKING DISK TYPE will come into view while you make sure that the disk that you put is the correct one. The DISK LOAD page will then be shown again.

- (i) Push the LOAD line select key.

Result:

- 1 When all standard disks are loaded, a TESTING prompt will come into view at line select key [5R] for a short time. After each standard data base is tested for integrity, PASS, FAIL, or NONE will be shown near each data base. FAIL shows an unloaded or partially loaded data base. NONE shows that there is no data base. When all testing is completed, the DISK LOAD screen will be shown again.

- (j) If it is necessary to load other disk, such as extended data or pilot data, push the LOAD NEXT line select key. Do the above process again, until all disks are loaded.

NOTE: If disks are loaded before their effective date, the CHECK ALL line select key specified below will not come into view. The line select key will then read RETURN. Go to step (m).

- (k) After all disks are loaded (standard, extended, pilot-defined and FMS flight plan), a CHECK ALL procedure must be done.

NOTE: The CHECK ALL function makes sure that there is consistency between standard, extended, pilot-defined, and FMS flight plan data bases. Information that is not consistent in the pilot-defined or FMS flight plan data bases will be changed or purged.

- (l) Push the CHECK ALL line select key to start the check all function. (CHECKING) will be shown and flash at line select key [5R].

- (m) Push the RETURN line select key. The display will go back to the DISK MENU page to load additional data as necessary.

- (n) Remove the disk from the PDTU and set the PDTU to off.

- (o) On the CDU, push the DATA function key.

Result:

- 1 The DATA 1/4 page is shown.

- (p) On the CDU, push the NAV DATA line select key.

Result:

- 1 The DATA/NAV 1/2 page is shown.

- (q) On the CDU, push the NEXT function key.

Result:

- 1 The DATA/NAV 2/2 page is shown. Make sure that the navigation data was updated.

- (r) Push the PWR/DIM function key, the OFF (5R) key, and then the CONFIRM/OFF (1R) key to set the system to off.

- (2) (PDTU WITH ZIP DRIVE OR SSDTU) Do the loading of the navigation data base as follows:

- (a) Push the ON key on the PDTU or on the SSDTU.

Result:

- 1 A 12-second self-test will occur.

- (b) On the FMS CDU, push the PWR/DIM function key.

Result:

- 1 When the initialization page comes into view, the system will be ready to get updates.

- (c) On the CDU, push the MENU function key for the DISK MENU page.

- (d) On the CDU, push the DISK LOAD line select key.

Result:

- 1 The first DISK LOAD instruction page will be shown. This page contains instructions to complete the update.

NOTE: When the initialization page comes into view, the system will be ready to get updates. The FMS is synchronized with this page. The data base will be loaded into the system.

- (e) (PDTU WITH ZIP DRIVE) Put the Nav Data Base zip disk into the PDTU and push the CONTINUE line select key on FMS to continue the update process.

- (f) (SSDTU) Put the Nav Data Base SD card or USB flash drive into the SSDTU and push the CONTINUE line select key on only one FMS to continue the update process.

CAUTION: IF YOU PUSH THE CANCEL LINE SELECT KEY, THE DATA BASE LOAD WILL ABORT. THIS ACTION WILL DUMP THE NAV DATA BASE.

- (g) Push the LOAD line select key on the CDU.

NOTE: • The DISK LOAD page shows the load prompt and displays the LOAD STATUS as the percent completed.
• Do not disturb the PDTU or the SSDTU or the FMS while the update continues.
• If there is an error that can prevent the successful completion of the load, a message comes into view on the DISK LOAD page.
Refer to [AMM SDS 34-62-00/1](#) to read the error message list when applicable.

- (h) Wait for complete data base loading.

NOTE: The FMS will test the data for corruption.

Result:

- 1 After each standard data base is tested for integrity, PASS, FAIL, or NONE will be shown near each data base. FAIL shows an unloaded or partially loaded data base. NONE shows that there is no data base. When all testing is completed, the DISK LOAD screen will be shown again.

- (i) If applicable, push the LOAD NEXT line select key selection for loading of the Company Routes data base. If not, do as follows:

NOTE: If disk is loaded before its effective date or after its expiration date, the CHECK ALL line select key option will not come into view and the line select key will read RETURN.

- (j) Push the CHECK ALL line select key if this option is shown. This action will cause the loaded data base to become the active data base.

- (k) To show the Nav data base status, push the DB STATUS line select key.

- (l) If the CHECK ALL option is not shown, push the RETURN line select key to go back to the DISK MENU page.

- (m) (PDTU WITH ZIP DRIVE) Remove the zip disk from the PDTU and stop the PDTU.

- (n) (SSDTU) Remove the SD card or the USB flash drive from the SSDTU and stop the SSDTU.

- (o) On the CDU, push the DATA function key.

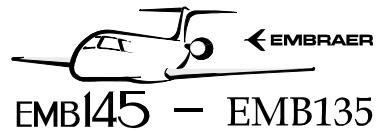
Result:

- 1 The DATA 1/4 page is shown.

- (p) Push the NAV DATA line select key.

Result:

- 1 The DATA/NAV 1/2 page is shown.



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- (q) Push the NEXT function key.

Result:

- 1 The DATA/NAV 2/2 page is shown. Make sure that the navigation data was updated.

- (r) Push the PWR/DIM function key, the OFF (5R) key, and then the CONFIRM/OFF (1R) key to stop the systems.

K. Follow-on

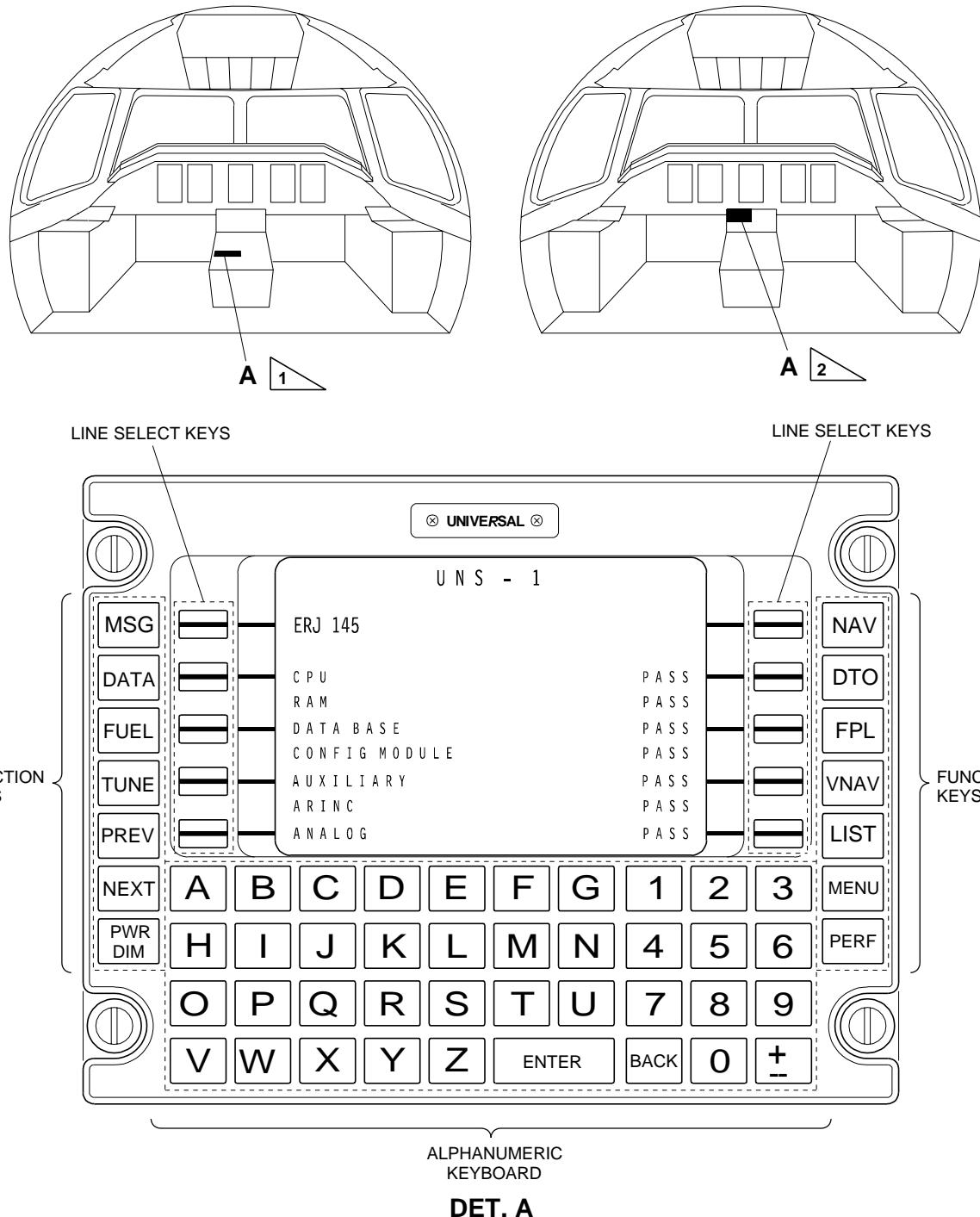
SUBTASK 842-003-A

- (1) Make sure that FMS1 is off, and that the FMS1 circuit breaker is open.
- (2) (PDTU) Disconnect the PDTU from the Maintenance Panel.
- (3) (SSDTU) Disconnect the SSDTU from the Maintenance Panel.
- (4) Close the FMS1 circuit breaker.
- (5) De-energize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).

EFFECTIVITY: AIRCRAFT WITH FMS UNIVERSAL

Single FMS Control Display Unit

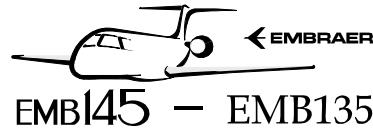
Figure 203



1 AIRCRAFT WITH FMS CDU INSTALLED ON CONTROL PEDESTAL AFT PANEL.

2 AIRCRAFT WITH FMS CDU INSTALLED ON CONTROL PEDESTAL FORWARD PANEL.

145AMM340304.MCE B



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TASK 34-62-00-470-801-A

EFFECTIVITY: AIRCRAFT WITH FMS UNIVERSAL

4. FMS WORLD MAGNETIC MODEL - LOADING

A. General

- (1) This task gives the procedures to load the FMS World Magnetic Model.

B. References

REFERENCE	DESIGNATION
AMM TASK 20-40-01-860-801-A/200	ENERGIZATION OF THE AIRCRAFT WITH AN EXTERNAL POWER SOURCE

C. Zones and Accesses

ZONE	PANEL/DOOR	LOCATION
223	223LZ - Maintenance Panel	Cockpit

D. Tools and Equipment

ITEM	DESCRIPTION	PURPOSE	QTY
GSE 119	Portable Data-Transfer Unit	To update the navigation data bases with Floppy disk drive	
GSE 513	Portable Data-Transfer Unit	To update the navigation data bases with Zip drive	
GSE 553	Solid-State Data-Transfer Unit	To update the navigation data bases with SD card or USB flash drive	
GSE 566	SSDTU Harness Assy	To connect the SSDTU to the Maintenance Panel	

E. Auxiliary Items

Not Applicable

F. Consumable Materials

Not Applicable

G. Expandable Parts

Not Applicable

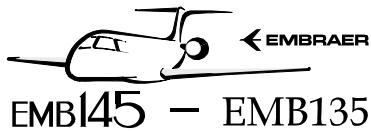
H. Persons Recommended

QTY	FUNCTION	PLACE
1	Does the task	Cockpit

I. Preparation

SUBTASK 841-004-A

- (1) Energize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).



- (2) (AIRCRAFT WITH SINGLE FMS) Make sure that FMS1 is off, and that the FMS1 circuit breaker is open.
- (3) (AIRCRAFT WITH DUAL FMS) Make sure that FMS1 and FMS2 are off, and that the FMS1 and FMS2 circuit breakers are open.
- (4) (PDTU) Connect the PDTU to the Maintenance Panel.
- (5) (SSDTU) Use the cable (GSE 566) to connect the SSDTU to the Maintenance Panel.
NOTE: To connect the cable to the SSDTU follow the instructions in the internal part of the SSDTU front cover.
- (6) (AIRCRAFT WITH SINGLE FMS) Close the FMS1 circuit breaker.
- (7) (AIRCRAFT WITH DUAL FMS) Close the FMS1 and FMS2 circuit breakers.

J. Loading Procedure (Figure 201)

SUBTASK 470-004-A

- (1) Do the loading of the world magnetic model as follows:
NOTE: • (AIRCRAFT WITH DUAL FMS) This procedure must be performed on the two CDUs, so that the world magnetic model is updated on the two FMSs.
 - For details about the world magnetic model update kit (which contains the media with the software) and its relationship to the FMS software version (there is a specific update kit part number for each FMS software version (SCN) and data-transfer unit used), refer to the applicable service bulletin published by the FMS manufacturer.
- (a) Push the ON key on the PDTU or on the SSDTU.
Result:
 - 1 A 12-second self-test will occur.
- (b) On the CDU, push the PWR/DIM function key.
Result:
 - 1 When the initialization page comes into view, the system will be ready to get updates.
- (c) On the CDU, on the INIT page 1/1, record the FMS software version adjacent to line select key 5R (FMC VER) and make sure it is the same as the software version on the media with the world magnetic model that will be used to do the loading.
NOTE: You can also check the FMS software version on the S/W VERSIONS page. To do this, push the DATA function key, then the MAINT line select key (5R) and then the S/W VERS line select key (5L). The FMS software version shows adjacent to line select key 2L (FMS).
- (d) Put the media with the world magnetic model into the PDTU or into the SSDTU and wait for the light on the data transfer unit to stop blinking.
- (e) On the CDU, push the DATA function key to show the DATA page 1/4.

- (f) On the CDU, push the DISK line select key (4L) to show the DISK MENU page.
- (g) On the CDU, push the DISK LOAD line select key (2L) and then push the CONTINUE line select key (5L).
- (h) On the CDU, enter the password at the ENTER PASSWORD prompt. To do this, push the MSG function key, then the NAV function key, then the LIST function key, and then the DATA function key.
- (i) On the CDU, push the LOAD line select key (5L).
Result:
 - 1 The update automatically begins to load. Do not power down the FMS or the PDTU or the SSDTU while the load is in progress.
- (j) When the update load completes, the LOAD PASSED message shows.
- (k) On the CDU, push the RESTART FMS line select key (5L).
- (l) Remove the media from the PDTU or from the SSDTU and set the PDTU or the SSDTU to off.
- (m) On the CDU, push the DATA function key four times to show the DATA page 4/4 or 4/5, and make sure that the VAR field shows the correct version of the world magnetic model. For example, VAR (2010).
- (n) On the CDU, push the DATA function key, then the MAINT line select key (5R) and then the S/W VERS line select key (5L) to show the S/W VERSIONS page, and make sure that the FMS software version adjacent to line select key 2L (FMS) remains the same.
- (o) On the CDU, push the PWR/DIM function key, the OFF line select key (5R), and then the CONFIRM/OFF line select key (1R) to stop the systems.

K. Follow-on

SUBTASK 842-004-A

- (1) (AIRCRAFT WITH SINGLE FMS) Make sure that FMS1 is off, and that the FMS1 circuit breaker is open.
- (2) (AIRCRAFT WITH DUAL FMS) Make sure that FMS1 and FMS2 are off, and that the FMS1 and FMS2 circuit breakers are open.
- (3) Do the reidentification of the FMS label as applicable.
- (4) (PDTU) Disconnect the PDTU from the Maintenance Panel.
- (5) (SSDTU) Disconnect the SSDTU from the Maintenance Panel.
- (6) (AIRCRAFT WITH SINGLE FMS) Close the FMS1 circuit breaker.
- (7) (AIRCRAFT WITH DUAL FMS) Close the FMS1 and FMS2 circuit breakers.
- (8) De-energize the aircraft ([AMM TASK 20-40-01-860-801-A/200](#)).

