AIR SCOUT PROFESSIONAL

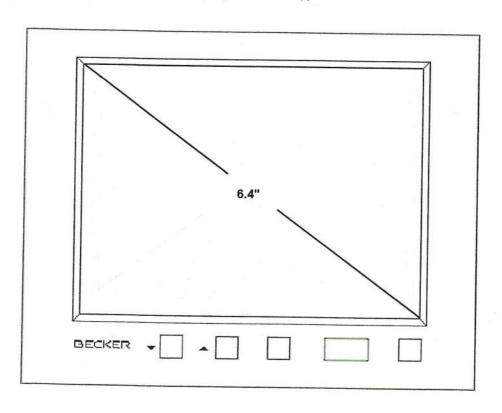
ADVANCED MOVING MAP AND NAVIGATION SYSTEM

PILOTS GUIDE

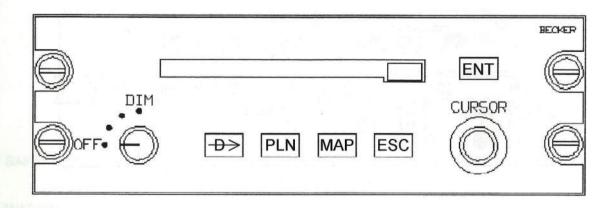




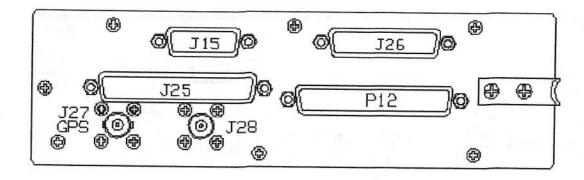
Display CD 521 - ()



CONTROL UNIT CU 519 - (03)



MU 521 - ()



NOTE FOR THESE OPERATING INSTRUCTIONS

These instructions were prepared in order to explain the particular features and operation of the BECKER AIRSCOUT System.

Please spend a few minutes reading these instructions in order to be able to operate the AIRSCOUT system to its best advantage.

If you have any questions regarding operation, contact the local BECKER Representative or the BECKER Product Support Department (Tel. +49 (0) 7229 / 305-221).

These Operating Instructions use the following symbols:

SAFETY PRECAUTIONS :

This symbol signifies important notes which ought to be observed in order not to endanger your safety.

WARNING! Notes

Notes on procedures.

Additional notes (Information) on the Operating Instructions.

NOTE:



The information in these Operating Instructions may be changed without prior notice.

BECKER FLUGFUNK accepts no responsibility for these documents. This applies without limitation also for implicit guarantees for the saleability and suitability for a specific purpose.

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PRINTING

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Centering of the map on the active waypoint

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FOREWORD



SAFETY PRECAUTIONS:

The individual equipment components may be opened only by authorized technical personnel!

Never connect equipment components to an external power supply with reversed polarity.

Avoid installing and using at ambient temperatures below -20° C or above +55° C.



NOTE:

The computer system requires 20 - 50 seconds to boot depending on the type of CPU. The display is darkened during this period. Reception from satellites takes a minimum of 1 minute after switch on and under certain circumstances can take up to 5 minutes (multipath reception due to reflections etc.).

When circling, depending on the angle of bank of the aircraft, the antenna can be so much in shadow that GPS reception is broken up for a short period and "no GPS" appears briefly in the menu.

INTRODUCTION

We thank you for choosing to purchase a BECKER AIRSCOUT Moving Map System.



NOTE:

Please keep the Operating Instructions carefully. They contain important safety and operating instructions for the AIRSCOUT System.

The AIRSCOUT is a digital map and navigation system. The satellite-supported navigation, which operates on the GPS (Global Positioning System), has advantages compared with ground-based navigational systems. The main advantage is that a signal is available worldwide regardless of weather conditions. This means that the GPS navigation can be used for navigation at any point on the earth.

The GPS navigation uses a certain constellation of satellites in the earth's orbit to determine the position of aircraft. Explained simply, the AIRSCOUT System enables point-to-point navigation without limitations or the need for the complicated methods of all known navigational procedures.

PURPOSE

The AIRSCOUT is a digital map and navigation system designed to be used under VFR conditions. Flight routes, waypoints, speed and flight level can be shown in a color display. The actual position of the aircraft is shown in the display against the background of the map. The system can also be used to determine headings and for flightplanning. This simplifies navigation and increases safety.

The AIRSCOUT contains a GPS receiver with several parallel channels. This receives the CA (Coarse Acquisition) code which is available for the civil use of GPS satellites. The reception signal is very little influenced by interference or weather conditions.

The AIRSCOUT contains a database which is licenzed from Jeppesen. This database contains airports, VORs, NDBs and much more for a specific operating area. It is possible to add further data in a user database with the aid of the memory card in the CU 519 - (03).

Scanned maps form the basis of the BECKER AIRSCOUT. Satellite pictures and area photographs can also be read in and stored for navigation. All the maps called up are always roughly north aligned.

In addition, self-generated pictures, e.g. aerial photographs of hospitals or other approach points with freely-selectable information content can also be stored for each individual waypoint.

GENERAL

Waypoint database

The waypoint database is based on the Jeppesen database.

The content of the database depends on the LOC-file (e.g. Germany, Europe, USA etc.) stored on the system.

The database is divided as follows:

- Countries and an option of all IFR waypoints (intersection, terminal waypoints) in the "area, menu.
- Waypoint groups (AIRPORT, NDB, RUNWAY, VOR, WAYPOINT) in the "group" menu.
- List of names arranged alphabetically in the "name" menu.
- List of names arranged according to identifiers in the "identifier" menu.

ALL WP J.L ALL WP M.O ALL WP P.R ALL WP S.U ALL WP V.Z AUSTRIA BESIGNUM BOSNIA HERZEGO. CROATIA
BOSNIA HERZEGO.
DENMARK FINLAND FRANCE GERMANY



"group"

JEVER AB	ETNJ
JUIST	EDMJ
KAMENZ	EDCM
KAMP-LINTFORT	EDLC
KARLSHOFEN	EDWK
KARLSRUHE	EDTK
[KARLSRUHE/BADE)	V EDSE
	Program 3 10 3
KASSEL	EDVK
KASSEL KEHL-SUNDHEIM	EDSK
	Same A. L.
KEHL-SUNDHEIM	EDSK
KEHL-SUNDHEIM KEMPTEN	EDSK EDMK

"name"

EDRW	DIERDORF
	WIENAU
EDRY	SPEYER
EDRZ	ZWE I BRUCKEN
EDSA	ALBSTADT
3112	DEGERFELD
EDS8	KARLSRUHE/BADEN]
EDSH	BACKNANG-HEININ
EDSI	BINNINGEN
EDSK	KEHL-SUNDHE IM
property and	mt themmo

"identifier"

Maps

The following maps are available on the AIRSCOUT system depending on the map package selected :

- Maps in a scale of > 1 : 200.000 are available as standard in three zoom stages.
- ☐ Maps in a scale of < 1: 200.000 are available as standard in one zoom stage.

Saving of USER DATA

A created flight plan or self-created waypoints are automatically saved on the PCMCIA card.



NOTE:

If there is no PCMCIA card in the drive, the data is automatically saved to the hard disk.

CONTROL ELEMENTS

FUNCTION OF CONTROLS CD 522 - ()



Window to infrared receiver (OPTIONAL).

FUNCTION OF CONTROL ELEMENTS CU 519 - (03)



Position OFF : Position ON : Position DIM :

AIRSCOUT switched off.
AIRSCOUT switched on.
Dimming of LC display.
1st Position = Night
2nd Position = Twilight
3rd Position = Day



Press key:

Blending in a line from the present

position to the active waypoint (Direct to).

Deactivate the "Direct to" line.

PLN

Press key:

Blending in the flightpath in the map display. Append a manually selection of the map position to the flightplan.

Appends a waypoint to a flightplan.

Activating and manually ending the MAP choice of map position. ESC Input to exit the menu (Abort). Rapid up and down counting in the menu. Outer rotary switch Positioning of cursor. Manual selection of waypoint. Up and down counting in the menu. Inner rotary switch In the map display: calling up map zoom stages. Manual selection of waypoint. 1st function: Activate menu display. ENT 2nd function: End the input operation (choice confirmation). Ejection of PCMCIA card. PCMCIA slot.

MENU DESCRIPTION

RETURN...

= blue characters mean: menu item can be selected.

Select options...

= black script means : that this menu point cannot be selected.

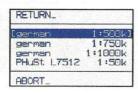
[Day

= display in square brackets is the active menu item.

XXXXXXXXX...

= 3 dots after the characters means : further menu choice possible.







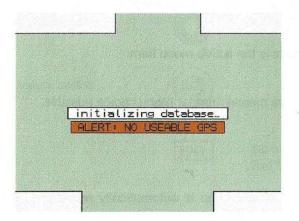
NOTE:

The width of the menu is automatically adjusted to the required line length.

SCREEN MENUS

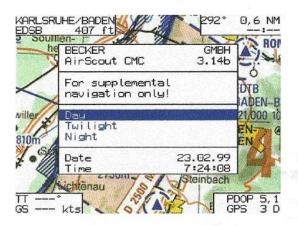
DISPLAY

brief, directly after the START.



DISPLAY

directly after the START with a map loaded and GPS reception.



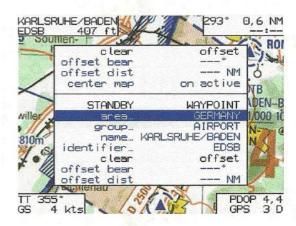
DISPLAY

of present position in flight after pressing the ENT key.



DISPLAY

if the menu is activated using the key.



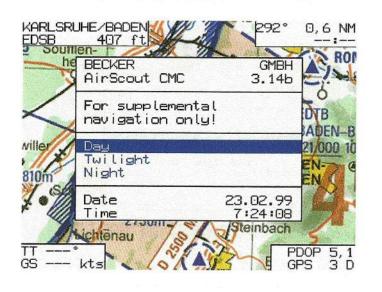


NOTE:

After the initial activation of the menu the "area" box is automatically selected.

When manipulating the menu at short time intervals a useful positioning is adopted. If the menu has not been activated for more than 30 seconds, the "area" box is again selected.

MENU DESCRIPTION



Day = Daylight **Twilight** Twilight (dimming) Night Night-light (dimming) = Date Date Time GMT - Time Waypoint name AACHEN Identifier and waypoint height EDKA 623 ft = in feet above MSL Bearing and distance in NM 330° 143 NM to the active waypoint. The estimated flight time up to reaching the waypoint (details refer to the present position). TRUE - TRACK Speed in knots over ground (active above about 5 knots).

GPS

Accuracy of position

Position and altitude calculated



Select options... = (OPTIONAL)

Update Software... = Activates connection to a PC

ABORT... = Leave menu

PDOP 7, 1 = Accuracy of position

GPS 2 D = Measure of inaccuracy of specific position

good.

as poor.

determination.

Values less than 2 are regarded as

Values more than 8 are regarded

Values between 2 and 8 are the norm and provide satisfactory fix

initializing database…

initializing map...

loading map...

ALERT: NO USEABLE GPS

PDOP 0,0 warm start

PDOP 0,0 GPS n/a

PDOP 0,0 cold start

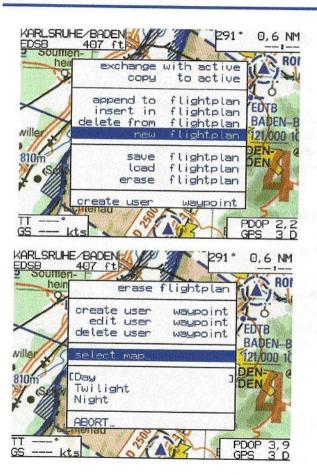
PDOP 2,5 dead reck.

- Database is loaded
- Map list being loaded
- Map being loaded
- No GPS reception
- If the position cannot be plotted (e.g. reception from only one satellite).
 Almanac data ok.
- If no GPS receiver is available or activated.
- If the position cannot be plotted (e.g. reception from only one satellite).
 No valid almanac data.
- Navigation mode cannot be retained.
 Speed and bearing appear to be constant.



RETURN... Return to previous selection or display **ACTIVE WAYPOINT** Offset settings of the active waypoints clear offset Clearing the offset values offset bear Offset bearing angle to the waypoint offset dist Offset distance to the waypoint Centers the map on the active center map on active waypoint STANDBY WAYPOINT Waypoint selection Choice of country; user, flightplan area... Choice of airport; NDB, Runway, group... VOR, Waypoints Waypoint name name... identifier. Identification of waypoint clear offset Clearing the offset values Offset bearing angle to the waypoint offset bear offset dist Offset distance to the waypoint bearing Bearing line to the waypoint distance Distance in NM to the set waypoint

The bearing and distance details refer to the present position.



center map on standby = Centers the map on the standby waypoint exchange with active Selected waypoint in the menu exchanged with the active waypoint in the top left display. copy to active Copy the selected waypoint in the top left display. This activates the waypoint as a navigation point. append to flightplan Append STBY waypoint to the flightplan insert in flightplan Insert the STBY waypoint in the flightplan delete from flightplan Delete the waypoint from the flightplan new flightplan Create new flightplan save flightplan Save flightplan load flightplan Load stored flightplan erase flightplan Erase stored flightplan



create user waypoint = Create waypoint edit user waypoint = Edit waypoint delete user waypoint = Delete waypoint

select map... = Map selection

[Day] = Active image setting (DIMMING)

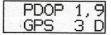
ABORT... = Exit menu

CONTROL





ALERT: NO USEABLE GPS







Switch on the AIRSCOUT using the ON/OFF rotary switch.

NOTE:

Booting takes a maximum of 1 minute. Reception from satellites can take up to 5 minutes under certain circumstances (multipath reception due to reflections etc.).

This menu appears on the screen during the satellite search.

If sufficient satellites are available for evaluation, the warning disappears and the exact position and altitude are displayed.

All navigation calculations are carried out relative to the present position.

NOTE:

If the message "GPS na" (na = not available) appears during booting, data exchange between the computer and GPS receiver is interrupted. If "GPS na" continues to be displayed after a renewed start, the system should be checked.





After booting and appearance of the picture, the start menu is cleared using the ENT key.

If valid GPS reception is displayed, the system is now ready for operation.

Zooming the map display

If maps with different resolutions are available, these can be zoomed.



Immediately the map display is selected using the ENT key, a higher or lower resolution can be set using the inner rotary switch.



NOTE:

When a new zoom stage is called up for the first time at a particular position, 1 to 2 seconds is needed for loading. Each further call-up in this position then takes place without a delay. If the maps are available in only one zoom stage, the existing map display is retained.



The present position is shown by a circle in the center.



On takeoff or during flight, the position is shown by the circle and true-track by the arrow.

The small delta arrow points to the activated navigation point (waypoint).

If both arrows shows the indentical direction the aircraft is on track to destination.

Display for standby waypoint (bearing).

WAYPOINT

WAYPOINT

GERMANY

AIRPORT

offset.

--- NM

RETURN

ACTIVE

clear

STANDBY

area.

group...

center map on active

offset dist

NAVIGATION WITHOUT FLIGHTPLAN

Input "ACTIVE WAYPOINT"

It is possible, for instance by entering an offset, to fly towards a destination which is known to be 4.5 NM east of a waypoint contained in the database.

Input "Offset Bearing"

Press the ENT key to activate the input mode.

RETURN	
ACTIVE	WAYPOINT
clear	offset
offset bear	550°
offset dist	NM
center map	on active
STANDBY	WAYPOINT
area	GERMANY
group	AIRPORT



ENT

Carry out the setting by rotating the inner rotary switch in 1° steps and the outer rotary switch in 10° steps.

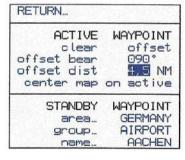
ENT Press the ENT key to end the entry.

RETURN... **ACTIVE** WAYPOINT clear offset offset bear 090 * --- NM offset dist center map on active STANDBY WAYPOINT **GERMANY** area. AIRPORT group... AACHEN name...

/ Input "Offset Distance"

ENT

Press the ENT key to activate the input mode.





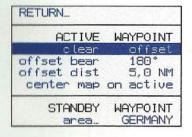
Carry out the setting by rotating the inner rotary switch in 0,1 NM steps and the outer rotary switch in 1 NM steps.

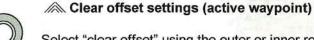
ENT

Press the ENT key to end the entry.



The offset values additional to the waypoint names are now blended in below the top left window.





Select "clear offset" using the outer or inner rotary switch.



Press the ENT key to delete the offset settings.

Centering of the map on the active waypoint

ACTIVE	WAYPOINT
clear offset bear	offset
offset dist	NM
center map	on active
STANDBY	WAYPOINT
area	GERMANY
group.	AIRPORT
name	KARLSRUHE/BADEN
identifier	EDSB

ENT

Press the ENT key to display the active waypoint in the center of the map.



ENT

Press the ENT key to return to the flight mode.

Entry of a navigation position

ENT

Press the ENT key.

on active	offset bear offset dist center map
WAYPOINT	STANDBY
GERMANY.	area
AIRPORT KARLSRUHE/BADEN EDSB offset NM	group name identifier clear offset bear offset dist

The menu appears and the "area" box is selected.



Press the ENT key to change to the choice of country.





Select the required country using the outer or inner rotary switch.



Confirm the selection by pressing the ENT key.

bear	°
dist	NM
r map	on active
ANDBY	WAYPOINT GERMANY
roup	AIRPORT
name	KARLSRUHE/BADEN
fier	EDSB
clear	offset
bear	°
dist	NM
aring	289°

The menu appears and the "group" box is selected.

ENT

Press the ENT key to change to the group selection.





Select the required group using the outer or inner rotary switch.

AIRPORT = Airports

NDB = Non directional beacon

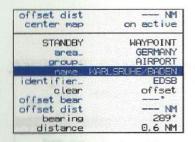
RUNWAY = Takeoff or landing runways

VOR = Very high frequency omnidirectional radio range

WAYPOINT = Intersection, terminal waypoints

ENT

Press the ENT key to confirm the selection.



The menu appears and the "name" box is selected.



Press the ENT key to change to the name selection.





Select the required name using the outer or inner rotary switch.



Press the ENT key to confirm the selection.

center map	on active
STANDBY	WAYPOINT
area group	GERMANY AIRPORT
	KARLSRUHE/BADEN
identifier	EDSB.
clear offset bear	offset
offset dist	NM
bearing	290°
distance	0,6 NM
center map	on standby

If the name of the airport, e.g. is sought according to IDENTIFIER, the "identifier" box must be selected.

ENT

Use the ENT key to change to the "identifier" selection.

	EDRW	DIERDORF
		WIENAU
	EDRY	SPEYER
1	EDRZ	ZWEIBRUCKEN
	EDSA	ALBSTADT
ì		DEGERFELD
3	[EDSB	KARLSRUHE/BADEN]
	EDSH	BACKNANG-HEININ
	EDSI	BACKNANG-HEININ BINNINGEN
	EDSI EDSK	
	EDSI EDSK EDSL	BINNINGEN KEHL-SUNDHEIM BLUMBERG
	EDSI EDSK EDSL EDSW	BINNINGEN KEHL-SUNDHEIM
	EDSI EDSK EDSL	BINNINGEN KEHL-SUNDHEIM BLUMBERG



Use the outer or inner rotary switch to select the required "identifier".



Press the ENT key to confirm the selection.

/ Input "Offset Bearing"

Press the ENT key to activate the input mode.

STANDBY WAY	POINT
area GE	RMANY
	RPORT
name KARLSRUHE/	
dentifier.	EDSB
	ffset
ffset bear -	
ffset dist -	NM
bearing	
distance	NM
center map on st	andby
exchange with a	ctive





ENT

Carry out the setting by adjusting the inner rotary switch in 1° steps and the outer rotary switch in 10° steps.

ENT

Press the ENT key to end the entry.

GERMAN	area
AIRPORT	group
KARLSRUHE/BADEI EDSI	identifier
offset	offset bear
Consideration ——— M	offset dist
	bearing
NI	distance
on standby	center map
with active	exchange
to active	copy

identifier… clear offset bear offset dist bearing distance	GERMANY AIRPORT KARLSRUHE/BADEN EDSB offset
center map	on standby
exchange	with active
copy	to active

STANDBY	WAYPOINT
area	GERMANY
group	AIRPORT
	KARLSRUHE/BADEN
identifier	EDSB
clear	offset
offset bear	180°
offset dist	5,0 NM
bearing	
distance	NM
center map	on standby

Input "Offset Distance"

ENT Press the ENT key to activate the input mode.



Carry out the setting by adjusting the inner rotary switch in 0,1 NM steps and the outer rotary switch in 1 NM steps.



Press the ENT key to end the entry.

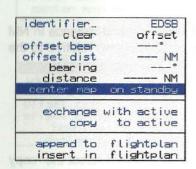


Clear offset settings (standby waypoint)

Select "clear offset" using the outer or inner rotary switch.



Press the ENT key to clear the offset settings.



Centering of the map on the standby waypoint

Press the ENT key to display the standby waypoint in the center of the map.



ENT

ENT

Press the ENT key to return to the menu display.

ESC

Press the ESC key to return to the flight mode.

offset dist	NM
center map	on active
STANDBY	WAYPOINT
area	GERMANY
group	AIRPORT
name	STUTTGART
identifier	EDDS
clear	offset
offset bear	*
offset dist	NM
bearing	097°
distance	44,9 NM

After the selection has been made, the bearing and distance in NM to the selected navigation point (waypoint) is shown relative to the present position.



If necessary, use the outer or inner rotary switch to select the "copy to active" display.



ENT

Press the ENT key to create the selected waypoint as the active navigation point in the top left window.



offset dist	NM
center map	on active
STANDBY	WAYPOINT
area	GERMANY
group	AIRPORT
name	AACHEN
identifier	EDKA
clear	offset
offset bear	*
offset dist	NM
bearing	330°
distance	143 NM

After the selected waypoint has been switched to active, a further waypoint (e.g. the next) can then be selected.

Both waypoints can also be exchanged.



Using the inner rotary switch, select the "exchange with active" box and press the ENT key.



The waypoint in the top left display is exchanged with the one shown in the STANDBY WAYPOINT menu.

exchange with standbu сорч from standbu WAYPOINT STANDBY area GERMANY AIRPORT identifier offset bear offset dist - MM bear ing 180° distance 0.3 NM center map on standbu

distance center map	157 NM on standby
exchange copy	with active to active
append to	flightplan
insert in	flightplan
delete from	flightplan
new	flightplan
save	flightplan
load	flightplan

NAVIGATION WITH FLIGHTPLAN

After the waypoint has been selected in the STANDBY WAYPOINT menu it can be used for flight planning.

Append waypoint to flightplan



Use the inner rotary switch to select the "append to flightplan" box.

ENT

Press the ENT key to either adopt the selected waypoint as the first entry in a new flightplan or to append it to the flightplan as a further waypoint.

Create the flightplan by repeatedly selecting waypoints and appending or inserting using the "append to flightplan" and "insert in flightplan" menu functions.



NOTE:

After the first waypoint in a flightplan has been created, the FLIGHTPLAN entry is added to the "area" folder. This is the flightplan to be edited at the moment. This entry is also saved without a name being assigned.

If several flightplans are created and saved with names, the most recently edited flightplan is retained as the FLIGHTPLAN.

offset dist center map on active STANDBY WAYPOINT area. GERMANY AIRPORT group. HEZBADEN identifier. **EDSB** offset clear offset bear offset dist -- NM 289° bear ing distance 0,6 NM



After a waypoint has been selected in the STANDBY WAYPOINT menu, this can be appended to the flightplan by pressing the PLN key.



PLN

Press the PLN key to adopt the selected waypoint either as the first entry in a new flightplan or append it to the flightplan as a further waypoint.

The flightplan is created by repeatedly selecting and appending a waypoint using the PLN key.



NOTE:

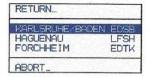
The "append using the PLN key" function is possible only if the "identifier" menu box or one of the menu boxes up to and including "Append to flightplan" has been selected.

Insert waypoint in flightplan

center map	on standby
exchange	with active
copy	to active
append to	flightplan
insert in	flightplan
delete from	flightplan
new	flightplan
save	flightplan
load	flightplan
erase	flightplan



Press the ENT key to insert a selected waypoint in the flightplan.





Use the outer or inner rotary switch to select the position at which the waypoint is to be inserted.



NOTE:

The waypoint is always inserted above the marked selection.



Press the ENT key to insert the waypoint and end the entry.

Delete waypoint from flightplan

exchange with active copy to active

append to flightplan insert in flightplan delete from flightplan new flightplan save flightplan load flightplan erase flightplan

RETURN...

HAGUENAU

ABORT ...

FORCHHEIM



Press the ENT key to delete a waypoint from the flightplan.



Use the inner or outer rotary switch to mark the required entry.



ENT

Press the ENT key to delete the entry.



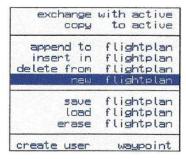
EDTK



NOTE:

The entry is now shown in black lettering and is not deleted until the unit is switched off.

Create new flightplan



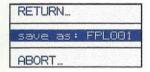


Press the ENT key in order to be able to start creating a new flightplan.

Save flightplan

append to flightplan insert in flightplan delete from flightplan new flightplan load flightplan erase flightplan erase flightplan erate user waypoint delete user waypoint

ENT Press ENT key to save a flightplan.



ENT

Press ENT key to save the flightplan with the specified entry.



NOTE:

Flightplan names are automatically given in increasing order (e.g. FPL001, FPL002 etc.).

A saved flightplan can no longer be edited or changed.

A Load flightplan

append to flightplan insert in flightplan delete from flightplan new flightplan save flightplan toad flightplan erase flightplan erase flightplan create user waypoint delete user waypoint

ENT

Press ENT key to load a flightplan into the "area" folder.



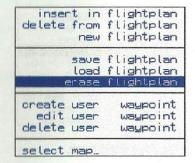


Select the required flightplan by using the outer or inner rotary switch.



Press the ENT key to confirm the selection. The flightplan is now available in the "area" folder.

A Delete flightplan



ENT Press

Press the ENT key to delete a flightplan.





Mark the required entry using the outer or inner rotary switch.





Press the ENT key to delete the entry.

Activate flightplan





Select the "area" box using the outer or inner rotary switch.



ENT

Change the choice of country using the ENT key. USER waypoint and FLIGHTPLAN are also selected here.





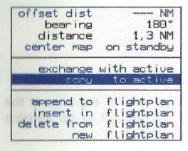
Use the outer or inner rotary switch to select the FLIGHTPLAN or one of the flightplans (e.g. FPL001, FPL002) previously loaded using the "load flightplan" function.



Press the ENT key to confirm the selection.

offset dist	NM
center map	on active
STANDBY	WAYPOINT
area	FLIGHTPLAN
group	AIRPORT
name	STUTTGART
identifier	EDDS
clear	offset
offset bear	
offset dist	NM
bearing	180°
distance	1,0 NM

The waypoint can now be set in the "name" or "identifier" box as the next waypoint and therefore as the start of the flightplan.





Use the outer or inner rotary switch to select the "copy to active" box.



Press the ENT key to activate the flightplan.



NOTE:

When the flightplan waypoint (< 0.4 NM) is reached, a changeover to the next waypoint in the flightplan takes place.



After a flightplan has been activated it is automatically shown as a black line on the map.



When the waypoint is reached, the black line in the area of the previous leg is deleted. The part of the leg still to go remains visible as a black line.



PLN

If the complete flightplan is to be shown on the map, this can be activated by pressing the PLN key. It is then shown as a gray line.

When flying according to the flightplan, the leg still to be flown is shown as a black line.

The gray line remains visible in the area of the previous flight leg up to the last waypoint overflown.

PLN

Pressing the PLN key again deactivates the display of the gray line.



Manual selection of the map position in the active flightplan

When flying according to the flightplan, a waypoint can be graphically shown on the map and appended to the flightplan.

MAP

Press MAP key to activate the manual selection of map position function.

The indicating cross is always placed on the present position of the aircraft.







Use the outer (right-left) or inner (top-bottom) rotary switch to place the indicating cross on the required position.



PLN

Press the PLN key to append the selected position to the flightplan as a waypoint.

The extended black line now shown to this new waypoint is confirmation that the waypoint has been saved.

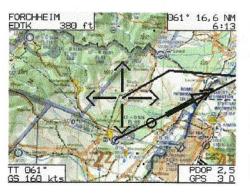




NOTE:

The name of the waypoint is automatically assigned (e.g. MWP 004). The number represents the position of the waypoint as a series in the flightplan.

Further waypoints can be included. To do this proceed as follows:





Use the outer or inner rotary switch to place the indicating cross on a new position.



Press the PLN key to append the waypoint to the flightplan.



Pressing the MAP key again ends the manual selection of the map position.



Append part of a previously-saved flightplan

If a waypoint of a flightplan (e.g. FPL 001) is to be appended to the new flightplan using the PLN key or the menu "append to flightplan", all other waypoint of this original flightplan (e.g. FPL 001) are then appended and the last waypoint of this flightplan is loaded into the menu and centered on "area".

Example:

Flight plan created so far (FLIGHTPLAN).

offset dist center map on active STANDBY WAYPOINT FPL001 area... AIRPORT group... STUTTGART identifier **FDDS** clear offset. offset bear offset dist --- NM hearing 360° distance 0,0 NM

offset dist --- NM center map on active STANDBY WAYPOINT FPL001 area... AIRPORT group... MUNICH identifier **EDDM** clear offset. offset bear offset dist --- NM bearing 360° distance 0,0 NM



Load the required flightplan (e.g. FPL 001) and select the waypoint to be appended.



Select the "identifier" box using the inner rotary switch.

PLN

Press the PLN key and append the waypoint and all others of the flightplan (e.g. FPL 001).

The last waypoint of this flightplan (FPL 001) is loaded to the menu and centered on "area".

The flightplan expanded by the waypoints from FPL 001.

new flightplan save flightplan load flightplan erase flightplan erase flightplan create user waypoint edit user waypoint delete user waypoint select map... [Day]

Name:	19990222 170855
ID:	WP 0001
Lat:	00°00,0'N
Lon:	000°00, 0'E
Alt:	ft

RETURN.		
Name: ID:	1	WP 0001
Lat: Lon:		48°46,9'N 008°05,8'E
Alt:		433 ft

USER-DEFINED WAYPOINT INPUT

/ Input USER waypoint

ENT Press the ENT key to create a waypoint.

A waypoint, with the actual date and time automatically assigned as a name, has now been created with the present position and GPS altitude details.

ENT Press the ENT key to change the name.

The first letter or first number of a name or numerical code can be selected using the inner rotary switch.

The second letter can be selected using the outer rotary switch and the required letters or numbers using the inner rotary switch.

Fifteen letters or digits are available for the name.

ENT Press the ENT key to end the entry.

RETURN...
Name:
ID:

Lat: Lon: Alt:

ABORT ...

Name: ID:	А	WP 0003
Lat:		48°46,9'N
Lon:		008°05,8'E
Alt:		974 ft

170	Mes			
	ı	P	0004	
	18	°46	5, 9 'N	

784 ft

Name: ID:	А	WP 0005
Lat:		48°46, 9'N
Lon:	MATTER SE	008105,81E
Alt:		397 ft.

ENT Press the ENT key to change the "Latitude" position.

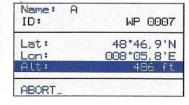
The geographical latitude is entered in the same way as the name.

ENT

Press the ENT key to change the "Longitude" position.

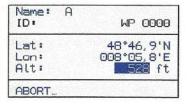
Name: ID:	А	WP 0006
Lat:		48°46, 9'N
Lon:		208°05,8'E
Alt:		400 ft

The geographical longitude is entered in the same way as the name.



ENT

Press the ENT key to change the altitude details.

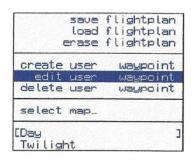




Adjust the inner rotary switch in 100 ft steps and the outer rotary switch in 1000 ft steps to enter the altitude.



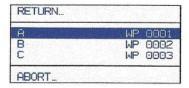
Press the ENT key to end the entry.





ENT

Press the ENT key to change a user waypoint.





Select the required waypoint using the outer or inner rotary switch.



ENT

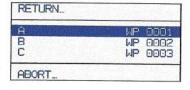
Press the ENT key to be able to change the name and position data.

The change is carried out in the same way as described under " Input USER waypoint".





ENT Press the ENT key to delete a waypoint.





Select the required waypoint using the outer or inner rotary switch.



ENT

Press the ENT key to delete the selected waypoint.

Activate USER waypoint

clear offset bear offset dist center map	offset NM on active
STANDBY	WAYPOINT
area	GERMANY
group. name. identifier	AIRPORT STUTTGART AAF ETOC
clear offset bear offset dist	offset NM



Select the "area" box using the outer or inner rotary switch.



Press the ENT key to change the choice of country.

The USER waypoint and FLIGHTPLAN are also selected here.







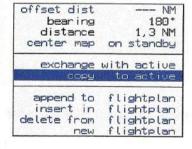
Select USER using the outer or inner rotary switch.



Press the ENT key to confirm the selection.

NM	offset dist
on active	center map
WAYPOINT	STANDBY
USER	area
USER WAYPOINT	group.
XAMPLE	
WP 0001	identifier
offset	clear
•	offset bear
NM	offset dist
318°	bearing .
173 NM	distance

The waypoints can now be selected in the "name" or "identifier" box.





Use the outer or inner rotary switch to select the "copy to active" box.



ENT

Press the ENT key to activate the USER waypoint.



Manual selection of map position

MAP

Press MAP key to activate the manual selection of map position function.

The indicating cross is always placed on the position indicated at the moment in the center of the display.

For example, this can be the active or standby waypoint previously shown centered.



Using the outer (right-left) or inner (top-bottom) rotary switch, place the indicating cross in the required position.

ENT

Press the ENT key to activate the menu.



Use the outer or inner rotary switch to select "create user waypoint".



ENT

Press the ENT key to save the position selected by the indicating cross as a user waypoint.

The user waypoint is entered in the same way as described under " Input USER waypoint".

MAP

Pressing the MAP key again ends the manual selection of the map position.

115 Soufflen-

Input USER waypoint with the ESC key

Function software V 3.26a upwards

ESC

BADEN

Press the ESC key to create a waypoint (only possible if no menu is activated).



A waypoint, with the actual date and time automatically assigned as a name, has now been created with the present position and GPS altitude details.

The user waypoint is entered in the same way as described under " Input USER waypoint".

ADDITIONAL FUNCTIONS

Additional functions can be configured as required by an authorized service organization.

erase flightplan create user waypoint edit user waypoint delete user waypoint select map... [Day] Twilight Night ABORT...



Map selection

Select the "select map" box using the outer or inner rotary switch.



ENT

Press the ENT key to change to the map selection.

RETURN...

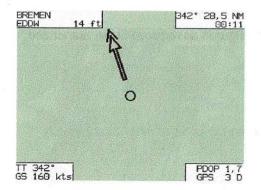
| Serman | 1:500k] | serman | 1:750k | serman | 1:1000k | PHuSt L7512 | 1:50k | ABORT...

All available maps on the hard disk are now displayed. Maps in blue script are valid for the present location.

The map name in the square brackets is activated.

ENT

Press the ENT key to call up the selected map.



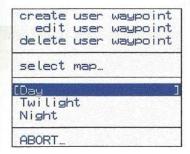


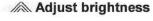
NOTE:

If no map is available for the present position, the background remains gray.

ESC

Any position in the menu can be exited directly without the selection being confirmed by pressing the ESC key (Abort).







The brightness of the display can also be adjusted in the menu, as an alternative to the dimmer switch (ON-OFF switch), either immediately after the initial screen display appears or on a renewed call up of the menu.



Select the "Day, Twilight or Night" box using the outer or inner rotary switch.



Press the ENT key to confirm the selection.







BREMEN 14 ft 384 269° 129 NM GG:48 Wittstock Wittstock Viristock Congesterg Congester

Activate the Direct to - indication



When the -D> key is pressed, a line is displayed from the present position to the activated navigation point.



CAUTION!

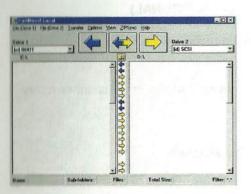
With "Direct to" routes the height profile of the terrain and the airspace structure must be precisely observed in advance.



If the flight direction arrow and the Direct to - line are pointing in the same direction, the aircraft is on a direct path to the navigation point (waypoint). The small delta arrow is no longer visible.



Pressing the \rightarrow key again deactivates the Direct to - line. The small delta arrow is now visible again.



A Connecting the AIRSCOUT to a PC

Both computers, the AIRSCOUT and the PC, are connected to each other via the parallel interface by means of a laplink cable.

The "FASTMOVE Local" program must be called up on the PC.

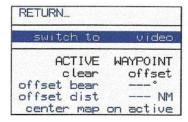




Switch on the AIRSCOUT. After the display appears directly after starting, select "Update Software" using the inner rotary switch.



Start the remote version of the FASTMOVE program on the AIRSCOUT using ENT. Both computers are now connected to each other. Data can be transferred from the PC to the AIRSCOUT and vice versa.



Activation of the video input (OPTIONAL)

ENT

Press the ENT key to activate the menu choice.



Select the "switch to video" by means of the outer or inner rotary switch.

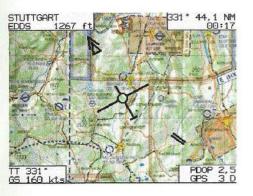
Press the ENT key to confirm the selection.

Pictures of the video source

ENT

Press the ENT key to return to the map display.



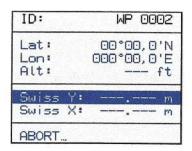


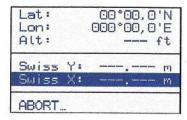
Flightpath recording (OPTIONAL)

The flightpath for the previous four minutes is shown as a colored line.

Aircraft symbol (OPTIONAL)

The aircraft symbol as a substitute for the flight direction arrow.





If the SWISS GRID option is activated, the user waypoint can also be shown and entered in the Swiss grid.

The Swiss grid is input in the same way as the name.

TECHNICAL DATA

General Data

Power supply 27.5 V DC nominal

20.0 V emergency operation

Power consumption ca.1000 mA

System data main unit

- CPU 64-bit or higher

- Hard Disk 2 GB or greater

Operating system DOS compatible system

- Parallel port

- Ethernet interface

- Watch dog If data communication between

GPS receiver and CPU is interrupted for moore than 30 seconds, the system

automatically reboots

Update rate for position, speed and course over ground

5 Hz

CD 522 - () 5.1"

Video input

NTSC video signal

CD 521 - () 6.4"

Video input

NTSC / PAL video signal

Accessories CU 519 - ()

SRAM card

P/N: 0524.514-956

REPAIR NOTES



If an equipment fault occurs, consult the nearest BECKER works representative, dealer or the BECKER Product Support Department. A short description of the fault reduces the repair times and, therefore, the generated cost.

These Operating Instruction do not replace the Component Manuals listed in the following.

DOCUMENTATION

Obtainable from the manufacturer or BECKER Works Representatives :

System manual englisch DV 60714.03 Order No.: 522.554-071

Operating Instructions german Order No.: 524,433-071
Operating Instructions englisch Order No.: 524,441-071

Quick reference Order No.: 524.451-071



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