I'll take you through a quick circuit and ILS landing at KVBG (Vandenberg AFB), not using the CDU/FMC:

- 1. Get the 737 loaded up on runway 30 at KVBG. Set flaps 5 and set the autobrake to RTO
- 2. Set your desired climb speed into the 'IAS/MACH' window using the knob below it. I have set it to 220 knots in this example
- 3. Set the runway heading into the 'HEADING' window, using the knob below it. I have set it to 303 degrees
- 4. Set the altitude you wish to initially climb to in the 'ALTITUDE' window, using the knob below it. I have set it to 5000 feet
- 5. Enable the autothrottle using the A/T ARM switch
- 6. Enable the flight director using the F/D switch



- 7. Click on the screw to the left of the A/T ARM switch. That will activate takeoff thrust
- 8. Carry out takeoff in the usual way
- 9. Once you have climbed above 1000ft AGL, reached 220 knots and retracted the undercarriage (retract the flaps in the usual manner), engage the autopilot by pressing the CMD A button shown below



10. Now engage 'HDG SEL' and 'LVL CHG'. Heading select will hold the heading you have chosen (303) and level change will tell the aircraft to climb to 5000ft using the highest vertical speed it can, whilst holding the speed in the IAS/MACH window (220)



- 11. You can now take your hands off the controls, the aircraft is flying itself!
- 12. We want to carry out a circuit, so once you've reached 3000ft, change the heading to 213 degrees. The autopilot will then turn the aircraft left onto that heading
- 13. When you've reached 5000ft, the aircraft will level out and the SPEED switch will light up, and you can now change the speed you wish to hold up to 240 knots

- 14. You should now be a few miles out from KVBG, so turn another 90 degrees to the left, changing the heading to 123 degrees
- 15. Look to your left and you should see KVBG. You should be flying parallel to the runway (in the opposite direction to when you took off)
- 16. Now we'll tune in the ILS frequency/course. Open the radio/centre pedestal
- 17. The second radio down on the left is the NAV radio. It has two windows, 'AUTO' and 'MANUAL'
- 18. Click on the AUTO/MANUAL button below these two windows. It will switch from AUTO to MANUAL. The AUTO window will empty and the MANUAL window will become active (the orange line will disappear)



- 19. Now use the white knob to change the frequency to 110.10. This is the ILS frequency for Vandenberg's runway 30
- 20. Close the radio panel. Now set the ILS course, using the knob below the COURSE window on the autopilot panel. Set the course to 303
- 21. The PFD should now look similar to this. Take note of the magenta indicators along the right and bottom, indicating the glideslope and localiser

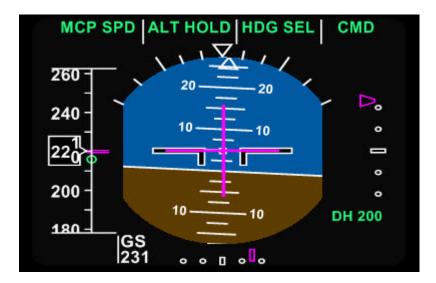


22. Once the beginning of runway 30 is in your eight o'clock, lower the SPEED to 220 knots

23. Now set to ALTITUDE to 3000ft and click on LVL CHG. This will commence a descent to 3000ft, holding 220 knots



- 24. Arm the speedbrake by pressing shift+/ and set to autobrake to setting 2
- 25. Change the heading 90 degrees to the left again, to 33 degrees
- 26. Once you have reached 3000ft and the mountain range to your left has been passed, change your heading to 333 degrees
- 27. You should now intercept the localiser, as shown by the indicator on the PFD

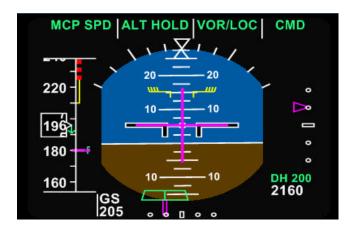


28. When the magenta indicator along the bottom of the PFD has started to move from the far right, into the centre, press the VOR LOC button



- 29. The aircraft should now start to turn left to line up with the runway
- 30. Reduce your speed to 170 knots and lower the undercarriage
- 31. As the speed comes back, start lowering the flap in the usual manner

32. Quite quickly the magenta glideslope indicator will start to move from the upper most mark, down to the middle mark



33. When it reaches the second mark from the top (as shown above) press the APP button, followed by the CMD B button (to the right of CMD A)



- 34. Lower the speed to 140 knots and continue extending the flaps
- 35. By the time you reach 1400 feet, your cockpit should resemble the one shown below



- 36. If the aircraft is correctly configured for an autoland, the PFD should have the annunciations MCP SPD, G/S, FLARE, VOR/LOC and CMD present at the top
- 37. Upon touchdown, hold down the F2 key to engage reverse thrust. The autobrakes should kick in and you should be brought to a stop