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Opencockpits

Manual NAV B737 Panel IDC.

Index:

Introduction:

B737 NAV panel with IDC connection. Mounted in sandwich format (8mm height) professionaly painted and engraved.

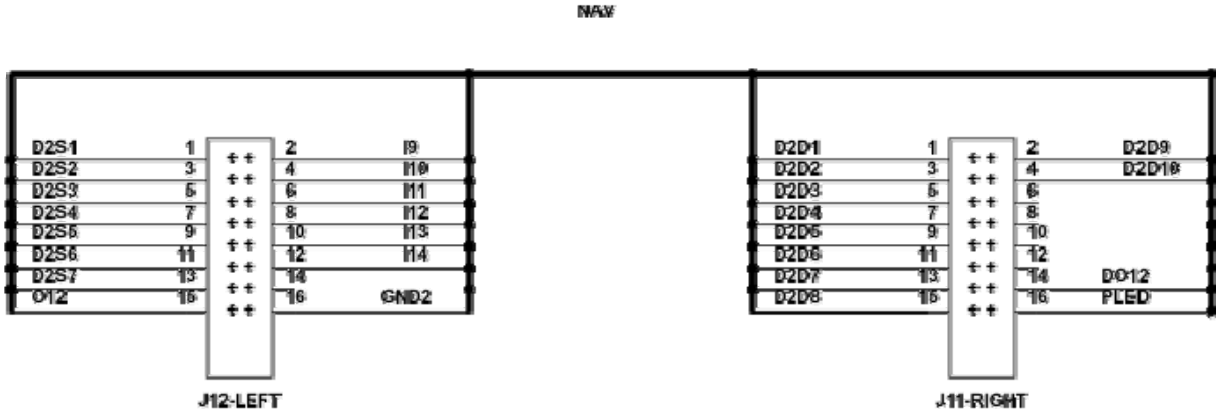
This panel is designed to connect it directly with an I/O card like the Master or PCB Pedestal.

The panel has operative the following components:

- TEST & TFR buttons.
- High precission double encoder.
- 7-Segment digits displays.

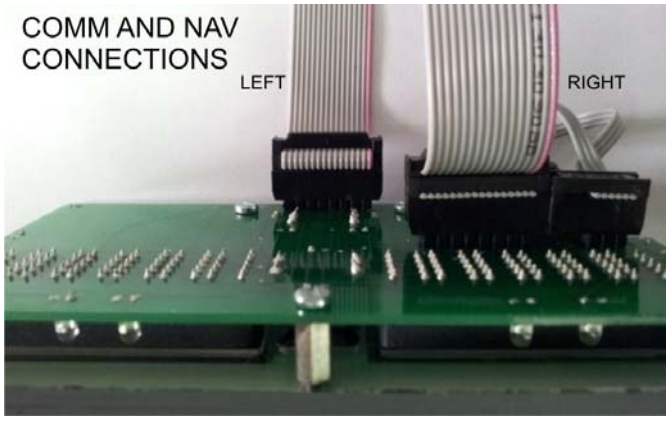
Wiring NAV:

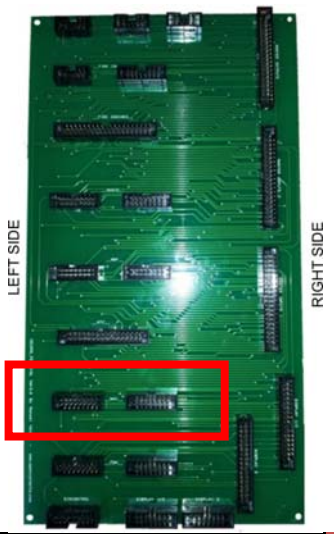
NAV B737 IDC connectors can be plugged to any I/O card and to Pedestal PCB using 16 contacts IDC connectors:



The names of the connectors on the PCB panel and the pedestal are the following:

PANEL IDC	PCB PEDESTAL
J3	J12
J2	J11





Description of connectors NAV captain:

Captain's side NAV is connected to PCB Pedestal 1 (Master nº1).

J12 CONNECTOR LEFT	J11 CONNECTOR RIGHT
Inputs 9-10 = Encoder decimals. Input 11-12 = Encoder integers. Input 13 = Test button. Input 14 = TFR button (swap). Output 12 = Decimal dot. D2S1 = output 16, Digit 1 frequency active. D2S2 = output 17, Digit 2 frequency active. D2S3 = output 18, Digit 3 frequency active. D2S4 = output 19, Digit 4 frequency active. D2S5 = output 20, Digit 5 frequency active. D2S6 = output 21, Digit 1 frequency standby. D2S7 = output 22, Digit 2 frequency standby. GND2 = COMMON or GND.	D2D1 = output 23, Digit 3 frequency standby. D2D2 = output 24, Digit 4 frequency standby. D2D3 = output 25, Digit 5 frequency standby. D2D4 = No active. D2D5 = No active. D2D6 = No active. D2D7 = No active. D2D8 = No active. D2D9 = No active. D2D10 = No active. DO12 = Negative for backlight. PLED = Positive for backlight. It takes 2.5 volts to 2.9 volts. ¡ActiveWarning: may burn more voltage backlight!

Description of connectors NAV first officer:

First officer NAVis connected to PCB Pedestal 2 (Master nº2).

J12 CONNECTOR LEFT	J11 CONNECTOR RIGHT
Inputs 81-82 = Encoder decimals. Input 83-84 = Encoder integers. Input 85 = Test button. Input 86 = TFR button (swap). Output 76 = Decimal dot. D2S1 = output 80, Digit 1 frequency active. D2S2 = output 81, Digit 2 frequency active. D2S3 = output 82, Digit 3 frequency active. D2S4 = output 83, Digit 4 frequency active. D2S5 = output 84, Digit 5 frequency active. D2S6 = output 85, Digit 1 frequency standby. D2S7 = output 86, Digit 2 frequency standby. GND2 = COMMON or GND.	D2D1 = output 87, Digit 3 frequency standby. D2D2 = output 88, Digit 4 frequency standby. D2D3 = output 89, Digit 5 frequency standby. D2D4 = No active. D2D5 = No active. D2D6 = No active. D2D7 = No active. D2D8 = No active. D2D9 = No active. D2D10 = No active. DO12 = Negative for backlight. PLED = Positive for backlight. It takes 2.5 volts to 2.9 volts. ¡ActiveWarning: may burn more voltage backlight!

The USBDimcontrol card is recommended. It is also recommended to use 3 volt power for the backlight.

Declaration of inputs and outputs panel NAV IDC:

To declare variables of inputs and outputs must use the following format (the list belongs to the pedestal's definition file of Opencockpits pedestal).

// DIGITS NAV
Var 108, name NV1ACT, Link IOCARD_DISPLAY, DEVICE X, Digit 16, Numbers 5
Var 110, name NV1STBY, Link IOCARD_DISPLAY, DEVICE X, Digit 21, Numbers 5
Var 112, name NV2ACT, Link IOCARD_DISPLAY, DEVICE X, Digit 80, Numbers 5
Var 114, name NV2STBY, Link IOCARD_DISPLAY, DEVICE X, Digit 85, Numbers 5

// OUTPUTS NAV
Var 204, name NAV1DOT, Link IOCARD_OUT, DEVICE X, Output 12 // NAV 1 DECIMAL DOT
Var 206, name NAV2DOT, Link IOCARD_OUT, DEVICE X, Output 76 // NAV 2 DECIMAL DOT

// ROTARY ENCODERS NAV
Var 358, name E_NAV1DEC, Link IOCARD_ENCODER, DEVICE X, Input 9, Aceleration 1, Type 2 // NAV 1 ENCODER DECIMAL
Var 360, name E_NAV1ENT, Link IOCARD_ENCODER, DEVICE X, Input 11, Aceleration 1, Type 2 // NAV 1 ENCODER ENTEROS/INTEGER
Var 362, name E_NAV2DEC, Link IOCARD_ENCODER, DEVICE X, Input 81, Aceleration 1, Type 2 // NAV 2 ENCODER DECIMAL
Var 364, name E_NAV2ENT, Link IOCARD_ENCODER, DEVICE X, Input 83, Aceleration 1, Type 2 // NAV 2 ENCODER ENTEROS/INTEGER

// SWITCHES NAV
Var 408, name S_NAV1TST, Link IOCARD_SW, DEVICE X, Input 13
Var 410, name S_NAV2TST, Link IOCARD_SW, DEVICE X, Input 85
Var 412, name S_NAV1SWP, Link IOCARD_SW, DEVICE X, Input 14
Var 414, name S_NAV2SWP, Link IOCARD_SW, DEVICE X, Input 86

With this we end this manual, we invite you to read the manuals for the other elements of Opencockpits and SIOC software and we thank you for trusting us.

Links of interest:

Customer Support Zone:

http://www.opencockpits.com/catalog/info/