



# ASPIRE-350 MAINTENANCE INTERFACE PANEL

**QUICK REFERENCE GUIDE**  
(version 1.0)



## Maintenance Panel Overview:

The Aspire-350 Maintenance Interface Panel (MIP) is a rack mounted unit with the ability to break out every interface available on the *Honeywell* Aspire-350 system. The unit fits into a standard 19” rack with a 3RU height. It gets powered by a built-in 24VDC power supply capable of driving 5 amps.

## Equipment Part Numbers:

Description	Part Number
Aspire-350 MIP	DB10-1395-01

## Incorporated Features:

Option	Included
ARINC 429 transmit	2 paralleled channels
Internal GPS	Yes
Internal compass	Yes
CEPT ports	CEPT 1
ISDN ports	No
FX ports	No
Ethernet pass-through ports	7
USB pass-through ports	0
Console RS232 ports	PANEL MAINT
Keyed TX disable	No
Front I/O connector	Yes
External LRU power input	Yes
Ethernet Control	Yes

## User Interface Firmware:

The Maintenance Interface Panel runs using our proprietary firmware package named *Obsidian-Plus*. Consult the *Obsidian-Plus* user’s manual for specific information on using this panel’s touchscreen interface.

## Application Programming Interface:

The Maintenance Interface Panel incorporates an API to remotely control most functions that are capable through the touchscreen. Consult the *Obsidian-Plus* API user manual for specific information on using this panel’s interface.

**Default Power Button Configuration:**

Power Button Name:	Function:
SDU	External power to J3 - pin 37 External power to J3 - pin 45 External power to J3 - pin 46 External power to J3 - pin 53  External power to J101 - pin 28 External power to J101 - pin 31
Accessory	External power to J4 - pin 4 External power to J4 - pin 5

**Default Discrete Out Button Configuration:**

Discrete Out Number:	Pin:	Name:	Function:	Icon Image	Icon State
1	J3 - pin 22	DUAL SYS SELECT	“GROUNDED” = Grounded “OPEN” = Open	X	X
2	J3 - pin 14	DUAL SYS DISABLE	“GROUNDED” = Grounded “OPEN” = Open	X	X
3	J3 - pin 7	WOW	“GROUNDED” = Grounded “OPEN” = Open	WOW	LO
4	J3 - pin 2	TX MUTE	“ENABLED” = Grounded “DISABLED” = Open	TX MUTE	LO
5	J3 - pin 8	DATA LOAD SECURITY	“STRAPPED” = Grounded “OPEN” = Open	X	X
6	J3 - pin 24	DATA LOAD LINK	“STRAPPED” = Grounded “OPEN” = Open	X	X
7	J3 - pin 4	FD DATA LOAD	“STRAPPED” = Grounded “OPEN” = Open	X	X
8	J3 - pin 9	SDU RESET	“GROUNDED” = Grounded “OPEN” = Open	X	X
9	J3 - pin 5	SYS CONF 2	“STRAPPED” = Grounded “OPEN” = Open	X	X
10	J3 - pin 6	SYS CONF 3	“STRAPPED” = Grounded “OPEN” = Open	X	X
11	J3 - pin 1	SYS CONF 4	“STRAPPED” = Grounded “OPEN” = Open	X	X
12	J3 - pin 15	SYS CONF 5	“STRAPPED” = Grounded “OPEN” = Open	X	X
13	J3 - pin 16	CALL #1	“GROUNDED” = Grounded “OPEN” = Open	X	X
14	J3 - pin 3	CALL #2	“GROUNDED” = Grounded “OPEN” = Open	X	X
15	J3 - pin 17	CHIME RESET	“GROUNDED” = Grounded “OPEN” = Open	X	X

### Default Discrete In Button Configuration:

Discrete In Number:	Pin:	Name:	Function:	Icon Image	Icon State
1	J1 - pin 10	CHIME #1	“GROUNDED” = Grounded “OPEN” = Open	X	X
2	J1 - pin 4	CALL LIGHT #1	“GROUNDED” = Grounded “OPEN” = Open	X	X
3	J1 - pin 8	CALL LIGHT #2	“GROUNDED” = Grounded “OPEN” = Open	X	X

### Panel Pinout Overview:

The next sections show all of the pinouts for the Maintenance Interface Panel. Items highlighted in yellow indicate a direct pass-through to the J101 connector. The pin designations are configurable through a loadable file; therefore, the pins may be used for any actual signals as desired. The ones listed here are suggested or named by default. Each signal must be below a maximum of 1 ampere each.

### Panel J1 Connector Pinouts:

J1, 57 pin female CPC TE Connectivity, P/N: 1-796329-1  <u>Mates With:</u> TE Connectivity, P/N: 206437-1 Pin P/N: M39029/64-369 pins  <u>Backshell:</u> TE Connectivity, P/N: 182930-1			
Pin 1	No Connection	Pin 13	No Connection
Pin 2	No Connection	Pin 14	No Connection
Pin 3	Discrete 5 Input (from SDU)	Pin 15	A429 ADL TX 1A (J101, pin 25)
Pin 4	Discrete 3 Input (from SDU)	Pin 16	A429 ADL TX 1B (J101, pin 2)
Pin 5	No Connection	Pin 17	Ground (J101, pin 17)
Pin 6	No Connection	Pin 18	No Connection
Pin 7	No Connection	Pin 19	No Connection
Pin 8	Discrete 4 Input (from SDU)	Pin 20	No Connection
Pin 9	Discrete 2 Input (from SDU)	Pin 21	No Connection
Pin 10	Discrete 1 Input (from SDU)	Pin 22	No Connection
Pin 11	No Connection	Pin 23	Ground
Pin 12	No Connection	Pin 24	A429 GNSS RX 1A (J101, pin 8)

<b>J1, 57 pin female CPC</b> TE Connectivity, P/N: 1-796329-1  <b>Mates With:</b> TE Connectivity, P/N: 206437-1 Pin P/N: M39029/64-369 pins  <b>Backshell:</b> TE Connectivity, P/N: 182930-1			
Pin 25	A429 GNSS RX 1B (J101, pin 3)	Pin 41	No Connection
Pin 26	Forward ISDN 2 Port, Pin 4	Pin 42	No Connection
Pin 27	Forward ISDN 1 Port, Pin 4	Pin 43	No Connection
Pin 28	Forward ISDN 4 Port, Pin 4	Pin 44	No Connection
Pin 29	Forward ISDN 3 Port, Pin 4	Pin 45	No Connection
Pin 30	Ground	Pin 46	No Connection
Pin 31	Ground	Pin 47	No Connection
Pin 32	A429 ADL RX 1A (J101, pin 10)	Pin 48	No Connection
Pin 33	A429 ADL RX 1B (J101, pin 4)	Pin 49	Forward CEPT-E1 1 Port, Pin 1
Pin 34	No Connection	Pin 50	Forward CEPT-E1 1 Port, Pin 2
Pin 35	No Connection	Pin 51	Forward CEPT-E1 1 Port, Pin 6
Pin 36	No Connection	Pin 52	No Connection
Pin 37	No Connection	Pin 53	No Connection
Pin 38	No Connection	Pin 54	No Connection
Pin 39	No Connection	Pin 55	Forward CEPT-E1 1 Port, Pin 3
Pin 40	No Connection	Pin 56	No Connection
		Pin 57	No Connection

### Panel J2 Connector Pinouts:

<b>J2, 28 pin female CPC</b> TE Connectivity, P/N: 206038-1  <b>Mates With:</b> TE Connectivity, P/N: 206039-1 Pin P/N: M39029/64-369 pins  <b>Backshell:</b> TE Connectivity, P/N: 182661-1			
Pin 1	Pilot PTT (SDU extended) (J101, pin 50)	Pin 5	Pilot Audio A (SDU extended) (J101, pin 49)
Pin 2	Copilot PTT (SDU extended) (J101, pin 55)	Pin 6	Pilot Audio B (SDU extended) (J101, pin 51)
Pin 3	Pilot Mic A (SDU extended) (J101, pin 48)	Pin 7	Copilot Mic A (SDU extended) (J101, pin 40)
Pin 4	Pilot Mic B (SDU extended) (J101, pin 42)	Pin 8	Copilot Mic B (SDU extended) (J101, pin 47)

<b>J2, 28 pin female CPC</b> <b>TE Connectivity, P/N: 206038-1</b>  <b>Mates With:</b> <b>TE Connectivity, P/N: 206039-1</b> <b>Pin P/N: M39029/64-369 pins</b>  <b>Backshell:</b> <b>TE Connectivity, P/N: 182661-1</b>			
Pin 9	Copilot Audio A (SDU extended) (J101, pin 35)	Pin 19	Ground
Pin 10	Copilot Audio B (SDU extended) (J101, pin 43)	Pin 20	A429 CFDS TX 1A (SDU extended) (J101, pin 57)
Pin 11	Ground	Pin 21	A429 CFDS TX 1B (SDU extended) (J101, pin 20)
Pin 12	AES ID RX-A (SDU extended) (J101, pin 41)	Pin 22	Ground (J101, pin 26)
Pin 13	AES ID RX-B (SDU extended) (J101, pin 54)	Pin 23	No Connection
Pin 14	A429 CFDS RX 1A (SDU extended) (J101, pin 53)	Pin 24	No Connection
Pin 15	A429 CFDS RX 1B (SDU extended) (J101, pin 13)	Pin 25	No Connection
Pin 16	Ground	Pin 26	No Connection
Pin 17	Ground	Pin 27	No Connection
Pin 18	Ground	Pin 28	No Connection

### Panel J3 Connector Pinouts:

<b>J3, 63 pin male CPC</b> <b>TE Connectivity, P/N: 206455-2</b>  <b>Mates With:</b> <b>TE Connectivity, P/N: 205842-1</b> <b>Pin P/N: M39029/63-368 pins</b>  <b>Backshell:</b> <b>TE Connectivity, P/N: 182930-1</b>			
Pin 1	Discrete 11 Switched Lo (to SDU)	Pin 11	ARINC 429 TX 1B (to SDU)
Pin 2	Discrete 4 Switched Lo (to SDU)	Pin 12	ARINC 429 RX 1A (SDU extended) (J101, pin 5)
Pin 3	Discrete 14 Switched Lo (to SDU)	Pin 13	Ground
Pin 4	Discrete 7 Switched Lo (to SDU)	Pin 14	Discrete 2 Switched Lo (to SDU)
Pin 5	Discrete 9 Switched Lo (to SDU)	Pin 15	Discrete 12 Switched Lo (to SDU)
Pin 6	Discrete 10 Switched Lo (to SDU)	Pin 16	Discrete 13 Switched Lo (to SDU)
Pin 7	Discrete 3 Switched Lo (to SDU)	Pin 17	Discrete 15 Switched Lo (to SDU)
Pin 8	Discrete 5 Switched Lo (to SDU)	Pin 18	ARINC 429 TX 2A (to SDU)
Pin 9	Discrete 8 Switched Lo (to SDU)	Pin 19	ARINC 429 TX 2B (to SDU)
Pin 10	ARINC 429 TX 1A (to SDU)	Pin 20	ARINC 429 RX 1B (SDU extended) (J101, pin 6)

<p style="text-align: center;"><b>J3, 63 pin male CPC</b>  <b>TE Connectivity, P/N: 206455-2</b></p> <p style="text-align: center;"><b>Mates With:</b>  <b>TE Connectivity, P/N: 205842-1</b>  <b>Pin P/N: M39029/63-368 pins</b></p> <p style="text-align: center;"><b>Backshell:</b>  <b>TE Connectivity, P/N: 182930-1</b></p>			
Pin 21	Ground	Pin 42	Ground
Pin 22	Discrete 1 Switched Lo (to SDU)	Pin 43	Ground
Pin 23	Ground	Pin 44	Ground (J101, pin 36)
Pin 24	Discrete 6 Switched Lo (to SDU)	Pin 45	Switched Power (channel 1)
Pin 25	Discrete 16 Switched Lo (to SDU)	Pin 46	Switched Power (channel 1)
Pin 26	No Connection	Pin 47	Ground
Pin 27	No Connection	Pin 48	A429 MCDU RX 2A (SDU extended) (J101, pin 32)
Pin 28	Ground	Pin 49	A429 MCDU RX 1B (SDU extended) (J101, pin 1)
Pin 29	Ground	Pin 50	Ground
Pin 30	Ground	Pin 51	A429 MCDU RX 2A (SDU extended) (J101, pin 45)
Pin 31	Ground	Pin 52	A429 MCDU RX 2B (SDU extended) (J101, pin 44)
Pin 32	Ground	Pin 53	Switched Power (channel 1)
Pin 33	Ground	Pin 54	A429 MCDU RX 3A (SDU extended) (J101, pin 16)
Pin 34	Ground	Pin 55	A429 MCDU RX 3B (SDU extended) (J101, pin 24)
Pin 35	A-sync RS232 1 TX (to SDU)	Pin 56	A429 MCDU TX 1A, 2A, 3A (SDU extended) (J101, pin 7)
Pin 36	A-sync RS232 1 RX (from SDU)	Pin 57	A429 MCDU TX 1B, 2B, 3B (SDU extended) (J101, pin 39)
Pin 37	Switched Power (channel 1)	Pin 58	A429 CMU RX 1A (SDU extended) (J101, pin 52)
Pin 38	Ground	Pin 59	A429 CMU RX 1B (SDU extended) (J101, pin 56)
Pin 39	Ground	Pin 60	A429 CMU RX 2A (SDU extended) (J101, pin 15)
Pin 40	Ground	Pin 61	A429 CMU RX 2B (SDU extended) (J101, pin 14)
Pin 41	Ground	Pin 62	A429 CMU TX 1A, 2A (SDU extended) (J101, pin 33)

<p><b>J3, 63 pin male CPC</b> TE Connectivity, P/N: 206455-2</p> <p><b>Mates With:</b> TE Connectivity, P/N: 205842-1 Pin P/N: M39029/63-368 pins</p> <p><b>Backshell:</b> TE Connectivity, P/N: 182930-1</p>	
Pin 63	A429 CMU TX 1B, 2B (SDU extended) (J101, pin 46)

### Panel J4 Connector Pinouts:

<p><b>J4, 9 pin male CPC</b> TE Connectivity, P/N: 206486-1</p> <p><b>Mates With:</b> TE Connectivity, P/N: 206485-1 Pin P/N: M39029/63-368 pins</p> <p><b>Backshell:</b> TE Connectivity, P/N: 1-206062-6</p>			
Pin 1	No Connection	Pin 5	Switched Power (channel 2)
Pin 2	No Connection	Pin 6	Ground
Pin 3	Ground	Pin 7	No Connection
Pin 4	Switched Power (channel 2)	Pin 8	No Connection
		Pin 9	Ground

### Panel J101 Connector Pinouts:

<p><b>J101, 57 pin female CPC</b> TE Connectivity, P/N: 1-796329-1</p> <p><b>Mates With:</b> TE Connectivity, P/N: 206437-1 Pin P/N: M39029/64-369 pins</p> <p><b>Backshell:</b> TE Connectivity, P/N: 182930-1</p>			
Pin 1	A429 MCDU RX 1B (SDU extended)	Pin 10	A429 ADL RX 1A
Pin 2	A429 ADL TX 1B	Pin 11	No Connection
Pin 3	A429 GNSS RX 1B	Pin 12	No Connection
Pin 4	A429 ADL RX 1B	Pin 13	A429 CFDS RX 1B (SDU extended)
Pin 5	A429 SPARE RX 1A	Pin 14	A429 CMU RX 2B (SDU extended)
Pin 6	A429 SPARE RX 1B	Pin 15	A429 CMU RX 2A (SDU extended)
Pin 7	A429 MCDU TX 1A, 2A, 3A (SDU extended)	Pin 16	A429 MCDU RX 3A (SDU extended)
Pin 8	A429 GNSS RX 1A	Pin 17	Ground
Pin 9	No Connection	Pin 18	No Connection



**J101, 57 pin female CPC  
TE Connectivity, P/N: 1-796329-1**

**Mates With:  
TE Connectivity, P/N: 206437-1  
Pin P/N: M39029/64-369 pins**

**Backshell:  
TE Connectivity, P/N: 182930-1**

Pin 19	No Connection	Pin 38	Ground
Pin 20	A429 CFDS TX 1B (SDU extended)	Pin 39	A429 MCDU TX 1B, 2B, 3B (SDU extended)
Pin 21	Ground	Pin 40	Copilot Mic A (SDU extended)
Pin 22	Ground	Pin 41	AES ID RX-A (SDU extended)
Pin 23	Ground	Pin 42	Pilot Mic B (SDU extended)
Pin 24	A429 MCDU RX 3B (SDU extended)	Pin 43	Copilot Audio B (SDU extended)
Pin 25	A429 ADL TX 1A	Pin 44	A429 MCDU RX 2B (SDU extended)
Pin 26	Ground	Pin 45	A429 MCDU RX 2A (SDU extended)
Pin 27	No Connection	Pin 46	A429 CMU TX 1B, 2B (SDU extended)
Pin 28	Switched Power (channel 1)	Pin 47	Copilot Mic B (SDU extended)
Pin 29	Ground	Pin 48	Pilot Mic A (SDU extended)
Pin 30	Ground	Pin 49	Pilot Audio A (SDU extended)
Pin 31	Switched Power (channel 1)	Pin 50	Pilot PTT (SDU extended)
Pin 32	A429 MCDU RX 1A (SDU extended)	Pin 51	Pilot Audio B (SDU extended)
Pin 33	A429 CMU TX 1A, 2A (SDU extended)	Pin 52	A429 CMU RX 1A (SDU extended)
Pin 34	No Connection	Pin 53	A429 CFDS RX 1A (SDU extended)
Pin 35	Copilot Audio A (SDU extended)	Pin 54	AES ID RX-B (SDU extended)
Pin 36	Ground	Pin 55	Copilot PTT (SDU extended)
Pin 37	Ground	Pin 56	A429 CMU RX 1B (SDU extended)
		Pin 57	A429 CFDS TX 1A (SDU extended)



**Contact Us:**

Please feel free to contact us if you need any additional help with the operation of this device.

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