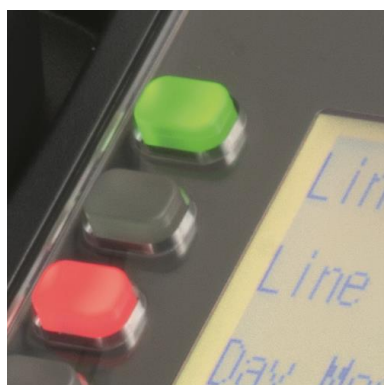
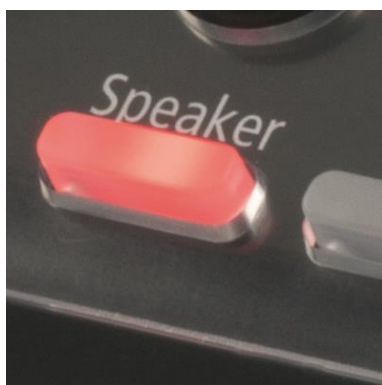
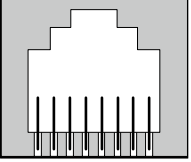


The SL2100 & SV9100 Install Guide: Connecting to the RJ61 Interfaces



This guide explains the connections to the RJ61 interfaces of the SL2100 and SV9100 Telephone Systems including the exchange line and telephone connections.

The SL2100 & SV9100 have RJ45 sockets that use the RJ61 connections to provide multiple ports per socket.

Trunk / Extension RJ45 socket	Pin No.	RJ61 connection for each port	RJ45 Colour code
 87654321	1	4	White/Orange
	2	3	Orange/White
	3	2	White/Green
	4	1	Blue/White
	5	1	White/Blue
	6	2	Green/White
	7	3	White/Brown
	8	4	Brown/White

Further information is available on BusinessNet

SL2100

businessnet.nec-enterprise.com/Products/Communication-Servers/SL2100

SV9100

businessnet.nec-enterprise.com/Products/Communication-Servers/SV9100

Please keep all information supplied for future reference.

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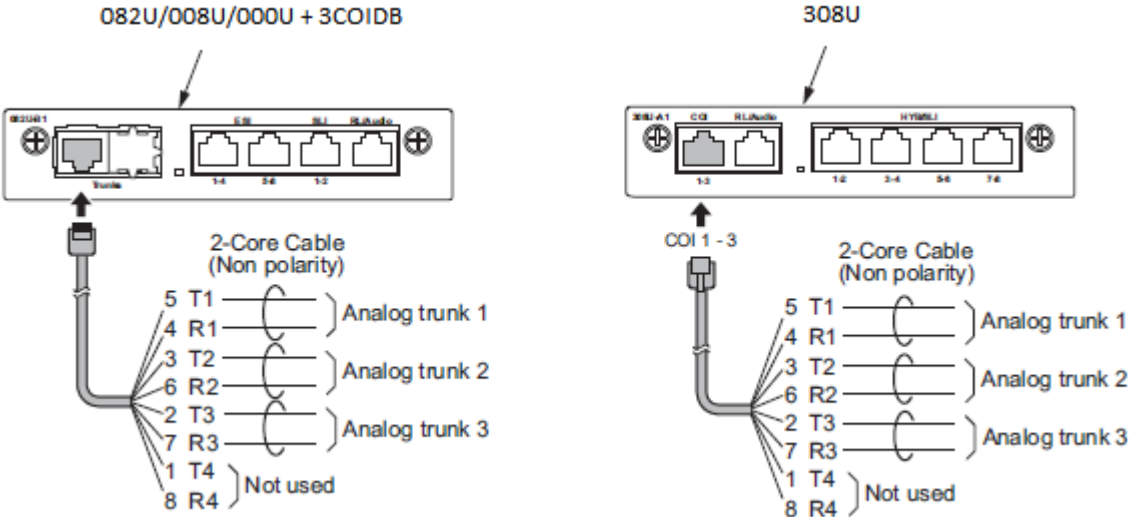
SL2100**Parts available for the SL2100 that have RJ61 interfaces**

Code	Description	
BE116510	IP7WW-3COIDB-C1	Analogue trunk daughter card
BE116505	IP7WW-308U-A1	3 Analogue trunk plus 8 Hybrid Extension (2 wire analogue SLT or 4 wire digital) extension card
BE116506	IP7WW-082U-B1	8 Digital Extension (2wire) and 2 SLT extension card
BE116507	IP7WW-008U-C1	8 Hybrid Extension (2 wire analogue SLT or 4 wire digital) extension card

Please refer to the SL2100 Quick Install Guides or the SL2100 Hardware Manual for a full description and installation instructions of all parts available.

Refer to Prophix for all parts available in your region.

1- SL2100 Connect the Exchange Lines



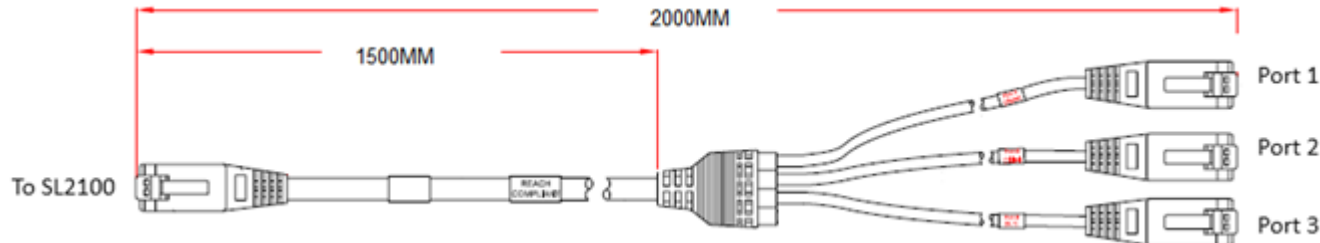
Analogue Trunk	Trunk port allocation
CO 1	Trunk port 1
CO 2	Trunk port 2
CO 3	Trunk port 3

RJ61 Connections

There are several methods available to connect these interfaces into the customer's building infrastructure.

1. Use the cable assembly or adapter available from NEC

Cable LPNEC3 – 2m length, converts a four port RJ45 socket to four RJ45 plugs, one port per plug.



Can be used to connect into an RJ45 through coupler panel or directly into the customer's panels.

Can also be used to plug into RJ45 face plates if IDC termination is required.

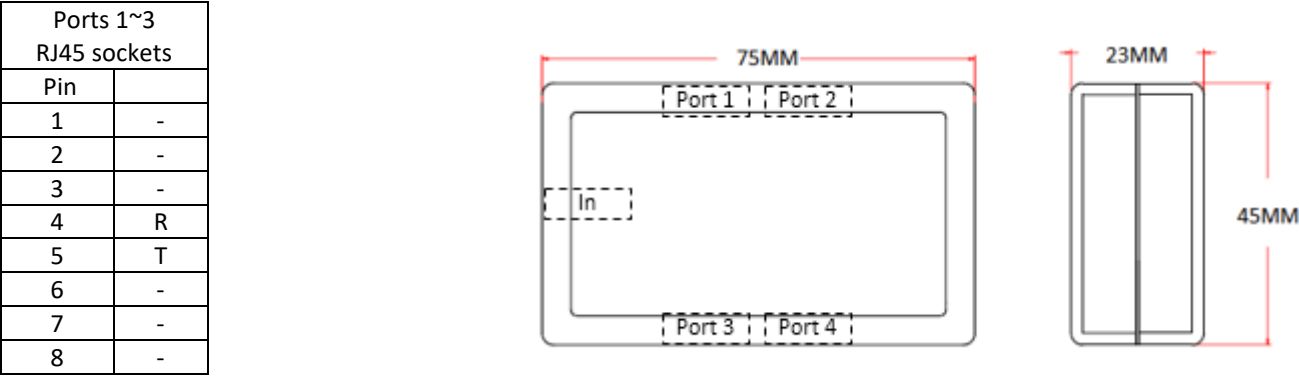
Cable colour: black

One cable is required for each Trunk/COI socket of the IP7WW-308U-A1 or IP7WW-3COIDB-C1 card.

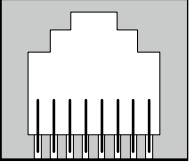
Ports 1~3 RJ45 plug	
Pin	
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-

Adapter ADNEC14 – Converts a four port RJ45 socket to four RJ45 sockets, one port per socket.
Requires four patch cables of the desired length and colour when used for analogue trunk connections.
Can be used to connect into an RJ45 through coupler panel or directly into the customer's panels.
Can also be used to plug into RJ45 face plates if IDC termination is required.
Colour: black
Supplied with an adhesive pad.

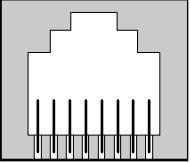
One adapter is required for each Trunk/COI socket of the IP7WW-308U-A1 or IP7WW-3COIDB-C1 card.



2. Terminate cables on site with RJ45 plugs and connect directly to the RJ45 sockets of the IP7WW-308U-A1 or IP7WW-3COIDB-C1 card.
Use the following pin-out to terminate each RJ45 plug.

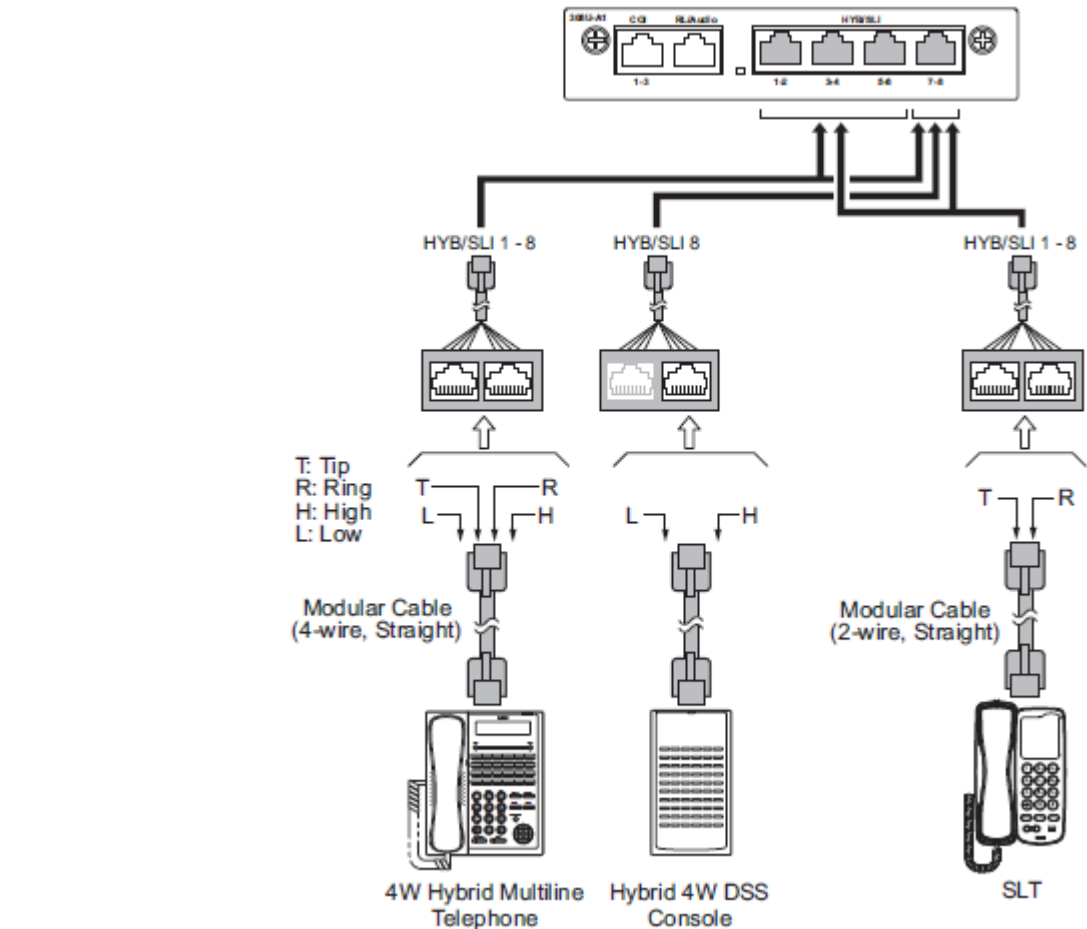
Trunk/COI	Pin No.	Port
 87654321	1	
	2	3
	3	2
	4	1
	5	1
	6	2
	7	3
	8	

3. Use pre-terminated RJ45 patch cables and connect directly to the RJ45 sockets of the IP7WW-308U-A1 or IP7WW-3COIDB-C1 card.
Use the following cable colours when using a straight through RJ45 patch cable directly into the RJ45 sockets of the IP7WW-308U-A1 or IP7WW-3COIDB-C1 card.

			Using an RJ45 patch cable into the RJ45 connectors
Trunk / COI	Pin No.	Port	RJ45 Colour code
 87654321	1		White/Orange
	2	3	Orange/White
	3	2	White/Green
	4	1	Blue/White
	5	1	White/Blue
	6	2	Green/White
	7	3	White/Brown
	8		Brown/White

2- SL2100 Connecting the 4 Wire Telephones

The connectors of the IP7WW-308U-A1 and IP7WW-008U-C1 cards have multiple extension ports per RJ45 connector using the RJ61 pin-out format.



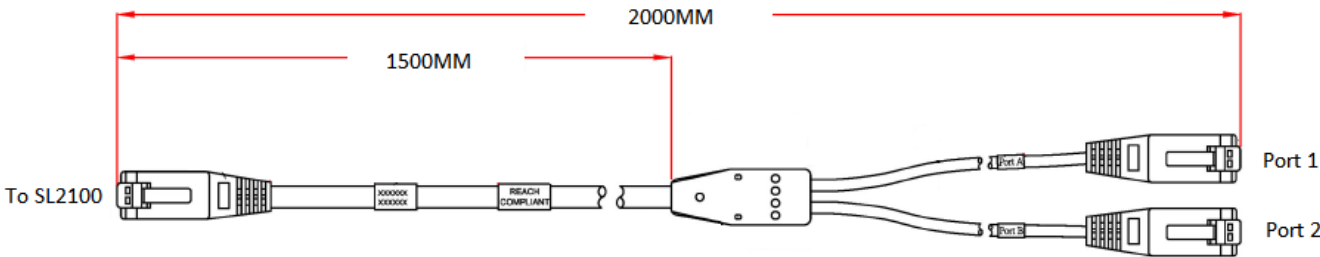
The SL2100 will automatically detected the terminal type when the device is connected.

RJ61 Connections

There are several methods available to connect these interfaces into the customer’s building infrastructure.

4. Use the cable assembly or adapter available from NEC

Cable LPNEC2 – 2m length, converts a two port RJ45 socket to two RJ45 plugs, one port per plug.



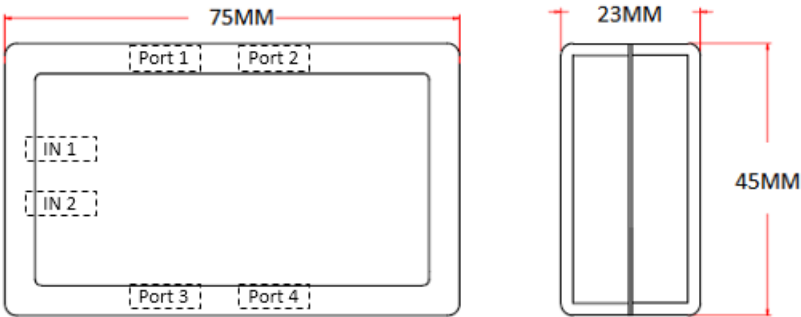
Can be used to connect into an RJ45 through coupler panel or directly into the customer’s panels.
Can also be used to plug into RJ45 face plates if IDC termination is required.
Cable colour: black

One cable is required for each HYB/SLI socket of the IP7WW-308U-A1 or IP7WW-008U-C1 card.

Ports 1~2 RJ45 plug	
Pin	
1	-
2	-
3	H
4	R
5	T
6	L
7	-
8	-

Adapter ADNEC24 – Converts 2 x two port RJ45 sockets to four RJ45 sockets, one port per socket.
Requires six patch cables of the desired length and colour.
Can be used to connect into an RJ45 through coupler panel or directly into the customer's panels.
Can also be used to plug into RJ45 face plates if IDC termination is required.
Colour: black.
Supplied with an adhesive pad.
One adapter will convert two RJ45 sockets of the IP7WW-308U-A1 or IP7WW-008U-C1 card.

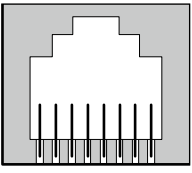
Ports 1~4 RJ45 sockets	
Pin	
1	-
2	-
3	H
4	R
5	T
6	L
7	-
8	-



5. Terminate cables on site with RJ45 plugs and connect directly to the RJ45 sockets of the card.
Use the following pin-out to terminate each RJ45 plug.

HYB/SLI 1~2, 3~4, 5~6, 7~8	Pin No.	Port
 87654321	1	2H
	2	1H
	3	2T
	4	1R
	5	1T
	6	2R
	7	1L
	8	2L

6. Use pre-terminated RJ45 patch cables and connect directly to the RJ45 sockets of the card.
Use the following cable colours when using a straight through RJ45 patch cable directly into the RJ61 sockets of the card.

			Using an RJ45 patch cable into the RJ45 connectors
HYB/SLI 1~2, 3~4, 5~6, 7~8	Pin No.	Port	RJ45 Colour code
 87654321	1	2H	White/Orange
	2	1H	Orange/White
	3	2T	White/Green
	4	1R	Blue/White
	5	1T	White/Blue
	6	2R	Green/White
	7	1L	White/Brown
	8	2L	Brown/White

Terminating extensions at RJ11 or RJ45 face plates at the user's desk.

Each port connects to

RJ11 = Connections 3/4 2/5

RJ11 Face plate	
Pin	Connection
1	-
2	H
3	R
4	T
5	L
6	-

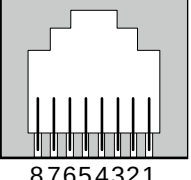
RJ45 = Blue/White & Green/White connections

RJ45 Face plate	
Pin	Connection
1	-
2	-
3	H
4	R
5	T
6	L
7	-
8	-

Connect DSS Consoles

One DSS console can be connected to hybrid extension port 8 of the IP7WW-308U-A1 or IP7WW-008U-C1 card.

DSS consoles use only 2 wires when connecting to the SL2100.
Connect to pins H & L.

HYB/SLI 7~8	Pin No.	Port
	1	2H
	2	
	3	
	4	
	5	
	6	
	7	
	8	2L

Connect Doorphones

Up to two doorphones (BE109741 – DX7NA) can be connected to hybrid extension ports 6 & 7 of the IP7WW-308U-A1 card.

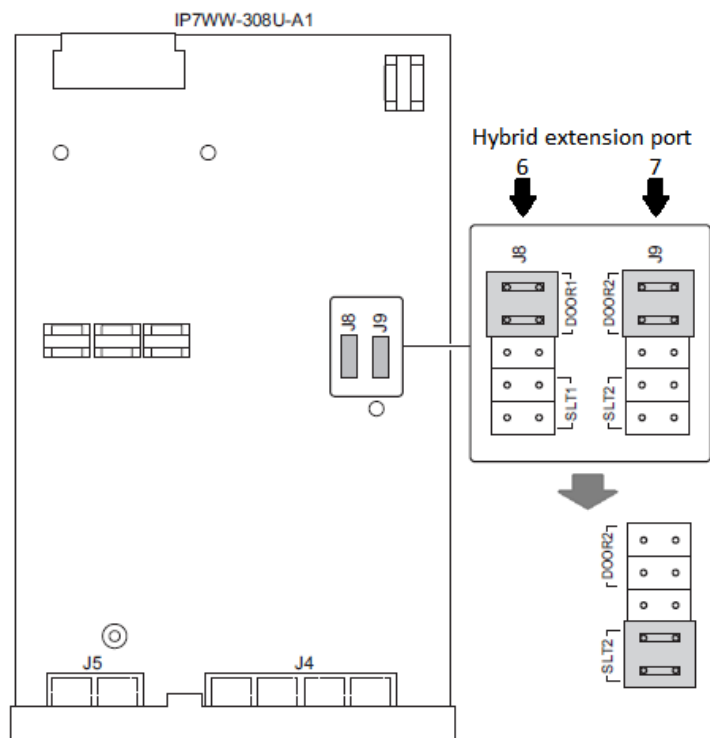
The maximum system capacity is 6 doorphones.

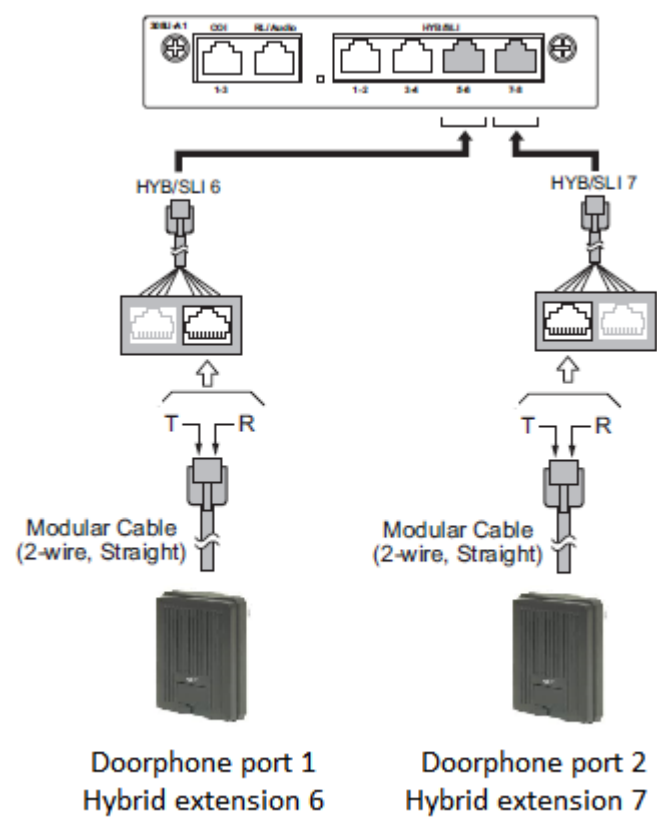
Hybrid extension ports 6 & 7 of the IP7WW-308U-A1 card has hardware links to select SLT/doorphone operation.

The factory setting is SLT operation.

Ensure you set the hardware links as shown.

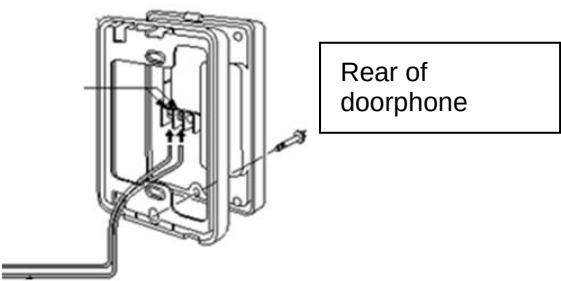
The hardware links set the mode, there is no additional system configuration required to select SLT/doorphone operation

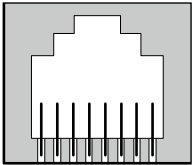




Terminating at the **doorphone**

Each port connects to:  &  at the doorphone. The connections to the doorphone are none polarity.

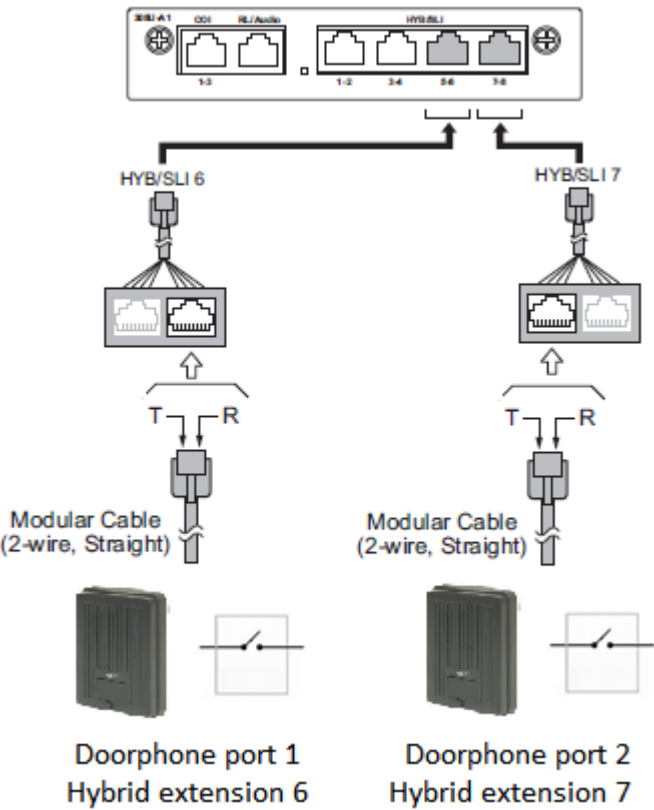


HYB/SLI 5~6, 7~8	Pin	HYB/SLI 5~6 Port 6	HYB/SLI 7~8 Port 7
 87654321	1	-	-
	2	-	-
	3	Door 1 T	-
	4	-	Door 2 R
	5	-	Door 2 T
	6	Door 1 R	-
	7	-	-
	8	-	-

Connect External Sensors

The SL2100 can be used to detect the operation of external sensors by connecting to the analogue extension port that is set to doorphone mode. The external sensor can be any normally open contact (Form A) for example, push button/panic switch or PIR detector with a suitable specification. When the external sensor is closed/activated the SL2100 system will ring a group of extensions in the same way as the doorphone would.

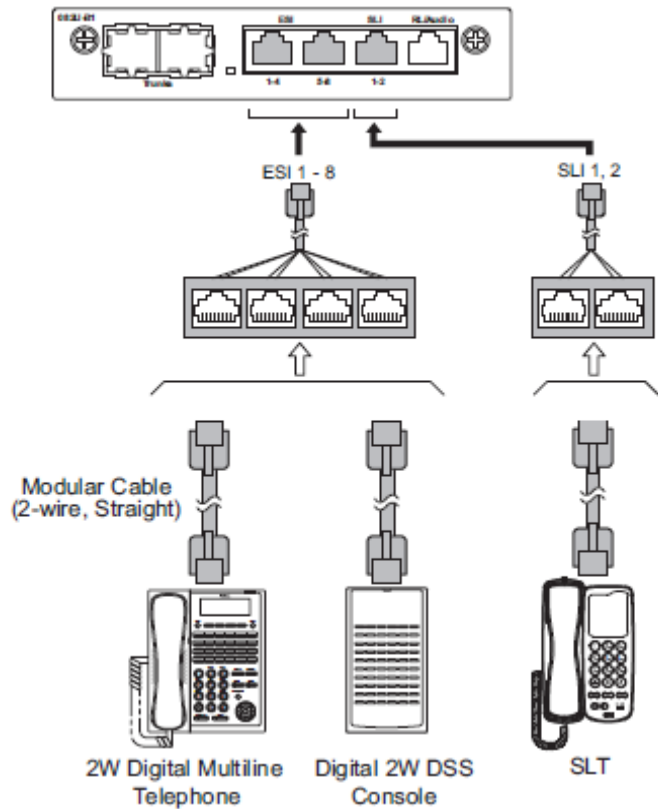
Pin	HYB/SLI 5~6 Port 6	HYB/SLI 7~8 Port 7
1	-	-
2	-	-
3	Door / sensor 1 T	-
4	-	Door / sensor 2 R
5	-	Door / sensor 2 T
6	Door / sensor 1 R	-
7	-	-
8	-	-



Description	Specification
External sensor	Voltage during sensor off (contact open): 25V Loop current during sensor on/activated (contact closed) : 40mA

3- SL2100 Connect the 2 Wire Telephones

The connectors of the IP7WW-082U-B1 card have multiple extension ports per RJ45 connector using the RJ61 pin-out format.

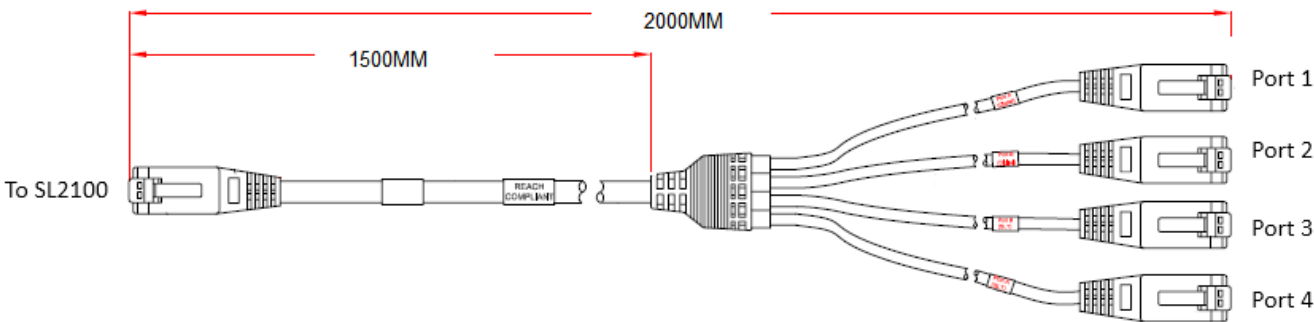


RJ61 Connections of the IP7WW-082U-B1 card

There are several methods available to connect these interfaces into the customer’s building infrastructure.

7. Use the cable assembly, adapter or panel available from NEC

Cable LPNEC4 – 2m length, converts a four port RJ45 socket to four RJ45 plugs, one port per plug.

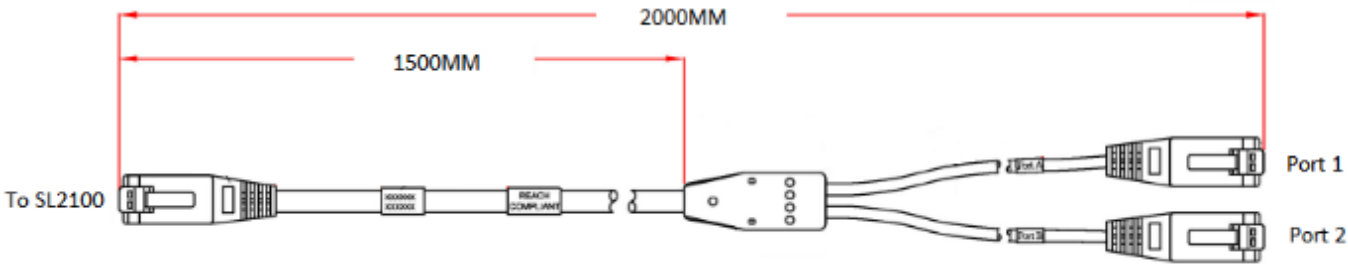


Can be used to connect into an RJ45 through coupler panel or directly into the customer’s panels.
Can also be used to plug into RJ45 face plates if IDC termination is required.
Cable colour: black

One cable is required for each ESI socket of the IP7WW-082U-B1 card.

Ports 1~4 RJ45 plug	
Pin	
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-

Cable LPNEC2 – 2m length, converts a two port RJ45 socket to two RJ45 plugs, one port per plug.



Can be used to connect into an RJ45 through coupler panel or directly into the customer's panels.

Can also be used to plug into RJ45 face plates if IDC termination is required.

Cable colour: black

One cable is required for the SLI socket of the IP7WW-082U-B1 card.

Ports 1~2 RJ45 plug	
Pin	
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-

Adapter ADNEC14 – Converts a four port RJ45 socket to four RJ45 sockets, one port per socket.

Requires five patch cables of the desired length and colour.

Can be used to connect into an RJ45 through coupler panel or directly into the customer's panels.

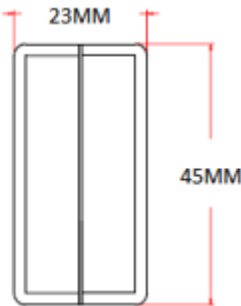
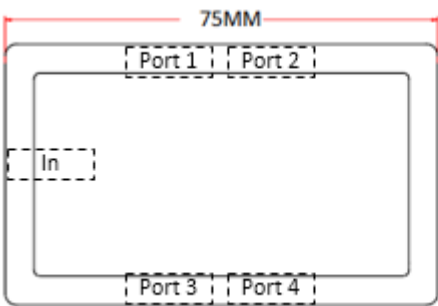
Can also be used to plug into RJ45 face plates if IDC termination is required.

Colour: black

Supplied with an adhesive pad.

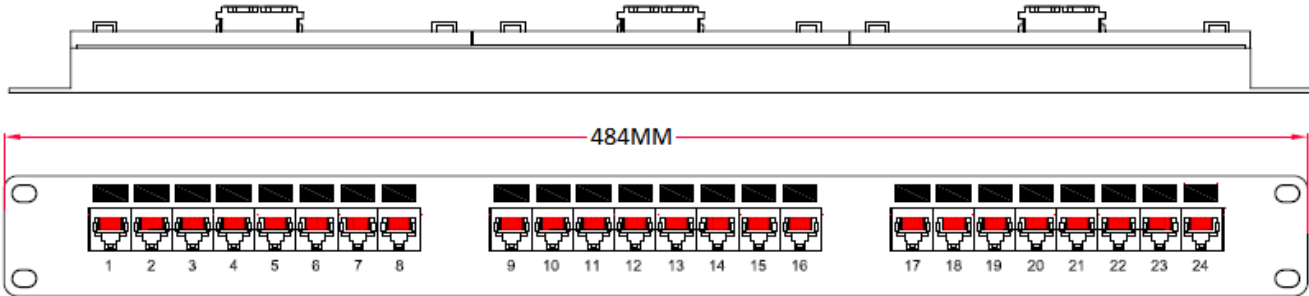
One adapter is required for each ESI and SLI socket of the IP7WW-082U-B1 card.

Ports 1~4 RJ45 sockets	
Pin	
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-



16/24/40 Port Panels FFV16NECBK/FFV24NECBK/FFNEC50

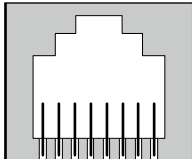
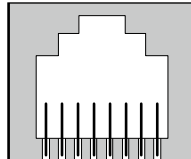
Converts 4/6/12 RJ45 sockets to 16/24/40 RJ45 sockets, one port per socket.
Requires 4/6/12 patch cables of the desired length and colour to connect to the SL2100 plus 16/24/40 patch cables to connect into the customer's panels.
Colour: black
Can be used for the ESI, SLI and Audio sockets of the IP7WW-082U-B1 card.
Note – when used for the two port SLI socket only ports 1~2 will be used.



Ports 1~16/24/40 RJ45 sockets	
Pin	
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-

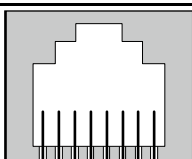
8. Terminate cables on site with RJ45 plugs and connect directly to the RJ45 sockets of the IP7WW-082U-B1 card.

Use the following pin-out to terminate each RJ45 plug.

ESI 1-4 ESI 5-8	Pin No.	Port	SLI 1-2	Pin No.	Port
	1	4		1	
	2	3		2	
	3	2		3	2
	4	1		4	1
	5	1		5	1
	6	2		6	2
	7	3		7	
	8	4		8	

9. Use pre-terminated RJ45 patch cables and connect directly to the RJ45 sockets of the IP7WW-082U-B1 card.

Use the following cable colours when using a straight through RJ45 patch cable directly into the RJ45 sockets of the IP7WW-082U-B1 card.

ESI 1-4 ESI 5-8	Pin No.	Port	Using an RJ45 patch cable into the RJ45 connectors	SLI 1-2
			RJ45 Colour code	Port
	1	4	White/Orange	
	2	3	Orange/White	
	3	2	White/Green	2
	4	1	Blue/White	1
	5	1	White/Blue	1
	6	2	Green/White	2
	7	3	White/Brown	
	8	4	Brown/White	

Terminating extensions at RJ11 or RJ45 face plates at the user's desk.

Each port connects to

RJ11 = Connections 3 & 4

RJ45 = Blue/White connections

Each port connects to

RJ11 = Connections 3/4

RJ11 Face plate	
Pin	Connection
1	-
2	-
3	R
4	T
5	-
6	-

RJ45 = Blue/White connections

RJ45 Face plate	
Pin	Connection
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-

Connect DSS Consoles

Up to eight DSS consoles can be connected to the eight digital extension ports of the IP7WW-082U-B1 card.
The maximum system capacity is 12 consoles.

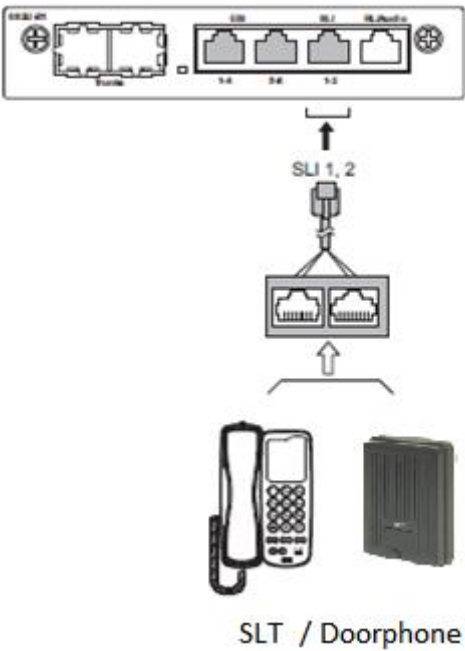
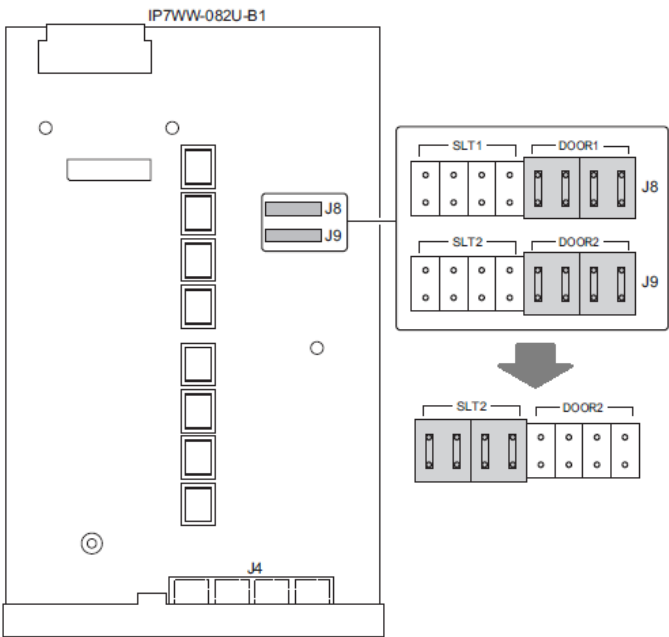
Connect Doorphones

Up to two doorphones (BE109741 – DX7NA) can be connected to the analogue extension ports of the IP7WW-082U-B1 card.
The maximum system capacity is 6 doorphones.

Each analogue port of the IP7WW-082U-B1 card has hardware links to select SLT/doorphone operation.
The factory setting is SLT operation.
Ensure you set the hardware links as shown.

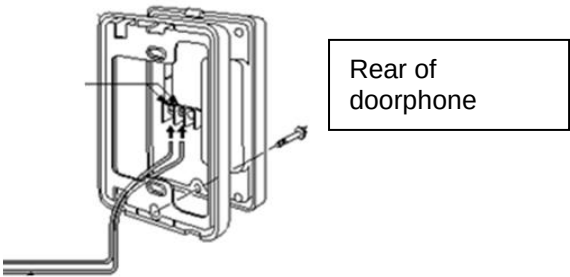
The hardware links set the mode, there is no additional system configuration required to select SLT/doorphone operation

You will need to remove any trunk daughter card to access the hardware links.



Terminating at the doorphone

Each port connects to: & at the doorphone.
The connections to the doorphone are none polarity.



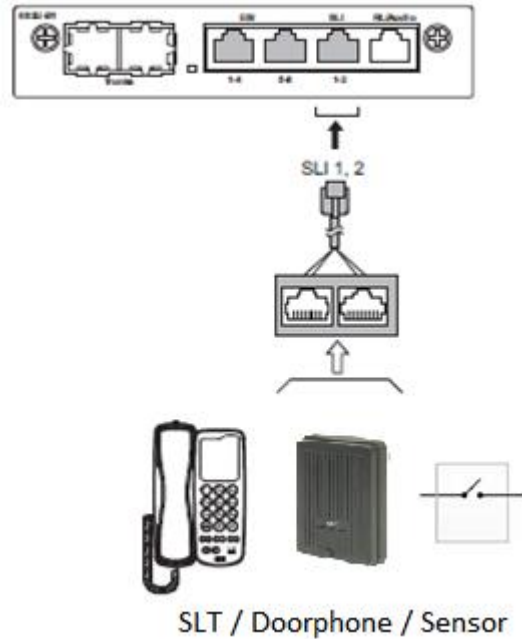
Pin	SLI 1-2 RJ45 socket
1	-
2	-
3	Door 2 T
4	Door 1 R
5	Door 1 T
6	Door 2 R
7	-
8	-

Connect External Sensors

The SL2100 can be used to detect the operation of external sensors by connecting to the analogue extension port that is set to doorphone mode.

The external sensor can be any normally open contact (Form A) for example, push button/panic switch or PIR detector with a suitable specification.

When the external sensor is closed/activated the SL2100 system will ring a group of extensions in the same way as the doorphone would.



Pin	SLI 1-2 RJ45 socket
1	-
2	-
3	Door / sensor 2 T
4	Door / sensor 1 R
5	Door / sensor 1 T
6	Door / sensor 2 R
7	-
8	-

Description	Specification
External sensor	Voltage during sensor off (contact open): 25V Loop current during sensor on/activated (contact closed) : 40mA

SV9100**Parts available for the SV9100 that have RJ61 interfaces**

Code	Description	
BE113018 BE113020 BE113019	GCD-8DLCA GCD-16DLA GPZ-8DLCB	8/16 port digital extension interfaces
BE113434 BE113435 BE113436 BE113437	GCD-4LCF GCD-8LCF GPZ-4LCF GPZ-8LCF	4/8 port analogue extension interfaces
BE113170	GCD-LTA	Combi card
BE113031 BE113032	GCD-4COTC G{Z-4COTG	4 port analogue trunk interfaces
BE113040	GCD-4DIOPA	Off Premise analogue interface
BE113042	GCD-4ODTA	4 port analogue Tie line interfaces

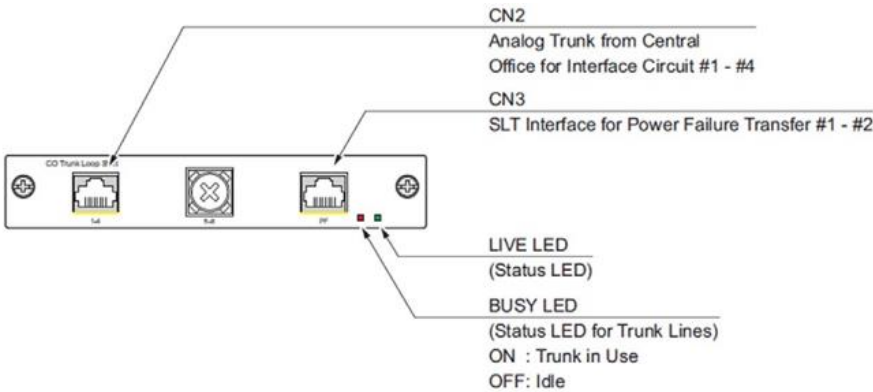
Please refer to the SL2100 Quick Install Guides or the SL2100 Hardware Manual for a full description and installation instructions of all parts available.

Refer to Prophix for all parts available in your region.

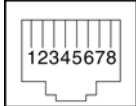
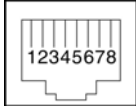
4- SV9100 Connect the Exchange Lines

GCD-4COTB or GCD-4COTB-A (4 Loop and Ground Start Interface)

Four analog loop start/ground start trunk circuits

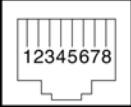
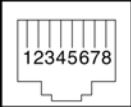


GCD-4COTB or GCD-4COTB-A RJ-61 Cable Connector Pin-Outs

RJ-61 Cable Connector – CN2, Trunks		
The CN2 connector is <i>polarity sensitive</i> (tip-to-tip, ring-to-ring)		
	Pin No.	Connection
	1	Circuit 4 – Tip
	2	Circuit 3 – Tip
	3	Circuit 2 – Tip
	4	Circuit 1 – Ring
	5	Circuit 1 – Tip
	6	Circuit 2 – Ring
	7	Circuit 3 – Ring
	8	Circuit 4 – Ring
RJ-61 Cable Connector – CN3, SLT Interface for Power Failure		
	Pin No.	Connection
	1	–
	2	–
	3	Circuit 2 – Tip
	4	Circuit 1 – Ring
	5	Circuit 1 – Tip
	6	Circuit 2 – Ring
	7	–
	8	–

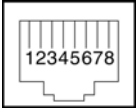
GPZ-4COTF or GPZ-4COTF-A (4 Loop and Ground Start Interface Daughter Board)

GPZ-4COTF or GPZ-4COTF-A RJ-61 Cable Connector Pin-Outs

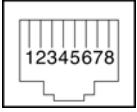
RJ-61 Cable Connector CN2, Trunks – Connecting to GCD-4COTB/GCD-4COTB-A Blade The CN2 connector is <i>polarity sensitive</i> (tip-to-tip, ring-to-ring)		
	Pin No.	Connection
	1	Circuit 8 – Tip
	2	Circuit 7 – Tip
	3	Circuit 6 – Tip
	4	Circuit 5 – Ring
	5	Circuit 5 – Tip
	6	Circuit 6 – Ring
	7	Circuit 7 – Ring
	8	Circuit 8 – Ring
RJ-61 Cable Connector CN2, Trunks – Connecting to GCD-LTA Blade The CN2 connector is <i>polarity sensitive</i> (tip-to-tip, ring-to-ring)		
	Pin No.	Connection
	1	Circuit 4 – Tip
	2	Circuit 3 – Tip
	3	Circuit 2 – Tip
	4	Circuit 1 – Ring
	5	Circuit 1 – Tip
	6	Circuit 2 – Ring
	7	Circuit 3 – Ring
	8	Circuit 4 – Ring

RJ61 Connections

Terminate cables on site with RJ45 plugs and connect directly to the RJ45 sockets of the card.
Use the following pin-out to terminate each RJ45 plug.

	Pin No.	Port
	1	T4
	2	T3
	3	T2
	4	R1
	5	T1
	6	R2
	7	R3
	8	R4

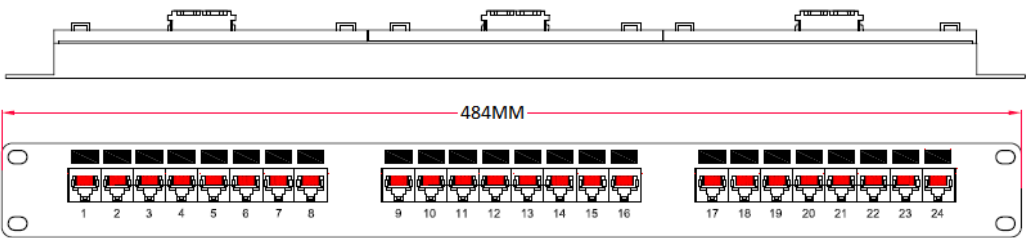
Use pre-terminated RJ45 patch cables and connect directly to the RJ45 sockets of the card.
Use the following cable colours when using a straight through RJ45 patch cable directly into the RJ61 sockets of the card.

			Using an RJ45 patch cable into the RJ45 connectors
	Pin No.	Port	RJ45 Colour code
	1	T4	White/Orange
	2	T3	Orange/White
	3	T2	White/Green
	4	R1	Blue/White
	5	T1	White/Blue
	6	R2	Green/White
	7	R3	White/Brown
	8	R4	Brown/White

16/24/40 Port Panels FFV16NECBK/FFV24NECBK/FFNEC50

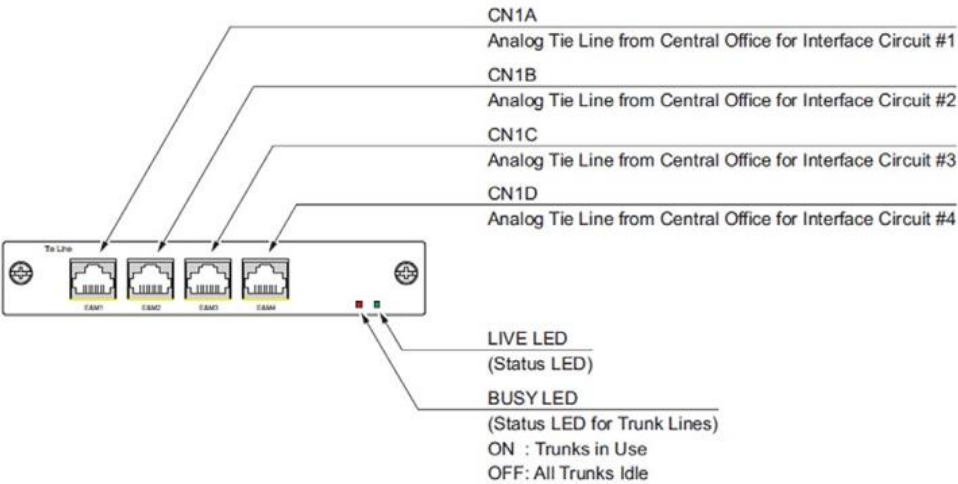
Converts 4/6/12 RJ45 sockets to 16/24/40 RJ45 sockets, one port per socket.
Requires 4/6/12 patch cables of the desired length and colour to connect to the SV9100 plus 16/24/40 patch cables to connect into the customer's panels.

Ports 1~16/24/40 RJ45 sockets	
Pin	
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-

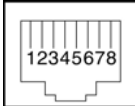
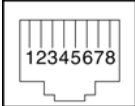


GCD-4ODTA (4-Port Tie Line Interface Blade)

The GCD-4ODTA Tie Line blade is an out band dial type analog tie line interface blade. This blade supports system connections to either 2-wire (four lead, tip/ring) or 4-wire (six lead, tip/ring/tip 1/ring 1) E&M signaling tie lines (determined in Program 10-13). System programming is used also to select the connection types with Type I or Type V. The GCD-4ODTA consumes four ports ranging between ports 001~400 (SV9100).



GCD-4ODTA RJ-61 Cable Connector Pin-Outs

RJ-61 Cable Connector – 2-Wire E&M, CN1A~CN1D			
	Pin No.	Connection	Description
	1	—	Not Used
	2	M	Control signal to trunk
	3	—	Not Used
	4	R	Voice signal both ways
	5	T	Voice signal both ways
	6	—	Not Used
	7	E	Control signal from trunk
	8	—	Not Used
RJ-61 Cable Connector – 4-Wire E&M, CN100~CN400			
	Pin No.	Connection	Description
	1	—	Not Used
	2	M	Control signal to trunk
	3	R	Voice signal to trunk
	4	R1	Voice signal from trunk
	5	T1	Voice signal from trunk
	6	T	Voice signal to trunk
	7	E	Control signal from trunk
	8	—	Not Used

Using Type I or Type V, a system loopback test can be performed by connecting E&M1 to E&M2.

<2-Wire E&M>

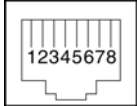
<4-Wire E&M>

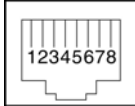
<u>E&M1</u>		<u>E&M2</u>	<u>E&M1</u>		<u>E&M2</u>
E	→	M	E	→	M
M	→	E	M	→	E
R	→	T	R	→	T1
T	→	R	T	→	R1
			R1	→	T
			T1	→	R

RJ61 Connections

Terminate cables on site with RJ45 plugs and connect directly to the RJ45 sockets of the card.

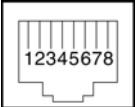
Use the following pin-out to terminate each RJ45 plug.

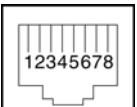
	Pin No.	Port 2-Wire E&M
	1	-
	2	M
	3	-
	4	R
	5	T
	6	-
	7	E
	8	-

	Pin No.	Port 4-Wire E&M
	1	-
	2	M
	3	R
	4	R1
	5	T1
	6	T
	7	E
	8	-

Use pre-terminated RJ45 patch cables and connect directly to the RJ45 sockets of the card.

Use the following cable colours when using a straight through RJ45 patch cable directly into the RJ61 sockets of the card.

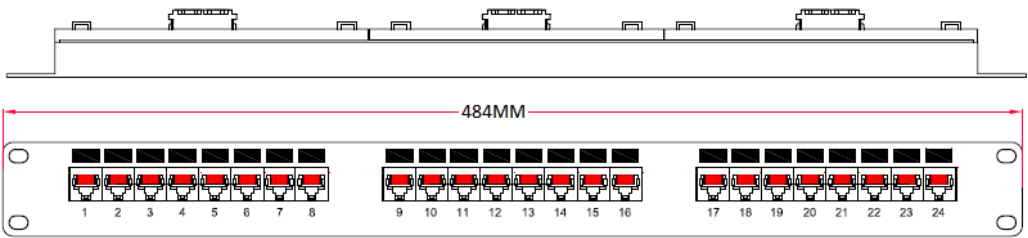
			Using an RJ45 patch cable into the RJ45 connectors
	Pin No.	Port 2-Wire	RJ45 Colour code
	1	-	White/Orange
	2	M	Orange/White
	3	-	White/Green
	4	R	Blue/White
	5	T	White/Blue
	6	-	Green/White
	7	E	White/Brown
	8	-	Brown/White

			Using an RJ45 patch cable into the RJ45 connectors
	Pin No.	Port 4-Wire	RJ45 Colour code
	1	-	White/Orange
	2	M	Orange/White
	3	R	White/Green
	4	R1	Blue/White
	5	T1	White/Blue
	6	T	Green/White
	7	E	White/Brown
	8	-	Brown/White

16/24/40 Port Panels FFV16NECBK/FFV24NECBK/FFNEC50

Converts 4/6/12 RJ45 sockets to 16/24/40 RJ45 sockets, one port per socket.
Requires 4/6/12 patch cables of the desired length and colour to connect to the SV9100 plus 16/24/40 patch cables to connect into the customer's panels.

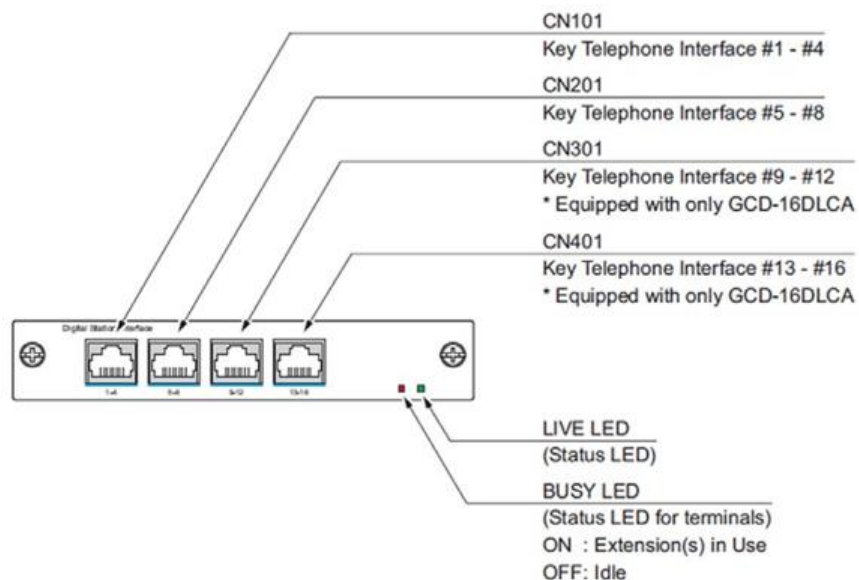
Ports 1~16/24/40 RJ45 sockets	
Pin	
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-



4- SV9100 Connect the Digital Telephones

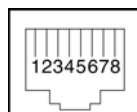
GCD-8DLCA OR GCD-16DLCA digital extension circuits

(used for digital telephones, DSS consoles, SLT(1)-U() ADP, PGD(2)-U10 ADP adapters)

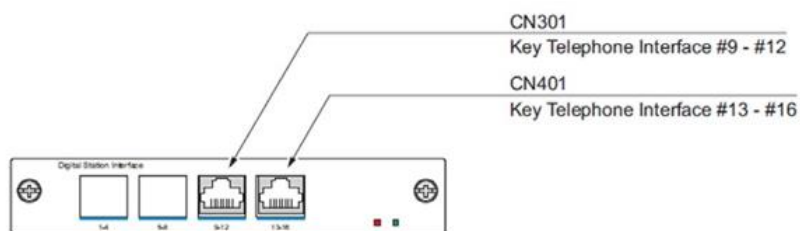


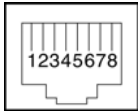
RJ-61 Cable Connector

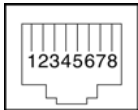
GCD-8DLCA – CN101 (ports 1~4), CN201 (ports 5~8)
GCD-16DLCA – CN101 (ports 1~4), CN201 (ports 5~8),
CN301 (ports 9~12), CN401 (ports 13~16)



Pin No.	Connection
1	T4 (Tip for port 4)
2	T3 (Tip for port 3)
3	T2 (Tip for port 2)
4	R1 (Ring for port 1)
5	T1 (Tip for port 1)
6	R2 (Ring for port 2)
7	R3 (Ring for port 3)
8	R4 (Ring for port 4)

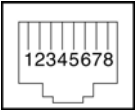
GPZ-8DLCB (Digital Station Daughter Board)*GPZ-8DLCB RJ-61 Cable Connector Pin-Outs*

RJ-61 Cable Connector CN301 (ports 9~12)		
	Pin No.	Connection
	1	(T4) Tip for port 12
	2	(T3) Tip for port 11
	3	(T2) Tip for port 10
	4	(R1) Ring for port 9
	5	(T1) Tip for port 9
	6	(R2) Ring for port 10
	7	(R3) Ring for port 11
	8	(R4) Ring for port 12

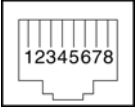
RJ-61 Cable Connector CN401 (ports 13~16)		
	Pin No.	Connection
	1	(T4) Tip for port 16
	2	(T3) Tip for port 15
	3	(T2) Tip for port 14
	4	(R1) Ring for port 13
	5	(T1) Tip for port 13
	6	(R2) Ring for port 14
	7	(R3) Ring for port 15
	8	(R4) Ring for port 16

RJ61 Connections

Terminate cables on site with RJ45 plugs and connect directly to the RJ45 sockets of the card.
Use the following pin-out to terminate each RJ45 plug.

	Pin No.	Port
	1	T4
	2	T3
	3	T2
	4	R1
	5	T1
	6	R2
	7	R3
	8	R4

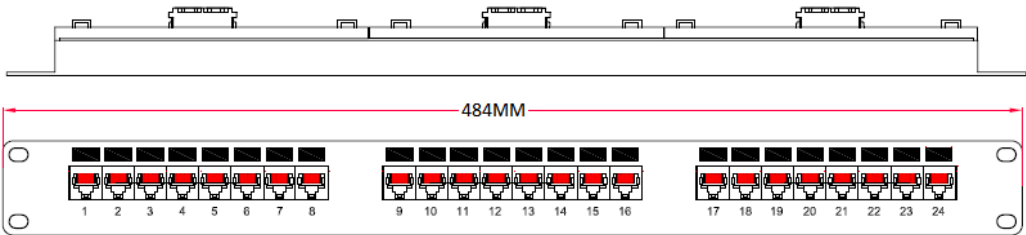
Use pre-terminated RJ45 patch cables and connect directly to the RJ45 sockets of the card.
Use the following cable colours when using a straight through RJ45 patch cable directly into the RJ61 sockets of the card.

			Using an RJ45 patch cable into the RJ45 connectors
	Pin No.	Port	RJ45 Colour code
	1	T4	White/Orange
	2	T3	Orange/White
	3	T2	White/Green
	4	R1	Blue/White
	5	T1	White/Blue
	6	R2	Green/White
	7	R3	White/Brown
	8	R4	Brown/White

16/24/40 Port Panels FFV16NECBK/FFV24NECBK/FFNEC50

Converts 4/6/12 RJ45 sockets to 16/24/40 RJ45 sockets, one port per socket.
Requires 4/6/12 patch cables of the desired length and colour to connect to the SV9100 plus 16/24/40 patch cables to connect into the customer's panels.

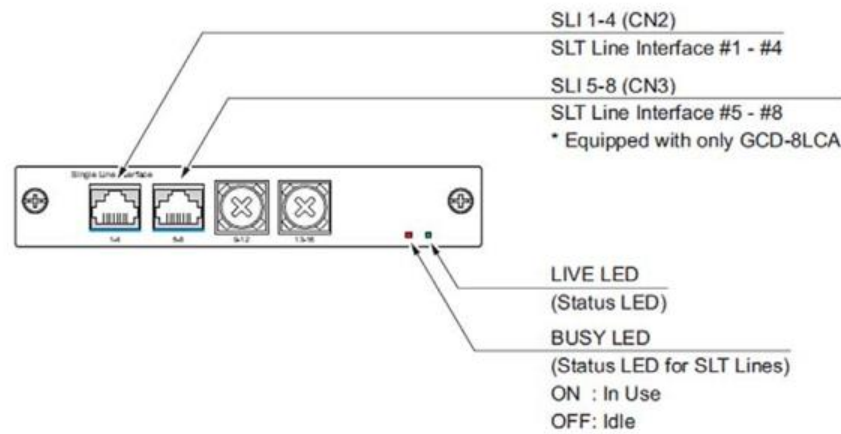
Ports 1~16/24/40 RJ45 sockets	
Pin	
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-



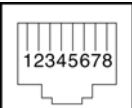
Connect the Analogue Telephones

GCD-4LCF/GCD-8LCF (4-Port/8-Port Single Line Interface)

The GCD-4LCF/GCD-8LCF blade provides four analog (SLIU) extension ports or eight analog (SLIU) extension ports (used for on-premise analog telephones, fax machines, and analog modems).



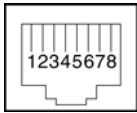
GCD-4LCF/GCD-8LCF RJ-61 Cable Connector Pin-Outs

RJ-61 Cable Connector GCD-4LCF – CN2 (ports 1~4) GCD-8LCF – CN2 (ports 1~4) CN3 (ports 5~8)		
	Pin No.	Connection
	1	T4 (Tip for port 4)
	2	T3 (Tip for port 3)
	3	T2 (Tip for port 2)
	4	R1 (Ring for port 1)
	5	T1 (Tip for port 1)
	6	R2 (Ring for port 2)
	7	R3 (Ring for port 3)
	8	R4 (Ring for port 4)

GPZ-4LCF/GPZ-8LCF (4-Port/8-Port SLI Daughter Board)

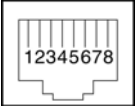
The GPZ-4LCF and GPZ-8LCF daughter boards are mounted on the GCD-4LCF/GCD-8LCF.

GPZ-4LCF/GPZ-8LCF/ RJ-61 Cable Connector Pin-Outs

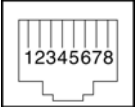
RJ-61 Cable Connector – GPZ-4LCF – CN2 (ports 9~12) GPZ-8LCF – CN2 (ports 9~12) CN3 (ports 13~16)		
	Pin No.	Connection
	1	T4 (Tip for port 4)
	2	T3 (Tip for port 3)
	3	T2 (Tip for port 2)
	4	R1 (Ring for port 1)
	5	T1 (Tip for port 1)
	6	R2 (Ring for port 2)
	7	R3 (Ring for port 3)
	8	R4 (Ring for port 4)

RJ61 Connections

Terminate cables on site with RJ45 plugs and connect directly to the RJ45 sockets of the card.
Use the following pin-out to terminate each RJ45 plug.

	Pin No.	Port
	1	T4
	2	T3
	3	T2
	4	R1
	5	T1
	6	R2
	7	R3
	8	R4

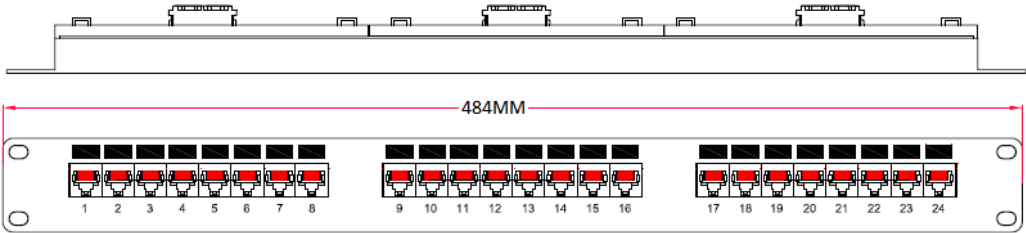
Use pre-terminated RJ45 patch cables and connect directly to the RJ45 sockets of the card.
Use the following cable colours when using a straight through RJ45 patch cable directly into the RJ61 sockets of the card.

			Using an RJ45 patch cable into the RJ45 connectors
	Pin No.	Port	RJ45 Colour code
	1	T4	White/Orange
	2	T3	Orange/White
	3	T2	White/Green
	4	R1	Blue/White
	5	T1	White/Blue
	6	R2	Green/White
	7	R3	White/Brown
	8	R4	Brown/White

16/24/40 Port Panels FFV16NECBK/FFV24NECBK/FFNEC50

Converts 4/6/12 RJ45 sockets to 16/24/40 RJ45 sockets, one port per socket.
Requires 4/6/12 patch cables of the desired length and colour to connect to the SV9100 plus 16/24/40 patch cables to connect into the customer's panels.

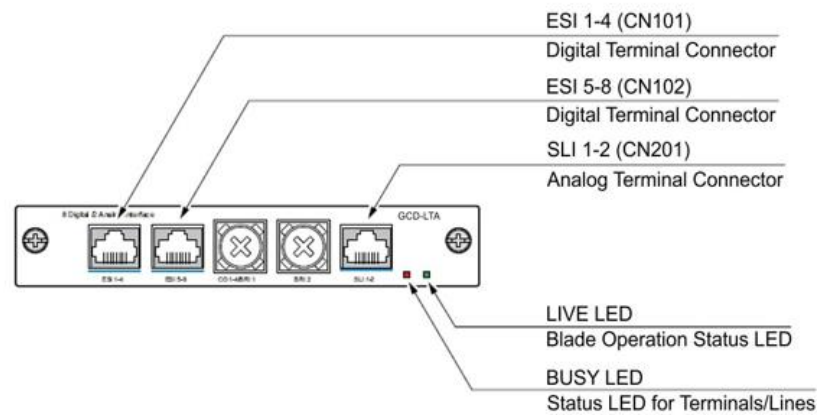
Ports 1~16/24/40 RJ45 sockets	
Pin	
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-



GCD-LTA (*D^{term}*/SLT Combination)

The Digital Station/SLT Combination blade provides eight Digital Station ports and two analog ports. This blade allows either a GPZ-4COTF or GPZ-4COTF-A analog trunk daughter board or GPZ-2BR1A daughter board to be installed

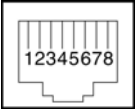
GCD-LTA RJ11 Cable Connector Pin-Outs



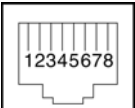
RJ11 Cable Connector		
DLCA: CN101 (ports 1~4)		
DLCA: CN102 (ports 5~8)		
	Pin No.	Connection
	1	T4/T8 (Tip for port 4 or 8)
	2	T3/T7 (Tip for port 3 or 7)
	3	T2/T6 (Tip for port 2 or 6)
	4	R1/R5 (Ring for port 1 or 5)
	5	T1/T5 (Tip for port 1 or 5)
	6	R2/R6 (Ring for port 2 or 6)
	7	R3/R7 (Ring for port 3 or 7)
	8	R4/R8 (Ring for port 4 or 8)
RJ11 Cable Connector		
LCA: CN201 (ports 1~2)		
	Pin No.	Connection
	1	—
	2	—
	3	T2 (Tip for port 2)
	4	R1 (Ring for port 1)
	5	T1 (Tip for port 1)
	6	R2 (Ring for port 2)
	7	—
	8	—

RJ61 Connections – LTA Digital Ports

Terminate cables on site with RJ45 plugs and connect directly to the RJ45 sockets of the card.
Use the following pin-out to terminate each RJ45 plug.

	Pin No.	Port
	1	T4
	2	T3
	3	T2
	4	R1
	5	T1
	6	R2
	7	R3
	8	R4

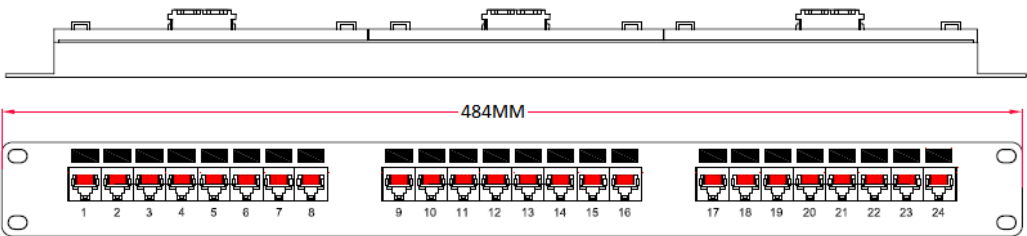
Use pre-terminated RJ45 patch cables and connect directly to the RJ45 sockets of the card.
Use the following cable colours when using a straight through RJ45 patch cable directly into the RJ61 sockets of the card.

			Using an RJ45 patch cable into the RJ45 connectors
	Pin No.	Port	RJ45 Colour code
	1	T4	White/Orange
	2	T3	Orange/White
	3	T2	White/Green
	4	R1	Blue/White
	5	T1	White/Blue
	6	R2	Green/White
	7	R3	White/Brown
	8	R4	Brown/White

16/24/40 Port Panels FFV16NECBK/FFV24NECBK/FFNEC50

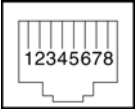
Converts 4/6/12 RJ45 sockets to 16/24/40 RJ45 sockets, one port per socket.
Requires 4/6/12 patch cables of the desired length and colour to connect to the SV9100 plus 16/24/40 patch cables to connect into the customer's panels.

Ports 1~16/24/40 RJ45 sockets	
Pin	
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-

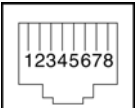


RJ61 Connections – LTA Analogue Ports

Terminate cables on site with RJ45 plugs and connect directly to the RJ45 sockets of the card.
Use the following pin-out to terminate each RJ45 plug.

	Pin No.	Port
	1	
	2	
	3	T2
	4	R1
	5	T1
	6	R2
	7	
	8	

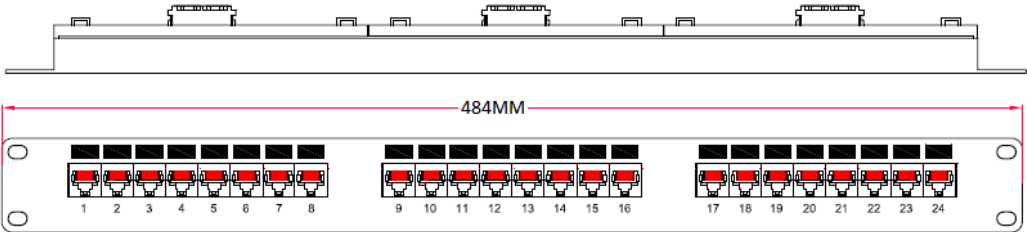
Use pre-terminated RJ45 patch cables and connect directly to the RJ45 sockets of the card.
Use the following cable colours when using a straight through RJ45 patch cable directly into the RJ61 sockets of the card.

	Pin No.	Port	Using an RJ45 patch cable into the RJ45 connectors RJ45 Colour code
	1		White/Orange
	2		Orange/White
	3	T2	White/Green
	4	R1	Blue/White
	5	T1	White/Blue
	6	R2	Green/White
	7		White/Brown
	8		Brown/White

16/24/40 Port Panels FFV16NECBK/FFV24NECBK/FFNEC50

Converts 4/6/12 RJ45 sockets to 16/24/40 RJ45 sockets, one port per socket.
Requires 4/6/12 patch cables of the desired length and colour to connect to the SV9100 plus 16/24/40 patch cables to connect into the customer's panels.

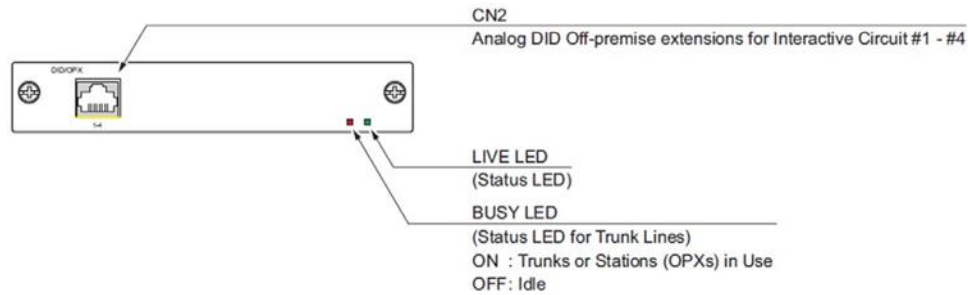
Ports 1~16/24/40 RJ45 sockets	
Pin	
1	-
2	-
3	T
4	R
5	T
6	R
7	-
8	-



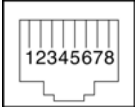
Note – When connecting the LTA analogue ports via the panel only ports 1 and 2 will be used.

GCD-4DIOPA (DID/OPX Interface)

The GCD-4DIOPA supports the analog DID and single line telephone interface functions (such as Off-Premise Extension). The function type is assigned in programming for each port. The circuit types, however, should be grouped together. For example, with three DID circuits and one OPX circuit, they should be grouped as DID, DID, DID and OPX and not DID, DID, OPX and DID



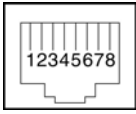
GCD-4DIOPA RJ-61 Cable Connector Pin-Outs

RJ-61 Cable Connector – CN2			
	Line No.	Pin No.	Connection
	1	5	Tip
		4	Ring
	2	3	Tip
		6	Ring
	3	2	Tip
		7	Ring
	4	1	Tip
		8	Ring

RJ61 Connections

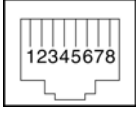
Terminate cables on site with RJ45 plugs and connect directly to the RJ45 sockets of the card.

Use the following pin-out to terminate each RJ45 plug.

	Pin No.	Port
	1	T4
	2	T3
	3	T2
	4	R1
	5	T1
	6	R2
	7	R3
	8	R4

Use pre-terminated RJ45 patch cables and connect directly to the RJ45 sockets of the card.

Use the following cable colours when using a straight through RJ45 patch cable directly into the RJ61 sockets of the card.

			Using an RJ45 patch cable into the RJ45 connectors
	Pin No.	Port	RJ45 Colour code
	1	T4	White/Orange
	2	T3	Orange/White
	3	T2	White/Green
	4	R1	Blue/White
	5	T1	White/Blue
	6	R2	Green/White
	7	R3	White/Brown
	8	R4	Brown/White

16/24/40 Port Panels FFV16NECBK/FFV24NECBK/FFNEC50

Converts 4/6/12 RJ45 sockets to 16/24/40 RJ45 sockets, one port per socket.

Requires 4/6/12 patch cables of the desired length and colour to connect to the SV9100 plus 16/24/40 patch cables to connect into the customer's panels.

Ports 1~16/24/40 RJ45 sockets	
Pin	
1	-
2	-
3	-
4	R
5	T
6	-
7	-
8	-