



PortServer[®] TS, Digi Connect[®], and Digi One[®] Products

Cable Guide

Revision history—90000253

| Revision | Date | Description |
|----------|---------------|---|
| G | 2013 | Initial release. |
| H | February 2019 | Updated branding and made editorial enhancements. |
| J | June 2020 | Updated cabling information: RJ45 10-pin to DB9F modem cable and RJ45 10-pin to DB25F modem cable |

Trademarks and copyright

Digi, Digi International, and the Digi logo are trademarks or registered trademarks in the United States and other countries worldwide. All other trademarks mentioned in this document are the property of their respective owners.

© 2019 Digi International Inc. All rights reserved.

Disclaimers

Information in this document is subject to change without notice and does not represent a commitment on the part of Digi International. Digi provides this document “as is,” without warranty of any kind, expressed or implied, including, but not limited to, the implied warranties of fitness or merchantability for a particular purpose. Digi may make improvements and/or changes in this manual or in the product(s) and/or the program(s) described in this manual at any time.

Warranty

To view product warranty information, go to the following website:

www.digi.com/howtobuy/terms

Send comments

Documentation feedback: To provide feedback on this document, send your comments to techcomm@digi.com.

Customer support

Digi Technical Support: Digi offers multiple technical support plans and service packages to help our customers get the most out of their Digi product. For information on Technical Support plans and pricing, contact us at +1 952.912.3444 or visit us at www.digi.com/support.

Contents

Cabling solutions by Digi product and device

DB9 and DB25 DTE/console/terminal/printer adapters

| | |
|-------------------------------------|----|
| RJ45 to DB9 cable adapter | 10 |
| RJ45 to DB25F cable adapter | 11 |
| RJ45 to DB25M console adapter | 12 |
| RJ45 to DB25M printer adapter | 13 |
| RJ45 to DB25M modem adapter | 14 |

DB9 DTE/console/terminal/printer cables

| | |
|--|----|
| RJ45 to DB9F terminal emulator cable | 16 |
| RJ45 (Altpin on) to DB9F terminal emulator cable | 17 |
| RJ45 10-pin to DB9F terminal emulator cable | 18 |
| RJ45 (Altpin on) to DB9M terminal/printer cable | 19 |
| RJ45 to DB9M terminal/printer cable | 20 |

DB25 DTE/console/terminal/printer cables

| | |
|---|----|
| RJ45 (Altpin on) to DB25F terminal emulator cable | 22 |
| RJ45 10-pin to DB25F terminal emulator cable | 23 |
| RJ45 to DB25M terminal/printer cable | 24 |
| RJ45 10-pin to DB25M terminal/printer cable | 25 |

Digi-to-Digi Cables

| | |
|---|----|
| Async RJ45 to RJ45 crossover cable - for cross-connecting Digi asynchronous ports together | 27 |
| RJ45 to DB9M modem adapter | 28 |

DB25 and DB9 modem cables

| | |
|---|----|
| RJ45 (Altpin on) to DB25M modem cable | 30 |
| RJ45 (Altpin on) to DB9M modem cable | 31 |
| RJ45 10-pin to DB9M modem cable | 32 |
| RJ45 10-pin to DB9F modem cable | 33 |
| RJ45 10-pin to DB25M modem cable | 34 |
| RJ45 10-pin to DB25F modem cable | 35 |

Specialty cables

| | |
|--|----|
| Cisco console cables | 37 |
| Digi RJ45 to RJ45 cable adapters: 8-pin | 37 |
| RJ45 (Altpin On) to RJ45 Cisco console adapter | 37 |

Cabling solutions by Digi product and device

[Digi Passport](#) and [Digi CM](#) products use different pinouts, please refer to the appropriate product documentation.

| RJ-45 to | Male or female | Straight or crossover | Applications | Cable or adapter | Part number | Pin out | Cable identifier |
|----------|----------------|-----------------------|--|------------------|------------------|---|------------------|
| DB-9 | F | Crossover | Bay Accelar, Nortel and other DB-9 DTE devices | Cable | 76000645 (4') | RJ45 10-pin to DB9F terminal emulator cable | 61090048 |
| | | | | Adapter (4-pack) | 76000697 | RJ45 to DB9 cable adapter | N/A |

| RJ-45 to | Male or female | Straight or crossover | Applications | Cable or adapter | Part number | Pin out | Cable identifier |
|----------|----------------|-----------------------|---|------------------|---------------|---|----------------------|
| DB-9 | M | Crossover | The unit provides a single upstream (standard B-type receptacle) and 14 downstream (standard A-type receptacles) USB 2.0 compliant ports. The unit will attach to the upstream device as a Full-/Highspeed hub. The downstream ports support Low-Speed, Full-Speed and High-Speed downstream devices. Each downstream facing port provides a green LED status indicator. Color definitions are as follows: E devices with DB-9 female ports | Cable | 76000264 (4') | RJ45 10-pin to DB9F terminal emulator cable | 61080048 |
| | | | | Adapter | None | None | N/A |
| DB-9 | F | Straight | Modems and other DCE devices with DB-9 male ports | Cable | 76000201 (4') | RJ45 10-pin to DB9F modem cable | 61070024 61070048 |
| | | | | Adapter | None | None | N/A |
| DB-9 | M | Straight | Modems and other DCE devices with DB-9 female ports | Cable | 76000240 (4') | RJ45 10-pin to DB9M modem cable | 61060024 61060048 |
| | | | | Adapter (4-pack) | 76000701 | RJ45 to DB9M modem adapter | N/A |

| RJ-45 to | Male or female | Straight or crossover | Applications | Cable or adapter | Part number | Pin out | Cable identifier |
|----------|----------------|-----------------------|---|------------------|---------------|--|----------------------|
| DB-25 | M | Crossover | Sun Sparc, Sun Ultra, terminals, printers and other DTE devices with DB-25 female ports | Cable | 76000238 (4') | RJ45 10-pin to DB25F terminal emulator cable | 61040048 |
| | | | | Adapter (4-pack) | 76000698 | RJ45 to DB25M console adapter | N/A |
| DB-25 | F | Crossover | Cisco, IBM and other DTE devices with DB-25 male ports | Cable | N/A | RJ45 10-pin to DB25F terminal emulator cable | 61050048 |
| | | | | Adapter (4-pack) | 76000699 | RJ45 to DB25F cable adapter | N/A |
| DB-25 | M | Straight | Modems and other DCE devices with DB-25 female ports | Cable | 76000195 (4') | RJ45 10-pin to DB25M modem cable | 61020024 |
| | | | | Adapter (4-pack) | 76000700 | RJ45 to DB25M modem adapter | N/A |
| DB-25 | F | Straight | Modems and other DCE devices with DB-25 male ports | Cable | 76000199 (4') | RJ45 10-pin to DB25F modem cable | 61030024 61030048 |
| | | | | Adapter | None | N/A | N/A |

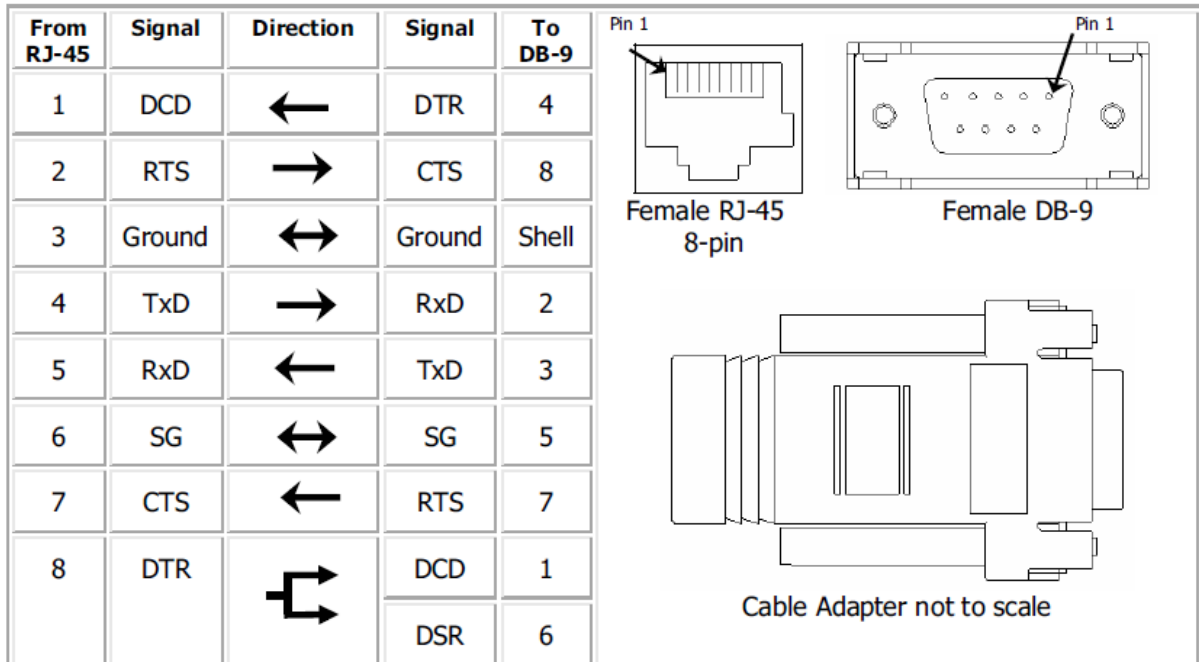
| RJ-45 to | Male or female | Straight or crossover | Applications | Cable or adapter | Part number | Pin out | Cable identifier |
|----------|----------------|-----------------------|---|------------------|---------------|--|------------------|
| RJ-45 | M | *Special* | For use with Cisco and Sun RJ-45 console ports. | Cable | 76000631 (6') | RJ45 (Altpin On) to RJ45 Cisco console adapter | 63000222-02 |
| | | | | Adapter | None | None | N/A |

- All RJ-45 to DBx cables are 10-pin. Only the RJ-45 to RJ-45 cable is an 8-pin cable.
- All RJ-45 adapters are 8-pin. When using these adapters with modems or other applications that require DCD on pin 1, you must turn on altpin.
- If altpin is turned off, the hardware signal on pin 1 becomes DSR instead of DCD. This alternative can be used if DCD is not required, and DSR is needed instead.

DB9 and DB25 DTE/console/terminal/printer adapters

| | |
|-------------------------------------|----|
| RJ45 to DB9 cable adapter | 10 |
| RJ45 to DB25F cable adapter | 11 |
| RJ45 to DB25M console adapter | 12 |
| RJ45 to DB25M printer adapter | 13 |
| RJ45 to DB25M modem adapter | 14 |

RJ45 to DB9 cable adapter



* Arrows indicate which direction the signal is flowing.

This cable can be purchased from Digi:

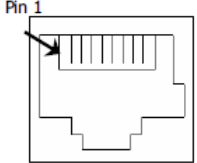
- DB9F Console Adapter: part #[76000697](#)

Notes:

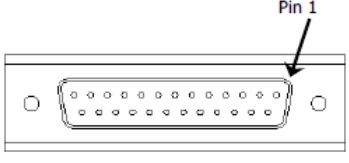
- All RJ45 cable adapters are 8-pin.
- Altpin should be turned on when using this cable adapter so that DTR will drive DCD (standard usage).
- If altpin is turned off, the hardware signal on RJ45 pin 1 becomes DSR instead of DCD. This alternative can be used if DCD is not required, and DSR is needed instead.
- This cable adapter utilizes the RTS signal of the serial device for hardware flow control (RTS/CTS).

RJ45 to DB25F cable adapter

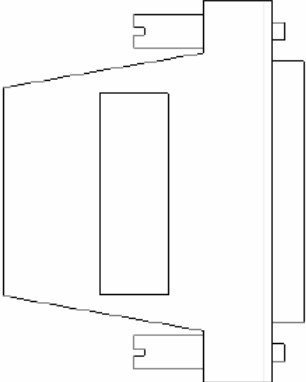
| From RJ-45 | Signal | Direction | Signal | To DB-25 |
|------------|--------|-----------|--------|----------|
| 1 | DCD | ← | DTR | 20 |
| 2 | RTS | → | CTS | 5 |
| 3 | Ground | ↔ | Ground | Shell |
| 4 | TxD | → | RxD | 3 |
| 5 | RxD | ← | TxD | 2 |
| 6 | SG | ↔ | SG | 7 |
| 7 | CTS | ← | RTS | 4 |
| 8 | DTR | ↻ | DSR | 6 |
| | | | DCD | 8 |



Female RJ-45 8-pin



Female DB-25



Cable Adapter not to scale

* Arrows indicate which direction the signal is flowing.

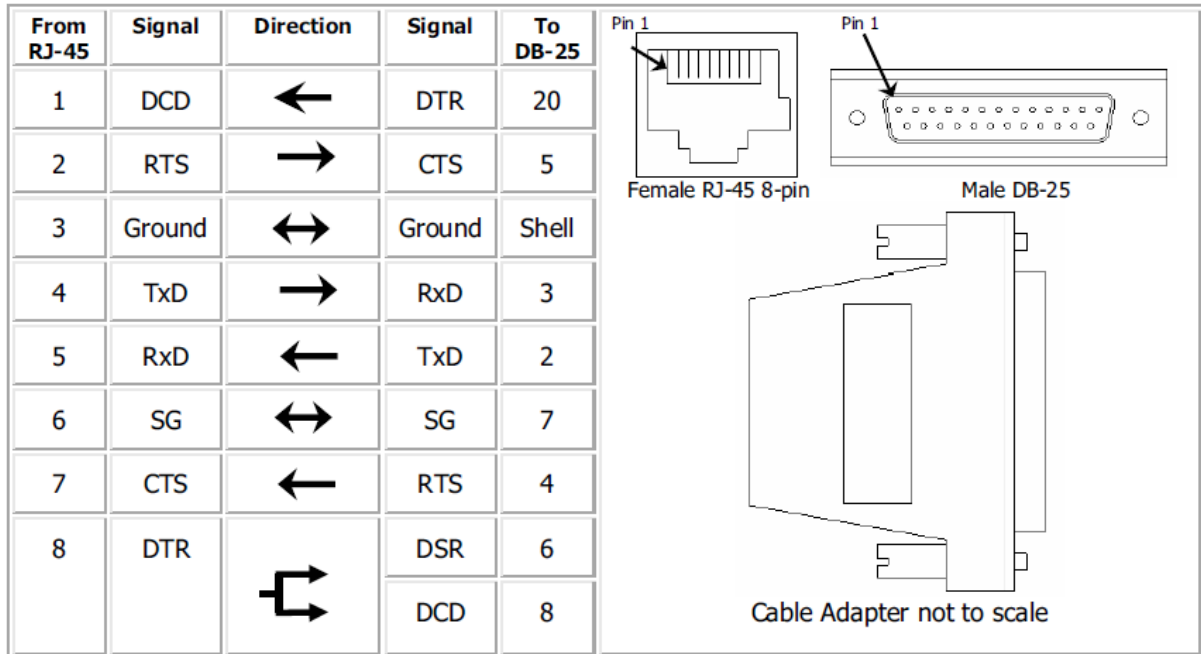
This cable can be purchased from Digi:

- DB25F Console Adapter: part #76000699

Notes:

- All RJ45 cable adapters are 8-pin.
- Altpin should be turned on when using this cable adapter so that DTR will drive DCD (standard usage).
- If altpin is turned off, the hardware signal on RJ45 pin 1 becomes DSR instead of DCD. This alternative can be used if DCD is not required, and DSR is needed instead.
- This cable adapter utilizes the RTS signal of the serial device for hardware flow control (RTS/CTS).

RJ45 to DB25M console adapter



* Arrows indicate which direction the signal is flowing.

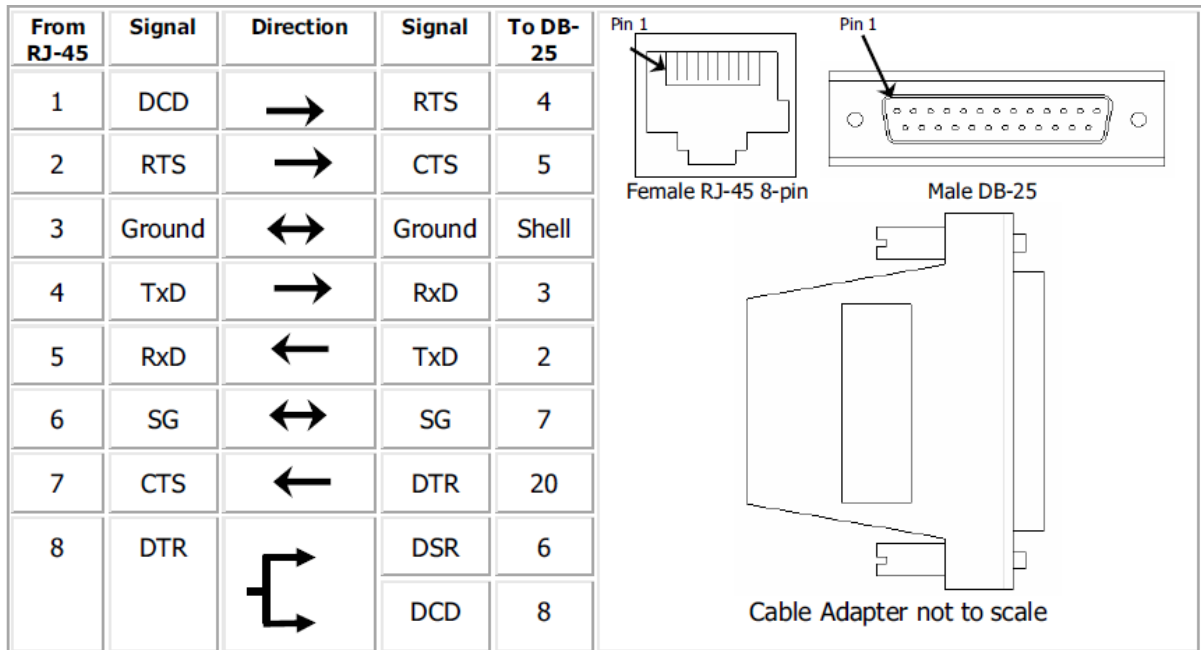
This cable can be purchased from Digi:

- DB25M Console Adapter: part #76000698

Notes:

- All RJ45 cable adapters are 8-pin.
- Altpin should be turned on when using this cable adapter so that DTR will drive DCD (standard usage).
- If altpin is turned off, the hardware signal on RJ45 pin 1 becomes DSR instead of DCD. This alternative can be used if DCD is not required, and DSR is needed instead.
- This cable adapter utilizes the RTS signal of the serial device for hardware flow control (RTS/CTS).

RJ45 to DB25M printer adapter

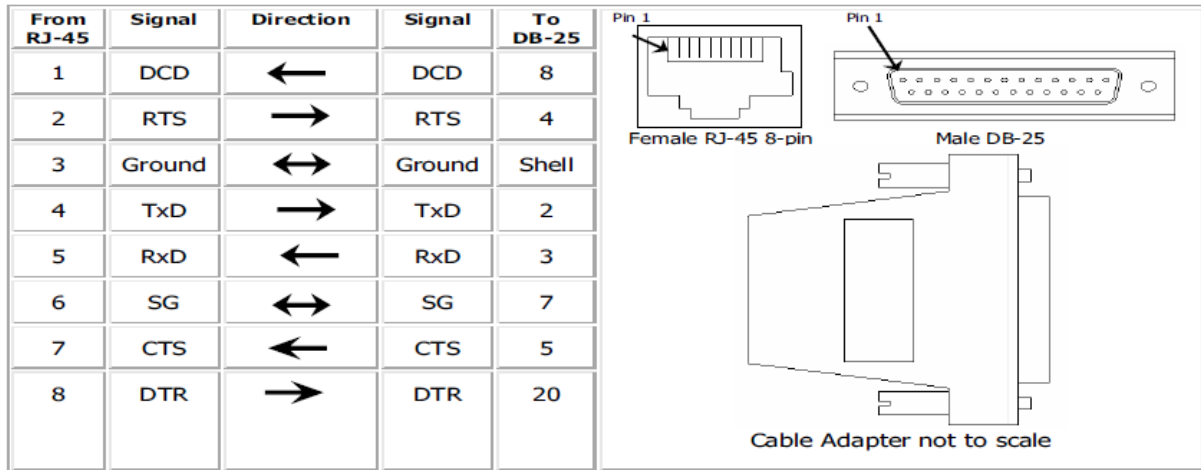


* Arrows indicate which direction the signal is flowing.

Notes:

- All RJ45 cable adapters are 8-pin.
- For use with Printers. This adapter utilizes the DTR signal of the serial device (instead of RTS) for hardware flow control (RTS/CTS).
- Okidata printers may use SSD (pin 11) instead of DTR (pin 20) on DB25 side of above diagram. If this is the case, the printer should be set to SSD+.
- Altpin should be turned on when using this cable so that DTR will drive DCD (standard usage).
- If altpin is turned off, the hardware signal on RJ45 pin 1 becomes DSR instead of DCD. This alternative can be used if DCD is not required, and DSR is needed instead.

RJ45 to DB25M modem adapter



* Arrows indicate which direction the signal is flowing.

This cable can be purchased from Digi:

- DB25M Modem Adapter: part #76000700

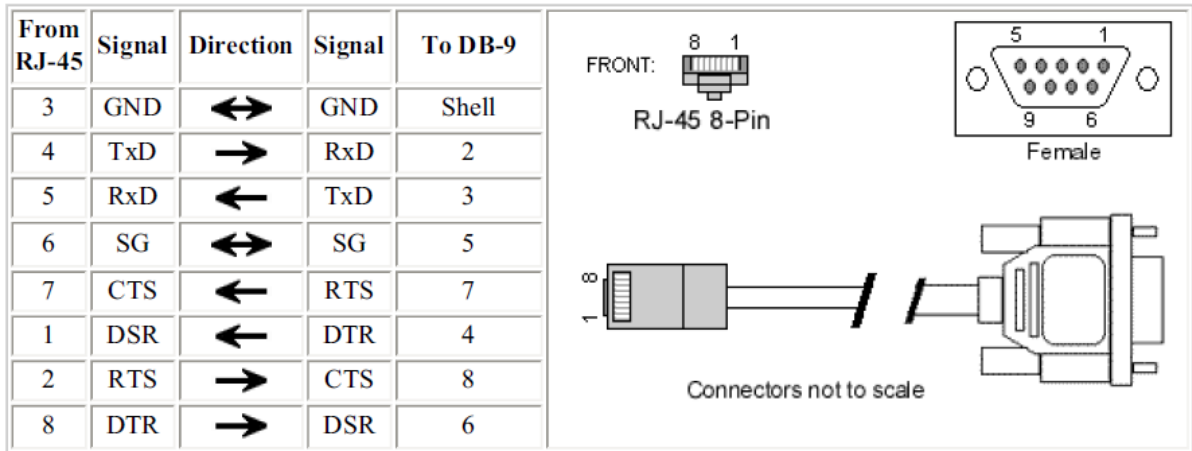
Notes:

- All RJ45 cable adapters are 8-pin.
- When using this adapter with a modem or other applications that require DCD on pin 1, you must turn on altpin.
- If altpin is turned off, the hardware signal on pin 1 becomes DSR instead of DCD.
- This cable utilizes the CTS signal of the modem for hardware flow control (RTS/CTS).

DB9 DTE/console/terminal/printer cables

| | |
|--|----|
| RJ45 to DB9F terminal emulator cable | 16 |
| RJ45 (Altpin on) to DB9F terminal emulator cable | 17 |
| RJ45 10-pin to DB9F terminal emulator cable | 18 |
| RJ45 (Altpin on) to DB9M terminal/printer cable | 19 |
| RJ45 to DB9M terminal/printer cable | 20 |

RJ45 to DB9F terminal emulator cable

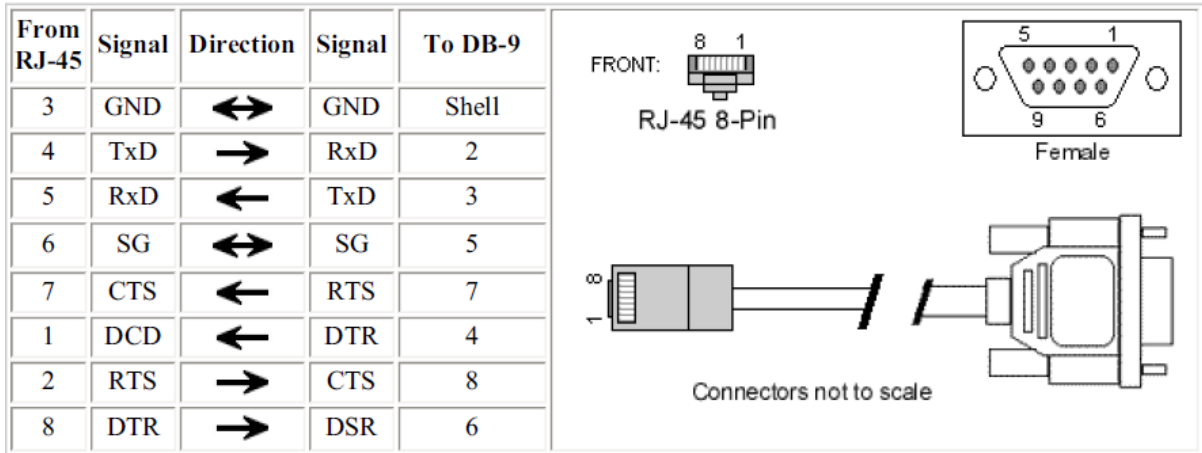


* Arrows indicate which direction the signal is flowing.

Notes:

- Altpin should be turned off when using this cable so that pin 1 becomes DSR instead of DCD. This alternative can be used if DCD is not required, and DSR is needed instead.
- This cable utilizes the RTS signal of the PC terminal emulator for hardware flow control (RTS/CTS).

RJ45 (Altpin on) to DB9F terminal emulator cable

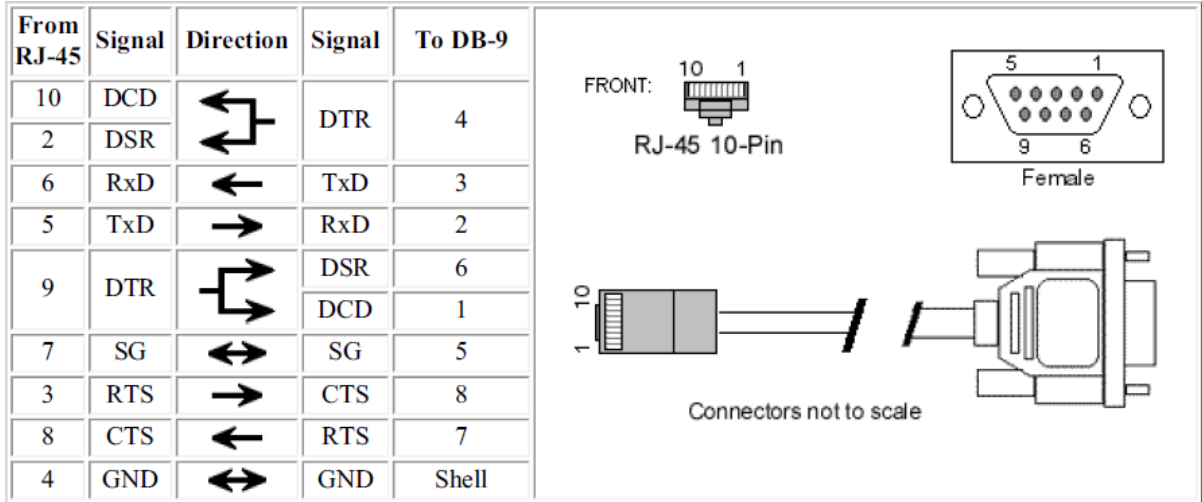


* Arrows indicate which direction the signal is flowing.

Notes:

- Altpin should be turned on when using this cable so that DTR will drive DCD (standard usage).
- If altpin is turned off, the hardware signal on RJ45 pin 1 becomes DSR instead of DCD. This alternative can be used if DCD is not required, and DSR is needed instead.
- This cable utilizes the RTS signal of the PC terminal emulator for hardware flow control (RTS/CTS).

RJ45 10-pin to DB9F terminal emulator cable



* Arrows indicate which direction the signal is flowing

This cable can be purchased from Digi:

- 4' RJ-45 to DB9 Male Crossover: part #76000264

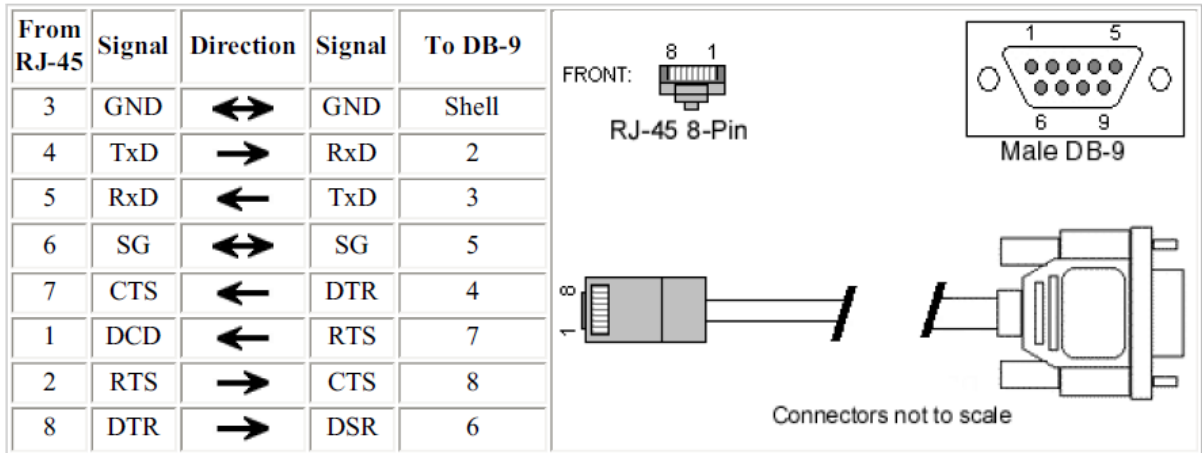
This cable can be purchased from Digi:

- 4' RJ-45 to DB9F crossover: part #76000645

Notes:

- Altpin should be turned off when using this cable.
- This cable utilizes the RTS signal of the PC terminal emulator for hardware flow control (RTS/CTS).

RJ45 (Altpin on) to DB9M terminal/printer cable

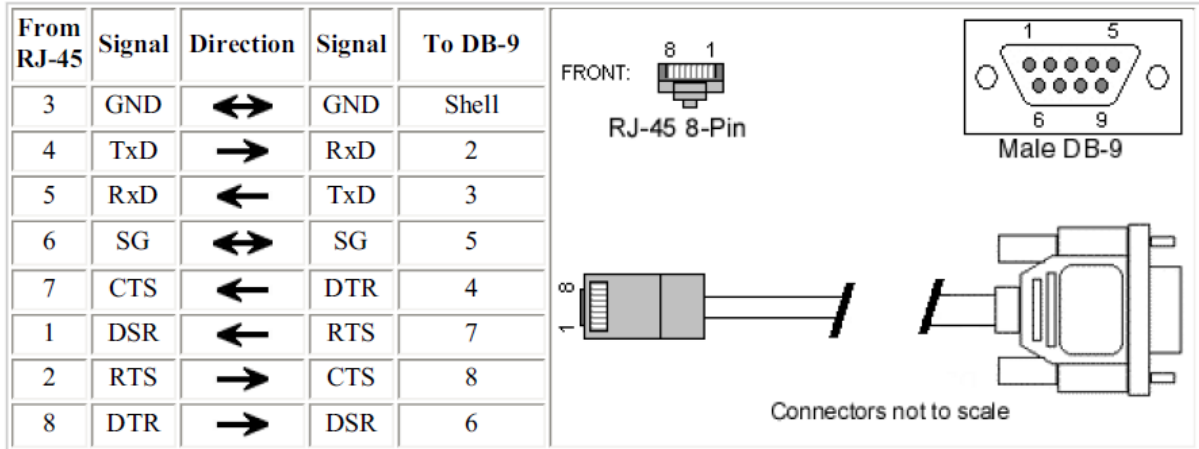


* Arrows indicate which direction the signal is flowing.

Notes:

- Altpin should be turned on when using this cable so that DTR will drive DCD (standard usage).
- If altpin is turned off, the hardware signal on RJ45 pin 1 becomes DSR instead of DCD. This alternative can be used if DCD is not required, and DSR is needed instead.
- This cable utilizes the DTR signal of the terminal/printer for hardware flow control (RTS/CTS).
- EIA-232 cables cannot exceed 2500 pF.

RJ45 to DB9M terminal/printer cable



* Arrows indicate which direction the signal is flowing.

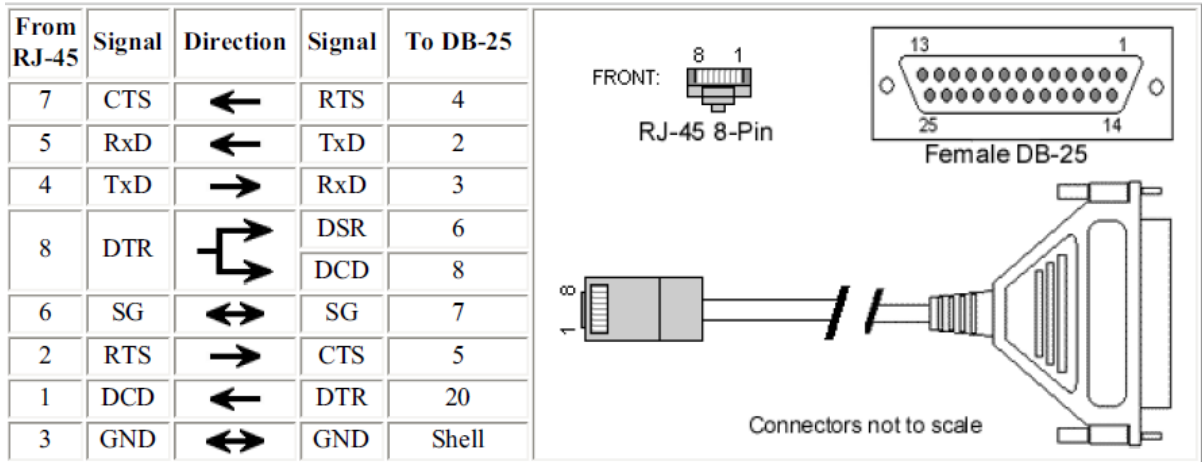
Notes:

- Altpin should be turned off when using this cable so that pin 1 becomes DSR instead of DCD. This alternative can be used if DCD is not required, and DSR is needed instead.
- This cable utilizes the DTR signal of the terminal/printer for hardware flow control (RTS/CTS).

DB25 DTE/console/terminal/printer cables

| | |
|---|----|
| RJ45 (Altpin on) to DB25F terminal emulator cable | 22 |
| RJ45 10-pin to DB25F terminal emulator cable | 23 |
| RJ45 to DB25M terminal/printer cable | 24 |
| RJ45 10-pin to DB25M terminal/printer cable | 25 |

RJ45 (Altpin on) to DB25F terminal emulator cable

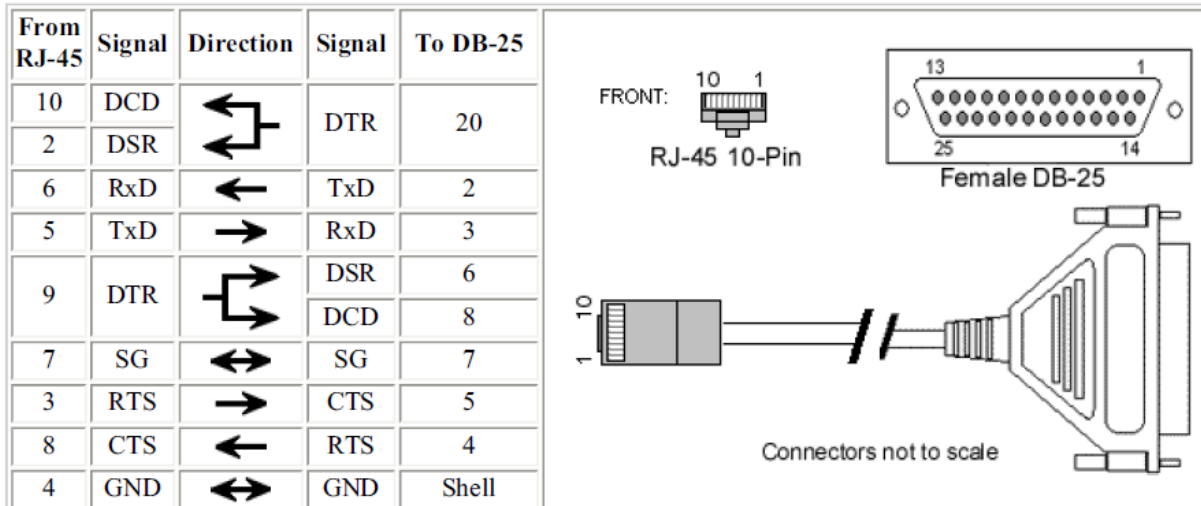


* Arrows indicate which direction the signal is flowing.

Notes:

- Altpin should be turned on when using this cable so that DTR will drive DCD (standard usage).
- If Altpin is turned off, the hardware signal on RJ45 pin 1 becomes DSR instead of DCD. This alternative can be used if DCD is not required, and DSR is needed instead.

RJ45 10-pin to DB25F terminal emulator cable



* Arrows indicate which direction the signal is flowing.

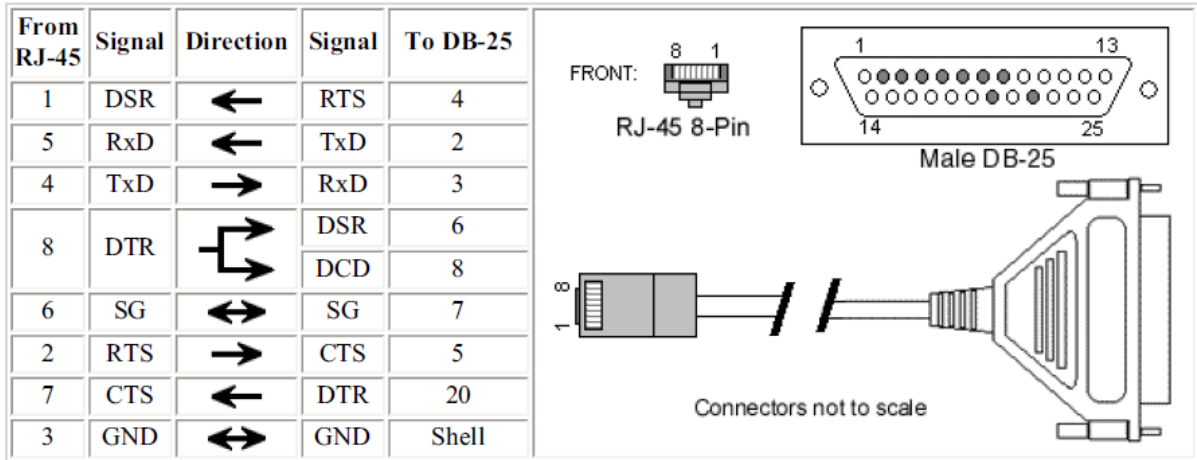
This cable can be purchased from Digi:

- 4' RJ-45 to DB25 Male Crossover: part #76000238

Notes:

- Altpin should be turned off when using this cable.
- This cable utilizes the RTS signal of the PC terminal emulator for hardware flow control (RTS/CTS).

RJ45 to DB25M terminal/printer cable

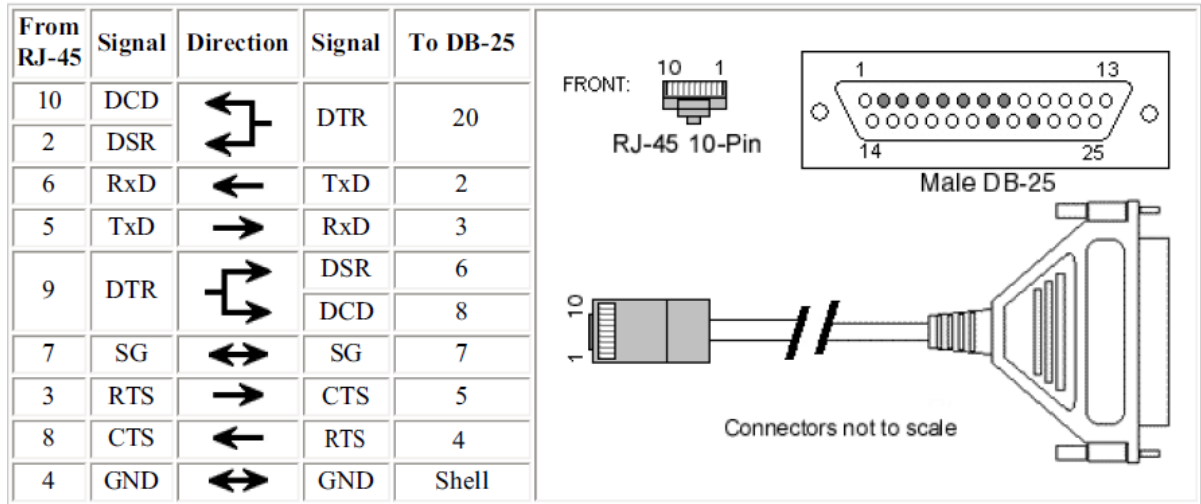


* Arrows indicate which direction the signal is flowing.

Notes:

- Altpin should be turned on when using this cable so that DTR will drive DCD (standard usage).
- If altpin is turned off, the hardware signal on RJ45 pin 1 becomes DSR instead of DCD. This alternative can be used if DCD is not required, and DSR is needed instead.
- This cable utilizes the DTR signal of the terminal/printer for hardware flow control (RTS/CTS).
- Okidata printers may use SSD (pin 11) instead of DTR (pin 20) on DB25 side of above diagram. If this is the case, the printer should be set to SSD+.

RJ45 10-pin to DB25M terminal/printer cable



* Arrows indicate which direction the signal is flowing.

This cable can also be purchased from Digi (part: RJ-45 10-pin to DB-25 - Part #76000238)

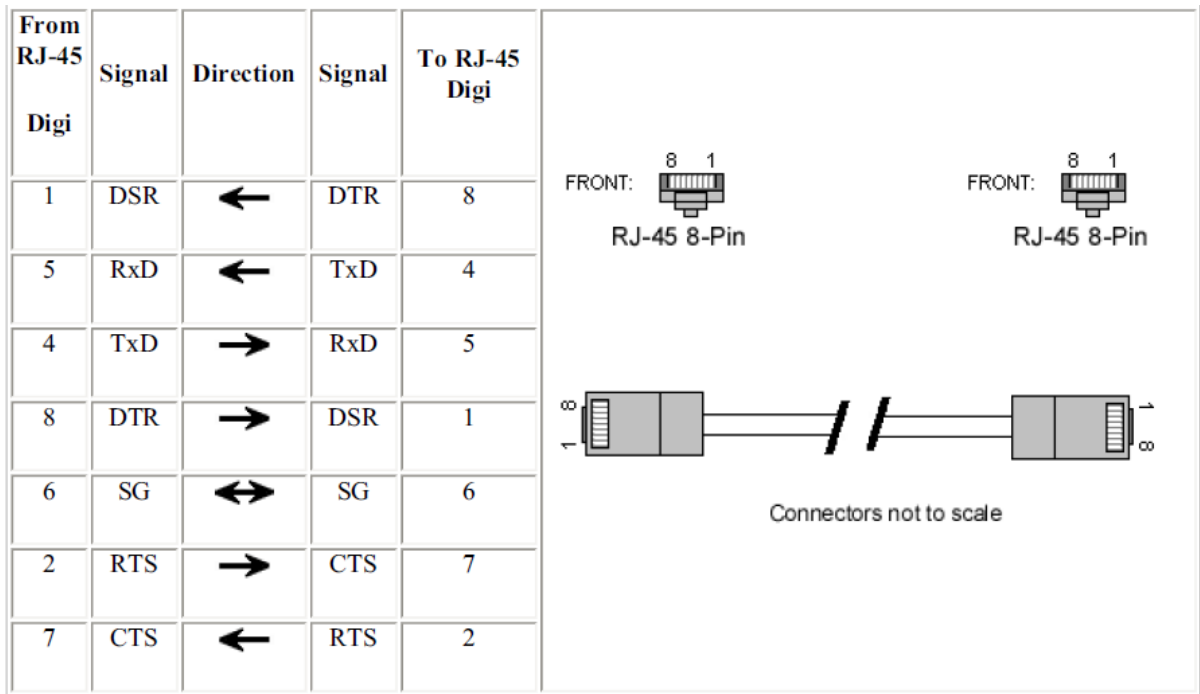
Notes:

- Altpin should be turned off when using this cable.
- This cable utilizes the DTR signal of the terminal/printer for hardware flow control (RTS/CTS).
- Okidata printers may use SSD (pin 11) instead of DTR (pin 20) on DB25 side of above diagram. If this is the case, the printer should be set to SSD+.

Digi-to-Digi Cables

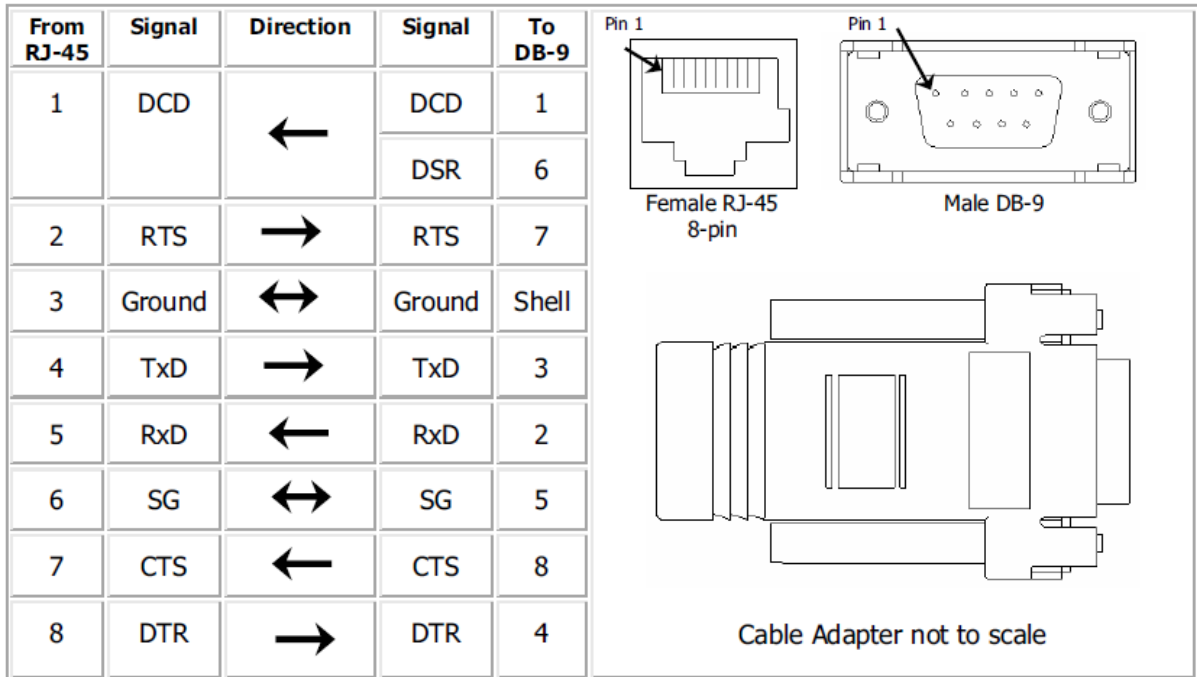
| | |
|--|----|
| Async RJ45 to RJ45 crossover cable - for cross-connecting Digi asynchronous ports together | 27 |
| RJ45 to DB9M modem adapter | 28 |

Async RJ45 to RJ45 crossover cable - for cross-connecting Digi asynchronous ports together



* Arrows indicate which direction the signal is flowing.

RJ45 to DB9M modem adapter



* Arrows indicate which direction the signal is flowing.

This cable can be purchased from Digi:

- DB9M Modem Adapter: part #[76000701](#)

Notes:

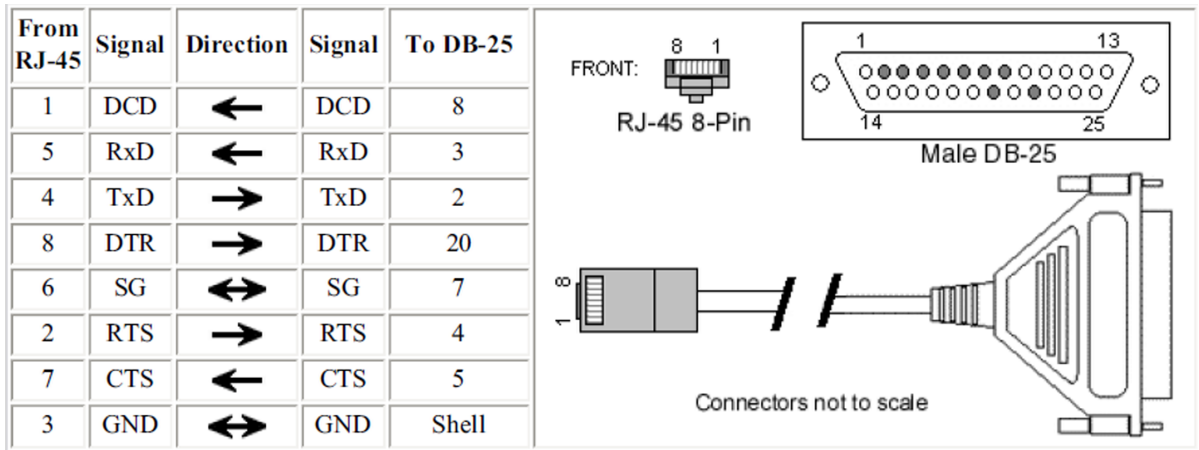
- All RJ45 cable adapters are 8-pin.
- When using this adapter with a modem or other applications that require DCD on pin 1, you must turn on altpin.
- If altpin is turned off, the hardware signal on pin 1 becomes DSR instead of DCD.
- This cable utilizes the CTS signal of the modem for hardware flow control (RTS/CTS).

DB25 and DB9 modem cables

| | |
|---|----|
| RJ45 (Altpin on) to DB25M modem cable | 30 |
| RJ45 (Altpin on) to DB9M modem cable | 31 |
| RJ45 10-pin to DB9M modem cable | 32 |
| RJ45 10-pin to DB9F modem cable | 33 |
| RJ45 10-pin to DB25M modem cable | 34 |
| RJ45 10-pin to DB25F modem cable | 35 |

RJ45 (Altpin on) to DB25M modem cable

The table shows the wiring diagram for an EIA-232 RJ45 8-pin connector, with Altpin on, to a DB25 modem cable.



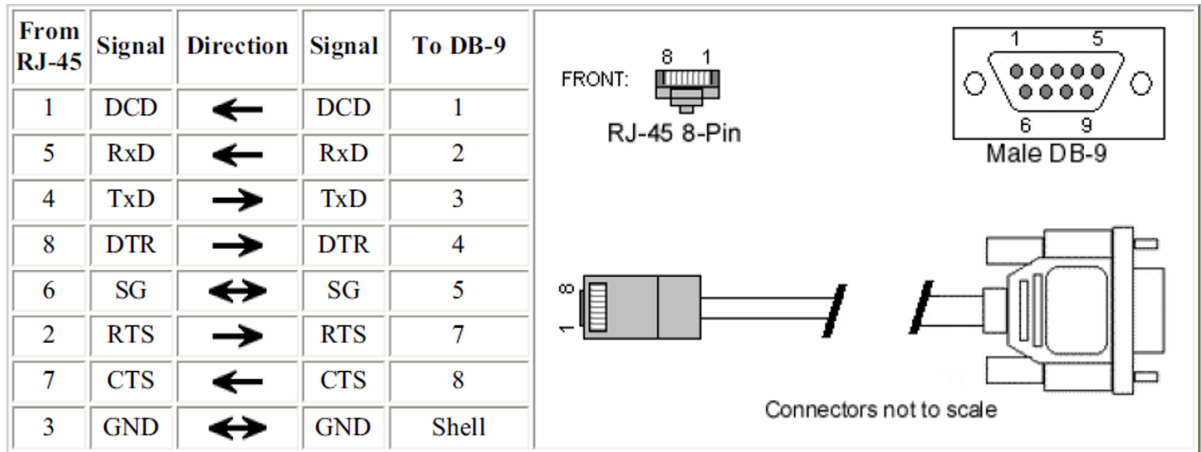
* Arrows indicate which direction the signal is flowing.

Notes:

- Altpin should be turned on when using this cable.
- This cable utilizes the CTS signal of the modem for hardware flow control (RTS/CTS).

RJ45 (Altpin on) to DB9M modem cable

The table shows the wiring diagram for an EIA-232 RJ45 8-pin connector, with Altpin on, to a DB9 modem cable.

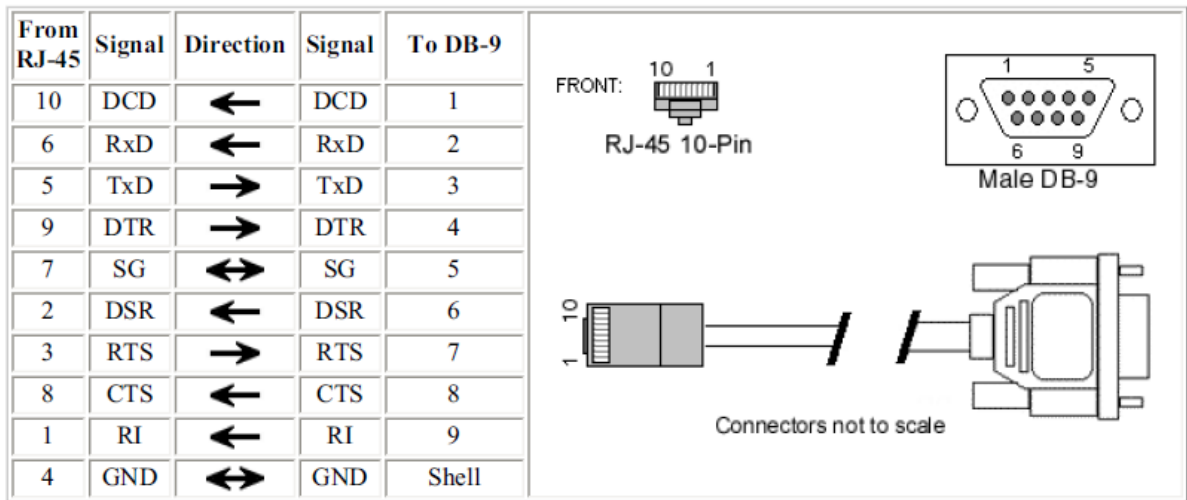


* Arrows indicate which direction the signal is flowing.

Notes:

- Altpin should be turned on when using this cable.
- This cable utilizes the CTS signal of the modem for hardware flow control (RTS/CTS).

RJ45 10-pin to DB9M modem cable



* Arrows indicate which direction the signal is flowing.

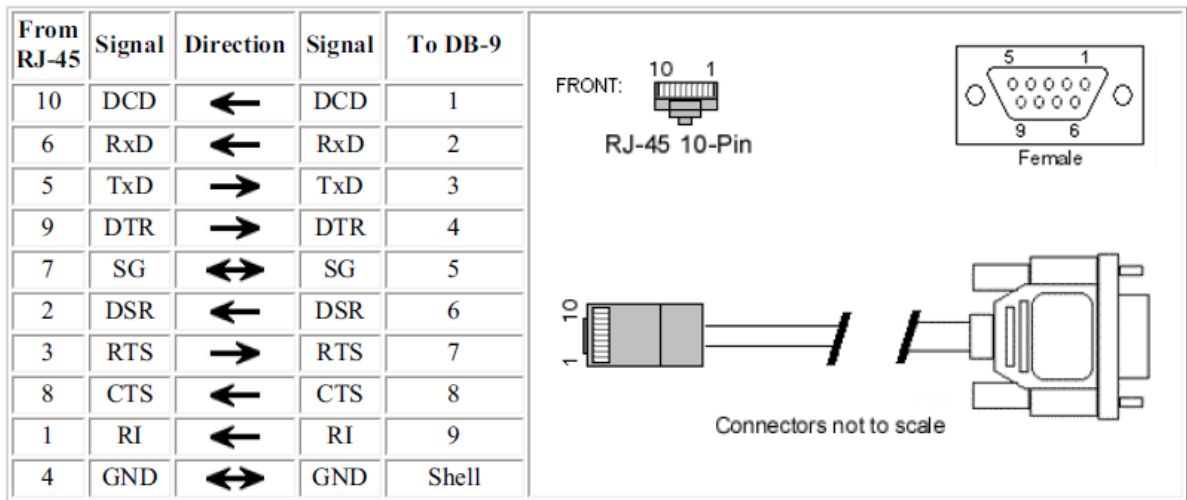
This cable can be purchased from Digi:

- 4' RJ-45 to DB9 Male straight: part #76000240

Notes:

- Altpin should be turned off when using this cable.
- This cable utilizes the CTS signal of the modem for hardware flow control (RTS/CTS).

RJ45 10-pin to DB9F modem cable



* Arrows indicate which direction the signal is flowing.

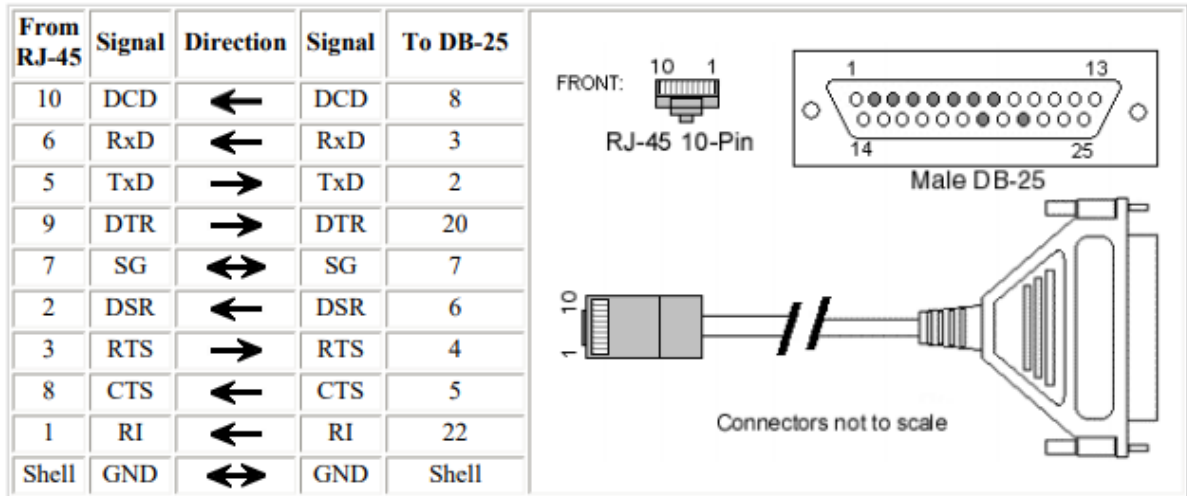
This cable can be purchased from Digi:

- 4' RJ-45 to DB9 Female straight: part #76000201

Notes:

- Altpin should be turned off when using this cable.
- This cable utilizes the CTS signal of the modem for hardware flow control (RTS/CTS).

RJ45 10-pin to DB25M modem cable



* Arrows indicate which direction the signal is flowing.

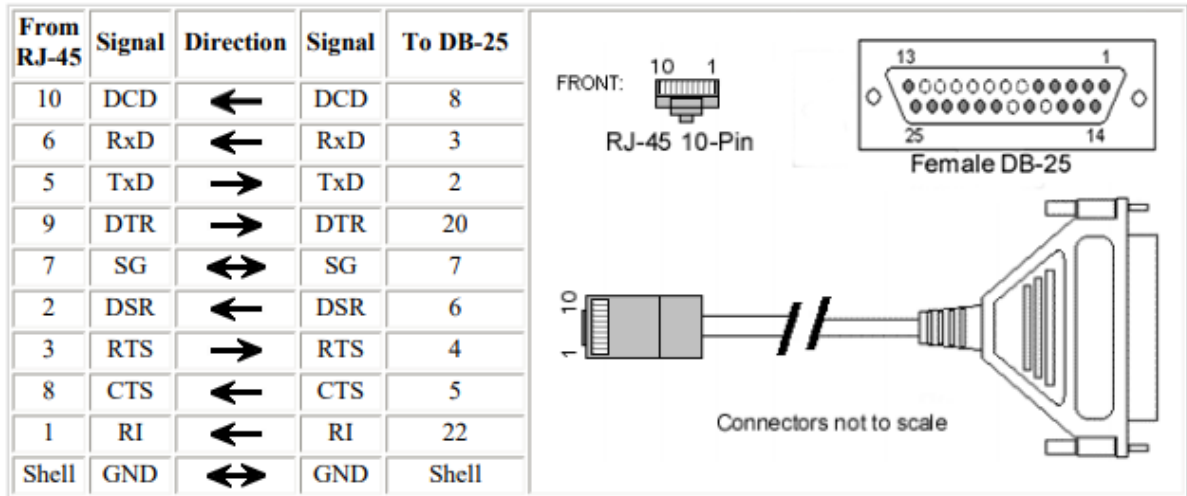
This cable can be purchased from Digi:

- 4' RJ-45 10-pin to DB25 Male Straight: part #76000195

Notes:

- Altpin should be turned off when using this cable.
- This cable utilizes the CTS signal of the modem for hardware flow control (RTS/CTS).

RJ45 10-pin to DB25F modem cable



* Arrows indicate which direction the signal is flowing.

This cable can be purchased from Digi:

- 4' RJ-45 10-pin to DB25 Male Straight: part #76000199

Notes:

- Altpin should be turned off when using this cable.
- This cable utilizes the CTS signal of the modem for hardware flow control (RTS/CTS).

Specialty cables

| | |
|----------------------------|----|
| Cisco console cables | 37 |
|----------------------------|----|

Cisco console cables

Digi RJ45 to RJ45 cable adapters: 8-pin

RJ45 to RJ45 cable adapters can be purchased from Digi. These adapters consist of an 8-pin RJ45 plug connected to another 8-pin RJ45 plug with a crossover cable. These cables are used to connect the Digi devices to the serial console port of Cisco and Sun Netra devices. Pinout information and a graphic is included later in this chapter. See [Digi RJ45 to RJ45 cable adapters: 8-pin](#) for pinout and graphic information.

Part numbers for RJ45 to RJ45 8-pin crossover cable for Cisco & Sun Netra

| Cable description | Part # | Cable identifier |
|--|--------------------------|------------------|
| Cable RJ45 to RJ45 8-pin (single pack) | 76000631 | 63000222-02 |

RJ45 (Altpin On) to RJ45 Cisco console adapter

The wiring diagram for an Altpin RJ-45 8-pin to a Cisco Console RJ-45 8-pin adapter cable is shown in the following table.

| From RJ-45 | Signal | Direction | Signal | To RJ-45 Cisco |
|------------|--------|-----------|--------|----------------|
| 1 | DCD | ← | DTR | 2 |
| 5 | RxD | ← | TxD | 3 |
| 4 | TxD | → | RxD | 6 |
| 8 | DTR | → | DSR | 7 |
| 6 | SG | ↔ | SG | 5 |
| 2 | RTS | → | CTS | 8 |
| 7 | CTS | ← | RTS | 1 |
| 3 | GND | ↔ | GND | 4 |

The diagram illustrates the physical connection between two RJ-45 8-pin connectors. Each connector is shown from the front with pins numbered 1 through 8. A cable connects the two connectors, with the text 'Connectors not to scale' below it.

* Arrows indicate which direction the signal is flowing.

This cable can be purchased from Digi:

- 6' RJ-45 to RJ-45 for Sun Netra/Cisco: part #[76000631](#)

Notes:

- Works for most current Cisco routers.
- Be careful not to swap cable ends. One end will go to DIGI and the other to the router.
- Altpin should be turned on when using this cable.

X-ON Electronics

Largest Supplier of Electrical and Electronic Components

Click to view similar products for [Ethernet Cables / Networking Cables](#) category:

Click to view products by [Digi International](#) manufacturer:

Other Similar products are found below :

[73-6670-7](#) [73-6680-15](#) [73-7797-25](#) [MCJB2-10P6Q7-120](#) [84909-0204](#) [1200700174](#) [1200860368](#) [E16A06002M030](#) [E200102-009-S1](#)
[AX105346-EW](#) [MT14-187L](#) [17-103530](#) [ERWPAB3002M005](#) [190-038045-01](#) [NK5EPC18RDY](#) [NK5EPC18VLY](#) [NK5EPC18YLY](#)
[NK5EPC1GRY](#) [NK5EPC4Y](#) [NK5EPC6YLY](#) [NK5EPC8BLY](#) [NK5EPC9YLY](#) [1969343-6](#) [C501100010](#) [C501106002](#) [C501106007](#)
[C501106015](#) [C501106025](#) [C601102010](#) [C601104010](#) [C601106007](#) [C601106015](#) [2142758-2](#) [2168427-2](#) [CAT1106007](#) [SR02P0-26E5-15.0](#)
[SR02S0-26E5-15.0](#) [21949-1](#) [2J1866A](#) [RJF SFTP 5E 0500](#) [AX100351](#) [MN14CEC/ST](#) [C501100015](#) [C501106004](#) [C501106010](#) [C5F1108007](#)
[C601104004](#) [C601106004](#) [CA21106004](#) [CA21106010](#)