



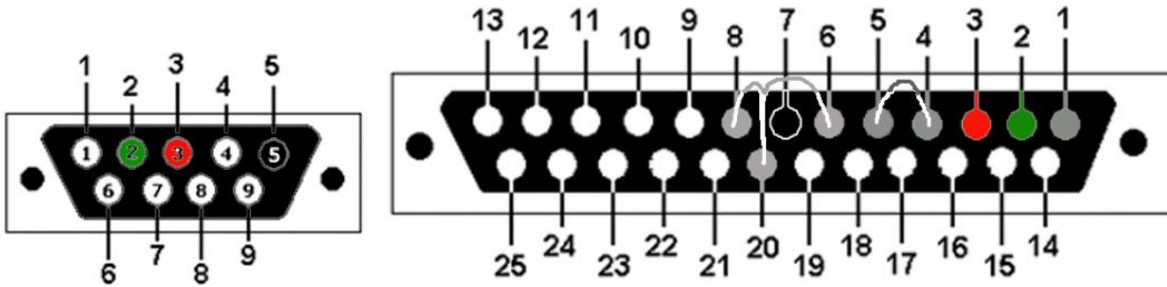
PC-DNC FAQs

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Cable Diagrams and Descriptions

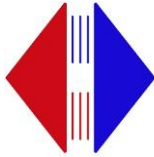
Pinout 1: No Handshake

Jumper?	DB-9 PC (Female)	Wire	DB-25 CNC (Male)	Jumper?
	(Disconnected)	Shield	1	
	2 (Receive Data)	Green	2 (Transmit Data)	
	3 (Transmit Data)	Red	3 (Receive Data)	
	5 (Signal Ground)	Black	7 (Signal Ground)	
			4 (RTS) 5 (CTS)	JUMPER
			6 (DSR) 8 (DCD) 20 (DTR)	JUMPER



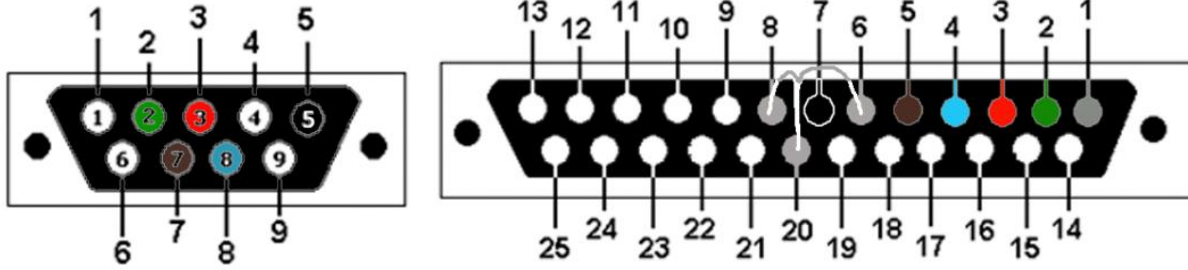
Pinout 2: Partial Handshake (RTS/CTS Only)

Jumper?	DB-9 PC	Wire	DB-25 CNC	Jumper?
	(Disconnected)	Shield	1	
	2 (Receive Data)	Green	2 (Transmit Data)	
	3 (Transmit Data)	Red	3 (Receive Data)	
	5 (Signal Ground)	Black	7 (Signal Ground)	
	7 (RTS)	Brown	5 (CTS)	
	8 (CTS)	Blue	4 (RTS)	
			6 (DSR) 8 (DCD) 20 (DTR)	JUMPER



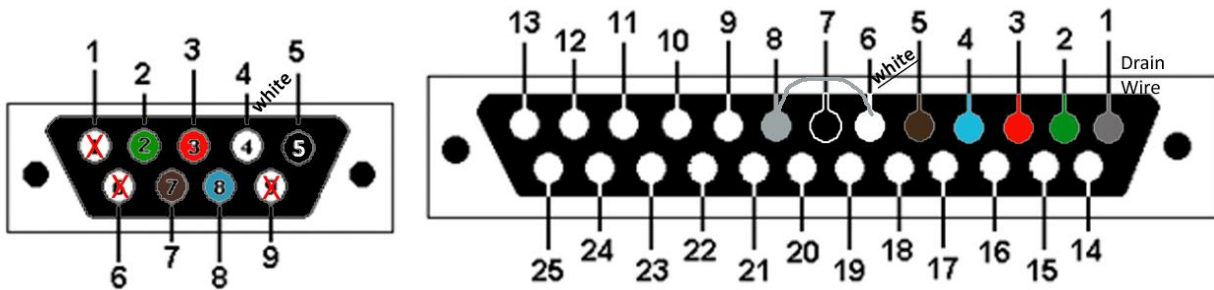
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Pinout 3A: Full Handshake (RTS/CTS & DTR)

Jumper?	DB-9 PC (Female)	Wire	DB-25 CNC (Male)	Jumper?
	(Disconnected)	Shield	1	
	2 (Receive Data)	Green	2 (Transmit Data)	
	3 (Transmit Data)	Red	3 (Receive Data)	
	5 (Signal Ground)	Black	7 (Signal Ground)	
	7 (RTS)	Brown	5 (CTS)	
	8 (CTS)	Blue	4 (RTS)	
	4 (DTR)	White	6 (DSR) 8 (DCD)	JUMPER



Pinout 3B: Full Handshake (RTS/CTS & DTR/DSR)

Jumper?	DB-9 PC	Wire	DB-25 CNC	Jumper?
	(Disconnected)	Shield	1	
	2 (Receive Data)	Green	2 (Transmit Data)	
	3 (Transmit Data)	Red	3 (Receive Data)	
	5 (Signal Ground)	Black	7 (Signal Ground)	
	7 (RTS)	Brown	5 (CTS)	
	8 (CTS)	Blue	4 (RTS)	
	4 (DTR)	White	6 (DSR) 8 (DCD)	JUMPER
JUMPER	1 (DCD) 6 (DSR)	(OTHER COLOR)	20 (DTR)	



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Black Box's pre-constructed cables use Pinout 3B. WE MAKE NO DISTINCTION BETWEEN PINOUTS 3A AND 3B. In our system, we never look at pins 1 or 6 on the PC side, so it makes no difference if we use that wire or not. With our standard 6 conductor cable we don't have enough wires to connect it anyway, so we leave it out.

Here is when it is ok to use each cable (items in yellow are functional, but "less preferred")

	PC-DNC plus or PC-DNC Editor (Wait for XON)	PC-DNC Editor (Send Now)*
Any Fanuc with RS232	1,2,3	1,2
Fanuc 30i/31i/32i (any), 0i (D or later), 16i/18i/21i (B or later) with DR Signal Off problem even though 6-8-20 jumper is present	3	NOT POSSIBLE
Yasnac MX-1/LX-1, MX-2/LX-2, MX-3/LX-3, I80, J30	1,2,3	1,2,3***
Yasnac I80 or J30 (drip feeding)	2,3	2,3***
Mazak	1,2,3	1,2,3***
Mazak (drip feeding)	2,3	2,3***
Siemens	2,3	2,3***
Haas**	1,2,3	1,2,3
Fadal**	1,2,3	1,2,3
Mitsubishi	1,2,3	1,2,3***
Mitsubishi (drip feeding)	2,3	2,3***
Brother	2,3	2,3***
Okuma	1,2,3	1,2,3***

*Remember – you can't use SEND NOW when drip feeding. This column refers only to transfer in/out of memory. When drip feeding, use Wait for XON or the DNC button in PC-DNC Editor.

** Haas and Fadal machines need only 2, 3, and 7. Pinout 1 doesn't even need the 4/5 and 6/8/20 jumpers.

*** Parameter to disable DR signal check required to use pinout 3. These devices do NOT permit the use of pinout 3 with the SEND NOW button in their default state.

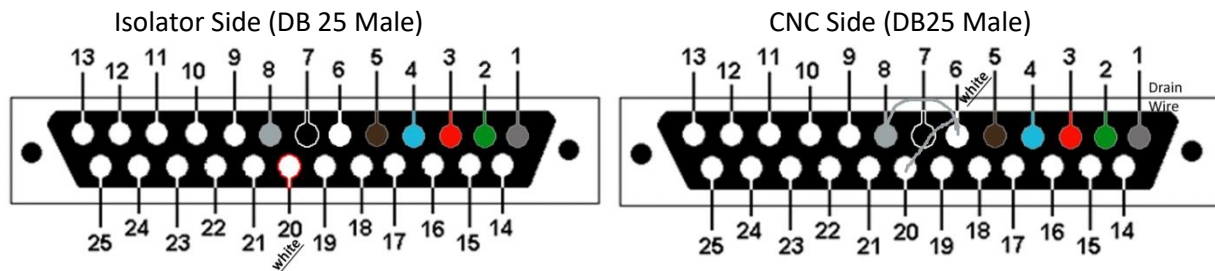


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Optical Isolator Special Pigtail:

Jumper?	DB-25 Isolator	Wire	DB-25 CNC	Jumper?
	(Disconnected)	Shield	(Disconnected)	
	2 (Receive Data)	Green	2 (Transmit Data)	
	3 (Transmit Data)	Red	3 (Receive Data)	
	4 (RTS)	Blue	4 (RTS)	
	5 (CTS)	Brown	5 (CTS)	
	7 (Signal Ground)	Black	7 (Signal Ground)	
	20 (POWER IN)	White	6 (DSR) 8 (DCD) 20 (DTR)	JUMPER



Optical Isolator Cable Compatibility:

	Pinout 1	Pinout 2	Pinout 3A/B
DB25 Straight Through	Haas Only - Always requires power supply	Haas Only - Usually ok, but sometimes requires power supply	Haas Only
Special Pigtail	Always requires power supply	Usually ok, but sometimes requires power supply	All Machines