

5.0 CPT8000 Electrical Connectors and Wiring Diagrams

This section contains drawings of Electrical Connectors and information on Pin Configuration, Pin Numbers, Wire Colors and Pin Descriptions.

- 5.1** 25 Pin D-Sub Connector to TCU Adapter Cable
- 5.2A** Eject Box Wiring Harness – 18 Male Pin, Female ELO Connector
- 5.2B** Factory Installed – 18 Female Pin, Male ELO Connector
- 5.3** CPT8000 12-Pin Wiring Harness Connector
- 5.4** CPT8000 26-Pin ELO Connector for E46 Convertible
- 5.5** 28-Pin Multilock TCU Connector
- 5.6A** CPT8000 Wiring Diagram – All Models Except E46
- 5.6B** CPT8000 Wiring Diagram – E46 Only

5.1 25 Pin D-Sub Connector to TCU Adapter Cable

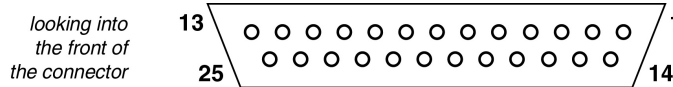


Figure 1 - Looking into 25 pin D-Sub Connector

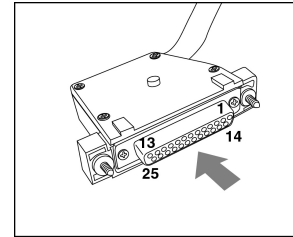


Figure 2 - Connector

This is a **male connector**, number X18500, comprised of 25 **female pins** and mates with a **female connector**, with 25 **male pins**, on the TCU adapter cable. It is used with all models equipped with the CPT8000. Figure 1 represents the connector with pin orientation and figure 2 is a drawing of the actual connector. Wire colors may vary due to manufacturing variations.

Pin #	Wire Color	Pin Description	Notes
1	Yellow-Red	RX On/Off	
2	White	Mayday Switch - LED	
3	Brown-Black	KL31 - Ground	
4	Red-Yellow	KL30 - B+	
5	Purple-Red	Ignition Sense	M5 = Purple
6	Blue-Green	TX Audio	
7	White-Blue	Battery Feedback	
8	Orange	Hand Set Power Supply	
9	Blue-Yellow	Mayday Switch - Emergency	
10	White-Brown	Entertainment Mute	
11	Blue	TXD	
12	White-Red	Reserved	
13	Yellow-Brown	Mayday Switch - Roadside Assistance	
14	Green	Microphone – Negative	5 Wagon = Brown-white
15	Yellow-Black	Microphone – Positive	5 Wagon = White
16	Red-Yellow	KL30 - B+	
17	Brown-Black	KL31 - Ground	
18	White-Green	RXD	
19	Orange	Speaker – Positive	M5 = Blue-black, 5 Wagon = Black-white
20	Black	Shielded Ground to Microphone	
21	White-Gray	Telephone On	
22	White-Gray-Yellow	I-Bus	
23	Yellow	Logic Ground	
24	White-Black	Analog Ground	
25	Brown-Yellow	Speaker – Negative	M5 = Blue-brown, 5 Wagon = Black-brown

5.2A Eject Box Wiring Harness - 18 Male Pin, Female ELO Connector

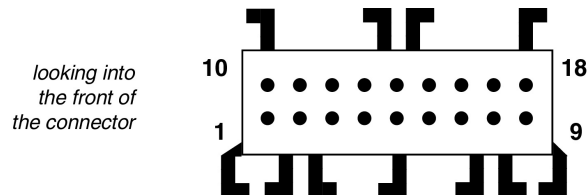


Figure 1 - 18 Male Pin ELO Connector

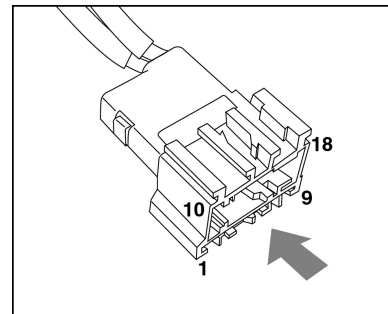


Figure 2 - Connector

This is a **female connector**, number X4545, with 18 **male pins** located at the end of the eject box wiring harness and mates with a **male connector** containing 18 **female pins** at the end of the factory wiring harness that ends at the console. It is used with all models equipped with the CPT8000. Figure 1 represents the connector with pin orientation and figure 2 is a drawing of the actual connector. Wire colors may vary due to manufacturing variations.

Pin #	Wire Color	Pin Description	Notes
1	Orange	TXD	
2	None	Not Used	
3	White-Blue	RXD	
4	Gray	RX On/Off	
5	White-Gray	Jumper to Pin 9	
6	Brown	TX Audio	
7	White-Black	Logic Ground	
8	None	Not Used	
9	White-Gray	I-Bus	
10	None	Not Used	
11	White-Gray	Telephone On - In	
12	None	Not Used	
13	Orange	Hand Set Power Supply	
14	White-Gray	Telephone On - Out	
15	Yellow-Black	58G - Not Used	
16	White-Blue	Battery Feedback	
17	Brown	KL31 - Ground	
18	White-Black	Audio Ground	

5.2B Factory Installed - 18 Female Pin, Male ELO Connector

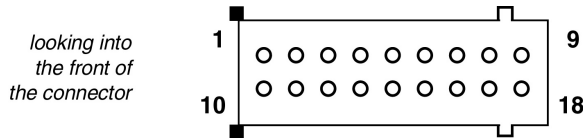


Figure 1 - 18 Female Pin ELO Connector

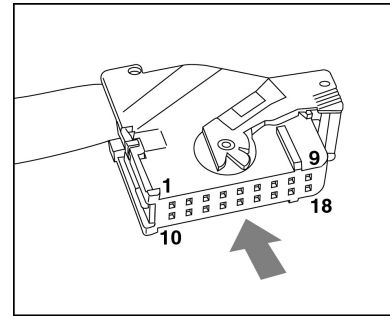


Figure 2 - Connector

This is a **male connector**, number X4545, with 18 **female pins** on the factory wiring harness ending at the console and mates with a **female connector**, with **male pins**. It is used with all models equipped with the CPT8000. Figure 1 represents the connector with pin orientation and Figure 2 is a drawing of the actual connector. Wire colors may vary due to manufacturing variations.

Pin #	Wire Color	Pin Description	Notes
1	Blue	TXD	
2	White-Red	Reserved	
3	White-Green	RXD	
4	Yellow-Red	RX On/Off	
5	None	Not Used	
6	Blue-Green	TX Audio	
7	Yellow	Logic Ground	
8	Purple-Red	Ignition	
9	White-Gray-Yellow	I-Bus	
10	Red-Yellow	KL30 - B+	
11	White-Yellow	Telephone On - In	
12	None	Not Used	
13	Orange	Hand Set Power Supply	
14	White-Gray	Telephone On - Out	
15	Gray-Red or Gray-Yellow	58G - Not Used	5 Wagon = Gray-red
16	White-Blue	Battery Feedback	
17	Brown	KL31 – Ground	5 Wagon = Brown-black
18	White-Black	Audio Ground	

5.3 CPT8000 12-Pin Wiring Harness Connector

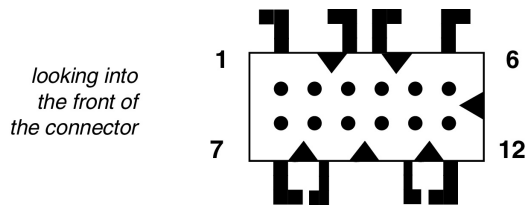


Figure 1A - CPT8000 Wiring Harness Connector
Female Connector - 12 Male Pins

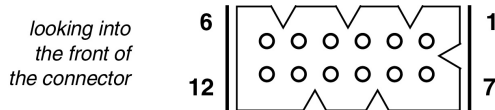


Figure 1B - CPT8000 Wiring Harness Connector
Male Connector - 12 Female Pins

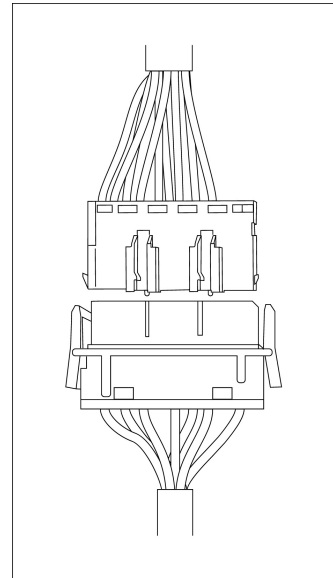


Figure 2 - Connector

A **male connector**, number X400, with 12 **female pins** connects the factory-installed phone wiring harness to the vehicle's wiring. It mates with a **female connector**, with 12 **male pins** that is part of the vehicle wiring. It is used with all models equipped with the CPT8000 except for E46 which has the phone wiring harness wired directly with the vehicles main wiring harness. Figures 1A and 1B above, represent the connectors with pin orientation and Figure 2 is a drawing of the actual connectors. Wire colors may vary due to manufacturing variations.

Pin #	Wire Color	Pin Description	Notes
1	Red-Yellow	KL30 - B+	
2	Purple-Red	Ignition	
3	Blue-Yellow	Mayday Switch - Emergency	
4	White-Gray-Yellow	I-Bus	
5	Gray-Red	58G	
6	White	Mayday Switch - LED	
7	Brown-Black	KL31 - Ground	
8	White-Brown	Mute	
9	Black-White	Speaker – Positive	
10	Black-Brown	Speaker – Negative	
11	White-Green	Telephone On	
12	Yellow Brown	Mayday Switch-Roadside Assistance	

5.4 26 Female Pin, Male ELO Connector for E46 Convertible

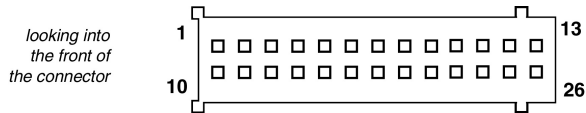


Figure 1 - 26 Female Pin ELO Connector

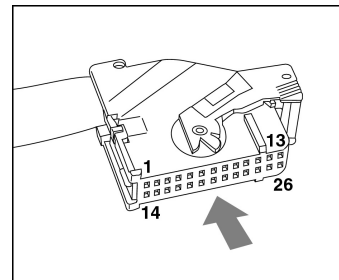


Figure 2 - Connector

This is a **male connector**, number X0000, with 26 **female pins** and mates with a **female connector** with 26 **male pins** on the TCU adapter cable. It is used only with the E46 convertible model equipped with the CPT8000. Figure 1 represents the connector with pin orientation and Figure 2 is a drawing of the actual connector. Wire colors may vary due to manufacturing variations.

Pin #	Wire Color	Pin Description	Notes
1	Yellow-Red	RX On/Off	
2	None	Not Used	
3	Brown	KL31 (Ground)	
4	Red	KL 30 (B+)	
5	Violet	KLR	
6	Blue-Green	TX Audio	
7	Grey-Green	Battery Feedback	
8	Blue-Yellow	Handset Power Supply	
9	None	Not Used	
10	Black	Ent. Mute	
11	Blue	TXD	
12	White-Red	Reserved	
13	None	Not Used	
14	White	Microphone - Negative	
15	Brown-White	Microphone - Positive	
16	Red	KL 30 (B+)	
17	Brown	KL31 (Ground)	
18	White-Green	RXD	
19	Black	Speaker Positive	
20	Brown-Black	Shield Ground	
21	Grey-Red	Telephone On	
22	White-Red	I-Bus	
23	Yellow	Logic Ground	
24	White-Black	Analog Ground	
25	Yellow	Speaker Negative	
26	None	Not Used	

5.5 28 Pin Multilock TCU Connector

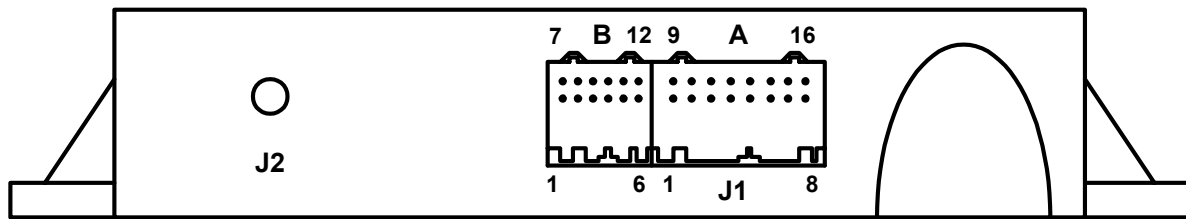


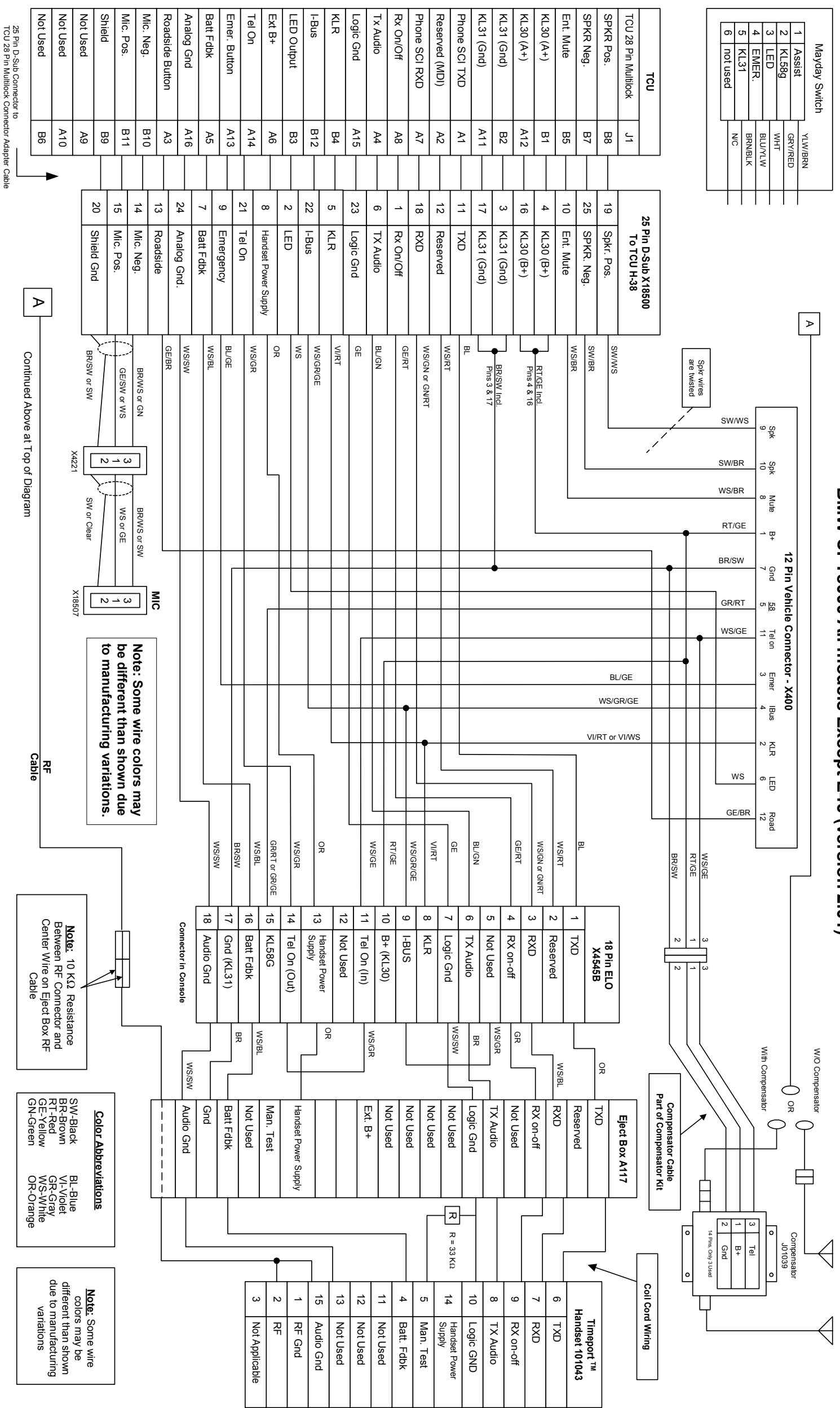
Figure 1 - 28 - Pin Multilock TCU Connector

This is a **male connector** with 28 **female pins** and mates with a **female connector** with 26 **male pins** on the TCU adapter cable. Figure 1 represents the connector with pin orientation. Wire colors may vary due to manufacturing variations.

25 Pin DSUB Pin #	28 Pin Multilock Pin #	Wire Color	Pin Description	Notes
1	A8	Yellow-Red	RX Audio On/Off	
2	B3	White	LED Output	
3	B2	Brown-Black	Vehicle Battery Ground	
4	B1	Red-Yellow	Vehicle Battery Voltage	
5	B4	Violet-Red	Ignition	
6	A4	Blue-Green	Tx Audio	
7	A5	White-Blue	Battery Feedback	
8	A6	Orange	External B+	
9	A13	Blue-Yellow	Emergency Button	
10	B5	White-Brown	Mute	
11	A1	Blue	TxD	
12	A2	White-Red	Reserved	
13	A3	Yellow-Brown	Roadside Button	
14	B10	Green	Microphone - Negative	
15	B11	Yellow-Black	Microphone - Positive	
16	A12	Red-Yellow	Battery +	
17	A11	Brown-Black	Battery Ground	
18	A7	White-Green	RxD	
19	B8	Blue-Black	Speaker Positive	
20	B9	Black	Shield	
21	A14	White-Gray	Telephone On	
22	B12	White-Gray-Yellow	I-Bus	
23	A15	Yellow	Logic Ground	
24	A16	White-black	Audio Ground	
25	B7	Blue-Brown	Speaker Negative	

5.6A CPT8000 Wiring Diagram – All Models Except E46

BMW CPT8000 All models Except E46 (version 2.01)



5.6B CPT8000 Wiring Diagram – E46 Only

BMW CPT8000 E46 (Version 2.01)

Mayday Switch		
1	Assist	YLW/BRN
2	KL58g	GRY/RED
3	LED	WHT
4	EMER.	BLU/YLW
5	KL31	BRN/BLK
6	not used	N/C

Note: Some wire colors may be different than shown due to manufacturing variations.

