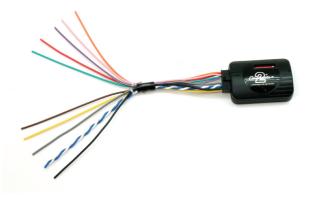




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# UNI-SWC.2 Universal Steering Wheel Control for CAN-Bus & Resistive Vehicles



# **INSTRUCTION MANUAL**



## ABOUT

The Aerpro APUNISWC covers a wide range of both CAN-Bus and resistive vehicles, allowing steering wheel control retention with almost every steering wheel control compatible head unit on the market.

### Installation

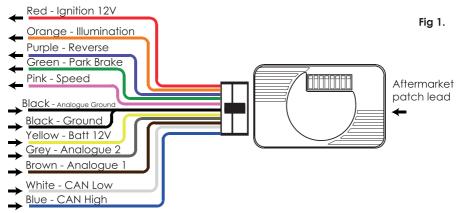
- 1: Remove and disconnect the original head unit.
- 2: Connect the Universal patch lead to the APUNISWC interface.
- 3: Set the correct dipswitch settings on the APUNISWC(see Fig 2.) according to the

vehicle it is being fitted into. See car specific diagrams for further information.

**4.** Install into the vehicle using Interface Connections (Fig 1.), the car specific wiring information overleaf and patch lead config (ref back page)

NOTE: Car manufacturers can change wiring specifications without notice. Ensure that the correct wires are located before commencing installation.

## Interface Connections



#### **Dipswitch Settings**

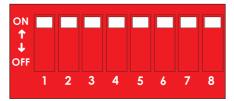


Fig 2.

Set the dipswitches 1-7 according to the car specific settings overleaf.

Set dipswitch 8 to ON when fitting the **APUNISWC** interface with a Pioneer head unit.

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Make Model	Model	Year From	Dipswitch Settings								Phone Button	CAN/Analogue
			1	2	3	4	5	6	7	Support		
	A1	2010		On	On		On	On	On		✓	CAN
	A3	2003		On	On		On	On	On		1	CAN
Audi	A4	2002		On	On		On	On	On		✓	CAN
	A6	2004		On	On		On	On	On		1	CAN
	TT	2006		On	On		On	On	On		1	CAN
	147	2000	2007		On	On	On	On			×	Analogue
	156	2000			On	On	On	On			×	Analogue
	GT	2004	2008		On	On	On	On			×	Analogue
	159	2006			On	On		On	On		1	CAN
Alfa Romeo	Brera	2007			On	On		On	On		1	CAN
	147	2007			On	On	On		On		×	CAN
	GT	2008			On	On	On		On		×	CAN
	Giulietta	2010			On	On	On	On	On		~	CAN
	Mito	2008			On	On	On	On	On		~	CAN
	3 Series	1999	2005	On		On	On		On		~	i-Bus
	5 Series	1996	2004	On		On	On		On		✓ ✓	
	7 Series	1994	2001	On		On	On		On		✓ ✓	i-Bus
	Mini	2001	2006	On		On	On		On		✓ ✓	i-Bus
	Z4	2002	2008	On		On	On		On		✓ ✓	i-Bus
BMW											✓ ✓	i-Bus
BMW	X3	2004	0000	On		On	On		On			CAN
	X5 1 Series	1999 2004	2006	On On	On	On	On On		On On		$\checkmark$	CAN
	3 Series	2004		On							✓ ✓	CAN
	5 Series	2005		On	On On		On On		On On		✓ ✓	CAN
	6 Series	2004		On	On		On		On		✓ ✓	CAN
	7 Series	2003		On	On		On		On		✓ ✓	CAN
	Mini	2002		On	On		On		On		× ✓	CAN
	Z4										✓ ✓	CAN
<b>0</b> 1		2009		On	On	0-	On	0	On			CAN
Chery	Tigo	2013		<u> </u>		On		On	On		×	Analogue
	C2	2005		—	On			On	On		×	CAN
	C4	2004			On	-		On	On		×	CAN
	C5	2005			On			On	On		×	CAN
Citroen	C8 DS3	2005			On On			On On	On		×	CAN
	C3 Picasso	2009			On			On	On On		×	CAN
	C3 Picasso C4 Picasso	2009		<u> </u>	On			On	On		×	CAN
	C4 Ficasso C3	2006	-		On			On	On		×	CAN
					On	0.7	07	On			× ✓	CAN
	Captiva	2006	0044			On	On		On		✓ ✓	Analogue
Chevrolet	Aveo S10	2002	2011	0.	05	On	On	Or	On		~	Analogue
Grieviolet	Stu	2012		On	On	On	On	On			<ul> <li>✓</li> </ul>	Analogue
											✓ ✓	Analogue
	Sonic 500	2013			On	On On	On On	On	On		✓ ✓	Analogue
	Punto	2007		<u> </u>	On	On	On	On	On		✓ ✓	CAN
	Ducato	2005			On	On	On	On	On		✓ ✓	CAN
	Idea	2011			On	On	On	On	On		✓ ✓	CAN
Fiat	Doblo	2006			On	On	On	On	On		✓ ✓	CAN
Fiat	Qubo	2009		<u> </u>	On	On	On	On	On		✓ ✓	CAN
	Qubo Bravo	2007		<u> </u>			Un	On	On		✓ ✓	CAN
	Stilo	2007	2007		On On	On On		On	On		✓ ✓	CAN
	Sulo	2001	2007		Un	On		On	On		v	CAN

						Dips	witch Se	ttings			Phone	
Make	Model	Year From	Year To	1	2	3	4	5	6	7	Button Support	CAN/Analog
	Fiesta		2003			On			On		×	Analogue
	Galaxy		2006			On	<u> </u>		On		×	Analogue
	Puma	1997	2002			On			On		×	Analogue
	Transit	1996	2005			On			On		×	Analogue
	Focus		2004			On			On		×	Analogue
	Mondeo		2004			On			On		×	Analogue
	C-Max	2004	2011		On		On	On	On		×	CAN/Analog
	Falcon AU	1998	2002							On	×	Analogue
	Fiesta	2005	2008		On		On	On	On		×	CAN/Analog
	Fusion	2005			On		On	On	On		×	CAN/Analog
Ford	Galaxy	2006			On		On	On	On		×	CAN/Analog
	S-Max	2006			On		On	On	On		×	CAN/Analog
	Transit	2005			On		On	On	On		×	CAN/Analog
	Kuga	2008	2012		On		On	On	On		×	
	Transit Connect	2004		<u> </u>	On		On	On	On			CAN/Analog
	Focus	2004	2011		On		On	On	On		×	CAN/Analog
	Mondeo	2004			On		On	On	On		×	CAN/Analog
							UII		UII		×	CAN/Analog
	Fiesta	2006	2008		On	On					×	Analogue
	Fusion	2002	2005	<u> </u>	On	On					×	Analogue
Great Wall	Steed	2011		On		On			On		×	Analogue
	Wingle	2011		On		On			On	On	×	Analogue
	Commodore VT-VX	1997	2002	On	On	On			On	On	×	Analogue
Holden	Commodore VY-VZ	2002	2007						On	On	×	Analogue
	Astra, Barina, Vectra		2004	On	-	On		-	On		×	Analogue
	City	2008		On	On	On		On	On		×	Analogue
	Civic	2005	2012	On	On	On		On	On		×	Analogue
Honda	CR-V	2007	2009	On	On	On		On	On		×	Analogue
nonau	S2000	2005		On	On	On		On	On		×	Analogue
	Amaze	2012		On	On	On		On	On		×	Analogue
	Civic	2012		On		On					✓	CAN
	i30	2007	2009					On			✓	Analogue
	Santa Fe	2006	2010					On			✓	Analogue
	i10	2009						On			✓	Analogue
	i20	2009						On			✓	Analogue
	i30	2009						On			✓	Analogue
	IX20	2010						On			✓	Analogue
	Santa Fe	2010						On			1	Analogue
Hyundai	i40	2011			<u> </u>			On			<ul> <li>✓</li> </ul>	Analogue
	ix35	2010		<u> </u>				On			<ul> <li>✓</li> </ul>	Analogue
	i800	2007		<u> </u>				On			<ul> <li>✓</li> </ul>	Analogue
	Santa Fe	2013						On				
	IX45	2013						On			· ·	Analogue Analogue
	i30	2013						On			×	
	i40	2012						On			✓ ✓	Analogue Analogue
Isuzu	D-Max	2012		On	On			On			· ·	
Jac Motors	J3	2012		On	On		On	011			×	Analogue
Jac motors		1998	2002	511		On	011	On			×	Analogue
Jaguar	XJ8 X Type	1990	2003	On		On		On	On		✓ ✓	Analogue
Jaguar				On					On		* ./	Analogue
	S Type	2007	2000		0.0	0.0	0.0				✓ ✓	Analogue
	Cee'd	2007	2009	On	On	On	On	0.0	On		•	Analogue
	Cee'd	2009	2012	On	On	On	On	On			<ul> <li>✓</li> </ul>	Analogue
	Soul	2009	2011	On	On	On	On	On			<ul> <li>✓</li> </ul>	Analogue
	Sorento	2009	2011	On	On	On	On	On			<ul> <li>✓</li> </ul>	Analogue
Kia	Venga	2009		On	On	On	On	On			<ul> <li>✓</li> </ul>	Analogue
-	Sportage	2010		On	On	On	On		On		<ul> <li>✓</li> </ul>	Analogue
	Soul	2012		On	On	On	On		On		✓	Analogue
	Discute	2011	1	On	On	On	On	1	On		~	Analogue
	Picanto											/ undiogue
	Cee'd Rio	2011		On	On	On	On		On		✓	Analogue

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		Dipswitch Settings Phone										
Make	Model	Year From	Year To	1	2	3	4	5	6	7	Button Support	CAN/Analog
	Discovery	2001	2004						On		×	Analogue
	Freelander	2001	2003						On		×	Analogue
Land Rover	Discovery	2003							On		×	Analogue
	Freelander	2006							On		✓	CAN
	Range Rover Sport	2005	2013			1	On				✓	CAN
	620	2009		On		On		On			×	Analogue
Lifan Motors	720	2012		On		On		On			×	Analogue
Mahindra	Scorpio	2006		On		On		On	On		✓	Analogue
	A Class	2004		On		On	On	On	On		✓	CAN
	B Class	2005		On		On	On	On	On		✓	CAN
	C Class	2004	2007	On		On	On	On	On		✓	CAN
	Sprinter	2006		On		On	On	On	On		✓	CAN
	Viano	2004		On		On	On	On	On	1	✓	CAN
Mercedes	R Class	2005		On		On	On	On	On	1	✓	CAN
	Vito	2004		On		On	On	On	On		✓	CAN
	Viano	2004		On		On	On	On	On		✓	CAN
	Vito	2004		On		On	On	On	On		✓	CAN
	E Class	2002	2008	On		On	On	On	On		✓	CAN
	SLK	2002		On		On	On	On	On		✓	CAN
	Lancer	2007	2010	On			On	On			✓	Analogue
	Outlander	2007	2010	On			On	On			✓	Analogu
	ASX	2010			On	On		On			✓	Analogu
Mitsubishi	Lancer	2010			On	On		On			✓	Analogu
MILSUDISTI	Outlander	2010			On	On		On			✓	Analogu
	Pajero	2013			On	On		On			✓	Analogu
	Shogun	2013			On	On		On			✓	Analogu
	Outlander	2013		On			On				✓	CAN/Analo
	2	2007			On		On				×	Analogu
	6	2007	2009		On				On		×	CAN/Analo
Mazda	3	2004	2008		On		On	On			×	CAN/Analo
	CX-7	2008			On			On			×	CAN/Analo
	CX-9	2007			On			On			×	CAN/Analo
	Dualis	2007					On		On		✓	Analogu
	X-Trail	2009					On		On		✓	Analogu
	Navara	2010					On		On		✓	Analogu
	Micra	2007	2010				On		On		✓	Analogu
	Juke	2010		On		On	On				✓	Analogu
	Micra	2010		On		On	On				✓	Analogu
Nissan	Pulsar	2012		On		On	On				✓	Analogu
	March	2010		On		On	On				✓	Analogu
	Pulse	2011		On		On	On				✓	Analogu
	Evalia	2013		On		On	On				✓	Analogu
	Versa	2008		On		On	On				✓	Analogu
	Note	2009		On	On	On	On				✓	Analogu
	X-Trail				On	On	On				×	Analogu
	206	1998	2002		On						×	Analogu
	306	1998	2002		On						×	Analogu
	3008	2009			On			On	On		×	CAN
	807	2005			On			On	On		×	CAN
	407	2004			On			On	On		×	CAN
Peugeot	207	2006			On			On	On		×	CAN
. sugeoi	308	2008			On			On	On		×	CAN
	307	2005			On			On	On		×	CAN
	607	2004			On			On	On		×	CAN
	208	2012			On			On	On		×	CAN
	5008	2009	2013		On			On	On		×	CAN
	RCZ	2010			On			On	On		×	CAN

Make		Dipswitch Setting									Phone	
	Model	Year From	Year To	1	2	3	4	5	6	7	Button Support	CAN/Analog
Porsche	Cayenne	2002		On	On		On	On	On		×	CAN
Forsche	Cayenne	2007	2010	On	On		On	On	On		×	CAN
Proton	GEN-2	2004		On	On	On			On		×	Analogue
	Clio	2005					On	On	On		×	CAN
	Megane	2005	2008				On	On	On		×	CAN
	Modus	2005		<u> </u>			On	On	On		×	CAN
	Twingo	2007		<u> </u>			On	On	On		×	CAN
	Scenic	2005	2007				On On	On On	On On		× ×	CAN
	Laguna		2007			-					^	CAN
	Clio	2009						On	On		✓	CAN
Renault	Megane	2008	2012	<u> </u>				On	On	ļ	✓	CAN
	Wind	2010						On	On		✓	CAN
	Fluence	2010						On	On		~	CAN
	Scenic	2009						On	On		~	CAN
	Trafic	2010	2013					On	On		~	CAN
	Laguna	2008						On	On		~	CAN
Rover	75		2003						On		×	Analogue
Saab	9-3	2008		On	On	On	On	On	On	On	~	CAN
Jaab	9-5	2008		On	On	On	On	On	On	On	~	CAN
Scania	R Series	2004		On			On	On	On		×	CAN
	Octavia	2008	2013	On	On			On	On		×	CAN
	Fabia	2013		On	On			On	On		×	CAN
Skoda	Rapid	2010		On	On			On	On		×	CAN
	Yeti	2010		On	On			On	On		×	CAN
	Superb	2004	2013	On	On			On	On		×	CAN
	Altea	2004		On	On			On	On			CAN
	Ibiza	2008		On	On			On	On			CAN
Seat	Leon	2005		On	On			On	On			CAN
	Toledo	2004		On	On		-	On	On			CAN
	Exeo	2009		On	On		On	On	On		<ul> <li>✓</li> </ul>	CAN
	Forester	2007	0040	On				On	On		✓ ✓	Analogue
	Impreza	2007	2012	On				On On	On		✓ ✓	Analogu
Subaru	Impreza XV	2012		On On				On				Analogue
				_							✓ ✓	Analogu
	Forester Outback	2012		On On	-			On On			✓ ✓	Analogue
	Actyon	2012		UII			On	On			×	Analogu
	Rexton	2007			1		On	On				Analogu
	Korando Sport	2012			-		On	On			×	Analogu
	Rodius	2013					On	On			×	Analogu
	Korando	2010		On	-	On	On	On			×	Analogu
SsangYong	Korando	2010					On	On				Analogu
	Korando Sport	2012			-	On	On	On			×	Analogu
	Rexton	2007				On	On	On			✓ ✓	Analogu
	Rexton W	2007				On	On	On				Analogu
		2010		<u> </u>			0.1				✓	Analogu
	Actyon	2012				On	On	On			l √	Analogu

				Dipswitch Settings							Phone	
Make	Model	Year From	Year To	1	2	3	4	5	6	7	Button Support	CAN/Analogue
	Swift	2006		On			On		On		✓	Analogue
	Grand Vitara	2005		On	1	1	On		On		✓	Analogue
	SX4	2006		On	1	1	On		On		✓	Analogue
Suzuki	Dzire	2008	2010	On			On		On		✓	Analogue
	Ritz	2009		On			On		On		✓	Analogue
	Splash	2009		On			On		On		✓	Analogue
	Ertiga	2012		On			On		On		✓	Analogue
	Vista	2012			On		On		On		<ul> <li>✓</li> </ul>	Analogue
Tata	Manza	2012			On		On		On		✓	Analogue
	Indigo	2006			On		On		On		✓	Analogue
	Avensis	2001	2011	On	On	On		On			✓	Analogue
	Corolla	2001		On	On	On		On			✓	Analogue
	RAV4	2001		On	On	On		On			✓	Analogue
	Yaris	2001		On	On	On		On			✓	Analogue
	4Runner	2002		On	On	On		On			✓	Analogue
	Avanza	2003		On	On	On		On			<ul> <li>✓</li> </ul>	Analogue
Toyota	Estima	2006		On	On	On		On			<ul> <li>✓</li> </ul>	Analogue
-	Previa	2006		On	On	On		On			<b>√</b>	Analogue
	Fortuner	2005		On	On	On		On			<ul> <li>✓</li> </ul>	Analogue
	Innova	2006		On	On	On		On			✓ ✓	Analogue
	Landcruiser	2007		On	On	On		On				Analogue
	Prado Matrix	2007 2003		On	On	On On		On On			✓ ✓	Analogue
		_		On	On						✓ ✓	Analogue
	Vios	2006		On	On	On	0.	On			▼ ✓	Analogue
	Passat Golf	2005	2012	On On	On On		On On	On On			✓ ✓	CAN
	Transporter	2004	2012	On	On		On	On			· ·	CAN
	Polo	2003		On	On		On	On			· ·	CAN
	Jetta	2004		On	On		On	On			✓ ✓	CAN
	EOS	2006		On	On		On	On			· ·	CAN
	Tiguan	2000		On	On		On	On			· ·	CAN
vw	Amarok	2011		On	On		On	On			· ·	CAN
	Passat	2005		On	On		On	On			<ul> <li>✓</li> </ul>	CAN
	Touran	2004		On	On		On	On			<ul> <li>✓</li> </ul>	CAN
	Scirocco	2008		On	On		On	On			✓	CAN
	Touareg	2003		On	On	<u> </u>			On		×	CAN
	Multivan	2003		On	On	<u> </u>			On		×	CAN
	Gol	2012			1	On					✓	CAN
	Astra		2004			On		On	On		×	Analogue
	Meriva	2003	2007			On		On	On		×	Analogue
	Zafira		2005			On		On	On		×	Analogue
	Vivaro	2002	2007			On		On	On		×	Analogue
	Corsa	2000	2006			On		On	On		×	Analogue
	Omega	2000	2004			On		On	On		×	Analogue
Vauxhall/Opel	Vectra		2004			On		On	On		×	Analogue
	Antara	2007	2010		1	On	On	On	On		✓	CAN
	Astra	2004	2010		1	On	On	On	On		✓	CAN
	Meriva	2007	2010		1	On	On	On	On		✓	CAN
	Signum	2005			1	On	On	On	On		✓	CAN
	Tigra	2005			1	On	On	On	On		✓	CAN
	Zafira	2005	2012			On	On	On	On		✓	CAN
	Corsa	2006	2009			On	On	On	On		✓	CAN
	Vectra	2004				On	On	On	On		✓	CAN

All connectors are shown from the terminal side and NOT the wire side

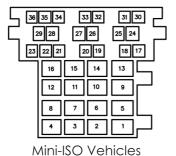


147/156/GT Analogue						
Interface Wire	Pin Number					
Analogue 1	20					
Analogue 2	33					
Analogue Ground	27					
Batt 12V	2					
Ground	4					

147/GT CAN-Bus						
Interface Wire	Pin Number					
Analogue 1	20					
Analogue 2	33					
Analogue Ground	27					
CAN High	5					
CAN Low	6					
Batt 12V	2					
Ground	4					

159/Brera/Guilietta/Mito						
Interface Wire	Pin Number					
CAN High	5					
CAN Low	6					
Batt 12V	2					
Ground	4					

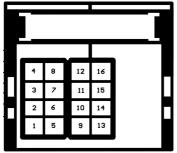




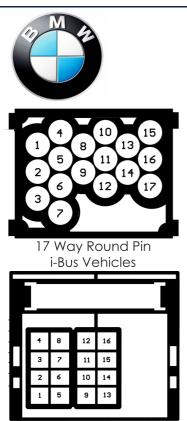
<b>CAN-Bus Vehicles</b>						
Interface Wire	Pin Number					
CAN High	32					
CAN Low	27					
Batt 12V	2					
Ground	4					

#### All connectors are shown from the terminal side and NOT the wire side

Audi Continued...



Audi CAN-Bus Quadlock



40 Way Flat Pin Quadlock i-Bus Vehicles

Audi CAN-Bus Quadlock						
Interface Wire	Pin Number					
CAN High	9					
CAN Low	10					
Batt 12V	15					
Ground	12					

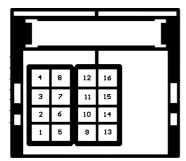
17 Way i-Bus Vehicles						
Interface Wire	Pin Number					
Analogue 2	14					
Batt 12V	11					
Ground	10					

\*Note that BMW i-Bus vehicles require a 4k7 resistor putting between the Batt 12V wire and the i-Bus wire (Analogue 2).

40 Way i-Bus Vehicles						
Interface Wire Pin Number						
Analogue 2	9					
Batt 12V	15					
Ground	12					

#### All connectors are shown from the terminal side and NOT the wire side

BMW Continued...



Quadlock CAN-Bus Vehicles

Quadlock CAN-Bus Vehicles						
Interface Wire Pin Number						
CAN High	11					
CAN Low	9					
Batt 12V	To Battery*					
Ground	12					

\*Note that the Batt 12V wire should be connected directly to the vehicle battery as the vehicle connector does not have a permanent 12V feed.



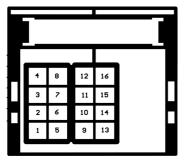
9	10	11	12	13	14	15	16
1	2	3	4	5	6	7	8

16 Way Kenwood Connector

Chery Tigo						
Interface Wire	Pin Number					
Analogue 1	2					
Analogue Ground	5					
Batt 12V	8					
Ground	16					

All connectors are shown from the terminal side and NOT the wire side





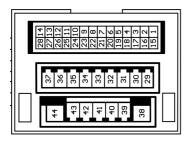
Quadlock CAN-Bus Vehicles

Quadlock CAN-Bus Vehicles						
Interface Wire Pin Number						
CAN High	10					
CAN Low	13					
Batt 12V	12					
Ground	16					

		Aveo, C	Captiva
	765432 1	Interface Wire	Pin Number
CHEVROLET		Analogue 2	B12
		Analogue Ground	A12
		Batt 12V	A1
	<b>B</b> 7 6 5 4 3 2 1 <b>B</b> 16 15 14 13 12 11 10 9 <b>B</b>	Ground	A8
		\$1	0
		Interface Wire	Pin Number
		Analogue 1	5
		Analogue Ground	13
		Batt 12V	14
		Ground	10

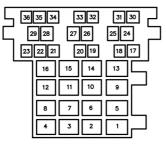
#### All connectors are shown from the terminal side and NOT the wire side

Chevrolet Continued...



Spark, Sonic						
Interface Wire	Pin Number					
Analogue 2	19					
Analogue Ground	5					
Batt 12V	44					
Ground	38					





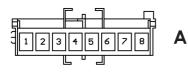
Mini-ISO Connector

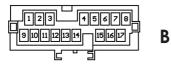
500, Bravo, Punto, Ducato, Idea, Doblo, Stilo					
Interface Wire	Pin Number				
CAN High	5				
CAN Low	6				
Batt 12V	2				
Ground	4				

Panda							
Interface Wire	Pin Number						
CAN High	5						
CAN Low	6						
Analogue 1	20						
Analogue 2	33						
Analogue Ground	27						
Batt 12V	2						
Ground	4						

#### All connectors are shown from the terminal side and NOT the wire side







Old Style Analogue Vehicles

Old Style Analogue						
Interface Wire Pin Numbe						
Analogue 1	B5					
Analogue Ground	B6					
Batt 12V	A3					
Ground	A8					

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	23	3 23	26	28		ដ្ឋ	36	37	38	39	\$		
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T													
	4	8		12	1	6	1						
IJ	з	7		11	1	5						L	
Π	2	6		10	1	4						F	
	1	5		9	1	3							

Quadlock CAN-Bus Vehicles

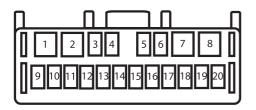
Quadlock CAN-Bus Vehicles						
Interface Wire	Pin Number					
CAN High	9					
CAN Low	10					
Analogue 1	22					
Analogue Ground	24					
Batt 12V	15					
Ground	12					

Fiesta/Fusion

Fiesta/Fusion Analogue				
Interface Wire	Pin Number			
Analogue 1	18			
Analogue Ground	19			
Batt 12V	1			
Ground	13			

All connectors are shown from the terminal side and NOT the wire side

Ford Continued...



Ford AU series I, II & III		
Interface Wire	Pin Number	
Analogue 1	19	
Analogue 2	20	
Batt 12V	1	
Ground	8	



#### **Great Wall**

⊥		-	
13	9	5	1
14	10	6	2
15	11	7	3
16	12	8	4

Steed, Wingle		
Interface Wire	Pin Number	
Analogue 2	1	
Analogue Ground	5	
Batt 12V	8	
Ground	4	



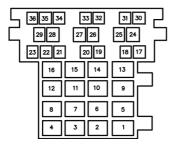
#### HOLDEN

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		I_				~			_
18				14	13 1	2	[11]	10	Íэ
8	7	6	5			4	3	2	1
Ľ	$\leq$	$\sim$				$\sim$	$\sim$	$\mathbf{r}$	

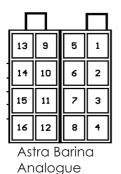
Holden VT,VX			
Interface Wire	Pin Number		
Analogue2	9		
Analogue Ground	16		
Batt 12V	18		
Ground	16		

All connectors are shown from the terminal side and NOT the wire side

Holden Continued...



Holden VY, VZ, Monaro			
Interface Wire Pin Number			
Analogue1	20		
Analogue Ground	27		
Batt 12V	8		
Ground	4		



Astra / Barina Analogue		
Interface Wire	Pin Number	
Analogue 1	1	
Analogue Ground	7	
Batt 12V	8	
Ground	4	

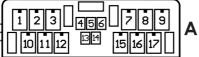


Astra Barina CAN-Bus

Astra / Barina CAN-Bus			
Interface Wire	Pin Number		
CAN High	9		
CAN Low	10		
Batt 12V	15		
Ground	12		

All connectors are shown from the terminal side and NOT the wire side

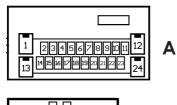




	В
$\begin{array}{c c} 111 \\ 112 \\ 113$	

Analogue Vehicles

Analogue		
Interface Wire	Pin Number	
Analogue 1	Β4	
Analogue Ground	B5	
Batt 12V	A10	
Ground	Al	



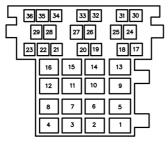
<u>   008/00400/00100</u>	B

Civic CAN-Bus 2012>

Civic CAN-Bus 2012>	
Interface Wire Pin Number	
CAN High	B13
CAN Low	B3
Batt 12V	A13
Ground	A1

All connectors are shown from the terminal side and NOT the wire side





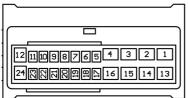
Mini-ISO Connector

Mini-ISO Vehicles		
Interface Wire	Pin Number	
Analogue 2	19	
Analogue Ground	20	
Batt 12V	8	
Ground	4	

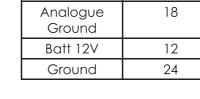
Santa Fe 2006-2010

**Pin Number** 

6

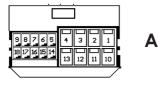


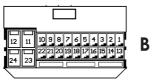
Santa Fe 2006-2010



Interface Wire

Analogue 2





Hyundai White Connector

Hyundai White Connector	
Interface Wire	Pin Number
Analogue 2	Β4
Analogue Ground	B17
Batt 12V	B12
Ground	B24

All connectors are shown from the terminal side and NOT the wire side

ISUZU 1234567 8910111213141516

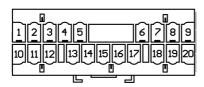
D-Max 2012>		
Interface Wire	Pin Number	
Analogue 1	5	
Analogue Ground	13	
Batt 12V	14	
Ground	10	



	Г			
	13	9	5	1
	14	10	6	2
1	15	11	7	3
	16	12	8	4

J3 2013>		
Interface Wire	Pin Number	
Analogue 1	1	
Analogue Ground	6	
Batt 12V	8	
Ground	4	

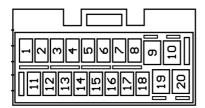




XJ8 1998-2003	
Interface Wire	Pin Number
Analogue 2	2
Analogue Ground	To vehicle chassis
Batt 12V	10
Ground	To vehicle chassis

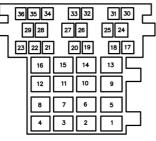
#### All connectors are shown from the terminal side and NOT the wire side

Jaguar Continued...



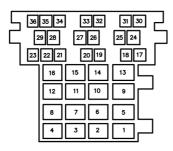
S/X Type		
Interface Wire	Pin Number	
Analogue 1	13	
Analogue Ground	To vehicle chassis	
Batt 12V	20	
Ground	10	





Cee'd 2007-2009

Cee'd 2007-2009		
Interface Wire	Pin Number	
Analogue 2	19	
Analogue Ground	26	
Batt 12V	8	
Ground	4	

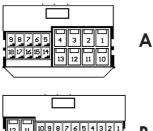


Mini-ISO Vehicles

Mini-ISO Vehicles		
Interface Wire	Pin Number	
Analogue 2	19	
Analogue Ground	20	
Batt 12V	8	
Ground	4	

#### All connectors are shown from the terminal side and NOT the wire side

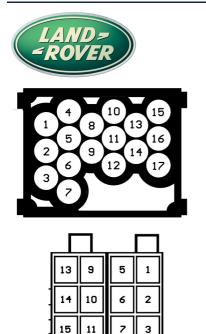
Kia Continued...





Kia White Connector

Kia White Connector	
Interface Wire	Pin Number
Analogue 2	Β4
Analogue Ground	B17
Batt 12V	B12
Ground	B24



Land Rover Discovery/ Freelander with 17 way BMW Connector		
Interface Wire	Pin Number	
Analogue 1	16	
Analogue Ground	10	
Batt 12V	11	
Ground	10	

Land Rover Discovery 2003>		
Interface Wire	Pin Number	
Analogue 1	1	
Analogue Ground	To vehicle chassis	
Batt 12V	2	
Ground	4	

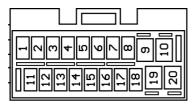
Land Rover Discovery 2003>

8

16 || 12

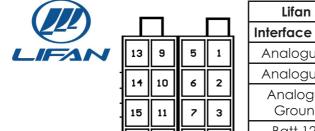
All connectors are shown from the terminal side and NOT the wire side

Land Rover Continued...



Freelander/Range Rover Sport CAN-Bus

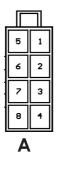
Freelander/Range Rover Sport CAN-Bus		
Interface Wire	Pin Number	
CAN High	2	
CAN Low	1	
Analogue 2	13	
Analogue Ground	10	
Batt 12V	20	
Ground	10	



16 || 12

Lifan Motors 620/720	
Interface Wire	Pin Number
Analogue 1	5
Analogue 2	1
Analogue Ground	4
Batt 12V	8
Ground	4





_			1_	
	1	8 9	14 15	
1	3	10	16	
	4 5	11	17 18	
	67	12 13	19 20	_
				B

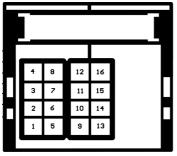
8

Scorpio	
Interface Wire	Pin Number
Analogue 1	A1
Analogue Ground	A6
Batt 12V	A8
Ground	A4

All connectors are shown from the terminal side and NOT the wire side

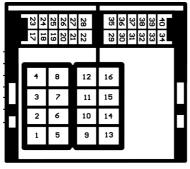


#### Mercedes-Benz



A, B, C, Sprinter, Viano, R Class Quadlock

A, B, C, Sprinter, Viano, R Class Quadlock	
Interface Wire	Pin Number
CAN High	11
CAN Low	9
Batt 12V	15
Ground	12

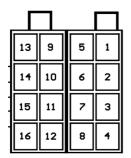


E Class/SLK Quadlock

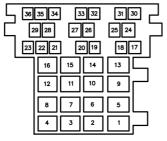
E Class/SLK Quadlock		
Interface Wire	Pin Number	
CAN High	17	
CAN Low	18	
Batt 12V	16	
Ground	15	

#### All connectors are shown from the terminal side and NOT the wire side

Mercedes Continued...



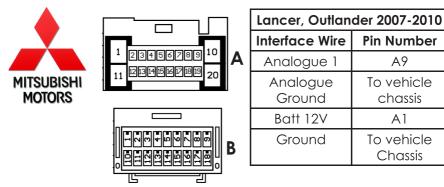
8 Way ISO CAN-Bus Vehicles



Mini-ISO CAN-Bus Vehicles

8 Way ISO CAN-Bus		
Interface Wire	Pin Number	
CAN High	3	
CAN Low	8	
Batt 12V	2	
Ground	4	

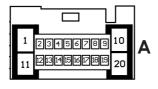
Mini-ISO CAN-Bus		
Interface Wire	Pin Number	
CAN High	17	
CAN Low	30	
Batt 12V	2	
Ground	4	

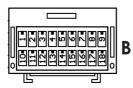


Outlander/Lancer 2007-2010

#### All connectors are shown from the terminal side and NOT the wire side

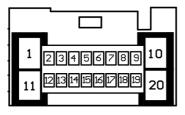
Mitsubishi Continued...





ASX, Lancer, Outlander 2010> Pajero, Shogun 2013>

ASX, Lancer, Outlander 2010>, Pajero, Shogun 2013>		
Interface Wire	Pin Number	
Analogue 1	A9	
Analogue Ground	To vehicle chassis	
Batt 12V	Al	
Ground	To vehicle Chassis	

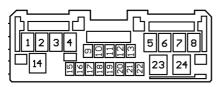


Outlander 2013>

Outlander 2013>		
Interface Wire	Pin Number	
CAN High	8	
CAN Low	18	
Analogue 1	9	
Analogue Ground	11	
Batt 12V	1	
Ground	11	

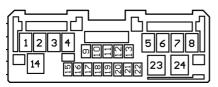
All connectors are shown from the terminal side and NOT the wire side





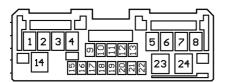
2 2007>

2 2007>		
Interface Wire	Pin Number	
Analogue 1	12	
Analogue Ground	13	
Batt 12V	14	
Ground	24	



6 2007-2009

6 2007-2009		
Interface Wire	Pin Number	
CAN High	20	
CAN Low	21	
Analogue 1	12	
Analogue Ground	13	
Batt 12V	14	
Ground	24	

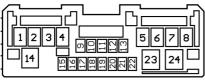


3 2004-2008

3 2004-2008		
Interface Wire	Pin Number	
Analogue 1	12	
Analogue Ground	13	
Batt 12V	14	
Ground	24	

#### All connectors are shown from the terminal side and NOT the wire side

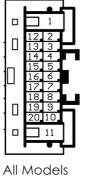
Mitsubishi Continued...



CX-7, CX-9

CX-7, CX-9		
Interface Wire	Pin Number	
Analogue 1	12	
Analogue Ground	13	
Batt 12V	14	
Ground	24	

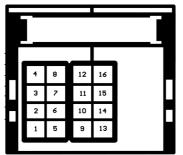




All Models		
Interface Wire	Pin Number	
Analogue 1	8	
Analogue 2	17	
Analogue Ground	7	
Batt 12V	1	
Ground	To vehicle chassis	



#### PEUGEOT

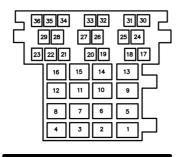


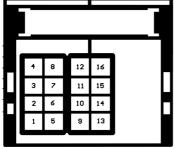
Quadlock CAN-Bus Vehicles

Quadlock CAN-Bus Vehicles		
Interface Wire Pin Number		
CAN High	10	
CAN Low	13	
Batt 12V	12	
Ground	16	

#### All connectors are shown from the terminal side and NOT the wire side



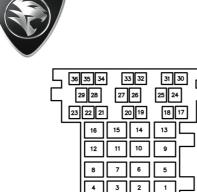




PROTO

Cayenne 2002-2007 Mini-ISO		
Interface Wire Pin Number		
CAN High	30	
CAN Low	17	
Batt 12V	2	
Ground	4	

Cayenne 2002-2007 Quadlock			
Interface Wire Pin Number			
CAN High	11		
CAN Low	9		
Batt 12V	12		
Ground	15		



GEN-2		
Interface Wire	Pin Number	
Analogue 1	20	
Analogue 2	33	
Analogue Ground	27	
Batt 12V	2	
Ground	4	

All connectors are shown from the terminal side and NOT the wire side

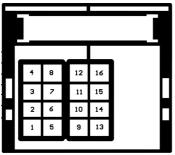


Г			
13	9	5	1
14	10	6	2
15	11	7	3
16	12	8	4
Δ			

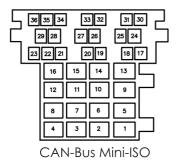
Mini-ISO with 'Update List' OEM head unit			
Interface Wire Pin Number			
CAN High	B6		
CAN Low	B2		
Batt 12V	A2		
Ground	A4		



Mini-ISO with 'Update List' OEM head unit



CAN-Bus Quadlock

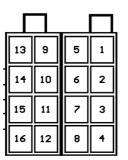


Renault CAN-Bus 2009> with Quadlock Connector			
Interface Wire Pin Number			
CAN High	13		
CAN Low	9		
Batt 12V	15		
Ground	12		

Renault CAN-Bus 2009> with Mini-ISO Connector		
Interface Wire Pin Number		
CAN High	17	
CAN Low	30	
Batt 12V	2	
Ground	4	

All connectors are shown from the terminal side and NOT the wire side





Rover 75 with Highline			
Interface Wire	Pin Number		
Analogue 1	1		
Analogue Ground	To vehicle chassis		
Batt 12V	2		
Ground	4		

Rover 75 with Highline OEM head unit



7	6	5			2	1
14	13	12	11	10	9	8

Saab 9.3/9.5 2008>

Saab 9.3/9.5 2008>		
Interface Wire	Pin Number	
CAN High	13	
CAN Low	Not connected	
Batt 12V	1	
Ground	8	



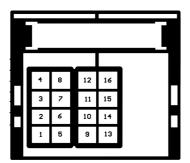
	Г			
	13	9	5	1
	14	10	6	2
1	15	11	7	з
1	16	12	8	4

Scania R Series			
Interface Wire Pin Number			
CAN High	5		
CAN Low	1		
Batt 12V	2		
Ground	4		

All connectors are shown from the terminal side and NOT the wire side





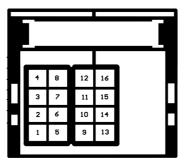


Skoda CAN-Bus Quadlock

Skoda CAN-Bus Quadlock			
Interface Wire Pin Number			
CAN High	9		
CAN Low	10		
Batt 12V	15		
Ground	12		







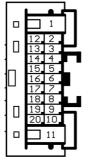
Seat CAN-Bus Quadlock

Seat CAN-Bus Quadlock			
Interface Wire Pin Number			
CAN High	9		
CAN Low	10		
Batt 12V	15		
Ground	12		



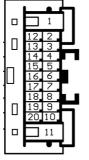
All connectors are shown from the terminal side and NOT the wire side





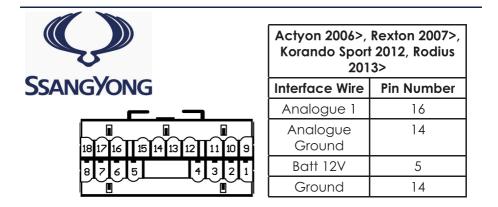
Forester/Impreza 2007-2012		
Interface Wire Pin Numbe		
Analogue 1	17	
Analogue Ground	7	
Batt 12V	1	
Ground	11	

Forester/Impreza 2007-2012



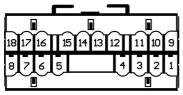
Impreza, Forester, Outback, XV 2012>

Impreza, Forester, Outback, XV 2012>		
Interface Wire Pin Number		
Analogue 1	17	
Analogue 2	8	
Analogue Ground	7	
Batt 12V	1	
Ground	11	



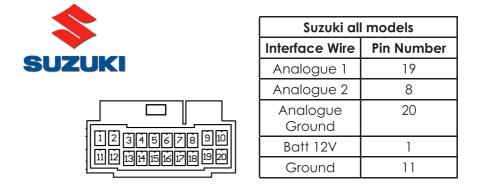
#### All connectors are shown from the terminal side and NOT the wire side

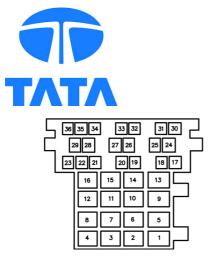
Ssangyong Continued...



All other Ssangyong models

All other Ssangyong models			
Interface Wire	Pin Number		
Analogue 2	16		
Analogue Ground	13		
Batt 12V	5		
Ground	14		



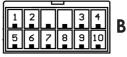


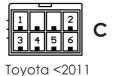
Tata Vista, Manza, Indigo			
Interface Wire Pin Number			
Analogue 2	20		
Analogue Ground	27		
Batt 12V	2		
Ground	4		

All connectors are shown from the terminal side and NOT the wire side

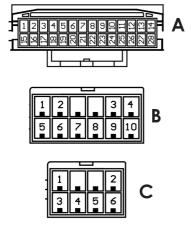








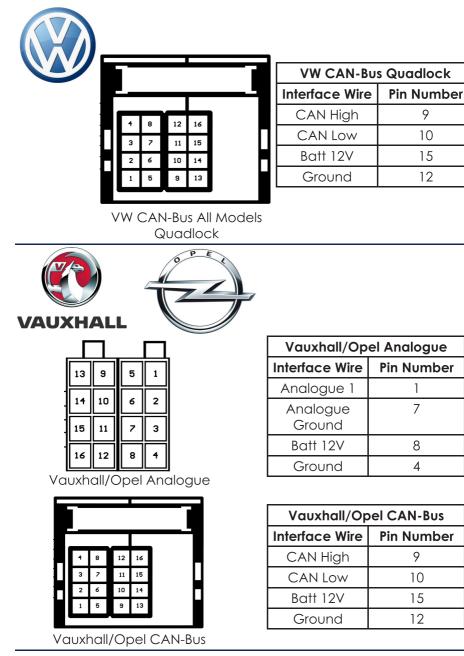
Toyota <2011				
Interface Wire	Pin Number			
Analogue 1	A8			
Analogue 2	A7			
Analogue Ground	A6			
Batt 12V	B4			
Ground	Β7			



Toyota 2011>

Toyota 2011>				
Interface Wire	Pin Number			
Analogue 1	A21			
Analogue 2	A22			
Analogue Ground	B4			
Batt 12V	Β4			
Ground	Β7			

All connectors are shown from the terminal side and NOT the wire side



#### **Universal Patch Lead**

#### Configuration Assignments (1=Link made, 0=No Link)

J1	12	13	Systems	Connector
1	0	0	JVC	Jack/Key1
0	1	0	BEAT/Philips/Nakamichi	Key1
1	1	0	Clarion	Jack
0	0	1	Kenwood	Key1
1	0	1	Alpine	Jack
0	1	1	Panasonic	Key1
1	1	1	Sony/LG/Pioneer	Jack
1 (Pin12)	1 (Pin10)	0	Zenec	Key1
1	1	1	Chinese Learning Brands	Key1, Key <b>2</b> , GND

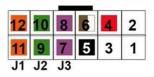
#### Pin Configuration

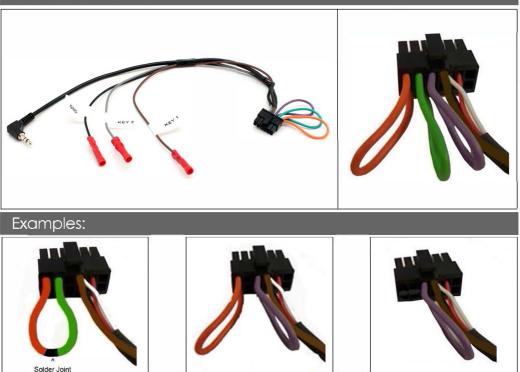
Pin 1	Description	
	Reserved	
2	Reserved	
1 2 3	Reserved	
4 5	Analog 2 Swc	
5	GND Swc	
6	Analog 1 Swc	
7	Link J3	
8	Link J3	
9	Link J2	
10	Link J2	
11	Link J1	
12	Link J1	

Here are some Examples of how to make various patch Leads:

- Example 1: Alpine Remove Link J2 then use the Jack connector into radio.
- Example 2: Kenwood Remove Link J1 and J2, use the wire connector to Radio.
- Example 3: Zenec Remove Link J3, Cut Orange and Green then solder top row (Pin 12 & 10) together and insulate. Use the Wire connector to Radio.

#### Universal Patch Lead





ZENEC

ALPINE

KENWOOD