

## BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - E85 AND SR2.3

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>E85</b>	E85 Sgnl - A	E85 SGNL (HED) HDR2 - W1, (IPU) HDR1 - E3	HDR2 - W2
	E85 Rtn - C	E85 RTN (HED) HDR2 - W3, (IPU) HDR1 - J2	HDR2 - W3
	+12V Switch - B (PINK)		

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>SR2.3</b>	Drive Shaft HED Sgnl - 2	HDR2 - H1	HDR2 - S1
	Drive Shaft HED Rtn - 3	HDR2 - K2	HDR2 - W3
	Drive Shaft HED 5VR - 1	HDR2 - J1	HDR2 - Y3
	3-STEP ENABLE - (YLW/RED)	HDR2 - W1	HDR2 - W1
	DATALOG TRIGGER - (YLW)	HDR2 - Y2	HDR2 - Y2

## BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - DAE

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>DAE</b>	Drive Shaft HED Sgnl - 2	HDR2 - H1	HDR2 - S1
	Drive Shaft HED Rtn - 3	HDR2 - K2	HDR2 - W3
	Drive Shaft HED 5VR - 1	HDR2 - J1	HDR2 - Y3
	Input Shaft HED Sgnl - 2	(IPU-A) HDR2 - T1	HDR2 - T1
	Input Shaft HED Rtn - 3	(IPU-B) HDR2 - T3	HDR2 - W3
	Input Shaft HED 5VR - 1	N/A	HDR2 - Y3
	Fuel Pressure Sgnl - C	HDR2 - T2	HDR2 - T2
	Fuel Pressure Rtn - A	HDR2 - W3	HDR2 - W3
	Fuel Pressure 5VR - B	HDR2 - Y3	HDR2 - Y3
	3-STEP ENABLE - (YLW/RED)	HDR2 - W1	HDR2 - W1
	DATALOG TRIGGER - (YLW)	HDR2 - Y2	HDR2 - Y2
	Turbo Back Press. Sgnl - C	HDR2 - X1	HDR2 - X1
	Turbo Back Press. Rtn - A	HDR2 - W3	HDR2 - W3
	Turbo Back Press. 5VR - B	HDR2 - Y3	HDR2 - Y3
	Oil Press. Sgnl - C	HDR2 - X2	HDR2 - X2
	Oil Pressure Rtn - A	HDR2 - W3	HDR2 - W3
	Oil Pressure 5VR - B	HDR2 - Y3	HDR2 - Y3
	Oil Pan Vac Sgnl - B	HDR2 - X3	HDR2 - X3
	Oil Pan Vac Rtn - A	HDR2 - W3	HDR2 - W3
	Oil Pan Vac 5VR - C	HDR2 - Y3	HDR2 - Y3
	PWM Solenoid - (BLUE)	N/A	HDR2 - L1
	NOS Bottle Press. Sgnl - C	N/A	HDR2 - L2
	NOS Bottle Press. Rtn - A	N/A	HDR2 - W3
	NOS Bottle Press. 5VR - B	N/A	HDR2 - Y3
	Trans Oil Temp Sgnl - A	N/A	HDR2 - Y1
	Trans Oil Temp Rtn - B	N/A	HDR2 - W3

## BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - DAE2

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>DAE2</b>	Boost (WG Pressure) Sgnl - C	HDR2 - B2	HDR2 - B2
	Boost (WG Press.) Rtn - A	HDR2 - K2	HDR2 - D2
	Boost (WG Press.) 5VR - B	HDR2 - J1	HDR2 - E3
	Trans Line Press. Sgnl - C	HDR2 - B2	HDR2 - B3
	Trans Line Press. Rtn - A	HDR2 - K2	HDR2 - D2
	Trans Line Press. 5VR - B	HDR2 - J1	HDR2 - E3
	A/C Clutch Override - (ORG)	N/A	HDR2 - A3
	A/C Bump - (GRAY)	N/A	HDR2 - B1
	RF Shock HED Sgnl - 2	N/A	HDR2 - C1
	RF Shock HED Rtn - 3	N/A	HDR2 - D2
	RF Shock HED 5VR - 1	N/A	HDR2 - E3
	LF SHOCK HED Sgnl - 2	N/A	HDR2 - D1
	LF Shock HED Rtn - 3	N/A	HDR2 - D2
	LF Shock HED 5VR - 1	N/A	HDR2 - E3
	RR Shock HED Sgnl - 2	N/A	HDR2 - H3
	RR Shock HED Rtn - 3	N/A	HDR2 - D2
	RR Shock HED 5VR - 1	N/A	HDR2 - E3
	LR SHOCK HED Sgnl - 2	N/A	HDR2 - H1
	LR Shock HED Rtn - 3	N/A	HDR2 - D2
	LR Shock HED 5VR - 1	N/A	HDR2 - E3
	Shift Light - (PRPL)	N/A	HDR2 - C3
	Turbo Shaft Spd_1 Sgnl - 3	N/A	HDR2 - R2
	Turbo Shaft Spd_1 Rtn - 2	N/A	HDR2 - D2
	Turbo Shaft Spd_1 5VR - 1	N/A	HDR2 - E3
	Turbo Shaft Spd_2 Sgnl - 3	N/A	HDR2 - S3
	Turbo Shaft Spd_2 Rtn - 2	N/A	HDR2 - D2
	Turbo Shaft Spd_2 5VR - 1	N/A	HDR2 - E3

## BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - NOS

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>NOS</b>	NOS Stg1 - 1	HDR1 - T3	HDR2 - R3
	NOS Stg2 - 2	HDR1 - W3	HDR2 - P1
	NOS Stg3 - 3	HDR1 - F1	HDR2 - M1
	NOS Stg4 - 4	HDR2 - P2	HDR2 - N1
	NOS Stg5 - 5	N/A	HDR2 - L3
	NOS Stg6 - 6	N/A	HDR2 - R1
	NOS Digiset1 - 7	N/A	HDR2 - M3
	NOS Digiset2 - 8	HDR2 - X1	HDR2 - P3
	NOS Digiset3 - 9	HDR2 - X2	HDR2 - S2
	NOS Digiset4 - 10	HDR2 - X3	HDR2 - H2
	NOS Digiset5 - 11	N/A	HDR2 - F1
	NOS Digiset6 - 12	N/A	HDR2 - E2
	PWM Solenoid - (BLUE)	N/A	HDR2 - L1
	NOS Bottle Press. Sgnl - C	N/A	HDR2 - L2
	NOS Bottle Press. Rtn - A	N/A	HDR2 - K2
	NOS Bottle Press. 5VR - B	N/A	HDR2 - J1
	Timer Enable - A	HDR1 - L2	HDR1 - L2

## BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - TRANS

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>4L60E / 4L80E TRANS</b>	Shift Solenoid A - A	HDR2 - P2	HDR2 - P2
	Shift Solenoid B - B	HDR2 - M2	HDR2 - M2
	Trans Mode A - N	HDR2 - X1	HDR2 - M3
	Trans Mode B - R	HDR2 - X2	HDR2 - P3
	Trans Mode C - P	HDR2 - X3	HDR2 - S2
	4L80E TCC PWM - S	HDR2 - N2	HDR2 - N2
	4L60E TCC PWM - T	HDR2 - N2	HDR2 - N2
	Force Motor High - C	HDR2 - N3	HDR2 - N3
	Force Motor Low - D	HDR2 - W3	HDR2 - W3 (GEN3 TO GEN4) HDR2 - T3 (NEW GEN4)
	TOSS (+) - A	HDR2 - S1	HDR2 - S1
	TOSS (-) - B	HDR2 - S3	HDR2 - T3
	TISS (+) - A	HDR2 - T1	HDR2 - T1
	TISS (-) - B	HDR2 - T3	HDR2 - T3
	Trans Temp Sgnl - L	HDR2 - Y1	HDR2 - Y1
	Trans Temp Rtn - M	HDR2 - W3	HDR2 - W3 (GEN3 TO GEN4) HDR2 - T3 (NEW GEN4)
	+12V Switch - E (PINK)		

BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - BOOST (C02)

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>BOOST (C02)</b>	Boost Enable - A	HDR1 - L2	HDR1 - L2
	Boost Stg1 / Increment - B	HDR1 - T3	HDR1 - T3
	Boost Stg2 / Decrement - C	HDR1 - W3	HDR1 - W3
	Boost WG Press. Rtn - A	HDR2 - K2	HDR2 - D2
	Boost WG Press. 5VR - B	HDR2 - J1	HDR2 - E3
	Boost WG Press. Sgnl - C	HDR2 - B2	HDR2 - B2

## BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - DAE3

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>DAE3</b>	Spare Injector Driver - 1	N/A	HDR2 - A2
	GPIO 1 - 2	N/A	HDR2 - M2
	GPIO2 - 3	N/A	HDR2 - M3
	GPIO3 - 4	N/A	HDR2 - N2
	GPIO4 - 5	N/A	HDR2 - N3
	GPIO5 - 6	N/A	HDR2 - P2
	GPIO6 - 7	N/A	HDR2 - P3
	GPIO7 - 8	N/A	HDR2 - S2
	Wheelie Contrl Sgnl - 1	N/A	HDR2 - C2
	Spare A/D1 Sgnl - 2	N/A	HDR2 - A1
	Spare A/D2 Sgnl - 3	N/A	HDR2 - E2
	Spare A/D3 Sgnl - 4	N/A	HDR2 - F1
	Spare A/D4 Sgnl - 5	N/A	HDR2 - H2
	Wheelie Contrl 5VR - 1	N/A	HDR2 - J1
	Spare A/D1 5VR - 2	N/A	
	Spare A/D2 5VR - 3	N/A	
	Spare A/D3 5VR - 4	N/A	
	Spare A/D4 5VR - 5	N/A	
	Wheelie Contrl Rtn - 1	N/A	HDR2 - K2
	Spare A/D1 Rtn - 2	N/A	
	Spare A/D2 Rtn - 3	N/A	
	Spare A/D3 Rtn - 4	N/A	
	Spare A/D4 Rtn - 5	N/A	

BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - SECONDARY BOSCH WBO2

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>SECONDARY BOSCH WBO2</b>	LUEGOUN - 1	HDR2 - G2	HDR2 - G2
	LUEGOIA - 2	HDR2 - F3	HDR2 - F3
	LUEGOH(+) - 3	VBATT via relay	
	LUEGOH(-) - 4	HDR2 - G1	HDR2 - G1
	LUEGOVM - 5	HDR2 - G3	HDR2 - G3
	LUEGOIP - 6	HDR2 - F2	HDR2 - F2
	+12V Switch - (PINK)	+12V Switch to relay	

BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - PRIMARY NTK WBO2

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>PRIMARY NTK WBO2 for Methanol</b>	RUEGOH(+) - A	VBATT via relay	
	RUEGOH(-) - B	HDR2 - G1	HDR1 - G1
	RUEGO - C	N/A - Blank	
	RUEGO - D		
	RUEGO - E		
	RUEGOVS+ - F	HDR2 - G3	HDR1 - G3
	RUEGOIP+ - G	HDR2 - F2	HDR1 - F2
	RUEGOVS- - H	HDR2 - F3	HDR1 - F3
	+12V Switch - (PINK)	+12V Switch to relay	

BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - SECONDARY NTK WBO2

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>SECONDARY NTK WBO2 for Methanol</b>	LUEGOH(+) - A	N/A	VBATT via relay
	LUEGOH(-) - B	N/A	HDR2 - G1
	LUEGO - C	N/A	N/A - Blank
	LUEGO - D	N/A	
	LUEGO - E	N/A	
	LUEGOVS+ - F	N/A	HDR2 - G3
	LUEGOIP+ - G	N/A	HDR2 - F2
	LUEGOVS- - H	N/A	HDR2 - F3
	+12V Switch - (PINK)	N/A	+12V Switch to relay

# BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - 16 INJECTOR

Upgrade	Signal - MWH Connector Location	GEN3 ECU 30-Way Connector Pin	GEN4 ECU 30-Way Connector Pin <b>(The GEN3 secondary 16 Injector wire harness cannot be reused for the GEN4 PRO XTREME system)</b>
<b>16 INJECTOR</b>	Secondary Big Drive Enable (Inj 9 thru 16) - D (YLW/BLUE)	N/A	GEN4 HDR1 - F1 TO SECONDARY BIG DRIVE HDR - F2 (YLW/BLUE)
	Injector 9 - A	HDR2-R2	Secondary Big Drive Inj Output - E1
	Injector 10 - B	HDR2 - R3	Secondary Big Drive Inj Output - F1
	Injector 11 - C	HDR2 - P1	Secondary Big Drive Inj Output - G1
	Injector 12 - D	HDR2 - P2	Secondary Big Drive Inj Output - H1
	Injector 13 - E	HDR2 - P3	Secondary Big Drive Inj Output - J1
	Injector 14 - F	HDR2 - P4	Secondary Big Drive Inj Output - K1
	Injector 15 - G	HDR2 - P5	Secondary Big Drive Inj Output - G2
	Injector 16 - H	HDR2 - P6	Secondary Big Drive Inj Output - H2
	Injector - J	VBATT (-)	VBATT (+)
	Injector - K		
	Vbatt (+)	HDR2 - W2	N/A
	Vbatt (+)	HDR2 - L2	N/A

BS3 GEN3 VS GEN4 UPGRADE HARNESS PIN OUT COMPARISON - DRIVE BY WIRE / KNOCK

Upgrade	Signal - MWH Connector Location	<u>GEN3</u> ECU 30-Way Connector Pin	<u>GEN4</u> ECU 30-Way Connector Pin
<b>DRIVE-BY-WIRE / KNOCK</b>	Drive by Wire Pedal1 Sgnl	N/A	HDR2 - D3
	Drive by Wire Pedal2 Sgnl	N/A	HDR2 - E1
	Knock RB (+)	N/A	HDR2 - J2
	Knock RB (-)	N/A	HDR2 - J3
	Knock LB (+)	N/A	HDR2 - K1
	Knock LB (-)	N/A	HDR2 - K3