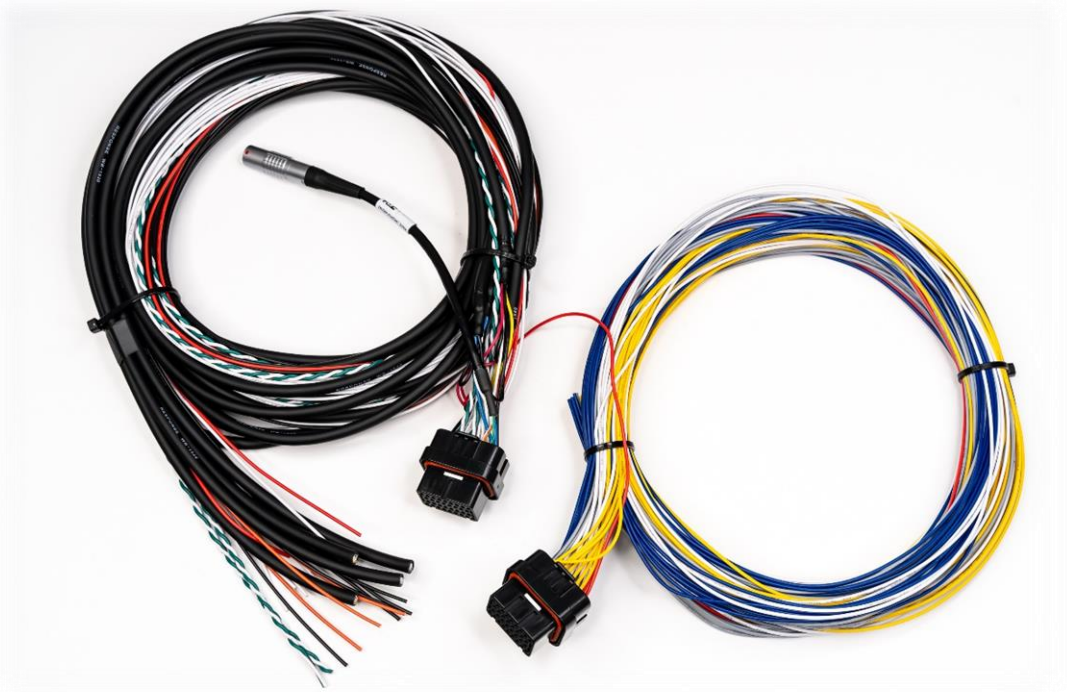
SL Series Wiring Harness Specification

SPECIFICATION

Rev 1.1



SL SERIES

Contents

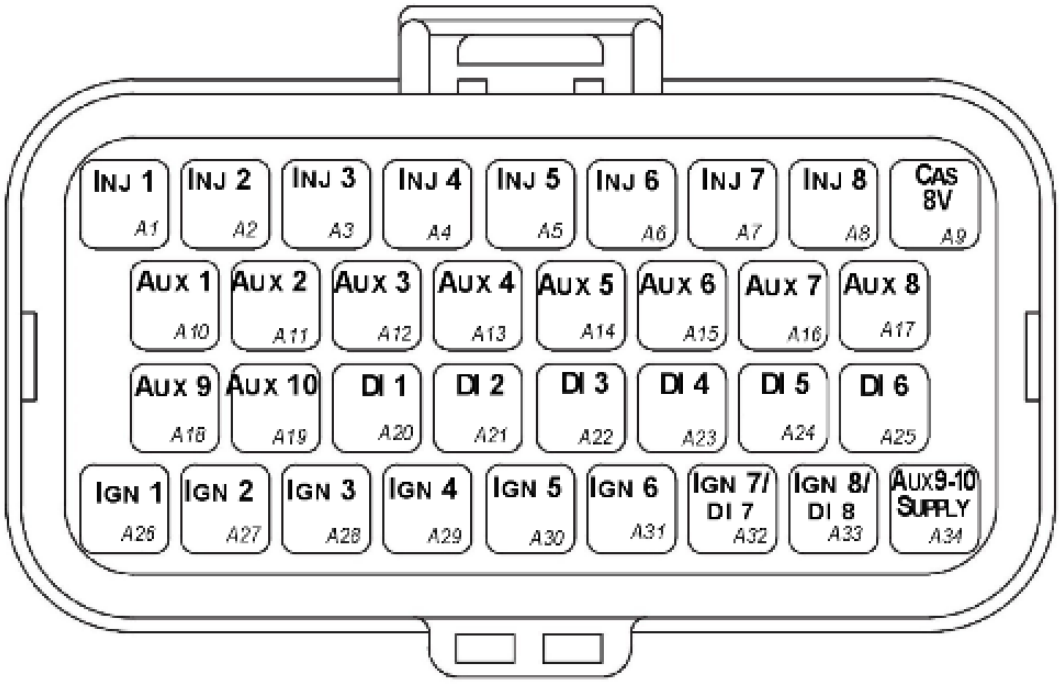
1.0 Introduction

The document contains the specification for the Emtron SL Series wiring harness.

Loom Length = 2.5 meters.
Wire Type = AVSS.

Any unused pins MUST have blanking bungs fitted to the connector to keep the plug rated at its IP standard.

2.0 Connector A



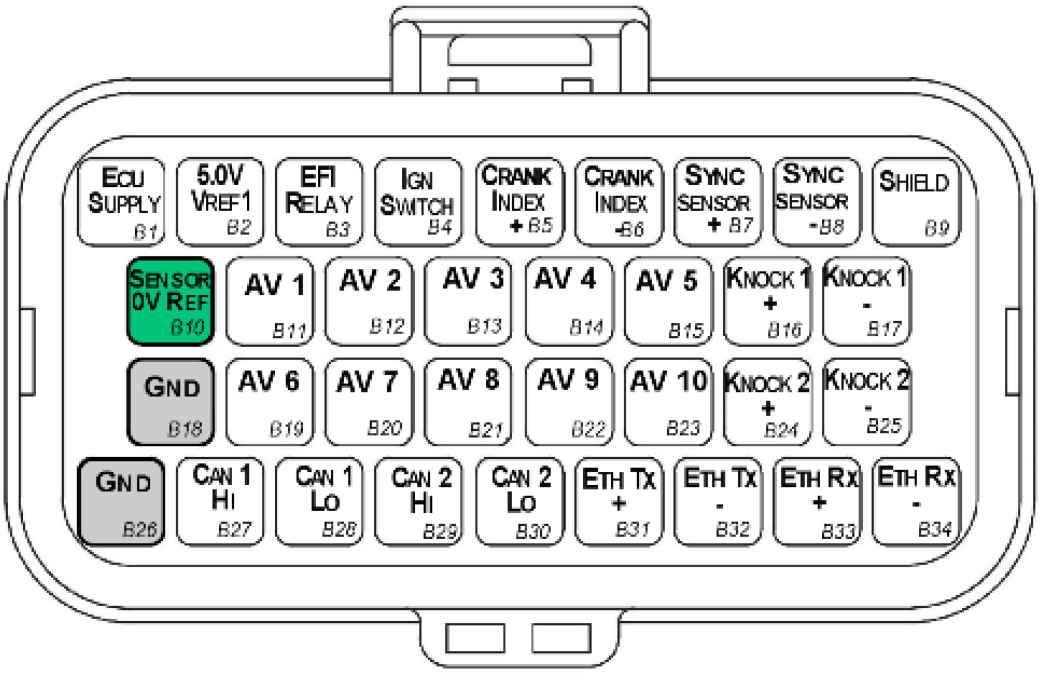
Name: Superseal
Manufacturers: TE
Description: 34 Way/Key 2
Part Number: 4-1437290-1

2.1 Connector A Wire Colours

Pin Name	Pin Number	Description	Color	Wire Size (sq mm)
INJ 1	A1	Injector Channel 1	Blue	0.50
INJ 2	A2	Injector Channel 2	Blue	0.50
INJ 3	A3	Injector Channel 3	Blue	0.50
INJ 4	A4	Injector Channel 4	Blue	0.50
INJ 5	A5	Injector Channel 5	Blue	0.50
INJ 6	A6	Injector Channel 6	Blue	0.50
INJ 7	A7	Injector Channel 7	Blue	0.50
INJ 8	A8	Injector Channel 8	Blue	0.50
IGN 1	A26	Ignition Channel 1	Yellow	0.50
IGN 2	A27	Ignition Channel 2	Yellow	0.50
IGN 3	A28	Ignition Channel 3	Yellow	0.50
IGN 4	A29	Ignition Channel 4	Yellow	0.50
IGN 5	A30	Ignition Channel 5	Yellow	0.50
IGN 6	A31	Ignition Channel 6	Yellow	0.50
IGN 7/DI 7	A32	Ignition Channel 7	Yellow	0.50
IGN 8/DI 8	A33	Ignition Channel 8	Yellow	0.50
AUX 1	A10	Auxiliary Channel 1	Grey	0.50
AUX 2	A11	Auxiliary Channel 2	Grey	0.50
AUX 3	A12	Auxiliary Channel 3	Grey	0.50
AUX 4	A13	Auxiliary Channel 4	Grey	0.50
AUX 5	A14	Auxiliary Channel 5	Grey	0.50
AUX 6	A15	Auxiliary Channel 6	Grey	0.50
AUX 7	A16	Auxiliary Channel 7	Grey	0.50
AUX 8	A17	Auxiliary Channel 8	Grey	0.50
AUX 9	A18	Auxiliary Channel 9	Grey	0.50
AUX 10	A19	Auxiliary Channel 10	Grey	0.50

Pin Name	Pin Number	Description	Colour	Wire Size (sq mm)
DI 1	A20	Digital Input CH 1	White	0.50
DI 2	A21	Digital Input CH 2	White	0.50
DI 3	A22	Digital Input CH 3	White	0.50
DI 4	A23	Digital Input CH 4	White	0.50
DI 5	A24	Digital Input CH 5	White	0.50
DI 6	A25	Digital Input CH 6	White	0.50
CAS 8V	A9	8V Cas Supply	White/Orange	0.50
AUX 9 -10 SUPPLY	A34	Power supply for Aux 9-12 high side	Red	0.85

3.0 Connector B



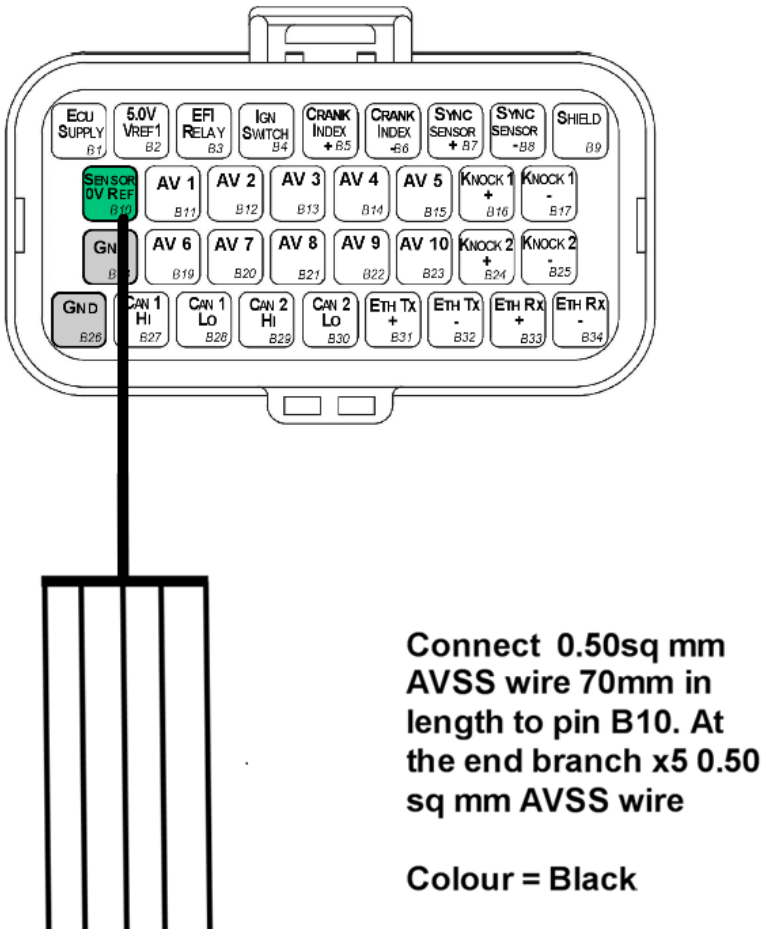
Name: Superseal
Manufacturers: TE
Description: 34 Way/Key 1
Part Number: 4-1437290-0

3.1 Connector B Wire Colours

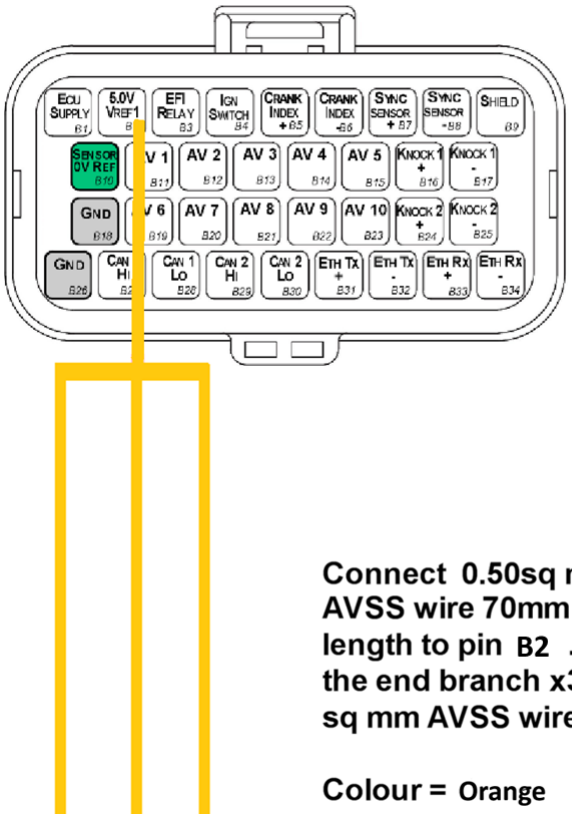
Pin Name	Pin Number	Description	Colour	Wire Size (sq mm)
ECU SUPPLY	B1	ECU Supply	Red	0.85
5V SUPPLY	B2	Main 5V engine sensor supply (Branched	Orange	0.50
EFI RELAY	B3	Main Relay Control	Pink/Black	0.50
IGN SWITCH	B4		Red	0.50
CRANK INDEX +	B5	Crank Index position sensor Positive	2 core Shielded Cable shared with Pin B6	
CRANK INDEX -	B6	Crank Index position sensor Negative	2 core Shielded Cable shared with Pin B5	
SYNC SENSOR +	B7	Sync Sensor Positive	2 core Shielded Cable shared with Pin B8	
SYNC SENSOR -	B8	Sync Sensor Negative	2 core Shielded Cable shared with Pin B7	
Shield	B9	Knock/Trigger Shield	(White 70mm)	0.50
Sensor Gnd	B10	Sensor Ground (Branched Cable)	Black	0.50
AV 1	B11	Analog Voltage CH 1	White	0.50
AV 2	B12	Analog Voltage CH 2	White	0.50
AV 3	B13	Analog Voltage CH 3	White	0.50
AV 4	B14	Analog Voltage CH 4	White	0.50
AV 5	B15	Analog Voltage CH 5	White	0.50
KNK 1 +	B16	Knock Sensor 1 +	2 core Shielded Cable shared with Pin B17	
KNK 1 -	B17	Knock Sensor 1 -	2 core Shielded Cable shared with Pin B16	
AV 6	B19	Analog Voltage CH 6	White	0.50
AV 7	B20	Analog Voltage CH 7	White	0.50
AV 8	B21	Analog Voltage CH 8	White	0.50
AV 9	B22	Analog Voltage CH 9	White	0.50
AV 10	B23	Analog Voltage CH 10	White	0.50
KNK 2 +	B24	Knock Sensor 2 +	2 core Shielded Cable shared with Pin B25	
KNK 2 -	B25	Knock Sensor 2 -	2 core Shielded Cable shared with Pin B24	

CAN 1 HI	B27	Main Engine CAN	White	0.50
CAN 1 LO	B28	Main Engine CAN	Green	0.50
CAN 2 HI	B29	Auxiliary CAN	White	
CAN 2 LO	B30	Auxiliary CAN	Green	
Ethernet TX+	B31		Twisted Pair CAT 5E	
Ethernet TX-	B32		Twisted Pair CAT 5E	
Ethernet RX+	B33		Twisted Pair CAT 5E	
Ethernet RX-	B34		Twisted Pair CAT 5E	
GND	B18	Power Ground	Black	0.85
GND	B26	Power Ground	Black	0.85

3.2 Pin B10 Sensor Ground Branched Connections



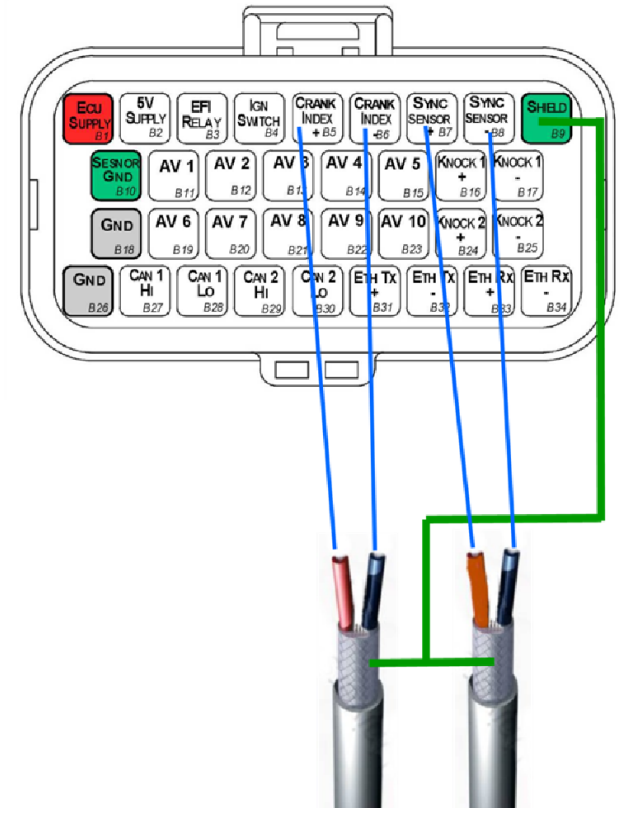
3.3 Pin B2 5V Supply Branched Connections



Connect 0.50sq mm AVSS wire 70mm in length to pin B2 . At the end branch x3 0.50 sq mm AVSS wire

Colour = Orange

3.4 Crank and Sync Shielded Cable Connections

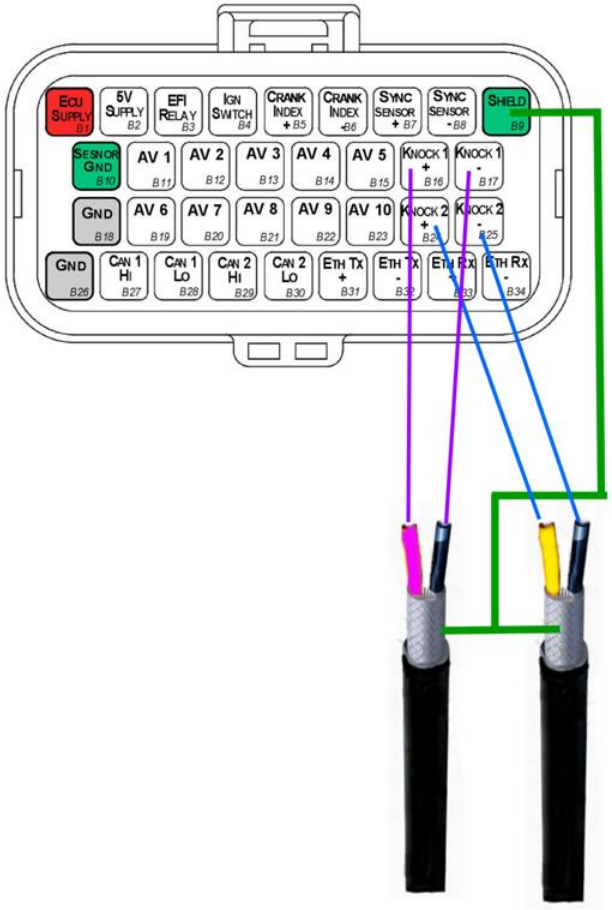


Connect cable shields to Pin B9 using 0.30 - 0.50 sq mm AVSS cable.
Length = 70mm.
Colour = White

**** NOTE:** The individual core colours are not specified but there MUST be at least one different core colour between the Crank Index cable and Sync Sensor cable i.e. the exact same cables cannot be used for both connections.

3.5 Knock Shielded Cable Connections

- Use x1 2-core shielded cable for Pins B16 and B17
- Use x1 2-core shielded cable for Pins B24 and B25



Connect cable shields to Pin B9 using 0.50 sq mm AVSS cable.
Length = 70mm.
Colour = White

**** NOTE:** The individual core colours are not specified but there MUST be at least one different core colour between the KNK 1 cable and KNK 2 cable i.e. the exact same cables cannot be used for both connections. Ideally these core colours should be different to those used in section 3.4.

3.6 Ethernet Sub Harness - Pins B31- B34

See Document "Ethernet to Superseal Loom Specification V1.x".

This sub harness should be plugged into Connector B, Pins B31 -> B34.

Appendix A – SL8 ECU Pinout Drawing

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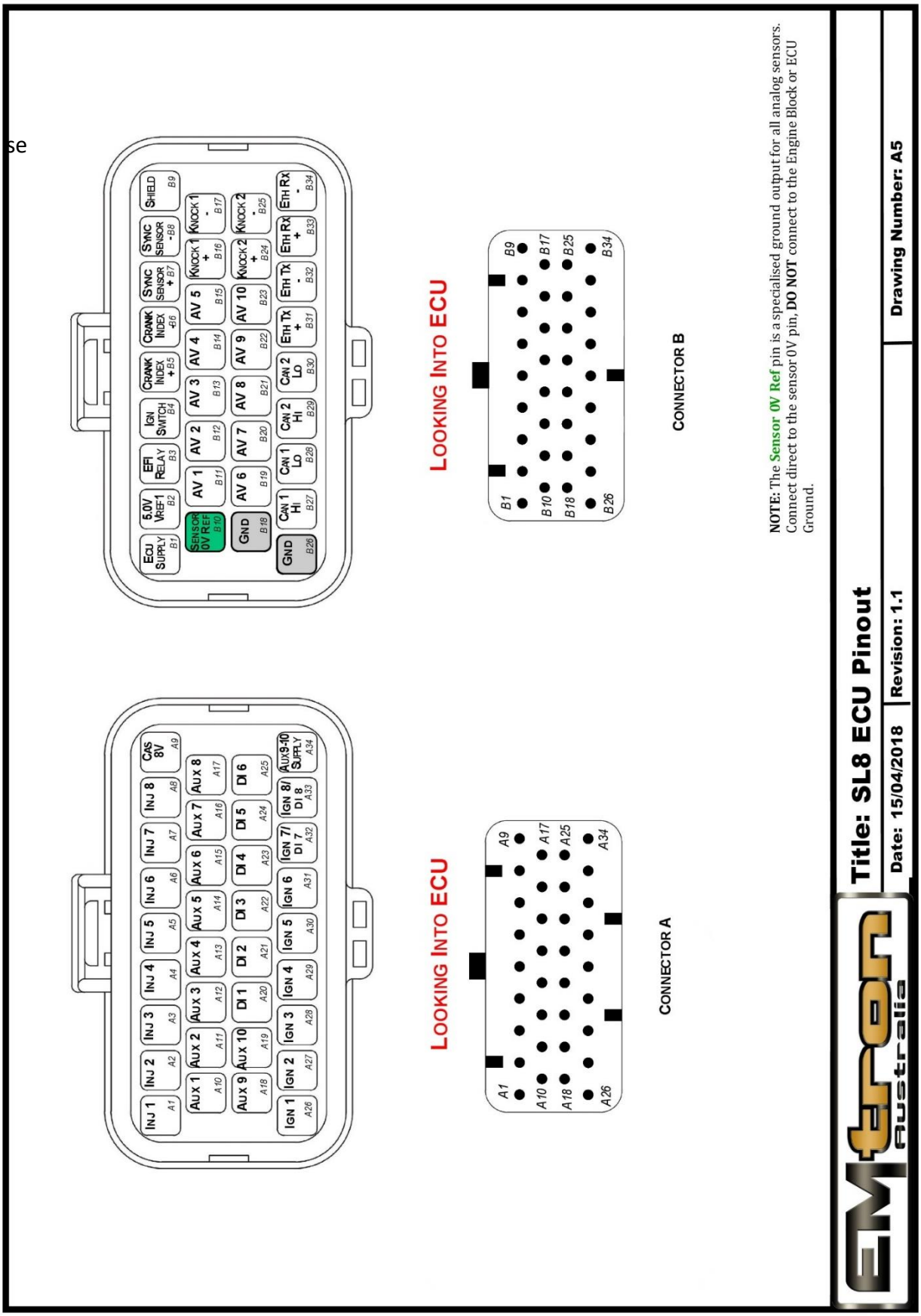
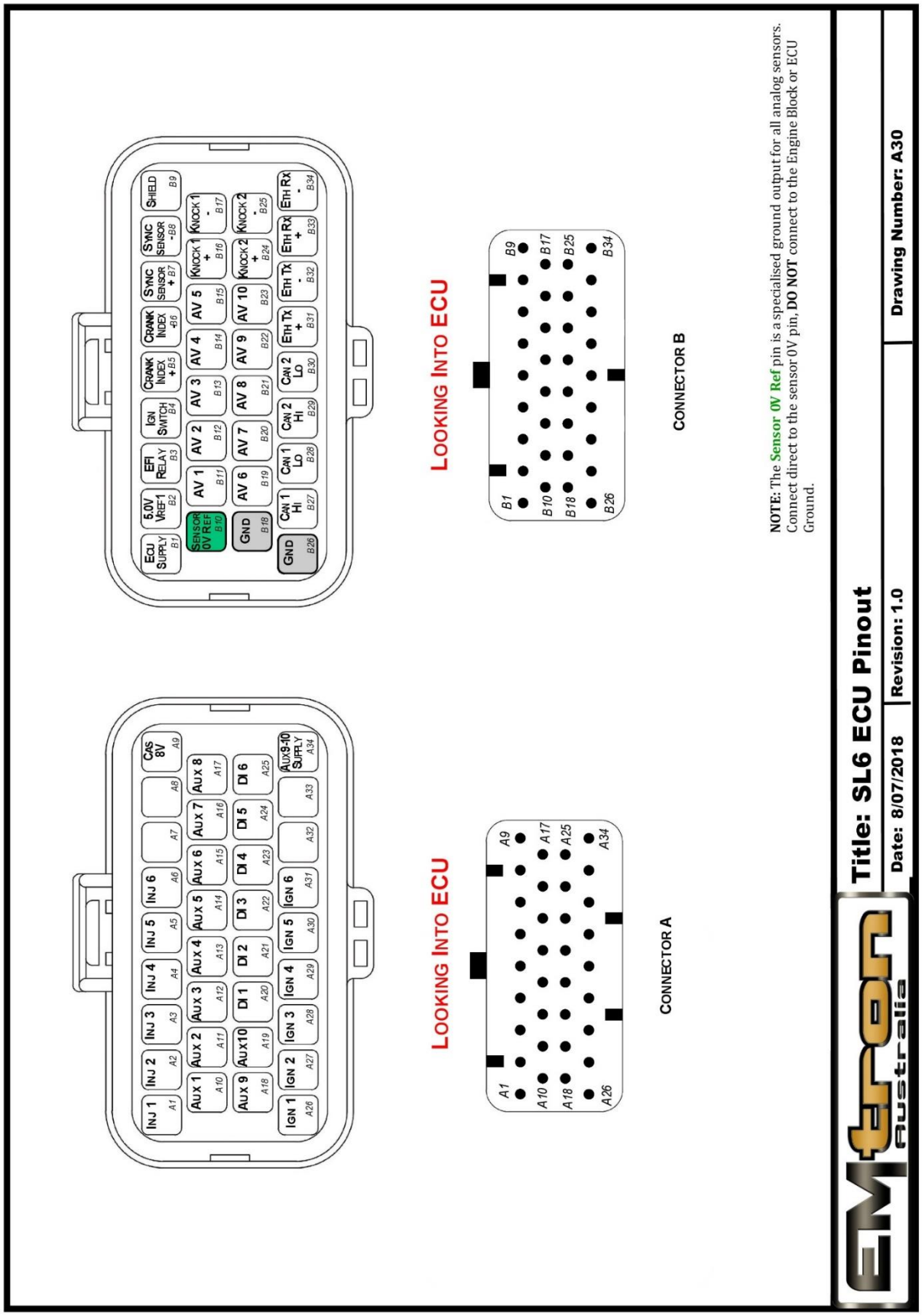
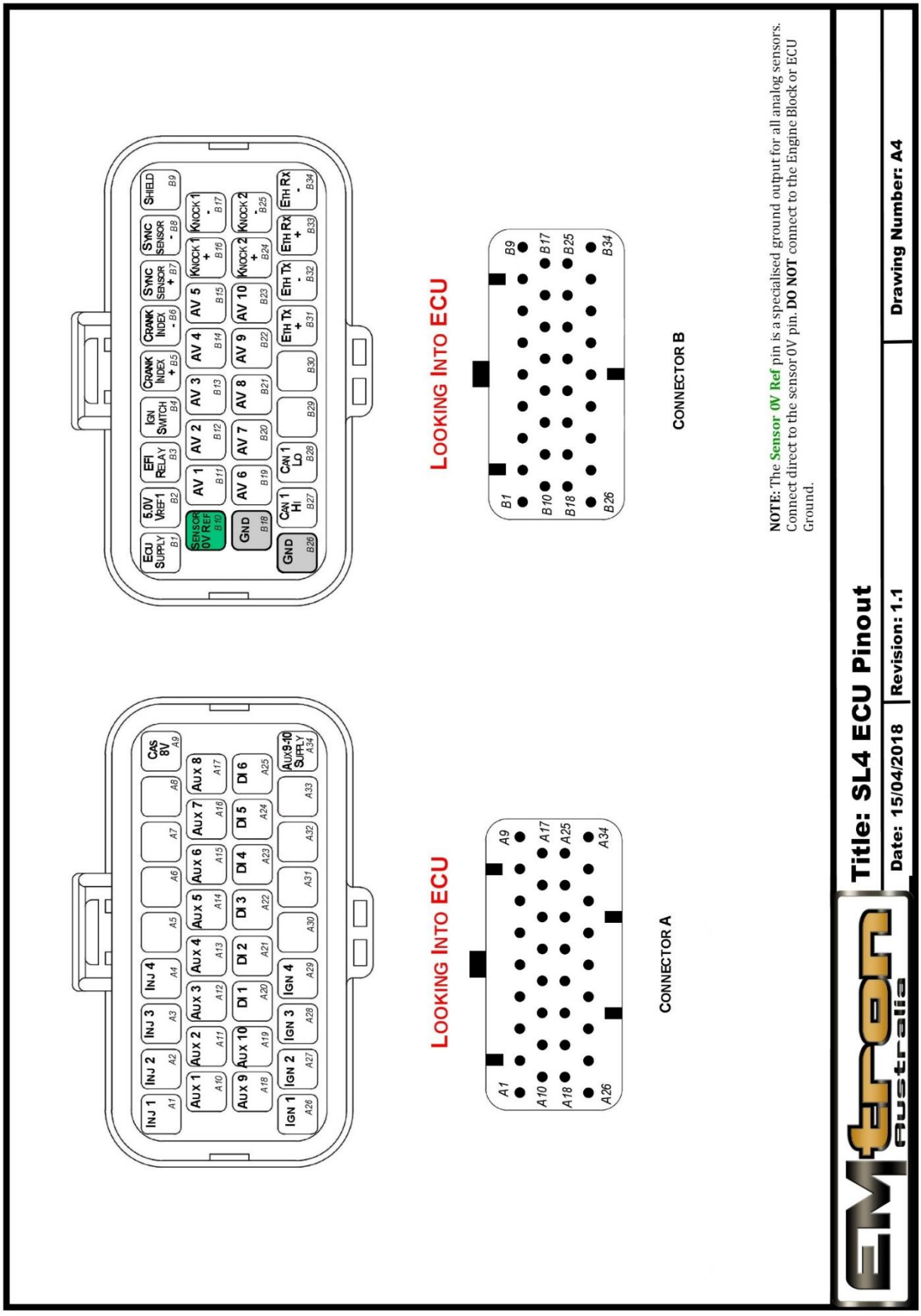


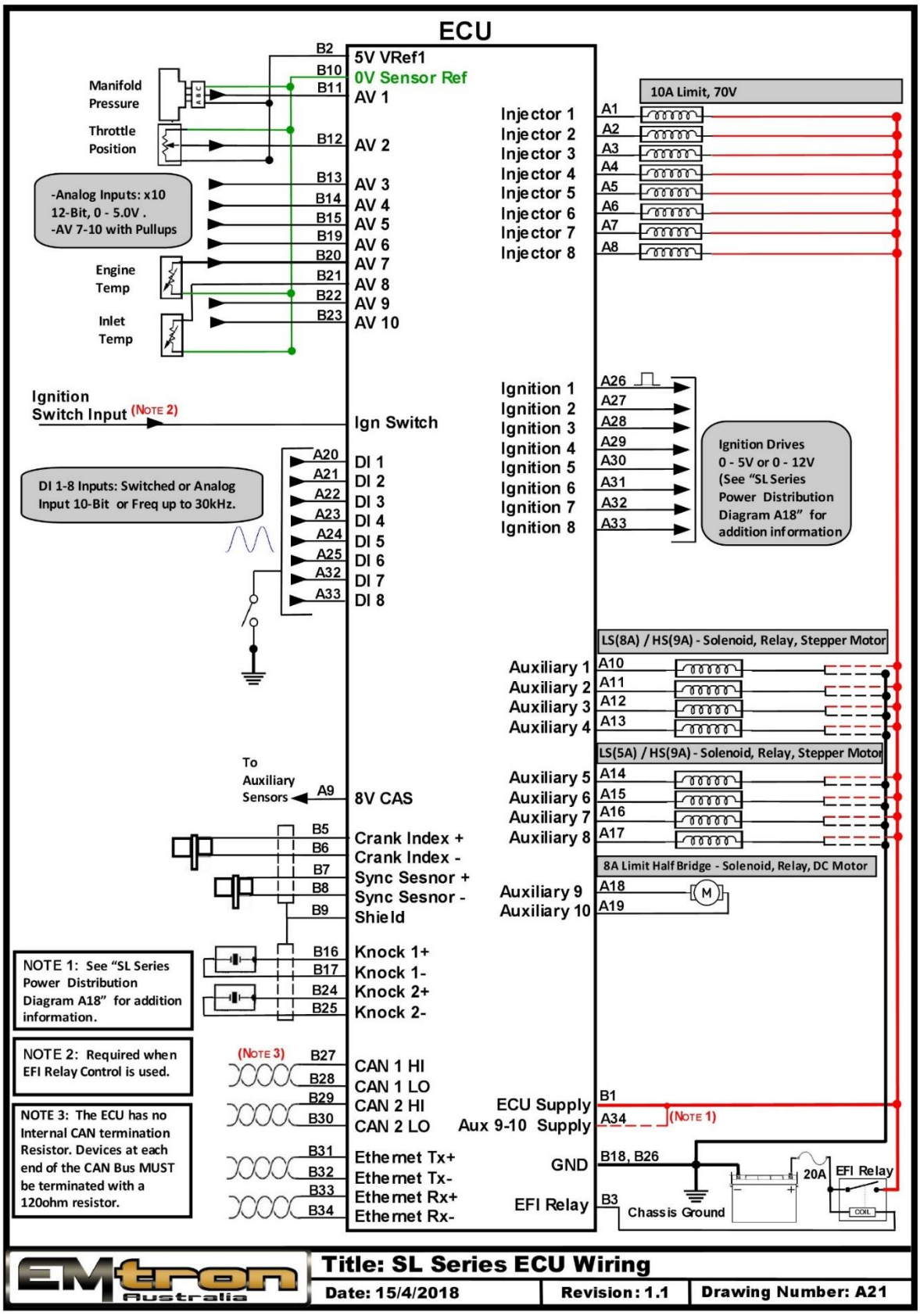
Appendix B – SL6 ECU Pinout Drawing



Appendix C – SL4 ECU Pinout Drawing



Appendix D – SL Series ECU Wiring



Appendix E – SL Series Ethernet Wiring – A25