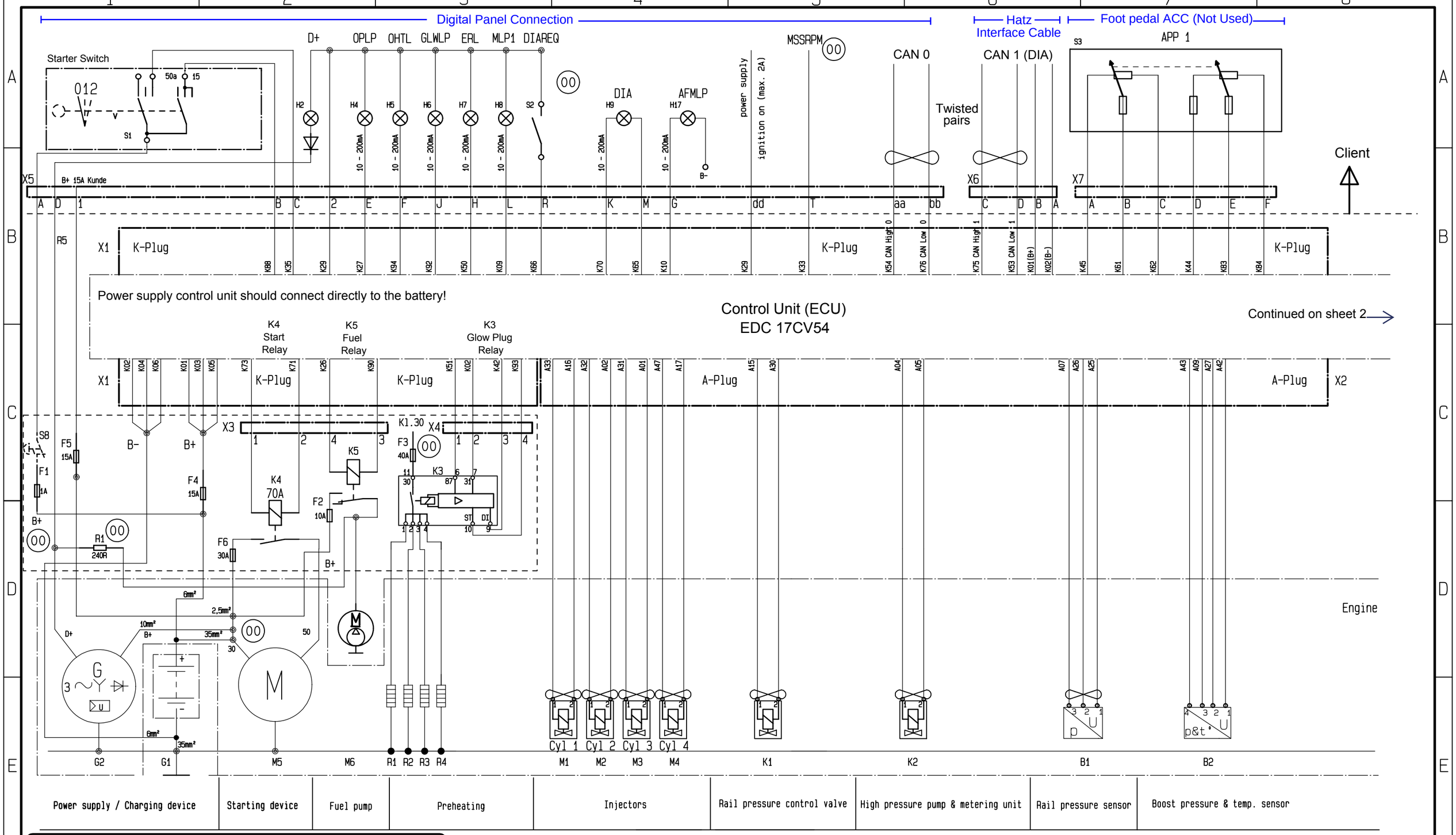

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For customer power supply ("ignition on" K1.15) use only K29 (max 2A). - After ignition off K29 is delayed for 15 sec..

HATZ DIESEL

Hatz Date:16.03.15

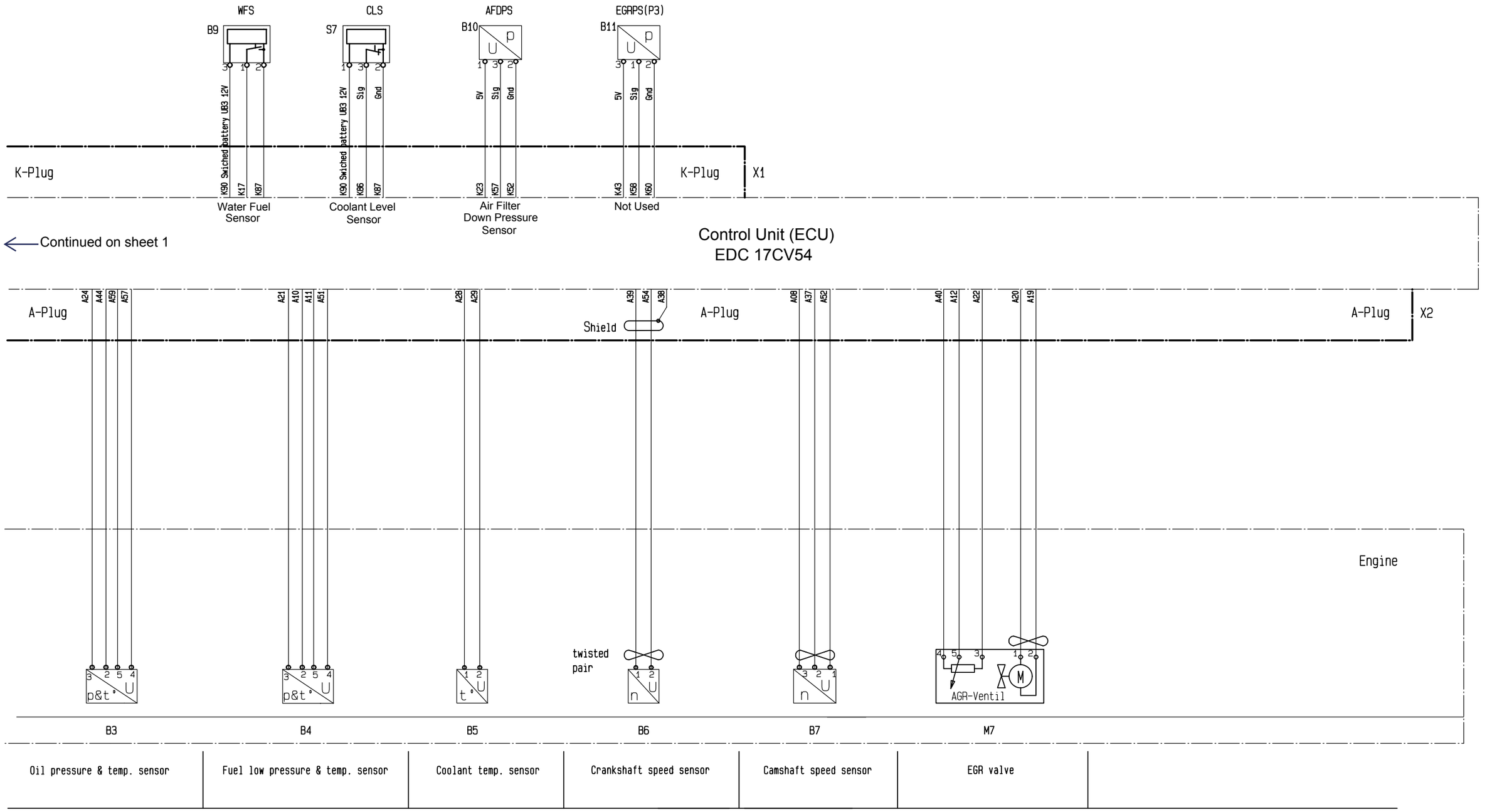
Just For Information Circuit Diagram

Standard 12V

4H50TIC

MQ

Mayco LS450



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B1 - Rail pressure sensor
B2 - Boost pressure & temp. sensor
B3 - Oil pressure & temp. sensor
B4 - Fuel low pressure & temp sensor
B5 - Coolant temperature sensor
B6 - Crankshaft speed sensor
B7 - Camshaft speed sensor
B8 - Ambient temperature sensor
B9 - Water in fuel sensor
B10 - Aire cleaner differential pressure sensor
B11 - EGR pressure sensor
F1 - Fuse T15/T50
F2 - Fuse fuel pump
F3 - Fuse glow plugs
F4 - Fuse control unit B+
F5 - Fuse B+ power supply customer
F6 - Fuse starter 50
G1 - Starter battery
G2 - Battery charger
H2 - Charge control fault lamp
H4 - Oil pressure fault lamp
H5 - Engine over temperature fault lamp
H6 - Pre glow lamp
H7 - Engine running lamp
H8 - Maintenance lamp
H9 - Diagnostic lamp
H17 - Air cleaner maintenance lamp
K1 - Rail pressure control valve
K2 - High pressure pump & metering unit
K3 - Glow control unit
K4 - Starter relay
K5 - Fuel pump relay
M1 - Injector cyl 1
M2 - Injector cyl 2
M3 - Injector cyl 3
M4 - Injector cyl 4
M5 - Starter motor
M6 - Fuel pump
M7 - EGR valve
P1 - Speed counter
R1 - Resistor for battery charger excitation
S1 - Ignition - start - switch
S2 - Diagnostic request switch

S3 - Acceleration pedal 1
S4 - Start switch (optional)
S5 - Stop switch (optional)
S6 - Multi state switch (optional)
S7 - Coolant level switch
S8 - Emergency stop - wiring customer side
X1 - Control unit plug customer side → Bosch 1 928 A00 325 94 Pin Coding C Right
X2 - Control unit plug engine side → Bosch 1 928 A00 325 60 Pin Coding C Left
X3 - Plug for starter relay & fuel pump relay → Deutsch DTM 06-45
X4 - Plug for glow control unit → Deutsch DTM 04-4P
X5 - Plug for customer signals → ITT Canon Trident 4-28
X6 - Can bus diagnostic plug → Deutsch HD10-9-1939PE
X7 - Acceleration pedal 1 → ITT Canon Trident 0-12

X3

Pin	Location	Control unit
1	- Starter relay highside - 86	K73
2	- Starter relay low side - 85	K71
3	- Fuel pump relay low side - 85	K90
4	- Fuel pump relay high side - 86	K53

X4

Pin	Location	Control unit
1	- Power supply GCU	K51
2	- Ground GCU	K02
3	- Diagnostic output GCU	K42
4	- Control input GCU	K93

X5

No.	Designation	Bosch-Hatz Identifier	Line Marking
1	- B+ 15A power supply customer	1 - From fuse	1
2	- Switched battery B+	K29 - V8	24
3	- B-	0 - from ground	0
4	-		
A	- B+ 1A power supply T15/50	From fuse	1
B	- Ignition on clamp 15	I_S_T15-K88	15
C	- Start signal clamp 50	I_S_T50-K35	50
D	- Charge control fault	No.2	2
E	- Oil pressure fault	O_S_OPLP-K27	4
F	- Engine over temperature fault	O_S_OHTL-K94	5

X6

Pin	Location	Control Unit
A	- Ground	K02
B	- B+ (15A)	K01
C	- CAN1 High (DIA)	K75
D	- CAN1 Low (DIA)	K53

X7

Pin	Location	Control Unit
A	- O_V_5V_APP1 - supply +5V	K45
B	- L_A_APP1 - signal 0,5V-4,5V	K61
C	- G_R_APP1 - ground	K62
D	- O_V_5V_APP2 - supply +5V	K44
E	- LA_APP2 - signal 0.25V-2.25V	K83
F	- G_R_APP2 - ground	K84

X5

No.	Designation	Bosch-Hatz Identifier	Line Marking
G	- Air cleaner maintenance switch	O_S_AFLMP - K10 (High side)	17
H	- Engine running lamp	O_S_ERL - K50	ML
J	- Pre glowing lamp	O_S_GLWLP - K92	13
K	- Diagnostic lamp high side	O_V_DIA - K70	DIA+
L	- Maintenance lamp	O_S_MLP1 - K09	IV
M	- Diagnostic lamp low side	G_R_DIA - K65	DIA-
N	- Engine start switch	I_S_ENGSA - K67	9
P	- Engine stop switch	I_S_STP - K31	11
R	- Diagnostic request switch	I_S_DIAREQ - K66	DR
S	- Engine speed signal	O_F_ENGN - K49	22
T	- Multi state switch	I_A_MSSRPM - K33	14
U	- Ground digital inputs	G_R_DIG K87	0
V	-		
W	-		
aa	- CAN 0 High	B_D_CANH0 - K54	CAN +
bb	- CAN 0 Low	B_D_CANL0 - K76	CAN -
cc	- B-	0 - from ground	0
dd	- Switched battery B+	K29 - V8	24

Fuses

Place	Ampere	Term	Application
A	15A	F4	Power supply control unit
B	1A	F1	Input T15/50 control unit
C	40A	F3	Glow plugs
D	15A	F5	Power supply customer
E	10A	F2	Fuel pump
F	30A	F6	Starter motor

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