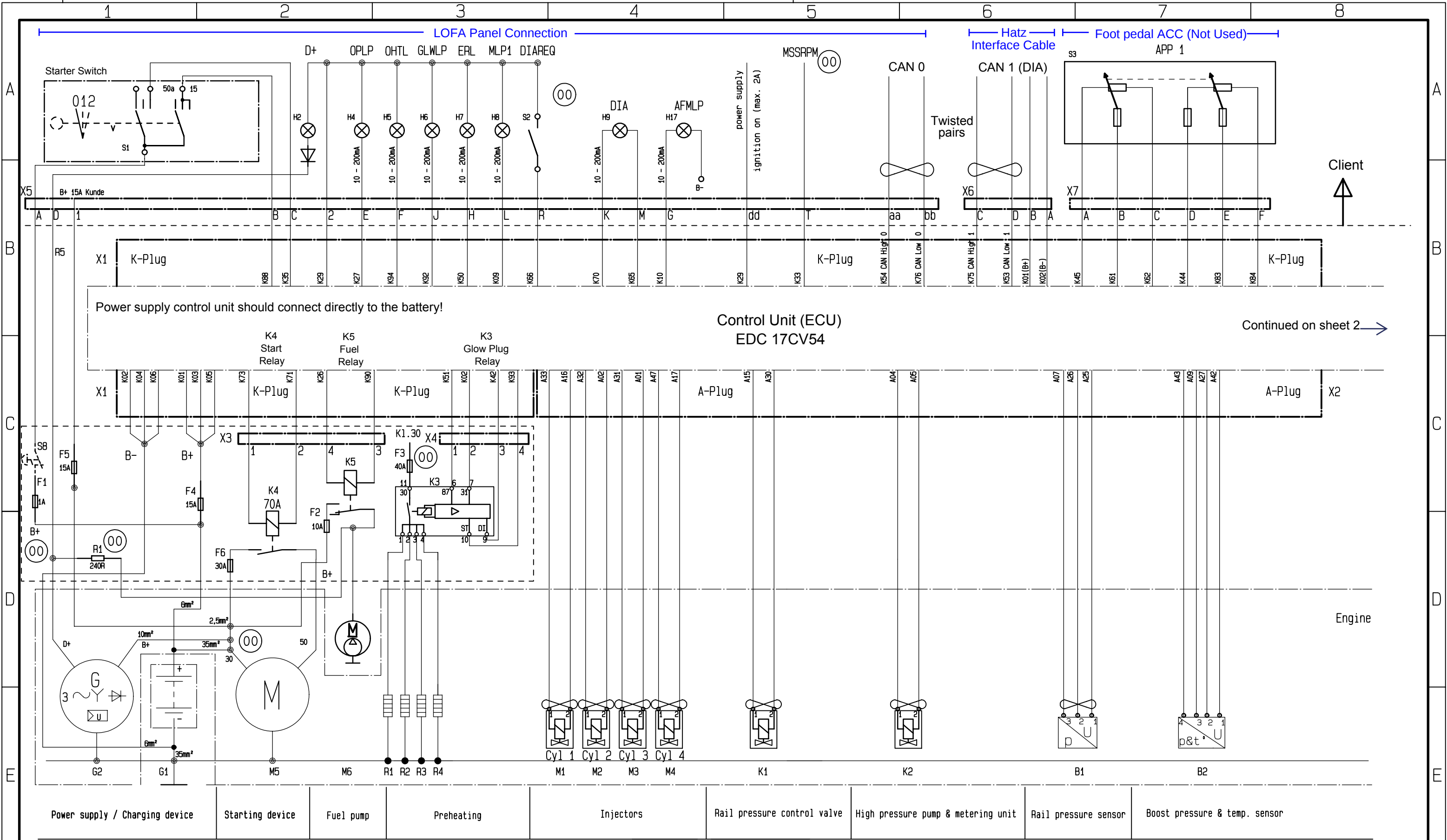


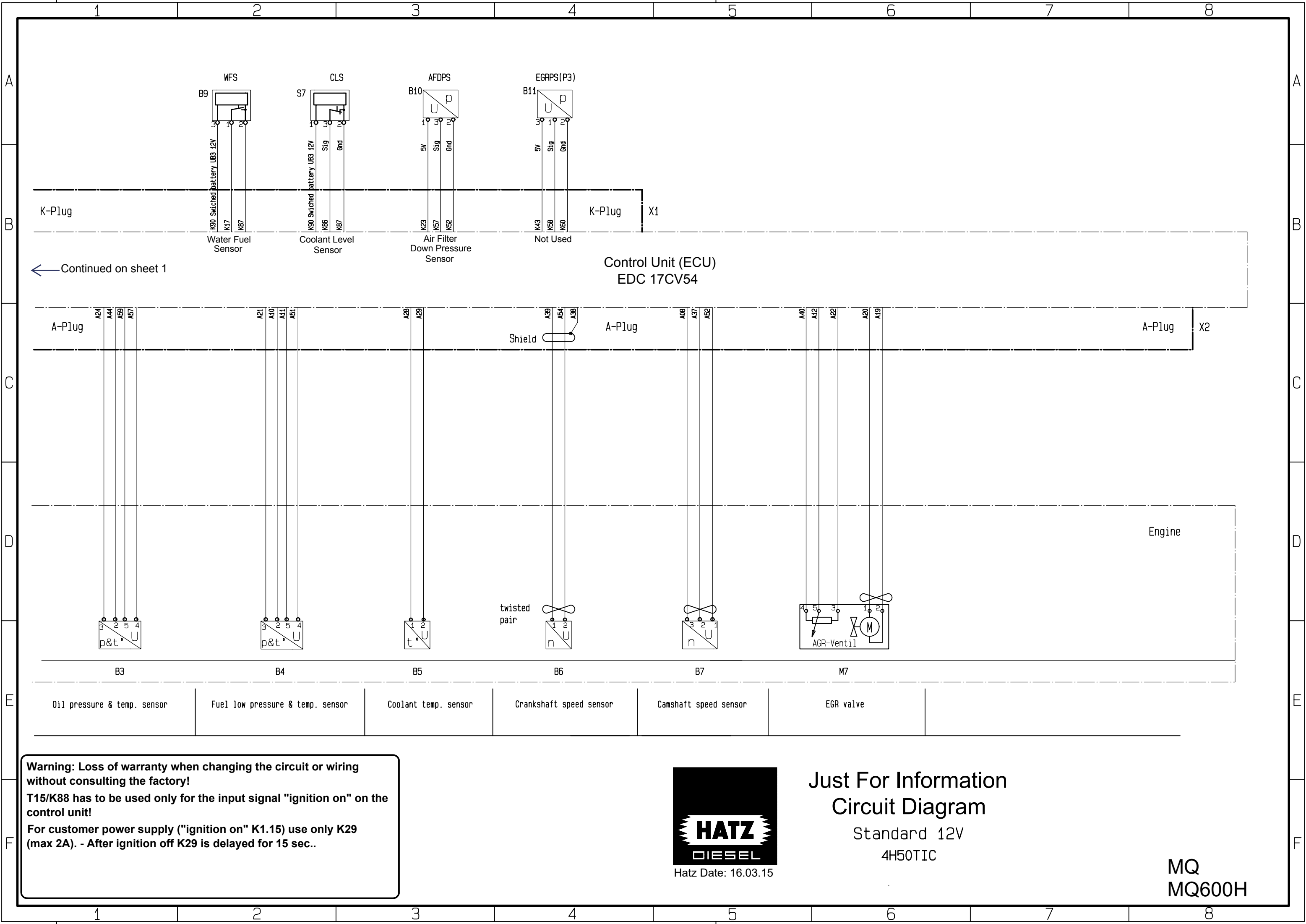


Warning: Loss of warranty when changing the circuit or wiring without consulting the factory!
T15/K88 has to be used only for the input signal "ignition on" on the control unit!
For customer power supply ("ignition on" K1.15) use only K29 (max 2A). - After ignition off K29 is delayed for 15 sec..



Just For Information
Circuit Diagram
Standard 12V
4H50TIC

MQ
MQ600H



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Circuit Diagram**
Standard 12V
4H50TIC

**MQ
MQ600H**

- 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 - Air 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

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

X5			cc -- B- dd -- Switch
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

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

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

No.	Designation	Bosch-Hatz Identifier	Line Marking
X5	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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Hatz Date: 16.03.15

Just For Information

Circuit diagram

Standard 12V

4H50TIC

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