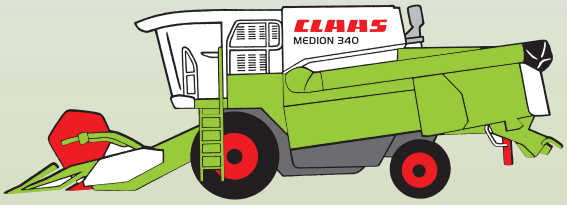
CLAAS



MEDION 340 – 310

From serial number:
934 00610
932 02724

Technical Systems

Electric System

SERVICE & PARTS

Key to diagram:

a	Fuse block a	ZE (Central terminal compartment)
a1	Left-hand work lights fuse	34
a2	Reel adjustment fuse	4, 14, 15, 17, 20, 21, 24
a3	Cab outside work lights fuse	34
a4	not used	
a5	Lights main circuit fuse	32
a6	CAC / Cab electric system fuse	24, 36
a7	Lights main circuit fuse	32
a8	Cab fan fuse	38
a9	Function information unit fuse	12, 24, 26, 30
a10	Lights main circuit fuse	32
a11	Windscreen wiper fuse	37
a12	Road travel enable fuse	4
a13	Lights main circuit fuse	32
a14	Engine control unit fuse	2
a15	Drive fuse	7, 15, 17, 19
a16	Work lights fuse	34
a17	Front attachment circuits / reel adjustment fuse	8, 20, 21, 23, 40
a18	Lighting, sieve pan, grain tank and returns fuse	35
A 8	AUTOCONTOUR module (CAC)	20, 24
A 9	AUTOPILOT module (ATP)	28
A12	Speed monitor module (DZW)	25
A17	Engine adaptation module (ADM)	1,2
A52	Multi-function handle module	14, 15, 17, 20, 21, 24
B	Fuse block b	ZE
b1	Right-hand dipped headlights fuse	33
b2	Vehicle information unit / Indicator fuse	1, 3, 5, 26, 28, 31
b3	Warning beacon fuse	30
b4	Left-hand dipped headlights fuse	33
b5	Indicator system fuse	31
b6	Instrument lighting fuse	26, 29, 33, 35, 36
b7	Work lights fuse	34
b8	Work lights fuse	34
b9	Horn fuse	35, 39
b10	Threshing mechanism fuse	7, 10, 12, 28, 40
b11	Fan variable-speed drive fuse	10
b12	Relay K59 control fuse	3, 38
b13	Speed monitor fuse	10, 25
b14	Reel variable-speed drive	19
b15	Alternator release fuse	3
b16	Additional socket fuse	40
b17	Cooling unit, air conditioner fuse	38
b18	Fieldwork computer / Yield meter fuse	5, 27
C1	Front attachment reverse fuse	ZE, 17
DO	Master valve diode PCB	4
DI	Diode PCB	2b, 3, 24, 25, 26, 30
DM	Daimler-Chrysler diagnosis plug	ZE, 2
F 3	Engine fuse block	ZE, 2

Overview of fuses:

Fuse	Circuit Diagram	Circuit Diagram	Circuit Diagram	Circuit Diagram	Circuit Diagram	Circuit Diagram	Circuit Diagram
a1	34						
a2	4	14	15	17	20	21	24
a3	34						
a4							
a5	32						
a6	24	36					
a7	32						
a8	38						
a9	12	24	26	30			
a10	32						
a11	37						
a12	4						
a13	32						
a14	2						
a15	7	15	17	19			
a16	34						
a17	8	20	21	23	40		
a18	35						
b1	33						
b2	1	3	5	25	26	28	31
b3	30						
b4	33						
b5	31						
b6	26	29	33	35	36		
b7	34						
b8	34						
b9	35	39					
b10	7	10	12	28	40		
b11	10						
b12	3	38					
b13	10	25					
b14	19						
b15	3						
b16	40						
b17	38						
b18	5	27					
c1	17						
F3	1	2					

Description of function:

Diesel engine speed adjustment	After actuating the engine speed adjustment switch S35, earth is applied at the engine adaptation module A 17 both at pin 2/10 and at pin 2/6 when switch Z 41 is closed. The engine is running at rated speed. With 3rd gear engaged, transmission switch Z 41 is open, earth is now applied only at pin 2/6. The engine is running at reduced speed (road travel).

4a

Activation of road travel, master valve

7a

Threshing mechanism circuit

12a

Deflector adjustment, performance monitor

15a

Grain tank unloading

19a

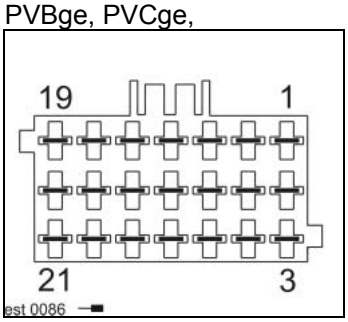
Reel variable-speed drive

Description of function:

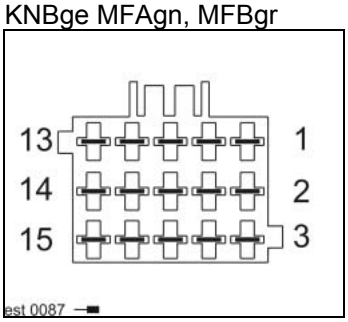
Reel raise/lower circuit	When the „Reel raise/lower function“ is activated, the corresponding solenoid coils Y22 / Y23 are energized directly by switches S19 / S20 via the multi-function handle module A52. The master valve (Y77) is also actuated via the diode PCB (DO) in parallel with solenoid coil (Y22) because this function requires that pressure is built up in the system.
Reel forward/backward circuit	In the reel forward/backward function, the corresponding solenoid coils Y24 / Y25 are actuated directly by switches S21 / S22. The master valve (Y77) is also actuated via the diode PCB (DO) in parallel with solenoid coils (Y24, Y25) because this function requires that pressure is built up in the system.
Folding the maize picker to working position	When the „Fold maize picker to working position“ function is activated, the corresponding solenoid coil Y25 is energized directly by the fold maize header switch (S34). The master valve (Y77) is also actuated via the diode PCB (DO) in parallel with solenoid coil (Y25) because this function requires that pressure is built up in the system. The fold maize header switch (S34) must be actuated for another 6 seconds after the folding procedure in order to pressurise the system hydraulically.
Folding the maize picker to transport position	When the “Fold maize picker to transport position” function is activated, the corresponding solenoid coil Y24 is energized directly by the fold maize header switch (S34). The master valve (Y77) is also actuated via the diode PCB (DO) in parallel with solenoid coil (Y24) because this function requires that pressure is built up in the system. In addition, solenoid coil Y23 must be energized via the fold maize header switch (S34) in order to perform this function.
Snapping plate adjustment	When the “Snapping plate adjustment” function is activated, the corresponding solenoid coils Y25 / Y25 are energized directly by the reel forward / reverse switches S21 / S22 via the multi-function handle module A52. The master valve (Y77) is also actuated via the diode PCB (DO) in parallel with solenoid coils (Y24, Y25) because this function requires that pressure is built up in the system.

Connector pin assignment:

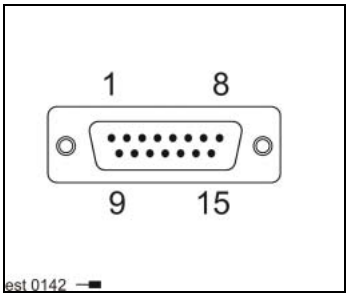
Connector
PVBge, PVCge,



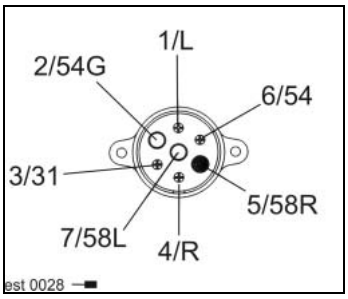
Connector
KNBge MFAgn, MFBgr



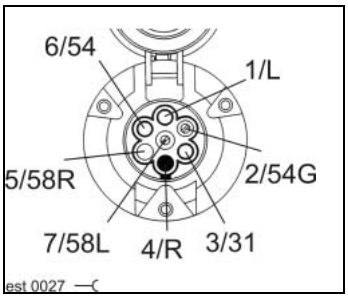
Connector
MFG



Connector XL



Socket XL



Description of function:

Speed monitoring

The frequencies of the individual sensors are processed by the speed monitoring module A12. If the allowed slip values are exceeded, the module activates the corresponding signal lights and the buzzer as an acoustic warning. Relay K77 passes the alarm messages on to the warning buzzer (H44) (see diagram 3).

Important! The chopper speed monitoring is active only if switch Z59 is closed (straw chopper in working position).

	SET speeds rpm	Min. speeds rpm
Straw walker	220	174
Returns elevator	308	230
Grain elevator		
MEDION 310-330	380	260
MEDION 340	450	260
Feed rake	520	385
Straw chopper		
2 cams	3300	2820
4 cams	1920	1410

Description of function:

Yield measuring	The yield measuring is based on flow rate measurement by the light barrier (B59/B60) inside the grain elevator, depending on transverse and longitudinal inclination of the machine. Based on these signals, the yield meter module (A21) calculates the yield and displays this information in terminal A30 via the CAN bus. System calibration by entering the litre weight and by checking the values by counterweighing a defined grain quantity constitute important fundamentals for a precise calculation.
Humidity measurement	The measurements made by the humidity sensor (B61) are also displayed by the yield meter module (A21) in terminal A30 via the CAN bus, but are not used for calculating the gross weight. Terminal A30 requires these measured values for calculation only for stating the net weight in order processing.
Fieldwork computer functions	The signals from sensors B10, B11, B15 and B16a are entered into the fieldwork computer module (BIF/CAB) A10 and processed there. This module transmits the established information data to terminal A30 via the CAN bus.

Description of function: None

Interconnection list:

from	to 1	to 2	to 3	to 4	to 5	mm²	Colour
BLAgn - 6	LSC 7	HKA 2				1.5	bk/wh
BLAgn - 12	LSC 8	HKA 3				1.5	bk/gn
HKAbl - 2	LSC 7	BLA 6				1.5	bk/wh
HKAbl - 3	LSC 8	BLA 12				1.5	bk/gn
LSAgr - 3	K57/C2					0.5	bl/rd
LSAgr - 7	b2a					1.5	bk
LSBgr - 4	EARTH	PVA 21	PVB 6	MFB 1	MFB 2	1.5	br
	LSB 10	LSB 4	PVC 12	CAC 8	CAC 17		
	AP 8	AP 9	KBB 6	KBB 8	K60/85		
	KBA 17	K64/85	VSA 4	DO 22	FSA 1		
	APA 8	MOA 2	HKA 19	PHA 2	KNA 2		
	K79/30	K57/31	K61/85	K52/85	K53/85		
	K66/85	K69/87a	K70/87a	K71/87a	K72/87a		
	K75/85	K77/85	BFA 3	ASA 1	KBA 5		
	KBA 9	KBA 10	K54/85	ZGA 3	ZGA 4		
	LSA 1	HDA 8	MOB 2	FSA 5	K49/85		
	K50/85	KBB 12	BFA 2				
LSBgr - 10	EARTH	PVA 21	PVB 6	MFB 1	MFB 2	1.5	br
	LSB 10	LSB 4	PVC 12	CAC 8	CAC 17		
	AP 8	AP 9	KBB 6	KBB 8	K60/85		
	KBA 17	K64/85	VSA 4	DO 22	FSA 1		
	APA 8	MOA 2	HKA 19	PHA 2	KNA 2		
	K79/30	K57/31	K61/85	K52/85	K53/85		
	K66/85	K69/87a	K70/87a	K71/87a	K72/87a		
	K75/85	K77/85	BFA 3	ASA 1	KBA 5		
	KBA 9	KBA 10	K54/85	ZGA 3	ZGA 4		
	LSA 1	HDA 8	MOB 2	FSA 5	K49/85		
	K50/85	KBB 12	BFA 2				
LSCgr - 7	BLA 6	HKA 2				1.5	bk/wh
LSCgr - 8	HKA 3	BLA 12				1.5	bk/gn
LSCgr - 10	K57/49a					2.5	wh/gn
LSCgr - 11	K57/49					2.5	bk/rd
LSCgr - 12	b5a					2.5	rd

Description of function: None

Description of function: None

Description of function: None

Description of function: 3/7

2nd menu item

Blow-out temperature

Press key (3) once.
The blow-out temperature in °C is displayed.

Example: 29.3°C

If the temperature display is incorrect, please check the following:

1. Position and possibly soiling of the AC blow-out temperature sensor (B87), (behind the large blow-out nozzle, top left).
2. Connector on the automatic air conditioner module (A6).
3. Measure the resistance of the AC blow-out temperature sensor (B87), must be 10kOhm at 25°C.
4. Offset value of AC blow-out temperature sensor (B87) in the controller menu.

3rd menu item

Outside temperature

Press key (3) once.
The outside temperature in °C is displayed.

Example: 21.1°C

If the temperature display is incorrect, please check the following:

1. Position and possibly soiling of AC outside temperature sensor (B88), (top left, below the roof cover, behind the fresh air filter).
2. Connector on the automatic air conditioner module (A6).
3. Measure the resistance of the AC outside temperature sensor (B88), must be 10kOhm at 25°C.
4. Offset value of AC outside temperature sensor (B88) in the controller menu.

4th menu item

Heater solenoid coil (Y109)

Press key (3) once.
The heater solenoid coil (Y109) is switched on.

Example: Test step 4 is displayed

If the solenoid coil is not activated, please check the folllwing:

1. Connector on the heater solenoid coil (Y109)
   (top right, below the roof cover).
2. Voltage at the solenoid coil of 11.5 – 14.5 V, with the output activated.
   The solenoid coil must be connected.
3. Connector on the automatic air conditioner module (A6).
4. Check for short-circuit or break in the cable on the heater solenoid coil (Y109).

40a

Additional sockets