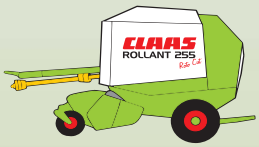
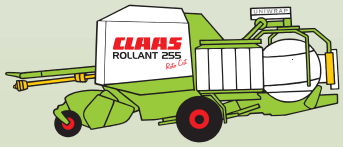
CLAAS





ROLLANT 254
ROLLANT 255
UNIWRAP

Technical Systems

Electric System

SERVICE & PARTS

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Central terminal compartment

ROLLANT 254 Standard

ROLLANT 255 Standard

Key to diagram: A20 CCU Module

Module A23 –2 ROLLANT 254/255 Comfort – Machines equipped with CCT

Pin	Function	Component	Measuring variable	Direction	Circuit diagram no.
1	Pick-up lower solenoid coil	Y49	12 V	Output	20a
2	Electronics earth	32	Earth	Input	6b, 6c
3	CAN high	-	-	-	6b, 6c
4	Not used	-	-	-	-
5	Not used	-	-	-	-
6	Not used	-	-	-	-
7	Not used	-	-	-	-
8	Not used	-	-	-	-
9	Not used	-	-	-	-
10	Not used	-	-	-	-
11	Electronics plus	15	12 V	Input	6b, 6c
12	Rotor reverse solenoid coil (extend cylinder)	Y56	12 V	Output	7b
13	Rotor reverse solenoid coil (retract cylinder)	Y57	12 V	Output	7b
14	Pick-up raise solenoid coil	Y48	12 V	Output	20a
15	Electronics plus	15	12 V	Input	6b, 6c
16	CAN low	-	-	-	6b, 6c
17	Not used	-	-	-	-
18	Not used	-	-	-	-
19	Not used	-	-	-	-
20	Power plus (protected ag. rev. polarity)	K 90 / 87	12 V	Input	7b, 20a
21	Not used	-	-	-	-
22	Not used	-	-	-	-
23	Not used	-	-	-	-
24	Not used	-	-	-	-
25	Relay K93 (ROTOCUT knives ON/OFF)	K93	12 V	Output	7b

Description of function:

Main power supply	Power supply from the tractor to the baler is via connector XV. On the tractor, this prower supply should be protected by a fuse of 25 A max.
Potential + 15	This is switched by the main switch T 12 on the control box (electronics +).
Potential K 90 / 87	Potential K 90/ 87 is a power plus protected against reverse polarity by diode V10.
Overvoltage protection	VDR1 becomes conducting when overvoltage occurs. This smooths the voltage peaks in the electronics circuit (+15 / -32).

Connector	mm²	Colour
K90/30	2.5	bk
K90/85	1.0	br-rd
K90/86	0.75	bk-rd
K90/87	2.5	bk-wh
X30 – 1	2.5	bk
X30 – 15	2.5	br
XT1 – 1	1.5	bk
XT1 – 2	1.5	br
XT1 – 4	1.5	bk-rd
XT1 – 5	1.5	br-rd
XT2 – 1	1.5	bk
XT2 – 2	1.5	br
XT2 – 5	1.5	bk-rd
XT2 – 6	1.5	br-rd
XV – 15/30	2.5	bk
XV – 31	2.5	br

1f

Main power supply

UNIWRAP

Description of function:

Circulation shut-off valve
Use **with**
UNIWRAP bale wrapper

To be able to build up the working pressure necessary for many hydraulic control systems, the neutral hydraulic circulation must be blocked (see chapter "Hydraulic system").
In this case, the circulation shut-off valve solenoid coil Y77-2 (UNIWRAP) on the bale wrapper is actuated by module A 23 – 1 in parallel to the respective function.

When used with the bale wrapper, the bale wrapper module A 22 **permanently** actuates the circulation shut-off valve solenoid coil Y77-1 (Rollant 255). The circulation shut-off valve solenoid coil Y77-1 is additionally blocked by mechanical means (see Operator's Manual).

Circulation shut-off valve
Use **without**
UNIWRAP bale wrapper

To be able to build up the working pressure necessary for many hydraulic control systems, the neutral hydraulic circulation must be blocked (see chapter "Hydraulic system").
In this case, the circulation shut-off valve solenoid coil Y77-1 (ROLLANT 255) is actuated by module A 23 –1 in parallel to the respective function.

When used without the bale wrapper, a blind plug is mounted on X30. This provides the connection between module A 23 - 1 and the circulation shut-off valve solenoid coil Y77-1 (see note a). For further modification measures refer to the respective chapter in the Operator's Manual.

4e

Circulation shut-off valve

UNIWRAP

Description of function:

Terminal	Buzzer H 44 is actuated by module A 23-1 to inform the driver about operating conditions / alarms (see also respective chapters in Operator's Manual).

6b

CAN bus, module power supply

ROLLANT 254/255 Comfort

- Machines equipped with CCT

Connector pin definition:

Connector	mm²	Colour
X10 – 1	1.0	br-rd
X10 – 2	1.0	bk-rd
X10 – 5	0.5	wh-br
X10 – 6	0.5	wh-bk
X30 – 2	0.75	bk-rd
X30 – 3	0.75	br-rd
X30 – 8	0.75	wh-br
X30 – 9	0.75	wh-bk
XD1 – 4	0.75	wh-br
XD1 – 5	0.75	wh-bk
XD1 – 6	0.75	bk-rd
XD1 – 7	0.75	br-rd
XT1 – 6	0.5	wh-br
XT1 – 7	0.5	wh-bk
XT2 – 3	0.5	wh-br
XT2 – 4	0.5	wh-bk

6f

CAN bus, module power supply

UNIWRAP up to serial no. 130

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Description of function:

Function pre-selection	The Rotocut position is pre-selected using switch T29/T30 (ROTOCUT OFF T29 / ON T30) (T30 closed = ROTOCUT ON). For ROTOCUT operation, module A 23 controls the corresponding solenoid coils Y 54/Y55.
ROTOCUT ON	When the ROTOCUT knives ON solenoid coil Y55 is actuated and the pick-up is raised, the knives swing in - ROTOCUT ON.
ROTOCUT OFF	When the ROTOCUT knives OFF solenoid coil Y54 is actuated and the pick-up is lowerd, the knives are forced out by the baled material - ROTOCUT OFF

Description of function:

ROTOCUT IN / OUT	To operate the ROTOCUT unit, module A20 (CCU) actuates the corresponding solenoid coils Y54/Y55. During the ROTOCUT IN function, solenoid coil Y55 is permanently actuated. The pressure applied in the cylinders is maintained hydraulically by the unactuated solenoid coil Y54 – see also "Hydraulic System" documentation. During operation with the terminal (A30), the master valve (Y77) is actuated in parallel since the function requires that pressure is built up in the system. During the ROTOCUT OUT function, solenoid coil Y54 is permanently actuated. The knives are forced out by the baled material. Sensor B111 detects the knife position and transmits it to module A20 (CCU). This module displays the current knife position in terminal A30 via the CAN bus.
Reverse rotor	When the rotor is plugged, terminal A30 can be used to activate the rotor reverse function. To operate the rotor reverser, module A20 actuates the corresponding rotor reverse solenoid coils Y56/Y57. The master valve Y77 is also actuated in parallel with the solenoid coils Y56/Y57 since this function requires that pressure is built up in the system. The reverser actual value switch Z48 transmits a signal to module A20 when the rotor reverse cylinder 337 is retracted.

Settings:

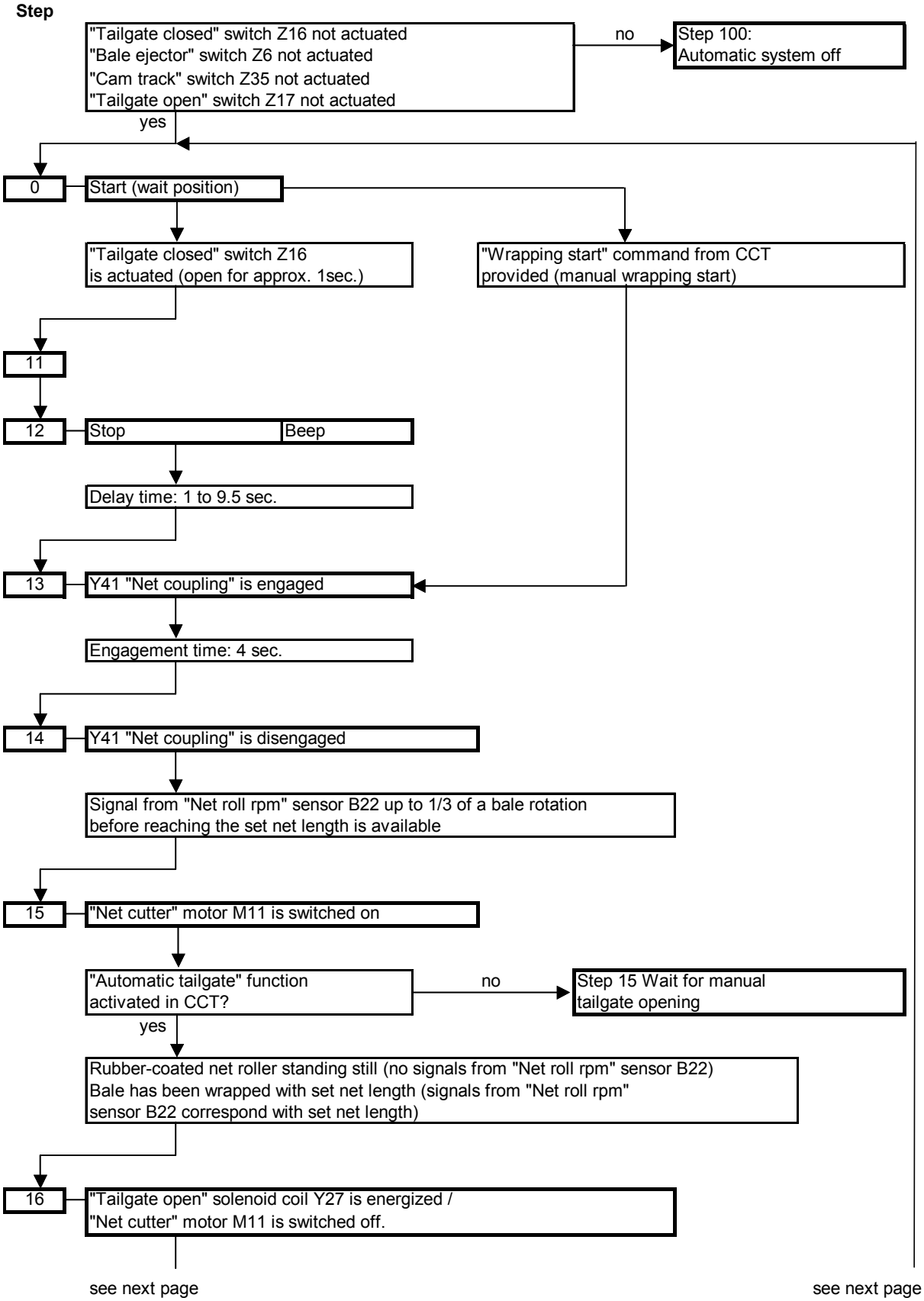
Reverser actual value switch Z48	Set the switch so that it can be pushed 5 mm max. (for functional check see sequence diagram).

11a

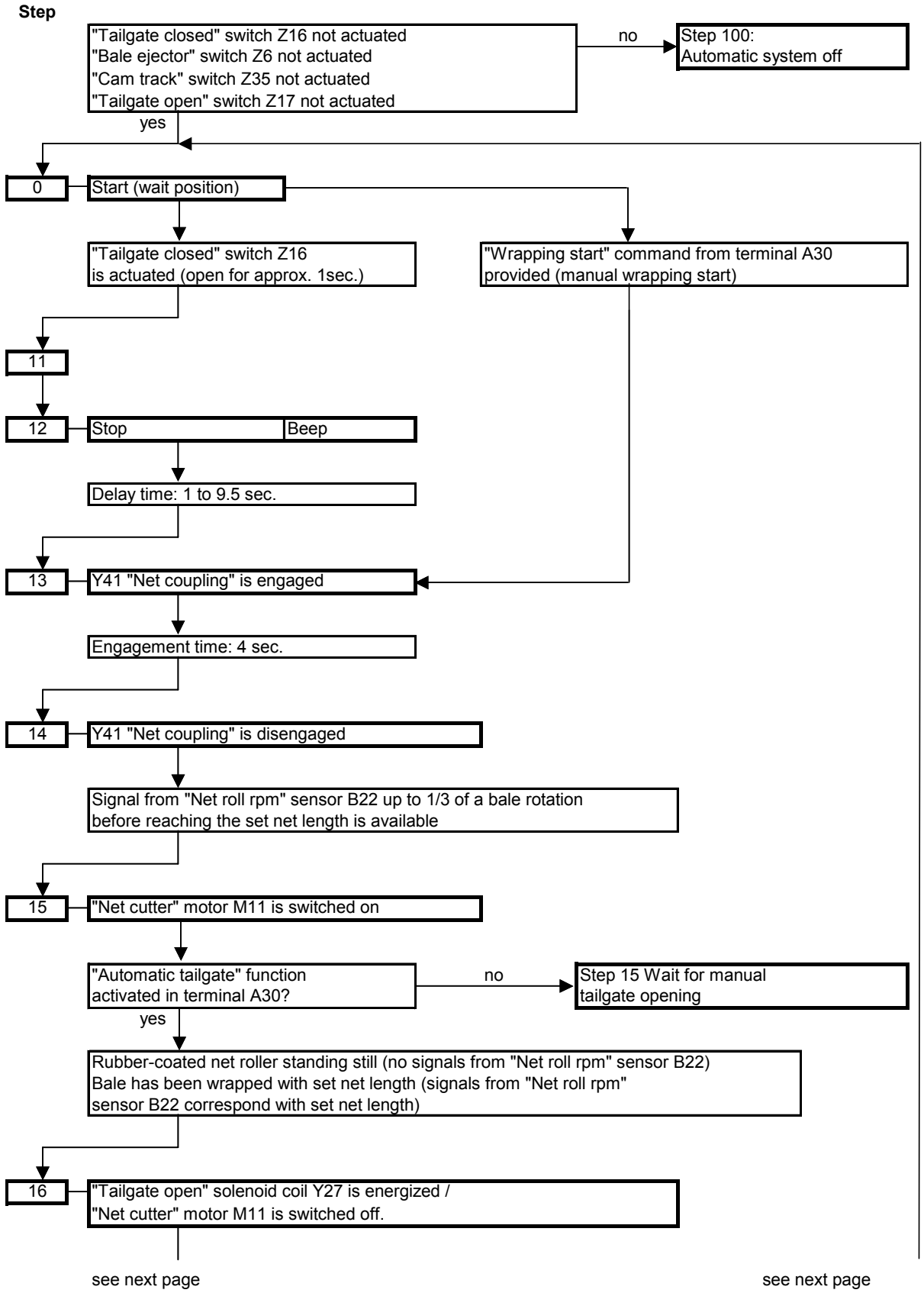
Wrapping release

ROLLANT 254/255 Standard

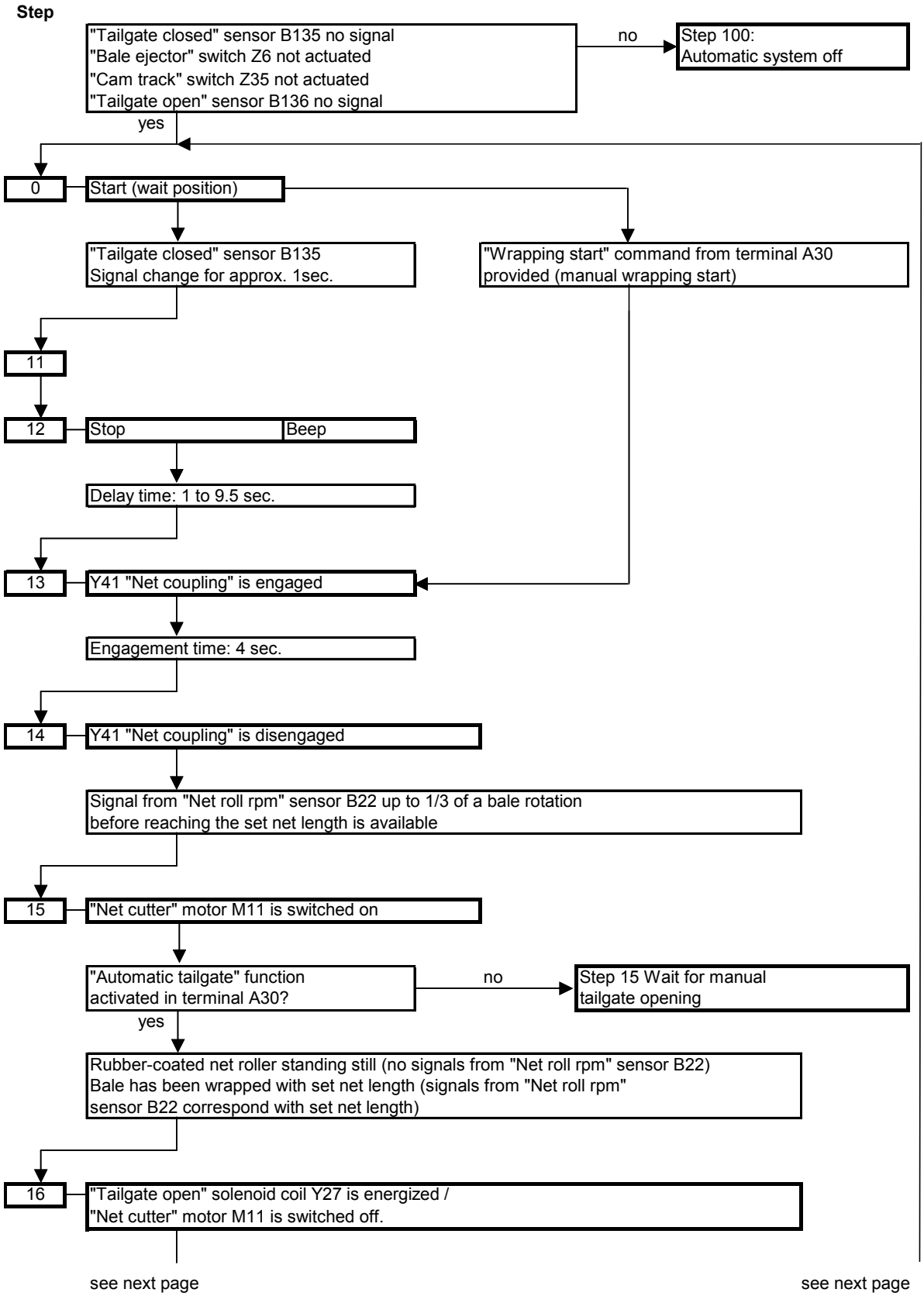
Net wrapping sequence diagram: 1/2



Net wrapping sequence diagram 1 / 2
(The program steps can be read using the CDS diagnosis system.)



Net wrapping sequence diagram 1 / 2
(The program steps can be read using the CDS diagnosis system.)



12b

Open / close tailgate

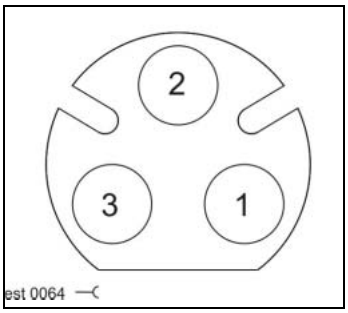
ROLLANT 254/255 Comfort

ROLLANT 254/255 Comfort for UNIWRAP

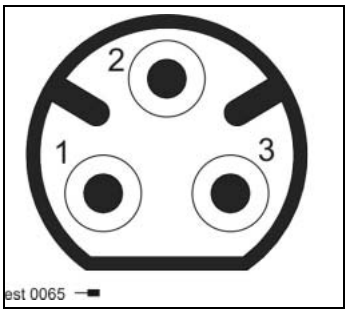
- Machines equipped with Communicator

Connector pin definition:

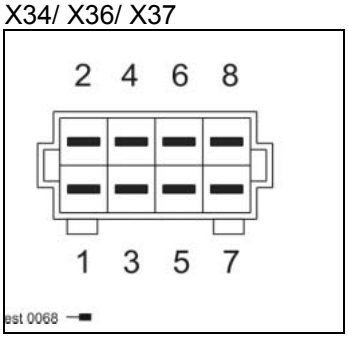
Socket
B102/ 103/ 105



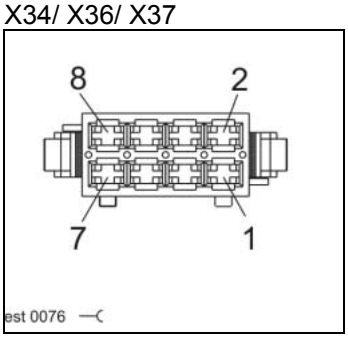
Connector
B102/ 103/ 105



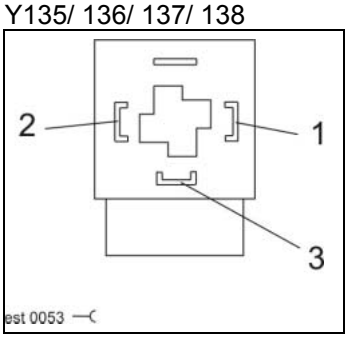
Connector
X34/ X36/ X37



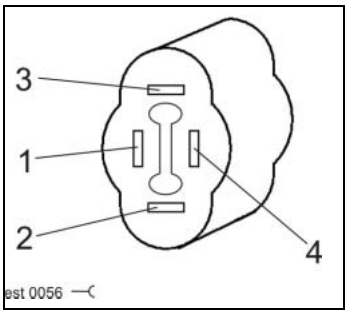
Socket
X34/ X36/ X37



Socket
Y135/ 136/ 137/ 138



Socket Z92



21a

Wrapping arm rotation

UNIWRAP

Description of function:

Opening and closing of film cutters	To open and close the film cutters, the Open film cutters solenoid coil Y139 and Close film cutters solenoid coil Y140 are actuated. In manual operation, the Raise wrapping table solenoid coil Y138 and in automatic operation, the Wrapping arm forward solenoid coil Y133 is actuated in parallel to the function. This is required in order to transmit a load pressure signal to the input pressure balance and to actuate the latter (see also "Hydraulic System" chapter).
Film break monitoring	Rotation of the film rolls is monitored during the wrapping process under the pre-condition that the wrapping arm is accelerated and rotates with a min. speed of 20 rpm. It is also necessary to activate the film break monitoring via terminal A30 or A30-1 (see also relevant chapter in Operator's Manual).
Sensor signals	At the top end of the stretch rolls, 4 magnets rotate below the Film break sensors B109-1 and B109-2. According to the speed and the clearance to the magnets, the sensors generate an alternating current. The Film break monitoring transmitters V11-1 and V11-2 convert this alternating current into a corresponding magnetic field.
Signal detection	At each rotation of the wrapping arm, the Film break monitoring receiver V12 detects the Film break monitoring transmitters V11-1 and V11-2. When a transmitter has not been detected, the wrapping process is stopped and the film break message is displayed in terminal A30 / A30-1.
Sensor setting	On the pre-stretcher units, the film break sensors B109-1/109-2 should be set to a clearance of 2-3 mm from the magnets (see Wiring loom M). The clearance from the Film break monitoring transmitter V11-1/V11-2 to the Film break monitoring receiver V12 should be approx. 10 – 12 mm if the components cover each other up (see Wiring loom M).

40a

Additional sockets

ROLLANT 254/255 Comfort

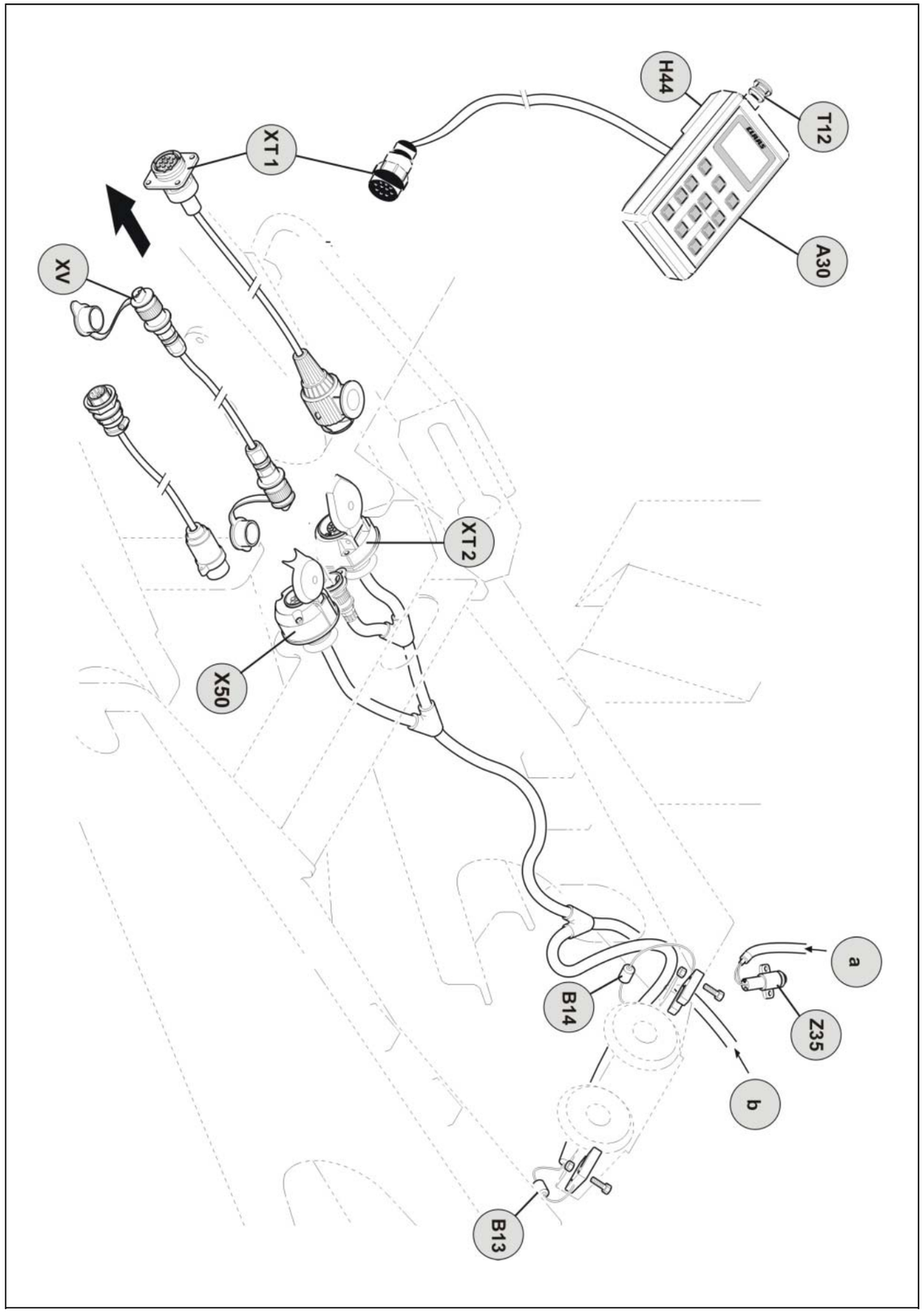
ROLLANT 255 Comfort for UNIWRAP

- Machines equipped with Communicator

Designations:

a	Continued in wiring loom B – part 2	
b	Continued in wiring loom B – part 2	
A30	CCT terminal	5b
B13	Twine roll left rpm sensor	11b
B14	Twine roll right rpm sensor	11b
H44	Buzzer	5b
T12	Main switch	5b
XT1	Terminal connector	1c
XT2	Terminal connector	1c
XV	Power supply connector	1c
X50	Lighting wiring loom connector	32a
Z35	Cam track actual value switch	11c

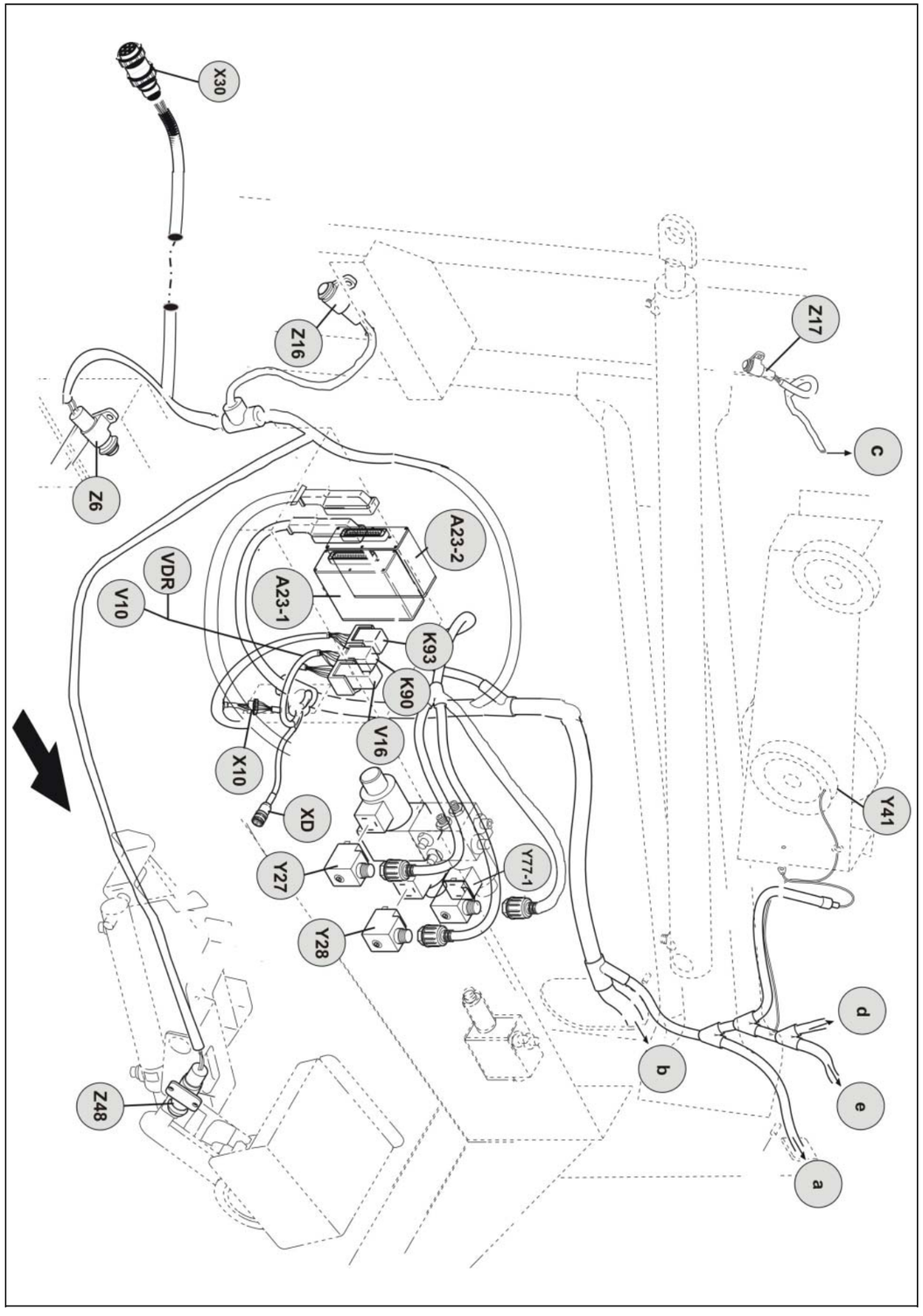
Wiring loom B – part 1 (ROLLANT 254/255 Comfort)



Designations:

a	Continued in wiring loom D – part 1
b	Continued in wiring loom D – part 1
c	Continued in wiring loom D – part 3
d	Continued in wiring loom D – part 3
e	Continued in wiring loom D – part 3
A23-1	Module 1 ..... 4a, 4b, 5b, 5c, 6b, 6c, 7b, 11b, 12a
A23-2	Module 2 ..... 6b, 6c, 7b, 20a
K90	Power supply relay (protected against reverse polarity) 1c
K93	Rotocut knives ON/OFF relay 7b
V10	Reverse polarity protection diode 1c
V16	Amplifier (net cutter motor) 11b
VDR1	Varistor 1c
XD	CAN bus connector (7 pin) 5c
X10	Connector 6c
X30	Connector 6c
Y27	Open tailgate solenoid coil 12a
Y28	Close tailgate solenoid coil 12a
Y41	Net coupling solenoid coil 11b
Y77-1	Circulation shut-off valve solenoid coil 4b
Z6	Bale ejector actual value switch 11b
Z16	Tailgate closed actual value switch 11b
Z17	Tailgate open actual value switch 11b
Z48	Reverser actual value switch 7b

Wiring loom D – part 2 (ROLLANT 255 Comfort for Uniwrap)



Designations:

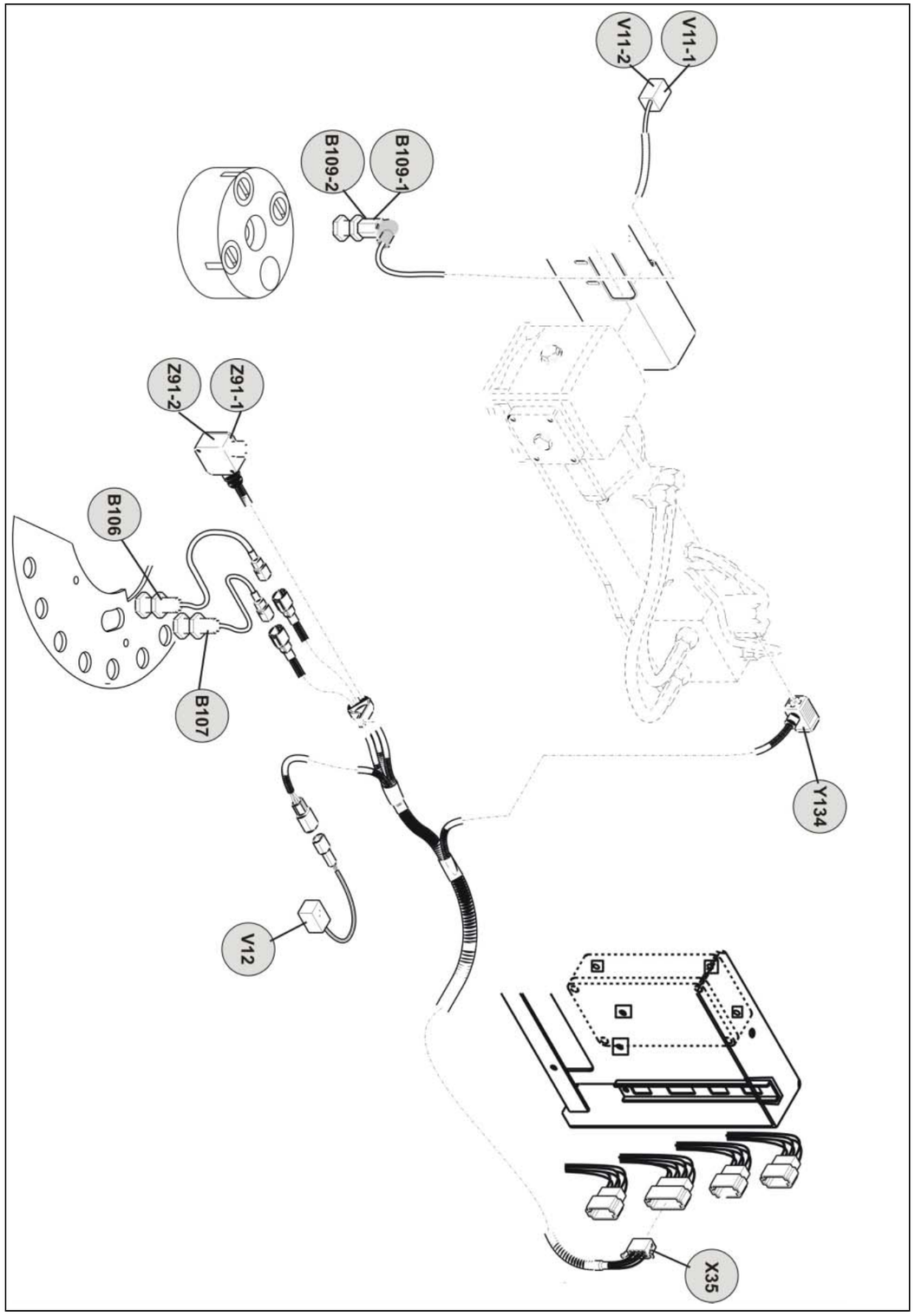
B106 Wrapping arm basic position sensor 21a
B107 Wrapping arm orbits sensor 21a
B109-1 Film break sensor 22a
B109-2 Film break sensor 22a

V11-1 Film break monitoring transmitter 22a
V11-2 Film break monitoring transmitter 22a
V12 Film break monitoring receiver 22a

Y134 Wrapping arm backward solenoid coil 21a

Z91-1 Safety bow actual value switch 21a
Z91-2 Safety bow actual value switch 21a

Wiring loom M (UNIWRAP)



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