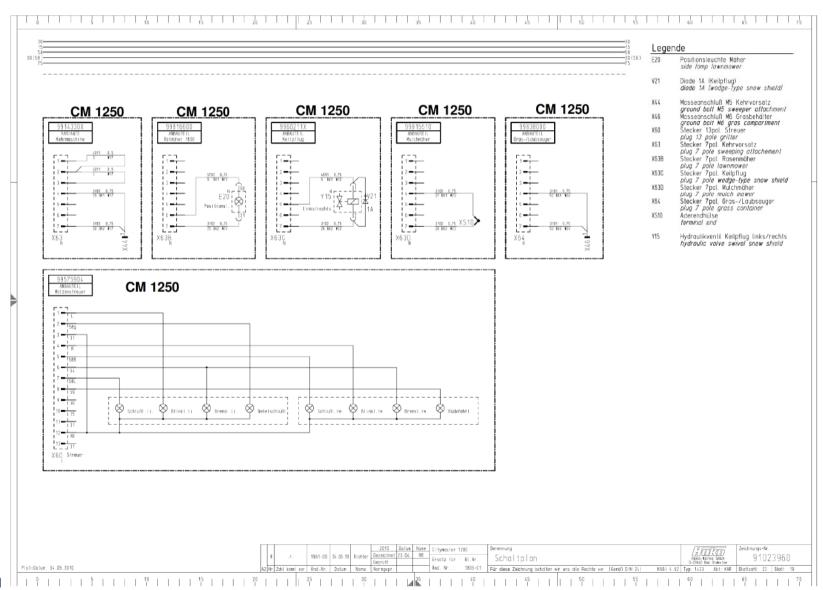


Connector for device detection, X60, X63, X64 X63 7-pole socket, front attachment CM 1250 X60 13-pole spreader socket X63 7-pole plug, sweeping attachment CM 1250

> X64 7-pole socket, rear attachment X64 7-pole connector, grass + foliage vacuum



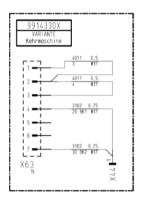
## Bridges for device detection in connectors X60, X63, X64



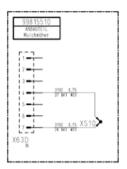
# Hako

## 3.0.1 Electrical Installation

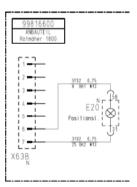
#### Bridges for device detection in connectors X63 and X64



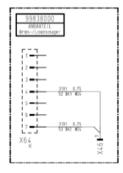
CM 1250, version as sweeping vehicle X63 bridge pin 1, pin 2 + pin 3 for self-retention K7 + K9 X63 bridge pin 4 to pin 7, detection as sweeping vehicle CM 1250 When front attachment is raised, the side brushes switch off. On leaving the driver's seat, the suction turbine (Y4) continues to run.



CM 1250 with mulching mower X 63 bridge pin 4 to pin 7 sum logic circuit.

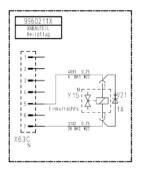


CM 1250 with front mower, X63 bridge pin 6 to pin 7 for the lighting E 20. When front attachment is raised, the Mower or snow blower switches off. On leaving the driver's seat, the mower or snow blower switches off immediately and must be reactivated by turning the switch S5 "off and on again".



CM 1250 X64 bridge pin 4 to pin 7, Y5 (prop. valve) power applied continually.

In the case of a spreader attachment with its own control unit, the speed signal from the speedometer transducer on an X64 pin 1 can also be used.

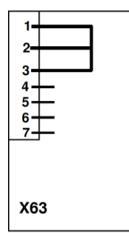


CM 1250 with snow plow (adjustable snow plow) X63 bridge pin 5 to pin 7

Seite 52



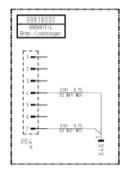
#### Jumpers for the Identification of Attachment Devices in Connectors X63 and X64



CM 1250, models with the Fiedler FLA 1250 H (5823) for foliage and light refuse collection.

X63 Jumper Pin 1, Pin 2 + Pin 3 for lock K7 + K9

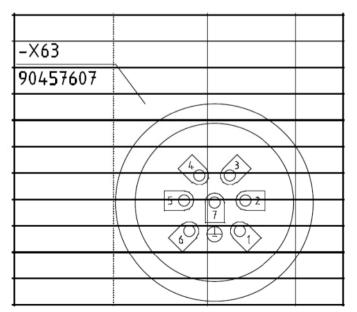
The foliage and light refuse vacuum (5823) continues to run when the front attachment holder is raised.



CM 1250

X64 Jumper Pin 4 to Pin 7, Y5 (prop. valve) power continually applied, e.g. grass and foliage vacuum (8380.02) The suction fan of the grass and foliage vacuum continues to run with front attachment holder raised.

#### View from rear of the coded plug X63



If an attachment device from a supplier has no coded plug mounted, the test plug (Hako spare part no. 03007050) must be ordered from the spare parts store.

The jumpers necessary (coding) must be produced by removing the corresponding cable.

#### **Important Information:**

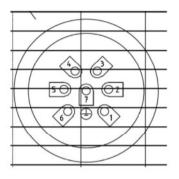
For reasons of safety, the removal of cable (coding the devices) from the test plug X63 (PN 03007050) may only be performed by properly trained personnel!



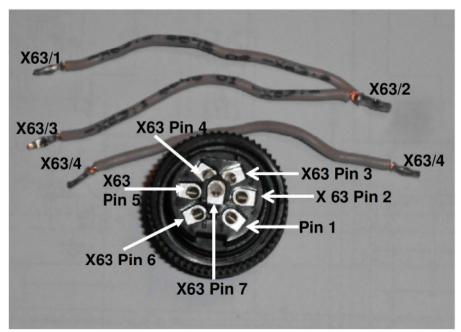


## Jumpers for the Identification of Devices in Connectors X63 and X64, Hako Spare Parts Number 03007050





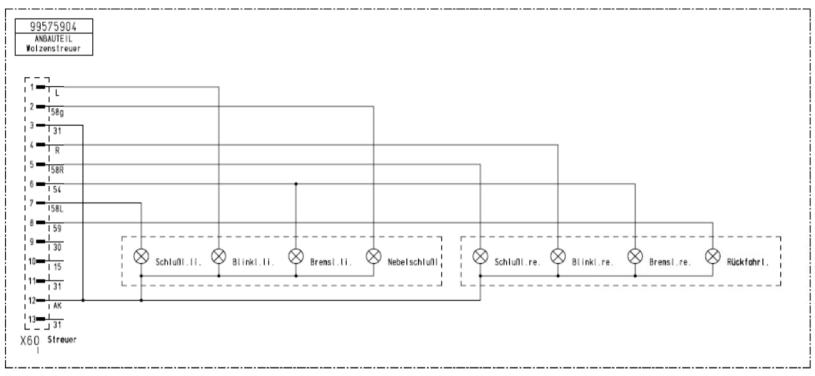
X 63 with jumpers X63/1 to X63/2 and X63/3 and with jumpers X63/4 and X63/7
Jumpers must be connected according to the specifications for the corresponding attachment devices.







# **Bridges for device detection in connector X60**



CM 1200, CT4200

X60 bridge pin 3 to pin 12, detects a spreader.

Vehicle halts – spreader stops!

The pins 1, 4, 5, 6, 7, 8, 12 are used for the spreader lighting system.



#### Front attachment connector X63, 7-pole

Front attachment connector X63, 7-pole mounted at the front right of the vehicle, viewing towards the front

The connector X63 has the following functions:

- Power supply for attachment device lighting
- Detection of attachment devices (e.g. sweeping unit CM 1250)
- Power supply for the attachment devices (e.g. snow plow)

#### Pin assignment:

Pin 1 power supply B+ from F22, when S5 (fan switch) is switched on

Pin 2 connection to K CM 1200, when bridged

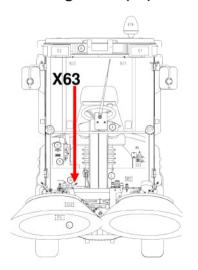
Pin 3 connection to K7/5 and K9/3 CM 1250, when bridged

Pin 4 detection as sweeping vehicle (bridge pin 4 to pin 7)

Pin 5 power supply B+ (12V) from F21 when S16 (pivoting snow plow) is switched on

Pin 6 power supply B+ (12V) from F1

Pin 7 ground (31) detection as sweeping vehicle (bridge pin 7 to pin 4)



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#### Rear attachment connector, X60, 13-pole

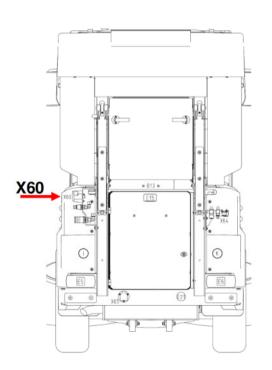
The connector X60 is mounted at the rear left of the vehicle, viewing towards the front

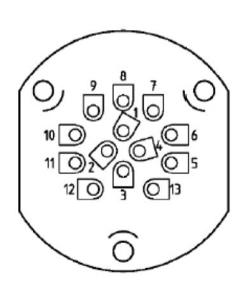
The connector X 60 has the following functions

- Power supply for the lighting
- Detection of the rear attachment (e.g. spreader)
- Power supply for the rear attachment device

Pin assignment, X 60 (view of rear of connector)

- 1. Indicator, left (L)
- 2. Open at X13/1
- 3. Ground (31)
- 4. Indicator, right (R)
- 5. Rear light, right (58R)
- 6. Brake lights (54)
- 7. Rear light, left (58L)
- 8. Reversing light (option)
- 9. Not assigned
- 10. Power supply from F 23
- 11. Ground (31)
- 12. Spreader detector (bridge pin 3 to pin 12)
- 13. Not assigned







#### Attachment device connector, X64, 7-pole

Attachment device connector X64, 7-pole, mounted at rear right of vehicle, viewing towards the front

The connector X64 has the following functions:

- Power supply for the attachment device lighting
- Detection of the attachment devices (e.g. grass + foliage vacuum)
- Power supply for the attachment device

#### Pin assignment:

Pin 1 Speedometer transducer (e.g. attachment spreader)

Pin 2 Power supply 12V from F23

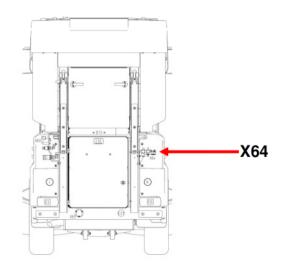
Pin 3 Not assigned

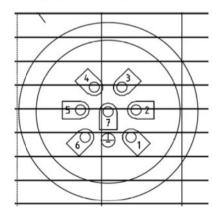
Pin 4 Detection e.g. grass + foliage vacuum, bridge pin 4 to pin 7

Pin 5 Switch signal S16

Pin 6 Rear light (58R)

Pin 7 Ground (31) and detection e.g. grass + foliage vacuum, bridge pin 7 to pin 4





View of pin contacts X 64



#### Front attachment connector X66, 12-pole, Citycleaner option only

Front attachment connector X66, 12- pole mounted on front right of the vehicle, viewing towards the front

The X66 connector has the following functions:

- Power supply to the M9 water pump
- Power supply to the switching valve Y21, fresh/circulation water

#### Pin assignment:

Pin A, Spare, not connected

Pin B, Spare, not connected

Pin C, Spare, not connected

Pin D, Ground (31) of X42

Pin E,

Pin F, Control unit, M9 water pump from A5 (B+)

Pin G, Control unit, M9 water pump from A5 (B-)

Pin H, Spare, not connected

Pin J, Spare, not connected

Pin K, Spare, not connected

Pin L, Ground (31) from X42

Pin M, Ground (31) from X42

X66

