

Multiway Reach Truck

RBM20K
RBM25K

Service Manual



631057 A

The type plate of the truck states the following:

Manufacturer

Truck type

Serial number

Battery minimum weight

Battery terminal voltage

Nominal lifting capacity of the truck

Year of manufacture

CE mark



NOTE: If a plate or sticker is damaged, replace it with a new identical sticker. When you order a sticker, include the serial number of the truck in your order.

8.5 Power stages

Important:

The minus-connections always have to be connected first.

When disconnecting the system, the minus has to be the last one to be disconnected.

Terminals + and -

The power supply (battery voltage) is connected to these terminals. The Power cables have to be protected by a fuse (see 'Technical data' for fuse size). The diameter of the power cables has to be determined according to the dimension of the fuse. To provide for a reverse-connect protection, it is highly recommended to use a main contactor to be controlled by the traction-inverter.



Note: In case that the main contactor is not used, a polarity inversion will damage the inverter.

Terminals U,V,W

The motors are connected to these terminals. Basically, the motors have to be connected to the inverters as U_{motor} to U_{inverter} and so on also for V and W.

With a positive set value, the traction motor should drive the vehicle forward. If it doesn't: Parameter 180 of traction inverter's software changes phase sequence of motor output and encoder input.

With a positive set value, the pump motor should drive the pump in correct direction. If it doesn't: Parameter 180 of pump inverter's software changes phase sequence of motor output and encoder input.

8.6 Control stages

The dimension of the control wires is specified to $0,5\text{mm}^2$ (i.e. all plug-able connections). Bigger diameters can be used alternatively to improve the mechanical stiffness. The MOLEX connector is specified for wire dimensions $0,24$ and $0,82\text{mm}^2$.

The following schematic gives an example of the numbering of a 6- and 10-pin connector:

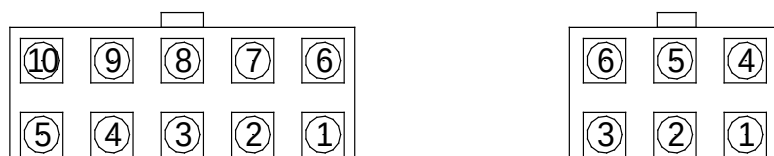


Figure 9: Numbering of connector viewed in direction to the inverter

25	25 Pulse...Pause	Watchdog error 10ms routine
26	26 Pulse...Pause	Error in stepper motor supervision circuit
27	27 Pulse...Pause	Error Lift/Lower High-Side Switch

10.2 Traction and pump controller

Err. nr	blinking code of LED	Description
-	Puls-/ Pausenverhältnis 1:1 (f = 1,25 Hz)	Watchdog
-	Puls-/ Pausenverhältnis 1:3 (f = 2,1 Hz)	RAM-error
-	Puls-/ Pausenverhältnis 3:1 (f = 2,1 Hz)	FLASH-error
2	2 Pulse...Pause	New software version
3	3 Pulse...Pause	Power stage over current
4	4 Pulse...Pause	Low battery voltage
5	5 Pulse...Pause	Battery over voltage
6	6 Pulse...Pause	Overtemperature motor
7	7 Pulse...Pause	Overtemperature inverter
8	8 Pulse...Pause	-
9	9 Pulse...Pause	CAN-bus timeout
10	10 Pulse...Pause	CAN-bus error
11	11 Pulse...Pause	-
12	12 Pulse...Pause	-
13	13 Pulse...Pause	-
14	14 Pulse...Pause	EEPROM fault
15	15 Pulse...Pause	Unrealistic setting of the mot. V/f characteristics
19	19 Pulse...Pause	Unrealistic setting of the gen. V/f characteristics

IDENTIFIER	DESCRIPTION
J#	Reference. All references marked with an even "J" (e.g. J2) are positive (+). All references marked with an odd "J" (e.g. J3) are negative (-).
M#	Motor
V#	Diode
A#	Controllers and displays
K#	Contactors and relays
X#	Connector. Contact numbers are marked on individual wires.
XX#	Splice. Multiple wires are connected together at this point.

Figure 20 shows the reference to which Figure 19 referred.



Figure 20. Page 8, zone 16, wiring reference J14

Once again, note the numbers below the wiring reference J14. These numbers (1/13) direct you back to the page (and zone) shown in Figure 19.

Full Version Available

Mitsubishi RBM25K Reach Truck Service Manual (631057)

Mitsubishi RBM25K Reach Truck service manual, mast, hydraulics, drive and wiring diagnostics in searchable PDF format. Instant PDF download.

VIEW THE FULL MANUAL

<https://machinecatalogic.com/mitsubishi-rbm25k-reach-truck-service-manual-631057/>