



Operating Manual v. 1.0

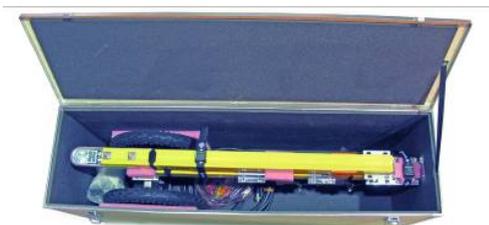
Instruction to assemble the MALÅ RoadCart

Note! MALÅ RoadCart should always be used in accordance with any relevant local, national or regional legislation or guidelines. MALÅ Geoscience cannot be held responsible of any improper or illegal use of the product.

Note! The RoadCart is constructed for a maximum speed of 30 km/h (18.6 mph)

At delivery

The MALÅ RoadCart is delivered in one piece, ready to use.



The delivery box contains, as seen below:

- The RoadCart with wheels and antenna carrier for shielded antennas (250, 500 or 800 MHz) and for the 1.2 GHz HF antenna (found between the wheels) and a towbar coupling.
- Black plastic holder for 1.6 and 2.3 GHz HF antennas
- HF encoder adapter cable and Power cable to shielded antenna electronics
- Extension HF antenna cable
- Extra trailer coupling (if the height of the RoadCart does not fit the car used)
- Extra encoder wheel strings
- Hex key kit and screws



Assembly

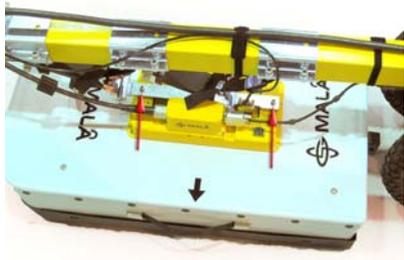


Unfold the yellow beam and fasten it with four screws.

Attachment of antennas



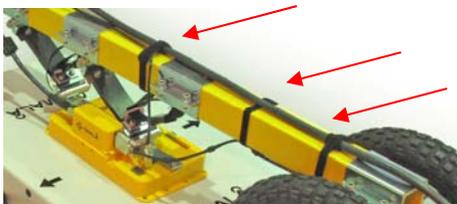
The MALÅ shielded antennas (800, 500 or 250 MHz) are secured with screws (M6x55 Hex Screws) on the front and back side of the antenna electronics. The screws used goes through both the metallic antenna holder and the antenna electronics into the antenna box.



The height of the antenna is adjusted with the two black straps.

Connect the encoder cable from the RoadCart wheel and the power cable (from the power supply stored in the car) to the antenna electronics (see picture above), and the fibre optics from the antenna electronics to the control unit used.

Note! Make sure that all cables are tightly attached to the RoadCart prior measurements. Use the hook and loop cable ties.





The MALÅ HF antennas (1.2, 1.6 and 2.3 GHz) are mounted on the black plastic HF holders which again is attached in-between the wheels of the RoadCart. To mount the HF antenna the back metallic holder has to be removed first. See below. The height of the lower HF holder part is adjustable.



Connect the HF encoder adapter cable between the encoder wheel cable and the HF antenna and connect the HF antenna cable to the control unit used (use extension HF cable if needed).

Note! Make sure that all cables are tightly attached to the RoadCart prior measurements. Use the hook and loop cable ties.

Attachment to car

The RoadCart is attached to a car with the towbar coupling (which is factory mounted on the cart) or if the height needs to be adjusted with the provided extra trailer coupling.



Additional

If only one HF antenna is to be used, then the MALÅ RoadCart can be divided and the back part (with the wheels) directly attached to the car with the extra trailer coupling.



If a GPS antenna is used, this can most often be equipped with magnetic holders which can be attached directly on the metallic parts of the RoadCart.



Note! The measurement point of the antennas is in the middle of the antenna box. If two antennas are used simultaneously, it can be best to place the GPS antenna in-between for best positioning for both.



The MALÅ RoadCart can be equipped with three different antennas, if needed. One extra antenna holder for a shielded antenna is then needed and an extension unit to the MALÅ ProEx control unit.



In the pictures, an 800 MHz, 250 MHz and a HF antenna is seen.

Note! The control unit and power supply is placed in the back of the car, and the data acquisition unit (Monitor or laptop) in the front seat.



The antennas can be left mounted on the RoadCart during transportation, just fold the beam of the cart together.





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