

Tower crane Loadview wireless

System manual
Manual no. SM0974023 A 01

Set Art. No. 84060746

2018
English



POTAIN
by **Manitowoc**

 **ORLACO**
Specialised Camera Solutions

Telescopic crane Loadview wireless

Set **Loadview** Tower crane 12" RLED, Art. No. 84060746



Safety

In order to guarantee safe operation, these safety instructions must be read before you start using this equipment.

- Do not open the enclosure. This can cause damage, short-circuiting or electrical shocks.
- Do not expose the equipment to extreme temperatures. This can cause deformation of the enclosure or damage to internal components.
- Repairs may only be undertaken by the manufacturer.
- The equipment must be assembled as shown in this manual.



**Please note that the following is very important:
Read chapter 2 very carefully!**

Before you start using this equipment, please read this manual carefully and follow all instructions. This system manual describes the connection and explains how to put the equipment into operation. We recommend that you keep this manual in a safe place for reference purposes.

If you have any questions or issues concerning the operation of this equipment, consult the relevant section in the manual or contact the Orlaco Products BV Service department.

The camera and monitor systems from Orlaco comply with the latest CE, ADR, EMC and mirror-directive regulations. All products are manufactured in accordance with the ISO 9001 quality management, IATF 16949 quality automotive and ISO 14001 environmental management.



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Orlaco Quick Fit Set with Battery pack and Camera AFZ, Orlaco Autocontact and the Orlaco Spectrum Scanner mounted on the trolley of a tower crane.

1. Introduction

With this Orlaco Loadview system the crane operator can see immediately on his monitor when a lifting operation could possibly become dangerous. The operator is no longer dependent on information from other persons by means of a portable radios. He can make the right decisions without delay and thus prevent accidents on site. There is also a far lesser chance of any misunderstandings occurring as the Loadcam system makes it possible for the operator to verify the instructions from the banksman. The Loadcam below the quick fit set on the tower crane trolley, is looking straight downwards on top of the hook and the load. On the color monitor in the crane cab, the operator receives at all times, a crystal clear image of the position of the hook. When necessary he can zoom in on the hook for a more detailed image. All is possible!



Monitor 12" RLED, Art. No. 84002575



**Please note that the following is very important:
Read this chapter very carefully!**



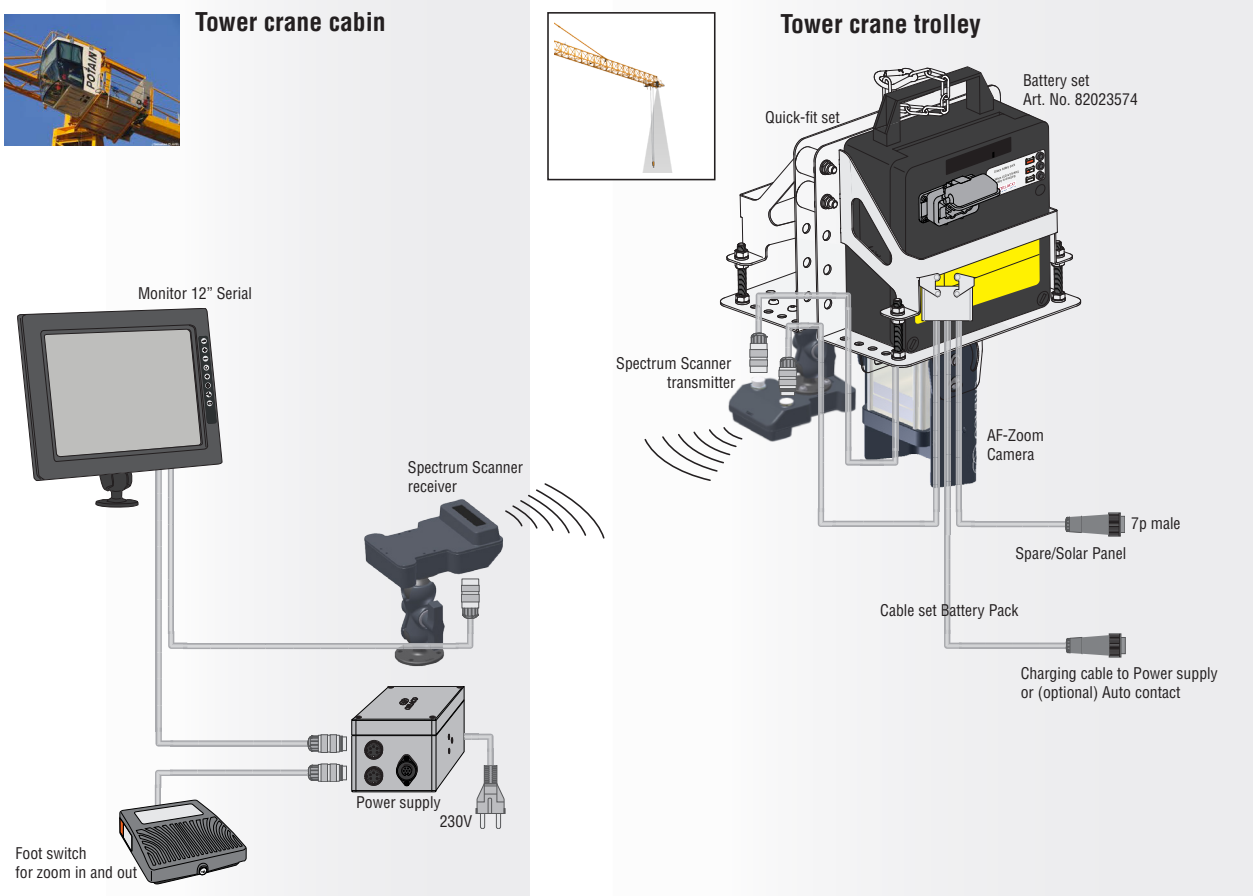
2. Precautions

Set **Loadview** Tower crane (12" RLED), Art. No. 84060746

1. There should be no obstructions between the transmitter and receiver, the components should always be in "direct view" of one another.
2. Make sure that the connector sides of the transmitter and receiver are facing each other and that the connectors are facing down.
3. The transmitter and receiver come as a pair. If replacement is required, the two components must be replaced as a set.
4. The long side of the zoom camera should be mounted on the side of the tip of the boom.
5. Between the cover of the battery pack and the battery, there are two wires with a connector. If the battery is not used for more than three days, the connector must be disconnected. After re-inserting the connector, reactivate the battery pack by charging it for a short time.
6. The monitor display shows a battery; this indicates the charge level of the battery.
7. The battery should be charged after each working day.
8. If you have any other questions, please contact the Manitowoc Service Department on telephone number +33 (0)4 72 81 51 51

System manual

3. System overview



4. Electrical connections

Spider Cable Crane; Art. No. 84057405, see figure 1 +5.

Note! Secure the input 24V/DC with a 5A fuse!

4.1 Charging cable

See figure 2

1 -7 = Not connected

9 = Not connected

8 = Red + 24V/DC

10 = White = GND

Auto contact (Optional)

Figure A.

Auto contact quick fit Art. no 84002582: Establish electric contact automatically between the trolley and the mast on tower cranes. The position can be set quickly from many angles like for examples: vertical and sloping surfaces or overhead.

Solar Panel (Optional)

Figure B.

The Solar cell panel Art. no J-85985-58 is supplied with a alu frame which can be mounted to the crossbars of a trolley on the Jip of a crane.

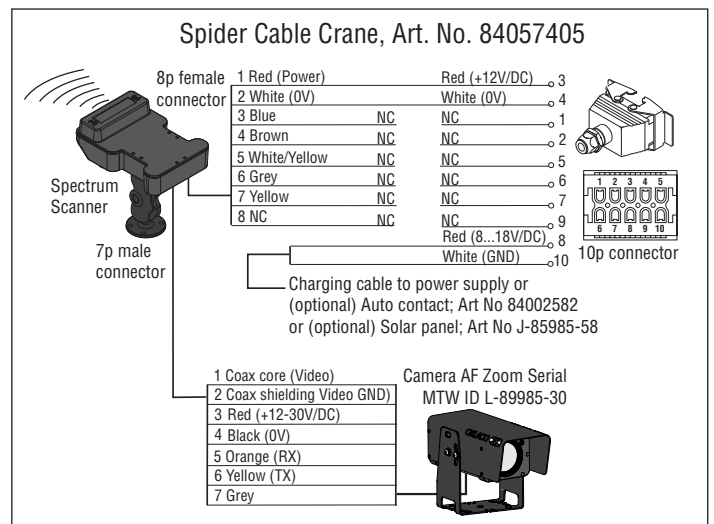
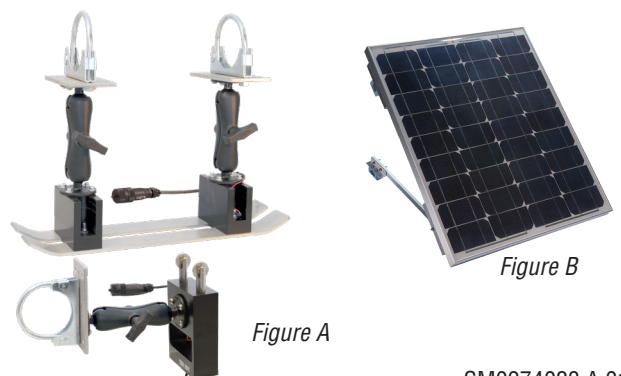


Figure 1, Spider Cable Crane; Art. No 84057405



5. Battery pack

Connection

Make connection before first use. The battery is not connected in new systems therefore you have to connect it as shown. Make sure you put red(+) to red(+) and black (-) to Black(-).

See figure 4.

- Before first use connect the Charger to reset the system.
- Charge level appears on battery.

Auto switch off

At 11V25 (0V5 above 75 = absolute minimum). To restart after switch off apply 24V/DC power.

Battery Standby

When the monitor is switched off, the receiver and the camera are also off. The Battery remains on and the transmitter standby, The Battery can standby approx 100 hours without charging.

Note: Charging time is approx 10 hours.

5.1. Cable set Battery pack

Spider Cable Crane; Art. No 84057405.

See figure 5. For electrical descriptions see page 4.

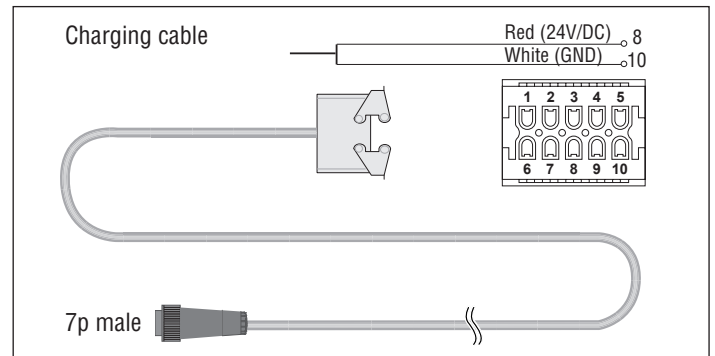


Figure 2

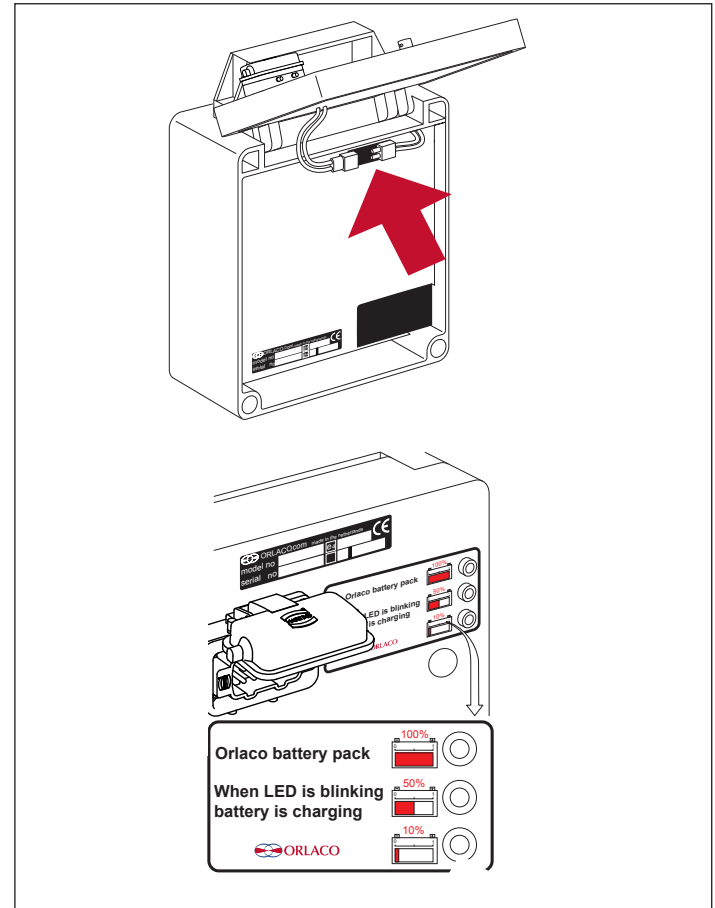


Figure 4

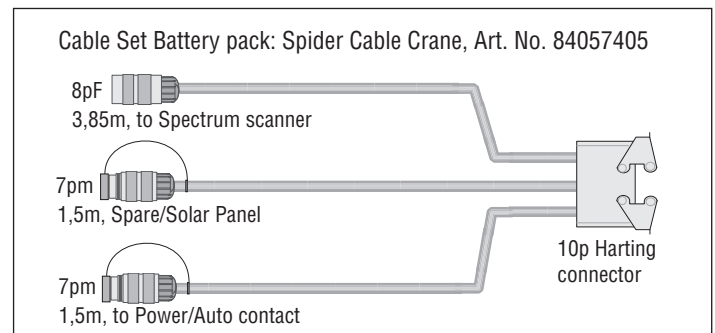


Figure 5

6. Quick-fit set

See figure 6

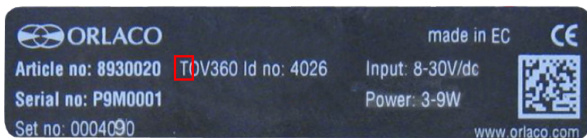
- Fit the AF-Zoom camera on the bracket of the Quick-fit set.
- Fit the bracket of the Spectrum Scanner Transmitter on the ball joint of the Quick-fit set.
- Check that the battery Set is stable and horizontal.

Sideways adjustment

The sideways adjustment is to position the camera properly. Adjust the nuts so that the camera is directed to the appropriate position.

See figure 6.

Note! Check the sticker on the back of the Spectrum Scanner if you have the transmitter.



T=Transmitter

Please adjust the bracket 5-10 degrees outside for an optimal communication.

See figure 6.

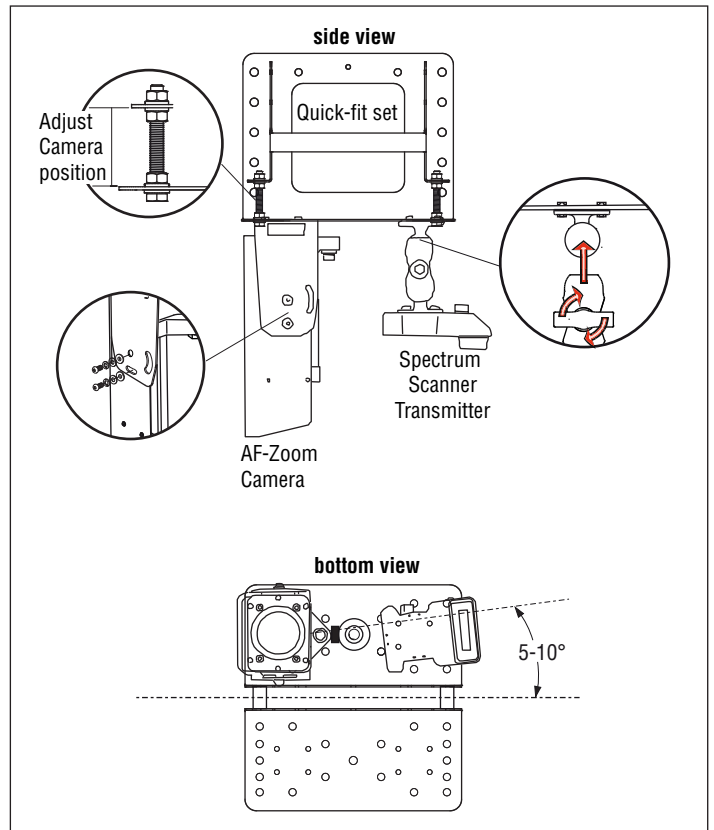
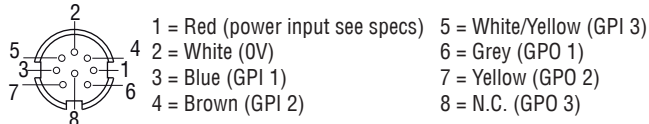


Figure 6

6.1. Connecting Spectrum Scanner transmitter

Connect the camera cable to the 7p connection on the Spectrum Scanner transmitter and use the power cable with the 8p connector for the power supply. Connect the power supply cable to the battery set. See figure 7 and figure 1 on page 4.

Solderside 8p connector:



Solderside 7p connector:

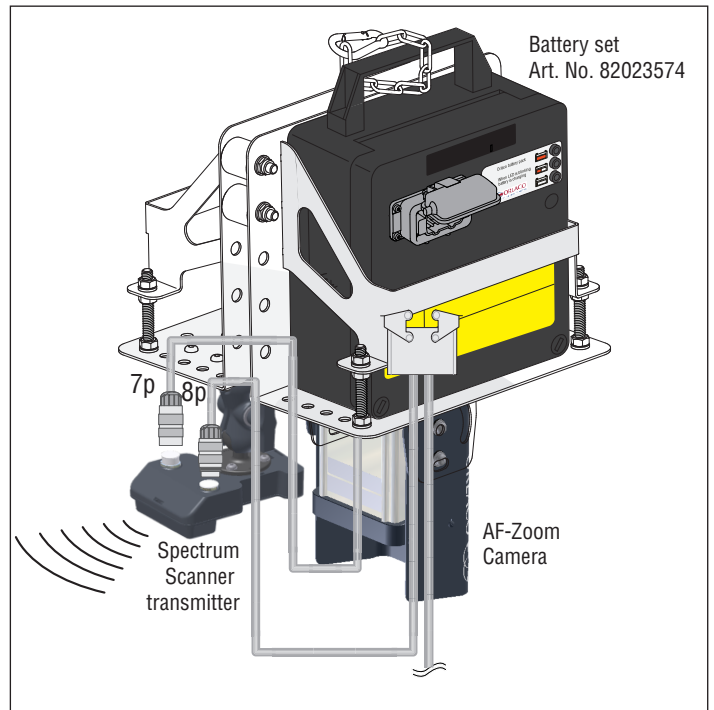
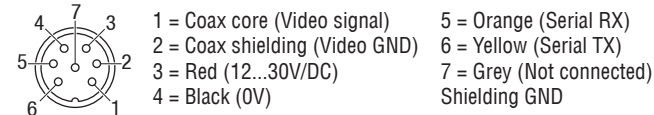


Figure 7

6.2. Mounting Quick-fit set to the tower crane trolley.



7. Spectrum Scanner receiver

There are more possibilities to mount the Spectrum Scanner bracket on the crane, see figure 8 and 13.

- Use the bracket (connection plate or the magnet foot) for mounting the Spectrum Scanner receiver.
- Mount the receiver near the pivot of the crane or to a structure not close to the cabin.
- When using the magnet foot; make sure to connect the safety chain.
- Please adjust the bracket circa 5-10 degrees outside for optimal communication.
- Make sure there are no obstacles between the transmitter and receiver.

Important:

Check the sticker on the back of the Spectrum Scanner if you have the receiver.

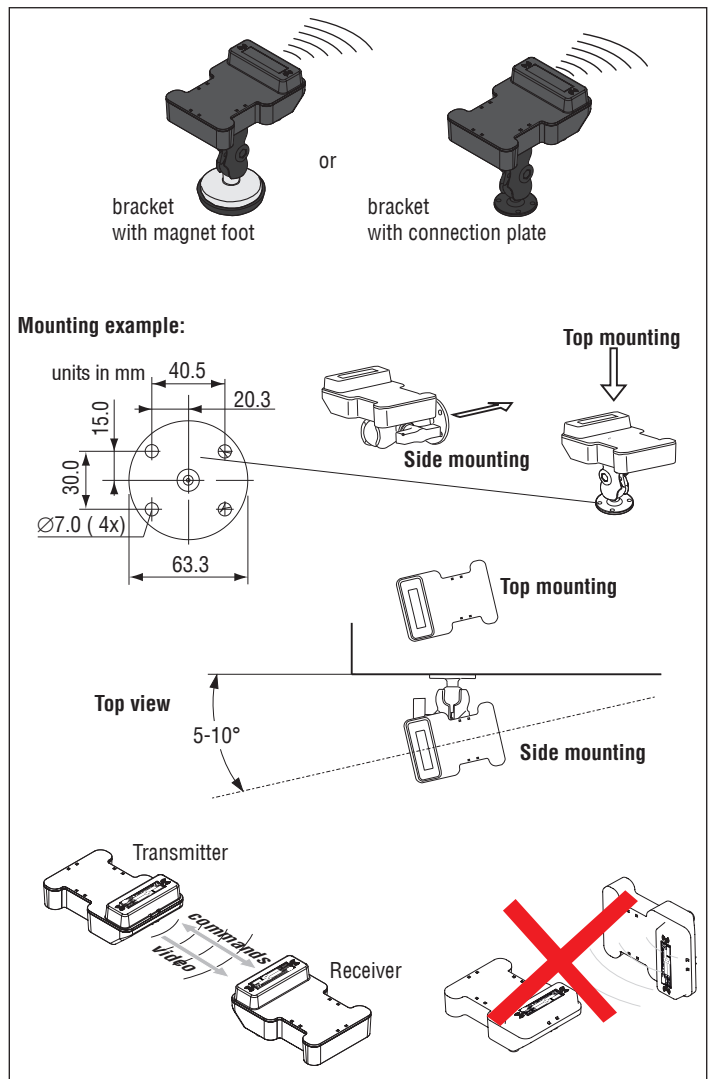
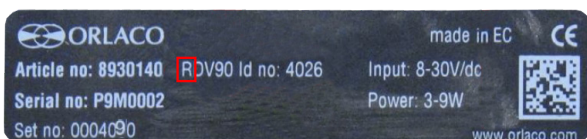


Figure 8



R=Receiver

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7.1. Connecting Spectrum Scanner receiver

Connect the monitor cable to the 7p connection on the Spectrum Scanner receiver. See figure 9.

Solderside 7p connectors:

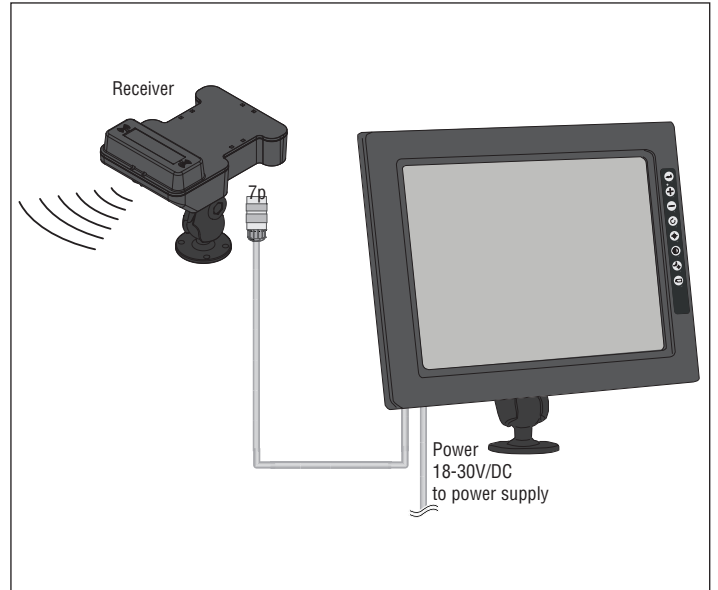
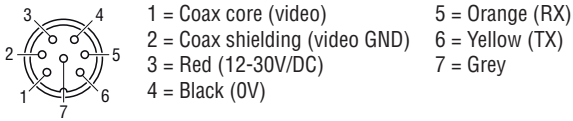


Figure 9

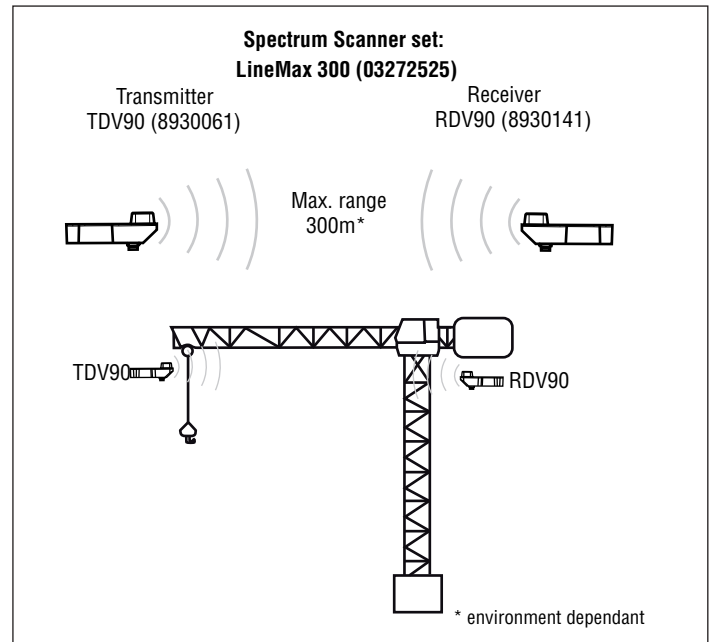


Figure 10

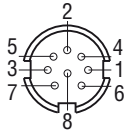
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8. Mounting the Monitor

See Installation manual SM0973230 (12") for details Connections to the Monitor

Connections to the monitor: (Secure the power input with a 5A fuse)

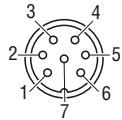
- 1 = Red = Power input: 18...30V
- 2 = White = Power input: 0V
- 3 = Blue = Cam No. 1 activated at 18...30V
- 4 = Brown = Cam No. 2 activated at 18...30V
- 5 = White/Yellow = Cam No. 3 activated at 18...30V
- 6 = Grey = Aux 1 activated at 18...30V
- 7 = Yellow = Aux 2 activated at 18...30V
- 8 = N.C.



Shielding to GND

Solder side 7p female connector:

- 1 = Coax core = Video1 input
- 2 = Coax shielding = Video 0V
- 3 = Red = Power output 18...30V
- 4 = Black = Power output: 0V
- 5 = Orange = RS232 In
- 6 = Yellow = RS232 Out
- 7 = Grey = Video 2 input



Shielding to housing

To mount the Monitor use the bracket with connection part, the Magnet mount or Vacuum mount for quick mounting the Monitor on the cab window. See figure 12.

To change the Monitor to Mirror image see instructions User Manual UM0972050 (12").

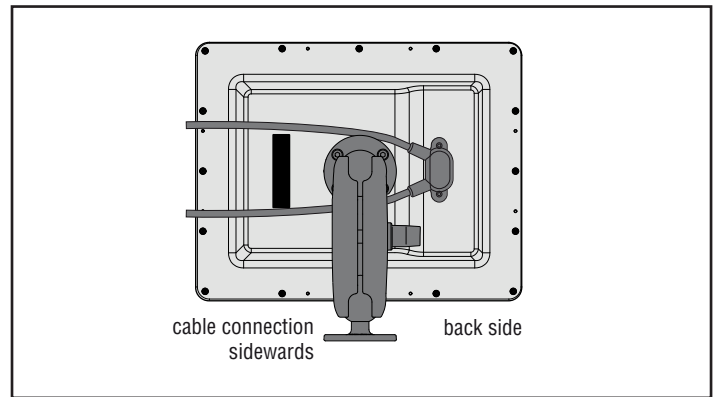


Figure 11

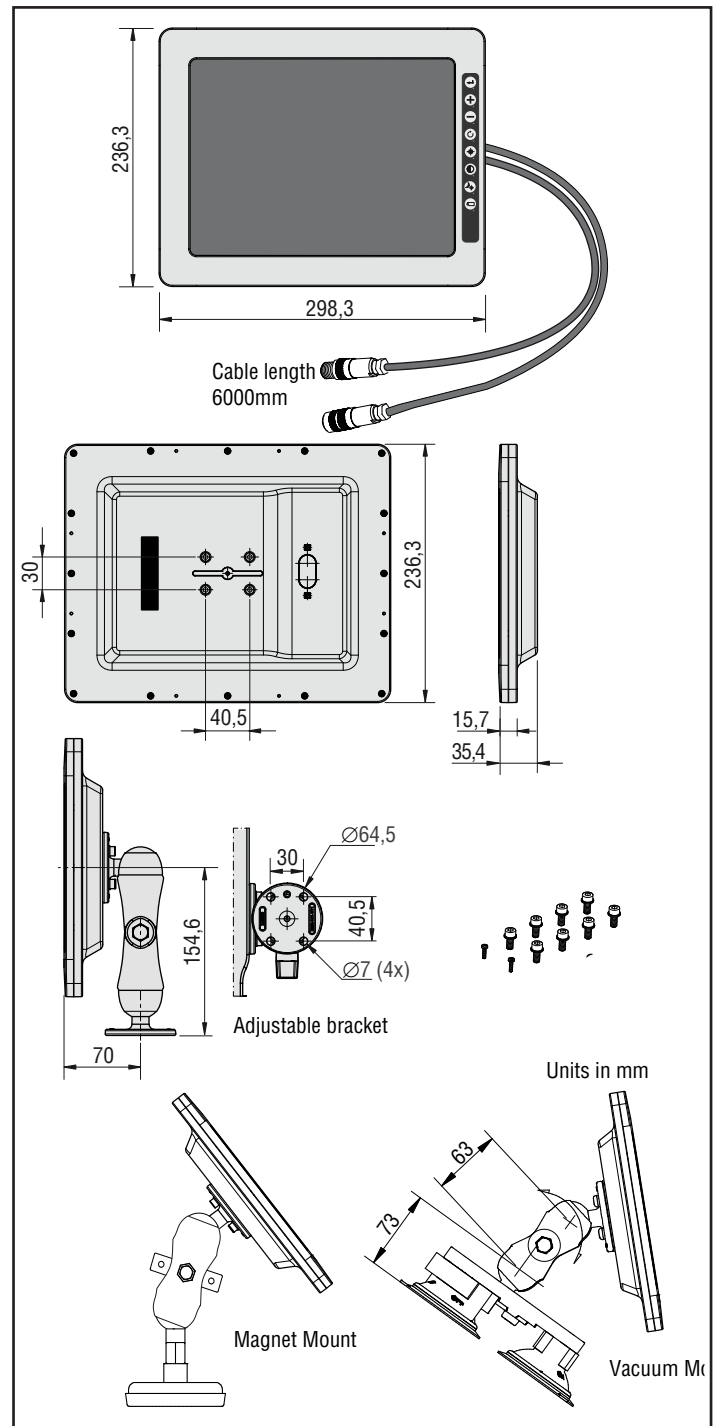


Figure 12

9. Mounting Foot switch

For zoom in and out, connect the Foot switch Art. No. 82023571 (Figure 13) to the Power supply, see system overview on page 4.



Figure 13

10. Mounting overview

At right you see the Spectrum Scanner Transmitter (Figure 14) mounted on a crane. You will also see the assembly of the Autocontact (Figure 15) and the Solar panel (Figure 16).

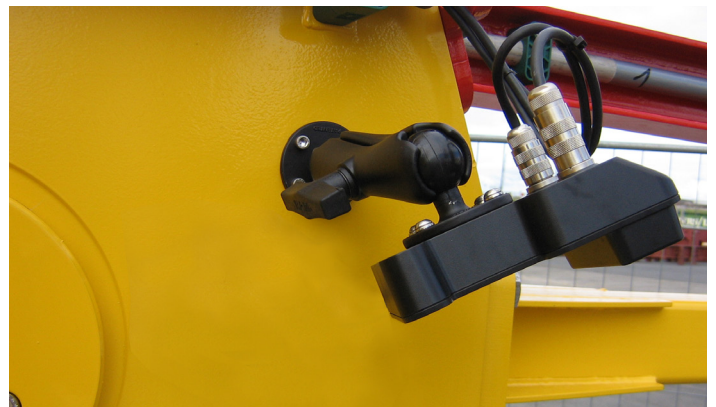


Figure 14

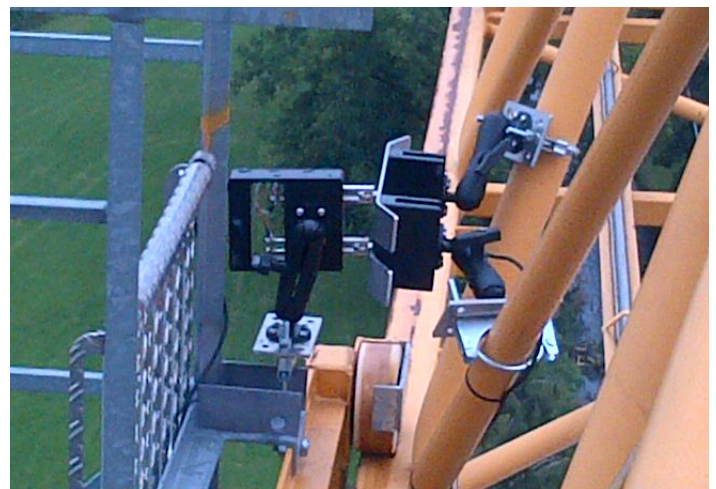


Figure 15



Figure 16

11. Disposal

Disassembly, removal and disposal. Local regulations for dealing with waste must be followed when disposing of disassembled components or entire units.

12. General terms and conditions

Orlaco Products BV is not liable for damage resulting from inadequate servicing, incorrect usage or alterations made to the equipment without informing the manufacturer in writing.

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Orlaco reserves the right to make changes to components at any time without informing customers beforehand or directly. All dimensions given are for commercial purposes.

For information regarding repairs that is not covered in this manual, please contact the Orlaco Products BV service department.

This manual has been prepared with all due care and attention. However, Orlaco Products BV cannot be held responsible for any errors in this manual or any consequences thereof.

13. Release notes

A 01. First issue 12/2018.

ORLACO

Orlaco is a production company specialised in making camera-, and monitor systems for commercial vehicles, fork-lift trucks, cranes, off shore and maritime.

Our objective is to design and produce camera systems for the professional market that improve the drivers view and increase operating efficiency.

At our factory in Barneveld, we have a production department, warehouse, design department, service department and showroom.

Vision is our mission®, Orlaco therefore deploys the development, manufacture, supply and service of camera and display systems that will improve safety and efficiency of all vehicles, machinery and vessels. Our systems will give the end user a view on each blind spot and will create comfort and improved working conditions. Our active approach will support market demands and innovations and will lead to enthusiastic ambassadors in the market; our Customers.

For more information: www.orlaco.com

