DLT-V72 Industrial Computer
Quick Start and Installation (EN)

These Quick Start and Installation Instructions apply to all DLT-V72 series models in various equipment levels.

IMPORTANT:

- Read and observe these instructions before commissioning and using the DLT-V72.
- Read and observe the “DLT-V72 Safety Instructions”.
- Observe all other documents included with the device.
- Retain all documents and pass them on to any future owners of the equipment.
- Read and observe the “DLT-V72 Operating Instructions” available online and provided for download from our websites: www.advantech.com

  On these websites you will also find the latest versions of all DLT-V72 documentation.

1 PACKING LIST

Before setting up the system, check that the items listed below are included and in good condition. If any item does not accord with the table, please contact your dealer immediately:

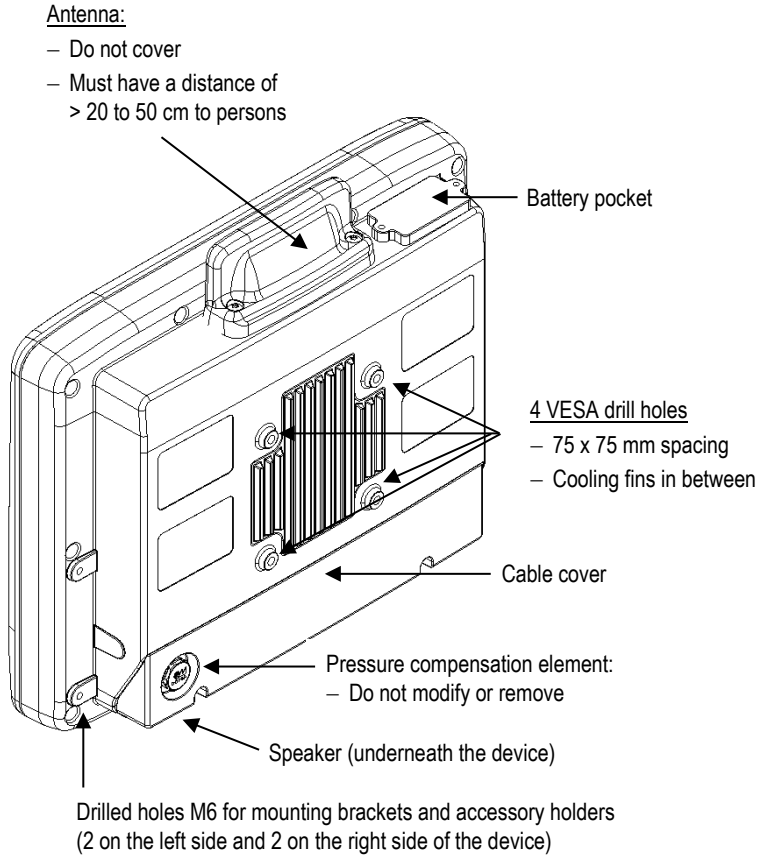
- DLT-V72 Industrial Computer
- Cable cover and cable sealing set
- Product supplement like these instructions and possibly “OS End User License Agreement” (depends on optional OS type)

2 OVERVIEW OF IMPORTANT OPERATING ELEMENTS

NOTICE: Property damage

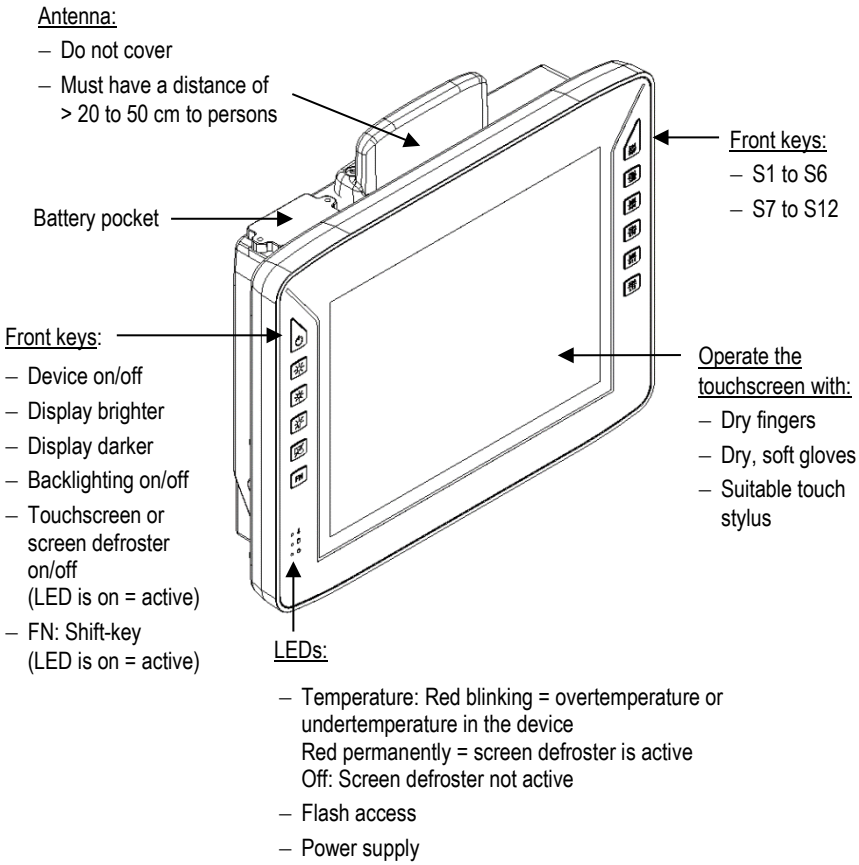
Users of the DLT-V72 must be trained by skilled personnel and instructed about the operation of the device.

2.1 Rear side DLT-V72



2.2 Front side DLT-V72

A) DLT-V7210 and 12: P, R, D



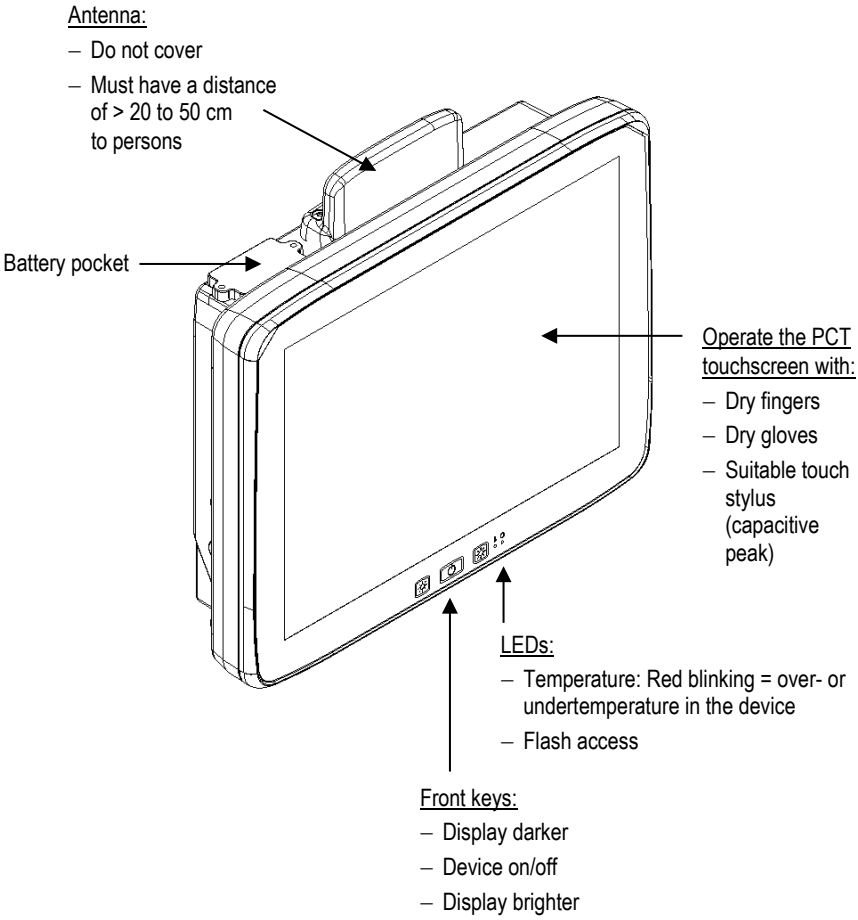
Note for the **Touch** key:

This key has two functions if the device is equipped with a screen defroster (optional) (**D** in the device name):

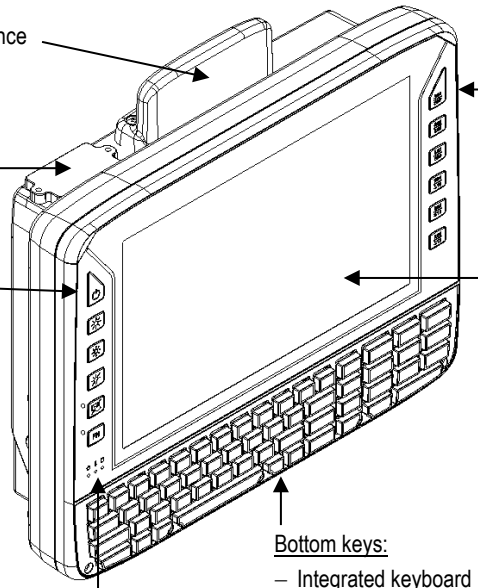
– Function 1: Activate/deactivate touchscreen

– Function 2: Combined with **FN** – Activate/deactivate screen defroster

B) DLT-V7212 and DLT-V7215: P+



C) DLT-V7210 K, KD (with integrated keyboard)



Antenna:
- Do not cover
- Must have a distance of > 20 to 50 cm to persons

Battery pocket

Front keys:
- Special keys S1 to S12

Front keys:
- Device on/off
- Display brighter
- Display darker
- Backlighting on/off
- Touchscreen or screen defroster on/off (LED is on = active)
- FN: Shift-key (LED is on = active)

Operate the PCT touchscreen with:
- Dry fingers
- Dry gloves
- Suitable touch stylus (capacitive peak)

Bottom keys:
- Integrated keyboard

LEDs:
- Power supply
- Temperature: Red blinking = over- or undertemperature in the device
- Flash access

Details on the **Touch** key:

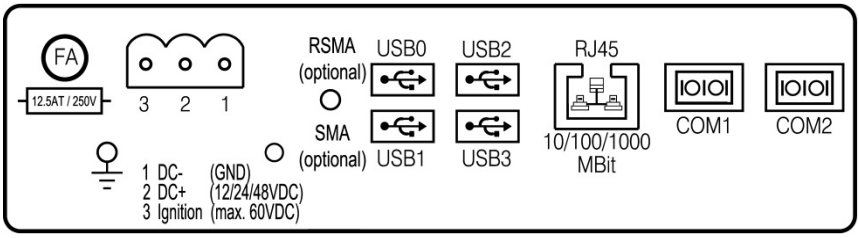
Key has two functions if the device is equipped with a screen defroster (**D** in the device name):
- Function 1: activate/deactivate the touchscreen
- Function 2: activate/deactivate the screen defroster in combination with **FN**

Details on the **FN** key:

FN key pressed has the following effect:
- The special keys to the right on the device are shifted to assignment S7 to S12 (permanent, until **FN** is pressed again).
- The brightness/illumination keys to the left on the device affect the integrated keyboard, not the display (permanent, until **FN** is pressed again).
- The alternative characters of the individual keys shown in red are activated on the integrated keyboard (not permanent).

3 EXTERNAL CONNECTORS

3.1 In the cable compartment under the cable cover



Pin assignment	
Power supply	12/24/48 VDC nominal
1 x SMA (optional)	Remote WWAN antenna
1 x RSMA (optional)	Remote WLAN antenna
USB0, USB1, USB2, USB3	USB 2.0 interfaces (HI-SPEED™), bootable
RJ45	Ethernet 10/100/1000 MBit/s
COM1, COM2	Serial interfaces

3.2 Connectors underneath the antenna

The following connections can be found under the DLT-V72 antenna or under the protective cap (for devices without radio equipment):

- Service-USB (USB 3.0 Host, SUPERSPEED™)
- CFast-Slot
- Mini-SIM card slot (optional)

NOTICE: Physical damage

- Antennas or protective caps are only permitted to be removed by qualified expert personnel and only for the duration of servicing work.
- Switch off the DLT-V72 before removing the antenna or protective cap.
- Insert/remove cards and sticks when the device has been fully deenergised.
- **NOTICE**: Hold cards and sticks securely and carefully, and insert precisely into the connections to avoid anything falling inside the device.

DLT-V72 with WLAN antenna

Remove the antenna cap as specified.
The connections underneath the antenna cap are now accessible:

DLT-V72 with WLAN, WWAN, LTE 4G antenna

- Detach the antenna cap from the device.
- Remove the radio module of the antenna.
- **NOTICE**: Carefully remove this radio module from the device; it is fastened to the radio card inside the device with thin connection cables. No further radio operation is possible if a connection cable is damaged or detached.

Refer to the description and required tools for opening the antenna in the "DLT-V72 Operating Instructions".

4 CONFIGURATION (FRONT KEYS, RADIO)

4.1 General

Basic settings for the DLT-V72 are defined in advance at the factory, e.g.

- Network settings
- Front-key assignment
- Functional method of the automatic shutdown function, etc.

To adapt these settings, please use the configuration tool for the corresponding operating system on your DLT-V72, e.g. the **DLoG Config** Tool for DLT-V72 devices with MS-Windows.

4.2 Configuring radio functionality (WLAN, WWAN)

The following preparations have already been carried out at the factory for the optional radio functionality of the DLT-V72:

- The radio card and the corresponding drivers are installed.
- A default profile with basic settings is defined.

Please find WLAN and WWAN configuration details in the “DLT-V72 Operating Instructions”.

WARNING

HF Radiation

DLT-V72 devices with radio equipment emit high frequency energy (abbreviation: HF). To protect persons against HF radiation:

- Mount the DLT-V72 so that persons maintain a minimum distance of 20 to 50 cm from the radio antennas.
- Ensure that persons observe this minimum distance when operating the DLT-V72.

5 NOTES ON THE MECHANICAL MOUNTING

5.1 Overview: Recommended mounting sequence

1. Find a suitable installation position for the DLT-V72.
2. Secure the device mounting (RAM or mounting bracket) to the targeted subject/vehicle.
3. Connect external accessories to the DLT-V72.
4. Install an easily accessible disconnecting device such as a switch close to the device.
5. Connect all cables (power supply, peripherals).
6. Close off all unused cable openings of the rubber seal using the accompanying blind plugs so that they are sealed.
7. Close the DLT-V72 with the cable cover.
8. Install the DLT-V72 on the device mounting.

5.2 Notes about the attachment of device mounts and accessory mounts

WARNING

Risk of accident on vehicles if the mounting becomes loose

Mechanical expert knowledge is required for correct attachment of device mounts and accessory mounts on the DLT-V72.

– Use suitable mounting material.

– Observe the maximum screw-in depth of the holes of the DLT-V72:
The recommended screw-in depth of D x 1 always applies (screw diameter x 1).
NOTICE: Screws that are too long, e.g. in the VESA mounting holes, can pierce the rear side of the DLT-V72 and cause irreparable damage to the device.

Mounting examples:

Device mount: RAM Mount solution	Device mount: ADLoG mounting bracket	Accessory mount: 24-key keypad
		

6 NOTES ON THE ELECTRICAL INSTALLATION

6.1 Integrated DC power supply unit

Technical data:

- Integrated, galvanically separated direct current power supply unit
- 12/24/48 VDC nominal (wide-range power supply unit)
- 60 W / 80 W internal
- Voltage range 9 to 60 VDC

6.2 Fuses

NOTICE: Property damage

Fit fuses to the following supply lines:

- The DC+ connecting cable must be protected by a fuse (max. 30 AT).
- The ignition connecting cable must be protected by a fuse of the following type: 5x20 mm T 125 mA L / 250 V, for example Wickmann 195-125 mA / 250 V.

7 CONNECT CABLES, SEAL CABLE PASSAGES, ATTACH THE CABLE COVER

7.1 Required components

A) Cable sealing set

Note: Some parts in the scope of delivery are replacement parts.

	10 x cylinder head screws DIN 912 M3x12 for fastening the cables to the strain relief rail
	7 x cable clips for fastening the cables to the strain relief rail

Rubber seal:

B) Cable cover

– Including 2 x special screws M4x12, neck 8 mm, thread length 4 mm (latching in the holes of the cable cover)

C) Power supply cable

– DC power supply cable with Phoenix contact connector

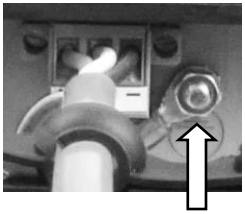
7.2 Procedure for connecting cables and sealing cable passages

STEP 1: Insert the rubber seal

– Place the rubber seal in the frame of the cable compartment (see figure).
– Press the plugs of the rubber seal into the holes of the frame.

STEP 2: Ensure a proper electrical connection, plug in the power supply cable

A) Prepare the ground bolt



Ground bolt, with the following components factory-fitted:

- 1 x toothed washer
  D=8.5 d=4.2 t=0.5 ST Ni
- 1 x nut (W)
  W=6 M4*0.7 H=2.5 ST Zn

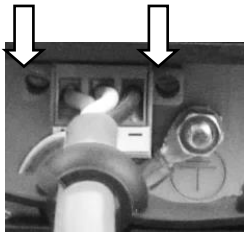
- Remove the nut from the ground bolt.
  The toothed washer remains on the ground bolt.
- Plug the ring tongue on the power supply cable onto the ground bolt; the flat side of the ring tongue points towards the DLT-V72 connector panel.
- Lastly, fit the nut and fasten it.

NOTICE: For a proper electrical connection, it is important to have the correct order of the components on the ground bolt (from inside to outside):

Toothed washer (internal)	
Ring tongue on the power supply cable (center)	
Nut (external)	

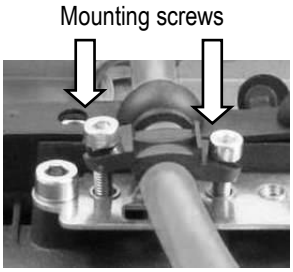
B) Connect the power supply cable

Mounting screws



- Plug the DC power supply cable into the DC slot.
- Tighten the mounting screws hand-tight.

STEP 3: Secure the power supply cable to the strain relief rail



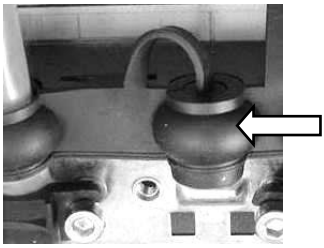
- Open the round cable passage in the rubber seal.
- Insert the power supply cable.
- Place one cable clip on the power supply cable.
- Secure the cable clip to the strain relief rail using 2 mounting screws.
- Tighten the mounting screws alternatingly.

NOTICE:
- Tighten the mounting screws sufficiently but make sure not to pinch the cable. Otherwise, the cables may break or the insulation may be damaged.
- Make sure that the power supply cables are run without kinks and are mechanically protected, securely protected against crushing and abrading.

STEP 4: Connect the USB, Ethernet and COM cables

Procedure as described for the **power supply cable**:
- Connect the cable.
- Open the round cable passage in the rubber seal.
- Insert the cable.
- Insert both components into the cable passage.
- Secure using cable clip and screws to the strain relief rail.

STEP 5: Close off unused cable openings



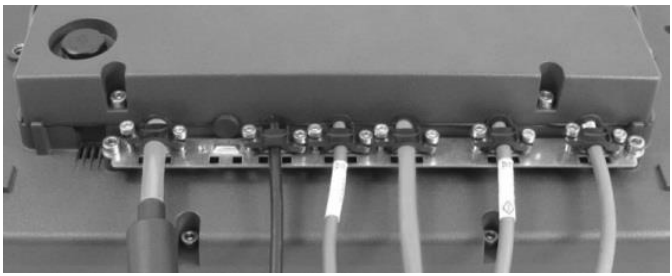
Close off all unused cable openings of the rubber seal using the accompanying blind plugs so that they are sealed.

STEP 6: Attach the cable cover

To prevent fluids or dust penetrating the DLT-V72 during ongoing operation, the cable compartment on the device must be sealed using the corresponding cable cover. The protection class is only ensured if the cable cover is properly installed.

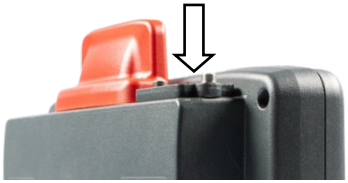
- Place the cable cover in the DLT-V72 housing slot.
- Screw the thin special screws (latching) loosely into the holes of the cable cover.
- Tighten screws alternatingly with a tightening torque of 3 Nm.

Example for an atteched cable cover:



8 INTEGRATED UPS AND BATTERY PACK (OPTIONAL)

The DLT-V72 is optionally available with an integrated uninterrupted poser supply (short: UPS). The lithium-ion battery pack (short: battery pack) of this UPS is located in the battery pocket up top on the device:



WARNING

Personal injury due to short-circuit, fire, chemical burns, toxic substances.

DLT-V72 devices with integrated UPS contain battery packs. These can ignite if handled or stored improperly (risk of fire), cause chemical burns or release toxic substances.

- Be careful when handling battery packs.
- Do not damage the battery packs, drill through them, drop them or allow them to be crushed.
- Do not allow water or other liquids to come into contact with the device (exercise particular caution with corrosive liquids).
- Do not allow it to come into contact with fire.

8.1 Battery pack: Environmental conditions / Technical data

Battery pack 2000 mAh: P/N: DL-BTRG79461700	
Operating temperature	-30 to +50 °C
Maximum output power	40 W
Battery voltage	7,2 V
Bridging time	Typically 20 min (if the battery pack is fully charged)
Charging time	4 h (fully recharge a discharged battery pack)

8.2 Charging the battery pack

WARNING

Electric shock when charging the battery pack

- Do not connect damaged battery packs to the DLT-V72; do not charge.
- Do not continue to use the DLT-V72 if you notice an unusual level of heat or an unusual smell during charging.
- Provide for sufficient ventilation of the DLT-V72 during charging.

Before charging, make sure:

- Cable cover and battery pack pocket must be screwed together.
- The DLT-V72 must be completely closed.

Charging the battery pack

Connect the correctly mounted DLT-V72 to the main supply voltage.
The battery pack is charged automatically in this process.

8.3 Replacing the battery pack

NOTICE: Property damage

- Switch off the DLT-V72 and disconnect from the supply voltage before replacing the battery pack.
- Use only original battery packs from Advantech.
- The battery packs must be authorized / approved for the DLT-V72.
- Do not use battery packs from any other Advantech devices; they are not compatible.

Procedure for replacing the battery pack

- Loosen the two screws of the battery cover using an Allen wrench.
- Remove the battery cover and remove the battery pack.

- Insert the new battery pack into the battery pocket.
- Make sure that the removal tab of the battery pack is inside the sealing surface.
- Then reattach the battery cover (tightening torque 2 Nm).