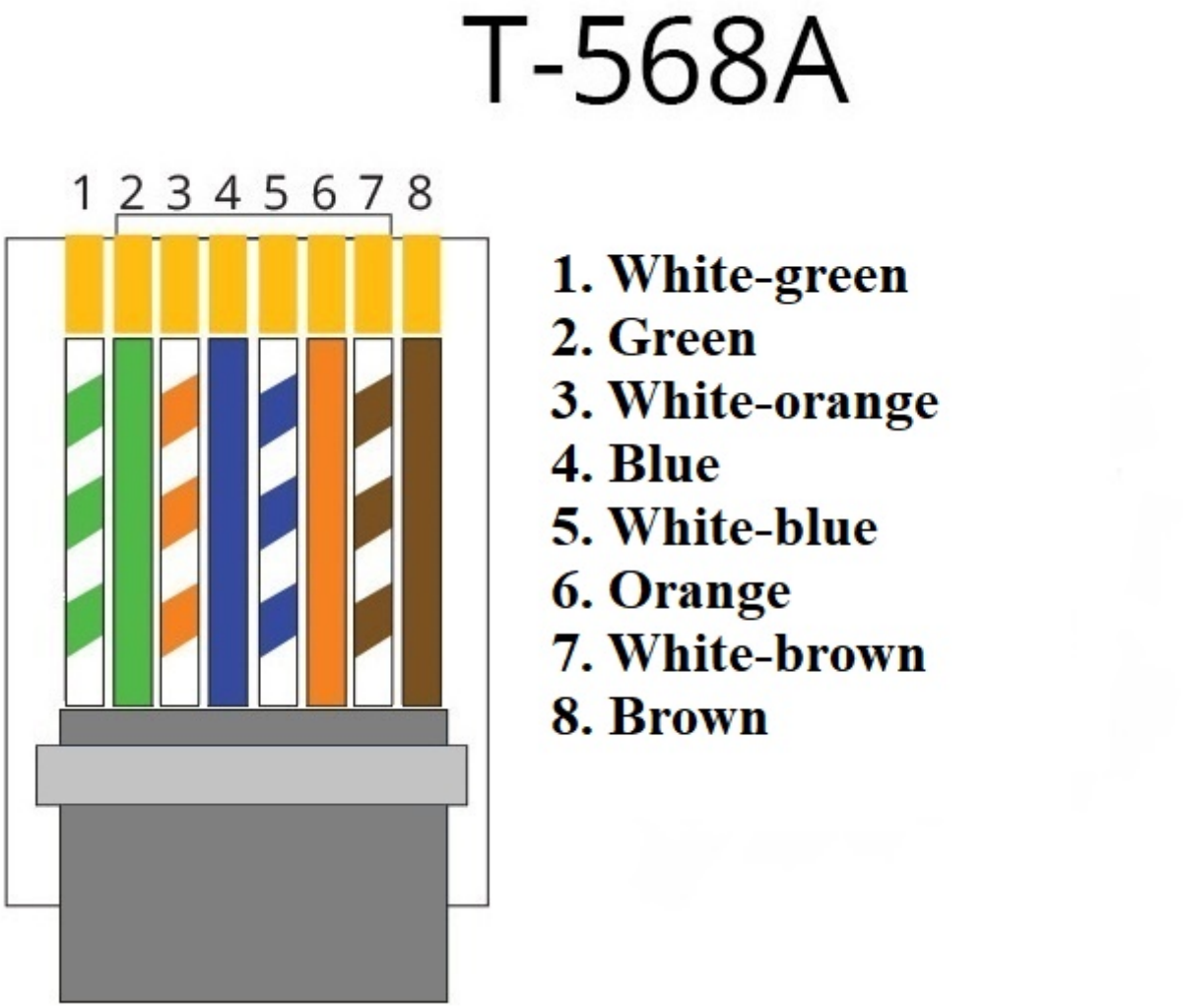
Installation Recommendations

This section will cover tips on topics such as:

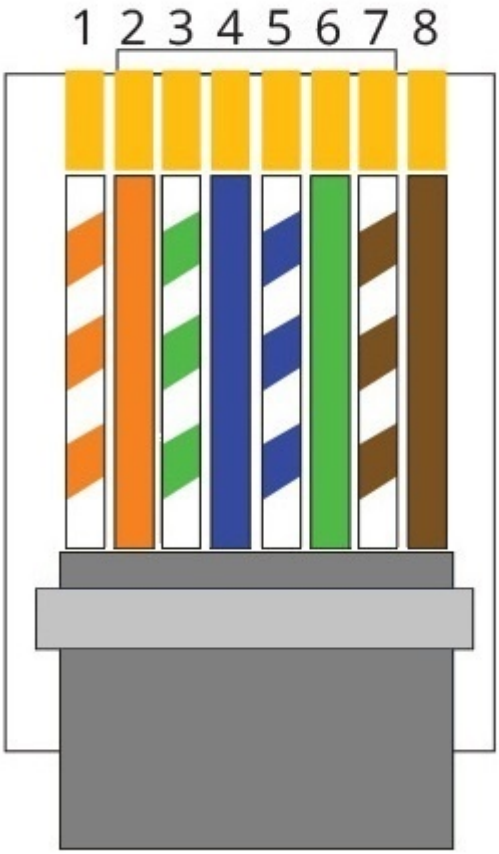
- Unplugging the RJ45 connector
- Unplugging cables that come with the Bi-mNVR device
- Unplugging Bi-mNVR connectors
- Bi-mNVR antennas connection
- Installation highlights

Unplugging the RJ45 connector

There are two ways to pin-up the RJ45 connector: T-568A and T-568B, the pin-up type has no effect on the data rate, so choose the one you like best. **We use the T-568B**.



T-568B



1. White-orange
2. Orange
3. White-green
4. Blue
5. White-blue
6. Green
7. White-brown
8. Brown

How to crimp an 8 wire twisted pair

We need a crimper, an RJ45 connector and a twisted pair, and scissors.

Step 1: Cut the upper sheath at the end of the cable about 2.5 cm from the edge. Next, unwind the twisted wires and take out the excess

Step 2: Clamp the wires between your fingers and line them up. Sort them out as shown in the pictures above

Step 3: Shorten the wires so that the wires peek out about 1.5 cm from the edge of the insulation. Use scissors to make a straight cut across all the wires.

Step 4: Carefully insert all 8 wires into the RJ45 connector as far as possible, and make sure they stay aligned and each color goes into the appropriate channel

Step 5: Insert the wires all the way into the RJ45 connector, checking the wire sequence. Then insert the connector into the “P8” socket in the crimper and crimp the connector until you hear it click into place

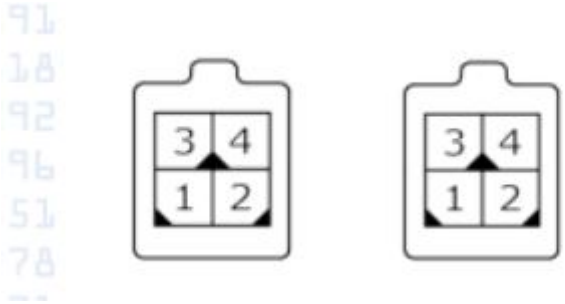
Bi-mNVR device pin assignment

- RJ45 connectors, type T568B

No.	Name	Signal type	Pin assignment
1	white-orange	signal	TX+
2	orange	signal	TX-
3	white-green	signal	RX+
4	blue	power	+CAM_PWR
5	white-blue	power	+CAM_PWR
6	Green	signal	RX-
7	brown-white	power supply	GND

No.	Name	Signal type	Pin assignment
8	brown	power	GND

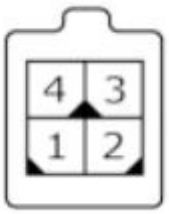
- CONNECT-BUS connectors



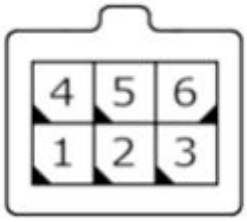
No. ^ Name ^ Signal type ^ Pin assignment ^

1	GND	power	common wire (ground)
2	CAN L	Input/Output	CAN_L bus signal
3	+ Vin	Power	'+' on-board power supply
4	CAN H	Input/Output	CAN_H bus signal

*CAN port connector



No.	Name	Signal type	Pin assignment
1	GND	power	common wire (ground)
2	TX	Input/Output	Signal 'TX' extension port
3	+ 3.3V	supply	3.3V power output
4	RX	Input/Output	'RX' signal of the expansion port



No.	Name	Signal type	Pin assignment
1	Dat_low 1	Input	Discrete input with active '0'
2	Dat_high 1	Input	discrete input with active '1' #1
3	+ 3.3V	input	analog input
4	GND	power supply	common wire (ground)

No.	Name	Signal type	Pin assignment
5	Dat_high 1	input	discrete input with active '0' no.2. reserved for the ignition signal
6	GND	power supply	common wire (ground)

General guidelines

Operating conditions

- ambient temperature from -30°C to +80°C
- Relative humidity up to 80% at +30°C
- atmospheric pressure between 84 kPa and 107 kPa (630 - 800 mm Hg)

installation recommendations

- The device location area should allow for plugging in the connector, excluding the case of its damage, as well as exposure to direct sunlight and moisture
- Recommended mounting location in the vehicle: Under the dashboard, level

Additional conditions

- During welding work and vehicle repair it is obligatory to disconnect power connector and peripherals from the device
- Power supply voltage must not exceed 36V. Failure to observe this condition could render the unit inoperable

Transport and storage conditions

- The device can be transported in the manufacturer's transport package by all kinds of closed ground and sea transport (in railway carriages, containers, closed cars, holds, etc.); transportation in sealed aircraft heater compartments is permissible.
- Transportation and storage must be carried out in conditions that meet the storage conditions according to GOST 15150-69
- Permissible level of shock loads: shocks with acceleration of 2-5g with impulse duration of 5-10 ms
- The air of the storage room must not contain aggressive impurities, dust, grease, moisture, exceeding the standards according to. GOST 12.1.005-88

Safety requirements for installation and maintenance work

- During work on device installation organizational and technical measures shall be taken, which shall ensure safety of work with measuring equipment, auxiliary equipment and consumables
- The responsibility for observing the safety measures rests with the technical personnel in charge of the device installation, as well as with the personnel in charge of the equipment at the site of the work.
- On-site compliance with fire safety rules in accordance with GOST 12.1.004 and electrical safety in accordance with GOST 12.1.019

- In road transport at the place of work, it is necessary to comply with the requirements of labor safety regulations in accordance with DNAOP 0.00-1.28-97
- It is recommended to store the unit in shockproof packaging to avoid damage.
- Before dismantling the unit, the power supply must be switched off.
- Do not install or remove the SIM card while the device is powered