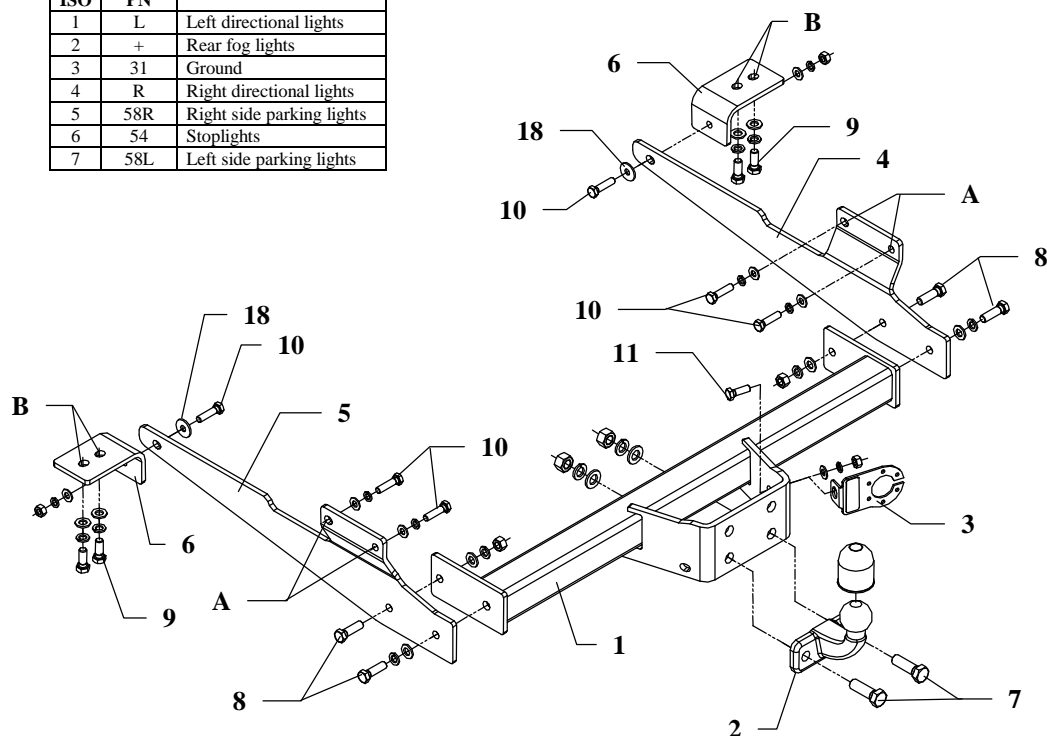


FITTING INSTRUCTION

Clamp mark in acc. with		Cables joining
ISO	PN	
1	L	Left directional lights
2	+	Rear fog lights
3	31	Ground
4	R	Right directional lights
5	58R	Right side parking lights
6	54	Stoplights
7	58L	Left side parking lights



This towing hitch is designed to assembly in following cars:
RENAULT MASTER loading platform produced since 1998 till 03.2010,
OPEL MOVANO loading platform produced since 1998 and **NISSAN INTERSTAR** produced since 2002, catalogue number **G28** and is prepared to tow trailers max total weight **2500 kg** and max vertical mass **100 kg**.

From manufacturer

Thank you for buying our product. Their reliability has been confirmed in many tests. Reliability of towing hitch depends also on correct assembly and right operation. For this reasons we kindly ask to read carefully this instruction and apply to hints.

The towing hitch should be installed in points described by a car producer.

The instruction of the assembly

1. Disassemble bolts fastening bumper On the left and right side of car (from chassis members)
2. At points after disassembled bolts put side brackets (pos. 4 and 5) and fix it through holes A using bolts M10x40mm (pos. 10).
3. To assembled side brackets fix loosely angle bars (poz. 6) śrubami M10x40mm (poz. 6) jak pokazano na rysunku.
4. Through holes B in angle bars and existing holes in car construction fix all using bolts M12x30mm (pos. 9) from towbar accessories.
5. Between installed side brackets put main bar of the towbar (pos. 1) and fix using bolts M12x40mm (pos. 8).
6. Fix tow-ball (pos. 2) using bolts M16x50mm (pos. 7) from accessories.
7. Fix socket plate (pos. 3) as shown on the drawing using bolt M10x30mm (pos. 11).
8. Tighten all bolts according to the torque shown in the table.
9. Connect electric wires of 7-poles socket according to the instruction of the car. (Recommend to make at authorized service station).
10. Complete paint layer damaged during installation.

Torque settings for nuts and bolts (8,8):

M6 - 11 Nm	M8 - 25 Nm	M10 - 50 Nm
M12 - 87 Nm	M14 - 138 Nm	M16 - 210 Nm

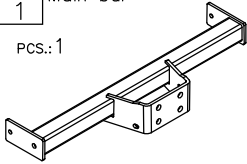
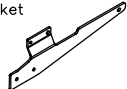










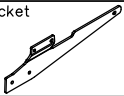









NOTE

After installation of the towing hitch you should get adequate note in registration book (at authorised service station).The car should be equipped with:

- Indicators
- Tow mirrors

Check all bolts and nuts after **1000 km** of exploitation. The ball of the towing hitch must be always kept clear and conserve with a grease.

Part list:

Pos. 1 Main bar PCS.: 1	Pos. 5 Left bracket PCS.: 1	Pos. 11 Bolt 8,8 B M10x30mm PCS.: 1	Pos. 17 Plain washer Ø10mm PCS.: 7
			
Pos. 2 Tow ball PCS.: 1	Pos. 6 Angle bar PCS.: 2	Pos. 12 Nut 8 B M16 PCS.: 2	Pos. 18 Washer Ø30xØ10.5x2.5mm PCS.: 2
			
Pos. 3 Socket plate PCS.: 1	Pos. 7 Bolt 8,8 B M16x50mm PCS.: 2	Pos. 13 Nut 8 B M12 PCS.: 2	Pos. 19 Spring washer Ø16.3mm PCS.: 2
			
Pos. 4 Right bracket PCS.: 1	Pos. 8 Bolt 8,8 B M12x40mm PCS.: 4	Pos. 14 Nut 8 B M10 PCS.: 3	Pos. 20 Spring washer Ø12mm PCS.: 8
			
	Pos. 9 Bolt 8,8 B M12x30mm PCS.: 4	Pos. 15 Plain washer Ø17mm PCS.: 2	Pos. 21 Spring washer Ø10mm PCS.: 7
			
	Pos. 10 Bolt 8,8 B M10x40mm PCS.: 6	Pos. 16 Plain washer Ø12mm PCS.: 8	Pos. 22 Ball cover PCS.: 1
			



PPUH AUTO-HAK Sp.J.

Produkcja Zaczepów Kulowych
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E-mail: office@autohak.com.pl
www.autohak.com.pl

Towing hitch (without electrical set)

Class: **A50-X** Cat. no. **G28**

Designed for:

RENAULT MASTER

loading platform

produced since 1998 till 03.2010,

OPEL MOVANO

loading platform

produced since 1998

NISSAN INTERSTAR

produced since 2002

Technical data:

D-value: 14,3 kN

maximum trailer weight: **2500 kg**

maximum vertical cup mass: **100 kg**

Approval number acc. to regulations EKG/ONZ 55.01: **E20-55R-01 1075**

Foreword

This towing hitch is designed according to rules of safety traffic regulations. The towing hitch is a safety component and can be install only by qualified personnel. Any alteration or conversion of the towing hitch is prohibited and would lead to cancellation of design certification. Remove insulating compound and underseal from vehicle (if present) in the areas of the matting surfaces of the towing hitch. The vehicle manufacturer's specifications regarding trailer load and max. vertical cup mass are decisive for driving whereat values for the towing hitch cannot be exceeded.

D-value formula:

$$\frac{\text{Max trailer weight [kg]} \times \text{Max vehicle weight [kg]}}{\text{Max trailer weight [kg]} + \text{Max vehicle weight [kg]}} \times \frac{9,81}{1000} = D \text{ [kN]}$$