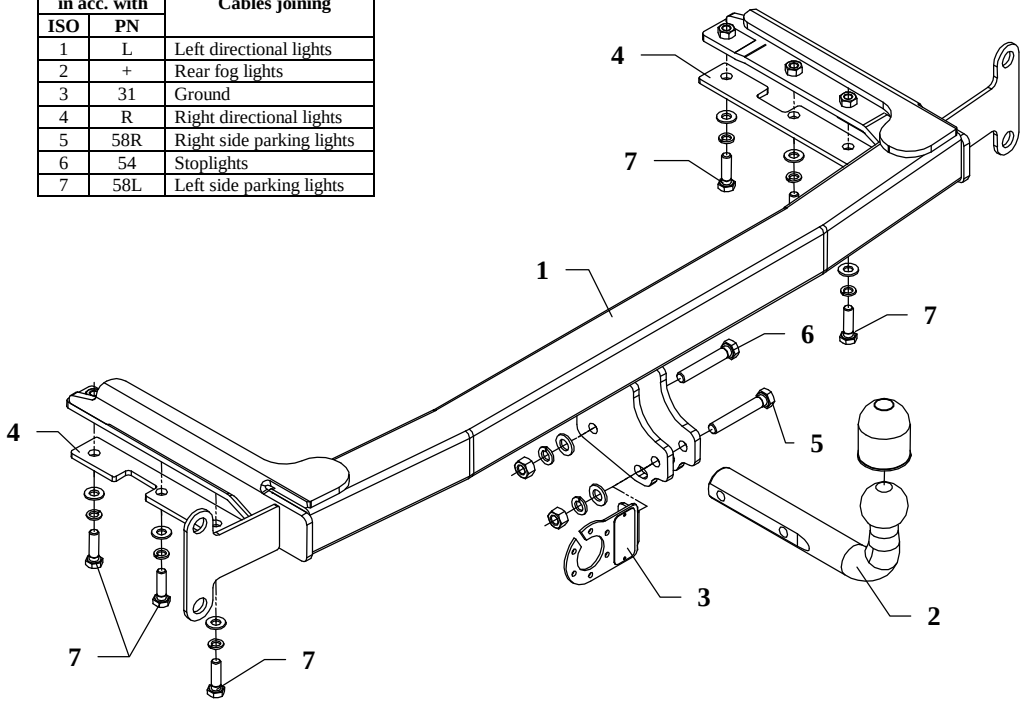
# FITTING INSTRUCTION

| 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:
**CHRYSLER (GRAND) VOYAGER, VAN (2/4 WD)**
**DODGE (GRAND) CARAVAN (2/4 WD), VAN**
**DODGE MINI RAM, (2/4 WD)**
**PLYMOUTH (GRAND) VOYAGER, 2+4 WD**
produced since 1991 till 02.1996, catalogue no. **CH47** and is prepared to tow trailers max total weight **1800 kg** and max vertical load **80 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 install in points described by a car producer.*

## The instruction of the assembly

1. For the purpose of installings of the towing hitch one ought to disassemble the bumper.
   - take off the metal-reinforcement of the bumper. Cut out its part (pos. D), see fig. 2, and disassemble the support of the bumper (pos. E).
   - Attention! In the car Grand Voyager take out the plastic clip (pos. 3), see fig. 2, and then cut out the fragment (pos. F), see fig. 3, and shorten elements (pos. G and H) about 5mm.
   - Fix the metal-reinforcement with the plastic canopy of the bumper.
2. Apply templates no. 1 and 2 to the back piece and cut out marked place (the spar is getatable from the back).
3. From the left chassis one ought to unscrew factory-made towing eye along with its internal reinforcement which will not be assembled again.
4. Shorten protruding elements in the right chassis about 5mm.
5. To the chassis slip the main bar of the hitch (pos. 1) and fix through fish-plates (pos. 4) using bolts M10x35mm (pos. 7).
6. Tighten all bolts according to the torque shown in the table.
7. Fix tow-ball (pos. 2) using bolts: M12x75mm (pos. 5) and M12x70mm (pos. 6). Fix socket plate (pos. 3) too using the first bolt. See drawing.
8. Connect electric wires of 7-poles socket according to the instruction of the car. (Recommend to make at authorized service station).
9. Complete paint layer damaged during installation.

| Torque settings for nuts and bolts (8,8): | |
|---|---|
| **M 8** - 25 Nm | **M 10** - 55 Nm |
| **M 12** - 85 Nm | **M 14** - 135 Nm |

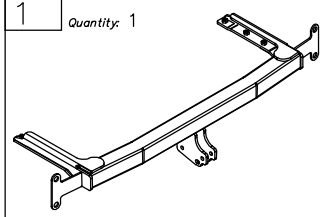
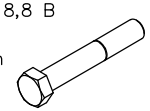
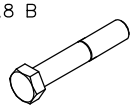
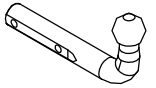
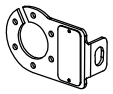
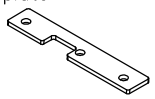
## NOTE

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

- Indicators
- Tow mirrors

After 1000km check all bolts and nuts. The ball of towing hitch must be always kept clear and conserve with a grease.

Part list:

| | | |
|---|---|---|
| Pos. 1 — Name: Main bar — Quantity: 1  | Pos. 5 — Name: Bolt 8,8 B — Quantity: 1 — Dim. : M12x75mm  | Pos. 10 — Name: Plain washer — Quantity: 6 — Dim. : ø 10,5 mm  |
| | Pos. 6 — Name: Bolt 8,8 B — Quantity: 1 — Dim. : M12x70mm  | Pos. 11 — Name: Spring washer — Quantity: 2 — Dim. : ø 12,2 mm  |
| Pos. 2 — Name: Tow ball — Quantity: 1  | Pos. 7 — Name: Bolt 8,8 B — Quantity: 6 — Dim. : M10x35mm  | Pos. 12 — Name: Spring washer — Quantity: 6 — Dim. : ø 10,2 mm  |
| Pos. 3 — Name: Socket plate — Quantity: 1  | Pos. 8 — Name: Nut 8 B — Quantity: 2 — Dim. : M12  | Pos. 13 — Name: Ball cover — Quantity: 1  |
| Pos. 4 — Name: Fish−plate — Quantity: 2  | Pos. 9 — Name: Plain washer — Quantity: 2 — Dim. : ø 13 mm  | |


**PPUH AUTO-HAK S.J.**

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# Towing hitch (without electrical set)

Class: **A50-X** Cat. no. **CH47**

Designed for:
**CHRYSLER (GRAND) VOYAGER, VAN (2/4 WD)**
**DODGE (GRAND) CARAVAN (2/4 WD), VAN**
**DODGE MINI RAM, (2/4 WD)**
**PLYMOUTH (GRAND) VOYAGER, 2+4 WD**
produced since 1991 till 02.1996

Technical data:
**D**-value: **10,7 kN**
maximum trailer weight: **1800 kg**
maximum vertical cup load: **80 kg**

**Approval number according to Directive 94/20/EC: e20*94/20*0256*00**

## *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 area of the matting surfaces of the towing hitch.
The vehicle manufacturer's specifications regarding trailer load and max. vertical cup load are decisive for driving whereat values for the towing hitch cannot be exceeded.
*D-value formula:*

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