

**TOW BAR F-110 FOR
FIAT Multipla
(11/1998 -)
FITTING AND OPERATION MANUAL**

Cat. No.F-110

DESTINATION

Tow bar **F-110** for a **FIAT Multipla** is designed for towing a trailer. This ball hook has a current certification of approval authorizing the product with **e20** certification sign.

FITTING CONDITIONS

Tow bar **F-110** can be used and operated in a car with proper technical conditions of body elements. Those parts cannot be mechanically damaged. The ball hook has to be installed and operated in a car according to this instruction. All bolts and nuts in ball hook have to be screwed down with proper torque (M₀). Torque values are given below:

M8	-	25 (Nm)	M12	-	85 (Nm)
M10	-	50 (Nm)	M16	-	200 (Nm)

OPERATION CONDITIONS

The tow bar **F-110** has a rating plate describing correct and safe loads of the hook:

Typ: F-110	The tow bar for FIAT Multipla
A50-X	Tow bar class (compressing device)
e20 0702-00	Tow bar certification of approval number
D = 8,0 kN	Theoretical related force working on a ball hook
S = 70 kg	Max permissible vertical load of the hook ball
R = 1300 kg	Max permissible load of towing trailer

D - force is calculated using the following formula:

$$D = g \times \frac{T \times R}{T + R} \text{ kN}$$

T-technically permissible maximum mass in tonnes of the towing vehicle (also towing tractors) including, if necessary, the vertical load of a centrale axle trailer.
R-technically permissible maximum mass in tonnes of the full trailer with drawgal free to move in the vertical plane or of the semi-trailer.
g-acceleration due to gravity (assumed as 9,81 m/s²)

During operating individual elements of ball hook should be kept in a proper technical condition and protected from corrosion. The trailer must be linked with an elastic joint with proper durability (cord , chain) while towing. It is necessary to check periodically bolt joints during operating the ball hook. If screws are eased, it is necessary to screw them down.

FITTING

The tow bar **F-110** for **FIAT Multipla** is made up of the following elements:

- | | | | |
|----------------------------------|------------|------------------------|------------|
| 1. Towbar mainframe | - 1 piece | 7. Bolt M12x65 | - 2 pieces |
| 2. Tow ball | - 1 piece | 8. Bolt M12x120 | - 6 pieces |
| 3. Electrical plate | - 1 piece | 9. Flat washer 13,0 | - 2 pieces |
| 4. Right flat bar | - 1 piece | 10. Spring washer 12,2 | - 8 pieces |
| 5. Left flat bar | - 1 piece | 11. Nut M12 | - 8 pieces |
| 6. Distance sleeve 17,3/ 12,5x90 | - 6 pieces | | |

Follow the general directions in order to fit **F110** tow bar properly:

1. Rear bumper cutting is not required.
2. Unpack the towbar packing and separate components. Check all parts are present.
3. Remove the plastic shield of the back panel (from the inside of the trunk).
4. Slacken the left and right side and move the covering in the trunk forward.
5. From left and right side of the trunk drill two holes size 12,5 according to the factory-made points, next enlarge the holes to the size 17,5 under (6) (through the one wall only).
6. Hang up preliminarily (1) using (8), next drill the third hole 12,5 through the hole in the side arms of (1) and from trunk side enlarge to the size 17,5.
7. Unscrew (1) and insert (6) and next (8) with (4), (5) from the trunk side. From the bottom put (1) again and attach using (11), (10).
8. Attach (2) to (1) using (7), (11), (9), (10); add (3) on left side of (2) at the same time.
9. Check if all fixing bolts and nuts are correctly tightened.

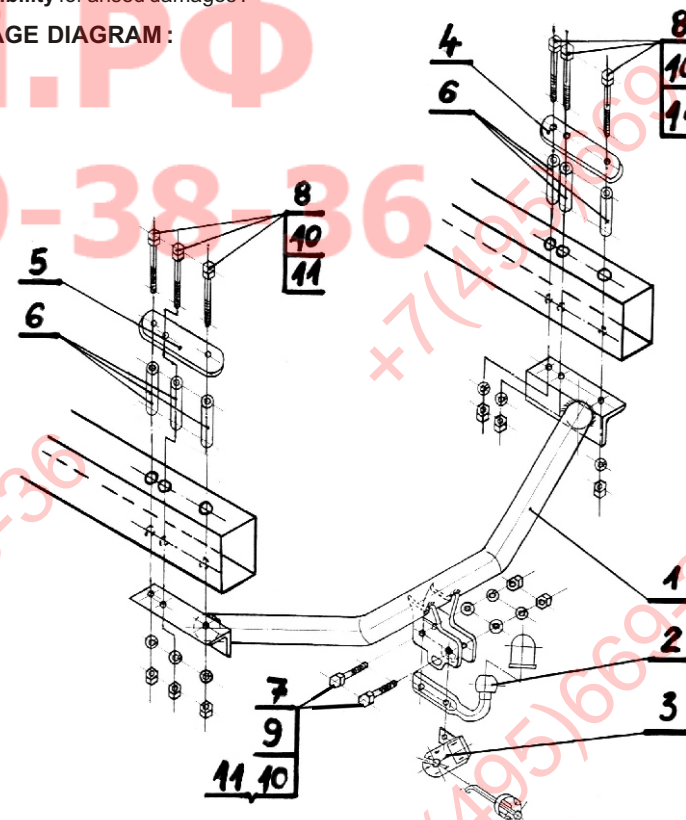
Obeying this instruction assures correct montage and the tow bar operating in a FIAT Multipla.

After assembling of the tow bar **F-110** you have to get entry in cars **registration book** in a quality control station.

CAUTION:

Check if all bolts and nuts are correctly tightened after 1000km. Keep tow ball clean, grease and cased. All mechanical damages of tow bar excludes its further exploitation. Damaged ball hook **cannot be repaired**. In case of braking the rules of montage or unproper usage manufacturer **do not take responsibility** for arised damages.

MONTAGE DIAGRAM:



NOTE:

Bunch of wires is not included (in total price).