



# MTP Traffic Sign



## Active day and night

Design and Produce by MTP (Manufactory)



made in UAE

### Radar Yours Speed Sign

With Digital Face

With Messages

Thank You  
&  
Slow Down

Arabic and English  
(Periodic)

Model Number: SDM70189  
(MTP Brand)



**MTP Traffic Sign LLC**

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Email: [sales@mtpTraffic.com](mailto:sales@mtpTraffic.com)

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## Technical Specification

<b>Dimension</b>	Size : 70*189*15.5cm
<b>Weight</b>	45Kg
<b>Body Material</b>	Aluminum Black Color Electrostatic Powder Coated (MTP Brand)
<b>Battery</b>	Internal 12 volt, 54 Ah, Sealed Lead Acid
<b>Solar Power</b>	100 Watts, Life time more than 20 years
<b>Display Model</b>	2 Digit With 7 Segment LED Board + Digital Emoji Face + Arabic and English Message periodic (MTP Brand)
<b>LED Quantity</b>	Green Digit Number: 196 pcs LED Green Emoji Face: 2048 pcs LED Green Message Arabic & English: 1024 pcs LED RED Digit Number: 196 pcs LED RED Emoji Face: 2048 pcs LED RED Message Arabic & English: 1024 pcs LED
<b>Emoji Face Display</b>	64*32 pixel SMD two color (MTP Brand)
<b>Message Display</b>	64*16 pixel SMD two color Arabic and English message (MTP Brand)
<b>LED Life</b>	More than 100,000 Hours
<b>Light luminous</b>	8000mcd
<b>Radar</b>	CW Doppler device operating in the K-Band (24GHz) (MTP Brand)
<b>Speed Detection Rang</b>	1km/H –99km/H
<b>Radar Range</b>	100-200m
<b>Response Time</b>	≤5ms
<b>Working time after full charge</b>	4 days

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<b>Visible Distance</b>	More Than 1Km
<b>Angle</b>	150 Degree
<b>Reflective Sheet</b>	3m

## Description

**Solar Your Speed Radar Signs** are customizable traffic calming solutions designed to address speeding in high-risk areas.

These LED radar speed signs feature a two digit, seven segment displays and a digital face Display Module, allowing the speed limit to be set via software. The signs provide clear visual feedback to drivers, displaying a green number and a green smiley face when within the speed limit and a red number, red circle warning light with a red sad face when exceeding it.

When a vehicle enters the radar detection zone (approximately 100-200 meters in front of the sign), the microwave radar automatically detects the vehicle's speed and displays it on the sign, encouraging drivers to slow down. This effective speed feedback system significantly reduces traffic accidents caused by high-speed driving.

MTP's Solar Your Speed Radar Signs are highly visible and serve as a powerful tool to alert drivers to speed zones, helping to prevent injuries and fatalities.

Committed to providing earth friendly technologies, MTP offers robust solutions to enhance road safety.

Contact us today to learn how we can make your streets safer!

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## Mechanical Specification (MTP Brand)



### Solar Your Speed Radar Sign Specifications

- **Body Material:** 1.2 mm Aluminum Sheet
- **Frame:** Aluminum Profile with Custom Design
- **Frame Dimensions:** 2\*15\*0.2cm
- **Color Finish:** Electrostatic Powder Coating, Matte Black
- **Front Sheet Material:** Aluminum with Composite
- **Front Sheet Thickness:** 4 mm
- **Installation Stand:** U-Channel Design, Compliant with UAE Traffic Sign Standards

## LED



### LED Specifications for Solar Your Speed Radar Signs

- **LED Lifespan:** Rated for 100,000 hours, compliant with legal standards for traffic lights and signals
- **Light Intensity:** 8,000 mcd
- **LED Quantity:**
  - Seven Segment Display: 392 LEDs
  - Emoji Display: 4,096 LEDs
  - Message Display: 2,048 LEDs

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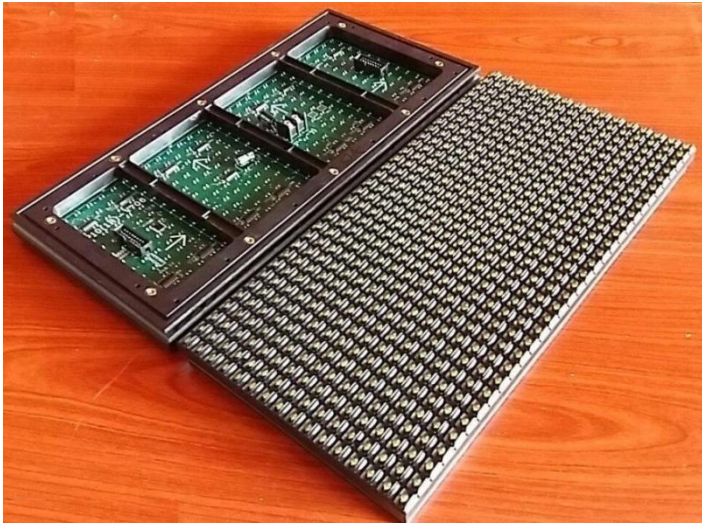
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## Face & Message Display Module (MTP Brand)



### LED Module Specifications for Solar Your Speed Radar Signs

- **Material:** Fiberglass Electronic Printed Circuit Board (PCB)
- **Module Size:** 16\*32 cm
- **Pixel Count:** 512 pixels
- **Pixel Pitch:** 10 mm (distance between each pixel)
- **Coating:**
  - **Rear:** Green insulating coating for water and dust protection
  - **Front:** Black insulating coating for water and dust protection

## Battery



### Battery Specifications for Solar Your Speed Radar Signs

- **Type:** Sealed Lead Acid (SLA)
- **Configuration:** 3\*12V, 18Ah batteries (Total 54Ah)

**Expected Lifespan:** 5 years

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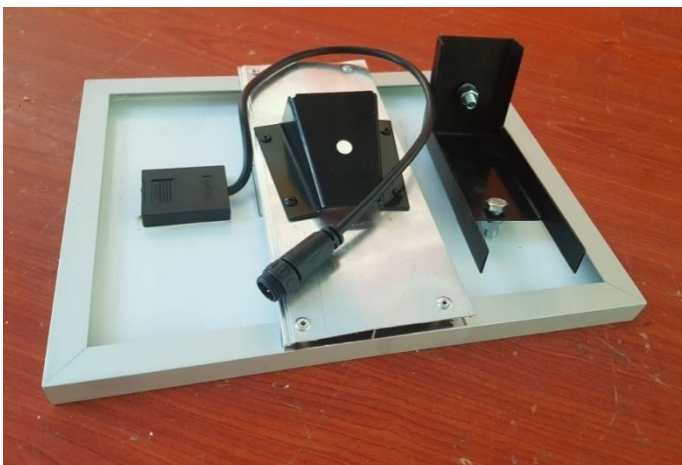
## Inverter



### DC-to-DC Converter Specifications for Solar Your Speed Radar Signs

- **Type:** DC to DC Converter
- **Function:** Converts 12V input to 5V output to power LED display modules
- **Manufacturer:** Mean Well

## Solar Panel



### Solar Panel Specifications for Solar Your Speed Radar Signs

- **Power Output:** 100W
- **Voltage:** 18V
- **Current:** 5.6A
- **Efficiency:** 16%

SILICON SOLAR PV MODULE	
Model	SA-10P
Pm	100watt
Vmp	18V
Imp	5.6A
Voc	21.24V
Isc	5.9A
Dimension	100*60*3.5cm
Max System Voltage	1000V
Test Condition	AM1.5 1000W/m <sup>2</sup> 25°C

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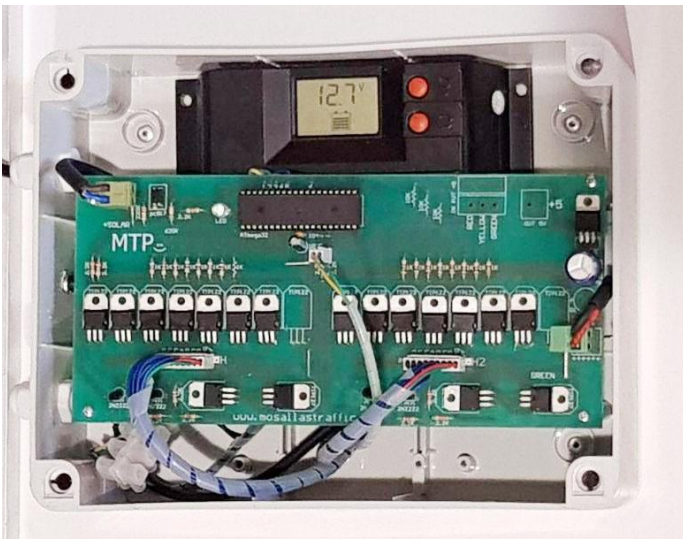
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# Intelligent Microcontroller System(MTP Brand)



## Power Management and Operational Specifications for Solar Your Speed Radar Signs

- **Monitoring:** Measures battery voltage, solar panel voltage, charge current, and related parameters
- **Light Regulation:** Adjusts LED brightness and optimizes power consumption based on charge current and ambient light levels
- **Voltage Stability:** Neutralizes battery voltage fluctuations to maintain consistent LED illumination
- **Battery Protection:** Prevents overcharging and excessive discharging of the battery, with thermal compensation to mitigate heat effects
- **Light Control:** Uses Pulse Width Modulation (PWM) for precise adjustment of LED illumination
- **Customization:** Offers flexible performance through software and hardware tailored to client requirements
- **Operating Time:**
  - Up to 4 days with a fully charged battery under normal conditions
  - Up to 8 days in cloudy conditions
- **Charging Time:**
  - 18 hours for a fully discharged battery while operating
  - 14 hours for a fully discharged battery without operation
- **Light Intensity Adjustment:** Maximum (day) to minimum (night) intensity ratio of 5:1, adjustable as required

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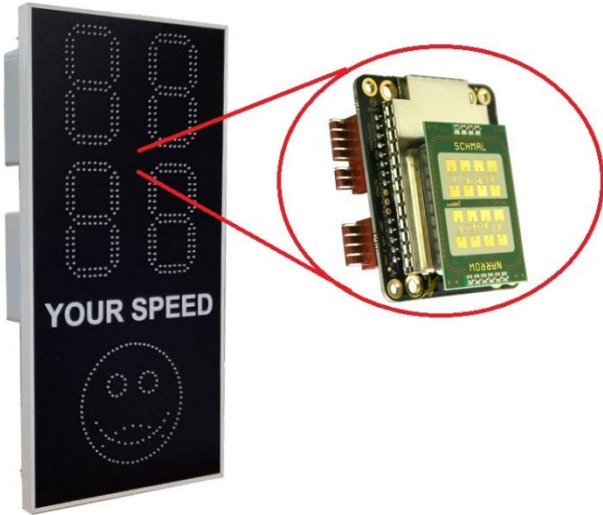
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## Radar(MTP Brand)



### Radar Specifications for Solar Your Speed Radar Signs

- **Type:** Continuous Wave (CW) Doppler Radar
- **Frequency:** K-Band, 24 GHz
- **Brand:** MTP

## Other Spare Parts (Optional)



6 Inch Hose Clamp



4 Inch Stainless Steel Clamp

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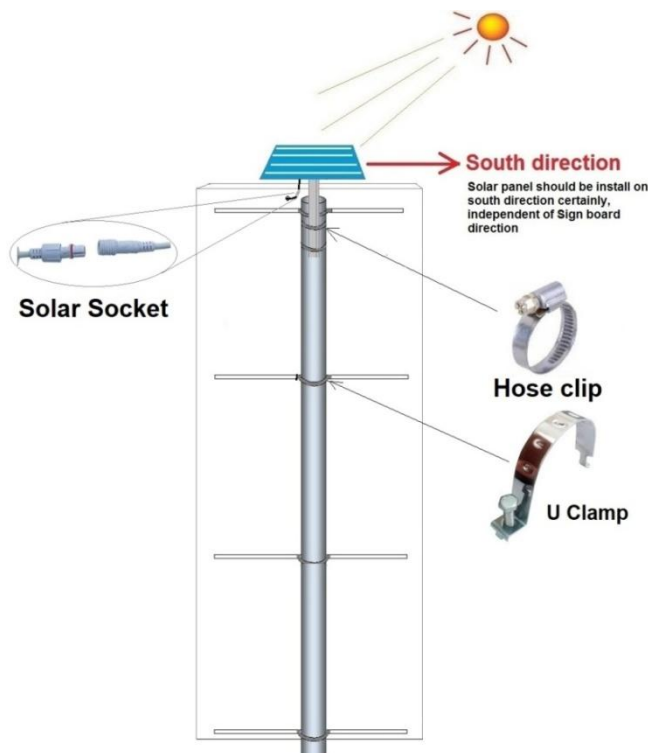


# Installation

## Five Steps to Install Solar Your Speed Radar Signs

1. **Mount the Signboard:** Mount the signboard to the pole using U-clamps.
2. **Install and Orient the Solar Panel:** Mount the solar panel on top of the pole using hose clips and adjust it to face south for optimal sunlight exposure. If south is obstructed (e.g., by buildings or trees), adjust to face east or west toward an open sky area.
3. **Connect the Battery:** Open the signboard's cabinet and connect the positive (red) wire from the control panel to the battery's positive socket.
4. **Connect the Solar Panel:** Connect the solar panel's waterproof male socket to the signboard's female socket. **Note:** Always connect the battery wire before the solar panel socket to ensure proper system operation. If connected incorrectly, disconnect both for a few seconds, then reconnect in the correct order: battery wire first, solar panel socket second.
5. **Set the Speed Limit:** Adjust the speed limit using the button inside the cabinet on the control panel. Each press increases the limit by 5 km/h increments, with a green light displaying the set speed limit after each press.

**Storage Note:** If storing the sign, disconnect the positive (red) wire from the battery socket to prevent discharge.



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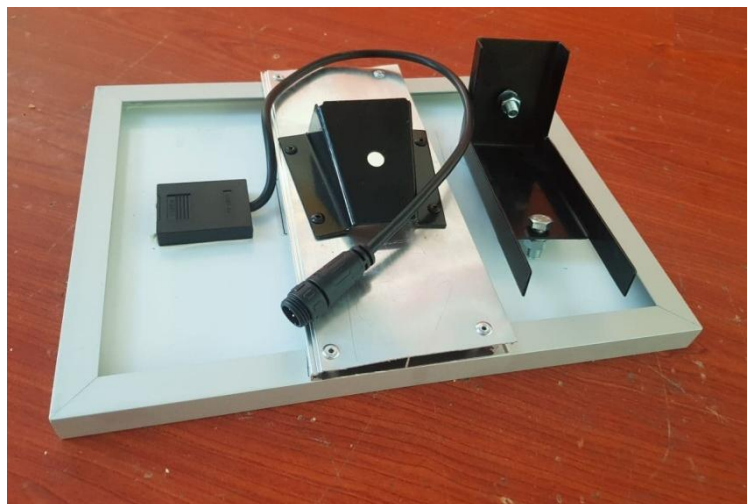
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## Solar Panel Connection

### Solar Panel Installation and Connection Instructions for Solar Your Speed Radar Signs

- **Mounting:**
  - Secure the solar panel to the pole using a black holder and nut & bolt assembly attached to the signboard.
  - After mounting, adjust the solar panel to face south for optimal sunlight exposure. Tighten the nuts to secure the panel.
  - If the south direction is obstructed (e.g., by buildings or tree leaves), adjust the panel to face east or west toward an open sky area.
- **Electrical Connection:**
  - Each solar panel includes a cable with a waterproof male socket.
  - After mounting the solar panel and signboard, open the signboard's cabinet.
  - Connect the positive (red) wire from the control panel to the battery socket.
  - Connect the solar panel's male socket to the female socket extending from the signboard.
- **Connection Sequence Note:**
  - To ensure proper system operation, connect the battery wire to its socket before connecting the solar panel's waterproof socket.
  - If the solar panel cable is connected before the battery wire, the system may not function correctly. To resolve this, disconnect both the solar panel socket and battery wire for a few seconds, then reconnect in the correct order: battery wire first, followed by the solar panel socket.



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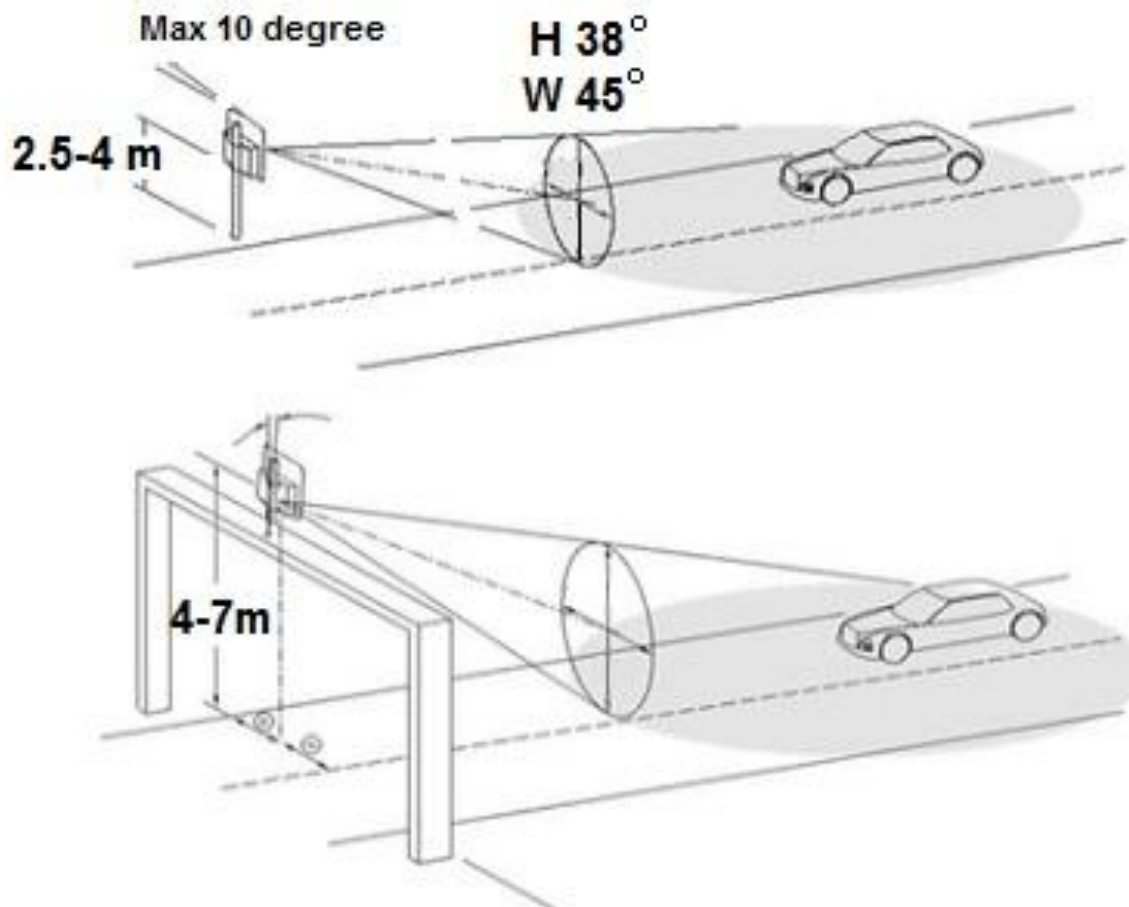
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## Note

### Radar Sign Installation Instructions for Solar Your Speed Radar Signs

- **Placement:**
  - Typically installed on the left or right side of the road.
  - Position the sign to ensure the radar faces oncoming vehicles.
- **Radar Orientation:**
  - Direct the radar toward the path of approaching vehicles.
  - Maintain a tilt angle of no more than 10 degrees for optimal detection.
- **Overhead Installation:**
  - When installed above the road, use a vertical angle alignment holder to adjust the radar head.
  - Align the radar to target the area where vehicle speed detection is required



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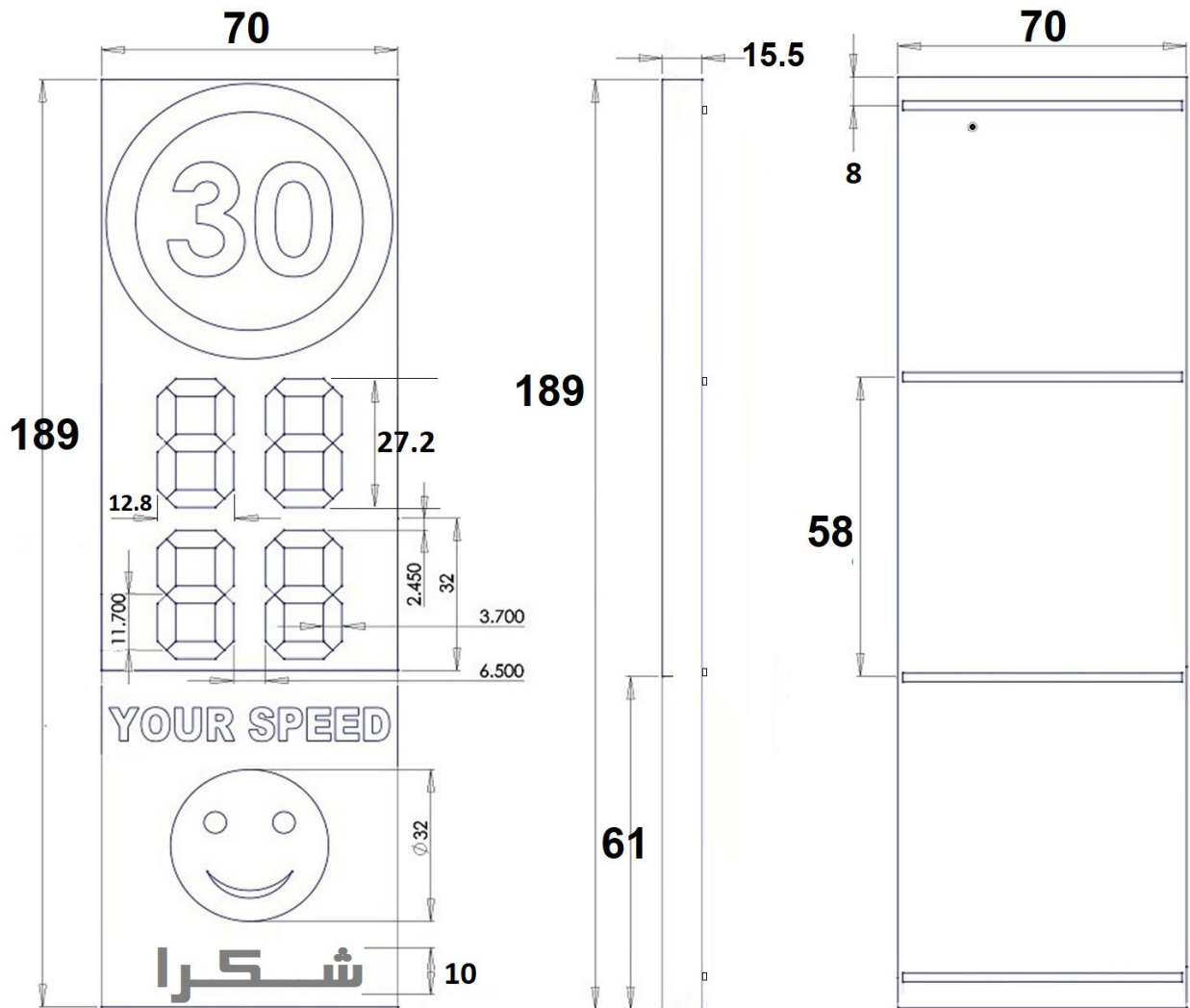
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# Dimension



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