Mosallas

# MTP POLAND

Traffic

# Active day and night

## Design and Produce in POLAND(Manufactory)

| | |
|---|---|
| **Radar Yours Speed Sign** |  <br>  |

**MTP POLAND sp.zo.o**

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www.mtppoland.com

| Technical Specification | |
|---|---|
| Dimension | Size：55*70*5cm(without sign)<br>55*120*5cm(with sign) |
| Weight | 15Kg |
| Body Material | Aluminum black color<br>Electrostatic powder coated |
| Solar power | 30 Watts, Life time more than 20 years |
| Battery | Internal 12 volt, 18 Ah, sealed lead acid |
| Display model | 2 digit with 7 segment LED board |
| LED quantity | 392pcs Super high bright |
| LED Color | 196pcs Red<br>196pcs Green |
| LED Life | More than 100,000 Hours |
| Light luminous | 8000mcd |
| Light Intensity | Automatic regulation light intensity in day and night(day intensity 5 times night) |
| Light Increment | Charge controller with microcontroller |
| Radar | CW Doppler device operating in the K-Band (24GHz) |
| Speed Detection Rang | 1km/h –99km/h |
| Detection distance | ≤100m |
| Response Time | ≤5ms |
| Working time after full charge | 4 days |
| Working time in cloudy weather | 8 days |

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| | |
|---|---|
| Visible distance | More than 100m |
| Angle | 100 Degree |
| Reflective sheet | 3M |
| Operating Temperature | -20° C to 75° C |

## Features

- Uses Solar Energy as source of Electricity.
- Display effects includes active flash & passive reflection
- The light pattern deliver a synchronized or sequential visual effects which will not make drivers feel glare; instead, drivers can be informed his speed.
- Inside key switch control, If turn on, all system will function (solar panel, LED light, charging) and opposite function for turn off.

## LED

LED's are identified very well and amount of their desired life is 100.000 hours in lawful range for traffic light and traffic signals and its light intensity is 8000mcd. Total numbers of LEDs in one module are equal to 110pcs

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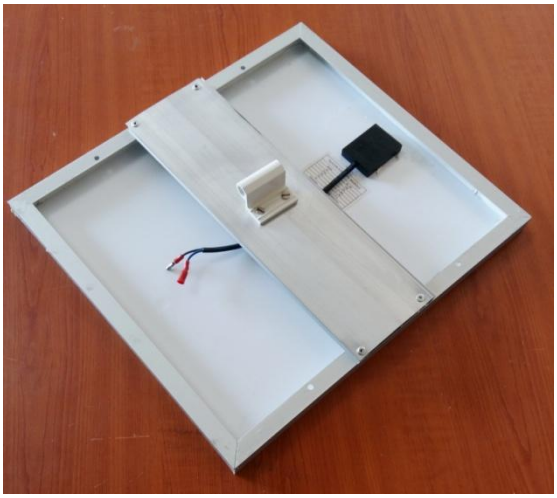
# Battery

**Sealed Lead Acid batteries** of 1×12v (18Ah), having desired life of 5 years.

# Solar Panel



| SILICON SOLAR PV MODULE | |
|---|---|
| Model | SA– 30P |
| Pm | 30watt |
| Vmp | 18V |
| Imp | 1.5A |
| Voc | 21. 24V |
| Isc | 1.98A |
| Dimension | 45*35*3cm |
| Max System Voltage | 1000V |
| Test Condition | AM1. 5 1000W/m² 25°C |

**Solar panel** is 30W, 17v 1.98A, with the efficiency of %16

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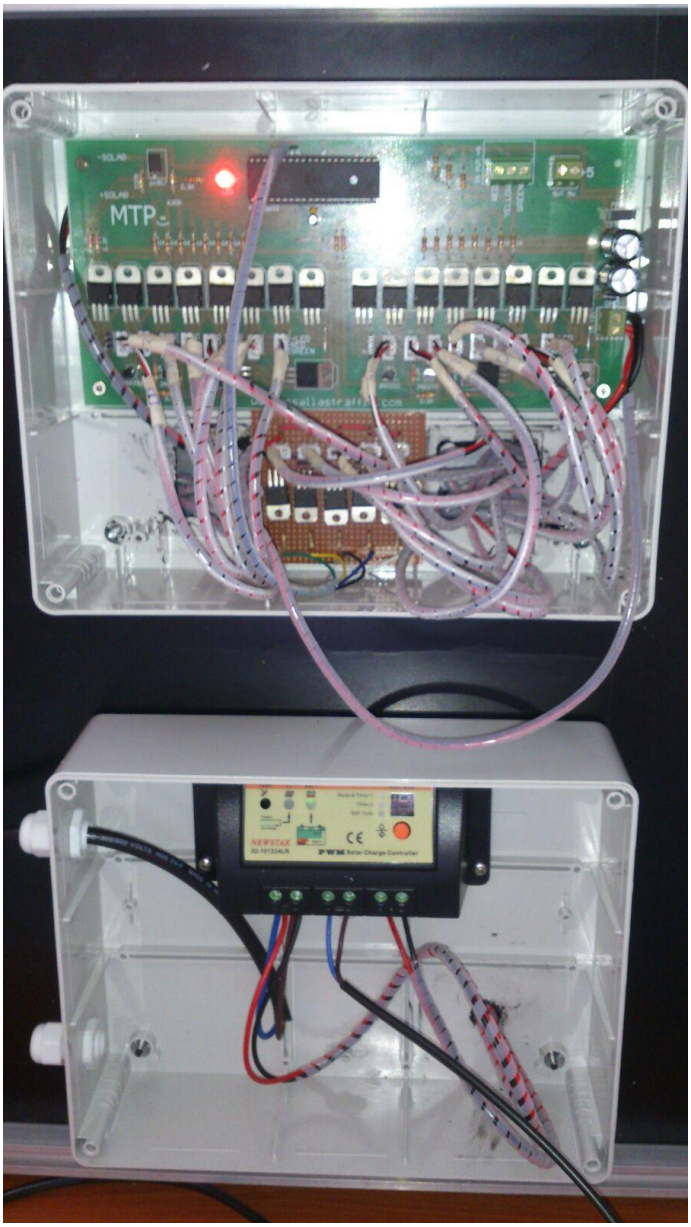
# Intelligent Microcontroller System



- Measuring voltage of battery, solar panel, charge current and related measuring.
- Light Regulation and optimization of consumption, according to charge current (environmental light) and battery voltage and solar panel.
- Neutralizing of change effects of battery voltage in light illumination of flashing light.
- Preventing of battery over charge and undesired de-charge of battery and neutralizing effect of heat.
- Using modulation of PWM for changing light illumination.
- Probability of performing all changes, according to orders of buyer, (Software changes).
- Working time, without any charge and with full battery is almost 4 days.
- Charging time for empty battery is 18 hours in light, in case of performing operation, and 14 hours without any operation.
- Maximum exited rates (day) into its minimum (night) is 5 to 1 and (it is changeable, on the basis of order).

Controller circuit is considered in a separated package.

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# Radar

| | |
|---|---|
|  <br>  <br>K2 Pico Flex (Kestrel)<br>This is Radar which we are using now | CW Doppler device operating in the K-Band (24GHz) |

# Other Spare Parts

| | |
|---|---|
|  | 5 inch house clamp |
|  | 3 inch Stainless Steel Clamp |

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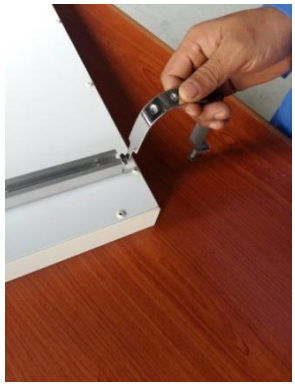
# Installation Guide

## Installation:

### Seven Steps to Installation:

1- Prepare U clamp and round clamp and tools,
2- Put U clamp into U channel stand on the rear of sign,
3- Install sign board on the horizontal or vertical pole by U clamp,
4- Install Solar Panel on the pole with Round clamp (face of solar panel should be in south side),
4- Connect Solar cable Socket to control box Socket,
5- Turn ON main switch which is below of battery box,
6- Adjust speed limit by push button which is below of control box, it will increase with 5 km steps
7- Installation is finished and since now, sign board automatically will get charge at day and will be active at day and night,



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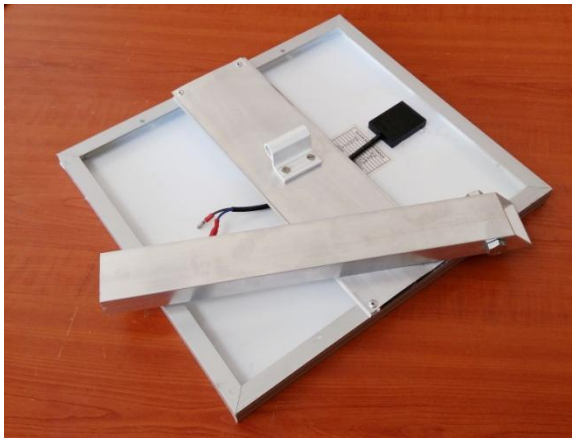
# Solar Panel Connection

Each solar panel has a cable, having 1 blue & black wire. After installation sign board one the pole, mentioned cable is entered into battery box which located rear of sign. Then it connects into its terminal. Note that blue wire shall be connected into blue wire of terminal and black wire into black wire of terminal.



Solar panel is installed on pole by an aluminum tube. After orientation of solar panel into south, they are fastened by two house clips.

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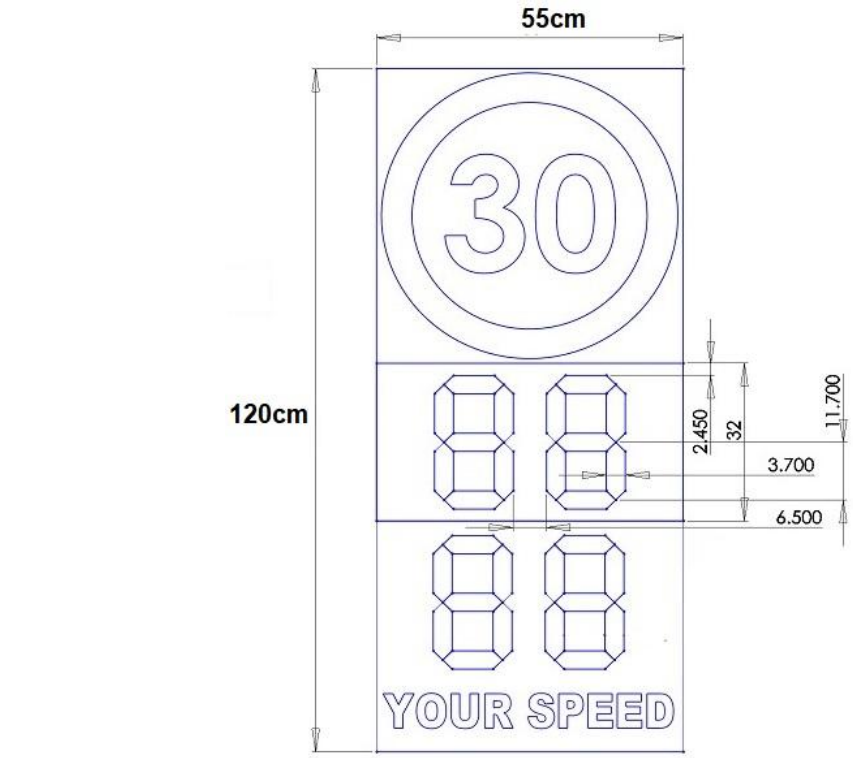


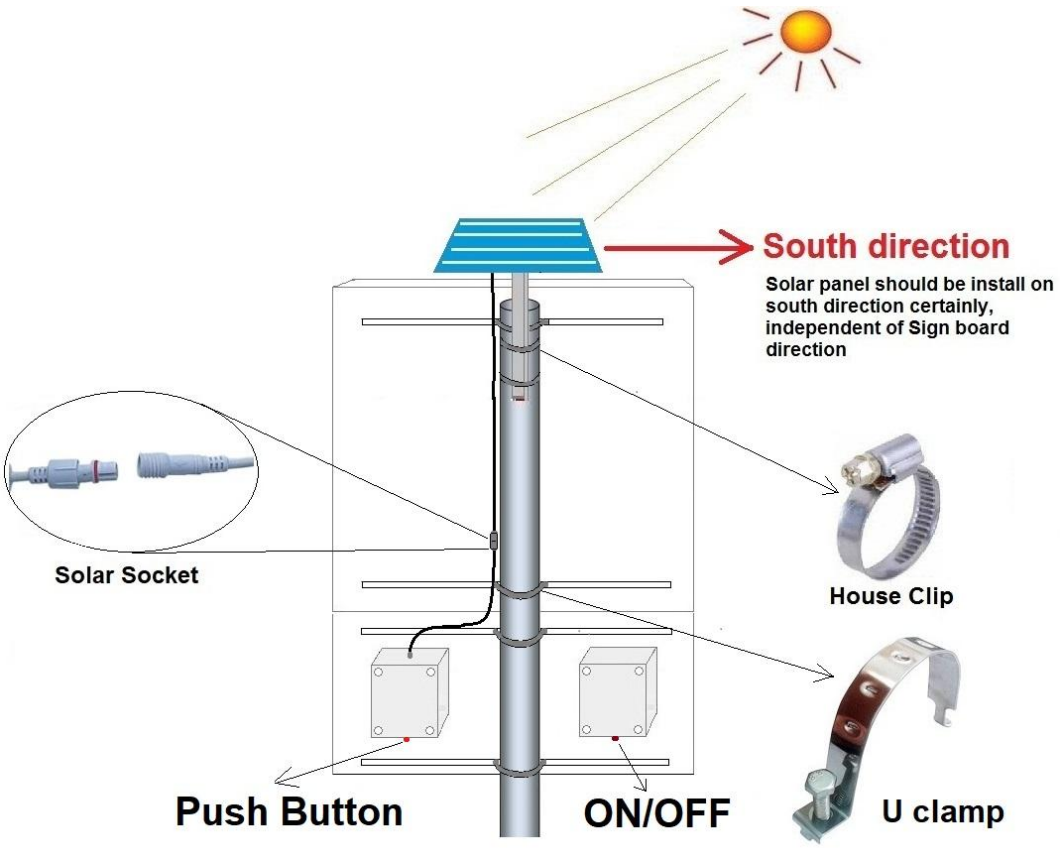


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