

UAT MTP





Active day and night

Design and Produce by MTP(Manufactory)

Smart Speed Radar Sign with Flash System





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NIP: 5252655683 REGON: 364224743 KRS: 0000612101

Technical Specification	
Dimension	Size: 60*173*5cm(with sign)
Weight	15Kg
Body Material	Aluminum black color Electrostatic powder coated
Solar power	50 Watts, Life time more than 20 years
Battery	Internal 12 volt, 18 Ah, sealed lead acid
Flash Light	4 pcs High Power Led
Red Speed Display	Upper with 2 digit 7 segment LED Without any glass sheet
Green Speed Display	Lower with 2 digit 7 segment LED Without any glass sheet
LED quantity	507 pcs
LED Color	196pcs Red + 55 pcs face 196pcs Green + 60 pcs face
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

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Visible distance	More than 100m
Angle	100 Degree
Reflective sheet	3M
Violation Recorder	Ability to Record violation as optional

Mechanical Specification



- . Body material: Aluminum sheet 1.2mm
- . Frame: Aluminum profile with special design
- . Frame size: 5*5*0.2cm
- . Color quality: Electrostatic Powder Coating
- . Color: Black Matte
- . Front sheet material: Plexiglas with special finishing to preventing sky light reflection
- . Front sheet Thickness: 4mm
- . Installation stand: Special U Chanel

as UAE Traffic Sign standard

LED



LED's are identified very well, 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 device are equal to 507pcs for Seven Segment and emoji face.

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Battery



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

Solar Panel



Solar panel is 50W, 17v 2.5A, with the efficiency of %16

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Intelligent Microcontroller System







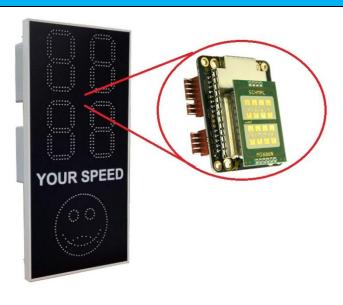
- Processing data from Radar (and Camera optional),
- Synchronizing Radar with Camera as optional,
- Taking violator vehicle picture on specific area as optional,
- Arranging Time, Date, Location of violation as optional,
- Sending picture and data to Control Room Center through WIFI or Sim Card internet as optional,
- 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,
- 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



CW Doppler device operating in the K-Band (24GHz)

Flash Light



It is included 4 pcs high power LEDs with power of 3 watt for each one, Power voltage for LED light is 12 volt DC.

Its Light color is Day Light.

It is fixed by one bracket on the arms of trailer. Totally 20 pcs of this LED Light is installed on the two arms of trailer.

Length of each arm is 4 meter and it can be fold with 1mter of each end on the side of trailer.

Each light is connected to LED Driver on the controller box with individual cable. So totally 20 cables from two arms come to controller box.

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Other Spare Parts	
	5 inch hose clamp
	3 inch Stainless Steel Clamp

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Installation Guide

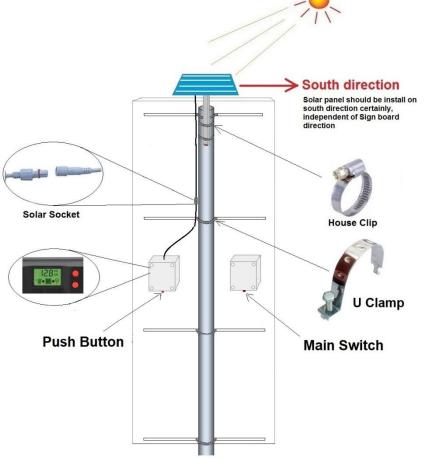
Installation:

Five Steps to Installation:

- 1- Fixing Sign Board on the Pole with Hose Clip,
- 2- Fixing Solar panel on top of pole in South direction with Round Clamp,
- 3- Connect solar cable Socket to control box Socket,
- 4- Turn ON main switch which is below controller box,
- 5- Adjust speed limit by push button which is below of control box, it will increase with 5km steps, green light shows speed limit after each push,

Note: If want keep sign on the store, please turn OFF main switch, and disconnect battery wire,

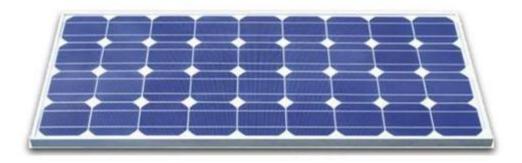




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Solar Panel Connection

Each solar panel has a cable, having 1 socket. After installation sign board on the pole, Connect Solar cable Socket to control box Socket.



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

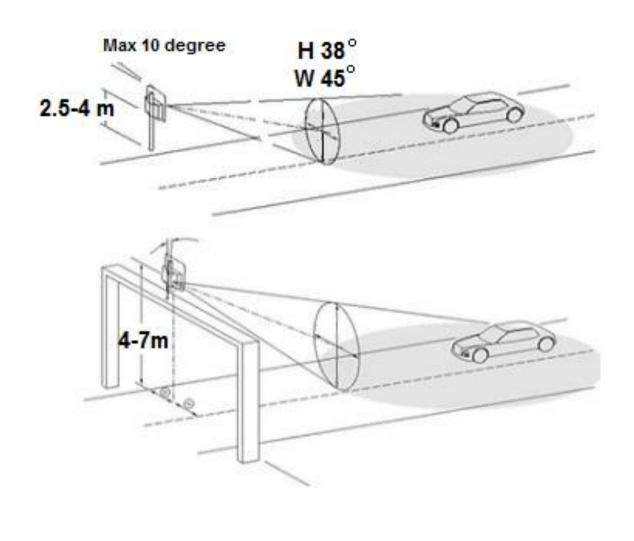
The solar panels work with the solar controller located in the system's battery compartment. The controller continually recharges the batteries up to full whenever sufficient sunlight generates a charging current. It prevents overcharging the batteries and draining the batteries during low-light periods. Appropriate panel size for solar assist depends on display sign model, traffic volume, geographic location, battery capacity and operating times. Actual performance depends on application and mounting location. Place panels in direct sunlight and tilt them toward true south to maximize their effectiveness. To calculate the best angle of tilt in the winter when there are the least sun hours, take your latitude, multiply by 0.89, and add 24 degrees. The result is the angle from the horizontal at which the panel should be tilted. Mount the Your Speed display unit so the display remains out of direct sunlight whenever possible for optimal viewing. MTP uses Sealed Lead Acid batteries for solar systems, as charging lithium batteries in extreme hot or cold temperatures can damage the battery.

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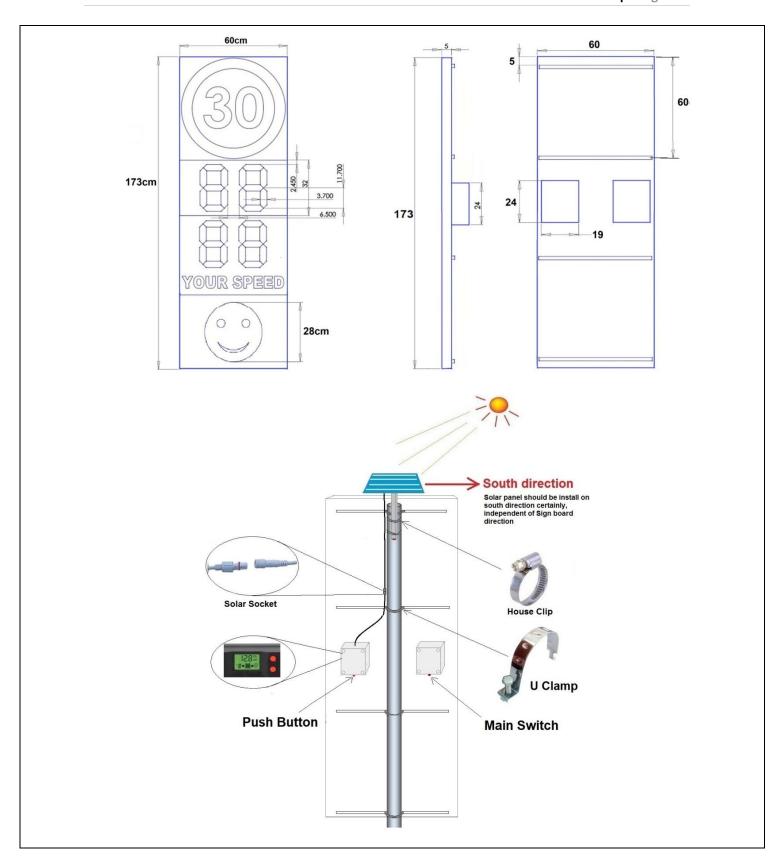
Note:

The Your Speed Sign fixed on the road left or right, or just above the road, so that the direction of the radar port to the car, the tilt angle of not more than 10 degrees.

If it is fixed above the road, the radar fixed position should be radar Cavity oblique angle alignment to the car location. At the same time, the higher the distance between the radar and the ground, the farther away the radar works. Generally, the distance from the ground to radar in 2.5-7 m is better.



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