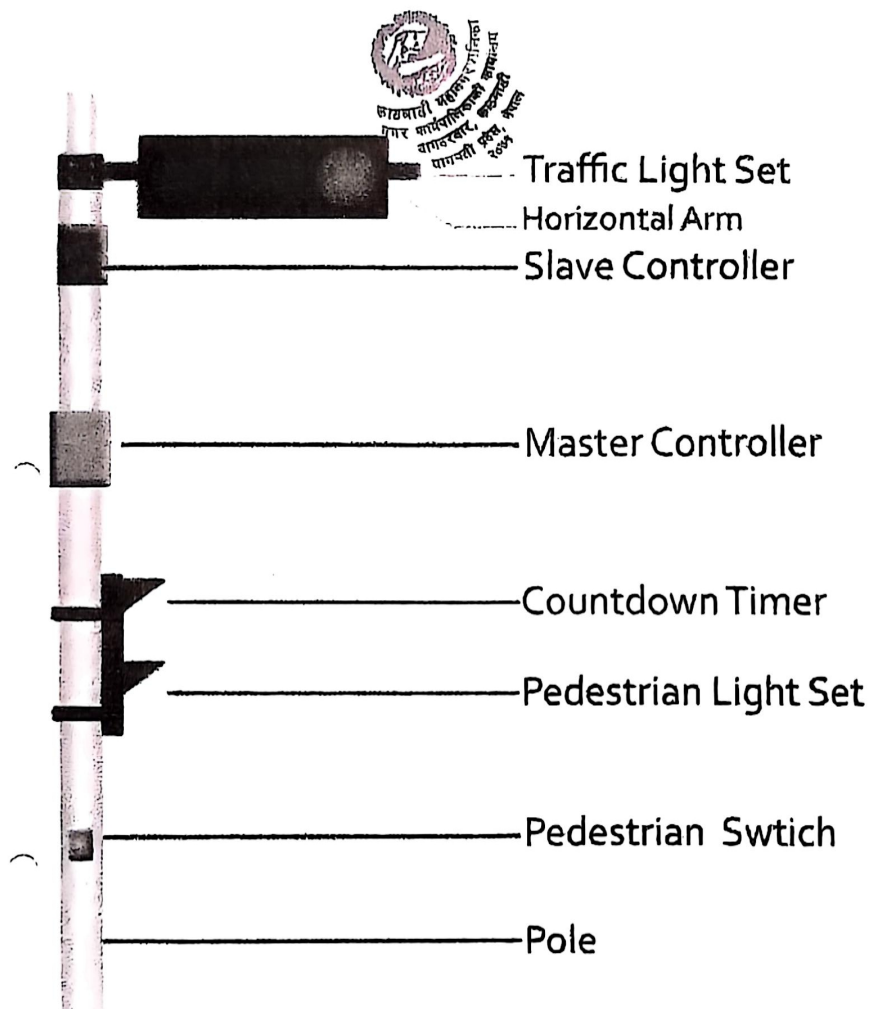






Pelican Crossing System

Kathmandu Metropolitan City

Office of Municipal Executive
Kathmandu Metropolitan Police Force
Kathmandu, Bagmati Pradesh, Nepal

Technical Specification for On-Demand Pedestrian Crossing System

1. Main pole

Parameter	Descriptions
Pole Material	MS
Color	black/yellow/plain/blue
Length and thickness	7mtr; 4 inch diameter, 4mm thickness
Feature	wire management holes,

2. Signal Lamps (Red, Amber, Green Arrow)

Parameter	Descriptions
Aperture diameter	300mm
Viewing angle minimum	23 degrees
Body Mold	Polycarbonate
Gasket	Waterproof sealing (Between Lens & body)
Lens	Clean polycarbonate
No. of Leds	150 for Red and Amber, 66 for Green Arrow light
Operating Voltage	12 VDC
Protection	Minimum IP 65
Operating Range	-10°C to +70°C
Power Consumption	< 15 W
Average life of Signals	50000 hrs

3: Pedestrian Light Set with Countdown Timer

Parameter	Descriptions
Overall Size	560mm * 400mm * 7mm ±10mm
Size of Pedestrian Countdown Timer	300 x 200 mm ²
Size of Countdown digit	170 x 80 mm ²

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Size of Green color Man Walk/ Red color Stop Signal lamp signal lamp	300 x 200 mm ²
No. of LED in signal lamps	Red:64 and Green: 64
No. of LED in Countdown Timer	Red:105 and Green:80
Viewing angle minimum	23 degrees
Body	Metal Sheet powder coated
Operating Voltage	12 VDC
Protection	IP65
Operating Range	-10°C to +70°C
Power Consumption	< 10 W
Average life of Signals:	50000 hrs.
Buzzer	12 VDC, 2A buzzer, 20Hz @Human audible Frequency, <20KHz
Provision for Pole mount	Yes

4. Wireless Slave Controller

Parameters	Description
Type	Wireless
Operating Frequency	2.4GHz ISM Bank
Transmitted Power	≤1W
Isotropic Radiated Power	4W (36dbm)
Operating Voltage	12 VDC
Operating Temperature	-10°C to +70°C.
Casing	Polycarbonate
Protection Standard	Minimum IP65
Voltage Monitoring	Yes
Output Driver	MOSFET
Output Channel	3

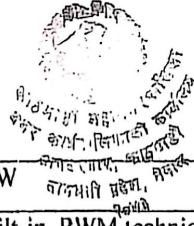
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Power Consumption	<3W
Lamp Intensity Control	Built-in, PWM technique
Timer Drive	3 digit Red/Green. 7 segment type
Timer Display Type	7 segment Led Display

Features:

- Auto Off all the connected lights in case of failure of Master controller
- Easy configuration for unique ID of slave controller according to its position
- The slave controller can be selectively put in blink or off mode.
- Light intensity control according with sunlight effect.

5. Web Enabled Wireless Master Controller

Parameters	Description
Type	Wireless
Operating Frequency	2.4GHz ISM Band
Transmitted Power	≤1W
Isotropic Radiated Power	4W (36dbm)
Operating Voltage	12VDC
Operating Temperature	-10°C to +70°C.
Casing	Polycarbonate
Protection Standard	Minimum IP65
Modes of Operation	Fixed time, Manual or via web application, Synchronized mode
Clock Type	GPS based clock
GSM Modem Interface	Yes, M2M Sim Card
Web Interface	Yes
Phase time Control	0 to 180 seconds
On/Off time Control	Yes
Display Type	16x2 LCD Display

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6. Web Application Software

- The software shall be able to send phase timings to the Controller.
- The software shall have ability to view current phase of any crossing and time log of phase changes.
- The software shall have provision to view Live CCTV Feed.
- The software may view and change phases at real time.
- The software shall have ability to send ON/OFF time.
- API integration with other system used by KMC.
- Perpetual license for software, simcard and hardware.
- Role base access

7. Main horizontal pole Arm

- Length: 2.5 meter horizontal
- MS pipe round 2" cross section
- Provision to mount on pole
- Wire rope support and mounting
- Provision for signal mount

8. Battery

- Storage Capacity: 65AH
- Type: Maintenance Free Gel Battery.
- Output Voltage: 12 VDC

9. Inverter and Inverter Cabinet

- Body Material : Metal/Polycarbonate
- Type: Pure Sine-wave inverter
- Capacity: 850-925VA
- Input: 12VDC
- Output: 220VAC,50Hz
- As per size of battery and inverter, material: MS Sheet 18 gauge

10. Support service & Schedule Maintenance

- Complete Inspection of Controllers and Lights as per need (minimum 3 times a year)
- Complete Connection check, reconnection (minimum 3 times a year)
- Cleaning of dust on light surface on every four month (minimum 3 times a year)
- Cleaning of dust on cabinet box (minimum 3 times a year)
- Controller box dust cleaning (minimum 3 times a year)
- Maintenance of parts to the extent possible

11. Warranty: 48 Months in all hardware components

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