## Annexure

CCTV Maintenance Tools Kit

<table>
<thead>
<tr>
<th>Sl. No.</th>
<th>EQUIPMENTS/TOOLS</th>
<th>Qty</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DVR 8 Channel</td>
<td>1</td>
</tr>
<tr>
<td>2</td>
<td>Bullet Camera</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>IP CAMERA 2 MB (Bullet)</td>
<td>1</td>
</tr>
<tr>
<td>4</td>
<td>12V 4A SMPS FOR CCTV camera</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>NVR 4 CHANNEL</td>
<td>1</td>
</tr>
<tr>
<td>6</td>
<td>CCTV Tester IBALL</td>
<td>1</td>
</tr>
</tbody>
</table>
## SPECIFICATIONS

### CCTV Maintenance Tools Kit

1. **DVR 8 Channel**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video compression</td>
<td>H.264 / G.711</td>
</tr>
<tr>
<td>Analog and HD-TVI video input</td>
<td>BNC interface (8-Channel)</td>
</tr>
<tr>
<td>Supported camera types</td>
<td>720P25, 720P30, 720P50, 720P60, 1080P25, 1080P30, CVBS</td>
</tr>
<tr>
<td>HDMI / VGA output</td>
<td>1920 x 1080 / 60 Hz, 1280 x 1024 / 60 Hz, 1280 x 720 / 60 Hz, 1024 x 768 / 60 Hz</td>
</tr>
<tr>
<td>Interface</td>
<td>VIDEO IN, AUDIO IN, AUDIO OUT, VGA, Interface, HDMI Interface, USB Port 2.0, 10M/100M self-adaptive Ethernet interface, standard RS-485 serial interface, half-duplex</td>
</tr>
<tr>
<td>Remote connections</td>
<td>128</td>
</tr>
<tr>
<td>Network protocols</td>
<td>TCP/IP, PPPoE, DHCP, DNS, DDNS, NTP, SADP, SMTP, SNMP, NFS, iSCSI, UPnP/TM, HTTPS</td>
</tr>
<tr>
<td>Hard disk</td>
<td>SATA up to 4TB Capacity for each disk</td>
</tr>
<tr>
<td>Power supply</td>
<td>12V DC</td>
</tr>
</tbody>
</table>

2. **Bullet Camera**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Compression</td>
<td>H.265+/H.265/H.264+/H.264/MJPEG</td>
</tr>
<tr>
<td>Lens Type</td>
<td>2MP High Resolution HD Camera</td>
</tr>
<tr>
<td>Image Resolution</td>
<td>1920 x 1080</td>
</tr>
<tr>
<td>Interface</td>
<td>Audio With –S model: 1 input (line in) and output</td>
</tr>
<tr>
<td></td>
<td>1 RJ45 10M/100M Ethernet port, 1 RS-485 interface (-S)</td>
</tr>
<tr>
<td></td>
<td>Video Output (1VP-p Composite Output (BNC)</td>
</tr>
<tr>
<td></td>
<td>Built-in Micro SD/SDHC/SDXC slot, up to 128 GB</td>
</tr>
<tr>
<td>Weather Proof</td>
<td>IP67</td>
</tr>
<tr>
<td>Lens Type</td>
<td>Built in remote zoom vari-focal lens. 3X zoom, 3.0mm to 9 mm</td>
</tr>
<tr>
<td>Remote Focus</td>
<td>Remote back focus for easy installation</td>
</tr>
<tr>
<td>Power</td>
<td>PoE system (IEEE 802.3af compliant Class 2</td>
</tr>
<tr>
<td>Protocols</td>
<td>TCP/IP, ICMP, HTTP, HTTPS, DHCP, DNS, RTP, RTSP, RTCP, NTP, SMTP, SNMP, IG MP, IPv6</td>
</tr>
</tbody>
</table>

---

*Dy. Supdt. of Police (C&W)  Police Telecommunication  Thiruvananthapuram*
3. IP Camera (Bullet)

- **Image Sensor**: 1/2.9" 2MP Progressive Scan
- **Effective Pixels**: 1920 (H) x1080 (V)
- **Electronic Shutter**: Auto
- **Lens**: Default: 2.8-12 mm Varifocal Lens, Optional: 9-22mm VF Lens, 5-50mm VF Lens, Motorized Zoom 2.8-12mm VF Lens, Motorized 6-22mm VF Lens, Motorized 5-50mm VF Lens
- **IR Distance**: 20-30Mtr (Optional 60Mtr) with 2.8-12mm, 40-60Mtr with 9-22mm/6-22mm lens, 80-100Mtr with 5-50mm Lens
- **Output**: PAL / NTSC
- **Video compression**: H.265+/H.264+/MJPEG
- **Network Storage**: NAS (Support FTP), FTP
- **Protocols**: IPv4, IPv6, TCP/IP, ICMP, ARP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, PPPoE, NTP, UPnP, SMTP, SNMP, IGMP, 802.1X, QoS
- **System Compatibility**: ONVIF (Profile S), ISAPI, CGI, PSIA
- **Max User Access**: 20
- **Ethernet**: RJ45 10M/100M Ethernet port
- **Ingress protection**: IP67 Complaint
- **Power Supply**: DC 12V
- **Power Consumption**: Max. 12 W
- **Certifications**: CE, UL, FCC Part 15 Subpart B
- **Casing**: Metal or Plastic
- **Web Viewer**: IE, Chrome, Firefox, Safari

4. 12V 4A SMPS for CCTV

- **Input Voltage**: 220 - 250 V, 50 Hz
- **Output Voltage**: 12 VDC - 4AMP
- **Features**: Short Circuit protection
- **Protection**: Surge protection & Over temperature
  - Filtered & Electronically regulated output.
5. **NVR 4 Channel**

- **System**: High performance Dual core embedded Microprocessor
- **Operating System**: Embedded LINUX
- **IP Camera Input**: 4 channel
- **Two way Talk**: channel Input, 1 channel Output, BNC
- **Interface**: 1 HDMI, 1 VGA
- **Resolution**: 920×1080, 1280×1024, 1280×720, 1024×768
- **OSD**: Camera title, Time, Video loss, Camera lock, Motion detection, Recording.
- **Compression**: H.264 / MJPEG
- **Ethernet**: RJ45 port (10/100M/1000M)
- **Network Function**: HTTP, TCP/IP, IPv4/IPv6, UPNP, RTSP, SMTP, NTP, DHCP, DNS, IP Filter, PPPOE, DDNS, FTP, Alarm Server
- **Internal HDD**: SATA ports up to 8TB
- **USB**: 3 Port
- **RS232**: 1 port, For PC communication & Keyboard
- **Power Supply**: NVR: DC12V PoE Switch: DC48V
- **Warranty**: 3 year

6. **CCTV Camera Tester(iBall)**

- **Display**: 4.3 inch Capacitive Touch Screen(Min.)
- **Network port**: 10/100M auto adapt, RJ45
- **WIFI**: Built in WIFI
- **SDI video Signal test**: 1 Channel SDI input(BNC interface)
- **AHD Video Signal Test**: 1 Channel AHD input(BNC interface)
- **Analog Video test**: 1 Channel BNC Input & 1 channel BNC Output, NTSC/PAL (Auto adapt)
- **Video Level Meter**: PEAK video signal level, SYNC signal level, COLOR BURST, Chroma Level Measurement.
Zoom Image: Supports Analog and IP camera image zooming & movement

Snapshot, Video record and playback: Capture still images and record live video. Media player will view photos, and playback video

HDMI output: 1 channel HDMI output, support up to 1080p

UTP Cable tester: Test UTP cable connection status and display on the screen

Network test: IP address scan, link scan, and Ping test. Quickly search the IP camera’s IP

External power supply: DC 12V(2A)

Battery: Built in 7.4V Lithium polymer battery, 5000mAh

Auto off: 5-30 (mins)

PTZ control: Support RS232/RS48

Features: BNC Video Input for Analog CCTV Camera Testing

: BNC Video Input for HD Camera Testing

: AHD, HD-TVI, HD-CVI Cameras Video Tester

: Works with PAL and NTSC Video Formats

: WiFi Support for IP Camera Testing

: Built-in DHCP Server for IP cameras

: PTZ Camera Tester / RS-485 Data Tester

: Supports both Analog and IP PTZ Cameras

: RJ-45 Ethernet Cable Tester

: Network IP Address Scan and Port Scanner

: Identifies IP Address of Cat-5 Cable Run

: Record and Playback Using a Micro SD Card