

NO. SEBUT HARGA: JKR/WPP/Q/47/2026

**KERJA-KERJA PEMBAIKAN DAN PENGGANTIAN
SISTEM AUDIO VISUAL DI DEWAN SERBAGUNA,
ARAS 8, BLOK E7, KEMENTERIAN KESIHATAN
MALAYSIA, KOMPLEKS E, PUTRAJAYA.**

TARIKH IKLAN: 18 MEI 2026

TARIKH TUTUP: 9 JUN 2026

SYARAT-SYARAT KELAYAKAN

CIDB

Kontraktor-kontraktor yang berdaftar dengan Lembaga Pembangunan Industri Pembinaan Malaysia (CIDB)

GRED

G3, G4, G5, G6, G7

PENGGHUSUSAN

E01 – Sistem bunyi

**ALAMAT
PENDAFTARAN**

Wilayah Persekutuan Putrajaya/
Wilayah Persekutuan Kuala Lumpur



TARIKH-TARIKH PENTING SEBUTHARGA

18 MEI -
19 MEI

MOHON SEBUTHARGA

PENYEBUTHARGA YANG BERKELAYAKAN AKAN MENERIMA KATA LALUAN DAN PAUTAN UNTUK MEMUAT TURUN DOKUMEN SEBUTHARGA.

25 MEI -
8 JUN

9 JUN - 12
TENGAH HARI

TUTUP SEBUTHARGA

BAHAGIAN KONTRAK DAN UKUR BAHAN JKR WILAYAH PERSEKUTUAN PUTRAJAYA, ARAS 2, BLOK F7, KOMPLEKS F PUSAT PENTADBIRAN KERAJAAN PERSEKUTUAN 62000 PUTRAJAYA.

ALAMAT
PENGHANTARAN
DOKUMEN CETAKAN

A: KERJA-KERJA AWALAN

01

INSURANCE

02

EMPLOYEE SOCIAL
SECURITY ACT 1969
(PERKESO)

03

PERFORMANCE
BOND

04

WORK
PROGRAMME

05

MOBILIZATION
AND
DEMOBILIZATION

06

PROJECT
SIGNAGE



A: **KERJA-KERJA AWALAN**

07

CATALOGUE,
SAMPLE, MOCK
UP

08

INSPECTION,
TESTING AND
COMMISSIONING

09

DESIGN PROPOSE
DRAWINGS, SHOP
DRAWINGS AND
METHOD STATEMENT

10

PROTECTION OF
ENVIRONMENT, DUST
PREVENTION AND SITE
CLEANING

11

DOCUMENTATION
UPON
COMPLETION



B: KERJA-KERJA PEMBAIKAN DAN PENGGANTIAN SISTEM AUDIO VISUAL DI DEWAN SERBAGUNA, ARAS 8, BLOK E7, KEMENTERIAN KESIHATAN MALAYSIA, KOMPLEKS E, PUTRAJAYA

KETERANGAN	UNIT
<p data-bbox="1326 727 1759 772">DISMANTLE WORK</p> <p data-bbox="179 795 2635 846">To dismantle existing audio visual system at Dewan Serbaguna and remove all unnecessary building materials.</p>	L.S.

B. KERJA-KERJA PEMBAIKAN DAN PENGGANTIAN SISTEM AUDIO VISUAL DI DEWAN SERBAGUNA, ARAS 8, BLOK E7, KEMENTERIAN KESIHATAN MALAYSIA, KOMPLEKS E, PUTRAJAYA

REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p style="text-align: center;">PTZ Camera (4k)</p> <p>To replace, supply, delivery and install 4K UHD Professional PTZ Camera with the minimum of following features and specifications :</p> <p>Supply, deliver, install, test, and commission 4K UHD Professional PTZ Camera. The unit must feature a 1/2.8-inch 8.42MP CMOS sensor delivering 4K resolution at 30fps. The optical system shall include a 20x hardware optical zoom in 4K (up to 30x in HD) with a horizontal field of view between 40° and 68.5°. For connectivity, the camera must support simultaneous video outputs via HDMI, IP streaming, and a USB 2.0 Type-B port capable of up to 2160p30 video. Mechanical specifications require a pan range of +/-170° and a vertical rotation of 120°. Additionally, the unit must support Power over Ethernet (PoE 802.3AT) and natively incorporate built-in Hybrid Tracking and Presenter Tracking.</p>	NOS	2
<p style="text-align: center;">PTZ Controller</p> <p>Supply, deliver, install, test, and commission one unit of Compact IP PTZ Camera Controller. The unit must feature a 4D joystick with 3D Pan/Tilt/Zoom capabilities , alongside four 3-way action knobs and four assignable buttons for customizable control. It shall be equipped with a 3-inch full-color LCD screen capable of displaying real-time video previews via RTSP. For comprehensive integration, the controller must natively support VISCA over IP, ONVIF, and NDI control protocols. The system must have the capacity to control up to 1000 cameras , supporting 255 presets per camera. Furthermore, the hardware interface must include 21 silicone buttons with two-color backlighting , allow remote camera OSD/menu control , and feature a built-in WebGUI for system configuration and firmware updates. The unit shall utilize an RJ45 interface supporting Power over Ethernet (PoE 802.3af)</p>	NOS	1

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p>4K HDR HDBaseT Receiver with Integrated Audio Return (Extended Distance)</p> <p>Supply and install a high-performance HDBaseT receiver engineered for long-distance signal integrity, capable of supporting 4K/UHD @ 60Hz (4: 4:4 chroma sampling) at a transmission distance of at least 100 meters (330 feet) over a single Cat6A/7 cable. The system architecture must ensure full compatibility with modern high-dynamic-range formats, including HDR10, HLG, and Dolby Vision™ @ 60Hz, utilizing high-efficiency visually lossless compression with a system latency of less than 1 ms. A mandatory technical requirement is the inclusion of a dedicated TOSLINK optical audio input on the receiver unit to facilitate a high-fidelity return audio path (ARC/Optical) back to the head- end. The unit must provide comprehensive bidirectional pass-through for Ethernet (100Base-T), RS-232, IR, and CEC control signals, maintain full HDCP 2.2 compliance, and be powered via standard Power over HDBaseT (PoE) protocols.</p>	NOS	9
<p>4K HDR HDBaseT Transmitter with Multi-Signal Management (Extended Distance)</p> <p>Supply and install a high-performance HDBaseT transmitter designed for professional-grade signal distribution, capable of extending 4K/UHD @ 60Hz (4:4:4 chroma sampling) at a distance of at least 100 meters (330 feet) over a single Cat6A/7 cable. The architecture must fully support high-dynamic- range formats, specifically HDR10, HLG, and Dolby Vision™ @ 60Hz, employing visually lossless compression with a system latency of less than 1 ms. A mandatory functional requirement is an integrated digital optical (S/PDIF) output port on the transmitter unit to facilitate a dedicated high-fidelity return audio path (ARC/Optical) from the remote display back to the central AV processing system. The unit shall manage bidirectional pass-through for Ethernet (100Base-T), RS-232, IR, and CEC control signals over the HDBaseT link, be fully HDCP 2.2 compliant, and provide integrated Power over HDBaseT (PoE) to supply stable DC power to the remote receiver unit.</p>	NOS	9

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p style="text-align: center;">18-Port Enterprise-Grade Managed PoE+ Gigabit AV Switch</p> <p>Supply and install a high-performance L2/L3 managed Gigabit switch engineered specifically for low-latency AV-over-IP and networked audio environments. The unit architecture must provide a minimum of 18 total physical ports, including 16 dedicated RJ-45 ports supporting IEEE 802.3af/at (PoE+) with a combined power budget of at least 180W. To ensure optimal thermal management and front-of-rack aesthetic integration, the chassis must feature all connectivity ports and status indicators exclusively on the rear panel. For system-critical reliability, the switch must incorporate an autonomous device recovery protocol utilizing ICMP/ping-based monitoring to automatically power-cycle unresponsive PoE endpoints. The unit must be factory-optimized for Dante and AES67 multicast traffic, ensuring high-precision clock synchronization and zero-packet-loss audio distribution.</p>	NOS	1
<p style="text-align: center;">23.8-inch Professional IPS Monitor with Multi-Generational Connectivity</p> <p>Supply and install a professional 23.8-inch Full HD (1920 x 1080) In-Plane Switching (IPS) display engineered for color-accurate monitoring and high-fluidity visual transitions. The panel must support a native refresh rate of at least 100Hz and provide a minimum of 99% sRGB color coverage. To ensure compatibility across legacy and modern AV infrastructure, the monitor must feature an integrated connectivity suite including HDMI, DisplayPort, and analog VGA (D-Sub). The unit must incorporate a built-in high-speed USB 3.2 Gen 1 hub with a minimum of three (3) downstream ports for peripheral integration. The included stand must feature full professional ergonomics, including height adjustment, tilt, swivel, and 90-degree pivot (portrait/landscape) rotation.</p>	NOS	2

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p style="text-align: center;">UHD TV & monitor system</p> <p>To supply, delivery and install UHD TV & monitor system with the minimum of following features and specifications : Supply and install a 43-inch 4K UHD (3840 x 2160) professional-grade LED display featuring advanced phosphor technology capable of delivering up to one billion shades of color (Dynamic Crystal Color). The unit must feature an ultra-slim chassis (AirSlim Design) with a maximum total depth not exceeding 25.7 mm for flush wall- mounting. Must support HDR10+ and HLG (Hybrid Log Gamma) processing for high-contrast imaging, and include integrated smart connectivity for professional presentation requirements.</p>	NOS	3
<p style="text-align: center;">UHD TV & monitor system</p> <p>To supply, delivery and install UHD TV & monitor system with the minimum of following features and specifications : Supply and install a 50-inch 4K UHD (3840 x 2160) professional-grade LED display featuring advanced phosphor technology capable of delivering up to one billion shades of color (Dynamic Crystal Color). The unit must feature an ultra-slim chassis (AirSlim Design) with a maximum total depth not exceeding 25.7 mm for flush wall- mounting. Must support HDR10+ and HLG (Hybrid Log Gamma) processing for high-contrast imaging, and include integrated smart connectivity for professional presentation requirements.</p>	NOS	2

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p style="text-align: center;">SYSTEM CABLING WORKS (VIDEO SYSTEM)</p> <p>System cabling works from Video and Camera using CAT6 cable and HDMI cable run in uPVC conduit/trunking c/w all necessary accessories</p>	m	220
<p style="text-align: center;">32 Digital Audio Mixing Console</p> <p>To replace, supply, delivery and install 32 Digital Audio Mixing Console with the minimum of following features and specifications :</p> <p>Supply and install a digital mixing console featuring 33 motorized faders (32 channel, 1 master), 32 local combo-jack (XLR/TRS) inputs, and 16 XLR outputs. The unit must incorporate a multi-touch screen with a single dedicated physical rotary encoder, single-parameter intelligent compression/EQ, an integrated 8-channel automatic microphone mixer, and a built-in minimum 34x34 USB audio interface for direct multi-track recording.</p>	NOS	1
<p style="text-align: center;">Digital Signal Processor</p> <p>To replace, supply, delivery and install Digital Signal Processor with the minimum of following features and specifications :</p> <p>Supply and install 1RU open-architecture Digital Signal Processor featuring 12 balanced mic/line inputs and 8 balanced outputs. The unit must include built-in 64x64 Dante network audio (Primary/Secondary ports) and a dedicated 8- channel RJ-45 digital audio link for direct amplifier connection without requiring expansion cards. Includes front-panel display and integrated USB interface with HID support for soft-codec communications.</p>	NOS	1

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p style="text-align: center;">High-Output Variable Directivity Line Array Module</p> <p>Supply and install a professional full-range 2-way active line array module engineered with integrated variable-geometry waveguide technology for precision-controlled acoustic distribution. The enclosure must feature a high-density transducer configuration consisting of four (4) proprietary extended-high-frequency neodymium compression drivers and two (2) 8-inch high-power neodymium woofers. The system architecture must provide a precise 5° nominal vertical coverage per module and support a frequency range of 59 Hz to 18,000 Hz with a peak array output capability of at least 145 dB SPL. The integrated rigging system must facilitate precision mechanical overlap angle adjustments from 0° to 5° in 1° increments to enable highly optimized long-throw performance and uniform sound pressure distribution throughout the venue.</p>	NOS	2
<p style="text-align: center;">High-Output Variable Directivity Line Array Module (Mid-Throw)</p> <p>Supply and install a professional full-range 2-way active line array module featuring integrated variable-geometry waveguide technology. Each module must provide a precise 10° nominal vertical coverage and be equipped with a high-density transducer configuration consisting of four (4) extended-high-frequency neodymium compression drivers and two (2) 8-inch high-power neodymium woofers. The system architecture must deliver a frequency range of 59 Hz to 18,000 Hz with a peak array output capability of at least 145 dB SPL. The enclosure must support mechanically interchangeable horizontal waveguides, shipping with both 100° and 70° panels to allow for customizable horizontal coverage within a single array. The integrated rigging system must facilitate precision mechanical overlap angle adjustments from 0° to 10° in 1° increments.</p>	NOS	2

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p style="text-align: center;">High-Output Variable Directivity Line Array Module (Short-Throw)</p> <p>Supply and install a professional full-range 2-way active line array module featuring integrated variable-geometry waveguide technology for short-throw or down-fill applications. Each module must provide a precise 20° nominal vertical coverage and be equipped with a high-density transducer configuration consisting of four (4) extended-high-frequency neodymium compression drivers and two (2) 8-inch high-power neodymium woofers. The system architecture must deliver a frequency range of 59 Hz to 18,000 Hz with a peak array output capability of at least 145 dB SPL. The enclosure must support mechanically interchangeable horizontal waveguides, shipping with both 100° and 70° panels and supporting an optional 120° panel for ultra-wide coverage. The integrated rigging system must facilitate precision mechanical overlap angle adjustments from 0° to 10° in 1° increments.</p>	NOS	2
<p style="text-align: center;">18-inch High-Excursion Neodymium</p> <p>To replace, supply, delivery and install High Output Subwoofer Speaker with the minimum of following features and specifications :</p> <p>Supply and install a professional high-excursion 18-inch subwoofer engineered for deep low-frequency extension down to at least 29 Hz. The unit must feature a high-performance neodymium transducer with a 4.5-inch (115 mm) voice coil, providing a power handling capability of at least 750W continuous (3000W peak) at 4 ohms. To facilitate advanced acoustic steering and clean cable management in reversed-box cardioid array configurations, the enclosure must be equipped with a minimum of three (3) NL4 connectors, featuring two ports on the rear panel and one integrated into the front grille. The cabinet must be constructed of high-grade Baltic birch plywood with an integrated 4-point rigging system compatible with matching full-range line array modules.</p>	NOS	4

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p style="text-align: center;">High-Output 12-inch Multipurpose Coaxial Loudspeaker</p> <p>To replace, supply, delivery and install Multipurpose Coaxial Monitor Speaker with the minimum of following features and specifications :</p> <p>Supply and install a professional 2-way coaxial loudspeaker featuring a high-density single-magnet neodymium motor assembly that physically integrates a 3-inch (75 mm) high-frequency compression driver and a 12-inch (305 mm) high-excursion low-frequency transducer. The internal architecture must utilize a proprietary phase-aligned waveguide positioned behind the protective grille, engineered to acoustically seal the woofer's primary volume while employing precision energy-alignment vents to synchronize high and low frequency beamwidths at the crossover transition. The system must be capable of both passive and bi-amp operation, delivering a frequency range (-10 dB) of at least 60 Hz to 20,000 Hz with a peak output capability of no less than 131 dB SPL. The enclosure must be constructed of high-grade multi-ply birch with integrated M10 suspension points and a multi-angle cabinet design for both FOH and stage monitor deployment.</p>	NOS	2

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p style="text-align: center;">Professional Line Array Suspension Frame (T- Bar Architecture)</p> <p>To supply, delivery and install Line Array mounting bracket (suspension tray) with the minimum of following features and specifications :</p> <p>Supply and install a high-strength structural steel suspension frame (T-bar configuration) specifically engineered for the precise flying and ground- stacking of the specified line array modules and companion subwoofers. The rigging apparatus must feature an integrated adjustable center pick-point bar with multiple high-resolution pin positions to accurately manage the array's center of gravity and overall tilt angle. The mechanical architecture must support a Working Load Limit (WLL) capable of safely suspending a high-density array configuration (up to 24 full-range modules or 18 subwoofers) while maintaining a strict 10:1 structural safety factor. All load-bearing components must be finished with a durable powder coating and include heavy-duty rated shackles and quick-release locking pins perfectly matched to the integrated rigging geometry of the array cabinets.</p>	NOS	2

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p>4-Channel High-Efficiency Networked Power Amplifier with Dynamic Power Allocation</p> <p>To replace, supply, delivery and install Quad Channel Power Amplifier for Line Array, Subwoofer and monitor with the minimum of following features and specifications :</p> <p>Supply and install a professional 4-channel Class-D power amplifier delivering a total system power pool of at least 4,800 Watts. The unit must incorporate asymmetrical power-sharing technology, allowing the total power reservoir to be dynamically and disproportionately distributed across all four channels based on real-time demand, regardless of individual channel loads. Each output channel must natively support 2Ω, 4Ω, 8Ω, 70V, and 100V operation modes selectable per channel without the requirement for bridge-mode configuration. The amplifier must feature integrated 4x4 digital audio networking (Dante/AES67) and support unified system-wide monitoring and DSP management via a centralized network control platform. The chassis must be a high-density 1RU design with integrated thermal protection and advanced speaker-limiting circuitry.</p>	NOS	4

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p>4-Channel High-Efficiency Networked Power Amplifier with Dynamic Power Allocation (Mid- Range)</p> <p>To replace, supply, delivery and install Quad Channel Power Amplifier for Line Array, Subwoofer and monitor with the minimum of following features and specifications :</p> <p>Supply and install a professional 4-channel Class-D power amplifier providing a total system power reservoir of at least 2,400 Watts. The unit must feature asymmetrical power-sharing technology, enabling the dynamic distribution of the total power pool across any of the four output channels based on real-time load demand, regardless of individual channel configuration. Each output channel must independently support 2Ω, 4Ω, 8Ω, 70V, and 100V modes without the need for bridge-mode operation. The unit must incorporate an onboard 32-bit digital signal processor (DSP) with a fixed-latency architecture not exceeding 2.5 ms for system-wide processing and health monitoring. Connectivity must include integrated 4x4 digital audio networking (Dante/AES67) and four channels of balanced analog inputs, with a high-density 1RU chassis design.</p>	NOS	1

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KETERANGAN	UNIT	KUANTITI
<p>To replace, supply, delivery and install Antenna Distribution System with the minimum of following features and specifications :</p> <p style="text-align: center;">Ultra-Wideband Active RF Distribution System</p> <p>Supply and install a professional active antenna distribution system engineered for high-density wireless environments, supporting an ultra-wide RF operating range of at least 470 MHz to 952 MHz.</p> <p>The unit must facilitate the distribution of a single diversity antenna pair to at least five (5) wireless receivers without signal degradation. For streamlined rack integration, the system must feature an integrated power management hub consisting of four (4) dedicated 12V DC locking power output ports to provide centralized DC power directly to connected receivers. The architecture must include switchable RF gain attenuation settings (including 0 dB and -3 dB) to precisely compensate for varied coaxial cable lengths and high-performance filtering to maintain signal purity. Physical connectivity shall include 2x BNC antenna inputs, 2x dedicated BNC cascade ports for multi-unit expansion, and 10x BNC antenna output ports (5 per diversity side) to support up to 10 receivers in a dual-unit cascaded configuration</p>	NOS	6
<p style="text-align: center;">Active Directional UHF Antenna</p> <p>Supply and install a professional Active Directional UHF Antenna featuring a Log Periodic Dipole Array (LPDA) design providing a cardioid polar pattern for enhanced signal reception and rejection of off-axis interference. The unit must incorporate a built-in four-position RF gain selector with settings for Off, -6 dB, 0 dB, +6 dB, and +12 dB to precisely compensate for coaxial cable signal loss. For system reliability, the antenna must feature a high-intercept-point (IIP3) amplifier architecture to minimize intermodulation distortion and include an integrated LED indicator for real-time RF overload monitoring and protection.</p>	NOS	2

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p>To replace, supply, delivery and install Wireless Microphone System with the minimum of following features and specifications :</p> <p style="text-align: center;">Professional Digital Wireless Handheld Microphone System</p> <p>Supply and install a high-performance 24-bit/48 kHz digital wireless system engineered for mission-critical audio applications, providing a dynamic range of at least 120 dB for artifact-free signal reproduction. The RF architecture must support advanced spectral efficiency, enabling the operation of at least 32 compatible channels within a single 44 MHz tuning band, with a stable line-of-sight operating range of up to 100 meters (330 ft). The handheld transmitter shall be equipped with a high-output cardioid dynamic capsule optimized for high gain-before-feedback and vocal presence. For rapid system configuration, the receiver unit must feature a high-contrast OLED display for real-time status monitoring (including battery telemetry and RF strength) and an integrated infrared (IR) synchronization port for seamless transmitter pairing. The system must operate with a fixed total latency of no more than 3.5 ms to ensure perfect temporal alignment in live monitoring environments.</p>	NOS	8
<p style="text-align: center;">Digital Bodypack Wireless System with Performance Headset</p> <p>Supply and install a professional digital bodypack wireless system with a performance headset, featuring low-latency digital operation of 3.2 ms for real-time signal integrity. The system must include a slim, rugged bodypack transmitter equipped with a TQG (4-pin) connector and a secure locking mechanism, providing up to 8 hours of operation via standard AA batteries or professional-grade rechargeable modules. The package must be supplied with a cardioid condenser headset featuring a durable wireframe design for active performance stability. For high-density environments, the system must support stable RF performance with a minimum of 32 compatible channels per 44 MHz band.</p>	NOS	2

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KETERANGAN	UNIT	KUANTITI
<p>Desktop Gooseneck Microphone with Integrated Base</p> <p>Supply and install a professional 12-inch (305 mm) desktop gooseneck microphone featuring a supercardioid polar pattern for narrow pickup angles and superior ambient noise isolation. The unit must incorporate an integrated desktop base with a programmable membrane switch and logic output for remote mixer control or status signaling. For high-reliability performance, the microphone must feature integrated RF immunity technology (CommShield equivalent) to protect against interference from cellular devices and wireless signals. The system shall deliver a tailored frequency response of 50 Hz to 17 kHz specifically optimized for speech clarity with low self-noise.</p>	NOS	1
<p>Professional-grade Tripod Microphone Stand</p> <p>Supply and install a professional-grade tripod microphone floor stand featuring a heavy-duty zinc die-cast base socket for maximum stability and durability. The unit shall incorporate a one-piece boom arm with a secure wing-nut clamping mechanism and a clutch-type height adjustment system ranging from 900mm to 1,600mm. All mechanical joints must be engineered for long-term reliability in high-usage environments.</p>	NOS	6
<p>To replace, supply, delivery and install Mic Receptacle Panel c/w necessary accessories</p>	LOT	1

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p style="text-align: center;">18-Port Enterprise-Grade Managed PoE+ Gigabit AV Switch</p> <p>To replace, supply, delivery and install Managed Switch with the minimum of following features and specifications : Supply and install a high-performance L2/L3 managed Gigabit switch engineered specifically for low-latency AV-over-IP and networked audio environments. The unit architecture must provide a minimum of 18 total physical ports, including 16 dedicated RJ-45 ports supporting IEEE 802.3af/at (PoE+) with a combined power budget of at least 180W. To ensure optimal thermal management and front-of-rack aesthetic integration, the chassis must feature all connectivity ports and status indicators exclusively on the rear panel. For system-critical reliability, the switch must incorporate an autonomous device recovery protocol utilizing ICMP/ping-based monitoring to automatically power-cycle unresponsive PoE endpoints. The unit must be factory-optimized for Dante and AES67 multicast traffic, ensuring high-precision clock synchronization and zero-packet-loss audio distribution.</p>	NOS	1
<p style="text-align: center;">SYSTEM CABLING WORKS (SOUND)</p> <p>System cabling works from Audio using AWG 14 2- core Speaker cable, AWG 22 2-core Screen cable, CAT6 cable, and RG 58 cable run in uPVC conduit/trunking c/w all necessary accessories</p>	m	280

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p style="text-align: center;">8-Way High-Isolation DMX-512 Data Distribution Hub</p> <p>To supply, delivery and install DMX Splitter with the minimum of following features and specifications : Supply and install a professional 8-way DMX-512 signal distributor/splitter engineered for mission- critical lighting data management. The unit must feature one (1) primary DMX input and eight (8) independent buffered and filtered outputs, all utilizing professional 5-pin XLR connectivity for industrial-grade signal reliability. For system-wide surge protection, every output must be fully photo- isolated (optical isolation) to provide a minimum of 1,000V of isolation protection between the input and each individual output stage. This architecture must ensure the master lighting controller is shielded from high-voltage transients and data-line interference. The chassis shall be a standard 1U 19-inch rack-mountable design with integrated LED indicators for power and DMX signal status monitoring on each port.</p>	NOS	1

B: KERJA-KERJA PEMBAIKAN DAN PENGGANTIAN SISTEM AUDIO VISUAL DI DEWAN SERBAGUNA, ARAS 8, BLOK E7, KEMENTERIAN KESIHATAN MALAYSIA, KOMPLEKS E, PUTRAJAYA

REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p style="text-align: center;">Dual-Port Advanced Ethernet-to-DMX/RDM Network Processor</p> <p>To supply, delivery and install DMX/ Ethernet Gateway with the minimum of following features and specifications : Supply and install a professional high-density DMX/RDM network processor featuring a next- generation architecture with at least four (4) independent internal processing engines. These engines must allow for complex signal merging (HTP/LTP), backup switching, and advanced routing logic independent of the physical port count. The unit shall be equipped with two (2) 5-pin XLR DMX/RDM ports, providing full optical and galvanic isolation, and two (2) ruggedized 1Gbps Ethernet ports (EtherCON compatible) with an integrated network switch. The processor must provide comprehensive native support for Art-Net (1-4), sACN (ANSI E1.31), KiNET, and RTTrPL (BlackTraX), with full bidirectional RDM (ANSI E1. 20) compatibility. For secure network integration, the device must feature native VLAN/Group technology to allow for the logical segregation of lighting data from other network traffic (e.g., Dante or VoIP). Configuration shall be facilitated via a built-in web-based interface and a documented REST/JSON web API for third-party system automation.</p>	NOS	1

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
<p>To supply, delivery and install Stage Lighting with the minimum of following features and specifications :</p> <p style="text-align: center;">380W High-Output Hybrid Beam-Spot-Wash (BSW) Moving Head</p> <p>Supply and install a professional Hybrid Moving Head luminaire engineered for multi-functional Beam, Spot, and Wash applications. The unit must be equipped with a high-output 380W short-arc discharge lamp (Philips MSD Silver or Osram Sirius HRI equivalent) featuring a native color temperature of at least 7650K and a minimum operational lifespan of 1,500 hours. The optical engine shall include a dual-wheel gobo architecture consisting of one fixed wheel (at least 11 static gobos) and one rotating/replaceable wheel (at least 7 glass gobos) with integrated bi-directional rotation and shake effects. The color engine must feature a 13-position dichroic color wheel supporting linear half-color transitions and rainbow effects. Mechanical movement must utilize 16-bit high-resolution 3-phase high-torque motors for both Pan (540°) and Tilt (270°) to ensure rapid, silent positioning with automatic electronic error correction. Control shall be provided via DMX512 and RDM protocols with physical connectivity including 3-pin/5-pin XLR and PowerCON In/Out for integrated power daisy-chaining.</p>	NOS	2
<p style="text-align: center;">High-Output LED Multi-Functional Wash with Rotating Visual Effects</p> <p>Supply and install a professional LED Moving Head fixture featuring a high-density array of nineteen (19) 25W RGBW (4-in-1) multichip LEDs. The unit must incorporate a precision motorized linear zoom system providing a variable beam angle from at least 10° to 60°. The optical architecture must support three distinct operational modes: a high-uniformity Wash mode, a concentrated Beam mode, and a specialized Digital FX mode. A mandatory hardware requirement is a bi-directional endless rotating front lens assembly, capable of generating kaleidoscopic and vortex aerial effects. The fixture must be fully compatible with DMX-512 and RDM protocols for advanced pixel mapping and remote device management.</p>	NOS	4

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REPLACEMENT OF EXISTING AUDIO VISUAL SYSTEMS

KETERANGAN	UNIT	KUANTITI
To supply, delivery and install Motorised Lighting Barrel c/w necessary accessories	LOT	3
<p style="text-align: center;">SYSTEM CABLING WORKS (EXISTING DMX TO LUMINODE)</p> <p>System cabling works shall comprise 3 x 2.5mm² PVC insulated cables connecting each luminaire to the Distribution Board (DB) and 1 x 2-core screened cables from each LED fixture to the DMX Splitter. A dedicated Category 6 (Cat6) UTP/STP cable shall be installed as the high-speed data backbone, terminated with shielded RJ45 connectors, linking the Managed Switch and Access Point. All cabling shall be routed through uPVC conduits or trunking, complete with all necessary accessories and fittings</p>	m	210

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ELECTRICAL WORK

KETERANGAN	UNIT	KUANTITI
<p>Metalclade Distribution Board (DB) :- 6-way TPN metalclad DB SOUND SYSTEM as per JKR Specifications and c/w :- - 1 nos MCCB 63A TPN. - 1 nos SPD Single Mode Rating 6kA. - 3 nos RCCB 63A DP (100mA) - 10 nos MCB (32A) for sound system - 100A termination block for termination.</p>	LOT	1
<p>SUBMAINS CABLE 4 x 16sq.mm Cu. PVC in surface hot dipped galvanised trunking c/w 1 x 16sq.mm Cu. PVC ECC</p>	m	15
<p>SURFACE WIRING IN G.I. CONDUIT / HOT 'DIPPED GALVANISED TRUNKING (Base on S.O.s instruction) (G.I. conduit used must be minimum size of 20mm dia.) 1 nos 13A socket outlet point using 2 x 4sq.mm Cu. PVC and 1 x 4sq.mm Cu. PVC circuit protective conductor c/w 1 nos 13A 3 pin flush switched socket outlet for all area including: - Rack - Lighting - Inside & Outside Hall - Console Table</p>	NOS	95

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OTHER WORKS

KETERANGAN	UNIT	KUANTITI
<p>Enterprise Wi-Fi 6 Managed Access Point To supply, delivery and install Wireless Access Point c/w necessary accessories Supply and install a professional 802.11ax (Wi-Fi 6) Dual-Band Access Point delivering a combined throughput of at least 1,775 Mbps (1200 Mbps on 5GHz / 574 Mbps on 2.4GHz). The RF architecture must support 2x2 MU-MIMO, OFDMA, and feature integrated high-gain omnidirectional antennas (minimum 4.3 dBi on 5GHz). The unit must support Standalone, Managed, and Cloud modes with Zero-Touch Provisioning (ZTP) and WPA3 Enterprise security. Physical connectivity must include one (1) Gigabit PoE LAN port (802.3at) and one (1) dedicated RJ-45 console port for hardware management.</p>	NOS	1
<p>45U High-Density Heavy-Duty Server & Network Cabinet To replace, supply, delivery and install 45U Floor Standing Rack c/w necessary accessories Supply and install a professional 45U heavy-duty floor-standing equipment cabinet constructed from high-grade cold-rolled steel with a fully welded rigid frame. The enclosure must feature a nominal footprint of 800mm (Width) x 1200mm (Depth) with a total exterior height of at least 2125mm. The structure must be engineered to support a maximum static load capacity of no less than 800kg, specifically optimized for high-density servers and heavy-chassis storage systems. Connectivity management must include a lockable perforated or tempered glass front door with a 180-degree swing angle and integrated high-efficiency airflow ventilation. The unit shall include heavy-duty castors, leveling feet, and internal 19-inch adjustable mounting profiles with clear "U" markings.</p>	LOT	1

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OTHER WORKS

KETERANGAN	UNIT	KUANTITI
<p>To supply, delivery and install Personal Computer Work Station c/w necessary accessories</p> <p>23.8-inch Professional IPS Monitor with Multi-Generational Connectivity</p> <p>Supply and install a professional 23.8-inch Full HD (1920 x 1080) In-Plane Switching (IPS) display engineered for color-accurate monitoring and high-fluidity visual transitions. The panel must support a native refresh rate of at least 100Hz and provide a minimum of 99% sRGB color coverage. To ensure compatibility across legacy and modern AV infrastructure, the monitor must feature an integrated connectivity suite including HDMI, DisplayPort, and analog VGA (D-Sub). The unit must incorporate a built-in high-speed USB 3.2 Gen 1 hub with a minimum of three (3) downstream ports for peripheral integration. The included stand must feature full professional ergonomics, including height adjustment, tilt, swivel, and 90-degree pivot (portrait/landscape) rotation.</p>	NOS	1
<p>High-Performance Enterprise Desktop Tower</p> <p>Supply and install a professional desktop tower featuring a 14th Gen Intel® Core™ i7-14700 processor (up to 5.4 GHz, 20-cores/28-threads). The motherboard must support up to 128GB DDR5 RAM and include high-speed M.2 PCIe NVMe storage. For maximum stability, the unit must incorporate an internal 80 Plus Platinum rated power supply (PSU). Physical connectivity must include a front-facing USB 3.2 Gen 2x2 (20Gbps) Type-C port, dual DisplayPort 1.4a outputs, and a minimum of four (4) additional USB ports. The chassis shall support tool-less entry for simplified maintenance.</p>	NOS	1

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OTHER WORKS

KETERANGAN	UNIT	KUANTITI
<p>To supply, delivery and install Console Table with the minimum of following features and specifications : To supply, deliver, and install one (1) unit of customized console table complete with necessary accessories, constructed with laminated plywood/MDF tabletop finished with high-pressure laminate (HPL), and supported by powder-coated mild steel or stainless steel legs. Overall size: 1800mm (L) x 800mm (W) x 740mm (H), inclusive of all fittings, fixings, and complete installation.</p>	LOT	1

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KETERANGAN	UNIT
<p data-bbox="1226 701 1892 746" style="text-align: center;">HACKING AND MAKING GOOD</p> <p data-bbox="109 765 2845 877">Breaking, hacking, cutting holes and making good, backfilling and permanent reinstatements of damaged brickwall, roads, drains, hardstandings, tarmac area, other civil works, etc. necessary for the installation of the system.</p>	L.S.

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PROFESSIONAL SERVICES

KETERANGAN	UNIT
<p data-bbox="1449 684 1669 727">TRAINING</p> <p data-bbox="109 750 2925 859">To arrange and organize user technical training courses which includes system description, equipment, operation and maintenance. The number of participants shall be minimum of 20 person.</p>	L.S.

GAMBAR SEDIA ADA DI TAPAK



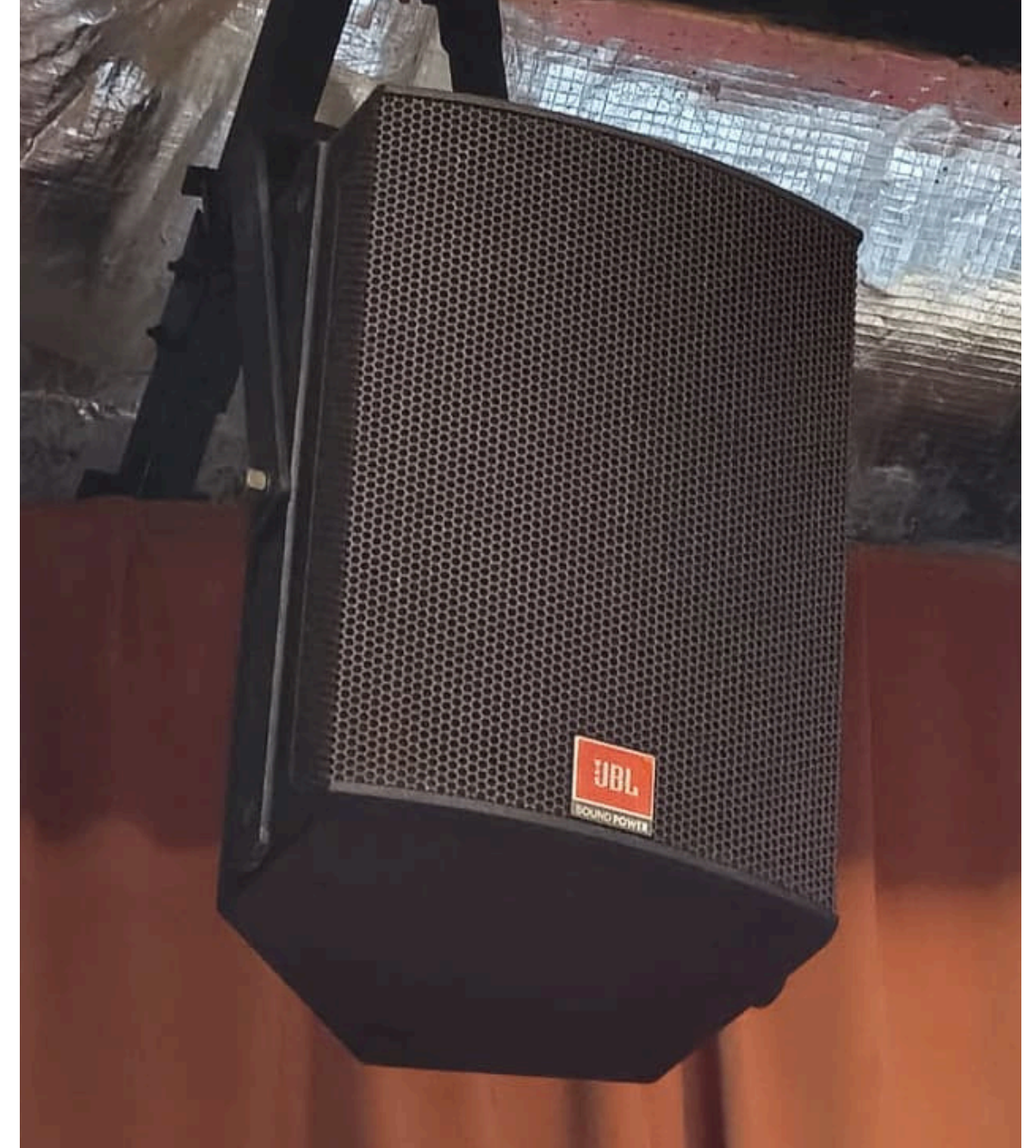
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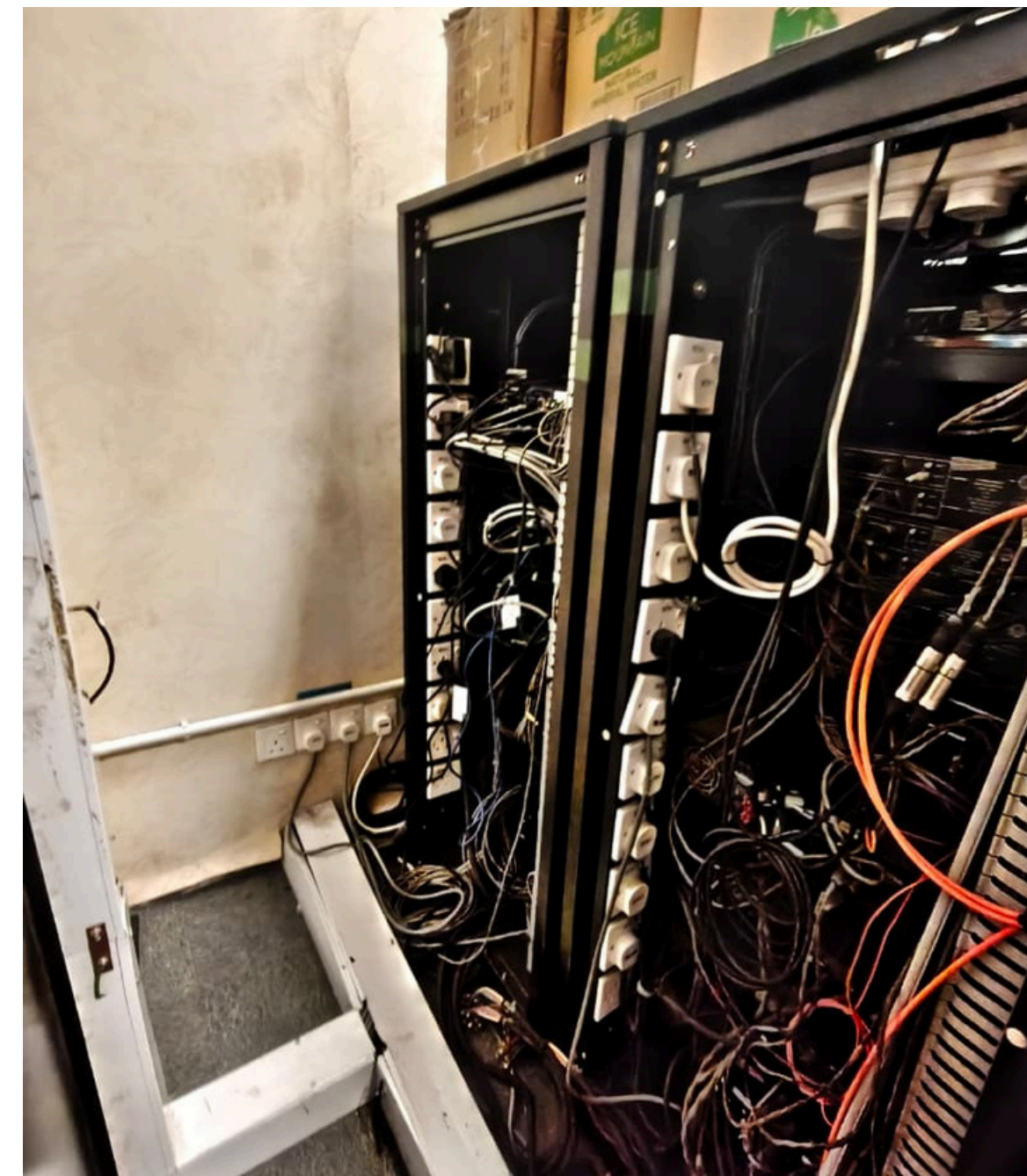
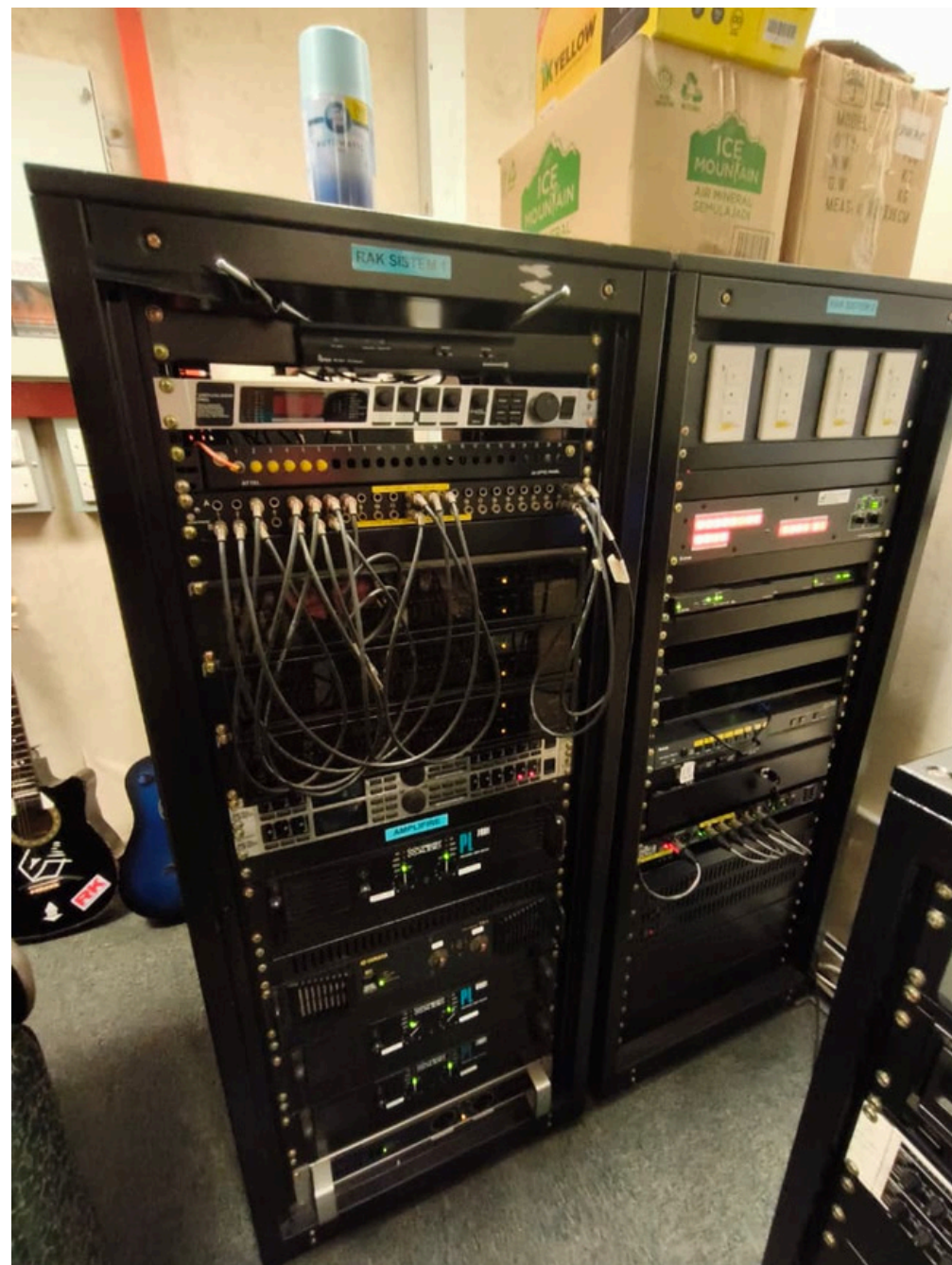
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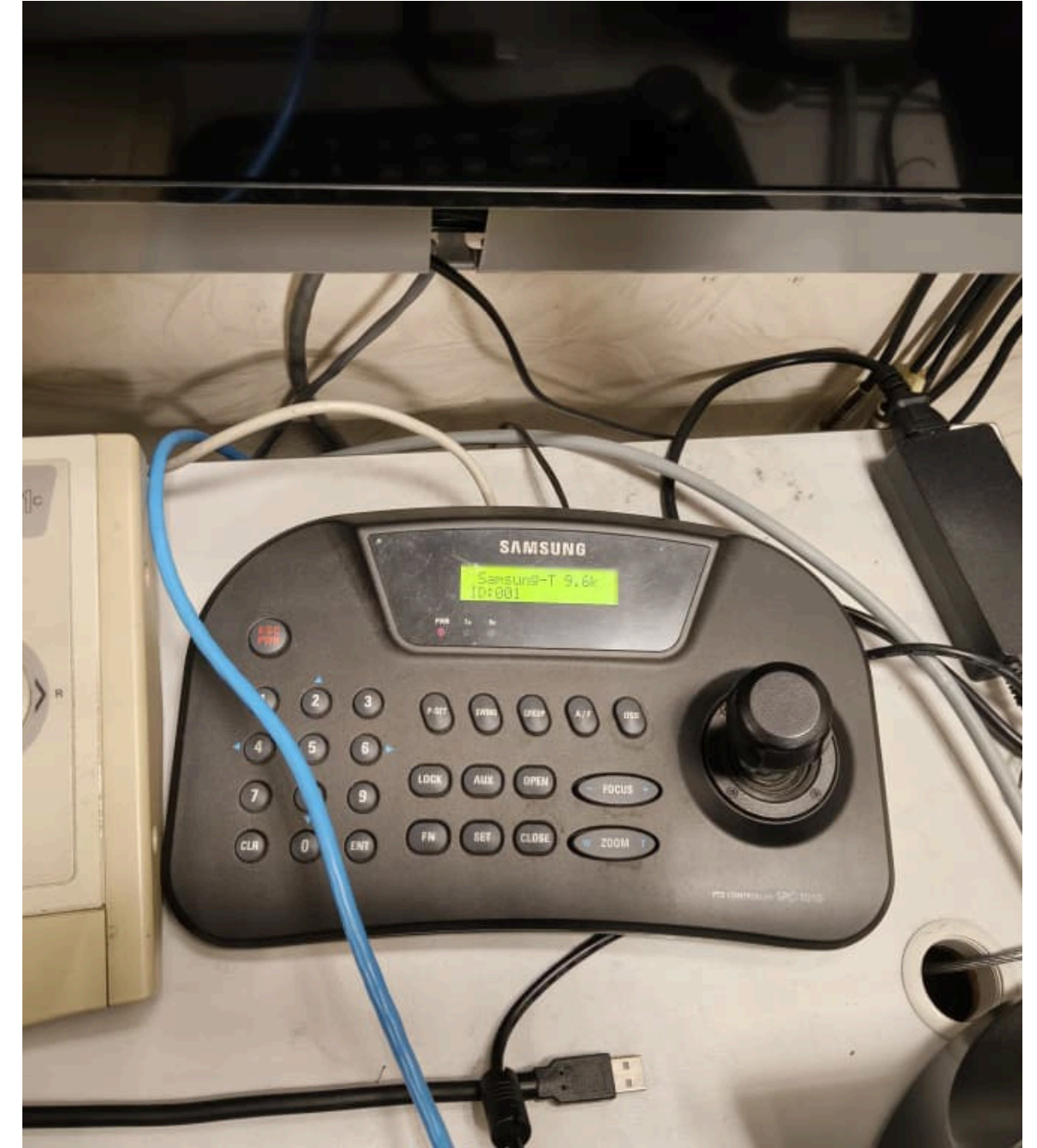
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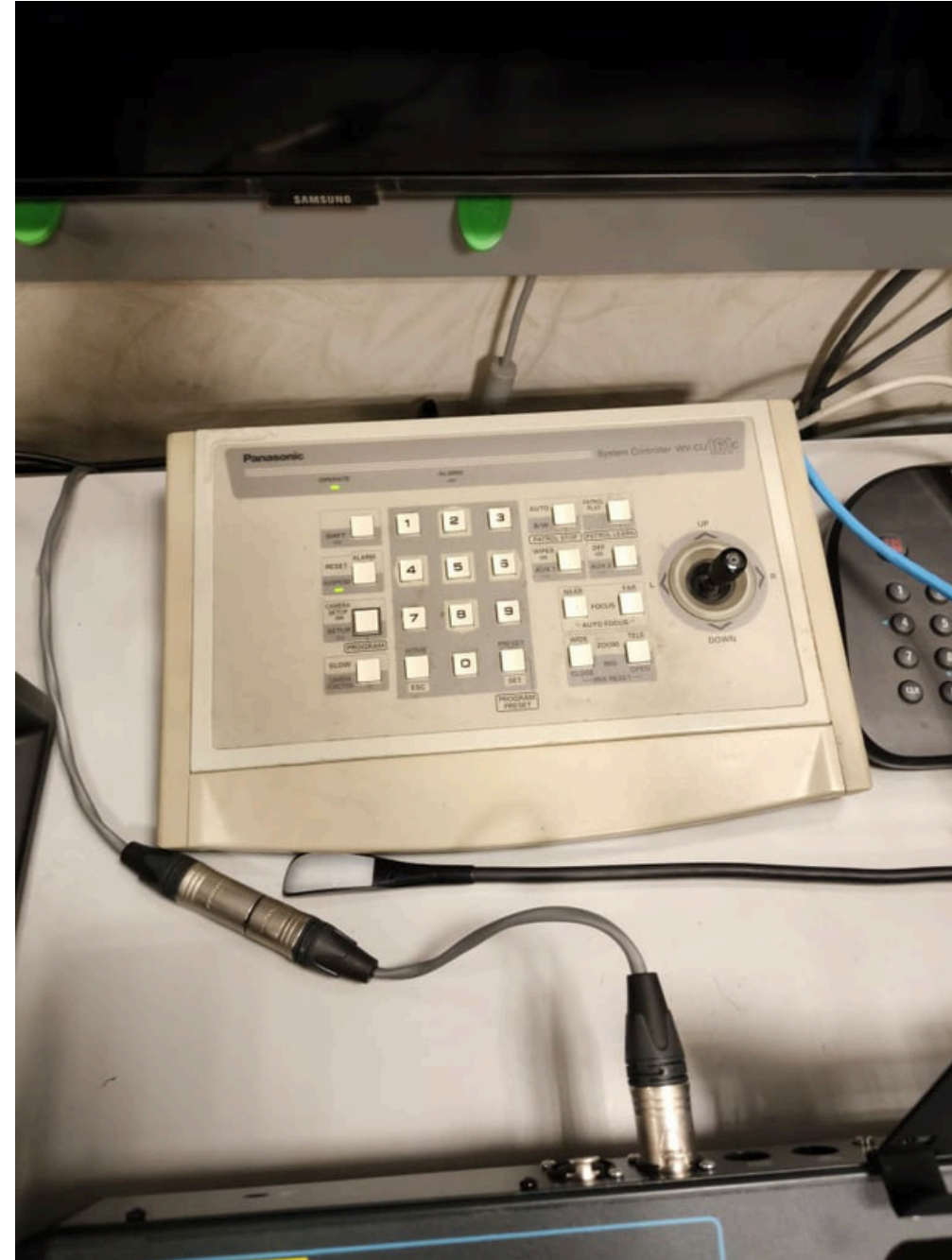
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**Thank You For
Watching**

