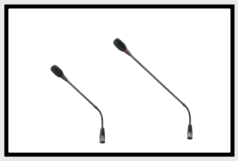
Portable Conference System

Central Unit



TS-770



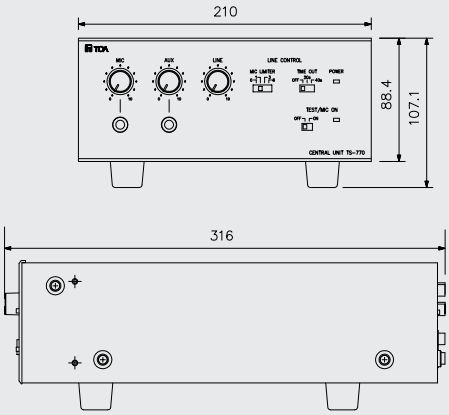
TS-773/ TS-774



YR-770-10 (10m)



YR-770-2 (2m)



System

Compact wired conference system with a capacity of up to 210 units. Remote participation via phone or internet is possible. Clear sound, easy set up and convenient storage are self- evident.

Features

- TS-770 supplies DC Power to all units
- Lamp indicator
- Jack for microphone input, and AUX input
- Microphone, AUX, line (for conference unit's built-in speaker) and chime (on chairman's unit) volume controls
- Delegate's unit simultaneous operation (1,3, or 6) and automatic mic-off setting (OFF/20-sec/40-sec) switches
- Line 1 & 2 output connection terminals each for 35 conference units
- Equalizer Input
- System expandable to 210 units by connection of 3 central units (70 units per central unit)

Options

- YR-770-2M / YR-770-10M Extension Cables for connection of a TS-770 expansion amplifier or the connection of two conference units. 8 pin DIN socket / DIN plug. 2 m (YR-770-2M) or 10 m (YR-770-10M) long
- TK-776 / TK-778 Carrying and Storage Case
  TK-776: for 1 central unit, 8 units and the cables
  TK-778: for 12 units and the cables

Specifications

	TS-770
Power Requirements	220 / 230 V AC, 50/60 Hz (selectable)
Power Consumption	Max. 60 W
Input	Mic: 600 Ω, -60 dBV, AUX 1: 10 kΩ, -20 dBV,
Output	Recording; 10 kΩ, -20 dBV, unbal, phone jack, 2x pin jack, unbalanced, phone jack
Controls	Speaker restriction can be set to 1,3 or 6 / automatic mic-off function; off, 20 sec., 40 sec., (selectable)
Connecting Capacity	Max. 70 units per TS-770 / max. 35 units per line (max. 210 units with 3 x TS-770)
Dimensions (W x H x D)	210 x 107.1 x 316 mm
Weight	4 kg
Finish	Case: Pre-coated steel plate, black, 30% gloss, aluminum panel
Options	Extension cable: YR-770-2M / YR-770-10M

TS-770 Series Conference System



DESCRIPTION

The TOA TS-770 Conference System brings a multiple-mode remote conferencing to the meeting room, via a standard telephone line, a mobile phone, or PC-based IP telephony. It provides a full range of features for ensuring clear sound for efficient and effective conferences, and at a remarkably high cost/performance ratio.

The TS-770 does away with the need for a conference hall with professionally and permanently installed equipment for small-to-medium-sized meetings. Setting up the TS-770 is quick and easy. The basic requirements are simply to attach the Chairman and Delegate Units to the system's Central Unit, and connect each Delegate Unit, accordingly. Depending on an application, a unit may be farther apart from each other so an optional Extension Cord (2m/10m) can be attached. Up to 70 units, including multiple Chairman Units, may be attached to a single Central Unit (35 per line), and system expansion to 140 or 210 units is possible by adding a 2nd or 3rd extension Central Unit.

Operating the TS-770 goes smoothly and efficiently. An optimized unidirectional gooseneck microphone and wide frequency response speaker ensure optimally clear voice transmission, with everyone clearly heard. Simply pushing the Talk button activates the microphone, while also deactivating the speaker in the unit, to prevent feedback. The Chairman Unit can select one, three or six Delegate Units for simultaneous operation, and if several Chairman Units are included, they may speak simultaneously. Smooth operation of the conference is assured by a Chairman Unit's priority function.

Long-term archival recording is made possible by connecting an optional alternating recording device to the center amplifier, and each unit also has its own recording output jack.

FEATURES

- **Maximum 70 Chairman and Delegate Units (up to 35 units* per line) are connectable to one Central Unit.**
  *If the TS-775 Remote Delegate Interface Unit is used, up to 35 TS-775 Remote Delegate Interface Units can be connected per line also.
- **Expandable to maximum 210 units by connecting 2 additional Central Units.**
- **Equipped with an All-Mic-On function that simultaneously turns on all microphones for sound collecting and recording of all units.**
- **Remote conferencing is possible, enabling people at a remote location to participate in the conference.**
- **The Test Function feature enables easy checking of the connection status of all connected units.**
- **Number of simultaneously usable delegate units can be selected.**
  Note: [0] position means speech is possible by the Chairman unit only.
- **Automatic Mic-Off function (TIME OUT)**
  Even if the speaker forgets to turn off his or her microphone after speech completion, the Automatic Mic-Off function automatically switches off the microphone after a preset interval elapses. (Can be set to OFF, 20 or 40 seconds.)

TOA

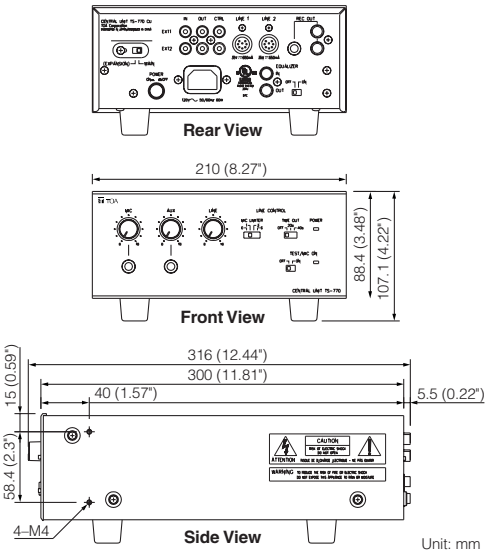
TS-770

Central Unit



The TS-770 is a Central Unit for TOA Conference system, of which compact design makes it easy to install and store. Use of its line connection terminals permits connections to the conference units of TS-771, TS-772, and TS-775, making up a conference system. A total of 3 Central Units can be used in a system.

APPEARANCE AND DIMENSIONAL DIAGRAM



SPECIFICATIONS

Power Source	AC mains, 50/60 Hz
Power Consumption	Max. 60 W
Rated Output	35V DC, 650mA × 2
Input	MIC: –60 dB*, 600 ohms, unbalanced, phone jack AUX: –20 dB*, 10k ohms, unbalanced, phone jack
Output	Recording: –20 dB*, 10 k ohms, unbalanced, phone jack, pin jack × 2
Equalizer Insertion Input Terminals	Input: –20 dB*, 10 k ohms, pin jack Output: –20 dB*, 10 k ohms, pin jack
Expansion Input/ Output Terminals	Input: –20 dB*, 10 k ohms, pin jack × 2 Output: –20 dB*, 10 k ohms, pin jack × 2 Control: 10 k ohms or more, voltage output, pin jack × 2
Control	Priority Speech chime: Operation of TS-771's priority button activates a single-tone chime Speaker restriction: Number of simultaneously-usable TS-772s and TS-775s can be set to 1, 3, or 6 Automatic Mic-off: Function OFF/20 s/40 s (selectable)
Number of Connectable Conference Units	70 (Max. 35 units per line), Max. 210 (with 3 Central Units)
Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	Under 90 % RH (no condensation)
Finish	Panel: Aluminum, hairline, black Case: Pre-coated steel plate, black, 30% gloss
Dimensions	210 (W) × 107.1 (H) × 316 (D) mm (8,27" × 4.22" × 12.44")
Weight	4 kg (8.82 lb)
Accessory	Power cord (2m) × 1
Option	Extension cord: YR-770-2M, YR-770-10M

* 0 dB = 1 V

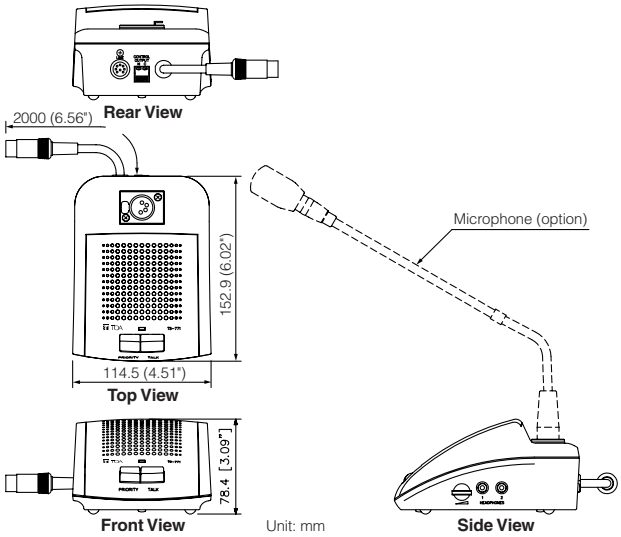
TS-771

Chairman Unit



The TS-771 is a Chairman Unit for TOA Conference system, of which compact and lightweight design makes it easy to install and store. Pressing the Talk button allows a chairman to speak, while disabling the unit's speaker to prevent feedback. When the Talk button is OFF,the microphone cannot be used but the speaker is turned on,allowing the voices from other conference units (TS-771/772) to be monitered. By pressing the priority button, the Chairman Unit can take precedence over any Delegate Units. Two types of dedicated microphones are made available for the TS-771 as optional products: The TS-773 standard type and the TS-774 long type.

APPEARANCE AND DIMENSIONAL DIAGRAM



SPECIFICATIONS

Power Source	35 V DC, under 30 mA (supplied from Central Unit TS-770)
Output	Headphone/Recording: 32 ohms (headphone) 10 k ohms, –20 dB* (recording), unbalanced, mini jack (with VR) Internal speaker: 130 ohms, 200 mW Contact output: 24 V DC, max. 50 mA (open collector output)
Control	Speech button: Microphone, speaker on-off control by speech switch Priority button: Microphone, speaker on-off, other microphone cut off, and single-tone chime activation
Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	Under 90 % RH (no condensation)
Finish	Case: ABS resin, black Panel: ABS resin, gray metallic, semi-gloss, paint
Dimensions	114.5 (W) × 78.4 (H) × 152.9 (D)mm (4.51" × 3.09" × 6.02")
Weight	780g (1.72 lb)
Option	Microphone: TS-773 (standard), TS-774 (long) (select either one)

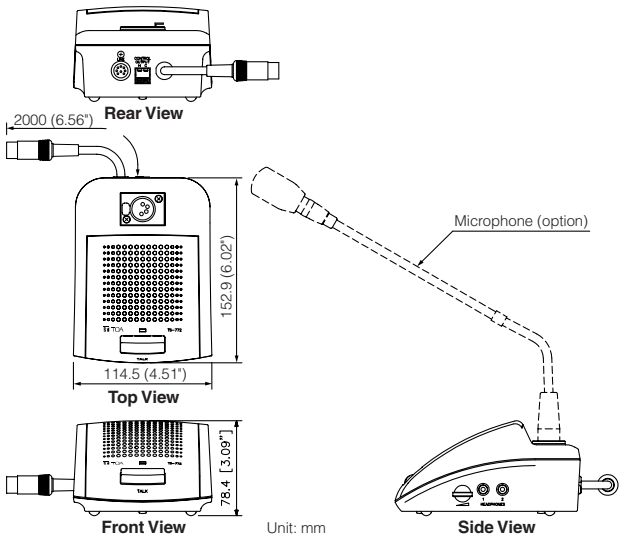
TS-772

Delegate Unit



The TS-772 is a Delegate Unit for TOA Conference system, of which compact and lightweight design makes it easy to install and store. Pressing the Talk button permits speech and disables the unit's speaker to prevent feedback. When the Talk button is OFF, the microphone cannot be used but the speaker is turned ON,allowing the voices from other conference units(TS-771/772) to be monitered. Two types of dedicated microphones are made available for the TS-772 as optional products: The TS-773 standard type and the TS-774 long type.

APPEARANCE AND DIMENSIONAL DIAGRAM



SPECIFICATIONS

Power Source	35 V DC, under 30 mA (supplied from Central Unit TS-770)
Output	Headphone/Recording: 32 ohms (headphone) 10 k ohms, –20 dB* (recording), unbalanced, mini jack (with VR) Internal speaker: 130 ohms 200 mW Contact output: 24 V DC, max. 50 mA (open collector output)
Control	Microphone, speaker on-off control by speech switch
Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	Under 90 % RH (no condensation)
Finish	Case: ABS resin, black Panel: ABS resin, gray metallic, semi-gloss, paint
Dimensions	114.5 (W) × 78.4 (H) × 152.9 (D)mm (4.51" × 3.09" × 6.02")
Weight	780g (1.72 lb)
Option	Microphone: TS-773 (standard), TS-774 (long) (select either one)

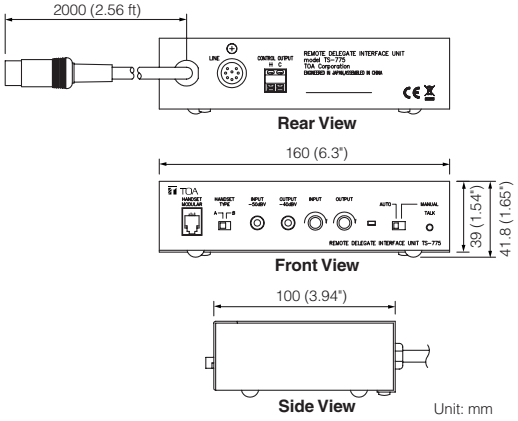
TS-775

Remote Delegate Interface Unit



The TS-775 is a Remote Delegate Interface Unit for TOA Conference system designed to allow remote parties to participate in conferences via telephone or PC connected to it.

APPEARANCE AND DIMENSIONAL DIAGRAM



SPECIFICATIONS

Power Source	35 V DC, under 30 mA (supplied from Central Unit TS-770)
Input	–60dB*, 200 ohms, balanced, mini phone jack with VR control
Output	–60dB*, 22 ohms, balanced, mini phone jack with VR control
Speech Mode	AUTO: Voice-activated Automatic switching MANUAL: Talk key on-off switching
Operating Temperature	0°C to 40°C (32°F to 104°F)
Operating Humidity	Under 90 % RH (no condensation)
Finish	Pre-coated steel plate, black
Dimensions	160 (W) × 41.8 (H) × 100 (D) mm (6.3" × 1.65" × 3.94") (excluding projection)
Weight	700g (1.54 lb)

* 0 dB = 1 V

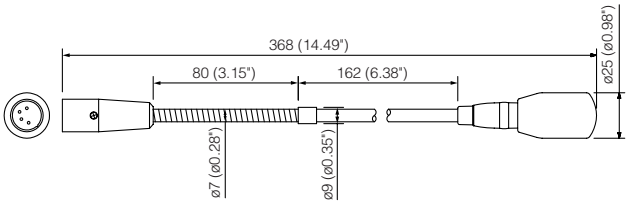
TS-773

Microphone (Standard Type)



The TS-773 is a designed microphone for exclusive use with the conference units of the TS-770 series Conference system.
Ring type In-Use lamp located at the microphone head permits displaying the operation status of the conference units.

APPEARANCE AND DIMENSIONAL DIAGRAM



SPECIFICATIONS

Type	Electret condenser microphone
Directivity	Unidirectional
Rated Impedance	1.8 k ohms
Rated Sensitivity	–37dB (1 kHz, 0dB = 1V/Pa)
LED Speech Indicator	RED (ring type)
Frequency Response	100 – 13,000 Hz
Output Connector	Combined type of XLR-4-32
Finish	Gooseneck: Stainless steel (SUS301), black Other: ABS resin, black
Length	368mm (14.49")
Weight	90g (0.2 lb)
Applicable Unit	TS-771 Chairman unit, TS-772 Delegate unit

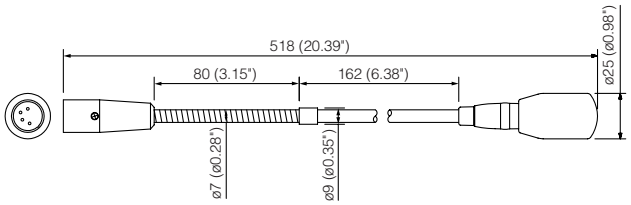
TS-774

Microphone (Long Type)



The TS-774 is a designed microphone for exclusive use with the conference units of the TS-770 series Conference system.
Ring type In-Use lamp located at the microphone head permits displaying the operation status of the conference units.

APPEARANCE AND DIMENSIONAL DIAGRAM



SPECIFICATIONS

Type	Electret condenser microphone
Directivity	Unidirectional
Rated Impedance	1.8 k ohms
Rated Sensitivity	–37dB (1 kHz, 0dB = 1V/Pa)
LED Speech Indicator	RED (ring type)
Frequency Response	100 – 13,000 Hz
Output Connector	Combined type of XLR-4-32
Finish	Gooseneck: Stainless steel (SUS301), black Other: ABS resin, black
Length	518mm (20.39")
Weight	105g (0.23 lb)
Applicable Unit	TS-771 Chairman unit, TS-772 Delegate unit

YR-770-2M

Extension Cord (2m)



SPECIFICATIONS

Connector	8 pins DIN socket (going to the unit's base) × 1 8 pins DIN plug (going to the cord) × 1
Length	2 m (6.56 ft)

YR-770-10M

Extension Cord (10m)



SPECIFICATIONS

Connector	8 pins DIN socket (going to the unit's base) × 1 8 pins DIN plug (going to the cord) × 1
Length	10 m (32.81 ft)

ARCHITECTURAL AND ENGINEERING SPECIFICATIONS

GENERAL SPECIFICATIONS

The specified conference system shall consist of the central unit, the chairman unit, the delegate unit, the remote delegate interface unit and the unidirectional microphones to be mounted on the chairman and delegate units. A total of 70 chairman and delegate units shall be connected to a single central unit, which can be expanded to up to a total of 210 units by connecting 2 additional central units. The specified conference system shall be quickly and easily set up by simply connecting the chairman and delegate units to the central unit. Parties in remote locations shall participate in conferences via a telephone line or PC. An optimized unidirectional gooseneck microphone and wide frequency response speaker shall be included in every participant's unit. The specified system shall be equipped with a function that simultaneously turns on all microphones for sound collecting and recording of all units. The system shall have a test function which enables easy checking of the connection status of all connected units. Number of simultaneously usable delegate units shall be selected. The specified system shall have a function that automatically switches off the microphone after a preset interval elapses, when the speaker forgets to turn off his or her microphone after speech completion. An optional recording device shall be connected to each units recording output jack to enable long-term recording. The system shall have two extension cords which can be used to connect between the central unit and the conference units (chairman unit/delegate unit/remote delegate interface unit).

CENTRAL UNIT SPECIFICATIONS

The central unit shall be designed to be connected with the chairman unit, the delegate units and the remote delegate interface unit to form a complete conference system that allows normal in-house conference use, as well as conference participation by parties in remote locations via a telephone line or PC. The unit shall be small in size to enable easy installation and storage. Up to 3 central units shall be able to be connected simultaneously per system. The central unit shall operate on AC mains and shall be rated at an output of 35V DC. The power consumption shall be 60W (maximum). The central unit shall be equipped with 2 audio inputs, 3 recording outputs (phone jack/pin jack selectable), 1 equalizer input, 1 equalizer output, 2 expansion inputs, 2 expansion outputs and 2 control outputs. An internal chime shall be sounded when the chairman unit's priority button is pressed to allow the chairman unit to take precedence over any delegate unit. The operating temperature range shall be between 0°C and +40°C (32° and 104°F) and the operating humidity shall be under 90 percent. The panel shall be hairline patterned aluminum painted in black, while the case shall be pre-coated steel plate painted in black. The dimensions shall be 210 (W) × 107.1 (H) × 316 (D) mm (8,27" × 4.22" × 12.44") and the weight shall be 4 kg (8.82 lb).

The central unit shall be a TOA TS-770 or approved equivalent.

CHAIRMAN UNIT SPECIFICATIONS

The specified chairman unit shall be small in size and light in weight to enable easy installation and storage. The dimensions shall be 114.5 (W) × 78.4 (H) × 152.9 (D) mm (4.51" × 3.09" × 6.02") and the weight shall be 780g (1.72 lb). The talk button shall allow the chairman to speak and disable the chairman unit's internal speaker when activated, to prevent acoustic feedback. Deactivating the speech button shall disconnect the unit's microphone from the talk path and turn on the internal speaker so as to allow the chairman to hear speech from the connected delegate units. The priority button shall be so designed as to disable all delegate units when pressed so that the chairman's voice takes precedence and is allowed to go through. The delegate unit shall operate on 35V DC supplied from the central unit. The chairman unit shall be equipped with 1 headphone/recording output, 1 contact output and 1 internal speaker, as well as 1 talk button and 1 priority button that sounds a chime when activated and cuts off all delegate unit speakers. The microphone shall be optional and selectable from the standard type or long type. The operating temperature range shall be between 0°C and +40°C (32° and 104°F) and the operating humidity shall be under 90 percent. The panel shall be made of ABS resin painted in mat metallic gray, while the case shall be made of ABS resin painted in black.

The chairman unit shall be a TOA TS-771 or approved equivalent.

DELEGATE UNIT SPECIFICATIONS

The specified delegate unit shall form part of the conference system and shall be small in size and light in weight to enable easy installation and storage. The dimensions shall be 114.5 (W) × 78.4 (H) × 152.9 (D) mm (4.51" × 3.09" × 6.02") and the weight shall be 780g (1.72 lb). Switching the talk button to the ON position shall turn on the internal microphone to allow the user to speak, while turning off the internal speaker to prevent acoustic feedback. Switching the talk button back to the OFF position shall disable the microphone and activate the speaker to enable the user to hear the voices from other connected conference units. The delegate unit shall operate on 35V DC supplied from the central unit and shall be equipped with 1 headphone/recording output, 1 contact output and 1 internal speaker. The microphone shall be optional and selectable from the standard type or long type. The operating temperature range shall be between 0°C and +40°C (32° and 104°F) and the operating humidity shall be under 90 percent. The panel shall be made of ABS resin painted in mat metallic gray, while the case shall be made of ABS resin painted in black.

The delegate unit shall be a TOA TS-772 or approved equivalent.

MICROPHONE (STANDARD TYPE) SPECIFICATIONS

The specified microphone shall be a unidirectional electret condenser microphone designed to be mounted on the chairman unit and delegate unit. The microphone shall have an XLR-4-32 output as well as a ring-type speech indicator on its head that indicates the operation status of the conference unit on which the microphone has been mounted. The rated impedance shall be 1.8 kilo ohms and the rated sensitivity shall be -37 dB at 1 kHz. The frequency response shall be between 100 and 13,000 Hz. The gooseneck shall be made of stainless steel painted in black, while other sections shall be made of ABS resin painted in black. The microphone length shall be 368mm (1 4.49"). The weight shall be 90 g (0.2 lb).

The unidirectional electret condenser microphone shall be a TOA TS-773 or approved equivalent.

MICROPHONE (LONG TYPE) SPECIFICATIONS

The specified microphone shall be a unidirectional electret condenser microphone designed to be mounted on the chairman unit and delegate unit. The microphone shall have an XLR-4-32 output as well as a ring-type speech indicator on its head that indicates the operation status of the conference unit on which the microphone has been mounted. The rated impedance shall be 1.8 kilo ohms and the rated sensitivity shall be -37 dB at 1 kHz. The frequency response shall be between 100 and 13,000 Hz. The gooseneck shall be made of stainless steel painted in black, while other sections shall be made of ABS resin painted in black. The microphone length shall be 518mm (20.39"). The weight shall be 105 g (0.23 lb).

The unidirectional electret condenser microphone shall be a TOA TS-774 or approved equivalent.

REMOTE DELEGATE INTERFACE UNIT SPECIFICATION

The specified remote delegate interface unit shall enable parties in remote locations to participate in conferences via a telephone line or PC. The remote delegate interface unit shall operate on 35V DC supplied from the central unit and shall be fitted with 1 input and 1 output, plus their respective volume controls. The remote delegate interface unit shall also be fitted with a speech mode selector switch which automatically reverses voice-controlled speech flows when set to the auto position and allows speech to be manually initiated or terminated by pressing the talk key when set to the manual position. The operating temperature range shall be between 0°C and +40°C (32° and 104°F) and the operating humidity shall be under 90 percent. The case shall be made of pre-coated steel plate painted in black and the weight shall be 700 g (1.54 lb). The dimensions shall be 160 (W) x 41.8 (H) by 100 (D) mm (6.3" x 1.65" x3.94").

The remote delegate interface unit shall be a TOA TS-775 or approved equivalent.

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