

# Bi-Way Security Window Communications A & E GUIDE SPECIFICATIONS

## **Part I: General**

### **1.1 Work Included**

- 1.101 Furnish and install a complete microprocessor controlled voice communication system as described herein and shown on the plans. The system shall include power supplies, master control stations, cable, connectors and accessories necessary for a complete operational system.
- 1.102 Scope of work shall require no holes be drilled in glass to provide hands free loud speaking communication between counter personnel and the public through security glass as shown on the plans.

*(Note to Specifier: Indicate exact scope of work.)*

### **1.2 Contract Documents**

- 1.201 All equipment and work specified in this section shall comply with all the General Conditions of the contract documents.

### **1.3 Related Work**

- 1.301 The communications contractor shall coordinate the pulling of cable, provision of necessary power, and work with other contractors and trades where necessary.
- 1.302 All conduits, raceways, pull boxes, standard boxes, and special boxes provided by intercom manufacturer, (and cable) shall be installed by the Electrical Contractor.
- 1.303 Installation of the communication systems shall be coordinated with the installation of other related systems; i.e., Access Control, CCTV, Security Alarms, Telephones, Elevators, etc.

*(Note to Specifier: Indicate other related systems.)*

### **1.4 Quality Assurance**

- 1.401 Installation shall comply with all applicable codes, and standards set by NEC, EIA and NFPA. System shall be CE tested and certified to European Standards EN50081 (emissions) and EN50082 (immunity). Power supplies shall be UL listed.
- 1.402 All equipment shall be new, in current production, and the standard products of one acceptable manufacturer.

- 1.403 The manufacturer shall guarantee the availability of parts for a minimum of seven (7) years from date of shipment.
- 1.404 The manufacturer shall be able to demonstrate the features, functions, operating characteristics, and clarity of sound to the owner, or owner's representative (if required).
- 1.405 The system shall be installed by a factory-authorized and trained Communications Contractor.

**1.5 Warranty**

- 1.501 The system shall include a factory warranty that equipment is free from defects in design, material, manufacturing and operation.
- 1.502 The Factory Warranty period shall be for thirty-six (36) months from date of shipment.
- 1.503 The Communications Contractor shall guarantee the equipment, wire cable, and installation for one (1) year from date of acceptance.
- 1.504 The Warranty shall not cover malfunctions or damages caused by misuse, abuse, neglect or acts of nature.

**1.6 Submittals**

- 1.601 Shall include equipment list, system description and data sheets on all equipment to be furnished.
- 1.602 Shall include all data and block diagrams necessary to evaluate the function, quality and configuration of the proposed system.

**PART II: PRODUCTS**

**2.1 ACCEPTABLE MANUFACTURERS**

- 2.1.1 The system as described herein is based on the **Bi-Way Security Window Communication** system as manufactured by STENTOFON/Zenitel Group, Kansas City, Missouri. The Bi-Way meets all requirements of the specifications and shall be considered as the acceptable Base Bid.
- 2.1.2 Any substitutions must meet all requirements of prior approval, as outlined in the contract documents. Substitutions that meet prior approval requirements must be listed as an alternate on the bid forms.

**2.2 SYSTEM DESCRIPTION**

- 2.2.1 The purpose of the one-to-one intercom systems shall be to provide separate, quality audio monitoring and two-way communication between security glass as shown on the plans.

- 2.2.2 Each basic system shall consist of a Operator's unit, two loudspeakers, one uni-directional microphone and power supply. Operator's unit shall include built-in microphone, loudspeaker and four function keys. Headset, handset, gooseneck microphone, flush mount speakers and hearing aid amplifier shall be available options for basic system.
- 2.2.3 Each basic system shall require no holes be drilled in the security glass.
- 2.2.4 The scope of each system shall include all features and functions described herein and all equipment shown on the plans. Each system shall be capable of adding optional features and components listed in the specifications, even if not initially included or shown on the plans.
- 2.2.5 Complete and operational systems shall be provided.

### 2.3 SYSTEM CONFIGURATIONS

- 2.3.1 Each basic system shall consist of a Operator's unit, two loudspeakers, one uni-directional microphone, power supply and options as required in each location and as shown on the plans. Operator's unit shall be desk or flush mountable.

### 2.4 SYSTEM OPERATION AND FEATURES

- 2.4.1 **ON/OFF** - System shall be turned on by pressing the blue ON/OFF button on front of the Operator unit. This shall illuminate an LED on the unit and allow immediate hands free loudspeaking.
- 2.4.2 **MICROPHONE SELECTOR** - An optional gooseneck noise cancelling microphone shall be activated by pressing the yellow Microphone Selector button. This shall illuminate an LED. Pressing the yellow button again shall turn off the LED and restore use of the build-in microphone.
- 2.4.3 **STANDBY** - Pressing the green STANDBY button shall force the speech direction towards the operator and lower the volume -6db. This shall illuminate an LED on the unit. Pressing the green STANDBY button again shall return the unit to duplex operation and turn off the LED.
- 2.4.4 **SIMPLEX** (*in STANDBY mode*) – While the green STANDBY button LED is illuminated press and holding the pink PUSH-TO-TALK button shall force the speech direction towards the counter and raise the volume +6db. Releasing the button shall return the unit to STANDBY mode.
- 2.4.5 **PUSH-TO-TALK** (*in DUPLEX mode*) - While the green STANDBY button LED is off press and holding the pink PUSH-TO-TALK button shall force the speech direction towards the counter and raise the volume +6db. Releasing the button shall return the unit to DUPLEX mode.
- 2.4.6 **VOLUME** - Controls on the rear of the unit shall adjust sound level for both directions.
- 2.4.7 It shall be possible to plug in an optional audio headset or handset to obtain low-speaking open duplex conversation in heavy noise environments.

## 2.5 EQUIPMENT AND PRODUCTS

- 2.5.1 **BI-WAY OPERATOR'S UNIT.** Shall include the following controls: on/off button; standby button; microphone selector button; press-to-talk button; and 4 LED indicators. Shall include connections for optional gooseneck microphone, headset, handset and hearing aid loop. Shall be suitable for both desk and surface mounting. Shall be STENTOFON #LBB 7026/60.
- 2.5.2 **BI-WAY EXTERNAL MICROPHONE KIT.** Shall include an aluminium profile for cable concealment and one electret microphone. Shall be attachable to glass with self adhesive tape. Shall be STENTOFON #LBB 7026/73.
- 2.5.3 **BI-WAY LOUDSPEAKER KIT.** Shall be 2 ABS housed 50 ohm 2 Watt max speakers mounted on glass with self adhesive tape or wall with screws. Shall be STENTOFON #LBB 7026/80.
- 2.5.4 **POWER SUPPLY.** Shall provide 12 Volt, DC @ 1.2 amps. Shall be UL listed, and complete with AC plug-in and output cord. Shall be STENTOFON #1119.

## 2.6 ACCESSORIES

- 2.6.1 **BI-WAY GOOSENECK MICROPHONE.** Shall be STENTOFON #LBB 7026/71.
- 2.6.2 **BI-WAY EXTERNAL MICROPHONE.** Shall be STENTOFON #LBB 7026/73.
- 2.6.3 **BI-WAY FLUSH-MOUNT LOUDSPEAKER KIT.** Shall be STENTOFON #LBB 7026/81.
- 2.6.4 **BI-WAY HEARING AID KIT.** Shall be STENTOFON #LBB 7026/82.
- 2.6.5 **HEADSET.** Shall be STENTOFON #LBB 7072/83.
- 2.6.5 **HANDSET WITH CRADLE KIT.** Shall be STENTOFON #LBB 7073/82.

## Part III: Execution

### 3.1 Installation

- 3.101 The system shall be installed by qualified technicians who have been factory trained and certified in the installation and maintenance of this particular system.
- 3.102 Wiring shall be uniform, approved for intercom use and in accordance with national electric codes and manufacturer's instructions. Contractor shall install the appropriate size wire for the distances involved on this project.
- 3.103 Equipment shall be firmly secured, plumb, and level.
- 3.104 All splices shall be in stations or in appropriate enclosed junction boxes.
- 3.105 All cable runs shall be tagged and identified.
- 3.106 All work shall be coordinated with other trades involved.

### **3.2 System Initializing & Programming**

- 3.201 The system shall be turned on and adjustments made to meet all requirements of the specifications and on-site conditions.
- 3.202 The system shall be programmed to function as specified.

### **3.3 System Test Procedures**

- 3.301 The system shall be completely tested to assure that all components, stations, speakers, accessories, etc. are hooked up and working.
- 3.302 The system shall be pre-tested by contractor and certified to function in accordance with the plans and specifications.
- 3.303 The system shall be tested in the presence of the owner, or owner's representative, if required.

### **3.4 Manuals & Drawings**

- 3.401 The contractor shall provide the owner with two (2) copies of standard factory prepared installation manuals.
- 3.402 The contractor shall provide the owner with two (2) copies of any risers, layouts, and special wiring diagrams showing any changes to standard drawings (if required on this project).