I. Introduction

This Quick Installation Guide provides instructions for installation of the **VOIP-600 Series Phone**. It is recommended to read this instruction set completely before starting any installation.

II. Contents

Please ensure receipt of each of the included **VOIP-600 Series Phone** components:

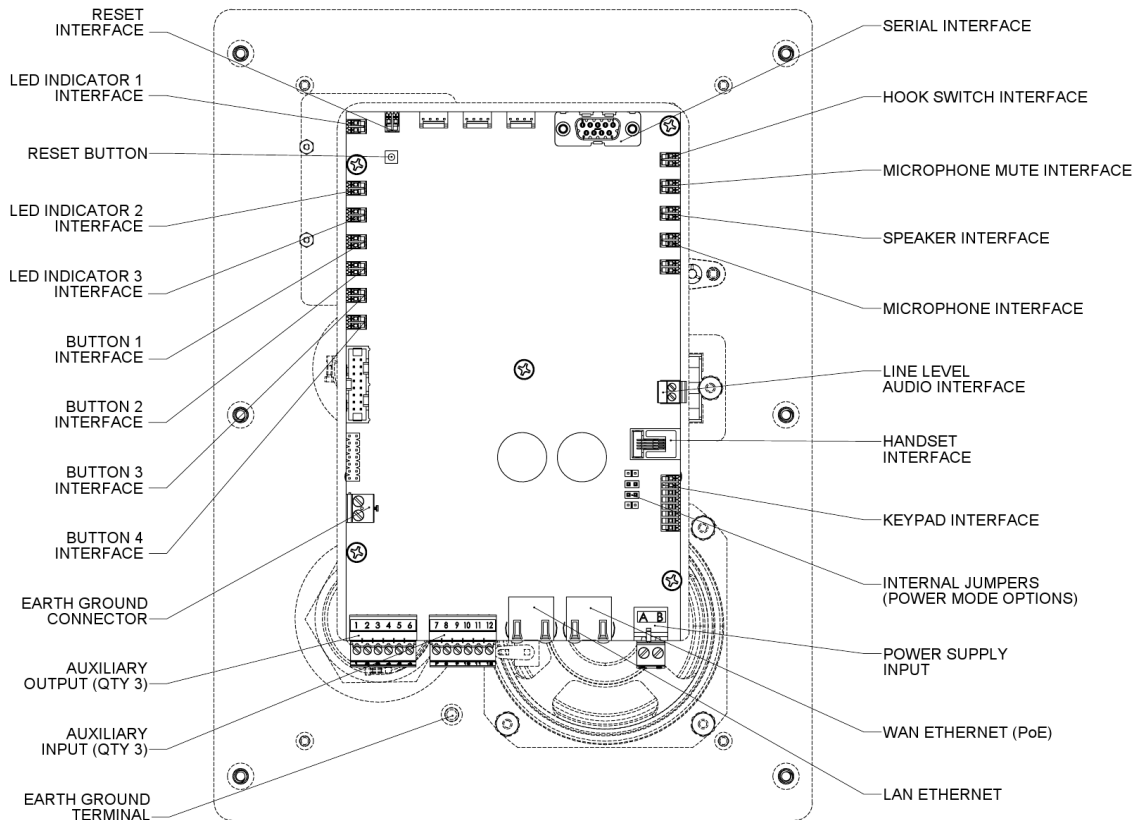| QTY	Part Number	Description
1	*See Carton/Product*	VOIP-600 Series Phone
3	42935	#10-24 T20 Torx® Pin-Head Stainless Steel Screws
3	42936	#10-24 T20 Torx® Pin-Head Black Anodized Stainless Steel Screws
1	86392	Ferrite Core

Optional components include:

Part Number	Description
42938	T20 Torx® Pin-Head Bit
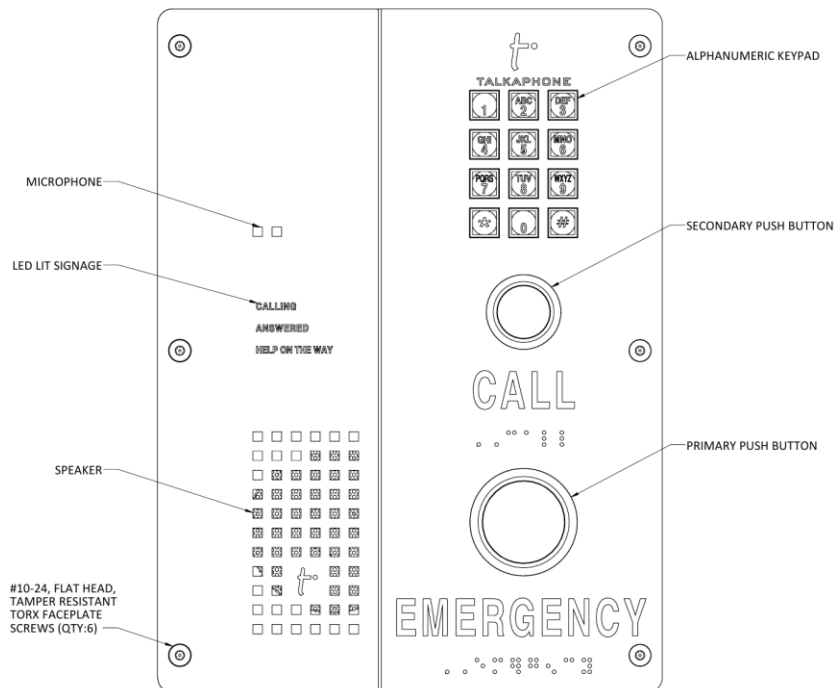
Figure 1 - Front view of a VOIP-600K

III. Field Wiring Installation

1. Remove and set aside the **VOIP-600 Series Phone** assembly.
2. Remove the back box from the **VOIP-600 Series Phone** assembly by unfastening the four (4), #6-32 nuts and washers.
3. For PCB (Printed Circuit Board) wiring details, refer to **Figure 2.**

RESET INTERFACE
LED INDICATOR 1 INTERFACE
RESET BUTTON
LED INDICATOR 2 INTERFACE
LED INDICATOR 3 INTERFACE
BUTTON 1 INTERFACE
BUTTON 2 INTERFACE
BUTTON 3 INTERFACE
BUTTON 4 INTERFACE
EARTH GROUND CONNECTOR
AUXILIARY OUTPUT (QTY 3)
AUXILIARY INPUT (QTY 3)
EARTH GROUND TERMINAL

SERIAL INTERFACE
HOOK SWITCH INTERFACE
MICROPHONE MUTE INTERFACE
SPEAKER INTERFACE
MICROPHONE INTERFACE
LINE LEVEL AUDIO INTERFACE
HANDSET INTERFACE
KEYPAD INTERFACE
INTERNAL JUMPERS (POWER MODE OPTIONS)
POWER SUPPLY INPUT
WAN ETHERNET (PoE)
LAN ETHERNET

Figure 2 - Internal PCB (Printed Circuit Board) view

IV. Network Connectivity

The **VOIP-600 Series Phone** is equipped with two (2) Ethernet ports. The WAN Ethernet (PoE) port should be used as the primary port for data communications. The WAN Ethernet port can be used to power the phone via an IEEE 802.3af, Class 3 compliant PoE supply.

The **VOIP-600 Series Phone** has a layer 2 switchport labeled LAN Ethernet which can provide network connectivity to an auxiliary device (e.g., IP Camera, card reader, etc.). The LAN Ethernet port is a pass-through port and cannot be used to access the phone.

When installing the network cable, it is essential to have a ferrite core (provided with the phone), installed on to the cable as close as possible to the RJ45 connector. Make sure the network cable is passed twice through the ferrite core, forming a loop with a diameter no less than one (1.0) inch.

A cable with a rating of Cat5e or higher with an RJ45 connector is typical for all network cables.
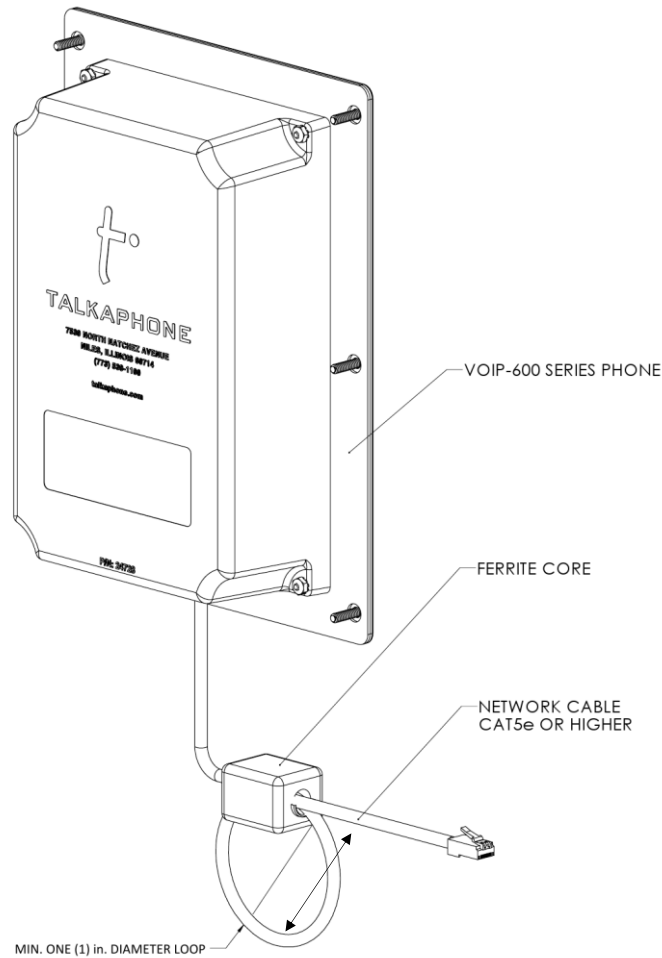
Figure 3 - Installation of the ferrite core on the network cable

V. Power Requirements

The **VOIP-600 Series Phone** can be powered over Ethernet or through a dedicated, line-regulated power supply that meets the following specifications:

| Power Input	Description	Acceptable Voltage	Power Consumption
Ethernet WAN	PoE – IEEE 802.3af Class 3	+36-57 VDC	150 mA
Power Supply Input	12 VDC	+10-14 VDC	500-800 mA
Power Supply Input	24 VDC	+21-27 VDC	300-500 mA
Power Supply Input	24 VAC	+21-27 VAC	300-500 mA

VI. Power Installation

Power over Ethernet: Connect the Ethernet cable (Power + Data) to the WAN Ethernet port on the PCB as shown in **Figure 2**.

Local Power: For 12 VDC power mode, place the internal jumpers on the two outermost terminals as shown in **Figure 4**. Once the jumpers are correctly set, connect the power supply to the Power Supply Input using a two conductor, No. 24 to 12 AWG cable as shown in **Figure 5**. For 12 VDC, ensure the negative (-) supply is connected to terminal **A**, and the positive (+) supply is connected to terminal **B**.

For 24 VDC/VAC power modes, place the internal jumper on the two innermost terminals as shown in **Figure 4**. Once the jumpers are correctly set, connect the power supply to the Power Supply Input using a two conductor, No. 24 to 12 AWG cable as shown in **Figure 5**. For 24 VDC/VAC, ensure the positive (+) supply is connected to terminal **A** and the negative (-) supply is connected to terminal **B**.
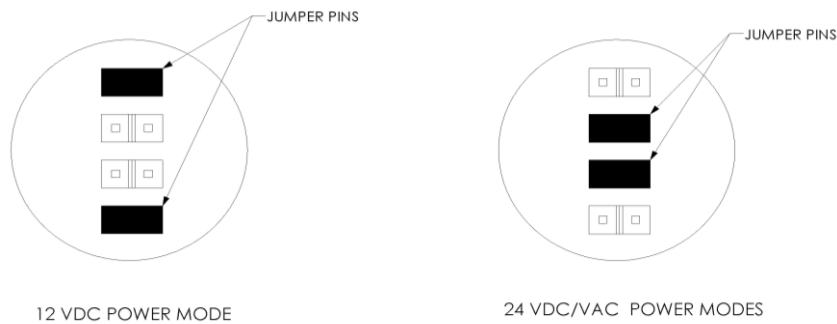
Figure 4 - Internal Jumper position for external power modes.
Phone default setting is 24 VDC/VAC.
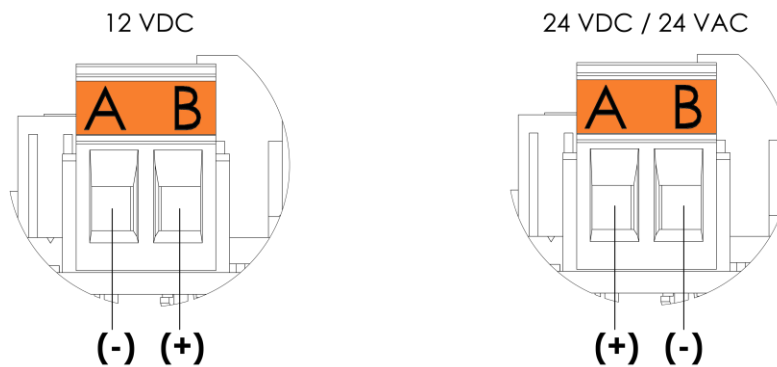
Figure 5 – Power Supply Input connection polarity

VII. Earth Ground

The faceplate of the phone must be connected to earth ground. Install a #10 ring terminal to the ground wire before connecting it to the Earth Ground Terminal on the rear of the faceplate as shown in **Figure 2**.

VIII. Auxiliary Input / Output

1. The **VOIP-600 Series Phone** has three (3) Auxiliary Inputs (dry contact, 10 mA @ 8 VDC) and three (3) Auxiliary Outputs (dry contact, 120 mA @ 60 VAC/DC). Auxiliary Outputs allow peripheral equipment, such as blue lights, PTZ cameras, door entry systems, etc., to be activated when the push button is pressed.
2. Two (2) removable 6-pin connector plugs are provided for the auxiliary input and output as shown in the **Figure 6**.
3. The Auxiliary Input and Auxiliary Output connections are as follows:

Auxiliary Input Connection	Connector Plug Pin Position
Aux. Input 1	Position 7 and 8
Aux. Input 2	Position 9 and 10
Aux. Input 3	Position 11 and 12
Auxiliary Output Connection	**Connector Plug Pin Position**
Aux. Output 1	Position 1 and 2
Aux. Output 2	Position 3 and 4
Aux. Output 3	Position 5 and 6

Use a two conductor, No. 28 to 16 AWG cable size for all auxiliary connections.
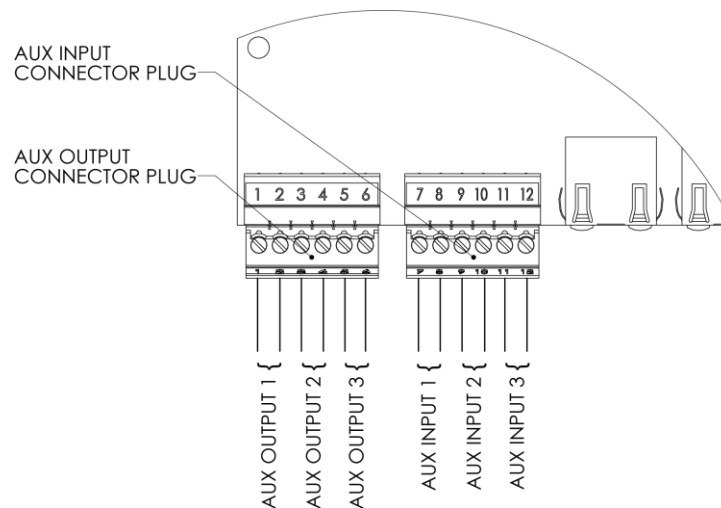
Figure 6 - Auxiliary Input and Auxiliary Output connectors

X. Line Level Audio

Connect the Line Level Audio connector, on the PCB as shown in the **Figure 2**, to the respective device on the other end (e.g., WEBS® paging amplifier, recording device, speaker).

XI. Final Assembly

After completing the field wiring installation, fasten the back box on to the faceplate with the six (6) hardware nuts and washers.

NOTE: It is the installer's obligation to ensure that the wiring should pass through the cable entry hole at the bottom of the back box. Please exercise caution when reinstalling the back box and ensure that no cables are crushed during the process.

Install the **VOIP-600 Series Phone** into its appropriate mount (e.g., **ETP-SM**, as shown in **Figure 7**), with the six (6) tamper resistant #10 faceplate screws provided.
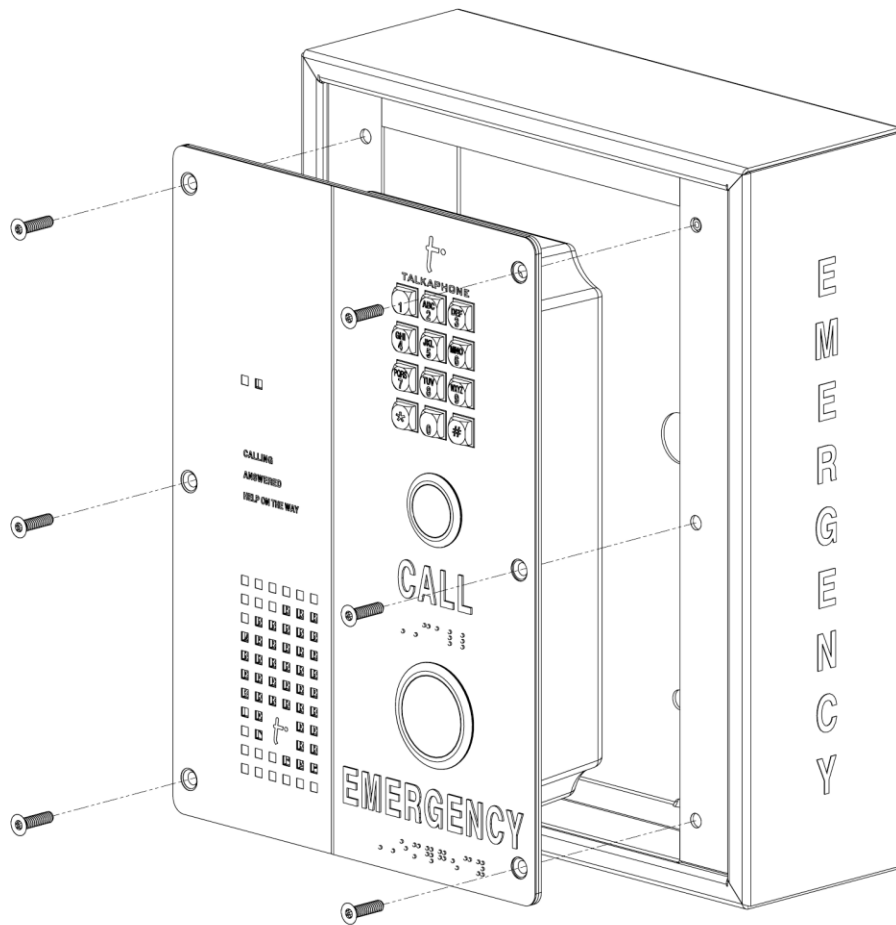
Figure 7 - Installation of VOIP-600K into an ETP-SM