SIEMENS

Installation Instructions
Model TZC-8B

Telephone Zone Card (500-034110 / S24235-B117-A2)

INTRODUCTION

The SIEMENS Model TZC-8B Telephone Zone Card provides a way for emergency response personnel located throughout a building to speak with one another during emergency situations. The card is located in any enclosure and is connected to jacks or Fire Fighter's Telephone Stations located throughout the building. Portable phones (Models PFT and PFT-P) that plug into these jacks or Fire Fighter's Telphone Stations (Model FTS) can communicate to the SIEMENS Model FMT Fireman's Master Telephone located at the main enclosure or to telephones connected to the system.

OPERATION

Each TZC-8B module provides eight telephone zones. The TZC-8B module connects to the emergency telephones or telephone jacks located throughout a building through the eight telephone zones. In addition, it is also connected to the phone riser and to the CAN bus which the system uses to control the TZC-8B.

In normal operation, the TZC-8B monitors the inputs of the eight zones to detect if one of the connected phones is off hook or "jacked in". When this is detected, the TZC-8B transmits a message to the system via the CAN bus. The system indicates the call on the front panel. Depending on operator action, a message is sent back to the TZC-8B to connect the zone through to the phone riser.

All the TZC-8B zone circuits are supervised for Class B (Style Y) use only.

Controls and Indicators

The front panel of the TZC-8B contains one reset switch, 20 LEDs and one CAN address switch as shown in Figure 1.

A reset switch is located on the top of the front panel. Pushing the reset switch re-initializes the TZC-8B operation.

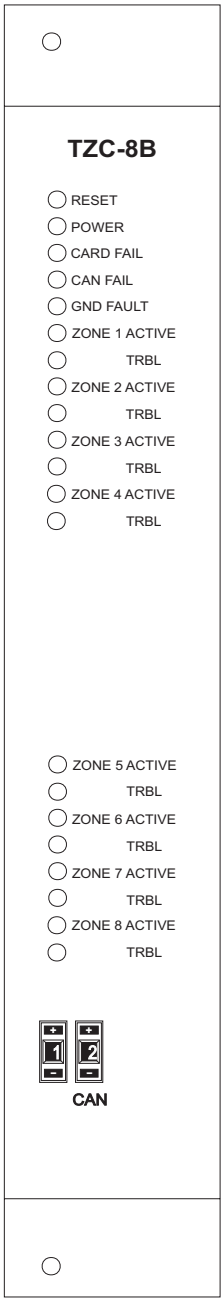

Figure 1
TZC-8B Telephone Zone Card

P/N 315-034110-2
A24205-A334-B821

The LEDs follow the reset switch and their functions are defined as follows:

POWER	(Green)	Normally ON. When illuminated, indicates that power for the TZC-8B is applied to the card.
CARD FAIL	(Yellow)	Normally OFF. When illuminated, indicates that the card microprocessor has failed.
CAN FAIL	(Yellow)	Normally OFF. When illuminated, indicates that the CAN communication with the TZC-8B has terminated.
GND FAULT	(Yellow)	Normally OFF. When illuminated, indicates that theTZC-8B has detected either a negative or positive ground fault on its field wiring.
ZONE 1 ACTIVE	(Red)	Normally OFF. When illuminated, indicates that Zone 1 is active.
TROUBLE	(Yellow)	Normally OFF. When illuminated, indicates that the TZC-8B has detected a trouble on Zone 1 (open circuit or short circuit).
⇩		
ZONE 8 ACTIVE	(Red)	Normally OFF. When illuminated, indicates that Zone 8 is active.
TROUBLE	(Yellow)	Normally OFF. When illuminated, indicates that the TZC-8B has detected a trouble on Zone 8 (open circuit or short circuit).

PRE-INSTALLATION

CAN Network Address Switch: Set the two-digit CAN network address for the TZC-8B using the two-position switch located near the bottom of the front panel. (Refer to Figure 1 for the location of the switch.) The address selected at the frontpanel of the TZC-8B must be the same as the address selected in the Zeus programming tool. To increment each digit of the address, press the “+” button above the desired digit; to decrement each digit, press the “-” button below the desired digit. Allowable addresses are from 01 to 99 (leading zeros must be used).

WIRING

WARNING

Disconnect BATTERY and AC prior to working on equipment.

All field wiring to the TZC-8B is connected to the terminal blocks of the CC-5 card cage slot in which it is installed (refer to Figure 2).

The top terminals (1 through 8 and 9 through 16) are connected to telephone zones 1 through 8. Terminate all unused outputs with an EOL resistor, as shown in Figure 2.

Of all the bottom terminals (17 through 24), only terminals 17 and 18 are used for +24V connections.

The screw terminals can accommodate one 18-14 AWG (1mm^2 -2.5mm^2) or two 16-24 AWG (∅ 0.5mm-1.5mm^2)

COMPATIBLE FIREFIGHTER'S TELEPHONE SYSTEM ACCESSORIES

MODEL	DESCRIPTION
FTS	Firefighter's Telephone Station
FTS-P	Firefighter's Telephone Station - Push To Talk
FTS-C	Firefighter's Telephone Station - Armored Cable
FTS-CL	Firefighter's Telephone Station - Armored Cable & LED
FTS-PCL	Firefighter's Telephone Station - Push To Talk, Armored Cable & LED
FJ-303	Remote Phone Jack
FJ-303SS	Remote Phone Jack - Stainless Steel
FJ-304	Remote Phone Jack
FJ-304SS	Remote Phone Jack - Stainless Steel
PFT	Portable Firefighter's Telephone
PFT-P	Portable Firefighter's Telephone - Push To Talk
FB-300	Flush Backbox For Remote Telephone
FB-301S	Surface Backbox For Remote Telephone
FC-300S	Key-Locked Door For Backboxes
FT-GLS	Replacement Glass

NOTES
1. All wiring must be in accordance with Article 760 of NEC or local building codes.
2. All output circuits are power limited to NFPA 70 per NEC 760.
3. Electrical Ratings:
   Output Zone Supervisory:
   35mA max @ 24VDC
4. A maximum of 10 phones can be simultaneously connected throughout the system.
5. An unlimited number of jacks can be connected to each zone on the TZC-8B.
6. 100Ω max per zone.
7. Use twisted pair or shielded twisted pair.
8. Terminate shield at TZC-8B only.

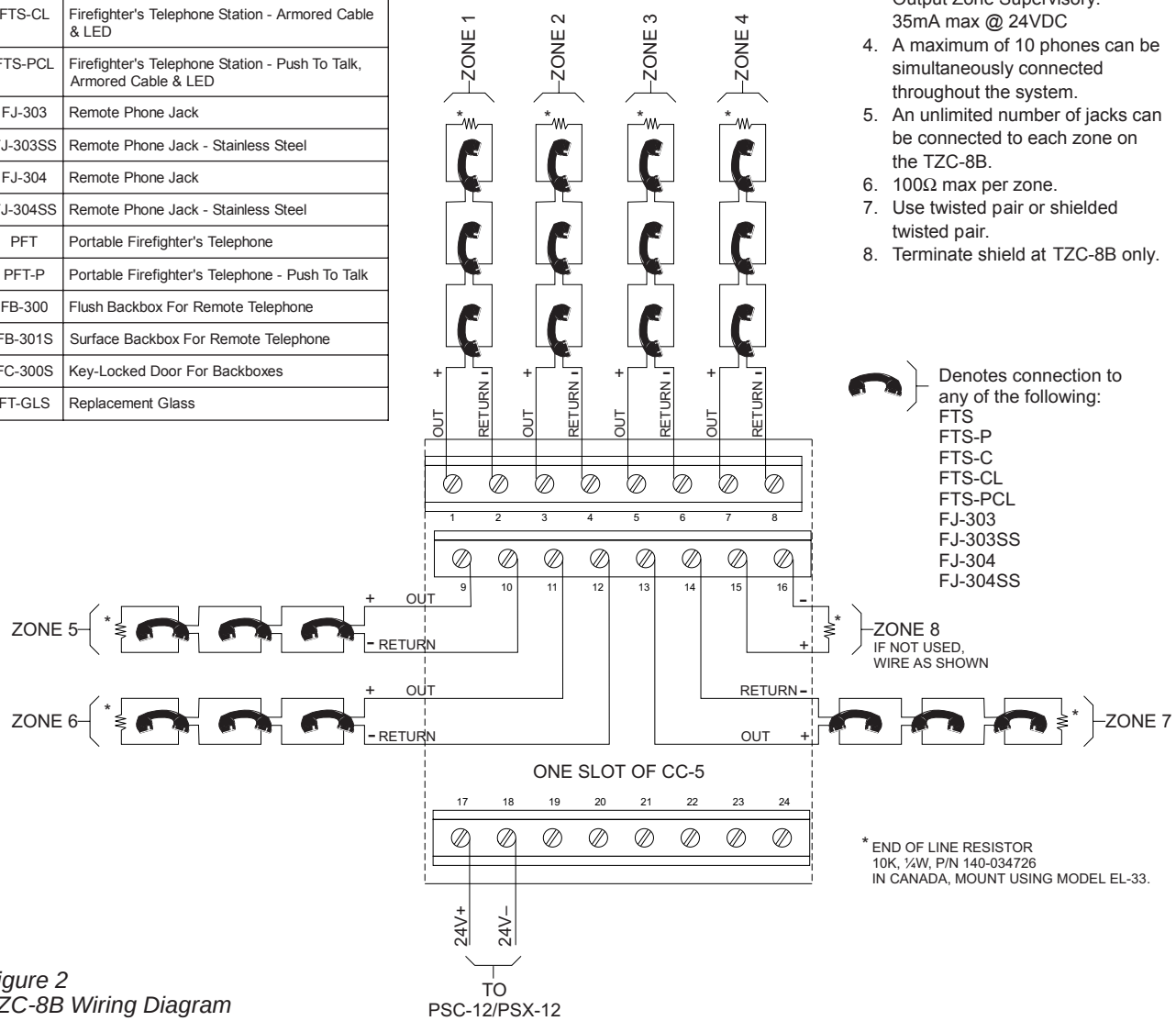

Figure 2
TZC-8B Wiring Diagram

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INSTALLATION

The TZC-8B plugs perpendicularly into one slot in the CC-5 card-cage via two 96-pin DIN connectors and can occupy any slot in the card cage.

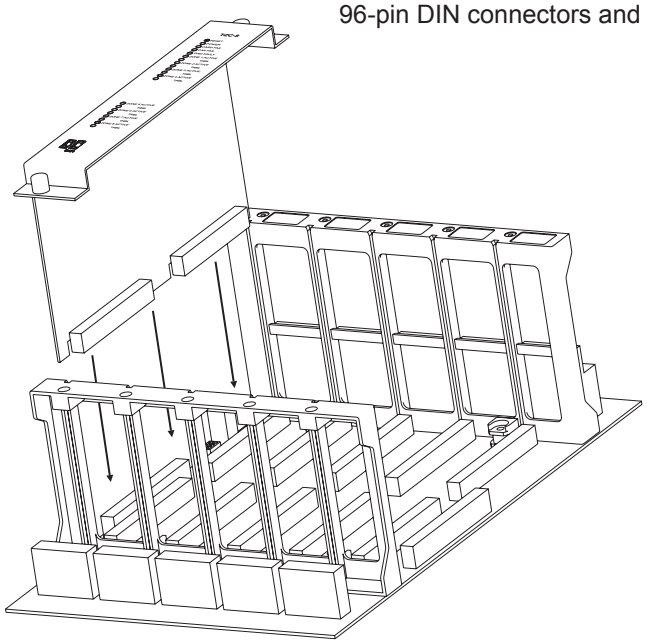

Figure 3
Installing The TZC-8B

Insert the TZC-8B card into the card guides rightside up (lettering on the front panel is legible).

Slide the card in until the card edge connectors contact the receptacles on the motherboard.

Verify that the DIN connectors of the card and the card-cage aligned properly. The card can only plug in one direction to the card cage, if it does not align, DO NOT FORCE the card.

Place thumbs on the front panel adjacent to the captive screws and gently apply even pressure on the card until the connectors seat in the receptacles on the motherboard.

Secure with the captive screws.

Power up the system and verify that the TZC-8B power LED turns ON.

To Connect External Wiring

Lift the WHITE cover on the terminal block.

Loosen the screw of the terminal by turning it counterclockwise.

Insert the wire into the side of the terminal block

Tighten the screw of the terminal block by turning it clockwise.

ELECTRICAL RATINGS

24V Back Plane Current	0
Max Screw Terminal 24V Current	280mA + 35mA per active zone
6.2V Back Plane Current	0
24V Standby Current	280mA

For CE applications in Cerberus E100 systems refer to
Installation Instruction A24205-A334-B844 (English) or A24205-A334-A844 (German).

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