

FT200C-A

Weather Resistant Telephone for
Hazardous Locations

25500868 Rev A0 1123



Limited Warranty: This product's limited warranty can be found at www.fedsig.com/SSG-Warranty.

SAFETY MESSAGES TO INSTALLERS AND USERS

- **WARNING: ELECTRICAL HAZARD** – This product should be installed by a licensed electrician according to all electrical and building codes.
- **AVERTISSEMENT : RISQUE ÉLECTRIQUE** – Ce produit doit être installé par un électricien agréé conformément à tous les codes de l'électricité et du bâtiment
- **WARNING: HAZARDOUS AREA** – Before opening the enclosure, ensure that the area is safe and that the power conductors are not live.
- **AVERTISSEMENT : ZONE DANGEREUSE** – Avant d'ouvrir le boîtier, assurez-vous que la zone est sûre et que les conducteurs d'alimentation ne sont pas sous tension.

Failure to follow all safety precautions and instructions may result in property damage, serious injury, or death to you or others.

Table 1 Specifications

Performance	
Audible Range Frequency Response	300-3400 Hz
Dialing Method	DTMF or 40/60 pulse at 10 PPS
Transmit Objective Loudness Rating (TOLR)	-38 +/- 3 dB
Receive Objective Loudness Rating (ROLR)	
- At nominal volume level	50 +/- 3 dB
- At maximum volume level	42 +/- 3 dB
- At minimum volume level	55.5 +/- 3 dB
Side Tone Objective Loudness Rating (SOLR)	
- At nominal volume level	11 +/- 4 dB
- At maximum volume level	7 +/- 4 dB
- At minimum volume level	14 +/- 4 dB
Ringer Output	75 dB maximum
FCC Ringer Equivalence	0.8 b
Set Impedance	600 ohms nominal
Maximum Loop	15,000 feet (4,600 m) Of 22 AWG Copper
Electrical	
Ringer Sensitivity	40-100 V, 16-25 Hz
Line Voltage	24-56 Vdc
Loop Current	20-120 mA
Connection Method	Surge Arrestor
Fuse	1/4 A 250 V 3AG Fast Blow

Environmental	
Weatherproof	Enclosure NEMA 3 R
Temperature	-40° to +60°C (-40° to +140°F)
Humidity	0 To 95% RH
Dustproof	Fully gasketed enclosure
Corrosion Resistant	MIL-STD-810E salt fog
Mechanical	
Hook Switch (Cradle Switch) Life	>1 000 000 Operations
Body Construction	VALOX™ 357U® Engineering Polymer
Dimensions (H X W X D)	12 X 9.6 X 3.9 inches (305 X 245 X 99 mm)
Net Weight	6.5 lb (2.95 kg)
Shipping Dimensions	15.0 X 11.5 X 5 inches (381 X 293 X 127 mm)
Shipping Weight	8 lb (3.7 kg)
Handset Material	High impact ABS
Microphone	Noise reducing electret
Receiver	Hearing aid compatible (HAC)
Standard Mounting	Vertical wall
Wiring Access	1/2" NPT Conduit Hub
Hardware Material	Stainless Steel

Table 2 Compliance, CSA Ratings and Temperature Code

Industry Canada	1012 6721 A
FCC	HQHCAN-22517-TE-E
CSA - Canada	Class I, Div. 2 Groups A, B, C, and D Class II, Div 1 and 2, Groups E, F, and G
CSA - US	Class I, Div. 2 Groups A, B, C, and D Class II, Div 2, Groups F and G
TEMPERATURE CODE	T5
Weatherproof	Enclosure NEMA 3R
Environmental Survivability	MIL-STD-810E

NOTE: FT200C-A does not meet FCC and IC requirements for receiver volume control.

GENERAL: The FT200C-A telephone is designed to provide safe, reliable communication in hazardous areas that are prone to high humidity, chemical vapors, dust, and physical abuse. The FT200C-A is approved for use in Class I, Division 2 Groups A, B, C, and D and Class II, Division 1, and 2 Groups E, F, and G areas. The unit is housed in a rugged, weather and corrosion resistant enclosure that ensures operation in severe conditions.

Features

Enclosure

- Weather tight, rugged Valox and steel
- Spring-loaded hinged door

Faceplate

- 16 Gauge steel with wiring access to surge arrestor

Mounting Plate

- Stainless steel mounting plate for ease of installation

Encapsulated Circuitry

- Circuit boards are resistant to corrosive agents (e.g., H₂S, SO₂, and NH₃), and environments with high humidity

Surge Arrestor

- Protects the user in the event of a high voltage spike on the telephone line

Fuse

- Prevents damage to the electronic circuits in the event of a high voltage spike on the telephone line

Magnetic Reed Hook Switch

- No moving parts

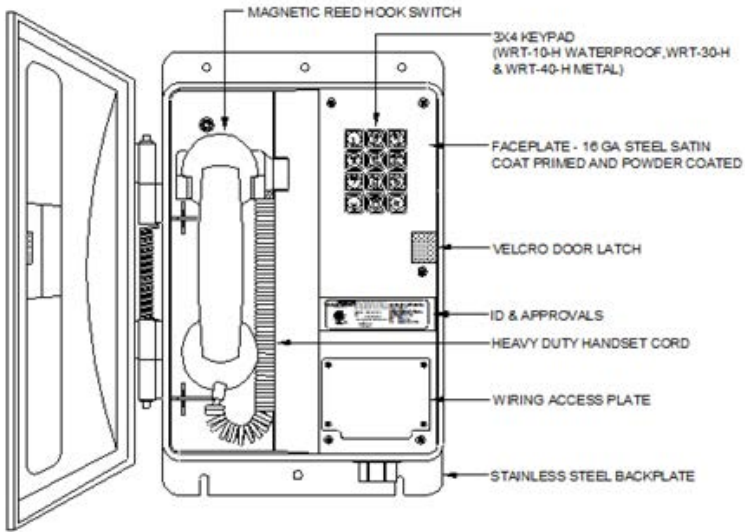
Tone (DTMF) Operation

- Factory set to tone (DTMF) dialing
- Pulse dialing can be configured in the field

Hearing-Aid Compatible (HAC) Receiver

- Compatible with inductively coupled hearing aid devices

Figure 1 Features

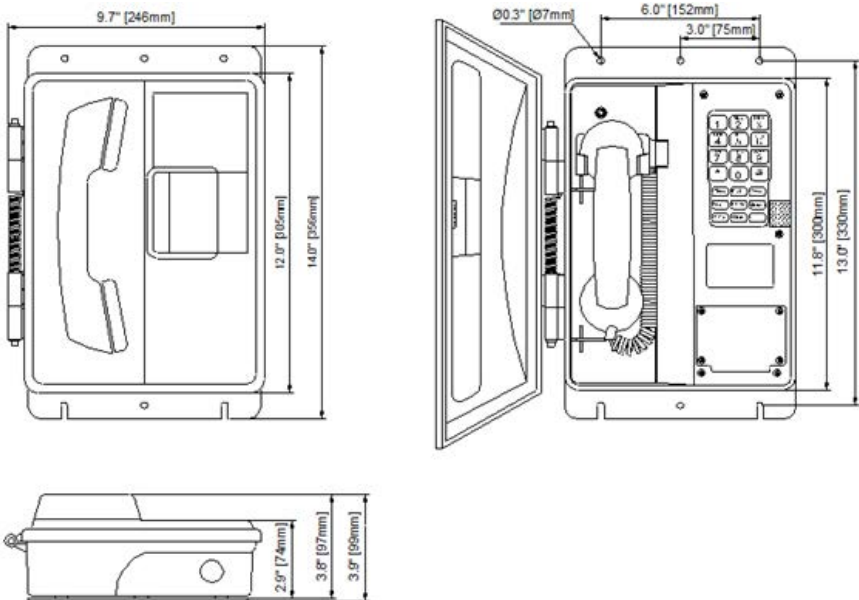


Installation

NOTES:

- The FT200C-A is set to tone dialing when shipped. If pulse dialing is required, see the section on Setting Tone/Pulse Operation.
- Follow all appropriate electrical codes and use only approved electrical fittings for the installation.
- To avoid the possibility of creating sparks in a hazardous atmosphere, disconnect the wiring at the demarcation block or ensure that the area is non-hazardous before proceeding.
- To avoid a shock, disconnect the Tip and Ring conductors at the demarcation block to ensure that none of the electrical connection circuits are live.
- Choose a wall location that is free of obstructions and permits space for wiring.
- Ensure that mounting can support 6.5 lb (2.95 kg) plus any additional, foreseeable load.

Figure 2



To install the telephone:

1. Use the template to locate and drill holes for mounting screws.
2. Use #10 or M5 screws to secure the unit to the wall. Use anchors in plaster or cement to provide a firm grip for the mounting screws. Use sturdy hollow-wall fasteners to mount the set to drywall.
3. Remove the wiring access cover plate.
4. Bring the cable into the enclosure through the conduit entrance and attach the individual wires from the exchange – Tip/Ring/Ground – to the surge arrestor. (The tip and ring are not polarity sensitive.) If a conduit hub is used, ensure that it is grounded to the ground stud.
5. Replace the wiring access cover plate.
6. Check the set for loose screws and trapped wires. Check that the handset hangs freely in the cradle and that the handset cord is not trapped by the door.
7. Verify that the faceplate is snug to its gasket, paying particular attention to the area around the cradle. Make sure the door closes flush to the housing.
8. Connect the Tip and Ring conductors at the demarcation block.
9. Call to and from another unit on the exchange to test the unit.

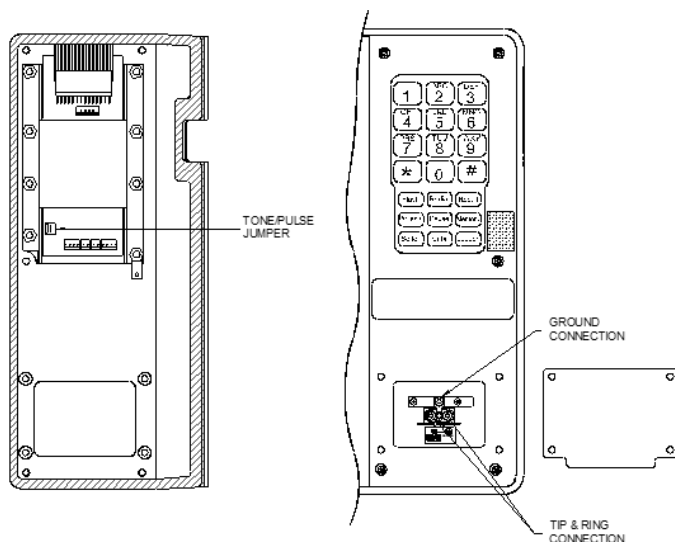
Setting the Dialing Mode

The FT200C-A is shipped from the factory set for DTMF (Tone) dialing mode. If loop disconnect (pulse) dialing is required, proceed as follows:

1. Disconnect the wiring at the demarcation block and ensure that the area is non-hazardous before proceeding.
2. Loosen the five captive screws in the faceplate and swing the faceplate to the left. If the set is on a vertical surface, the faceplate will stay open like a book in this position. Do not disturb the internal wiring.
3. Change the position of the Tone/Pulse jumper on the circuit board to Pulse as indicated on the label.

4. The telephone is now in pulse dialing mode; it can be returned to tone mode by changing the position of the jumper back to the Tone position.
5. Carefully replace the front plate and install all five screws. Do not over tighten the cover screws. There is a flexible gasket between the cover and the body. Excessive tightening of the screws deforms the gasket and reduces the weather resistance of the set.

Figure 3 Dialing Mode



Field Repairs and Adjustments

Field repairs must be carried out only by qualified technicians using OEM parts. Substitution of parts voids the warranty and may pose a hazard to users of the equipment.

1. Disconnect the wiring at the demarcation block and ensure that the area is non-hazardous before proceeding.
2. Loosen the five captive screws in the faceplate and swing the faceplate to the left. If the set is on a vertical surface, the faceplate will stay open like a book in this position. Do not disturb the internal wiring.
3. Perform the necessary repairs or adjustments.
4. Carefully replace the front plate and install all five screws. Do not over tighten the cover screws. There is a flexible gasket between the cover and the body. Excessive tightening of the screws deforms the gasket and reduces the weather resistance of the set.

Replacing the Fuse

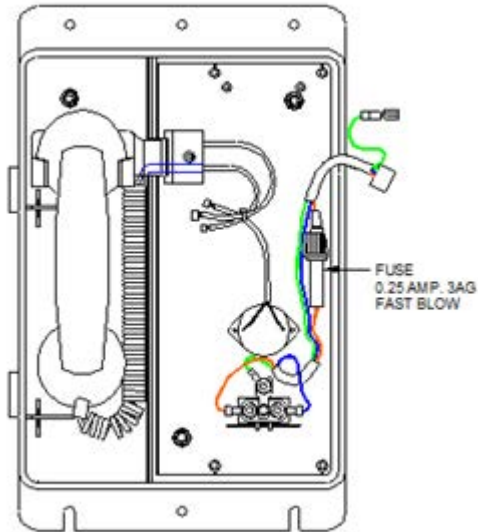
⚠ WARNING

Replace only with a 0.25 A 250 V 3 AG fast blow fuse. Failure to do so will void the warranty.

If the fuse fails on reconnecting power, check the telephone system wiring. The fuse protects the Tip and Ring line from the telephone system. It is usually powered at 48 Vdc and must not be connected to 120 volts AC.

1. To remove the old fuse, push in the end cap of the fuse holder and turn counterclockwise to open.
2. Insert a new 0.25 A, 250 V, 3 AG fast blow fuse and close the fuse holder.

Figure 4 Fuse Replacement



Storage

General Storage (All situations)

- Note any stacking limits or warnings on packaging (if any).
- Do not store in temperatures over +80°C.
- Store in original packaging, if possible, until needed.

Long Term Storage (> 6 Months):

- If the area is air-conditioned and not subject to high changes in humidity, continue to store in original packaging.
- If wide humidity shifts are expected, then use these steps:
 - Remove product from packaging (including plastic bags) and store on shelf in open air.
 - If the area is subject to a high degree of dust, to help maintain the cosmetic appearance, you can cover it with a cloth (Do not cover with plastic or materials that will trap moisture) or clean periodically.
 - Do not store out of packaging long term where they are exposed to sunlight. Long-term exposure to UV may cause fading on plastic parts.

Cleaning Tips

Telephones may occasionally need to be cleaned to maintain their appearance. Generally, wiping the surface with a clean, water-dampened cloth will remove most films or residues. If the soiling is too stubborn for plain water, a mild detergent solution may be used. Be sure to wipe away any detergent residue with a plain water-dampened cloth. The telephone may be cleaned with any general-purpose household glass and surface cleaner. Do not spray the telephone directly! Spray the cleaner on a soft cloth and then wipe the surface. Pretreated cloths, such as those used for eyeglasses or cameras, may be used to clean the telephone. Pre-moistened towelettes may also be used; however, avoid those containing lanolin or aloe, as they will leave a slippery residue. The handset and surface of the telephone may be cleaned with disinfectants used for general cleaning in a medical environment. Isopropyl alcohol may be applied with a cloth. Avoid using alcohol on silicon-based keypads, since doing so may significantly degrade legibility.

- Do not use furniture polishes, waxes, or plasticizer-based cleaner
- Do not use lanolin, aloe, glycerin, or other skin care type products.
- Do not apply any solvent such as acetone, mineral spirits, etc.
- Do not directly spray or immerse the handset.

Maintenance and Service

Technical Assistance: Contact our Technical Support Team at +1 708-587-3587 or signalsupport@fedsig.com.

Repair Service: A return authorization is required. Contact your Authorized Distributor or Federal Signal Customer Support. Defective products under warranty will be repaired or replaced at Federal Signal’s discretion.

Product Returns: Returns require authorization from Federal Signal. Contact your Authorized Distributor for more information on our return policy or to request a return.

Replacement Parts

Table 3 Replacement parts

Description	Part Number
Handset Assembly Complete – 6’ Coil Cord	P000113
Ringer – Mechanical Bell	P001970
Telephone Circuit Board	P005582
Reed Switch	P005917

Government Certification

Attached to the telephone are labels for Industry Canada and the United States Federal Communications Commission. These identify equipment certifications indicating the 60 and 70 series telephones meet certain telecommunications network protective, operational and safety requirements. These agencies do not guarantee the equipment will operate to the user’s satisfaction.

Before installing this telephone equipment, users should ensure it is permissible to connect the equipment to facilities of the local telecommunications company.

Equipment must be installed using acceptable connection methods. In some cases, the telephone users inside wiring, associated with a single line service, may be extended by a certified connector assembly (telephone extension cord). The customer should be aware that in some situations compliance with the above conditions may not prevent degradation of service.

Repairs to certified equipment should be made by a supplier designated authorized maintenance facility.

For their own protection users should ensure the electrical ground connections of the power utility, telephone lines and internal metallic water pipe systems, if present, are connected. This precaution may be particularly important in rural areas.

CAUTION: Users should not attempt to make ground connections but should contact the appropriate electrical inspection authority or electrician.

Load Number (LN)

The Load Number (LN) assigned to each terminal device denotes the percentage of the total load to be connected to a telephone loop used by the device. Termination on a loop may consist of any combination of devices subject only to the requirement that the total of the Load Numbers of all the devices does not exceed 100.

Notification to Telephone Company

Upon request, the customer must notify the telephone company of the line to which the connection will be made and provide the Industry Canada or FCC registration number. The local telephone company may request disconnection of the telephone where alterations or malfunctions affect the telephone’s performance.

United States Federal Communications Commission

This equipment generates, uses, and can radiate radio frequency energy, and if not installed and used in accordance with the instruction manual, may cause interference to radio communications. It has been tested and found to comply with the limits for Class A computing device pursuant to Subpart J of Part 15 of FCC rules, which are designed to provide reasonable protection against such interference when operated in a commercial environment. Operation of this equipment in a residential area is likely to cause interference in which case the user, at his own expense, will be required to take whatever measures may be required to correct the interference.

Interference

There is no guarantee that interference will not occur in a particular installation. If interference to radio or television reception from this equipment is suspected, proceed as follows:

1. Unplug the set, check for interference.
2. Re-orient the receiving antenna.
3. Relocate the set with respect to the receiver.
4. Move the set away from the receiver.

If necessary, consult the supplier or an experienced radio/television technician for additional suggestions.

FCC Rules and Ringer Equivalence Number

This equipment complies with Part 68 of the FCC Rules. On the side of this equipment is a label that contains, among other information, the FCC registration number and ringer equivalence number (REN) for this equipment. If requested, this information must be provided to the telephone company.

The REN is used to determine the quantity of devices which may be connected to the telephone line. Excessive RENs on the telephone line may result in the devices not ringing in response to an incoming call. In most, but not all areas, the sum of the RENs should not exceed five. To be certain of the number of devices that may be connected to the line, as determined by the total RENs, contact the telephone company to determine the maximum REN for the calling area.

Service changes and Limitations

The telephone company may make changes in its facilities, equipment, operations, or procedures that could affect the operation of the equipment. If this happens, the telephone company will provide advance notice for you to make the necessary modifications to maintain uninterrupted service.

This equipment cannot be used on public coin telephone service as provided by your telephone company. Connection to party line service is subject to state tariffs (contact the state public utility commission, public service commission or corporate commission for information.)



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Traducciones adicionales disponibles en signaling.fedsig.com

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