



# Heavy Duty Emergency VoIP Telephones

HDE-20/30-V Series

Maintenance Checklist



P006411 Rev. A0 230313 3/15/2023 10:33 AM

## Routine Maintenance

Guardian Telephones are designed to perform for extended periods of time in harsh environments, so routine maintenance and part replacement is not required on a pre-determined factory schedule. It is recommended for safety and emergency applications that a functionality test and general inspection are performed on a schedule determined by the end-users' specifications. This is to ensure phones function as intended and physical hardware has not been damaged, or tampered with. The checklist below is a general basis for testing HDE telephones and does not include testing of auxiliary devices, or the interaction with such devices. Performing automatic diagnostics can be done remotely, with automatic alerts with Guardian's iGuard monitoring and reporting software, contact your Guardian representative for more information.

## Cleaning Tips for Guardian Telephones

Guardian 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 type cleaner. Do not spray the telephone directly! Spray the cleaner on a soft cloth then wipe the surface. Pre-treated cloths such as those used for eyeglasses or cameras may be used to clean the Telephone. Premoistened towelettes may also be used, however, avoid those containing lanolin or aloe, as they will leave a slippery residue. The surface of the telephone may be cleaned with disinfectants used for general cleaning in a medical environment. Isopropyl alcohol may be used 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 (Armor All etc.)
- 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 components.

## Storage

General Storage (All situations):

- Note any stacking limits or warnings on packaging (if any).
- Do not store in temperatures over +80C.
- 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 cosmetic appearance you can cover it with cloth (Do not cover it 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.

## Field Repairs

**Note: The VoIP PCBA is susceptible to damage from electrostatic discharge (ESD) and is protected by a metal shield. If it is necessary to remove the shield, take suitable precautions.**

Disconnect the network/PoE Cable and Aux Power if necessary.

Carefully remove the front cover assembly and separate from the housing by disconnecting the harness plugs. NOTE that all electronics are attached to the front plate.

Perform the necessary repairs or adjustments.

Carefully replace the front plate and install all 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.

### ***Ringer Speaker Replacement***

Unplug the speaker connector from the main board.

Remove the screws that hold the speaker cap to get access to the speaker.

Install the new speaker and gasket.

Reconnect the speaker connector to the main board.

### ***Main Circuit Board Replacement***

Label any wiring attached to the circuit board. Disconnect wiring and ribbon cable.

Remove the six screws holding the circuit board in place. Carefully remove the board and replace it with the new board.

### ***Switch Contact Block Replacement***

Disconnect the two wires from the switch block that connect it to the circuit board.

Remove the retaining screw and lift off the switch block.

Position the new switch block, tighten the retaining screw, and re-connect the wiring.

### ***Pushbutton Replacement***

Remove the switch block as above.

To disconnect the pushbutton assembly loosen the two retaining screws and rotate the base while holding the metal ring.

Reassembly is the reverse of disassembly.

Replacement Parts		
Part No.	Description	Field Replaceable
P003021	GASKET - METAL KEYPAD	Yes
P004585	LED – GREEN WATERTIGHT PANEL MOUNT	Yes
P005764	GROMMET - 7/8" SOLID BLACK	Yes
P005951	SWITCH - 30mm PUSH BUTTON RED, SS, C/W LED, 3V	Yes
P006003	GASKET - MICROPHONE/SPEAKER INSTALLATION	Yes
P006484	SWITCH - 30mm PUSH, BUTTON, ,BLUE, SS, C/W LED	Yes
P007395	PCBA - VOIP/TEL/HANDSET (VOIP TEL)	Yes
P007531	SA - METAL KEYPAD HDE VOIP C/W PCB AND CABLE	Yes
P007535	SCREW - #10-32 x 1/2" (T-25) FLAT HD, TORX TAMPER RESISTANT	Yes
P007637	SA - MICROPHONE 12" WIRES W/O CONNECTOR	Yes
P007666	LBL – EMERGENCY BILINGUAL C/W BRAILLE	Yes
P007667	LBL – INFO BILINGUAL C/W BRAILLE	Yes
P007668	LBL – YARD CONTROL BILINGUAL C/W BRAILLE	Yes
P007780	HOUSING - HDE FLUSH MOUNT ALU. W/O POWDER COATING	Yes
P007781	GASKET - HDE-RECESSED MOUNT, 2mm EPDM	Yes
P008123	SA - SPEAKER, WHISPER 8 Ohm, 15W, WIDE RANGE	Yes
P008137	FACEPLATE - HDE-30-V, SINGLE PUSH BUTTON, RM, VOIP	Yes
P008138	FACEPLATE - HDE-31-V, SINGLE BUTTON, W/KEYPAD, RM, VOIP	Yes
P008139	FACEPLATE - HDE-32-V, DUAL PUSH BUTTON, RM, VOIP	Yes

# MAINTENANCE INSPECTION CHECKLIST

Rev.: A

<b>Assembly No.:</b> P6945-	<input type="checkbox"/> Incoming <input type="checkbox"/> Installation <input type="checkbox"/> Maint.
<b>Description:</b> HDE-30-V	<input type="checkbox"/> Sampling Plan <input type="checkbox"/> 100%
SN#	
<b>Characteristic</b>	

1	<b>Exterior Physical Inspection:</b>										
a	Clean and Free of Surface Corrosion										
b	All Exterior Screws Secured as Intended										
c	No Physical Damage										
d	Mic and Speaker Grill Holes are Clear of Debris										
2	<b>Interior Physical Inspection:</b>										
a	Interior Clean and Free of Moisture										
b	Sealing Gaskets Clean and Undamaged										
c	Cable Entry Sealed (If Applicable)										
d	PCBA ESD Guard Installed										
e	All Labelling Intact and Legible										
f	PCBA ESD Guard Installed										
g	Ground Wires Secured to Labeled GND Studs										
3	<b>Functionality Test: Perform a Test Call</b>										
a	Push Button(s) Function, Not Stuck										
b	LEDs, Beacons, Buttons Light/Blink as Prog.										
c	Buttons Dial Correct Number as Prog.										
d	Button Press while Call Active Behave as Prog.										
e	Speaker Functions as Expected, Clear Audio										
f	Microphone Functions as Expected, Clear Audio										
g	External Conn. (i.e., SCADA) Function as Prog.										
4	<b>VoIP Firmware and Configuration Test:</b>										
a	Log in to Phone via Browser at Expected Address										
b	Inspect all Settings to Ensure Functionality Correct*										
c	Navigate to <Device Settings>, Click Run Diagnostics. All Diagnostics Audibly Confirmed as Pass**										

\*Note: Step 4b configuration settings can be found in the Setup and Configuration manual available at [P007451](#).

\*\*Note: Step 4c can be scheduled to perform regularly, with results output to an event server. Instructions on that can be found in the Setup and Configuration manual available at [P007451](#).