

## APPENDIX G

## WHAT'S NEW, AND WHAT HAS NOT CHANGED IN THE SK-ACPE?

The **SK-ACPE** is Secura Key's replacement for the legendary **SK-ACP**. The "E" indicates the built-in Ethernet capability. The main reason for this upgrade is the obsolescence of the ACP's 16-bit Hitachi main processor unit. Due to the large number of legacy systems in the field, we have designed the SK-ACPE as a drop-in replacement for the SK-ACP. While the SK-ACPE is almost functionally identical, we have also included some long-needed improvements made possible by the powerful new ARM Cortex M3, 32-bit RISC processor.

1. **This unit is functionally identical to the SK-ACP.** It will work with older versions of SK-NET software, including Versions 3, 4 and 5.
2. **Connectors and their functions are identical to the SK-ACP.** You can replace an older board with a new one without rewiring the connectors. Note that connectors J3 and J4 are now located on the side of the board.
3. **The Ethernet Adapter is now integrated into the panel.** Connect to the LAN via RJ-45 connector J10 at the lower right-hand corner of the board. A separate module is not required. Multiple Ethernet connections in one system require SK-NET-MLD. IP Addresses must be configured using a terminal program (See Appendix D).
4. **Status LED functions and locations have been changed** – see Figure 4 for details.
5. **The jumper that changes input circuits from NC to NO has been removed.** On the SK-ACPE, this setting is now changed in the SK-NET software (Version 5.1 is required). If you do not have Version 5, the inputs will default to NC.
6. **A new Jumper JP1 enables RS-232 signals either at J12 or J11 and J10 (See Fig. 3).** Enabling RS-232 at J12 allows the use of the optional SK-WLSE-LAN wireless LAN Module. Enabling RS-232 at J11 and J10 allows the connection of a computer at the Field Service Port J11 or wiring of a serial connection to J10. The SK-WLSE-MOD is an entirely new module, and is not compatible with the SK-WLS-MOD module used with the SK-ACP.
7. **The RJ-11 Jack has been removed.** The SK-QUICKCONN and SK-CBLSA cables cannot be used to connect a computer to the panel's RS-232 port. A new cable, RS-232E, is required to connect a computer to the J11 Field Service Port.

8. **The Reset Button has been moved** – it is next to connector J2.
9. **AC Power is now recommended, due to a redesigned power supply.** A 16.5VAC 40VA transformer such as SK-XFRMR can be used to power the board. 24VDC power is also recommended, using a DC supply such as SK-DCPWR.
10. **Gas discharge tube surge protectors are now included on the RS-485 bus (J8)** which interconnects multiple panels, and can be used to connect back to the host PC. These devices will greatly improve surge protection of the panel, but external surge protectors are still highly recommended in lightning-prone areas (see Appendix F4, F5).
11. **A Chassis Ground Terminal has been added to the PCBA** (left of J8). To allow the on-board surge suppressors to discharge to ground, you must connect this terminal to Earth Ground, using the supplied ground lug and 10 AWG wire (see Figure 3).
12. **The panel now includes battery monitoring circuitry** which can report low battery or AC failure conditions to SK-NET (Version 5.1 is required). These conditions are also indicated at LED 2.
13. **On-board memory has been increased**, allowing up to 10,000 stored transactions to be buffered instead of 4800, and allowing up to 65,535 cardholders to be limited use cards instead of 4000 (SK-NET Version 5.1 is required).
14. **The panel now includes an enclosure tamper input (J7, pins 1&6)** which can be connected to optional enclosure tamper switch SK-TS. (SK-NET Version 5.1 is required.)
15. **The Serial Transaction Printer function** must now be configured using a Terminal Program. (See Appendix D).
16. **The Power Reset function** has been enhanced (See Appendix E, section 1.8).