ACCUTECH 460077

Printed Circuit Board (PCB) Sub Assembly | Perimeter Protection & Entryway Wander Management Assembly

PRODUCT OVERVIEW

The Accutech 460077 Printed Circuit Board (PCB) Sub Assembly serves as a core hardware intelligence component within advanced wandering management and resident safety infrastructures. It is engineered to bridge the gap between physical perimeter sensors deployed at facility exits and localized control monitoring stations. By aggregating and processing automated security credentials and high-speed data telemetry from the accompanying internal sensor loops, it eliminates the operational complexity of managing individual entry points. This centralized topology ensures that small to medium-scale senior care, nursing home, memory care, and hospital facilities maintain instantaneous, real-time situational awareness.

Deployed directly between peripheral zone controllers, transmitter wands, door controllers, and central administration frameworks, the 460077 module channels complex serial data traffic. This proactive routing method eliminates communication bottlenecks and guarantees that complex localized actions—such as authorized staff bypass, secure visitor access, and localized security overrides—are instantly synchronized with perimeter sensors. This active tracking processing ensures absolute protection across localized hospital wings, dedicated care facility corridors, and high-risk resident zones by establishing an uncompressed, bidirectional data pipeline for system programming, real-time diagnostics, and unified event logging while driving a visual zone matrix to map multi-door elopement alerts across distinct facility points.

ARCHITECTS AND ENGINEERS (A&E) SPECIFICATION

- **System Infrastructure:** The contractor shall supply, install, and configure the Accutech 460077 Printed Circuit Board (PCB) Sub Assembly to act as the primary visual status and monitoring interface bridging the peripheral exit networks and the main nurse workstation location. The hardware must support bidirectional communication to synchronize active bypass states, zone alarms, and real-time controller logs directly with the host computer software.
- **Healthcare Environment Protection:** The multi-layer internal electronics layout and sub assembly shall incorporate a durable, commercial-grade structural design explicitly engineered to sustain continuous clinical exposure, operating reliably across standard high-traffic healthcare IT environments.
- **Access and Control:** The device's physical data interface shall feature automated data direction control paths to allow authorized clinical staff, security personnel, and system administrators to issue network-wide bypass commands, hardware configuration adjustments, and alarm resets from the central software console.
- **Enclosure and Durability:** The board assembly shall be protected inside a compact, ruggedized commercial-grade enclosure case or zone controller chassis optimized for clean surface or flush wall mounting directly within administrative spaces, reception corridors, or command hubs.
- **System Interoperability:** The component architecture must feature validated native compatibility for direct connection with Accutech wander management systems, ensuring non-latent zone signaling and localized alarm tracking across the facility's dedicated security network.

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SYSTEM COMPONENTS

The 460077 Printed Circuit Board (PCB) Sub Assembly incorporates several fundamental integrated sub-modules and physical connection layouts:

- **Multi-Layer Integrated Circuit Board Mainframe:** The primary internal layered matrix dedicated to handling automated zone identification, status indexing, and bidirectional network mapping protocols across entry points.
- **Heavy-Duty Terminal Block Interface:** A series of heavy-duty industrial mechanical screw terminal connection blocks designed to latch incoming power and sensor loops securely.
- **RF Signal Processor Microchip Matrix:** An integrated processor sub-module layout engineered to analyze incoming radio frequency fields and tags.
- **Visual Diagnostic Status LEDs:** High-visibility multi-LED diagnostic lights embedded directly onto the board for real-time power, zone state, and system alert verification.
- **Transient Voltage & Signal Isolation Array:** Internal safety circuitry engineered to isolate delicate internal microchip components from data line surges, grounding faults, and electrostatic discharge (ESD).

FEATURES AND BENEFITS

- **High-Fidelity Signal Aggregation:** Monitors, secures, and aggregates threat and hardware initialization data across wander management perimeter points simultaneously using a high-density circuit configuration.
- **Internal Modular Deployment:** Provides convenient placement of controllers deep within utility closets, sub-ceilings, or master assemblies, protecting essential infrastructure from resident tampering or architectural constraints in large facilities.
- **Immediate Alarms and Controller Response:** Instantly pathways electronic signals to activate local magnetic locking mechanisms and triggers visual indicators the second an RFID tag enters the field.
- **At-A-Glance Status Diagnostics:** Provides immediate physical verification of system state directly on the board layout, allowing tech teams to quickly map response paths during setup or servicing.
- **Validated Platform Interoperability:** Engineered for native plug-and-play compatibility with Accutech security networks and software suites, ensuring a unified approach to facility patient protection.

PRODUCT SPECIFICATION

Manufacturer	Accutech Healthcare Security Solutions
Product Model Name	Printed Circuit Board (PCB) Sub Assembly
Part Number / SKU	460077
Component Technology Type	Internal Circuitry System Logic Board & Monitoring Sub Assembly
Device Interface Port	Heavy-Duty Industrial Mechanical Screw Terminal Connection Blocks

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Host Workstation Link	High-Speed Integrated Serial Communication Interface / Data Loop
Visual Diagnostic Indicators	On-Board High-Visibility Multi-LED Grid for Power, Zone State, and Alerts
Wander System Compatibility	Accutech ResidentGuard Systems, Custom Zone Networks, and Central Infrastructure
Chassis Compatibility	Optimized for Surface/Flush Mount Zone Controller Cabinets and Control Boxes
Primary Target Environments	Hospital Wings, Memory Care Units, Main Nurse Workstations, Entryway Junctions

COMPLIANCE AND CERTIFICATION

- **FCC Status:** Designed and certified to meet FCC regulations regarding digital device shielding. This guarantees that internal motor microprocessors, switching pathways, and high-speed data translation steps do not introduce or sustain harmful electromagnetic interference across nearby diagnostic clinical devices or patient networks.
- **UL Listing:** Developed and engineered using interior assembly components compliant with UL safety classifications for low-voltage access control locking mechanisms, information technology equipment, and auxiliary healthcare resident safety tools.
- **RoHS Compliance:** Formulated in alignment with environmental protection directives, ensuring that the internal circuit layouts, external terminal components, and housing finishes strictly restrict the use of lead, mercury, polybrominated biphenyls, and other hazardous materials.