



Architects' and Engineers' Specifications

The Master Console Power Interface component shall be the MV200 Desk Master Replacement Power Supply, model SKU: MC20A-1203B01. The unit shall be a switching-mode AC-to-DC external power supply engineered to provide continuous, 24/7/365 operational power to the primary network master console.

The power supply architecture must accept a universal input range of 100V AC to 240V AC at a line frequency of 50/60 Hz without requiring physical switch reconfiguration or external transformer equipment. The regulated output must deliver a continuous 12V DC current rated at up to 3.0 Amperes, maintaining a maximum total nominal power rating of 36 Watts. To satisfy modern green energy baselines, the assembly must be Level VI Energy Efficiency Certified.

The device shall incorporate independent internal auto-recovery protection circuitry to isolate the connected nurse call console from external line anomalies, including overvoltage, overcurrent, and direct terminal short-circuits. To preserve network signaling integrity across the 900 MHz telemetry spectrum, the power supply must feature internal EMI/RFI suppression filtering compliant with FCC Part 15 Class B standards. The hardware housing shall be constructed of an impact-resistant, non-conductive polymer, utilizing molded flexible strain relief joints at all cable entries, and terminate in a standard barrel connection profile matched exactly to the console motherboard input terminal.

MC20A-1203B01

MV200 Desk Master Replacement Power Supply

The MC20A-1203B01 MV200 Desk Master Replacement Power Supply is a commercial-grade, highly dependable AC/DC power adapter engineered to deliver continuous, regulated electrical power to critical nurse call master consoles and medical monitoring stations. Designed as a direct drop-in replacement for the primary power source of MV200 Series Desk Master Consoles, this unit bridges the gap between fluctuating main utility power and sensitive, low-voltage internal signaling microprocessors.

Constructed with a rugged, flame-retardant external casing, the MC20A-1203B01 features comprehensive shielding to mitigate electromagnetic and radio-frequency noise, preserving data packet integrity within wireless telemetry networks. Its universal input capability ensures adaptable facility-wide deployment across standard global electrical currents.

Specifications

- **Input Voltage Range:** 100–240V AC (Universal)
- **Input AC Frequency:** 50 / 60 Hz
- **Output Voltage:** 12V DC (Regulated)
- **Output Current:** 3.0A
- **Total Power Rating:** 36 Watts
- **Efficiency Certification:** Level VI Certified
- **Circuit Protections:** Overvoltage (OVP), Overcurrent (OCP), Short-Circuit (SCP)
- **Connector Type:** Molded barrel plug with integrated heavy-duty strain relief
- **Enclosure Material:** High-impact, flame-retardant polycarbonate
- **Operation Profile:** Continuous-duty 24/7/365 healthcare infrastructure environment

Equipment Options

The MC20A-1203B01 power supply functions as the primary electrical interface component and is engineered for broad synchronization within the following system setups:

- **Master Consoles:** Natively matched to power the Wireless MV200 Plus Desk Console, as well as companion WNC Series and legacy MV Series nurse call system master station models.
- **Secondary Hardware Protection:** Designed to interface safely with secondary internal long-life rechargeable emergency backup battery arrays built into the master desk console housing.
- **Expanded Applications:** Suitable for powering compatible standalone medical workstations, localized operator terminals, healthcare communication servers, and secondary auxiliary desk equipment requiring a precise 12V DC, 3.0A power profile.

Features

- **Regulated DC Output:** Delivers a continuous, highly stable 12V DC power output, eliminating voltage ripple and micro-surges that can cause baseline drift or functional freezing in master consoles.
- **Universal AC Input:** Natively supports a wide-ranging input profile from 100V AC to 240V AC at both 50 Hz and 60 Hz frequencies, accommodating facilities without requiring external step-down transformers.
- **Integrated Safety Shielding:** Features embedded protection circuitry against overvoltage, overcurrent, and output short-circuits, isolating external electrical faults from traveling to the master console motherboard.
- **Advanced EMI/RFI Suppression:** Internal filtration dampens electrical line noise and radio-frequency interference, helping to stabilize the nearby 900 MHz wireless network backbone.
- **Low Leakage Design:** Engineered specifically to meet stringent reduced leakage-current thresholds critical for maintaining electrical isolation and patient/operator safety in medical and clinical environments.
- **Thermal Management Construction:** Utilizes optimized passive heat-dissipation channels within its chassis to sustain a cool operating temperature during around-the-clock, 365-day continuous duty cycles.
- **Level VI Energy Efficiency:** Complies with current Department of Energy (DoE) Level VI standards, minimizing parasitic power draw when the master console is in idle or standby states.
- **Impact-Resistant Enclosure:** Encased in heavy-duty, non-conductive polycarbonate housing designed to withstand the physical impacts and drops common to high-traffic IT closets and nurse station desk environments.
- **Molded Connector Strain Relief:** Outfitted with structural, injection-molded flexible strain reliefs at both the terminal barrel jack plug and the main housing joint to prevent copper fatigue and cord fraying over long-term movement.

Compliance and Certification

- **FCC Status:** Fully tested and certified under FCC Part 15 Class B regulations for conducted and radiated emissions, ensuring zero disruptive intentional or unintentional RF interference with clinical telemetry, cellular boosters, or localized nurse call receivers.
- **UL Standards:** Components and internal PCB layouts conform to commercial safety standards, certifying resistance to high-voltage spikes and safe physical failure pathways under direct external electrical shorts.
- **RoHS Status:** 100% compliant with the Restriction of Hazardous Substances (RoHS) directives, manufactured completely free of lead, mercury, cadmium, polybrominated biphenyls, and other hazardous electronic compounds.