

1. The Controller Cabinet will be equipped with a Bus Interface Unit (BIU). The BIU shall comply with Section 8 of the NEMA TS-2 Standard.
2. The BIU shall be fully interchangeable in a NEMA TS-2 Type 1 cabinet assembly.
3. The BIU shall perform the interface function port 1 at the controller unit, the malfunction management unit, the loop detector rack assembly and the back panel terminal and facilities.
4. At a minimum, two LED indicators shall be provided on the BIU front panel. One indicator shall serve a dual use; as a power on indication and as a diagnostic indicator for proper operation of the device. The second indicator shall serve as a transmit indicator illuminating each time data is transmitted.

CABINET POWER SUPPLY - A separate power supply shall be installed in the cabinet at the intersection of County Street and Union Street. Per TS-2 Specifications this shall supply regulated DC power, unregulated AC power and frequency reference for the rack mounted amplifiers. This shall supply power for loop amplifiers, load switches, BIUs and any auxiliary relays.

1. The unit shall be AC line powered and provide regulated DC power and provide DEC regulated power, unregulated AC power, a line frequency reference for the rack mounted loop amplifiers, BIUs, load switches and other auxiliary cabinet equipment required.
2. At a minimum, the power supply shall meet all requirements of Section 5.3.5 of the NEMA TS-2 Standard.
3. The power supply shall be either shelf mounted or wall mounted utilizing keyhole slots for ease of replacement or installed as part of the rack assembly.
4. The unit shall contain four LED indicators on the front panel to indicate four outputs; +12 VDC +/- 1 VDC @ 2.0 amps, +24 VDC +/- 2 VDC @ 2.0 amps, 12 VAC @ 250 milliamps, and 60 Hz line frequency reference. A test point terminal shall also be located on the unit's front panel for +24 VDC and logic ground testing.

MALFUNCTION MANAGEMENT UNIT (MMU) - A MMU shall be supplied that will comply with Section 4 of the NEMA TS-2 Standard. The MMU shall be connected to the controller unit by the SDLC and the active status of the MMU will be read through the controller unit. The MMU in the type 12 configuration (with 12 channels - 8 vehicle, 4 overlap) shall be capable of operating in a TS1 Cabinet without the loss of functionality.

The MMU shall be capable of providing enhanced memory and remote retrieval of data, by means of a direct connection to the controller, and shall set up such that remote monitoring of the conflict monitor shall be possible.