TECHNICAL INFORMATION BULLETIN

Fire Detection Power Supply PSU830 Backward Compatibility

1 INTRODUCTION

This TIB (Technical Information Bulletin) covers the backward compatibility of the TFPP (Tyco Fire Protection Products) Addressable Fire Panel Power Supply Module PSU830 (557.202.210) with MZX Software & Earlier Power Supplies.

The TIB clarifies compatibility issues to be considered when:

- Using a PSU830 power supply to replace an earlier-model power supply (PSB800, PSB800M, PSB820, PSB821, PSM800, PSM800M, PSM820) in an existing system.
- Adding a PSU830 or device containing a PSU830 (repeater, MX Minerva Bridge) to an existing system.

2 GENERAL NOTES

The compatibility issues detailed below are entirely separate from and are in no way related to the specific problem which has occurred on some version 13 and earlier PSU830 (557.202.210) power supplies, detailed in CAB163, i.e. *"Unexplained latching Charger/NTC Fault message displayed on the fire panel which can then only be cleared by repowering the mains supply to the PSU830."*

The compatibility issues summarised below are in no way due to any hardware/software design or manufacturing fault with the PSU830 power supply, but are entirely related to differences in functionality and features between different versions of MZX software and other earlier models of power supply.

As there are several different types of fault indication which the PSU830 can produce and/or the panel can display, some of which are not related to the power supply itself (e.g. broken battery lead, mains supply problems, etc) it is critical that the complete fault message as indicated on the panel and whether it is permanent, intermittent, clears on repowering, etc, is accurately recorded and then investigated locally on site before determining that the power supply is potentially faulty.

PSU830 power supplies which exhibit any of the compatibility issues summarised below are ***not*** faulty and so should ***not*** be returned under warranty or for investigation.

3 PSU830 REPLACING PSM800/PSM800M/PSM820

The PSM800 and PSM800M are used in MX and T2000 AC repeaters respectively and in boxed power supplies – These are not used as the main power supplies in any of the MX/ZX/T2000 fire detection panels. The PSM820 was only used in MX2 Repeaters.

If installing a PSU830 as a service replacement for a PSM800, PSM800M, PSM820 or adding a product using a PSU830 which is monitored by an APM800 in a system (e.g. in an MX Repeater or MX Bridge), running on MZX software versions older than 14, the APM800 (not the PSU830) will display an "aux charger fault" message on the panel. This is because the APM800 has to be configured in Consys for the type of power supply it is monitoring, but the PSU830 was only added as an option for the APM800 to monitor in MZX software version 14 and later.

TECHNICAL INFORMATION BULLETIN

The best solution for PSM800/PSM820 applications is to replace them with a new PSM800 (still available as part number 557.202.003 from Letchworth or 542.003 from Echt) or to update the MZX software & Consys to version 14 or later and then reconfigure the APM800 to monitor the PSU830.

The best solution for PSM800M applications is to update the MZX software & Consys to version 14 or later and then reconfigure the APM800 to monitor the PSU830.

If a PSU830 which is monitored by an APM800 is installed in a system running MZX software earlier than version 14 (and therefore the APM800 displays an “aux charger fault”), the APM800 will still report a genuine fault from the PSU830 (e.g. Mains Fault or Battery Fault), which will override the APM800 “aux charger fault” message.

Battery and charger faults for the PSU830 will take up to 13 minutes to be detected at the fire panel compared to within 90 seconds for PSM800 and PSM800M. PSU fault clear can take up to 13 minutes to be detected for pre-2010 PSU830 power supplies and up to 2 minutes for PSU830 power supplies manufactured from 2010 onwards.

4 PSU830 REPLACING PSB800/PSB800M/PSB820/PSB821

The PSB800 was used in MX/ZX panels, PSB800M in T2000 panels, and PSB820 and PSB821 in MX2 panels.

If installing a PSU830 as a service replacement for PSB800/PSB800M/PSB820/PSB821 as the primary power supply in a MX/ZX/T2000 fire panel running on MZX software versions older than 14, no changes are required to the software or Consys configuration, because an APM800 is not used to monitor the power supply, but a mains fault on the PSU830 will also generate a charger fault, although there may be an interval of up to 13 minutes between the two fault messages – This can be resolved by updating the configuration to replace the old PSB800/PSB800M/PSB820/PSB821 with the PSU830.

Battery and charger faults for the PSU830 will take up to 13 minutes to be detected at the fire panel compared to within 90 seconds for the PSB800/PSB800M/PSB820/PSB821. PSU fault-clear can take up to 13 minutes to be detected for pre-2010 PSU830 power supplies and up to 2 minutes for PSU830 power supplies manufactured from 2010 onwards.

5 OTHER NON-APM800 OPTIONS FOR MONITORING THE PSU830

If a PSU830 being monitored by an APM800 module (e.g. in a repeater or standalone) is added as a replacement or addition to an MX/ZX/T2000 system running on MZX software versions older than 14 and it is not practical to upgrade the MZX software, the following alternative modification can be implemented to enable compatibility with the PSU830:

Replace the APM800 module with a PTM800 module and then fit either an MIM800 or a CIM800 to monitor the PSU830 fault relay. (Do not leave the APM800 module connected to the PSU830, as this will prevent the PSU830 fault relay from operating). The Consys configuration will need to be modified to work with the new modules (PTM800 with MIM800 or CIM800) and to remove the replaced APM800.

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