

Service Note

Advanced Pollution Instrumentation

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CPU ASSEMBLIES FOR MICROPROCESSOR ANALYZERS

SCOPE:

CPU types used in API analyzers.

BACKGROUND:

API currently uses three CPU configurations. They are as follows:

- 1. "Small ROM". This configuration uses a 64K EPROM, 32K RAM with a small Smartwatch and 8K EEPROM. This is used in some (mostly older) M100, M200, M300 and M400 analyzers.
- 2. "Large ROM". This configuration uses a 128K EPROM, 128K RAM with a large Smartwatch and 32K EEPROM. This is used in newer and special M100, M200, M300, M400, M100A and M200A analyzers.
- 3. "AMX". This configuration uses a 256K EPROM, 2 128K RAMs, a large Smartwatch and 32K EEPROM. This is used in M100A, M200A, M200AH, M300, M400 and M700 analyzers with "AMX" software.

PART NUMBERS:

- 1. CPU card 00587-00. Used for "Small" configuration.
- 2. CPU card 00587-01. Used for "Large" configuration.
- 3. CPU card 00587-02. Used for "AMX" configuration.
- 4. Smartwatch 00586-00. Used for "Small" configuration.
- 5. Smartwatch 00586-01. Used for "Large" and "AMX" configuration.
- 6. RAM, 32K, CP008. Used for "Small" configuration.
- 7. RAM, 128K CP011. Used for "Large", and 2 pcs. for "AMX" configuration.
- 8. EPROM, 64K, CP005. Used for "Small" configuration.
- 9. EPROM, 128K, CP010. Used for "Large" configuration.
- 10. EPROM, 256K, CP015. Used for "AMX" configuration.
- 11. EEPROM, 8K, CP005. Used for "Small" configuration.
- 12. EEPROM, 32K, CP013. Used for "Large" and "AMX" configuration.

COMPATIBILITY:

When upgrading the software in an API analyzer, compatibility is an issue. This issue is addressed as follows:

1. The "Large" and "Small" configuration CPU's are compatible, with some caveats. To upgrade from small to large, you must install a new chip set which includes the 128K EPROM, 128K RAM, large smartwatch and 32K EEPROM. Also, jumpers on the CPU must be changed. This upgrade is simple to do in the field. Attached are drawings which show the jumper settings for the various configurations.

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2. Due to some soldered hardware jumpers on the CPU card, the CPU cannot be upgraded from Large or Small to AMX configuration in the field. If you desire to upgrade to AMX, please contact Technical Support at API for assistance with this. We would be happy to help you.





