

PR-914E

EEPROM Programmer Module for the MMP-900 Series Micro Miniature PCM Encoder



FEATURES

- Expanded format capacity to 8,000 words per major frame.
- Subframe capability to 256 deep.
- Format select, four 2,000-word or two 4,000-word formats
- Enhanced speed, up to 1.5 megabits per second (High Level system only)
- Supports MMP-900 and MMP-600 programming architectures

DESCRIPTION

The PR-914E Programming Module provides “Hands Off” programming for the MMP-900 Series PCM Encoder/Signal Conditioning System, via an RS-232 port from an IBM compatible personnel computer (PC). The PR-914E module is also available as a form-fit upgrade package for all existing MMP-900 systems and is field replaceable with no impact to the operating system.

EEPROM CONTROL

The PR-914E module contains Electrical Erasable Programmable Read Only Memory (EEPROM) technology, such that the programmable features of the MMP-900 system, PCM format, sample rate, gains and offset are field programmable without having to remove the hardware from the vehicle.

PROGRAMMING

Programmed with a personal IBM compatible computer, equipped with RS232 and a separate AYDIN TELEMETRY programming interface unit, model PB-996. PB-996 units and software packages are available separately.

PR-914E

MECHANICAL CONSIDERATIONS

The PR-914E module is fully compatible with the existing MMP-900 mechanical and electrical interfaces. The module dimensions are specified at the time of order depending on the application. The basic module is 0.25" (6.35 mm) thick with a 0.44" (11.176 mm) thick end plate. This spacing exactly matches the spacing of the original PR-914, providing full compatibility with existing mounting hole patterns. A slightly shorter version is available on special order which has a 0.25" (6.35 mm) thick end plate. EEPROM access is via a 37-pin MDM connector on the edge of the PR-914E.

CUSTOMER SUPPORT

Standard installation documentation is provided with the order. Special Reprogramming and Reconfiguration manuals can be provided to the customer on special order (option N). Factory training is available either at the AYDIN TELEMETRY facility or at the user's location.

APPLICATION

The MMP-900 Series Micro Miniature PCM Encoder features EEPROM memory with RS-232 programming. The EEPROM provides control of frame structure, sample rates, gains, offsets and other measurement parameters. This now enable the user to download a PCM format with signal conditioning control parameters via the PR-914E Electrically Erasable PROM (EEPROM) Module. This eliminates the need for disassembly or removal of the MMP-900 from the vehicle assembly. The addition of EEPROM makes the MMP-900 more attractive for applications which require hardware mounting in limited access areas, or where frequent changes to the measurement program are required.

HARDWARE FLEXIBILITY

The PR-914E thick film hybrid assembly is housed in a machined frame, which can be mounted to an existing MMP-900 Series Micro Miniature Airborne PCM Encoder by a patented micro connector arrangement. Access to the EEPROM is via a 37-pin MDM connector along the edge of the PR-914E module. The PR-914E can be purchased with a new short end plate (.25" (6.35 mm) thick) or the longer standard end plate (.44" (11.176 mm) thick) to maintain the same mounting hole locations. If the shorter end plate is requested the system stacking screw will need to be cut by 0.19" (4.821 mm) to accommodate the difference in size of the current end plate vs. the shorter endplate. When ordering the PR-914E for an upgrade to a field system, a PR-914E and PB-996 are required. The PB-996 needs to be ordered for interfacing the PR-914E with an IBM compatible PC with RS-232 capability. The PB-996 will also include the necessary software for programming the PR-914E on an IBM compatible PC.

PR-914E ELECTRICAL SPECIFICATIONS

EEPROM:	32k x 8
Format Capacity:	Format to 8K word per major frame (with no minor frames.) Subframe capability to 256 deep (with 31 words/minor frame). Multiple format capability
Synchronization:	Unlimited control of Sync Code and SFID code format
External Format Select:	Inflight Format-select capability via external hardware strapping. (Ideal for staging applications)
RS-232 Computer Interface:	PB-996 and Software required for interface between the IBM compatible PC and PR-914E. Maximum of six seconds to transfer and verify any 256 word page to memory
Baud Rate:	9600

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GENERAL SPECIFICATIONS

Module Grounding: Signal and Chassis mutually isolated

PR-914E Power: Stand alone Current <40ma @ 28Vdc, provided by MMP-900 power supply

PB-996 Power: Customer Provided +28Vdc

ESD: Use standard ESD precautions

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature: -10°C to +70°C (optional -35°C to +85°C)

Storage Temperature: -55°C to +125°C

Humidity: 95% RH non-condensing

Altitude: Unlimited

Shock: 100g 11 msec, 3 axis

Vibration: Sine-
100g, 20 to 2,000 Hz, 3 axis
Random-
50g, 20 to 2,000 Hz, 3 axis.

Acceleration: 100g, 3 axis

EMI/EMC: MIL-STD-461/462

MECHANICAL SPECIFICATIONS

Size: 0.25"H x 1.524"W x 1.774" L
(6.35 mm x 38.7096 mm x 45.0596 mm)

Endplates: Shorter -
0.25"H x 1.524"W x 1.774"L
(6.35 mm x 38.7096 mm x 45.0596 mm)
Standard -
0.44"H x 1.524"W x 1.774"L
(11.176 mm x 38.7096 mm x 45.0596 mm)

Weight: approximately 1 oz.
(28.3495 k grams)

Connector: Cannon 37-pin MDM, mates with 56300179-002

Mounting: Any one of two planes.
Connectors facing up or facing sideways.

Finish: Nickel Plate

OPTIONS

Endplates: Standard or Shorter

Program Head: PB-996 with software for programming the PR-914E.

Option S: Extended Temperature Range - 35°C to +85°C

Option N: Special Reprogramming and Reconfiguration manuals

Humidity: Conformal coating for applications which have potential for severe condensation (For use with systems with the same option)

ORDERING INFORMATION

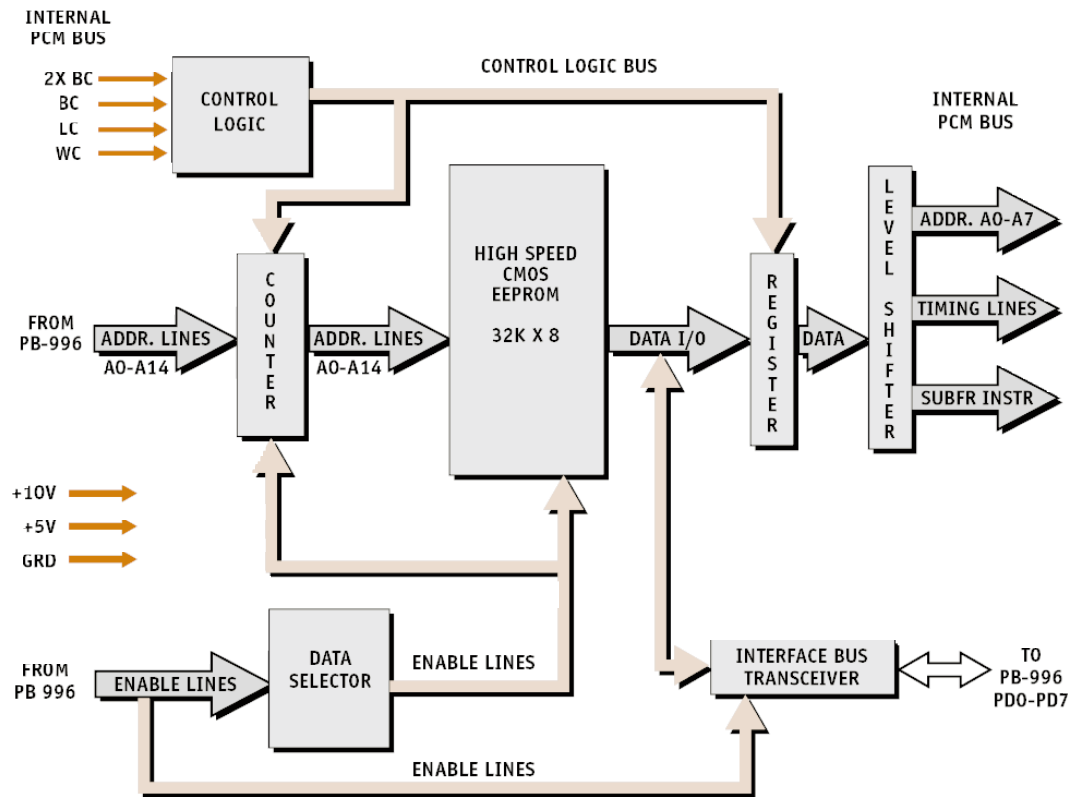
When ordering specify PR-914E EEPROM Programmer Module, Part Number 17914070-501. For special applications or additional information, contact the AYDIN TELEMETRY Sales Office in Newtown, PA. or your nearest AYDIN TELEMETRY Sales Representative.

Note: The PR-914 EPROM module is not being discontinued, and those customers requiring the EPROM will be able to purchase it for many years to come.

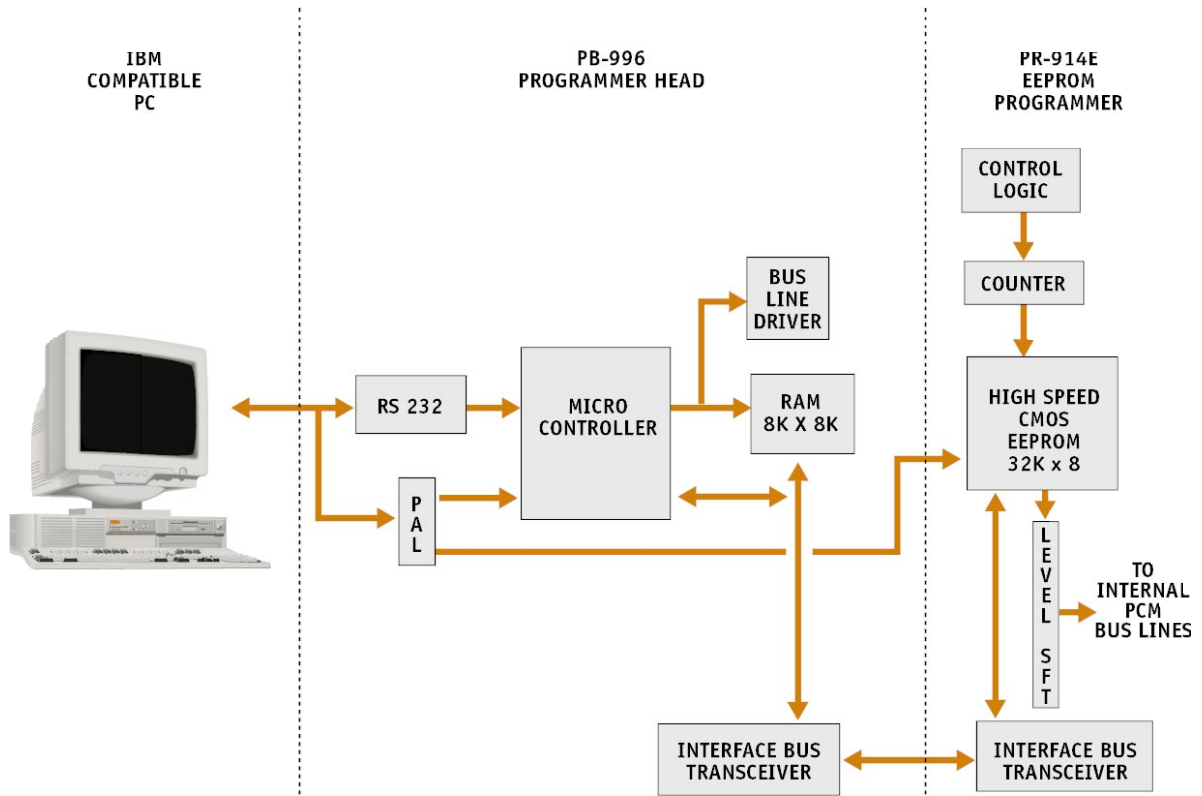
Specifications subject to change without notice.

PR-914E

PR-914E Programmer



EEPROM Interface Block Diagram



AYDIN TELEMETRY