

## RS232 to PMC Converter Communication Protocol

This module provides a gateway for an RS232 device to interface with the Intellitec PMC System. It can be placed anywhere in the communication bus. The converter can read from and write to a dual loop (blue and yellow), 320 channel PMC system. The converter has DIP switches to select and deselect each of the loops.

All commands sent to the converter are 10-bytes of ASCII. All data responses from the converter are 10-bytes of ASCII. All error responses from the converter are 10-bytes of ASCII. Communication Parameters = 9600 baud rate, 8 bit, no parity. Commands must be sent in duplicate for error checking.

Writes are completed on a single channel basis. A channel is latched on until an off command is received. Reads are completed in 80 channel blocks. The channel information is encoded into 10-bytes of data. The commands are summarized in Table 2. The format for data reads is as follows (same for blue and yellow loops):

**Table 1 - Data Format for Read Commands**

<b>Byte</b>	<b>Data Received</b> (lower modules)
1	Module A, Channels 1 thru 8
2	Module A, Channels 9 and 10, Module B, Channels 1 thru 6
3	Module B, Channels 7 thru 10, Module C, Channels 1 thru 4
4	Module C, Channels 5 thru 10, Module D, Channels 1 and 2
5	Module D, Channels 3 thru 10
6	Module E, Channels 1 thru 8
7	Module E, Channels 9 and 10, Module F, Channels 1 thru 6
8	Module F, Channels 7 thru 10, Module G, Channels 1 thru 4
9	Module G, Channels 5 thru 10, Module H, Channels 1 and 2
10	Module H, Channels 3 thru 10
<b>Byte</b>	<b>Data Received</b> (upper modules)
1	Module I, Channels 1 thru 8
2	Module I, Channels 9 and 10, Module J, Channels 1 thru 6
3	Module J, Channels 7 thru 10, Module K, Channels 1 thru 4
4	Module K, Channels 5 thru 10, Module L, Channels 1 and 2
5	Module L, Channels 3 thru 10
6	Module M, Channels 1 thru 8
7	Module M, Channels 9 and 10, Module N, Channels 1 thru 6
8	Module N, Channels 7 thru 10, Module O, Channels 1 thru 4
9	Module O, Channels 5 thru 10, Module P, Channels 1 and 2
10	Module P, Channels 3 thru 10

**Table 2 - Summary of Read and Write Commands**

<b><u>Command</u></b>	<b><u>Send to Converter</u></b>	<b><u>Possible Responses</u></b>
Read Blue Loop Modules A thru H	“V1000V0000”	Successful = 10 Bytes of Data Returned
Read Blue Loop Modules I thru P	“V2000V0000”	Successful = 10 Bytes of Data Returned
Read Yellow Loop Modules A thru H	“V3000V0000”	Successful = 10 Bytes of Data Returned
Read Yellow Loop Modules I thru P	“V4000V0000”	Successful = 10 Bytes of Data Returned
Turn on a Channel in Blue Loop	SMCB1S0000 <sup>1</sup>	Successful = “OKOKOKOKOK” Write Error = “EEEEEEEEEE” Blue Loop Disabled = “BEBEBEBEBE” General Communication Error = Anything Else
Turn off a Channel in Blue Loop	SMCB0S0000 <sup>1</sup>	Successful = “OKOKOKOKOK” Write Error = “EEEEEEEEEE” Blue Loop Disabled = “BEBEBEBEBE” General Communication Error = Anything Else
Turn on a Channel in Yellow Loop	SMCY1S0000 <sup>1</sup>	Successful = “OKOKOKOKOK” Write Error = “EEEEEEEEEE” Yellow Loop Disabled = “YEY EY EY EY EY EY” General Communication Error = Anything Else
Turn off a Channel in Yellow Loop	SMCY0S0000 <sup>1</sup>	Successful = “OKOKOKOKOK” Write Error = “EEEEEEEEEE” Yellow Loop Disabled = “YEY EY EY EY EY EY” General Communication Error = Anything Else

<sup>1</sup> M = Module Letter (A – P), C = Channel Number (0 – 9)

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Over the years of running a mobile RV repair service, having a dedicated place to access service manuals for all the different appliances and components found on RVs was something that I always had a desire to create.

I hope this resource makes your RV repairs easier, as it has mine, but please be careful and follow proper safety practices when attempting to repair your own RV.

If in doubt, please consult with a professional RV technician!



DARREN KOEPP - OWNER, MY RV WORKS, INC.

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