

# CTC AppNotes

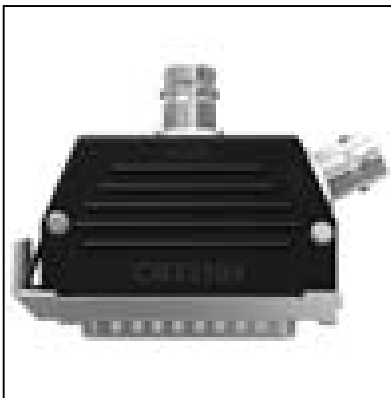
A series of technical documents written by members of the CTC community

## The Basic tools for Two Channel data collection: CSI 2140 data collector.

As industry strives for ever more production from aging infrastructure, vibration analysts need to use more and more sophisticated methods for collecting and analyzing data. Emerson's new CSI 2140 4 channel analyzer has been designed to help CSI's customers provide more sophisticated methods of analysis. CTC is please to be able to offer compatible cables for dual channel analysis.



Input ports for CSI 2140 data collector showing 2 separate 5 pin acceleration inputs and one 8 pin voltage/tachometer input port.



Typical CSI 2130 adapter module. These 25 pin adapters were used for many different inputs to the 2130.

The CSI 2130 had several 25 pin adapter modules for inputs ranging from dual voltage inputs to dual channel acceleration to voltage on one channel and acceleration on a separate channel. The new 2140 offers simultaneous 4 channel inputs which makes advanced techniques like cross channel phase analysis, ODS and modal analysis more readily available to the experienced analyst.

With the extreme versatility programmed into the 2140, there are several methods to accomplish dual channel simultaneous data collection.

The optional "batwing" adapter panel provides 4 individual BNC jacks for acceleration input or voltage input. The most popular method, however, may prove to be any of multiple methods of bringing two channels of acceleration into the standard M12 ports on the top of the 2140. Each of the 2 acceleration ports on the 2140 is capable of taking a minimum of 2 channels of vibration data into the 2140. The pin configuration of the two ports is very different with the lefthand port above (ACCEL port "A") used for Channel A and B inputs and the center port (ACCEL port "B") used for channels C and

D. For most dual channel inputs analysts will choose



2140 series adapter. Dual channel adapter for 2140. Versions available soon for both Accel port 'A' and Accel port 'B'. All will be available with BNC jack, BNC plug or 5 socket options.

adapters like the one CMX2140 series adapter shown, where both channels will be brought into the 2140 through a single port. Some situations will arise, though, where each channel will need to be brought in through separate ports. For these situations CTC now offers the C550 connector for single channel acceleration inputs to ACCEL port 'B'. The reason a separate connector is needed is the previously mentioned differing pin configuration. The one thing previous 2130 users can be thankful for is that all cables that were used with the 2130 5 pin acceleration inputs can also be used in ACCEL port "A" on the 2140. However, as mentioned ACCEL port "B" requires different cables. Keep watching the AppNotes column for more to come on new 2140 compatible products.

If you have any questions or for further information please contact CTC directly via Email at [dgripe@ctconline.com](mailto:dgripe@ctconline.com) or [jsmith@ctconline.com](mailto:jsmith@ctconline.com) or feel free to call 1-800-999-5290 in the US and Canada or +1-585-924-5900 internationally.

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If any CTC vibration analysis hardware product should ever fail, we will repair or replace it at no charge.