



AIB™ ASTRO-TAC™ Comparator Interface Module for MCN™ Monitoring and Control Systems



Introduction

The AIB ASTRO-TAC™ Comparator Interface Module provides status indications (*Vote, Receive, Disable & Fail*) from a Motorola ASTRO-TAC™ comparator to remote PCs or consoles. It allows users to Force-Vote and Disable receivers on the comparator. The AIB module is part of CTI Product's MCN™ Monitoring and Control System.

The AIB ASTRO-TAC™ Comparator Interface Module is compatible with:

- Motorola ASTRO-TAC™ Comparators (firmware 1.7 up)
- Motorola ASTRO-TAC™ 3000 Comparators
- MCN System product line
- MCN IIB I/O Interface Modules for connection to console I/O
- MCN Remote Comparator Display (MCNRCD™) PC Software

Get Control of Your Comparator System

ASTRO-TAC™ comparators do not offer receiver status indication on their front panels. As a result, system noise, interference, and phone line problems can be difficult to diagnose. The Remote Comparator Display is an effective trouble-shooting tool which helps diagnose system problems fast.

An operator or technician can see at a glance which receivers are receiving, voted, or failed, and which receiver is causing your system problems. A *Force-Vote* function permits audio monitoring of each receiver site. A *Disable* function shuts down bad receivers until repairs are made.

Repair Voting System Problems Efficiently

With the MCN Remote Comparator Display, you can easily isolate a failure to a specific voting receiver, saving valuable technician time and reducing system down-time.

Intermittent system problems can be extremely tough to find. The Remote Comparator Display shows which receiver is bad while the problem still exists. This can eliminate repeated service calls to the comparator just to isolate a bad receiver.

PC Display

The PC display running our MCN Remote Comparator Display (MCNRCD) software features real-time receiver status monitoring. The *Force-Vote* and *Disable* functions are controlled from the PC. The receiver names and screen positions are user-configurable.

Receiver errors can be logged to the screen or the disk to provide an audit trail of bad or intermittent receivers.

Console Display

The AIB can work with an IIB module to provide logic inputs and outputs to interface to radio console equipment, such as Centracom Series II or Gold Elite consoles. Alternately, for PC based consoles, our MCNRCD software can provide comparator display & control without tying up console electronics resources.

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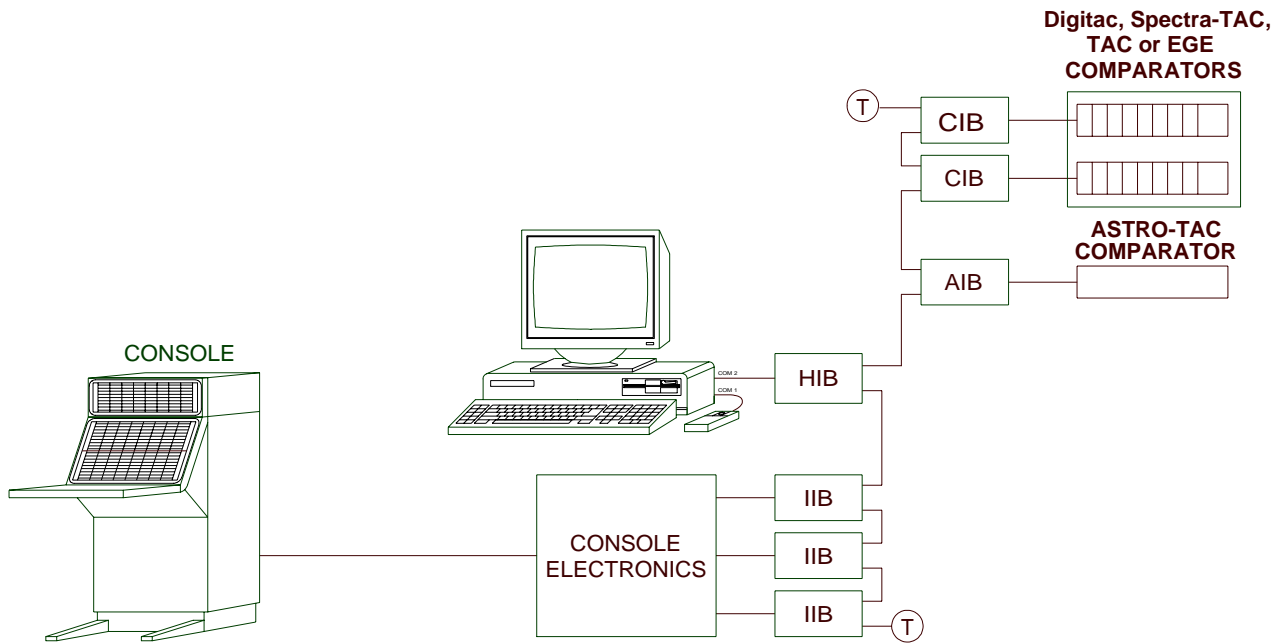
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Typical MCN Remote Comparator Display System

System Operation

The MCN Remote Comparator Display includes two basic parts: the Comparator Interface Modules and the Operator Interface.

The AIB ASTRO-TAC™ Comparator Interface Modules mount near the comparator and control and monitor up to 64 receivers each. They pass the *Vote*, *Receive*, *Disable*, and *Fail* signals from the voting comparator to the MCN network.

The receiver data is passed over the MCN network to Operator Interfaces such as PCs or consoles. Stand-alone or Dispatch PCs running our MCNRCD software can connect to the network via external HIB or internal PCLTA interface modules. Alternately, consoles can be connected through the console electronics via IIB I/O interface modules.

The AIB modules accept *Force-Vote* and *Disable* commands from the network and pass them to the comparator.

Multiple Displays

The IIB modules will typically be connected at one location to central console electronics. The console system then provides multiple console display & control positions. PC displays and console electronics displays (MCNRCD Software and IIBs) may both monitor & control a single comparator, although the console Disable indication may get out of sync since this signal is a latched bi-directional signal.

System Options

The following are some of the MCN system options available to work with the AIB module:

- PC Remote Comparator Display Software
- Router/Repeaters, Network Extenders
- Cables, Terminators, Punch Blocks, Power Supplies, and Mounting Racks (1.75" high) for various MCN modules
- Internal and external Network Interface Modules

General Specifications

Size (MCN Size A)	5.5" x 4.2" x 1.5" (140 x 107 x 38 mm)
Weight	16 oz, (455 g)
Temperature	0-50 °C
Humidity	10- 95% non-condensing
Network Cabling	4 Pair Level 4 UTP
Power Input	12 to 30 VDC / 2 W
Receivers Controlled	64 per AIB (DOS PC Software supports only 8 receivers per AIB)
Status Signals per Receiver	4: Vote, Receive, Disable, Fail
Control Signals per Receiver	2: Force Vote, Disable
Comparator Connector	Synchronous Serial Astrolink HDLC, 9600 bps
Network Connectors	2: RJ-45 (1 in, 1 out)
Max. network segment	4000 feet without repeaters
Max. AIB modules	20 per network segment
Safety Approvals to:	UL 1950, CSA 1950 EN60950-1992 (CE)
Emissions Compliance:	FCC part 15, Class A IC (DOC), Class A (Canada) EN55022, Class A
Susceptibility Compliance:	IEC 801-2, 3, 4 EN50082-1