

# 4200 Cable Management

The 4200 Cable Monitoring System (CMS) is a full featured cable management system which continuously monitors the integrity of outside cable plant and provides early warning of any cable or splice enclosure damage. With the addition of the Multi Tone Module (MTM) the 4200 system provides cable locate functionality

The entire system is housed in a rack mounted 31/2 inch high (2 units) chassis. The unit is modular to accommodate a variety of plug in cards. By selecting the card types, the system can be tailored to specific requirements. Additional capacity or features can be added as needs change via remote re-programmable firmware on all the installed cards.

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The 4200 CMS can be accessed, programmed and controlled remotely via Ethernet, modem or RS232 serial port. Alarms can also be forwarded via dry alarm contacts. Alarm conditions and monitoring status are displayed on the front panel LCD.

## Cable Locating

Located inside the 4200 CMS chassis, the MTM provides long distance cable toning for locating buried or underground cables. The tone tracing signal is activated by DTMF dial tone commands via the built in modem or by computer command using Norcomm™ communications software, or by telnet.

The user can select up to four directions, and four pre-set tone frequencies. A continuous range of frequencies is available from 5 - 10,000 Hz. This allows the use of all types of portable receivers from a variety of manufacturers. The pre-set tone frequencies and voice prompts can be changed remotely.

The 4200 MTM uses a programmable digital waveform generator which allows complex multiple frequencies or phase related tones to be specified by the user (5-1,000 Hz). This advanced fault locate feature is available on advanced receivers.

Locate distances up to 60 miles (100kms) are possible on fiber cable armors or Norscan TraceWire maintained in good condition. Performance will vary on other conductors.

## Cable Monitoring

Operating over any metallic circuit, such as metal "armor or shield", the system will detect and warn of any damage to the protective cable jacket allowing crucial time for repair. The system also monitors splice enclosures for damage and the presence of moisture. Providing pro-active protection, the system cathodically protects any metallic armor or shield. This action inhibits corrosion of the metallic armor or shield until a repair can be carried out.



The 4200 Alarm Circuit Unit (ACU) plug-in card will provide both armor and splice enclosure monitoring. The ACU can monitor up to 60 miles (100 kms) of cable and 799 splice sensor units. The DSP circuitry being used will allow for adjustable filtering, and for future enhancements to measurement capabilities.

## Features

- Ethernet, Dial up, or RS232 serial access and control
- Industry Standard SNMP Interface
- Telnet connection supported
- Fully adjustable alarm thresholds
- Dry alarm contacts for interface to local supervisory systems
- Optional multi-frequency tone module for cable locating
- Supports four Alarm Circuit Unit Cards
- Cable Locating and/or Cable Monitoring up to 60 miles (100 km).
- Cathodically protects cable armor to prevent corrosion
- Operating software remotely upgradeable
- Extra slots for future expandability

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# Specifications

| ITEM                                     | QUANTITY/SPECIFICATION           | NOTES             |
|--|----------------------------------|-------------------|
| <b>General Monitoring Specification</b>  |                                  |                   |
| Input Voltage                            | -46 to -56 VDC                   |                   |
| ACU Current Readout Range                | 0 – 30 mA                        |                   |
| CPC Current Readout Range                | 0 – 120 mA                       |                   |
| Current Reading Accuracy                 | 5%                               |                   |
| Maximum Monitoring Distance              | 60 mi / 100 km                   |                   |
| <b>General Tone Signal Specification</b> |                                  |                   |
| Tone Locate Frequency Range              | 5 Hz to 10k Hz                   |                   |
| Complex Frequency Generation             | 5 Hz to 1kHz                     |                   |
| Max. Power Output                        | 50 W                             |                   |
| Max. Voltage Output                      | 100 V rms                        |                   |
| Max. Current Output                      | 500 mA                           |                   |
| Maximum Locate Distance                  | 60 mi / 100 km                   |                   |
| <b>Environmental</b>                     |                                  |                   |
| Operating Temperature Range              | +15°C to +30°C<br>+59°F to +86°F |                   |
| <b>Ordering Information</b>              |                                  |                   |
|  | 4200 CMS (Monitor Unit)          | w/ LIC, AUIC, ACU |
|  | 4200 CMS (Tone Unit)             | w/ LIC, AUIC, MTM |
|  | 4200 CMS (Monitor/Tone)          | w/ LIC, ACU, MTM  |

For more information on any of our products or services, please visit us on the web at: [www.norscan.com](http://www.norscan.com)

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