



Tech20150429-1-2

DCM 5 / DCM 5T Features and Specifications

DCM 5 Features

- Smaller footprint
- Operating voltage: 4.5 – 60V full featured
- Ohmic range: 0.25 mΩ to 25.9 mΩ
- Ohmic Value resolution: 6.3 μΩ (micro)
- Sleep mode ○ Reduce operating current during periods without communication

□ Optional **Enhanced Features**

DCM 5T

- All features of the DCM 5 listed above
- Jar Temperature Monitoring: 4 temperature probes per DCM ○ Thermal Runaway detection in open rack configurations

□ Includes **Enhanced Features**

- Operating voltage: 4.5 – 80V full featured ○ Allows for (4) NiCad jars per DCM and up to (4) 16V jars per DCM
- Ohmic range: 1 μΩ to 65 mΩ
- Ohmic Value resolution of 1 μΩ (micro)
- Cell Temperature reading range: 0 to 80
- Ripple Voltage readings



DCM 5 Enhanced Features

(Activation Required)

- **Expanded operating voltage range** ○ 4.5V to 80V
 - Supports (4) 16V jars on a single DCM
- **Expanded Ohmic value and Voltage resolution**
 - Range: 1 $\mu\Omega$ (micro) to 65 m Ω (milli)
 - Increased precision
 - Ohmic Value resolution of 1 $\mu\Omega$ (micro)
 - Voltage resolution of 2 mV (milli)
- **Ripple noise measurement**
 - Helps protect battery and identifies issues much sooner
 - Excess ripple may cause damage to batteries
 - Too much ripple could be a result of UPS issues

DCM 5 Enhanced Feature Activation

- DCM5 Extended Features can be activated at any time
 - At time of install or purchased later and activated through Cellwatch software
- To activate, open Cellwatch and choose the menu option Help > Feature Activation
- Contact NDSL Technical Support to activate
 - 919-790-7877 x1

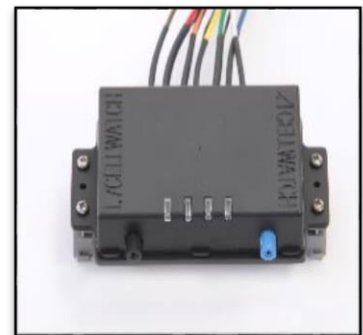


DCM 5T automatically enables all enhanced features, no feature activation required.

DCM 5 Hardware Options

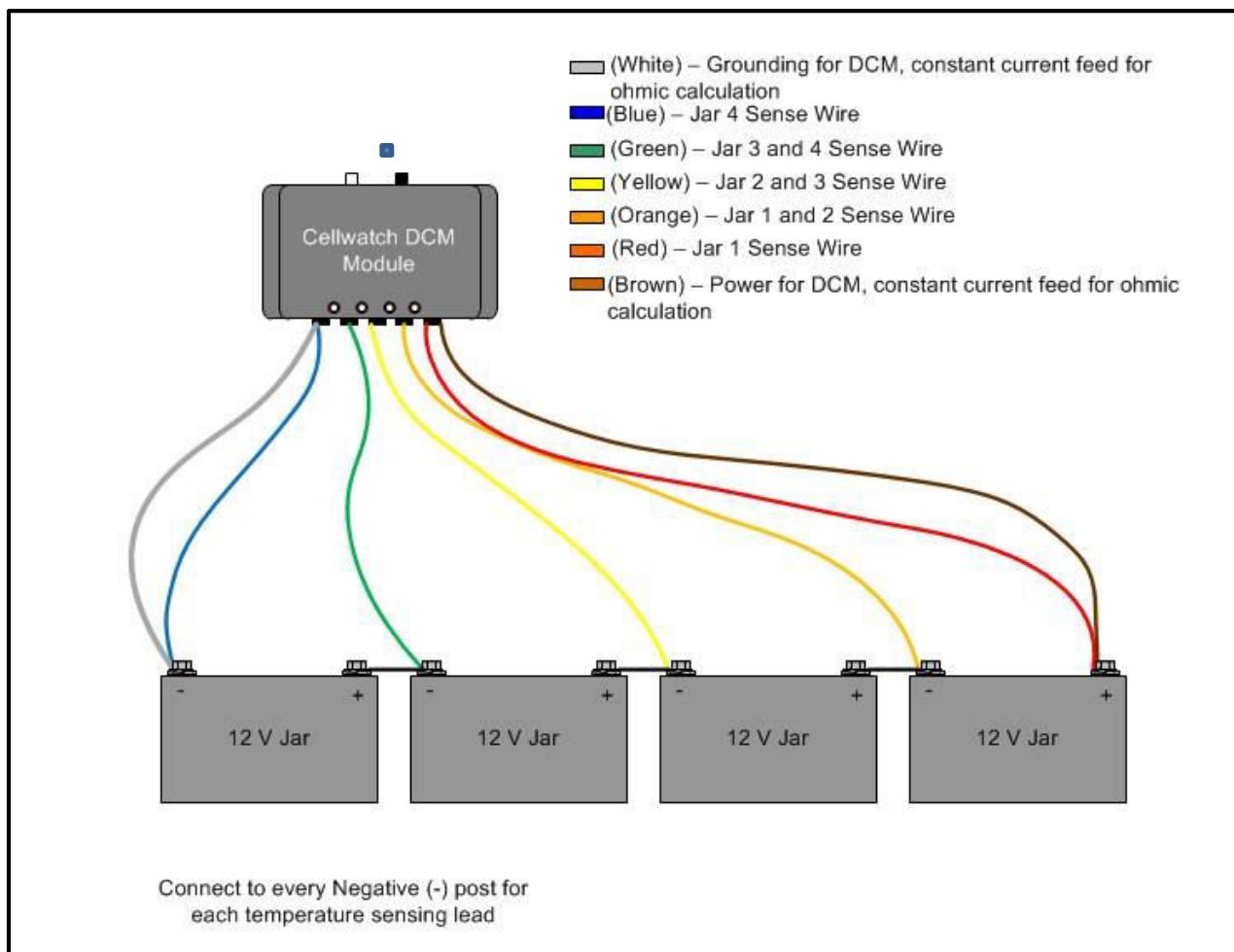
Exceptions and Requirements

- DCM 5 is not upgradable. TPs cannot be added to a DCM 5
- DCM 5T requires Cellwatch 4.2+ (and Windows 7)





DCM Negative Post Wiring



DCM 5 Specifications	
Description	DCM 5
Environment	
Operating temperature	0 to 60°C
Relative Humidity	5 - 95% non-condensing
Maximum Altitude	3,000 meters (10,000ft)



Power supply full functionality	4.5 - 80 Volts DC		
Power supply voltage, temperature & ripple	4.0 - 80 Volts DC		
Protection			
Transient suppression	600W		
Short circuit protection	Internal 3 amp fuse		
Reverse polarity protection	Any combination		
Insulation resistance	1000 MΩs >1Kv		
Operating current			
Quiescent current	25mA		
Sleep current after 25 hours	<2ma		
During ohmic testing	0.5 amp or 2 amps		
Standard Measurement Characteristics	Range	Resolution	Accuracy
Voltage	0 to 60 volts	15 mV	0.1% +/-15mv
Ohmic Value	0 to 25.9mΩ	6.3μΩ	2% +/- 12 μΩ
Enhanced Measurement Characteristics Requires Activation			
Voltage	0 to 80 volts	2mV	0.1% +/-5mv
Ohmic Value	0 to 1mΩ	1μΩ	2% +/- 8 μΩ
	1 to 65mΩ	1μΩ	1.5%
Temperature -ve post (auto activated)	2 to 80°C	0.01°C	+/- 1°C
Ripple Voltage across 4 jars 40Hz - 1 KHz	0 to 4 volts rms	2mv rms	2% +/-5mv rms
Fiber Optic Specification			
Optic cable	Acrylic		
Sheathing	Fluorine containing polymer		



Core diameter	1.0 mm
Outside diameter	2.2 mm
Wavelength	400-700 nm
Communication rate	9600 baud
Fiber optic range	Min: 150mm (6") to Max: 50meters (150 ft)
Mechanical	
Dimensions	4.2" x 3.1" x 0.9" 107mm x 80mm x 23mm
Mounting pads	3M Dual Lock™
Optional base plate with mounting holes	
Optional base plate with DIN rail mount	
Enclosure Material	ABS
Wire lead length	36 - 72 inches