

M-7679 R-PAC QUICK REFERENCE GUIDE

PROTECTION, AUTOMATION AND CONTROL SYSTEM FOR RECLOSER, SWITCH, SECTIONALIZER AND ADVANCED DISTRIBUTION AUTOMATION APPLICATIONS.

Programming Sectionalizer SCM (Sequence Coordination Mode)



Required Tools:

- PC running Windows 10® or higher
- S-7600 IPScom Communications Software

Download the latest **IPScom software** at:

<https://beckwithelectric.com/products/s-7600/>

Required Documentation:

- M-7679 Instruction Book
- M-7679 Application Guide
- Communications and Cybersecurity A.G.

Download the latest **M-7679 Instruction Book** at:

<https://beckwithelectric.com/products/m-7679/>

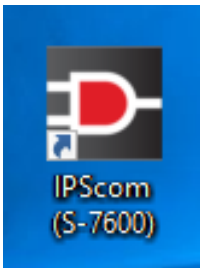
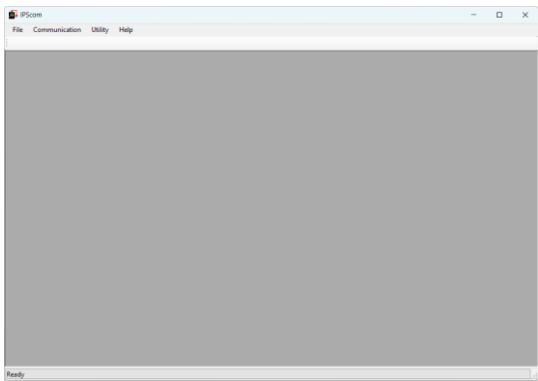
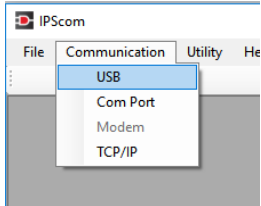
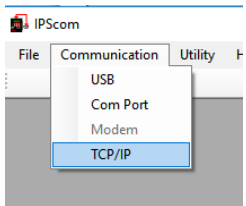
Table of Contents	
Programming Sectionalizer SCM (Sequence Coordination Mode)	3

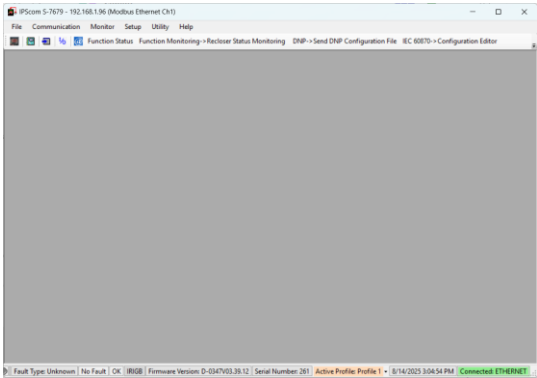
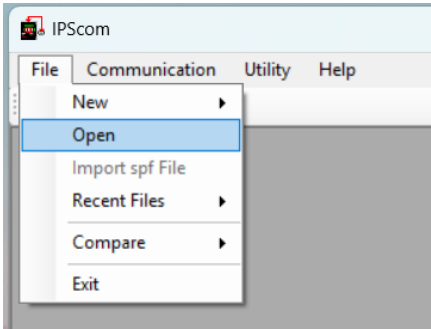
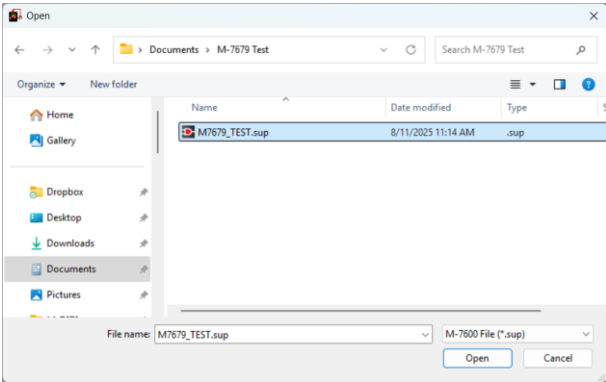
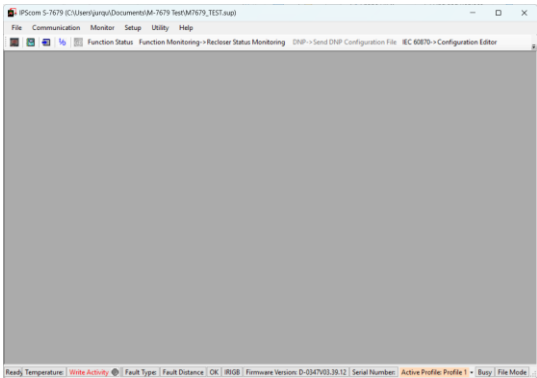
Programming Sectionalizer SCM (Sequence Coordination Mode)

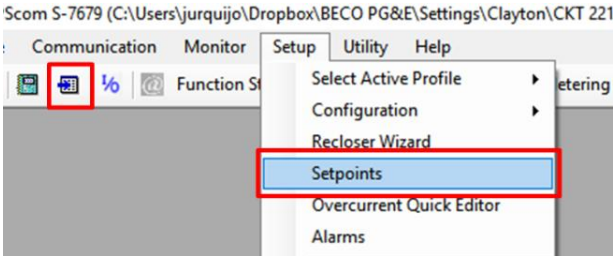
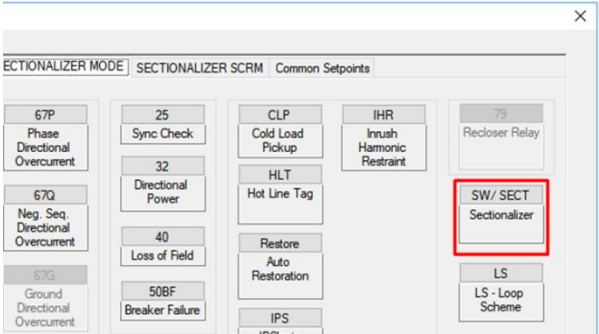
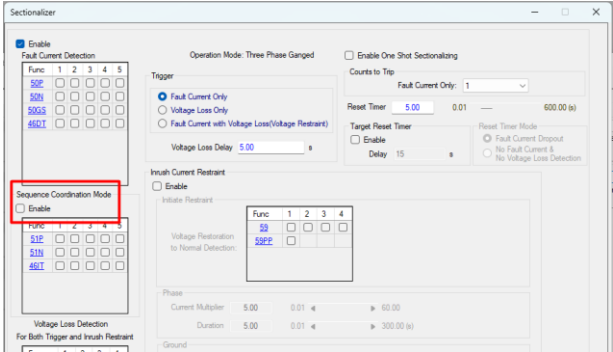
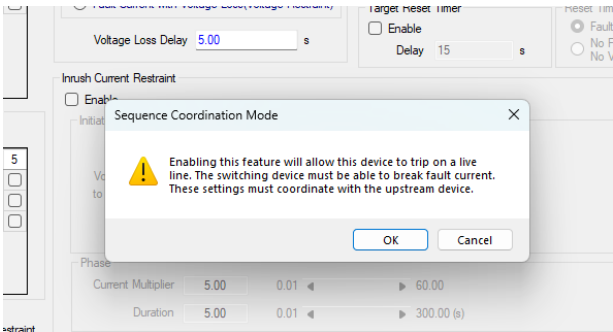
Sectionalizer **SCM (Sequence Coordination Mode)** is part of the Sectionalizer function. This Quick Reference Guide includes information about SCM, not about the complete Sectionalizer function.

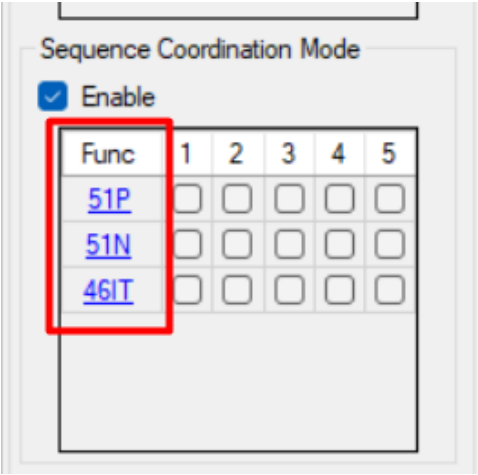
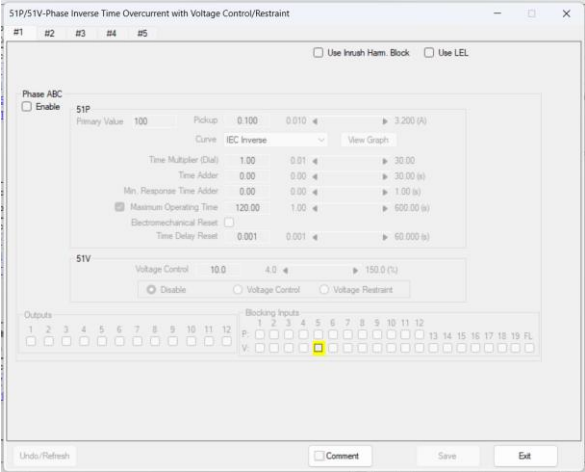
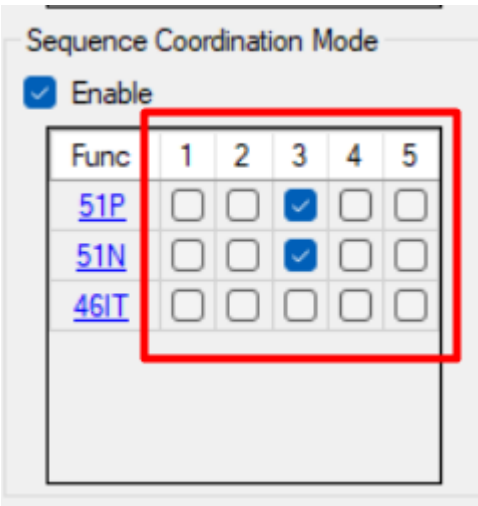
WARNING

SCM allows the M-7679 to change from the traditional Sectionalizer application to a Recloser Application for the last count of the Sectionalizer. At that moment, **the fault current breaking capability of the Recloser is crucial**; the Relay will now switch to the selected overcurrent functions of the SCM. The last count **WILL NOW TRIP ON A FAULT** as opposed to when SCM is disabled where it then **TRIP AFTER** the fault is cleared.

1	Start IPScom Software by double-clicking the corresponding shortcut.	
2	IPScom will display the IPScom Main dialog screen.	
3	If the process will be performed while connected to an M-7679 R-PAC unit, establish a connection to the unit using either USB or TCP/IP mode.	 

4	Once the connection is established, IPScom will display the Connected version of the IPScom main screen. Proceed to Step 8.	 A screenshot of the IPScom software interface. The title bar reads 'IPScm 5-7679 - 192.168.1.96 (Modbus Ethernet Ch1)'. The menu bar includes File, Communication, Monitor, Setup, Utility, and Help. The main area is mostly greyed out. At the bottom, a status bar shows 'Fault Type: Unknown No Fault OK (R)GB Firmware Version: D-0347V03.39.12 Serial Number: 281 Active Profile: Profile 1 - 8/14/2025 3:04:54 PM Connected: ETHERNET'.
5	If the process will be performed without a connection to an M-7679 R-PAC unit, navigate to File > Open to access an existing configuration file.	 A screenshot of the IPScom application window. The 'File' menu is open, showing options: New, Open, Import spf File, Recent Files, Compare, and Exit. The 'Open' option is highlighted with a blue selection bar.
6	IPScom will display the Open Dialog screen. Find the required .SUP file and select OPEN .	 A screenshot of a Windows 'Open' dialog box. The file explorer shows the 'Documents > M-7679 Test' directory. A file named 'M7679_TEST.sup' is selected. The 'File name' field at the bottom contains 'M7679_TEST.sup' and the file type is set to 'M-7600 File (*.sup)'. The 'Open' button is visible.
7	IPScom will display the Not-Connected version of the main screen.	 A screenshot of the IPScom software interface. The title bar reads 'IPScm 5-7679 (C:\Users\jerga\Documents\M-7679 Test\M7679_TEST.apl)'. The menu bar is the same as in previous screenshots. The main area is greyed out. At the bottom, the status bar shows 'Ready: Temperature Write Activity Fault Type Fault Distance OK (R)GB Firmware Version: D-0347V03.39.12 Serial Number: Active Profile: Profile 1 Busy File Mode'.

8	Go to Setup / Configuration / Relay or select the Relay icon in the Tool bar.	 The screenshot shows the top menu bar of the software with 'Communication', 'Monitor', 'Setup', 'Utility', and 'Help'. The 'Setup' menu is open, showing options: 'Select Active Profile', 'Configuration', 'Recloser Wizard', 'Setpoints' (highlighted with a red box), 'Overcurrent Quick Editor', and 'Alarms'. A red box also highlights the 'Relay' icon in the toolbar below the menu.
9	IPScom will display the Typical Setpoints screen from which all individual Function Setting dialog screens can be accessed. Click on SW/SECT Sectionalizer button.	 The screenshot shows the 'SECTIONALIZER MODE' window with tabs for 'SECTIONALIZER SCRM' and 'Common Setpoints'. It contains various function buttons like '67P Phase Directional Overcurrent', '25 Sync Check', '32 Directional Power', '40 Loss of Field', '50BF Breaker Failure', 'CLP Cold Load Pickup', 'HLT Hot Line Tag', 'Restore Auto Restoration', 'IPS', 'IHR Inrush Harmonic Restraint', '79 Recloser Relay', 'LS - Loop Scheme', and 'SW/ SECT Sectionalizer' (highlighted with a red box).
10	In the SW/SECT Sectionalizer screen, the user will find all the sectionalizer settings. To enable the SCM (Sequence Coordination Mode), check the Sequence Coordination Mode enable check box.	 The screenshot shows the 'Sectionalizer' configuration window. The 'Enable' checkbox for 'Sequence Coordination Mode' is checked and highlighted with a red box. Other settings like 'Fault Current Detection', 'Inrush Current Restraint', and 'Voltage Loss Delay' are also visible.
11	Once the SCM is activated, IPScom will display a message that warns the user about the break fault current capabilities that the power device must have to perform the SCM . Click OK .	 The screenshot shows a warning dialog box titled 'Sequence Coordination Mode' with a yellow warning icon. The text inside reads: 'Enabling this feature will allow this device to trip on a live line. The switching device must be able to break fault current. These settings must coordinate with the upstream device.' There are 'OK' and 'Cancel' buttons at the bottom.

12	Once the SCM function is enabled, the user can program the SCM overcurrent functions. To do this, click on the protection function link.	
13	IPScm will display the corresponding protection function screen (in this case 51P). Once the required settings are programmed click on Save and Exit.	
14	IPScm will return to the Sectionalizer Settings screen. In the SCM section, the user must select the protection element that will operate when the SCM is active. Only one protection element can be selected per function. Select the appropriate element for each protection function.	

15	Check that all the remaining Sectionalizer settings are according to the requirements. Then, click on Save and Exit .
----	---

The screenshot displays the 'Sectionalizer' software window. The 'Enable' checkbox for 'Fault Current Detection' is checked. Below it, a table shows the configuration for various fault types across five phases (1-5). The 'Voltage Loss Only' option is selected for the fault current setting, with a value of 5.00 s. The 'Inrush Current Restrain' section has the 'Enable' checkbox unchecked. The 'Sequence Coordination Mode' is also set to 'Enable', with a table showing settings for different fault types (51P, 51N, 450I) across five phases. The 'Voltage Loss Detection' section is configured for both 'Tiger' and 'Inrush Restrain' faults, with a table showing settings for 2I and 29P across four phases. The 'Blocking Inputs' section shows a grid of 16 inputs, with input 6 highlighted in yellow. The 'Operation Mode' is set to 'Three Phase Ganged'. The 'Enable One Shot Sectionalizing' checkbox is unchecked. The 'Counts to Trip' is set to 2, and the 'Fault Current Only' is set to 15.00, 0.01, and 600.00 (s). The 'Reset Timer Mode' is set to 'Fault Current Dropout'. The 'Target Reset Timer' is set to 'Enable' with a delay of 15 s. The 'Undo/Refresh' button is at the bottom left, and the 'Save' and 'Exit' buttons are at the bottom right.

Sectionalizer

☒ **Enable**
Fault Current Detection

Func	1	2	3	4	5
50P	☐	☐	☐	☐	☐
50N	☐	☐	☐	☐	☐
50S3	☐	☐	☐	☐	☐
450I	☐	☐	☐	☐	☐

Operation Mode: Three Phase Ganged

☐ **Enable One Shot Sectionalizing**

Tripger

☒ **Fault Current Only**
☐ **Fault Current with Voltage Loss (Voltage Restrain)**

Voltage Loss Only: 5.00 s

Reset Timer: 15.00, 0.01, 600.00 (s)

Target Reset Timer:
☐ **Enable**
 Delay: 15 s

Reset Timer Mode:
☒ **Fault Current Dropout**
☐ **No Fault Current & No Voltage Loss Detection**

Inrush Current Restrain
☐ **Enable**

Initiate Restrain:

Func	1	2	3	4
59	☐	☐	☐	☐
59P2	☐	☐	☐	☐

Sequence Coordination Mode
☒ **Enable**

Func	1	2	3	4	5
51P	☐	☒	☐	☐	☐
51N	☐	☒	☐	☐	☐
450I	☐	☐	☐	☐	☐

Voltage Loss Detection
For Both: Tripger and Inrush Restrain

Func	1	2	3	4
2I	☐	☐	☐	☐
29P	☐	☐	☐	☐

Phase
Current Multiplier: 5.00, 0.01, 60.00
Duration: 5.00, 0.01, 300.00 (s)

Ground
Duration: 5.00, 0.01, 300.00 (s)

Blocking Inputs

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	FL
☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐
☐	☐	☐	☐	☐	☒	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐	☐

Undo/Refresh **Comment** **Save** **Exit**

End of Procedure.



Scan for quick access to M-7679
technical literature.



6190 118th Avenue North
Largo, FL 33773-3724 U.S.A.



BeckwithElectric.com
HubbellPowerSystems.com

