SEL-4391 Data Courier Instruction Manual

Easily Load New Firmware, Send and Retrieve Settings, and Gather Reports

Features and Benefits

Use the SEL-4391 Data Courier® to retrieve Sequential Events Recorder (SER) and/or device event reports (EVE) and store them on a secure digital memory card with the push of a button. Upgrade firmware or load setting files to your SEL device.

The Data Courier provides the following features:

- **Simple-to-use interface.**
- **Small, portable, and battery operated.**
- **Secure passwords with encryption and PIN codes.**
- **Automatic detection of data rate.**
- **Programmable pushbuttons to send or retrieve data files.**

Product Overview

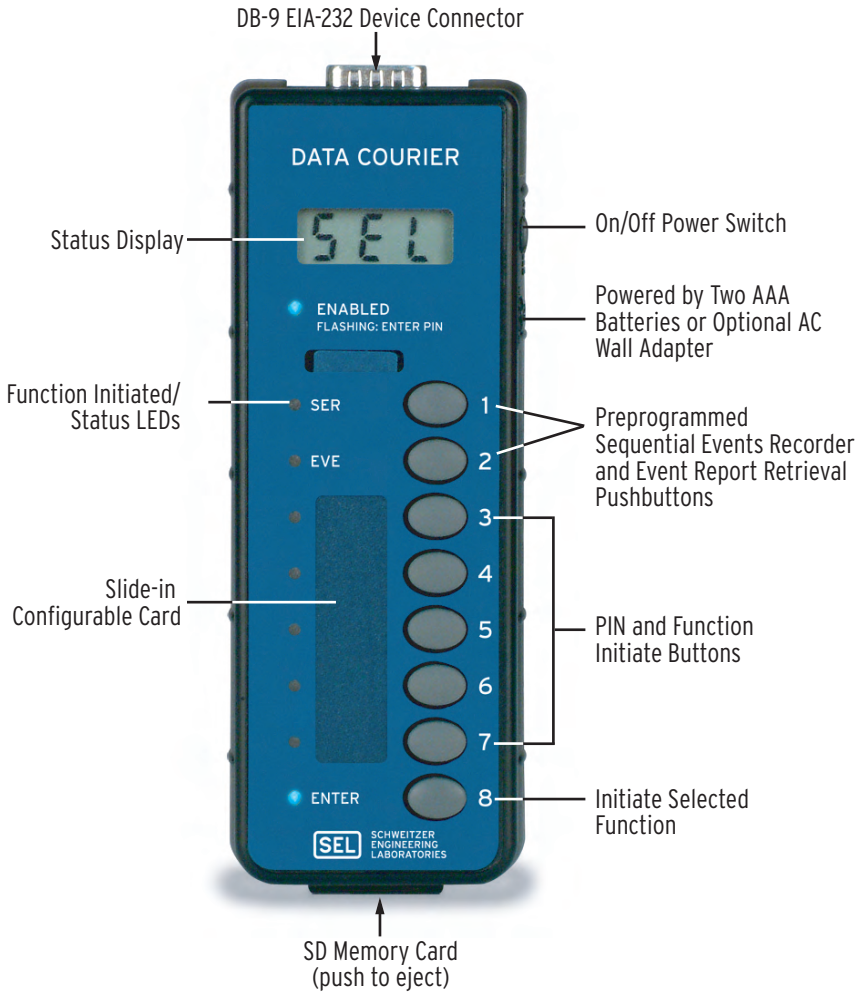


Figure 1 Data Courier Functional Overview

Getting Started

The SEL Data Courier comes from the factory with an SD Memory card. To use the Data Courier, you must first program the SD card with an SD card reader (SEL 240-4050 or self-supplied) and the provided SEL-5891 Data Courier Configuration Software.

Installing the SEL-5891 Software

Step 1. Insert the SEL-5891 installation CD-ROM into your PC. If the program autoruns, skip to *Step 4*.

Step 2. Start Windows® Explorer and click on the CD-ROM drive.

Step 3. In the root directory, double-click on the Setup.exe file.

Step 4. On the setup menu, click on **Install SEL-5891 Data Courier Software**.

Step 5. Follow the installation instructions.

Step 6. Close the installer when installation is complete.

Using the SEL-5891 Software

NOTE: The system is shipped with an SD memory card. You can use larger memory cards (up to 2 GB).

The SEL-5891 Data Courier Configuration Software is designed to easily program the Data Courier buttons to run functions. There are two screens to the software: the main overview screen (*Figure 2*) and the button configuration screen (*Figure 3*).

Step 1. Insert the supplied SD card into an SD card reader connected to your PC.

Step 2. Start the SEL-5891 software using the Windows Start menu (**Start > Programs > SEL Applications**).

Step 3. Ensure the SEL-5891 recognizes the SD card drive (in *Figure 2* we show drive E:\; you may have a different drive letter specification). If a drive is not automatically detected, click on the arrow next to the SD card drive to view available drives.

If the software does not recognize the SD card drive, then either the driver is not installed properly or the SD card is not formatted properly in FAT format.

NOTE: FAT32 file format will not work with the Data Courier. Use the Windows format program to reformat the SD card to the FAT file system.

IMPORTANT: Formatting the SD card will result in loss of all data stored on the card.

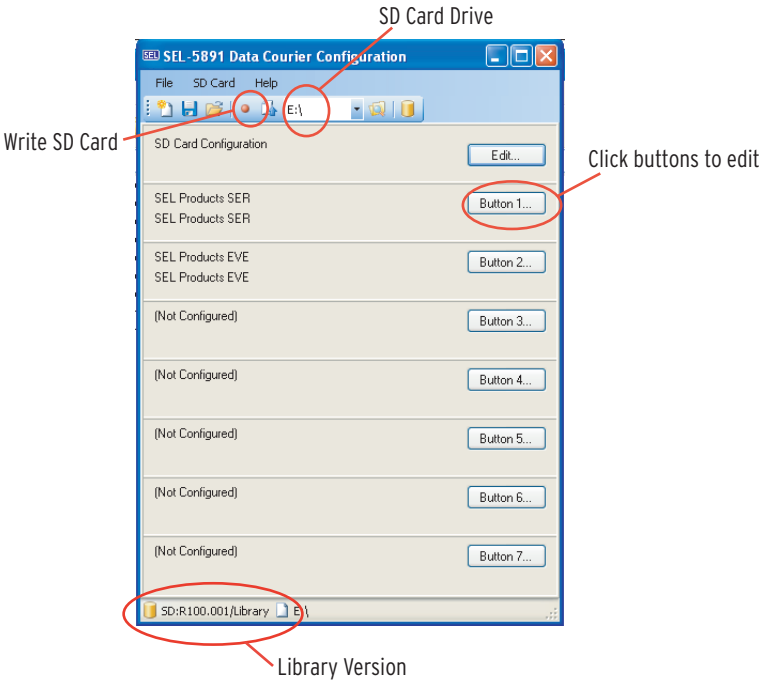


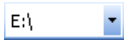
Figure 2 Main Overview Screen

Table 1 lists the definitions of all the icons used in the main overview screen.

Table 1 SEL-5891 Software Icon Definitions (Sheet 1 of 2)

Tools	Description
	**New Configuration**: This clears your current SD card configuration and opens up a new default configuration.
	**Save Configuration**: This saves your configuration for later use. The saved file makes the device passwords illegible to someone looking at the file with a text editor.
	**Open Configuration**: This opens up a saved configuration.
	**Send Configuration To Card**: This writes a configuration to the SD card. After you click this button the software prompts you for an 8-digit, numerical (1–8) PIN. You must remember this PIN. It is the only way the Data Courier will function with the SD card.

Table 1 SEL-5891 Software Icon Definitions (Sheet 2 of 2)

Tools	Description
	**Load Card Configuration**: This button reads the configuration already saved on the SD card. You must have an SD card connected to the PC and the 8-digit PIN number of the SD card to read its configuration.
	**SD Drive Letter**: This displays the current drive letter assigned to the SD card. Click the drop-down arrow to select from a list of possible removable device drives. The software only recognizes FAT drives up to 2 GB. If the SD card drive does not appear, it is most likely the card was formatted as FAT32. You must reformat the card to the FAT file system.
	**Explore SD Card**: This button opens the SD card drive for content viewing.
	**Open Function Library**: This prompts you to load a new library file. The library file contains all of the commands and devices supported by the Data Courier. Update the new library file, when new products or functions are added. The library will be available on the SEL website. The lower left-hand corner of the screen shows the current version of library in use (see *Figure 2*).
	**Button 1 through Button 7**: Clicking on Button 1 through Button 7 brings up the configuration screen, allowing you to program the selected button.

Programming the SD Card

Use the configuration screen (*Figure 3*) to program the Data Courier Buttons 1 through 7. Buttons 1 and 2 are fixed as SER and EVE, respectively, but you can configure the security and description properties. The remaining buttons can be set to any of the available functions.

Step 1. Click the button you want to configure on the main overview screen (e.g., Button 3).

Step 2. Select the product from the drop-down menu.

This drop-down menu lists all of the devices supported by the Data Courier. Select the device for configuration (e.g., SEL-351S, SEL-710, etc.).

Step 3. Select the function from the drop-down menu.

Based on the product selection, this drop-down menu lists all of the functions available for the product. Typical functions include retrieving SER, EVE, settings, and upgrading firmware.

Step 4. Enter the Level 1 and/or Level 2 passwords, as appropriate.

After you select the product and function, the SEL-5891 highlights what level of password is needed to carry out the function. Make sure you enter the correct password for the device (the password is case-sensitive).

Step 5. Enter LCD display text and notes, if desired.

a. **LCD Display Text**: Enter a brief description of the button function (up to 32 characters). The text entered in this field will be displayed on the Data Courier status screen when the correlating button is pressed (i.e., 451FW R117).

b. **Notes**: Enter the text you want displayed on the SEL-5891 main overview screen as a brief description of the button's function (i.e., Substation A, Breaker B, etc.).

Step 6. If you configure the function for either **Firmware Upgrade** or **Send Settings**, click **Attach** and browse to the associated firmware or settings files (see *Send/Retrieve Settings*). Click **OK**.

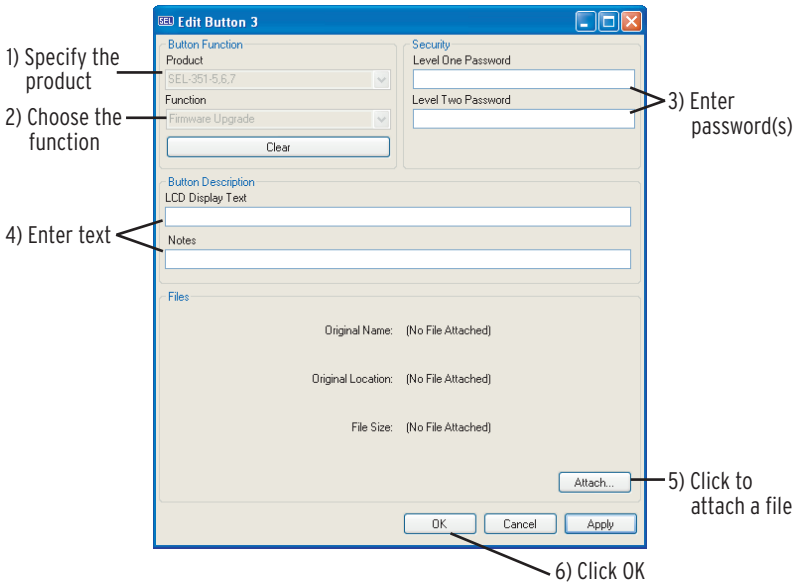
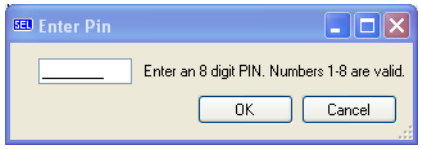


Figure 3 Button Configuration Screen

Step 7. Click the red dot (send configuration icon) in the toolbar or select **SD Card** > **Write** to write the configuration to the SD card (see *Figure 2*).

Step 8. Enter an 8-digit PIN using numbers 1–8. Click **OK**.



Step 9. Click **OK** at the **Card successfully written** prompt.

Step 10. Remove the SD card from the reader.

Application Tip: If multiple passwords are required to retrieve SER and EVE data from multiple devices, your options are to write a specific SD card per device or program Buttons 3 through 7 to perform these functions with different passwords.

Using the Data Courier

Step 1. Insert the programmed SD card and turn on the Data Courier.

After an initialization routine, the Data Courier **Enable** LED starts flashing and the display prompts you to enter the pre-programmed PIN code.

Step 2. Enter your 8-digit PIN code (configured in *Step 8* above) to enable the device.

When you enter the correct PIN, the Data Courier displays `CFG` while loading the new configuration and `SEL` when finished.

Step 3. Connect the Data Courier to the front port of the device with the supplied C602 data cable.

Step 4. Press a function button (1–7). The LCD displays the action of the button pressed.

Step 5. Press **Enter** (Button 8) to acknowledge the function and begin.

The Data Courier will go through the function while displaying messages on the front-panel LCD to show progress. When the function completes, the Data Courier displays dnE.

Step 6. When the Data Courier displays dnE, remove the SD card and view the log file with your PC (see *Log File*).

Data Courier Tips

- ➤ Do not remove the SD card when the Data Courier is performing a function.
- ➤ Never disconnect the serial port from an IED unless the Data Courier states dnE or Err.
- ➤ Never connect the Data Courier directly into the front port without using the supplied C602 cable.
- ➤ Always use the front port of the IED unless it is an SEL-734 or SEL-500 series product.
- ➤ When performing firmware upgrades always upgrade a sample product in the lab to verify the upgrade.
- ➤ Always verify you are using the correct firmware to upgrade the correct IED.
- ➤ Always have a backup copy of the IED settings before upgrading the firmware.
- ➤ After firmware upgrades, make sure the IED **Enabled** LED is on and proper commissioning tests are performed before putting the device back into service.

LCD Display Messages

Table 2 lists all the programmed LCD messages on the Data Courier.

Table 2 Display Messages

Display	Description
bAU	Attempting to auto baud to the connected device.
Pin	Prompts the user to enter the 8-digit PIN code.
Err	An error has occurred while executing the selected function. See *Troubleshooting* for more information.
L-b	Low-battery voltage (function initiate buttons are disabled). Replace batteries.
Crd	No SD memory card is detected.
Pro	SD memory card write protect is enabled.
COn	Established connection to device.
dnE	Button function completed successfully.
rEt SEr	Retrieving SER records.
rEt EvE	Retrieving EVE records.
SEn SEt	Sending setting to device.
rEt SEt	Retrieving settings from device.
SEn F!	Transferring firmware file to device.

Function Failure Modes

Err. If the **Function** LED remains flashing and the LCD indicates Err the selected function failed to complete. The function can be re-initiated, however, if it fails again there is an incompatibility. Possible causes include incorrect password, command string error, or the SD memory card is full. Refer to *Troubleshooting* for more information.

L-b. When L-b is displayed on the LCD this means that the remaining battery life is not sufficient to perform the operation. The function keys will be disabled during this condition to avoid starting a function without enough battery power to complete.

Table 3 Serial Port Connections

PIN #	Function
1	+5 Vdc Out (when externally powered)
2	Data Out
3	Data In
4	N/C
5	GND
6	N/C
7	N/C
8	+6 Vdc Out
9	N/C

Data Security

The device passwords stored on the SD memory card are encrypted in case the card or Data Courier is lost or stolen. You cannot use the Data Courier without the proper PIN code, which is also encrypted on the memory card.

All SER reports, event reports, and firmware and settings files are stored unencrypted as they would be on any other storage device. You can view the list of unencrypted data using Windows Explorer. Most files are viewable using a word processor program.

Supported Device Functions

A list of the current Data Courier supported products is available on the SEL website at www.selinc.com/SEL-4391. As new products qualify, they are included on the list and an updated SEL-5891 library file is also available on the website for use with the SEL-5891 software. Use the SEL-5891 software to set specific functions for each button on the Data Courier, the following paragraphs discuss available functions. See *Using the SEL-5891 Software*, to learn more on using the library file and programming the Data Courier buttons.

SER

Use the SER function (Button 1 is preset to this function) to download a SER Report. This report contains the data of transition points of Relay Word bits asserting and deasserting. This report is useful when actions occur over longer periods of time, like multiple shot reclosing. The following is a sample of a SER.

```
FEEDER 1                    Date: 04/12/07    Time: 10:20:16.896

STATION A

FID=SEL-351S-5-R400-V0-Z008006-D20070117   CID=2xxxx
#     DATE       TIME            ELEMENT         STATE

19    04/12/07   08:30:33.222   Relay newly powered up
18    04/12/07   09:20:22.830   IN102           Asserted
17    04/12/07   09:27:58.364   LB4             Asserted
16    04/12/07   09:27:58.364   OUT102          Asserted
15    04/12/07   09:27:58.368   LB4             Deasserted
14    04/12/07   09:27:58.385   IN101           Asserted
13    04/12/07   09:27:58.385   OUT102          Deasserted
12    04/12/07   09:28:03.385   79LO            Deasserted
11    04/12/07   09:28:31.717   51G             Asserted
10    04/12/07   09:28:31.721   51P             Asserted
9     04/12/07   09:28:31.729   50P1            Asserted
8     04/12/07   09:28:31.729   79CY            Asserted
7     04/12/07   09:28:31.729   OUT101          Asserted
6     04/12/07   09:28:31.808   50P1            Deasserted
5     04/12/07   09:28:31.816   51G             Deasserted
4     04/12/07   09:28:31.816   51P             Deasserted
3     04/12/07   09:28:31.816   IN101           Deasserted
2     04/12/07   09:28:31.879   OUY101          Deasserted
1     04/12/07   09:28:36.874   OUT102          Asserted
```

The Data Courier downloads the SER and saves it as a text file (SER.txt) on the SD card. To access the file, insert the SD card into your PC or an SD card reader. The SER.txt file will be stored on the SD card in the following location:

Button[x]/DATA/SER/[Device]/[Date]/[Time]/

where:

- **Button[x]** is the button programmed to retrieve the SER (e.g., Button 1).
- **Device** is the product the Data Courier retrieved the SER from (e.g., SEL-451, SEL-351S, etc.).
- **Date** is the date obtained from the device when the SER was retrieved.
- **Time** is the time from the device at the start of downloading the SER.

You can view the SER.txt file with any word processor program. Microsoft® WordPad software (standard with Windows®) is a convenient way to view the data.

EVE

Use the EVE function (Button 2 is preset to this function) for downloading oscillographic event reports. Oscillographic event reports are highly sampled analog and digital data stored in the device after a major event has occurred, such as the tripping of a breaker. The event reports contain date, time, current, voltage, frequency, relay elements, optoisolated inputs, output contacts, and fault location information. This data is very useful for analyzing faults, determining root cause, and verifying correct equipment operation.

Most devices will hold multiple event reports. The device stores a list of the events in a history report. The history report shows the number of events stored in the device along with a high-level view of the cause of the event report. There are many formats to download and view event data using the event waveform in the ACSELERATOR QuickSet® SEL-5030 Software or the ACSELERATOR® Analytic Assistant SEL-5601 Software.

The event report and history are stored on the SD card in the format of #.cev (where # is the number of the event report). The EVE (#.cev) and history (his.txt) files will be stored on the SD card in the following location:

Button[x]/DATA/EVE/[Device]/[Date]/[Time]/

where:

- **Button[x]** is the button programmed to retrieve the EVE (e.g., Button 2).
- **Device** is the product the Data Courier retrieved the EVE from (e.g., SEL-451, SEL-351S, etc.).
- **Date** is the date obtained from the device when the EVE was retrieved.
- **Time** is the time from the device at the start of downloading the EVE.

Figure 4 shows an example of an event report viewed from a word processor program.

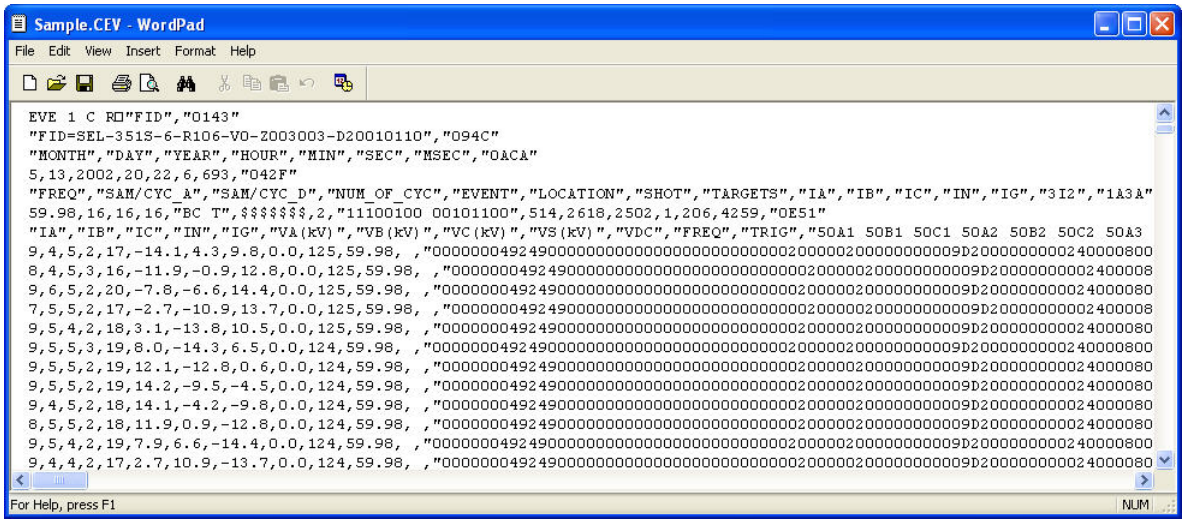


Figure 4 Example Event Report

To graphically view the waveforms and digital data, use the ACSELERATOR QuickSet or Analytic Assistant software to open the CEV file and display the event (see *Figure 5*).

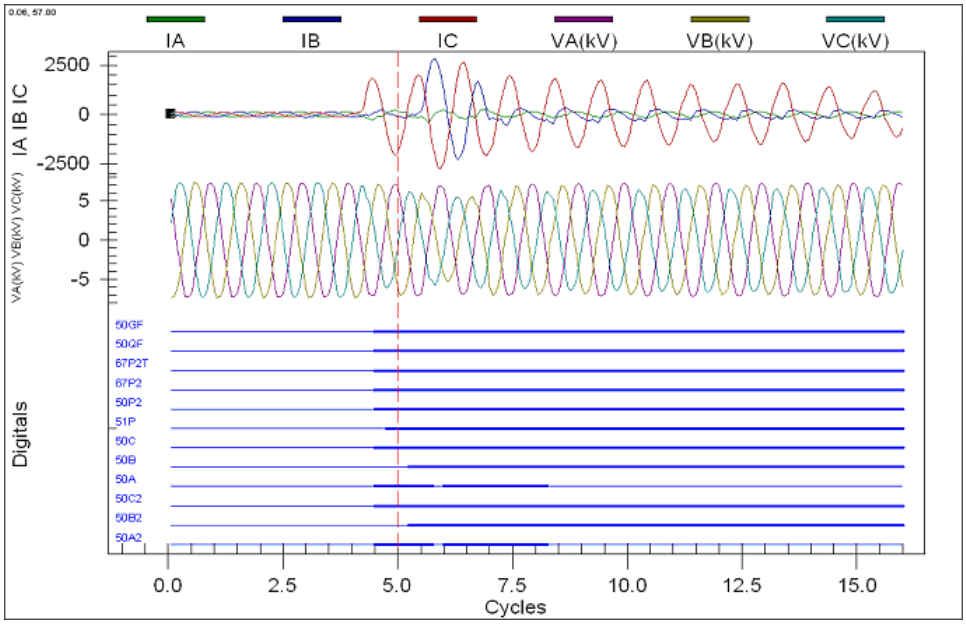


Figure 5 Example Event Report Displayed Graphically

Send/Retrieve Settings

Each SEL device that supports file transfer has a list of settings files grouped according to function and stored locally in the device. To view a list of these settings files using a PC, connect to the device and issue the **FILE DIR** command. In each device's setting directory there is a CFG.txt file. This file lists all the settings files in the device and their location. The Data Courier uses the CFG.txt file to determine what and how many files to download for retrieval and what location to send files to the product.

To retrieve settings, the Data Courier connects to the device and downloads the CFG.txt file. The CFG.txt file lists all the settings files needed to contain a complete copy of the device settings. The Data Courier then downloads each file specified in CFG.txt and stores it on the SD card (ranging from 5 to 40 files, depending on the device). The settings text files will be located on the SD card in the following location:

Button[x]/Settings/[Device]/[Date]/[Time]/

where:

- **Button[x]** is the button programmed to retrieve the settings (e.g., Button 3).
- **Device** is the product the Data Courier retrieved the settings from (e.g., SEL-451, SEL-351S, etc.).
- **Date** is the date obtained from the device when the settings were retrieved.
- **Time** is the time from the device at the start of downloading the settings.

Once the settings are saved to the SD card, use the ACSELERATOR QuickSet software to import the file and save or change the copy of device settings.

To send settings to an SEL device, start with ACSELERATOR QuickSet and have settings already configured for the device. Once the settings are configured for the correct part number and settings version, then export these files to a temporary directory on your PC. Using the SEL-5891 Data Courier Configuration software, program a button to send settings and attach the exported files to this button. The Data Courier uses these settings files to connect to the device and send settings. The Data Courier will send any of the settings files that match the names listed in the CFG.txt file. If at any time the device rejects the settings file, the Data Courier displays `Err`. If the device rejects the file, it can mean the part number did not match, the setting version number is wrong, or a setting is incorrect.

Breaker/Contactor Operation

The breaker/contactor operation allows you to open/close a breaker or start/stop a motor on selected SEL relays. The Data Courier can be programmed to issue **OPEN/CLOSE** or **STOP/START** commands to attached devices for breaker/contractor operation. For a list of relays supported by this action go to http://www.selinc.com/static/4391_support/index.htm.

The breaker/contractor operation is useful for relays that are being bench tested to manually test the logic and logging capabilities in relays. If the relay is in service these functions are used to manually open and close the breaker to remove or restore service. The relays require level 2 access to operate a breaker through communications. The Data Courier is ideal for safely operating a breaker from a distance away, using password-protected commands.

After initiating a breaker/contractor operation, the Data Courier will store the operation in the log file. The log file is stored on the SD card for later viewing, in the following location:

Button[x]/log.txt

Figure 6 shows an example of what the LOG.TXT file will look like when a breaker operation is issued.

```
SEL-4391 Library Version FID=LIB-4391-R105-V0-Z001001-D20100302
Attempting to auto-baud...success.
Auto-bauded at 19200.
Attempting to go to access level 1...success.
Attempting to go to access level 2...success.
Retrieving the device ID...success.
FID=SEL-451-4-R122-V0-Z011011-D20090526
Attempting to retrieve the date...success.
Date:  03/03/2010
Attempting to retrieve the time...success.
Time:  09:41:06
Issuing OPE 1 command...success.
OPE 1 command succeeded!
```

Figure 6 Example LOG.TXT File With Breaker Open Command

Firmware Upgrade

⚠CAUTION
We strongly recommend that before you use the Data Courier to upgrade firmware in an SEL device in the field, first upgrade a device in the lab and verify the entire upgrade works.

To update an SEL device with the latest enhancements or improvements, perform a firmware upgrade. Use the Data Courier to enter access Level 2 of an SEL device. The Data Courier puts the device into SELBOOT, sends the new firmware file, restarts the device, and logs the device's changed FID (firmware identification string) and device status.

After the Data Courier has successfully completed a firmware upgrade, it stores the progress and status of the device in the Log.txt file. The following shows an example of the log file after a successful firmware upgrade (see *Log File* for more information).

```
SEL-4391 Library Version FID=LIB-4391-R100-V0-Z001001-D20070513
Attempting to auto-baud...success.
Auto-bauded at 57600.
Attempting to go to access level 1...success.
Attempting to go to access level 2...success.
Retrieving the device ID...success.
FID=SEL-421-1-R111-V0-Z003004-D20040602
Attempting to retrieve the date...success.
Date:  04/11/2007
Attempting to retrieve the time...success.
Time:  14:26:39
Attempting to enter SELboot...success.
Increasing the baud rate...success.
Changed SELboot baud rate to 115200.
Erasing firmware...success.
Waiting for firmware transfer to start...success.
Transferring new firmware...success.
Waiting for the device to reboot...success.
Attempting to go to access level 1...success.
Retrieving the device ID...success.
FID=SEL-421-1-R112-V0-Z004005-D20041217
------------------Start of status-------------------

Relay 1                                 Date: 04/11/2007   Time: 14:42:08.538
Station A                               Serial Number: 2004159235

FID=SEL-421-1-R112-V0-Z004005-D20041217     CID=0x663f

Failures
  No Failures

Warnings
  No Warnings

SELogic Relay Programming Environment Errors
  No Errors

Relay Enabled
-------------------End of status--------------------
Upgrade succeeded!
```

Log File

When the user presses a button on the Data Courier to initiate any function, the Data Courier saves the progress of completing that function in a log file. The Log.txt file will be saved on the SD card in the directory for the button pressed.

With the log file you can verify a function ran properly, see why the Data Courier is displaying Err, and get device status information after a firmware upgrade.

For example, when using the SER function, the log file will provide information on the steps the Data Courier went through to successfully retrieve the SER. The log file will contain information like connecting to the device, what data rate it connected at, if the password was correct, retrieving the date and time, and, at the end, if the process was successful. The following shows an example of a log file after initiating the SER function.

```
SEL-4391 Library Version FID=LIB-4391-R100-V0-Z001001-D20070513
Attempting to auto-baud...success.
Auto-bauded at 19200.
Attempting to go to access level 1...success.
Retrieving the device ID...success.
FID=SEL-351S-7-R116-V0-Z007005-D20060727
Attempting to retrieve the date...success.
Date: 07/04/12
Attempting to retrieve the time...success.
Time: 16:21:40
SER retrieval succeeded!
```

Troubleshooting

Table 4 Troubleshooting the Data Courier

Issue	Possible Solution
Entering your PIN causes an Err response.	Incorrect PIN number. If you forget the PIN number there is no way to retrieve it. You must set up a new configuration using the SEL-5891 software.
You connect the Data Courier to a device, start a function, and it displays Err.	View the Log.txt file located in the Button[x] directory on the Data Courier display. ➤ If the Err message occurs after entering the PIN number then you have entered the wrong PIN number. ➤ If the Err message occurs after entering the correct PIN and after it displays CFG, then the SD card is corrupt. Reformat it using the SEL-5891 software. ➤ If the Err message occurs after the Data Courier displays bAU, then check connection to the device. Ensure the device port is set correctly to 8 bits, no parity, 1 stop bit, and hardware handshaking is set to No. ➤ If the Err message occurs after displaying COn, then the Access Level 1 or Level 2 password is not correct. ➤ If the Err message occurs after displaying COn, then the SD card may be full. Check the SD card using a PC to verify if it is full. Remove data or program a new SD card before use. ➤ If the Err message occurs after displaying one of the following messages—rEt SEr, rEt EuE, SEn SEt, rEt SEn, or SEn F'' —then the transmission was disrupted (either the communication cable was unplugged or the SD card was accidentally removed).
Cannot program the SD card through the Data Courier.	➤ You can only program the SD card with an SD card reader (SEL 240-4050 or equivalent) connected to the PC. You cannot program the SD card through the Data Courier.
You cannot get the SD card drive to display in the SEL-5891 configuration software.	➤ The software only recognizes FAT drives up to 2 GB. If the SD card drive does not appear, it is most likely the card was formatted as FAT32. You must reformat the card to the FAT file system.

Specifications

Port Speed (Data Rate)

1200 to 115200 bps

Power Supply

Internal:	Two AAA batteries (Ray-O-Vac® 824 or equivalent)
External:	Range 4–18 Vdc, Burden <120 mW (SEL 230-0601 AC power supply or equivalent)

Battery Operating Life

30 hours with a new set of batteries

Operating Temperature

0° to +45°C (+32° to +113°F)

SD Memory Card

128 MB to 2 GB (128 MB card included)

Humidity

0% to 95% without condensation

Unit Weight

0.22 kg (0 lb, 8 oz)

Dimensions

146 mm x 53 mm x 32 mm
(5.75 in. H x 2.10 in. W x 1.25 in. D)

SEL-5891 System Requirements

Operating system:	Windows® 2000 or Windows® XP Card reader/writer compatible with SD memory cards.
Language support:	EN (English) and ES (Spanish) supported

Certifications

ISO: Product is designed and manufactured using ISO 9001:2000 certified quality program.

Firmware and Manual Versions

Firmware Version

Table 1 lists the firmware versions, a description of modifications, and the product manual date code that corresponds to firmware versions. The most recent firmware version is listed first.

Table 5 Firmware Revision History

Firmware Part/Revision No.	Description of Firmware	Manual Date Code
SEL-4391-R100-V0-Z001001-D20070515	Library update—see *Table 2*.	20100303
SEL-4391-R100-V0-Z001001-D20070515	Library update—see *Table 2*.	20090225
SEL-4391-R100-V0-Z001001-D20070515	Library update—see *Table 2*.	20071019
SEL-4391-R100-V0-Z001001-D20070515	Library update—see *Table 2*.	20070628
SEL-4391-R100-V0-Z001001-D20070515	Initial release.	20070515

Determining the Library Version

To determine the library version, open the SEL-5891 software and view the lower left corner of the screen. *Figure 2 on page 1.3* shows an example of the library revision number location.

Table 2 lists the library versions, a description of the library file, and the date code that corresponds to the library version. The most recent library versions are listed at the top.

Table 6 Library Revision History[a]

Library Revision No.	Description of Library	Date Code
R105.002/Library	➤ Added function commands to open/close breakers and start/stop motor.	20100303
R104.002/Library	➤ Internal only.	
R103.002/Library	➤ Added SEL-487E, SEL-2414, SEL-2440, and SEL-2523 support. ➤ Fixed device support in spanish version.	20090225
R102.002/Library	➤ Modified Data Courier to detect all file transfer errors when sending or receiving device settings. ➤ Reading settings files from devices now includes folder structure to easily import all settings into ACSELERATOR QuickSet software.	20071019
R101.002/Library	Added SEL-2431 support.	20070628
R100.001/Library	Initial release.	20070515

a. For up-to-date information on recently added devices and library files, go to www.selinc.com/SEL-4391.

Determining the Manual Version

The date code at the bottom of each page of this manual reflects the creation or revision date.

Table 3 lists the manual release dates and a description of modifications. The most recent manual revisions are listed at the top.

Table 7 Manual Revision History

Revision Date	Summary of Revisions
20100303	Updated for R105.002/Library.
20090225	Updated for R103.002/Library.
20071019	Updated for R102.002/Library.
20070628	Updated for R101.002/Library.
20070515	New manual release.

Notes

Factory Assistance

We appreciate your interest in SEL products and services. If you have questions or comments, please contact us at:

Schweitzer Engineering Laboratories, Inc.
2350 NE Hopkins Court
Pullman, WA 99163-5603 USA
Telephone: +1.509.332.1890
Fax: +1.509.332.7990
Internet: www.selinc.com
Email: info@selinc.com

⚠WARNING

Operator safety may be impaired if the device is used in a manner not specified by SEL.

⚠AVERTISSEMENT

La sécurité de l'opérateur peut être compromise si l'appareil est utilisé d'une façon non indiquée par SEL.

SCHWEITZER ENGINEERING LABORATORIES
2350 NE Hopkins Court • Pullman, WA 99163-5603 USA
Phone: +1.509.332.1890 • Fax: +1.509.332.7990
Internet: www.selinc.com • E-mail: info@selinc.com

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