PLC Programming
from Beginner to
Paid Professional

Part 2

Learn How to Setup, Integrate & Program

the Most Used Allen Bradley PowerFlex 525 Drive

with Demo Videos

By

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PLC Programming from Beginner to Paid Professional – Part 2

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About the Author

I am a Control Systems engineer, Systems Integrator and a Content Creator. I have worked with over a thousand clients across business sectors, mostly the PLC automation industry. I have written numerous books, articles, and leadership classes for higher education institutions.

I have over 15 years of experience in Control Systems Engineering. I have had the opportunity to work within world class organizations such as Kraft Heinz, Procter & Gamble, and Post Holdings.

As a Control Systems Engineer, I have worked on several PLC-based systems such as the Allen-Bradley's RSLogix 5, 500, 5000, Studio 5000, PACs, PowerFlex variable frequency drives, and so much more. I have mastered other great technologies such as Cognex In-Sight Vision Systems & so much more.

Now I live and breathe PLCs (Programmable Logic Controllers). I've invested a lot of money and time into equipping myself with many of the latest PLC hardware in the world. This is because I truly believe that an investment in myself will pay dividends down the road and that the automation industry will only keep growing.

I believe in excellence and I'm highly driven by successful people. I am dedicated to seeing my clients succeed and achieve their goals. I love to create PLC programs and help manufacturing companies grow. I've successfully coached over a thousand business owners and leaders.

I'm proud to boast of extensive experience and a successful company which has been in business for over 15 years.

How this Book can Help You

This short book is part 2 of my 4-part series on PLC programming. This Part 2 is an exhaustive collection of my tutorials and demo videos on how you can advance your knowledge of PLCs by working with PowerFlex 525 family of Variable Frequency Drives.

You will find this book very helpful if you are an electrician, an instrumentation technician, a manufacturing operator, an automation professional or engineer looking to looking to progress their career or level up their knowledge of PLC hardware and PLC programming skills.

There are 5 chapters in this book. They are accompanied with **16 in-depth HD demo videos that you can download**. These videos simplify everything you need to understand, and help you **speed up your learning** of Allen-Bradley's PowerFlex 525 drives and how to install them within a manufacturing environment. There is also a link in this book for you to download my PLC programs (codes) for your revision.

Since I assume you have little knowledge of PowerFlex 525 Drive and PLC programming, I prepared this book in such a way that when you read it and study the accompanying demo videos (16 episodes), you will not only have an in-depth knowledge of the different parameters which need to be configured in order to properly setup and utilize the PowerFlex 525 VFD, you will be able to make sense of the documentation, and gain a lot of job experience you need to build innovations and earn higher salaries.

In this book, I start with the basics, that is, connecting power and turning on the PowerFlex 525 hardware, and then move on to the control methods that don't even require you have the hardware. Then I proceed to the advanced control methods that utilize the EtherNet/IP protocol, as well as a CompactLogix 1769-L24ER-QB1B PLC. This will help you develop confidence in working with these Variable Frequency Drives.

So, after studying this book and the demo videos, you should develop a hands-on approach to wire a PowerFlex 525 drive, setup the parameters and control it with a Programmable Logic Controller (PLC) and be able to use it in real world industrial applications.

The best way to master PLC programming is to use real world situations. The real-world scenarios and industrial applications developed in this book and its accompanying video demos will help you learn better and faster many of the functions and features of RSLogix 5000 platform.

The methods presented in the demo videos are those that are usually employed in the real world of industrial automation, and they may be all that you will ever need to learn. The information in this book and the demo videos is very valuable, not only to those who are just starting out, but also to any other skillful PLC programmer, no matter their skill level.

Merely having a PLC user manual or referring to the help contents is far from enough in becoming a skillful PLC programmer. Therefore, this book is extremely useful for building PLC programming skills.

First, it will give you a big head start if you have never programmed a PLC before. Then it will teach you more advanced techniques you need to learn, design and build anything from simple to complex programs on the RSLogix 5000 (now called Studio 5000) platform.

One of the questions I get asked often by beginners is, where can I get a free download of RSLogix software to practice? I provide later in this book links to a **free version of the RSLogix Micro Starter Lite** (which is essentially the same programming environment as the RSLogix 500 Pro) and a **free version of the RSLogix Emulate 500**.

In Chapter 4, I also provide links to download the demo edition of **RSLogix 5000 / Studio 5000** Logix Designer to your system. Make sure you create an account at RockwellAutomation.com first. So, you don't even need to have a full-blown PLC to learn, run and test your ladder logic programs.

I do not only show you how to **get these important Rockwell** Automation **software for free and without hassle**, I also show with HD videos how to install, configure, navigate and use them to write ladder logic programs.

However, if you are a complete novice to PLCs or PLC programming, here's the link to my book that you will find very helpful to get started: PLC Programming Using RSLogix 500 & Real World Applications: Learn Ladder Logic Concepts Step by Step with Real Industrial Applications.

Then you can move on to the first part of this series, PLC Programming from Beginner to Paid Professional - Part 1: Learn RSLogix Software & Hardware with Demo Videos.

Finally, if you have questions or need further help, use the support link I provided in Chapter 5. I will get back to you very quickly.

How to Use the Demo Videos & PLC Programs

You will find the link to download all the 16 demo videos and program codes in Chapter 4 of this book. The serial number and title of the video you should watch is mentioned in the appropriate section of each chapter.

For effective learning and to get good practice, I strongly advise you attempt the challenges and project in this book on your own. Build your own program after you have watched me build mine in each video. Then later you can cross check your programs with mine. Also feel free to use or modify any of the PLC programs you downloaded as you wish.

1. Hardware Overview & Getting Started

First, we need to turn on the PowerFlex 525 drive before we can do anything with it. Fig. 1.1 shows the Powerflex 525 VFD (Variable frequency Drive).