The National Electrical Code, at first glance, looks like a giant conglomerate of rules and regulations. It doesn’t look like a book you could read from cover to cover. No story, or plot, here! In fact you’d probably have very little trouble falling asleep trying to read this mystery.

Most electricians begin to understand the “Code Book” when they bring it to work with them. We start using it as a reference when we run into a problem on the job. A boss, or inspector, will tell us to look up an article that relates to a predicament we might be in.

In time, we get used to that amalgamated, scrambled-up bunch of rules we all religiously call “The Code.” We might learn to search the “Index” in the back of the book hunting and hoping that we can find that “rule in a haystack” which will give us the clue we need to do the job right!

Well, the good news is, the Code does have meaning, and order, form and structure to it! Truth is, the Code can be understandable, accessible, and fun! Well, maybe just understandable and accessible, we’re going to try real hard to make it fun.
At The Beginning

A good place to begin understanding Code would be on page 1.

90-1(a). The purpose of this Code is the practical safeguarding of persons and property from hazards arising from the use of electricity.

It seem that the whole purpose of the Code is....

Safety

That’s it ! The whole entire National Electrical Code can be reduced to one word. We now know the meaning, the secret, the mystery is solved !

It’s that simple. Safety has been so entrenched in us while learning the electrical trade that it has become instinctive. So instinctive that we aren’t even conscious of it. In fact, Electricians are so safety oriented that people who aren’t safety oriented rarely become electricians. So, if you’re work is done with safety in mind you will always be on the right track as far as the Code is concerned.

O.K.! Now that we know the purpose of the National Electrical Code we still have to deal with the thousands of articles in the Code which define in safety in many specific ways.

Well, There’s more good news. We really don’t have to deal with all of these articles at one time. We can take the Code in small bites (it’s easier to swallow that way). After all, there’s a lot of books in a library. We don’t have to read them all do we ? We just need to find, and read, the ones we’re interested in ! The trick is to easily find what we’re looking for.

General To Special

When looking for information it’s usually best to start in a general area before focusing on specific, or special items. Believe it, or not, the Code is organized from general to special). Every article in the Code starts off general and ends up special. Remember Article 90 !

It started pretty general, right ?

Article 90-1: Purpose
Article 90-2: Scope
Article 90-3: Code Arrangement
Then it gets more specific...

*Article 90-4: Enforcement*
*Article 90-5: Mandatory Rules And Explanatory Material*
*Article 90-6: Formal Interpretations*

And then it gets even more specific...

*Article 90-7: Examination Of Equipment For Safety*
*Article 90-8: Wiring And Planing*
*Article 90-9: Metric Units Of Measurement*

This General to Special theme is so prevalent in the Code that the whole entire book can be split in half.

That’s right, the first half of the Code deals with General areas.

*Chapter 1: General*
*Chapter 2: Wiring And Protection*
*Chapter 3: Wiring Method And Materials*
*Chapter 4: Equipment For General Use*

The last half of the Code deals with Special areas.

*Chapter 5: Special Occupancies*
*Chapter 6: Special Equipment*
*Chapter 7: Special Conditions*
*Chapter 8: Communications*

Chapter 9 is devoted to tables and examples.

**Code Outline**

I know what you’re saying, yes this makes sense, but it’s still hard to find anything in that crazy book. What would you say if I told you that the Code is set up in the form of an *outline*? Just look at the **Table of Contents** in the front of the book. Their you will see an the actual Outline of the Code. Here’s a piece of it...

*Chapter 1: General*
*100: Definitions*
*Part A. General*
*Part B. Over 600 Volts, Nominal*
Notice the structure? Chapter 1 = 100. Part “A” would be general definitions, Part “B” would be specific definitions (over 600 volts). Again, the General to Special theme.

Yes, The structure that we see throughout the Code is in the form of an outline. Like any outline information below is always in context to what is above it. Parts pertain to Chapters, Articles fall under the perspective of Parts, Subsections fall under Articles, and so on.

Chapter (1 - 9)  
Part (A - Z)  
Article (100 - 800)  
Subsection (a - z)  
Subdivision (1), (2), (3)...  
 exception (1,2,3...)  
fine print note (1,2,3...)

Exceptions and fine print notes are not actually Code rules. In order for an exception to come into effect all of its requirements, no matter how many there are, must be fulfilled. Fine print notes are just reference information and are not considered mandatory Code rules.

Plan-It, Build-It, Use-It

Chapters 2, 3, and 4 also reveal another theme. After understanding the purpose of the Code “Safety” on page 1 (90-1). We’ll need to get to work. But, before starting a job some planning would be in order don’t you think.

Let’s call Chapter 2 the Plan-It chapter. Included are articles on calculating what size branch circuits, feeders and service we’ll need along with the grounding requirements before we start the job.

We’ll call Chapter 3 the Build-it chapter. Once we plan the job we’ll have to decide on what materials we need. Why do you think they called this chapter Wiring Methods and Materials! In it there’s important information on different wiring methods, types of conduits, conductors, panels, etc. and where and how you can, or can’t use them.

Once we plan the job, install the materials, we’ll need to eventually hook something up right! That’s why we call Chapter 4 the Use-It chapter. This is the chapter devoted to Equipment for General Use like lighting fixtures, appliances and of course motors.
Chapters 2, 3 and 4 are the most important chapters of the Code. We spend most of our time there and it’s plain to see why that is!

The Special Chapters

Although Chapters 5, 6 and 7 deal with special occupancies, equipment and conditions they are still related to Chapters 1, 2, 3 and 4 because the general rules in those chapters still apply to these special situations. Chapters 5, 6 and 7 actually add more specific rules on top of the general rules due to their special circumstances. Chapter 8 on the other hand is almost an island unto itself because it applies to communications systems exclusively.

The Index

No one is saying that the Index in the back of the book is useless at this point. It is a helpful tool. It just shouldn’t be your only tool to understanding the Code. Of course to use the index you’ll have to find the “key word” pertaining to what you’re looking for. That can be an art in itself.

Curiosity And Commitment

Curiosity is the key to understanding the Code. Don’t be afraid to ask questions to your boss, inspector or teacher. There are many angles to work related situations that lead to why a rule was written in the Code. It helps to see how someone could be hurt by an unsafe installation. The Code is not a perfect document which is why it’s always changing. It’s a lifetime project which takes a career commitment to learn.