

Controls, A View From the Field

NORA Technology Conference
9/18/2017

What does it look like out there?



Some Real Old Stuff!



Some New Stuff...



Mostly Like this



Or This



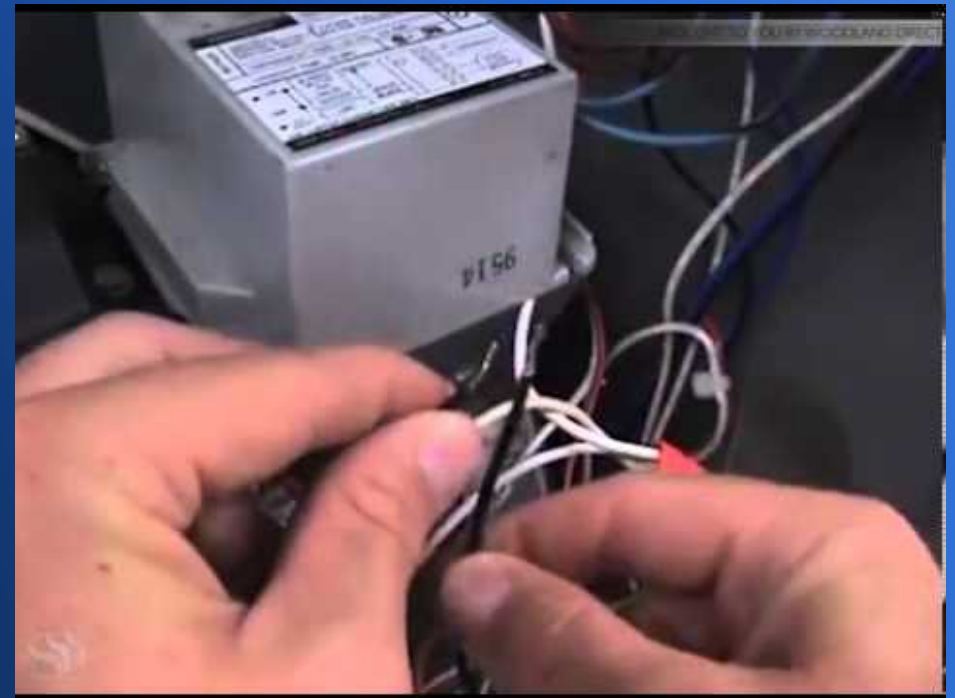
Or This



Primaries



Electro- Mechanical Primaries



First Generation Electronic



Smart Primary Controls

- How smart are they?



Lots of Wires!



Lots of Numbers !

- They collect a lot of data but now what do I do with it?

$$m = \frac{y_2 - y_1}{x_2 - x_1}$$

$$m = \frac{f(x_2) - f(x_1)}{x_2 - x_1}$$

$$m = \frac{f(x_2) - f(x_1)}{\Delta x}$$

$$m = \frac{f(x + \Delta x) - f(x)}{\Delta x}$$

Lots of Programming!!

CHAPTER 2

SIMPLE INSTALLATION

PRE-PROGRAMMED



A close-up photograph showing a person's hands installing the Carlin Pro X 70200 control unit onto a burner assembly. The unit is black with a digital display and several buttons. A label on the unit reads "USE COPPER CONDUCTORS ONLY".

VIDEO PRESENTATION CARLIN PRO X 70200

Programmable, Microprocessor Based, Universal Replacement for CAD Cell Oil Burner Primary Controls. Blocked vent protect Alarm Contacts, Built-in Pump Prime. Detailed Fault History



A photograph of the Carlin Pro X 70200 control unit. The digital display shows "3*Fault Message Vent Switch Open". The unit has several buttons labeled "ESC", "OK", "UP", and "DOWN". A label at the top reads "Simple Installation PRE-PROGRAMMED".

It Needs to be Easy!



This needs to be the screen!!



Image: Reuters

Millenials



More Like This



Or This



What % of Techs?

- According to a study conducted in late April by the U.S. Department of Education and the National Institute of Literacy, 32 million adults in the U.S. can't read. That's 14 percent of the population. 21 percent of adults in the U.S. read below a 5th grade level, and 19 percent of high school graduates can't read.
- Sept 6, 2013

Visual Learners

- Gifted or not, the fact remains that 65 percent of the population consists of visual learners; therefore when teachers lecture, they are reaching less than half of the class. Students need learning strategies that accommodate their learning styles.

We Have to Accommodate Them



What Does It look Like?

- Menu Driven
- Intuitive
- Self Diagnosing
- Video and Oral Tutorials
- I&O Manuals

Old or New



Most of All !!



Other Controls?

- Wireless Room Sensors
- Zone Panels
- Improving Idle Loss
- Fuel Neutral

Questions?

