# **AIO Mid-Year Seminar** *Electricity in Organbuilding* October 13 & 14, 2016

#### **Presenters:**

Dick Houghton Bob Rusczyk

#### **Parsons Staff**

Matt Parsons Autumn Coe Peter Geise Aaron Grabowski

#### Location

Parsons Pipe Organ Builders 4820 Bristol Valley Road (Route 64S) Canandaigua, NY 14424

Site Visit: United Church, Canandaigua, Parsons Opus 41, 2014 tour organ, lecture and organ demo

Seminar begins Thursday, October 13th at 8:00 AM and ends Friday, October 14th at 5:00 PM. Participants should plan to arrive Wednesday evening and depart late Friday or early Saturday.

#### Maximum number of participants: 20

Registration Fee: AIO Member - \$395.00 and Non-Member - \$435.00

• There will be hands-on demonstrations and plenty of handouts.

#### The registration fee includes:

- Thursday lunch & dinner
- Friday lunch
- Note: If you plan to arrive in time for dinner on Wednesday or plan to stay for dinner on Friday, please indicate this on the registration form. We will make group arrangements for those who attend, but dinner is Dutch treat.

Hotel rooms can be reserved using the Code **AIO SEMINAR** at: **Holiday Inn Express - Canandaigua** 330 Eastern Blvd Canandaigua, NY 14424 585-396-3669 or Fax: 585-393-0669 hieguestservicescdga@gmail.com Discount rate for AIO: \$99/night + tax (includes complimentary continental breakfast) (Hotel is 11 miles from Parsons Shop, approximately 15 minutes)

Nearest major airport: *Great Rochester International (ROC)* - (34 miles from Parsons Shop, approximately 45 minutes). There is an Amtrak Station in Rochester, NY

Registration deadline: September 8, 2016



#### Program Topics include:

#### 1. NEC Review

In practical terms: What you need to know and why. How to comply in terms of wire sizing and fusing. Understanding when to replace old cables.

# 2. Basic Electricity: topics covered in the AIO Exam

Review Ohm's Law. Calculating wattage, current consumption, resistance and voltage drops. Identifying resistors, diodes, capacitors, IC chips and transistors.

# 3. Power Supplies

Review junctions for + & - distribution, wiring in parallel and calculations for proper sizing.

# 4. Wire

Review calculating wire sizes, common returns, voltage drops and conductor resistance.

# 5. Proper fusing

Review calculations for various types of magnets, techniques and products for practical fusing.

#### 6. Wiring Techniques

Review of proper techniques for neat and trouble-free wiring including cable protection, use of proper tools for wire stripping and rules for good soldering. Proper documentation and wiring charts.

# 7. Troubleshooting solid State Control Systems

Using a meter - analog versus digital, Positive versus Negative returns and a discussion of basic troubleshooting requirements for various solid state vendors (to be determined).

# 8. Working with CEO's - Code Enforcement Officers

Planning ahead for organ connections to be completed prior to the delivery of the organ; twist lock receptacles for blowers and power supplies; and enclosures.

# 9. High Voltage Wiring

Review of 3phase wiring, changing direction of the motor, inspecting motors for age and wear. Using a Frequency drive to control motor speed and protecting the motor. How to service Brush motors.

# 10. Specifications for the church

What to tell the church in order to prepare for the organ in terms of electrical power, chamber preparations, lighting protection (techniques, equipment and grounding).

# 11. Organ environmental conditioning

HVAC, Micro-climate systems, air circulation and humidification.

Site Visit - United Church - Canadaigua Parsons Opus 41, 2014 Organ Tour Organ Demonstration

# *Electricity in Organbuilding Seminar* October 13 & 14, 2016

Name (as it will appear on your name badge)			
Company			
Address			
Phone Number		Work	
Email			
Payment			
Check:	Check Number:		
Credit Card:	(Please circle one)	Visa	MasterCard
Name as it appears on your credit card:			
Credit Card Number			
Expiration Date:			_ CSV:
Billing Address:			

Please contact the hotel directly to make your reservation: Holiday Inn Express - Canandaigua 330 Eastern Blvd Canandaigua, NY 14424 585-396-3669 or Fax: 585-393-0669 hieguestservicescdga@gmail.com Discount rate for AIO: \$99/night + tax (includes complimentary continental breakfast)

#### **Additional Arrival Information**

plan to arrive on Wednesday for dinner \_\_\_\_\_ plan to stay for dinner on Friday evening

I agree not to hold the seminar hosts or the American Institute of Organbuilders liable for any personal injury claims resulting from this seminar.

Signature

I

Print Name

Date

Please return this form to: Robert Sullivan, PO Box 35306, Canton, OH 44735 or by e-mail: robert\_sullivan@pipeorgan.org