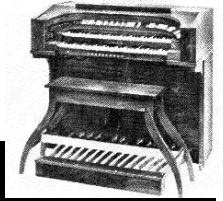


# ORGAN NOTES



## FOR SCHOBERS ORPHANS AND FRIENDS

Issue # 117-118

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### OVERTURE

#### *Disclaimer:*

***We accept no responsibility for any unfavorable consequences resulting from following our advice***

A bit of good news...I'm making progress on the work on my house,(even though all my "helpers" have still not discovered that I need help and where I am), so hopefully the December /January issue will be back on schedule!

What helped a lot is that several members have contributed interesting stories and material.

Another bit of good news is that many members are still working on improving their Schober's either in the original analog state or changed to digital versions using only parts of the original Schober. A few persons acquired Schobers recently and are surprised by the great organ sound that the instrument produces and the genius of Richard Dorf. Also, several of our members have requested parts, and others who I found out did not have a desired item have acquired it from my "warehouse". In the ads there are several listings of their parts that are available from members for the postage. When these parts are not requested I often get some that I think might be useful to someone in the future, and they are available to members for the shipping charge I paid plus shipping charges when I ship. I have driven many miles to pick up items that cannot be shipped at a reasonable price and these are available for the shipping price to any member. I have also acquired some parts for myself and will hopefully get to use them soon when I start to finally work on my Recital.

If an ad for a Schober in your area is published, please let your friends and everyone you know know about it. Hopefully a new owner can be found and a Schober organ saved.

ON 107/108 and ON 110 featured replacement part tables for transistors, IC's and other solid state devices. I am sure that I missed some, so if I did, please let me know what they are and any information you might have on them. I will prepare a chart on "other" items. One just came to light recently. A Schober owner asked about the bulb used in the last model volume control pedals Schober made. It is listed

as "Lamp 04327". The lamp is a #327 MINIATURE BULB MIDGET FLANGE BASE - 28 Volt 0.04 Amp. T-1-3/4.

Our member Doug Steeves has some parts available, suggestions, and interesting information. His e-mails and/or various parts thereof will appear in different sections of this issue.

Our member The Reverend Maurice S. Moore wrote a little story about his musical and Schober experiences which is a great item for our newsletter and greatly appreciated.

The back Page (6) of this issue is a photocopy of Page 9 of the Schempp Owner's Manual that will be continued in future Organ Notes.

AK

### WORK ON THE PUFF OF AIR THEATRE SCHOBERS COMBINATION ACTION

Warren Jones has been working on making replacement air bags for the Puff of Air stop tabs. Here in his words are details of his latest efforts. (See also ON83)

Hi Alex

Just a short note to provide a status of the air bags for the Combination Action stop tablets. I have not done anywhere near what was planned for the summer, just too many fix it's for the house and of course too much golf.

I got started with the tablet set from James Floyd by cleaning up the stray wires and signal diodes and removing the old airbag remains. It appeared the original airbags were installed without any glue, just the spacer pressed into the tablet. Installed a few airbags made with .006 thousand vinyl however they did not inflate very high and it was difficult installing the spacer because of thickness. The original plastic was .005 thousand. Switched to .004 thousand vinyl (could not find any .005) and installed airbags on all 48 tablets using a small amount of water soluble Plastic Glue from Player Piano Co., Inc. I tried some other glues but this has good open time for installation and is easy to remove/replace airbags if required without harming the tablet or washer.

I made a functional test rig for single tablet using some microswitches for air valve and 12 volt electrical supply control, actuated by a motor driven gear. This provided two

actuators/cancellations per minute. Started functional testing and found almost half of the tablets required cap removal and smoothing of the seating surface and/or the metal slug was pitted. I went through all tablets twice for leakage at split lines and airbags. The split lines were bubble checked in water first then the whole tablet was inserted in a plastic bag to provide a final leakage rate. Evidently not enough glue was used on the airbags, since almost half didn't pass my arbitrary limit of 3 cubic inches/minute. I believe the .004 vinyl doesn't provide a tight fit with the washer/tablet and will require better gluing. The worse leakage was approximately 6 cubic inches/minute on maybe 6 or 8 tablets. These were probably the ones I tried to bubble leak check the entire tablet in water, forgetting the glue was water soluble.

I'm now in process of re-gluing all tablets with the Plastic Glue by lifting the corners of the airbags and using a medium microbrush to apply the glue. This has virtually eliminated leakage at the airbags. The lesson learned is use plenty of glue. The construction of the vinyl airbags has been very successful with the heat sealer. It is a static spring-loaded arm and an electronic timed heat application, which can be varied with a preset control. Repeatability and quality is very good. I think the only blowouts were at excessive pressure near 25 psi. I make the bags individually from two pieces of vinyl approximately 6 inch long and 5/8 inch wide bonded on both edges. Punch an 1/8 inch hole with a single hole punch in one side 5/16 inch from the end. Seal the bag 5/8 inch from the end, slide the spacer inside and seal the end. Cut the bag off outside the seal and repeat for the next bag.

I may be overly concerned about the amount of leakage that the system can stand and still function, since the pressure is applied for only a fraction of a second by the electrical solenoid. However, any leakage will affect the system recovery time between operations and make for lazy or non-actuation of tablets. My measurements and calculations for the system results in: Total System Volume at Rest is 9.0 cubic inches. Total System Volume with Solenoid Energized is 5.4 cubic inches; thus, System Pressure should be 8 to 9 psi at standard sea level.

My original goal was to have modified a tablet set and installed in organ by the end of this year which is still doable but unlikely with other activities limiting time for organ work. Oh well, there is always next year with the goal to have a refurbished tablet set for some lucky individual to install in his Schober Theatre Organ.

Warren W Jones  
30 August 2010

## **MY SCHOBBER STORY**

**by The Rev. Maurice S. Moore**

Though not a "real" musician, I have always had a keen interest in the magnificent sound, architecture, and the mechanics of the organ, - electronic and pipe. As a young boy, I was just fascinated with the great Moller pipe organ in my inner city, Baltimore home church. It was intriguing to see how the console was built into the wall, and the pedal board was inset in the floor, and the sound was dynamic and inspirational! (I could go on and on about that - but won't).

When I got to high school, the school purchased a Baldwin 610 (which was at that time known as "the workhorse of electronic organs"). My interest then was Physics. (In fact, I went on to major in Physics, when I went to college). One day at my high school, a problem arose with the organ, and they had to call in the technician. I was determined to be on hand when the technician came, even if I had to "hook class" when he arrived. So, when he came and opened up the console, I was astounded to see the beautiful "innards" of that gorgeous musical instrument! The school principal did come into the auditorium and sent me back to class. How terrible! I thought of little else for days to come.

Some years later, to the amazement of my wife, I tried designing and building an electronic organ from scratch, with some success. But I was unhappy with such problems as "key clicks", not achieving a pure trumpet sound, and vacuum tube costs, etc. (This was in the early 1960s).

Now, I finally come to my Schober story. After undergraduate college, I felt I was called to The Christian Ministry, and attended seminary. I then served a United Methodist Church, which had a Schober Concert Organ that was donated by a man who had constructed it. I loved that organ. It did develop some pedal spring, and manual registration tab alignment problems, however. I wrote to the company. They were just so personable. In fact, they re-registered the organ in our church's name, and sent me replacement parts, at no cost to us! That Schober served us well. When the church decided to upgrade, they gave me that organ, because I loved it.

Meantime, I met another pastor, who had just built his Schober Recital Organ. We often talked and compared notes. He "tweaked" his to achieve the more formal "European sound". I tweaked mine to the more "Symphonic" sound, which I really love. When his family situation changed, and he moved to a small apartment which could not accommodate his Schober, he gave it to me. I was as happy as I could be. Eventually, I dismantled my older Schober, with the intent having a spare parts supply, adding a third manual, and using the extra tone generators for Vox Celeste (the most beautiful organ voice, in my estimation). Most is still on my "to do" list!

Now, one of my grown sons, who lives near, often would make his way over to my house to play my Schober. Then, Eureka! In a recent issue of "Organ Notes" I saw an ad of a Schober Recital Organ, in the Washington, D.C. area, waiting for a good home. I told my son about that ad. We got in his pickup truck, and immediately went to Silver Spring, Md., and were fortunate enough to secure that organ! It is a newer version than mine, and has Devtronix tone generators and keyers, and a four channel 45 watts per channel amplifier. It is just great! Now, we are a two generation Schober Organ family! He still comes over and plays mine, and I go over and play his. Every organ seems to have "a personality" of its own".

Some things I love about The Schober Organ are the voice changing and tweaking ability, the distinct character of the voices you add, the realistic sound achieved by the reverb-a-

tape system, and the former great, personalized customer service from Mr. Dorf and others!

## SCHOBER THREE MANUAL

In ON #67 and ON 68 "Self Portrait of Captain David Casteel" mention of the Three Manual Schober and his involvement with suggestions to Schober are made. In ON 70 the three manual is mentioned again. Then in ON 74, David did a great description and analysis of the proposed three manual organ.

A recent acquirer of a Schober Recital organ came up with a great idea. Find the (a) prototype and record its sounds, photograph it and make a video. — The first thing is finding a prototype. Does anyone know how many were made? Does anyone know who owned or owns one? Please let me know. (I thought that Jim Ramsey had owned one (it) and that Laura Ramsey sold it after he died)???

AK

## DOUG STEEVES SCHOBER ORGANS

Since the publishing of the last Organ Notes, I have communicated with Doug several times. He has had comments, questions, interesting facts about his organ building and ads. In order to save space, I am combining parts of his letters and separating parts to place in the ads section, etc.

Doug Steeves writes:

You may be interested to know that I am now the proud (??) owner of Bob Large's theater organ. You may remember him from the discussions re the LDR's. Bob passed away last June and his family contacted me when they wanted to clean out his house. I tried to find someone to take the organ, and so did the family, but we were not successful, so rather than see it go to the dump, I agreed to take it. So I hired a trailer, and with my truck went to PEI to bring it to Moncton. It is now resting comfortably in my garage, waiting for me to finish my work on the other organ project I wrote you about several years ago. My wife and I are really trying to get rid of some stuff, and I am trying to get these two organs working satisfactorily. I know of a church in Moncton whose organ died some time ago, and I will offer the "SCHOLLEN" (an amalgam of Schober and Allen) if I can succeed. I have quite a bit of voicing finished on this (it's basically a Recital model) and will need to add a sound system.

The theater had not been played for at least a year, and so the usual key noise problems are present, both musically, and mechanically. The little rubber things in the key channels are totally deteriorated.

Do you know of any way to really fix these well, without using the rubbers ... some felt bumpers, rather than the rubbers???? Has anyone reported any success with these keyboards???

Also, is the spray "gold" still available down there ... it certainly is not up here ... we have only one music instruments store in Moncton, and no Radio Shack. Can you

give me any suggestions? I appreciated any help you might offer.

All for now, thanks, Alex

### *Part of my answer:*

The name of the place where you can get the rubber Key Guide Bushings (72320-236) is Organ Service Corp. ([www.organservice.com](http://www.organservice.com)).

I know that Antique electronics ([www.tubesandmore.com/](http://www.tubesandmore.com/)) carries CAIG products. The gold spray is EXPENSIVE!

### *In his next e-mail Doug continues:*

I have been working through all this heat at refurbishing Bob Large's 1973 Schober theater organ. The cabinetry is in very good shape, but the electronics of course will be more of a challenge. Of course the gold bus bars in the keyboards were in terrible shape; the organ had not been used for at least 8 months, so the bus bars were practically black with corrosion. I have taken rather drastic action on these, all 8 of them, by turning the keyboards over (many of the things that Schober suggested should be glued in the console I only screwed in when I built this organ for Mr. Large in the summer of 1973). I then removed each bus bar by cutting them in two pieces (with wire cutters!!!), pull them gently out of the plastic mounts, scour them as necessary with steel wool, followed by wiping them with a cloth wet with WD-40, followed by re-insertion, and soldering the two sections together. I have used this technique before and found it very successful, removing at least 90% of the keying problems.

When I finished the keying I then tackled the pedal keying. Many of the pedal sticks would hardly come back up when pushed down, and the vertical travel was far too short for my liking. So I removed the top front or the pedal board, turned it over, removed all the up-stop felt and cut these on the band saw to remove excess, thus allowing for more vertical travel upon re-installation. The next task was to correct the "lazy" pedal sticks by strengthening the spring tension. The flat return springs had either lost their ability or never had enough in the first place. To correct these problems, I removed each pedal stick, put the spring in a vise, and forced the pedal stick, thus putting a lot more "pre-tension" in the springs. The whole mess was reassembled and the pedal board now looks great.

The organ is sounding nicely and I shall soon be tackling the noise reduction procedures as noted in so many of your ON's. I find the voicing quite good, although I am more of the other school of organ playing.

### *In a later email Doug continues:*

I last wrote to you with the news that I was making some progress refurbishing the "Robert W. Large" (RWL) theater organ that I had originally put together for him in the summer of 1973. In that letter I spoke of how I dealt with the gold bus bars in the keyboards and that has been really quite successful.

Since then I have felted the keyboard, by removing all the key caps, and simply inserting a narrow strip of felt on the top side of the "up stop" for each key. I have found that it is

not often necessary to even glue them in, as the upward spring tension of the metal "keystick" keeps them in place. It is not necessary to add felt to the top side, because most organists do not drive the keys downward that harshly, whereas most of the noise from these keyboards comes from the spring tension raising the key to its "at rest" position.

Yes, you did send him (Robert Large) some home-made LDR's—at least two. I still have them. One is in use in the organ.

I note that you are now in the RECITAL domain with Schober. I have done a half dozen of those things, including combining two two-manual organs up to a three. That really was quite a fun project that turned out very well, and the organ has been in a local church under regular use with very little trouble.

### **THEATRE ORGAN PEDAL PROBLEM DETECTION**

Yes, I did fix the G# pedal. The problem was that the middle switch blade was not making contact with the top blade of the switch. I have noticed another really interesting thing about these pedals. If you put on the pedal Tuba 8' stop and hear a strange noise, a sort of light hash, not terribly loud, then something is wrong with one of pedal switches. The cure for this temporary trouble is to start at the top end of pedal board, tapping lightly on each pedal, and soon you will come to one that will not sound ... a few more taps and the switch blades will be oriented to their proper locale, and all will be well. Of course, the proper thing to do with these rather terrible switches is to replace them as per some of the suggestions in the previous ON's  
Doug Steeves

### **THEATRE ORGAN NOISE PROBLEM...HELP NEEDED**

Doug Steeves writes (in regard to the Theatre Schober he is restoring)

I am very satisfied with the voicing... obviously different than the Recital but better...but my one remaining complaint is the usual background hum/noise. I have replaced all the coupling capacitors in the PTR -5 pre amp, in the pedal generator, the mixer (no compressor) and all the "larger" capacitors have been replaced by Mr. Large... the 1000's 2000's, etc., in the power supply, the decoupler and on the mixer too.

The hum level is not too too bad when the vibrato select switch is on "both", but is much larger level when turned to either the ACC or the SOLO position, and if the vibrato tab is down, the hum is "shaken" at the vibrato rate!!!

I have tried to isolate the problem: on the pre amp, if i remove Q 45, the noise is gone completely; if i remove Q 38, the noise is reduced but not eliminated: if I then back up in the audio chain, and remove the final amplifier transistors on the stop filter circuit board, and remove both, the noise is completely gone and there is absolutely no noise nor hum at the speaker at all!!!

Can you help me or direct me to some technical guru who might assist me in this matter. I have placed the instrument on an internet site KIJJI and have had many hits, but buyers. I am prepared to give it away.

Contact Doug Steeves at Email:  
dcsteeves@bellaliant.net

### **ADS**

**Disclaimer:**  
***Any deals, making of payments, receipt of payments or verifications are strictly your responsibility.***

### **RECITAL PARTS AVAILABLE**

Doug Steeves writes:

Speaking about Recital organs: I would like to get rid of a complete stop rail with pedal, swell, and great circuit boards. I also have many strips of the metal parts with the felt up&down stops, the tongues on which the plastic stop tabs are mounted: I have a complete Recital keyboard complete with wiring for the terminal strip, and I have a terminal strip. Anyone can have all of it for the cost of the shipping. I have a great number of the plug in circuit boards for the individual stops, and many stop tabs, that are essentially ivory in color. Contact Doug Steeves at  
Email: dcsteeves@bellaliant.net

### **THEATRE SCHOBBER PARTS AVAILABLE**

David Bruce writes:

I have just recently broken up the instrument, and I have a number of parts available for anyone interested. I will hold on to the parts for 1 month after the advert goes out, but after that, I'm afraid they must go to the tip. Any item can be had for the cost of postage. Since I am located in the centre of Australia, that may well be a consideration.

2 x 11205 Tone Generator Boards – one is complete, one is missing the 10 Series resistors, as it was not providing those pitches.

2 x 11807B Mixer Compressor Boards

2 x 11312 Coupler Boards – one is complete, and one is partial as it was coupling mutation pitches (5-1/3, 2-2/3, 1-1/3, and only on the solo)

1 x 11819 Vibrato / Pre-amp board

2 x 11819A Vibrato / Pre-amp Boards

2 x 11235 Voicing Boards – both are incomplete, the original is more complete, but missing some voices. The second unit was configured to provide additional voices and mutation pitches.

1 x 11313 Bus Amplifiers Module – Complete with mods to be able to adjust output levels for pitches.

1 x 11313A Bus Amplifiers Module – complete, except only has transistors inserted for 3 or 4 pitches – was used for the Mutation Pitches.

1 x 11813 / 11814 DYNABEAT Non-Tonal Percussions Unit with Control Box – cables have been disconnected, so some rework to be done.

1 x Tonal Percussion System consisting of 11237 Percussion Voicing Board, plus 4 x 11804 Percussion Keyer Boards on a wooden frame 8" x 41". These are all wired together, but could be removed from the frame for smaller parcel, but at the expense of more rework being necessary. The Key Contact assemblies are also attached to cables to the keyers. There is no power supply, stop tabs, or percussion Volume switch.

1 x Puff-of-Air Pump and Solenoid (This is a heavy item, so may be costly to ship)

Set of switches for Manual Balance, Pedal Balance, and Vibrato Depths

I can probably lay my hands on assembly / installation instructions for most, if not all, of the items.

Probably best if people email me direct with their interests, and then I can let them know cost of postage, etc. First in, best dressed, unless someone wants multiple items, and then they will have preference.

Contact David Bruce at Email: davidbruce@internode.on.net

**CONCERT SCHOBBER: FREE to a good home.**

With beautiful SOLID CHERRY WOOD CONSOLE!  
Located in Owensboro, KY, on the Ohio River, 100 miles southwest of Louisville.

A Schober Concert whose owner started to convert the keys to electronically activated reed switches. The conversion was not completed. The organ comes with SOLID CHERRY SPEAKER AND BENCH. The following is available as well: SCHOBBER ORGAN TESTER, EICO VTVM, EICO SINE WAVE GENERATOR and EICO 427 OSILLOSCOPE.

Contact: Charles Mattingly at Email: cwmattingly@att.net

**THEATRE SCHOBBER: possibly FREE to a good home**

Located in Louisville, KY. Has percussion, reverbatape, bench and LSS10 speaker. Very good condition.

Contact: Dan Laemmle, Email: danretired2009@aol.com

**RECITAL SCHOBBER,**

FREE to a good home in northern N.Y. State, near Plattsburgh. Has electronic reverb, original paper work. No amplifier. Contact Bill Rooke: Tel: 518-561-3477, Email: wwrooke@northnet.org

**RECITAL SCHOBBER, FREE**

In Killingworth, CT 06419 half way between New Haven and New London. Large cities within 50 miles include Hartford, Bridgeport. With the Library of Stops cards and tablets, a 60 watt amplifier driving a 15" University triaxial speaker in a bass reflex cabinet, headphone jack. Contact William Wren: Phone: 860-663-1117; Email: wmwren@comcast.net

**Below are some possible Schober Organs available. I was asked for help in selling or giving away a Schober, but never got a reply when I said I could advertise it in our newsletter.**

**SCHOBBER for give-away.**

Model unknown. Location unknown! Contact Pam Washington at Email: pwash@optonline.net

**SCHOBBER for give-away.**

Located in Houston, TX area. Contact Dennis Brown at email: dxbrown@windstream.net

**SCHOBBER CONSOLETTA II**

(make sure it is a II) with Leslie and Reverbatape, for sale in the Chicago area. Organ is not working. For parts or to fix. Contact John Gasparic, email: johng5132@comcast.net

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This is a continuation (page 9) of the Schempp Owner's Manual. To be continued in future issues.

#### TONAL FAMILIES

Organ tones divide into two main categories: flues and reeds. In a pipe organ, flue pipes are those in which the sound is set in motion by wind striking directly on the edge of the mouth of the pipe. Flues include principal tones, flute tones, and string tones. Compound stops and hybrid stops are "variations" on these three families.

The term "imitative" means that the organ stop imitates the sound of the corresponding orchestral instrument. For example, an imitative "Viola 8'" would be one voiced to sound like an orchestral viola.

Some of the literature on organs discusses four type of organ pipes or tones. This usually divides the flues into the categories of flute, string, and diapason. I have chosen this nomenclature to describe the Schempp Organ.

Organ builders have traditionally used four basic types of organ pipes, flute, string, diapason and reed. Each type can be constructed in many different styles, each with its own name and tone quality.

The four basic tone types are discussed below:

1. Flute Tone - The flute sound is characterized by a clear, hollow tone of medium strength. It is similar in sounds to flutes used in orchestras or bands. Some flutes are frequently used as mutation stops. All the flutes have the same general kind of sound. Some are more somber, some are more bright, but all are flute like.

2. String Tone - String sound is characterized by a thin tone, somewhat cutting in quality. It is of medium or soft strength. Organs have two general types of string sounds. The first type contains a single rank of pipes. The second type of string sound includes two ranks of pipes, one of which is tuned slightly sharp to the other. This produces a rich tremulous tone that is effective when used properly. These two-rank sets are called celestes.

3. Diapason Tone - (Also referred to as Foundation) Diapason sound is actually the most important kind of tone quality in a church organ. Many builders refer to these pipes as the "backbone" of the organ. Diapason tone combines the full body of a flute with the brilliance and edge of a string. Diapasons are often used as mutations. Mixtures are composed of two or more ranks of diapasons.

4. Reed Tone - Reed sound is characterized by both brilliance and a wide range of solo effects. These highly individual and contrasting sounds are made possible by using an actual reed (made of metal) in the construction of the pipe.

For details on how the Schempp Organ electronically generates the above tones, through the use of printed circuit filter cards, refer to "Voice Filters" in the Technical Data Section of this manual.

#### STOP LIST - STANDARD SCHEMP ORGAN

A listing of all the Stop Tablets for the Schempp Organ are given below. This listing gives the name, pitch, classification and remarks for the stop. For convenience the stops are listed in the order they appear on the console from left to right (Pedals, Swell, and Great).

The stop Tablets are placed in order with the largest stops, first followed by the smaller stops in order. When stops are of the same length, the loudest stop is listed first.