

Real Pipes For The Price of A Plug-In? It Can Be Done

by Stu Green and Judd Walton

An ATOE member recently wrote a letter to the Bombarde editor:

"Electronic organs (theatre style) have now reached a price level of \$8,000 to \$10,000 for anything reasonably good. Could you use your good offices to find out what pipe organ builders could offer for the same money? I don't recall ever seeing an advertisement for home-type pipe organs. Hoping someone can throw a little light on this subject.

**(signed) Russ Johnson,
Dearborn, Michigan"**

The letter constituted a challenge. As electronic instrument prices edge upward there must come a point at which one of the major arguments favoring the "pipeless organ"—price—will no longer apply. With three-deck, horse-shoe console electronics of the more versatile and expansive types now selling from \$10,000 to over \$20,000. Just what could be bought new in the pipe field for circa 10 grand?

To get our answer we approached a bonafide theatre organ expert who has been an enthusiast ever since he was a boy. His California home boasts an exquisite 2/8 Wurlitzer which he installed. Judd Walton is the Bay Area sales rep for a major pipe organ builder, and a past president of ATOE. He is well qualified.

We made it clear that we wanted a genuine orchestral instrument, not a watered-down church instrument—and the total cost—including installation—should not be much over \$10,000.

Judd's reply was in the form of the article which follows. He starts out with some history and discussion of latter-day technical developments which help make newly-constructed pipe organs more compact and trouble free (and therefore more practical for home use) than ever before.

The date on which the last theatre organ was built for installation in a theatre in the United States is unknown. Considering only the major builders such as Wurlitzer, Robert Morton, Kimball, Barton, Marr and Colton, this event occurred about 1938 or 1939. Wurlitzer built organs for export to England, South Africa, Australia and other countries during the 1930's but produced their last organ (opus 2231—November 27, 1939) prior to World War II. The American builders either went out of business shortly after the advent of the talking picture or changed over to the exclusive production of church organs. A few weathered the depression years and became involved in the production of parts, supplies and materials for the war. The market for theatre organs by this time had practically ceased to exist and the production of these instruments had, for all intents and purposes, ended.



Judd Walton

Most of the organs built during these years were constructed on the electro-pneumatic action principle, with only one major builder in the United States producing the more recently-developed direct electric action. This type of action, having always been reliable, long lived, and extremely fast, was a natural for the application of the newest developments in the electronic field—solid state circuitry with its tiny transistors and diodes. By applying these "jet age" circuits to the task of switching, absolute control of the speed of opening and closing direct electric action valves has been attained. Solid state relays have been introduced which have no moving

parts. Gone are the days when a contact was needed on each relay for each stop on a manual or pedal division. In the transistorized relay all of these contacts are tied together and separated electrically by "blocking" diodes to prevent "feedback" (which, without the diodes, would have everything playing at once) when a key is depressed. These many factors result in an efficient direct electric action which provides for a valve under each pipe. This action can be adapted easily to the theatre organ.

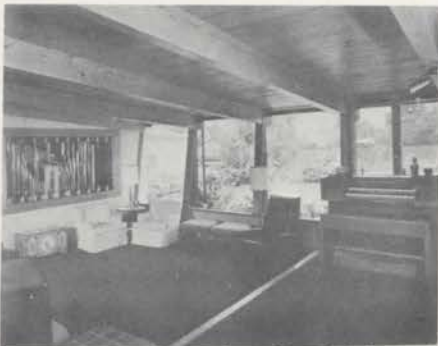
Over the past several years many of our members have wondered whether or not any of the pipe organ companies now in business could still build such an organ. They are surprised to learn that not only can it be done, but it is being done by the Wicks Organ Company of Highland, Illinois. Such organs, now known as "orchestral organs," have been built quite recently and range for four to 15 ranks.

One of the most advanced engineering departments in the industry plays an important role in the Wicks enterprise. Chests of all types, tracker, electro-pneumatic as well as direct electric, are tested for speed of response, valve opening and closing characteristics, resulting pipe speech, etc., all recorded by oscillograph. The superiority of the direct electric action can be seen as well as heard.

One such test gives irrefutable evidence by providing a variable speed keying impulse to any of the chest types. The key controlling the valve is operated at first slowly, and then at a continually increasing speed until a rate of speed is attained at which the valve can no longer follow the keying. The pipe then speaks continuously instead of in the short staccato notes produced at the slower speeds. The direct electric chest mechanism continues to follow the keying to the point of producing audibly discernible individual notes at rates far faster than a human finger can possibly key them! It is virtually trouble-free and long-lived—no re-leathering necessary—ever!



Mike Prideaux-Brune at the console of his 2/4 Wicks orchestral organ. Photo by Judd Walton



Living room in the Menlo Park, Calif. home of Prideaux-Brunes. The console is about 20 feet from the plate glass swell shutters.

Photo by Judd Walton

Such an instrument has been installed recently in the residence of Michael Prideaux-Brune in Menlo Park, California. Mike, having played theatre organ in his native England, was interested in securing a small instrument for his home with orchestral voicing. The ranks include an Open Diapason 8' to 2', a Tibia Clausa 16' to 2', a Salicional 8' to 2', and a Fagot (a close relative of the English Post Horn) 8' to 4'. The chamber is approximately 5'x12' with an 8' ceiling. The entire organ is located within the chamber, including the blower and rectifier and the pipes are visible through plate glass swell shades. The direct electric action makes the organ readily adaptable for the addition of several more ranks in the future. The Tibia Clausa pipes are an exact reproduction of a standard Wurlitzer Tibia except that they are voiced on 6" wind (instead of the usual 10") and have rather wide angular nicking. These pipes are constructed of Sitka spruce up through the 8' compass, and are made of Hoyt metal in the 4' and 2' octaves, with the first six pipes in the 4' octave being stopped, as in the Wurlitzer example. The Post Horn/Fagot is fiery but not overbearing, with the other three ranks providing good support to this bright reed. The console is located across the room on a slight elevation about 20' from the chamber.



Mike holds a leather-lipped Tibia pipe and a Fagot pipe, which (to those unfamiliar with the 'traditional' terminology) is a member of the 'bright reed' family. He is very much satisfied with his brand new organ. Photo by Judd Walton

The specification which follows for a two-manual, 5-rank organ is available in two versions. Without the 16' Solo manual unification of Trompette, Tibia, Bourdon (Flute) and Vox, the price is \$10,535. With them it is \$10,995. The number of pipes remains the same in either case, and it should be pointed out that the Solo manual 16' coupler makes the 16' sound available without the added cost of the individual unifications. Note that the pipe complement is somewhat different than the 4-rank Menlo Park installation. It is complete except for the tonal percussions, which have been prepared for on the console with stop keys and switching facilities.

STOPLIST OF 2/5 WICKS ORCHESTRAL ORGAN

PEDAL

16' Tibia Clausa (See NOTE 1)
16' Bourdon (See NOTE 2)
8' Trompette
8' Open Diapason
8' Tibia Clausa
8' Flute
4' Octave
Bass Drum
Cymbal
Solo 8' Coupler
Acc 8' Coupler

ACCOMPANIMENT

8' Trompette
8' Open Diapason
8' Tibia Clausa
8' Flute
8' Vox Humana
4' Octave
4' Tibia Piccolo
4' Flute
4' Vox Humana
2 2/3' Flute Twelfth
2' Flute Piccolo
Tombourine
Castanets
Cymbal
Acc. Octave Coupler

TREMULANTS

Main
Tibia Clausa
Vox Humana (See NOTE 2)

COMBINATION ACTION

- The Wicks Capture Combination Action with movable stops adjustable at the console, with key and lock to prevent unauthorized use.
- Four pistons affecting the Pedal Organ and a Cancel Piston.
- Four pistons affecting the Accompaniment Organ and a Cancel Piston.
- Four pistons affecting the Solo Organ and a Cancel Piston.
- Four Master pistons and a General Cancel Piston.

ACCESSORIES INCLUDED

Balanced Swell Pedal
Balanced Crescendo Pedal
Crescendo Indicator Light
Stop Tablet Console

PIPE COMPLEMENT

Tibia (16' thru 2') 97 pipes
Flute (8' thru 2') 85 pipes
Trompette (8') 61 pipes
Vox Humana (8') 61 pipes
Open Diapason (8' thru 4') 73 pipes
Total 377 pipes

NOTE 1—A choice of either Tibia or Bourdon at 16' on the pedals is made possible by a double valve under each 16' Tibia pipe. The Bourdon sound is softer than the Tibia. It's just a matter of switching.

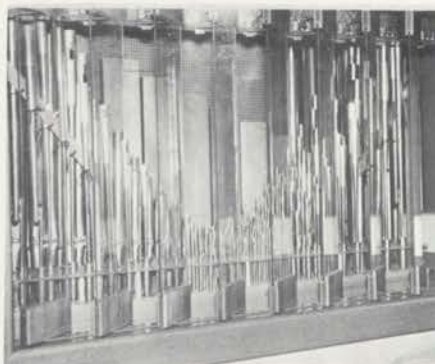
NOTE 2—Not included with the \$10,535 custom organ. With all of the NOTE 2 features the price is \$10,995 (F.O.B. factory).

There's Judd Walton's rundown on the unique new instrument, unique because there is no model number to identify it; each instrument is a custom installation. And the price *does* include

installation, so the only other major expenditure connected with the purchase would be freight charges from Highland, Illinois.

The instrument comes without a swell box (although one is available), but assuming some preplanning has been done by the buyer and a room in the house selected for use as a chamber, Wicks takes it from there.

The room selected as a chamber should have sufficient wall space in common with the console/listening room to permit the installation of enough swell shutters to permit proper volume control. If this much "home-work" has been done, then Wicks installs cut a hole in the wall and install the swell shutter frame—usually 6'x9', 6'x12' or 8'x12'. Whatever the size called



THROUGH THE 'LOOK-IN' GLASS—View through the swell shutters of the Prideaux-Brune organ shows (front to rear) Fagot, Open Diapason, Salicional and Tibia Clausa, with the 16' Tibia pipe in the rear. The white object at the right is a muffler over the tremulant, the entire unit being mounted on top of the sound-dampening blower housing which is within the chamber.

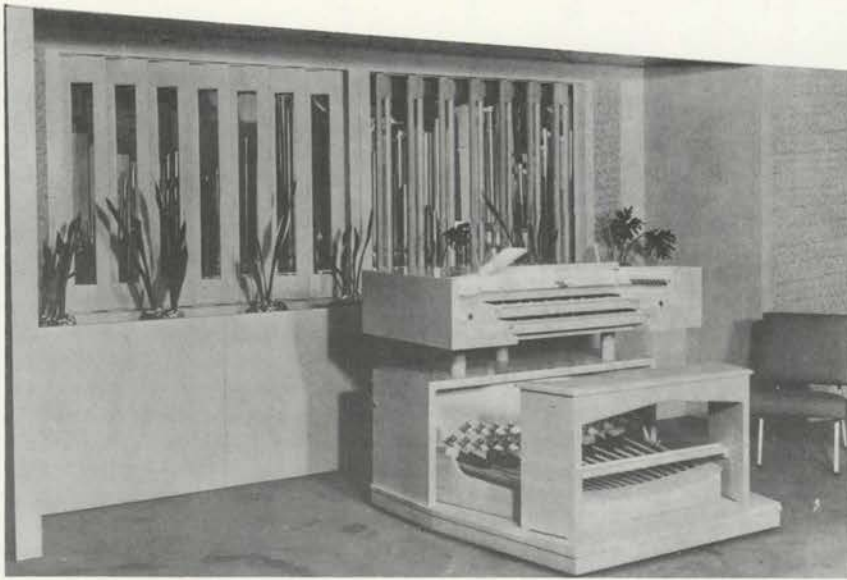
Photo by Judd Walton

for, the shutter frame is built to fit. Of course if you insist on glass swell shutters, there's a slight additional charge—something like \$11.00 a square foot.

The very quiet blower may be placed in the chamber, if desired, in 3'x3'x3' enclosure.

The console supplied is not a horse-shoe but is equipped with stoptables. So far, Wicks "orchestral organ" customers have not insisted on horse-shoes, so patterns haven't yet been prepared. But it has the standard "AGO" 32-note pedalboard, and balanced Swell and Crescendo pedals.

Note the stops marked "pf" meaning "prepared for." These are for the addition of tonal percussions, as desired. They are blank but the switches are wired. Engraved stop tablets are sent along to replace the blanks when percussions are added. Such items as Harp, Chrysoglott, Chimes, Xylophone and Glockenspiel are available new from Deagan—or used from the "classified" columns of any organ publication, and usually at a more attractive price.



Wicks built this seven-ranker for an Exhibition in 1959, and it is shown as it appeared at the "Home Show". Although it was equipped with Xylophone, Bells and Traps (plus a bird whistle), the arrangement was that of a straight organ, with mainly 8' and 4' stops plus couplers on both the "Great" (bottom) and "Swell" (upper) manuals. The ranks: Diapason (Great manual only), Gemshorn, Flute, Salicional, Oboe, Trumpet and Vox. Two ranks, Flute and Trumpet, were extended down to 16'. The instrument is now installed in Martinetti's restaurant at Crystal Lake, Illinois, and has been augmented.

Another plus feature is the range of tonal colors possible in custom design. For example, the bright solo reed, listed as "Trompette" in the stoplist. Because the pipes are built to order, the buyer may specify a "style D" sound, a Tuba sound, a sharp trumpet sound (like "brass"), or perhaps Posthorn "fire." Even a Brass Trumpet is possible—at not too great an additional cost for the brass bells.

The wide range of tone available in the solo reed applies also to the other stops. The Diapason may be Open, or Horn. The Vox may be a "croaker," a "whiner" or a "chortler."

Note the Flute in the stoplist. The too usual reaction is "who needs a flute if you have a Tibia?" For the answer a number of Jesse Crawford's "Chicago" recordings can be brought to witness, arrangements which depended on the contrast between Tibia and Flute for their subtle effectiveness. An open flute may be less colorful than a Tibia, but it doesn't mind the lesser chore of accompanying or counterpointing the Tibia in the least.

Last, there are the "clackers"—Tom-Tom, Tamborine, Bongos, Drums, Triangle, Cymbals, Castanets. Select four. And we suspect that extra actions for either clackers or tonal percussions the purchaser may have on hand are available.

We have examined the attractive features of the custom Wicks orchestral organ; how about the other side of the coin? What's missing?

Actually, not much. While the instrument isn't completely unified, the company has provided adequate unification.

We'd like to see a little more made of the Flute with a 5-1/3' Quint, 2-2/3' Nazard, 2' Piccolo and a 1-3/5' Tierce on the Solo manual. Also, perhaps a Pedal Quint. This would be only a matter of switching and no more pipe-work.

The most striking tonal omission is the absence of String sound. That's a matter of choice. The String is available—in place of one of the other stops. But which one? The most likely candidate is the Flute, with the Diapason second choice. True, the Flute would

supply some of the "body," or foundation tone, if the Diapason were to be traded for a String. But it's a most difficult choice.

It is reassuring to know that an orchestral organ can still be purchased new. Which is our affirmative reply to Russ Johnson's inquiry: a brand new pipe organ can be purchased and installed at a price competitive with those of many of the electronic keyboard devices now on the market. And such a pipe organ can be unbelievably compact, compared with those built 30 or 40 years ago. So much so, in fact, that they are even being installed in apartment living rooms!

Demands for modern versions of the theatre pipe organ, all new, continue to rise, and if the well-guarded information as to how many are already in existence were to be released, the news would be most encouraging to organ buffs.

As a parting shot, Judd Walton urges those ordering new orchestral organs to be specific in describing exactly what they want, or they may be surprised when the crates arrive.

"I'm still looking forward to that inevitable orchestral organ with a draw-knob console," says Judd. □

For further information about the instruments described in the article above, direct inquiries to the Editor, the BOMBARDE, Box 5013 Bendix Station, North Hollywood, Calif. 91605.

A home-size Wicks built for an exhibition. Note how shallow the swell boxes may be if the large bass pipes are left outside. At the left can be seen six of the 8' Open Diapason pipes and part of the 16' Bourdon. Behind the right swell box are the 16' Trombone pipes. These would be mitered for a normal low-ceiling home installation. The conical pipes in the right swell box belong to the Gemshorn, a member of the Diapason family.

