OWNER MANUAL

SPECIFICATION 660

RODGERS ORGAN COMPANY
Hillsboro, Oregon

RODGERS SPECIFICATION 660

In its tonal design and mechanical layout, the Specification 660 is a remarkably complete three-manual classic organ, capable of supplying the needs of the music ministry of the church service as well as the performance of the complete range of recital and concert organ literature. Incorporated in its design are the elements necessary for practice and teaching work, expanding the usefulness of the instrument to include schools and studios. Authentic and complete, the Rodgers Organ is often found in the homes of serious organ students and devotees of classical organ literature.

This booklet is far from exhaustive in exploring the total range of tone color and versatility of this instrument. However, you will find much practical information that will be useful to you, the organist. If further questions arise, do not hesitate to ask your local Rodgers representative. He will be more than glad to assist you with additional information, with the selection of competent organ instructors, or with ideas to help you exploit to the fullest the broad musical resources of this fine organ.

THE MUSICAL RESOURCES OF THE SPECIFICATION 660

The Voice Families of the Organ
(Diapasons, Flutes, Strings, and Reeds)

THE DIAPASON FAMILY

The sound that is most often associated with the organ as a liturgical instrument is the Diapason sound, the very foundation of the instrument. The importance of this sound is further emphasized by the frequent use of the word "Principal" to denote the basic pitch level of the Diapason Chorus, while the other Diapason stops are related to it by names like "Octave," "Super Octave," and so forth. Diapason tone is non-imitative in nature, and is unique to the organ alone. It has enough foundational tone to enable it to blend well with, and add strength to, the ensemble of the organ. At the same time it possesses enough harmonic development to add brilliance and life. The usefulness of this family of tone becomes apparent as one looks at the stoplist of the 660. On the Great manual, Diapasons are present at 16', 8', 4', and 2' pitches (the Gemshorn at 16' pitch is a Diapason/String hybrid sound). There is also a Diapason Twelfth (2-2/3'), as well as the Mixture III, which corroborates the upper harmonic structure of the Diapasons and adds the final touch of brilliance to the Diapason Chorus. In the Swell division, less bold Diapasons are present, in keeping with the more Romantic nature of that division. A complete family of Diapasons is present here, as in the Great, but in a less assertive manner. The 8' Geigen Diapason has more "edge" than its Great counterpart, while the 4' Prestant is a rather mellow voice for its pitch register. The Diapasons of the Choir are present to aid both the accompanimental function of the Choir and its positiv role. The smooth Viola, a Diapason/String hybrid, is the 8' foundation of the Choir, while the 4' Principal gives much of the sparkle and firmness to contrapuntal registrations. The Pedal division uses the Diapason at 32', 16', 8', and 4' pitches, giving not only strength, but articulation to the Pedal ensemble.

THE FLUTE FAMILY

The Flute tones of the organ are characterized by lesser amounts of harmonic development, and as such are good foundation builders. The Great Flute chorus (8', 4' and 2') completes the ensemble and gives it a well-rounded, full sound. The smooth 8' and 4' Flutes of the Swell are valuable both as ensemble builders and as solo stops. The Choir Flutes, available in an abundance of pitch registers (including mutations), serve as a contrapuntal foil to the more assertive Great, and lend the possibility of synthesizing many interesting solo effects. The 8' and 4' Quintadena stops introduce the Baroque "chiff" accent to the Choir Flutes, adding sparkle to the works of Bach and his contemporaries. The Pedal Flutes, at 16' and 8' pitches, round out the Pedal sound much in the same way as they do in the Great ensemble, and provide the soft to medium-heavy foundations for quiet combinations of stops.

THE STRING FAMILY

This sound is a relative newcomer to organ tone, coming as it did in the early 19th Century. It is generally an imitative sound, closely associated with the sound of an orchestral string section. The string family of organ stops possesses a soft tone, with an incisive edge and a limited amount of foundational pitch, although some examples border on a more Diapason-like quality (Violas, Violones, Gemshorns, etc.). The extended development of the upper partials allows this sound to blend into quieter ensembles, while at the same time giving them a "singing" quality, like the sound of violins in the symphony orchestra. The Swell division has the orchestral string in the organ, the 8' Salicional. The Choir division, in contrast, uses a broader Dulciana for its string sound. The Pedal division uses a 16' Dulciana for a relatively thin 16' foundation stop.

Extra sets of tone generators, playable on the Swell manual, create the Celeste effect. An organ celeste is created by setting precisely-tuned tone sources against purposely out-of-tune sources. Historically, the resulting undulating "beat" is said to resemble "celestial voices," hence the "Celeste" nomenclature. This gently undulating sound is unequalled in adding warmth and emotional depth to organ tone. Two distinctive Celeste voices are on the Swell manual. There is a String Celeste (Salicional + Voix Celeste) and a Flute Celeste II.

In pipe organs, all of the above tone qualities (Diapasons, Flutes, and Strings) are derived from a pipe sound caused by a vibrating column of air set in motion by the action of a sheet of wind impinging on a knife-like edge on the upper lip of the pipe mouth. These pipes and their resulting sounds are classed collectively under the name of Flue Stops.

THE REED FAMILY

Pipe organ Reed Stops make use of the vibrations of a brass reed tongue against a slotted brass tube, or shallot, the resulting impulses of wind being qualified in pitch and given tonal shape by a resonator placed above the reed assembly. The shape of the resonator is the most important factor in determining the quality of the given stop. Reeds are of two basic types, solo and chorus reeds. The Solo Reeds are generally of an imitative character, best used standing alone in a melodic line. The Swell division has a solo Oboe, a plaintive orchestral voice. The battery of Chorus Reeds in the Swell (16' Fagotto, 8' Trompette, 4' Clairon) may be used in a solo capacity, but are voiced for the purpose of adding "fire" to the full Flue choruses, due to the extreme harmonic development of these stops. The 16' Bombarde and the two Swell extensions (8' Trompette, 4' Clairon) in the Pedal add percussiveness and melodic clarity to the full Pedal ensemble.

ENSEMBLE

Much has been mentioned so far about the "ensemble" of an organ. This is perhaps the single most important factor in determining the success or failure of a classic organ. Ensemble refers to the manner in which the various stops complement each other, and the manner in which they all add up to a homogenous tonal mass. No one sound should overpower the basic ensemble sound of the organ, but each should add its own coloring to the overall tone. The Solo Reeds, mutations of the Tierce family (1-3/5'), and celestes are exceptions to this. They are included to extend the versatility of the organ, but do not fit well into the full ensemble, due to their singular and pungent tonality. To demonstrate how the ensemble principle works, turn on the 8' Principal on the Great. Now, while holding a chord, add in succession the 4' Octave, the 2' Superoctave, and the Mixture III. Hear how the tone is brightened and clarified by the progressive addition of these registers. Now add to this the 8' Bourdon, 4' Spitzflöte, and the 2' Blockflöte. See how this "firms up" the ensemble and adds body and weight. Now turn on the Swell to Great 8' Coupler and add in succession the Swell 8' Trompette, 4' Clairon, and 16' Fagotto. Now notice the massiveness, and the "fire" and "snarl" that the Chorus Reeds give to this mass of sound. The use of these and other stops in the organ is basic to the art of registration. Experiment freely with the sounds of the organ; this is the key to a better understanding of its capabilities.

MUTATIONS

The mutation stops of an organ, sometimes called fractional pitches, are those which speak pitches other than the unison pitch (such as 2-2/3', 1-3/5', etc.). These stops are used for the purpose of adding color to solo stop combinations, and in light contrapuntal music. The 2-2/3' Nazard (or Twelfth), when played in combination with an 8' stop, for instance, speaks a note an octave and a fifth above the 8' pitch. The 1-3/5' Tierce speaks two octaves and a major third above the 8' pitch. Use these stops often and experiment with them; they are the "salt and pepper" of the organ stops.

MIXTURES

Mixtures are composed of sets of fractional pitches, and are used to clarify and extend the upper harmonic structure of the organ ensemble. Fifth-sounding and octave pitches are used almost exclusively, basically because the ear accepts the sound of the fifth more easily than any other mutation pitch. This is probably a carry-over from the Medieval practice of Organum, or singing in parallel fifths. Also, the fifth-sounding pitch forms an integral part of the natural harmonic series of a musical tone. The Mixtures are used principally in full registrations, to cap off the sound with a mantle of brilliance. Play the

Mixture III on the Great by itself, starting at the bottom of the keyboard and ascending chromatically. Notice that the pitches are relatively high at the bottom of the manual. This gives clarity and definition to the lower registers. As you go up, the pitches "break back" to lower ones as they reach the top of their compass. Near the top of the manual, they are a mixture of high and relatively low pitches. This gives brilliance and, more important, solidity to the upper registers of the keyboard. The effect of a mixture on an ensemble may be likened to throwing open the curtains of a room and allowing the sun to shine in.

On the Specification 660, the Mixture III stop makes three sets, or ranks, of these mixture pitches playable on the Great manual, where this stop is most useful. Incidentally, on any Mixture stop, the Roman numeral on the stop tab or drawknob is your guide to the number of ranks that are sounded by that stop.

SPEAKING STOPS ON THE SPECIFICATION 660

TONE FAMILY	GREAT MANUAL	SWELL MANUAL	CHOIR MANUAL	PEDAL CLAVIER
DIAPASONS	8' Principal 4' Octave 2' Super Octave	8' Geigen Diapason 4' Prestant	4' Principal	16' Principal 8' Octave 4' Choralbass
DIAPASON/STRING HYBRID	16' Gemshorn		8' Viola	32' Contra Violone 8' Gemshorn
FLUTES	8' Bourdon 4' Spitzflöte 2' Blockflöte	8' Rohrflöte 4' Nachthorn	8' Gedeckt 8' Quintadena 4' Koppelflöte 4' Quintadena 2' Flachflöte 1' Sifflöte	16' Bourdon 16' Lieblich Gedeckt 8' Flute
STRINGS		8' Salicional	8' Dulciana	16' Dulciana
CHORUS OR ENSEMBLE REEDS		16' Fagotto 8' Trompette 4' Clairon		16' Bombarde 8' Trompette (SW) 4' Clairon (SW)
SOLO REEDS		8' Oboe		
MUTATIONS	2-2/3' Twelfth		2-2/3' Nazard 1-3/5' Tierce	
MIXTURES	Mixture III			
CELESTES		8' Voix Celeste 8' Flute Celeste II		
PERCUSSIONS			Harp Carillon	

THE THREE MANUAL CONSOLE

As the art of organ building has evolved over the centuries, certain features of the instrument have become more or less standard as organists, by a process of elimination, have gradually culled out "innovations" that served no practical purpose and merely got in the way. An extreme example of this type of thing was the old "thunder pedal" of some of the older European organs. This pedal, when hitched down, would cause the lowest four or five pipes of the Pedal division to sound at once, giving an effective "rumble" like thunder. Such devices, except in Theatre Organs, are happily extinct.

The modern organ console is a miracle of convenience and practicality, due to the process of evolution that produced it. The combination of three 61-note beveled and tilted keyboards and the 32-note concave and radiating pedalboard gives the organist the necessary console flexibility to perform organ music as written, without compromise. In addition, the various tone colors are conveniently available, distributed into divisions, according to their traditional function in the tonal scheme of the organ.

Incidentally, all Rodgers Classic Organs adhere rigidly to the specifications for console standardization as prescribed by the American Guild of Organists.

It may be well at this point to give a short description of the tonal "palette" and function of the various divisions of the organ.

THE GREAT ORGAN - Center Keyboard

This division is the backbone and main substance of the organ. It is characterized by the unique Diapason sound, available at 6 separate pitch levels. This Diapason Chorus, backed up by a chorus of softer Flutes and crowned by the Mixture, constitutes the principal support to congregational singing in the church. All of the other divisions in the organ relate in some way to the Great Organ. For instance, both the Swell and Choir Organs couple to the Great at 16', 8', and 4' pitch levels, making it possible to play the entire three manual divisions of the instrument on one keyboard.

THE SWELL ORGAN - Top Keyboard

This division characteristically contains the more romantic and imitative sounds. There is a Diapason Chorus of 2 pitch levels, but voiced somewhat softer than the bold Great Chorus, and derived from tone sources independent of the Great. There is a quiet but incisive string, the Salicional, and its Celeste, and a flute chorus (at 8' and 4' pitch) of a smoother character than those on the Great and Choir. The Flute Celeste II is a soft and eloquent

voice. The Reeds of this manual include one of a Solo nature, the Oboe, as well as the major Chorus Reeds of the instrument (16' Fagotto, 8' Trompette, 4' Clairon), used as ensemble-builders in the full organ sound.

The Swell is named for its being an expressive division, having the capacity to "swell" in volume as the expression pedal is depressed. This manual is further separated from the other divisions of the organ by having all of its stops subject to a single tremulant, the Main Tremulant.

THE CHOIR ORGAN - Bottom Keyboard

This division typically possesses a lighter sound, and is named for the fact that this division most often accompanies the church choir in softer works. To this end, it has light Flutes and small scaled Diapasons to provide an ideal fabric of sound against which the voices of the choir may be placed. The Choir division of the Rodgers Organ serves the additional function of a Positiv, or Baroque manual. The light Flutes and mutations, together with the chiffing Quintade and Quintadena, and the 4' Principal, provide a counter-voice for the more assertive voices of the Great division. The percussions (Harp and Carillon) are also located on this manual.

THE PEDAL ORGAN - Pedal Keyboard

This division, consisting largely of flue stops, is the foundation on which the tonal mass of the organ rests. With its wide range of pitches and sounds, the Pedal division is complete in itself, yet couplers have been provided to bring manual sounds down to this division, to add further definition to the Pedal line. For instance, the 8' Reeds on the Swell can be played on the Pedal Clavier at 4' pitch (with the Swell or Choir to Pedal 4' Coupler) to provide the type of melodic capability needed in some Chorale Preludes. The Pedal Chorus Reeds give the additional percussiveness and "fire" needed in full Pedal registrations.

COUPLERS, PERCUSSIONS, TREMULANTS, CONSOLE ACCESSORIES, AND NON-SPEAKING STOPS

COUPLERS

The following is a list of couplers to be found on Specification 660 consoles. This specification contains the most complete grouping of couplers to be found on an instrument of this size.

PEDAL	SWELL		
8' Great to Pedal	16' Swell to Swell	4' Great to Great	16' Choir to Choir
4' Great to Pedal	Swell Unison Off	16' Swell to Great	Choir Unison Off
8' Swell to Pedal	4' Swell to Swell	8' Swell to Great	4' Choir to Choir
4' Swell to Pedal		4' Swell to Great	16' Swell to Choir
8' Choir to Pedal		16' Choir to Great	8' Swell to Choir
4' Choir to Pedal		8' Choir to Great	4' Swell to Choir
		4' Choir to Great	

While this great abundance of couplers adds immeasurably to the flexibility of the instrument, it must be remembered that, like all conveniences, they can be inartistically used. Each division has its complete complement of stops and wholesale coupling of "everything to everything else" is to be discouraged, as it tends to upset the tonal balance of the organ. Here are a few examples of legitimate uses of couplers:

1. Coupling the Swell celestes to themselves at 16' and 4' pitch, to broaden the sound.

2. Coupling the Swell Chorus Reeds to the Great to complete the Full Organ sound.

3. Coupling the manual sounds into the Pedal (Solo Reeds, Choir Mutations, etc.) to provide a melodic capability for the Pedal.

4. Coupling the Choir or Swell to Great on the last verse of a hymn, to give a fuller sound.

5. Coupling a division to itself at 4' pitch to add brilliance.

PERCUSSIONS

The Carillon is derived from a cluster of sustained Flute Partials, assembled about a given pitch so as to suggest the harmonic structure of tuned bells. The Carillon is played with a light staccato touch. The Harp is another sustained voice, suggestive of steel bars being struck by small, leather-padded hammers. It is at its best when played in arpeggios.

TREMULANTS

There are three tremulants on the Specification 660. The Main Tremulant affects all of the voices in the Swell division, as well as the Diapasons, Diapason/String Hybrid stops, and the Strings of the Great, Choir, and Pedal. The two Flute Tremulants affect the Flutes of the Great, Choir, and upper portion of the Pedal. The Light Flute Tremulant gives the normal amount of tremulant needed for most liturgical practice, while the Full Flute Tremulant gives the broader kind of effect often needed for Gospel-style music in the more evangelical churches. Also, the Specification 660 contains a provision for making the Flutes of the Great and Choir become an Open, or Tibia-like sound, whenever the Full Flute Tremulant tab is operated.

EXPRESSION PEDALS

There are two pedals which directly affect the volume level of the organ. The Swell Pedal affects all of the speaking voices of the Swell division. The Great, Choir, and Pedal expression pedal affects collectively the rest of the organ. The Register Crescendo Pedal (located to the right and slightly above the expression pedals) affects the volume of the of the organ in a different manner, by progressively adding stops in a predetermined order. This device does not affect the stops already set up on the organ, but merely adds to them. Again, the inartistic use of these devices is to be guarded against. "Pumping" of the Expression and Crescendo Pedals results in a sound that quickly tires the listener.

SFORZANDO PISTON

The button marked "SFORZ", located on the Great Manual Piston Rail, brings on the full organ instantaneously when depressed. Pressing the button again reverses this action. The toe stud on the far right of the kneeboard (upper row) accomplishes the same thing. An indicator light (FF) shows when this mechanism is on.

GREAT TO PEDAL REVERSIBLE

This console accessory operates mechanically in the same manner as the Sforzando Piston, in that the same piston or toe stud can turn the Great to Pedal 8' Coupler on or off. In addition, however, when the reversible action is used to turn the coupler off, it takes off the Great to Pedal 4' Coupler, if it happens to also be on. If the reversible is operated again, just the 8' Great to Pedal Coupler will come on.

SETTERBOARD COMBINATION ACTION

The standard combination device on the Specification 660 is a setterboard type combination action. This combination action visibly moves the stop controls affected by it, and is adjustable by means of the setterboard located in a drawer underneath the Choir Manual. This unit contains a switch for each stop in a division, and a set of these switches for each piston belonging to that division. Any switch moved to the right will bring on the stop it represents when that manual piston is depressed. The pistons located to the left of the Great Manual pistons are collective general, or Master Pistons, and are duplicated by toe studs to the left of the expression pedals. Each Master piston brings on all stops in all divisions that are set on pistons with the same number; i.e., all the 1's, 2's, etc.

CAPTURE COMBINATION ACTION

This optional system provides for general pistons (affecting the entire instrument) that are completely independent of the individual manual pistons, and are fully adjustable. This type of action operates as follows: 1) the stops are set by hand to produce the registration that is to be retained; 2) the piston marked SET (left end of the Choir Piston Rail) is depressed; 3) while holding the SET Piston in, the piston on which that combination of stops is to be retained is pressed also; 4) the piston on which the stops are to be set is released; and, 5) the SET Piston is released. The new combination is now programmed into the magnetic memory of the combination action, and will remain there until removed by setting of a new combination.

This action can also be operated in a "hold-and-set" fashion, if it is desired to change just one or two stops in a combination. This is done by depressing the piston on which the combination is set. You will notice that there is a cycling process occurring while you hold the piston in, indicated by the slight recurrent movement of the stop controls. To change individual stops, it is only necessary to move them by hand (while holding the piston in) and hold them in the new position for one complete cycle of the action (about a second). The memory of the action will then re-program itself to accommodate the new positions of the stops. A locking lighted switch prevents unauthorized changing of the combinations without your knowledge.

TOWER SPEAKER SYSTEM

As standard equipment, the Specification 660 is prepared for the use of the Rodgers Outdoor Tower Speaker System (T-4-100). This system operated by the locking key switch on the right side of the console, permits the organist to play the Choir Percussion Stops (particularly the Carillon) from a special high-power, weatherproof speaker system. The Percussions, as played through this system, are independent of the expression system of the organ, and therefore play at an adjustable constant volume.

SOME REGISTRATION SUGGESTIONS FOR THE

RODGERS SPECIFICATION 660

The following guides to stop selection include manual by manual suggestions as to basic combinations of organ voices, as well as a reference guide for interpreting the stop suggestions of published organ music. The latter is especially important because most organ music is published with only general suggestions for registration. This is because every organ is different in some way from the organ that the composer of the music had at his disposal. Therefore, names of some stops would be meaningless on some instruments. The way to get to know the organ is to experiment freely with the sounds of the instrument, and the following basic guide will help you achieve good classic registration skills. At the end of this section will be found several registration sets that involve the entire organ, given as the basis for certain specific styles and periods of musical culture.

PEDAL DIVISION

The term "Appropriate Pedal" often appears on suggested registrations. The suggestion seems obvious at first, but Pedal stop selection is as much of an art as manual selection (probably even more, since the Pedal division must often balance dynamically with all three manual divisions). In most organ playing, the Pedal is simply used to provide the foundation (bass) for manual work. The use of 16' voices provides the subharmonics necessary to undergird the manual tonal structure.

PUBLISHED SUGGESTION	SUGGESTED INTERPRETATION
1. Light 16' Pedal	16' Lieblich Gedeckt 16' Dulciana
2. Soft Foundations 16' & 8' P	16' Lieblich Gedeckt or 16' Dulciana 8' Flute or 8' Gemshorn
3. Foundations 16' & 8' MP	16' Bourdon 8' Flute or 8' Gemshorn
4. Foundations 16' & 8' MF	16' Bourdon 16' Lieblich Gedeckt 16' Dulciana 8' Octave or 8' Gemshorn 8' Flute
5. Foundations 16' & 8' F	16' Principal 16' Bourdon 16' Lieblich Gedeckt 8' Octave 8' Flute 4' Choralbass
6. Pedal F	16' Principal 16' Bourdon 16' Lieblich Gedeckt 16' Dulciana 8' Octave 8' Flute 4' Choralbass 8' Trompette (SW)
7. Pedal FF (Full Pedal)	All Pedal Stops

When additional upperwork in the Pedal is desired, the Great to Pedal Couplers are generally used, since the stops set on the Great usually determine the basic dynamic strength of the organ.

In some of the more complex forms of contrapuntal music, the Pedal is often called upon to furnish a distinctive third voice, such as in Trios and Chorale Preludes. The Pedal couplers (particularly the Swell and Choir Couplers) make available the manual sounds required by this style of music.

GREAT DIVISION

The Great is used in general church music for hymns and major anthem and solo accompaniments. Primarily intended for ensemble or homophonic textures, the Great is played "both hands" in these functions.

PUBLISHED SUGGESTION	SUGGESTED INTERPRETATION
1. Flutes 8'	8' Bourdon
2. Flutes 8' & 4'	8' Bourdon 4' Spitzflöte
3. Foundations 8' MP	8' Principal
4. Broad Foundations 8'	8' Principal 8' Bourdon
5. Foundations 8' & 4' MF	8' Principal 8' Bourdon 4' Octave 4' Spitzflöte
6. Light Foundations 8', 4', 2'	8' Principal 8' Bourdon 4' Octave 2' Spitzflöte
7. Basic Foundation Chorus 8', 4', 2'	8' Principal 8' Bourdon 4' Octave 2' Super Octave
8. Full Great without Mixtures	8' Principal 8' Bourdon 4' Octave 4' Spitzflöte 2-2/3' Twelfth 2' Super Octave 2' Blockflöte
9. Full Great to Mixtures	Add Mixture III to the above
10. Full Great + 16'	Add 16' Gemshorn to the above

SWELL DIVISION

A considerable amount of registration for the Swell Division is often given in the form of actual single solo registrations. The suggestions below are given for use as ensemble choruses in music of a romantic nature.

PUBLISHED SUGGESTION	SUGGESTED INTERPRETATION
1. Strings 8'	8' Salicional
2. String Chorus 8'	8' Salicional 8' Voix Celeste (4', 16' Swell to Swell)
3. Flutes 8'	8' Rohrflöte
4. Flute Chorus 8'	8' Flute Celeste II (4', 16' Swell to Swell)
5. Solo Flute (or Flutes 8', 4')	8' Rohrflöte 4' Nachthorn (+ Main Tremulant)
6. Foundations 8'	8' Geigen Diapason
7. Swell Foundations 8', 4' MP	8' Geigen Diapason 4' Nachthorn
8. Swell Foundations 8', 4' MF	8' Geigen Diapason 8' Rohrflöte 4' Prestant
9. Reeds 8', 4'	8' Trompette 4' Clairon
10. Reeds 16', 8', 4'	16' Fagotto 8' Trompette 4' Clairon
11. Full Swell to Mixtures	8' Geigen Diapason 8' Rohrflöte 4' Prestant 4' Nachthorn 8' Trompette 4' Clairon 4' Swell to Swell
12. Full Swell + 16'	Add 16' Fagotto to the above

CHOIR DIVISION

Two sets of suggestions are given below for the Choir division. The first is for the Choir in an accompanimental function; the second for using the Choir as a Positiv division.

Choir Accompaniment

PUBLISHED SUGGESTION	SUGGESTED INTERPRETATION
1. Flutes 8'	8' Gedeckt
2. Soft Accompaniment 8'	8' Gedeckt 8' Dulciana
3. Choir Strings 8'	8' Viola or 8' Dulciana
4. Soft Choir Foundations 8'	8' Viola or Dulciana 8' Gedeckt
5. Choir Foundations 8', 4' MF	8' Viola 8' Gedeckt 4' Principal 4' Koppelflöte
6. Accompanimental Chorus	8' Viola or Dulciana 8' Gedeckt 4' Koppelflöte
7. Choir Foundation Chorus F	8' Viola 8' Gedeckt 4' Principal 4' Koppelflöte 2' Flachflöte 1' Sifflöte
8. Full Choir to Mixtures	Add 2-2/3' Nazard and 4' Choir to Choir to the above

Choir Positiv

The following suggestions are for Baroque registrations, usually employing the Chiffing Flutes (8' Quintade, 4' Quintadena). These combinations are best used in contrapuntal, as opposed to chordal, music.

PUBLISHED SUGGESTION	SUGGESTED INTERPRETATION
1. Positiv Flutes 8'	8' Quintade
2. Positiv Flutes 8', 4'	8' Quintade 4' Quintadena
3. Foundations 8'	8' Quintade 8' Viola or 8' Dulciana
4. Flutes 8', Prestant 4'	8' Quintade 4' Prestant
5. Combinations without Mutation Stops	8' Quintade 2' Flachflöte
	8' Quintade 1' Sifflöte
	8' Quintade 2' Flachflöte 1' Sifflöte
	8' Quintade 4' Quintadena 2' Flachflöte
	8' Quintade 4' Principal 2' Flachflöte (1' Sifflöte)
6. Combinations involving Mutations	8' Quintade 2-2/3' Nazard
	8' Quintade 4' Quintadena 2-2/3' Nazard

PUBLISHED SUGGESTION	SUGGESTED INTERPRETATION
6. (Cont'd)	8' Quintade 2-2/3' Nazard 2' Flachflöte
	8' Quintade 2-2/3' Nazard 2' Flachflöte 1' Sifflöte
	8' Quintade 4' Principal 2-2/3' Nazard 2' Flachflöte (1' Sifflöte)
	8' Quintade 4' Principal 2-2/3' Nazard 1' Sifflöte
	8' Viola 4' Quintadena 2-2/3' Nazard
	8' Viola 4' Principal 4' Quintadena 2-2/3' Nazard 1' Sifflöte
	8' Viola 4' Principal 4' Quintadena 2-2/3' Nazard 2' Flachflöte 1' Sifflöte
	8' Quintade 2' Flachflöte 1-3/5' Tierce 1' Sifflöte
7. Cornet Solo Combination (often called for in French organ music)	8' Gedeckt (or Quintade, or 8' Viola) 4' Koppelflöte 2-2/3' Nazard 2' Flachflöte 1-3/5' Tierce

FULL ORGAN REGISTRATIONS

The following are suggested full organ registrations for the Specification 660, with an eye to specific musical styles.

Baroque Ensembles

1.	Soft	Swell:	8' Rohrflöte, 4' Nachthorn, 4' Swell to Swell
		Great:	8' Bourdon, 4' Spitzflöte, 2' Blockflöte
		Choir:	8' Quintade, 2' Flachflöte
		Pedal:	16' Lieblich Gedeckt, 16' Dulciana, 8' Swell to Pedal
2.	Trio* Sonata	Swell:	4' Prestant
		*Great:	8' Bourdon, 4' Octave, 2' Blockflöte
		*Choir:	8' Gedeckt, (8' Quintade), 2-2/3' Nazard, 1' Sifflöte
		*Pedal:	8' Flute (8' Gemshorn), 8' Swell to Pedal
			* (Voices of Trio; Swell used for Pedal voice only)
3.	Chorale Prelude (melody in Pedal)	Swell:	8' Flute Celeste II, 4' Nachthorn
		Great:	8' Bourdon
		Choir:	8' Gedeckt, 4' Koppelflöte
		Pedal:	4' Choralbass (or 8' Trompette (SW) or 4' Clairon (SW)
4.	MP & MF	Swell:	8' Rohrflöte, 4' Prestant, 4' Swell to Swell
		Great:	8' Principal, 4' Octave, 4' Spitzflöte, 2' Super Octave, 2' Blockflöte
		Choir:	8' Gedeckt, 4' Principal, 4' Quintadena, 2' Flachflöte, (1' Sifflöte)
		Pedal:	16' Lieblich Gedeckt, 16' Dulciana, 8' Flute or 8' Gemshorn, 4' Choralbass
5.	F	Swell:	8' Rohrflöte, 4' Prestant, 4' Swell to Swell
		Great:	8' Principal, 8' Bourdon, 4' Octave, 4' Spitzflöte, 2-2/3' Twelfth, 2' Super Octave, 2' Blockflöte, Mixture III
		Choir:	8' Gedeckt, 8' Quintade, 4' Principal, 4' Quintadena, 2' Flachflöte, 1' Sifflöte
		Pedal:	16' Bourdon, 16' Lieblich Gedeckt, 16' Dulciana, 8' Octave, 8' Flute, 4' Choralbass

Romantic Ensembles

1.	Soft, with solo on Swell or Great	Swell:	8' Oboe
		Great:	8' Principal, 8' Bourdon, 4' Spitzflöte
		Choir:	8' Gedeckt, 8' Dulciana
		Pedal:	16' Bourdon, 16' Lieblich Gedeckt, 16' Dulciana, 8' Flute
		Tremulants:	Main Tremulant, Flute Tremulant Light

Romantic Ensembles (Cont'd)

2.	Soft to Medium accompanimental ensemble	Swell:	8' Salicional, 8' Voix Celeste, 8' Flute Celeste II, 4' Nachthorn
		Great:	8' Bourdon, 8' Principal, 4' Spitzflöte, 8' Swell to Great, 8' Choir to Great
		Choir:	8' Dulciana, 8' Gedeckt, 8' Swell to Choir
		Pedal:	16' Bourdon, 16' Lieblich Gedeckt, 16' Dulciana, 8' Flute
		Tremulants:	Main Tremulant, Flute Tremulant Light

Hymn Registrations

1.	MP - MF	Swell:	8' Geigen Diapason, 4' Nachthorn
		Great:	8' Principal, 8' Bourdon, 4' Spitzflöte, 2' Blockflöte
		Choir:	8' Viola, 8' Gedeckt, 4' Koppelflöte
		Pedal:	16' Bourdon, 16' Lieblich Gedeckt, 8' Flute, 8' Gemshorn
2.	MF - F	Swell:	8' Geigen Diapason, 4' Prestant, 4' Swell to Swell
		Great:	8' Principal, 8' Bourdon, 4' Octave, 4' Spitzflöte, 2' Super Octave
		Choir:	8' Viola, 8' Gedeckt, 4' Principal, 4' Koppelflöte, 2' Flachflöte
		Pedal:	16' Principal, 16' Lieblich Gedeckt, 16' Dulciana, 8' Octave, 8' Flute, 8' Gemshorn
3.	F	Swell:	8' Geigen Diapason, 8' Rohrflöte, 4' Prestant, 8' Trompette
		Great:	8' Principal, 8' Bourdon, 4' Octave, 4' Spitzflöte, 2-2/3' Twelfth, 2' Super Octave, 2' Blockflöte
		Choir:	8' Viola, 8' Gedeckt, 4' Principal, 4' Koppelflöte, 2' Flachflöte, 1' Sifflöte, 8' Swell to Choir
		Pedal:	16' Principal, 16' Bourdon, 16' Lieblich Gedeckt, 16' Dulciana, 8' Octave, 8' Flute, 8' Gemshorn, 4' Choralbass, (8' Trompette (SW))

On the above registration, the Swell setting could be played without Pedal, possibly on the second or third verse of a hymn. During that time, the Swell to Great 8' Coupler could be added, for a fuller accompaniment to the last verse. This scheme, with the above additions, is useful for Doxologies, Gloria Patris, and other responses calling for a solid organ foundation.

Full Organ (FF)

This scheme is included to demonstrate the fact that the indication of "full organ" on a piece of music does not merely mean pull out every stop on the organ. Certain stops, because of their heavy nature, should be omitted in the interest of keeping the full organ sound clean and fiery. If the heavier registers are then needed, the Sforzando piston can be resorted to, but the following is an example of a good "full organ" sound on the Specification 660.

Swell: 8' Geigen Diapason, 4' Prestant, 16' Fagotto, 8' Trompette, 4' Clairon, 4' Swell to Swell

Great: 8' Principal, 8' Bourdon, 4' Octave, 4' Spitzflöte, 2' Super Octave, 2' Blockflöte, Mixture III, 8' Swell to Great, 8', 4' Choir to Great

Choir: 8' Viola, 8' Quintade, 8' Gedeckt, 4' Principal, 4' Koppelflöte, 2-2/3' Nazard, 2' Flachflöte, 1' Sifflöte, 8' Swell to Choir

Pedal: All Stops, 8' Great to Pedal, 8' Swell to Pedal, 8' Choir to Pedal

SOME ADDITIONAL DESIGN ELEMENTS OF THE RODGERS

Console Specifications

All of the console dimensions conform to the specifications set by the American Guild of Organists. The three 61-note overhanging manuals are precisely placed, both in relation to each other and in relation to the pedalboard. The pedalboard is a standard A. G. O. 32-note, concave and radiating clavier, with the expression pedals placed as per A. G. O. specifications.

Leveling Glides

To assure optimum performance and life of the moving parts in the console, it should always be "square." Uneven floors tend to distort the case over a period of time, and extreme stresses will damage the casework and equipment. The leveling glides are under each corner of the console and bench, and are mounted on heavy threaded pins. These may be adjusted as much as 1-1/2" to compensate for irregularities in the floor. A simple spirit level can assure the most accurate settings. This is particularly useful in schools where the organ may have to be moved to several locations.

The Rodgers Organ Is Completely Transistorized

Each note of each organ set of voices is produced separately by an individual, fully transistorized oscillator. It is this independence of voices that is largely responsible for the wide acceptance of the Rodgers tone quality. In addition, stop switching, coupling, and keying are all accomplished through the use of solid state switches which eliminate literally hundreds of contacts and moving parts.

The amplifiers in the Rodgers Organ are located in the speaker cabinets themselves, eliminating the need for running hazardous voltages long distances. The amplifiers are of a 100-watt power transistor type, requiring neither a warm-up time or the periodic replacement of tubes, two problems common to tube-type amplifiers.

Activity and Air Sound

The Specification 660 is provided with devices to insure that each note on the organ has the necessary wind-blown quality, rather than a sterile "electronic" sound. Hold a note on the 8' Great Principal, and notice first of all that a

slight amount of "breathiness" is present. This is similar in nature to the sound of the turbulence that occurs at the mouth of a speaking pipe. This same turbulence, however, gives rise to another phenomonen. The upper harmonics in the sound of an individual pipe are actively varying as the pipe responds to the action of a never-too-stable wind supply. The fundamental pitch of the pipe, however, remains almost rock-steady. This type of activity is also incorporated in the tone production system of the Specification 660. Both the Activity and Air Sound are completely adjustable, and are controlled by a small switch under the right side of the Choir Manual (or in the Setterboard Drawer).

THE CARE AND MAINTENANCE OF YOUR RODGERS

Like any fine musical instrument, the care and maintenance your Rodgers receives is part of the protection of your investment. Normally, you should experience no difficulties with the various systems of the organ. It has been carefully designed, and only the very finest of component parts have been used in its manufacture. Even the finest equipment, however, is subject to occasional malfunctions and failures. Your Rodgers Service Representative is fully equipped and qualified to handle any service problems which may arise.

Your new Rodgers is not only a fine musical instrument, it is also a fine piece of custom made furniture, finished to hold its attractiveness through generations of use. Only the best woods are used, carefully checked for uniformity of grain and intensity of figure, and carefully hand-assembled. As each finish coat is applied, it is thoroughly dried and hand-rubbed before the next coat is applied. This hand-rubbing results in a satin finish that glows with polished highlights; a finish that is lasting and easy to keep looking beautiful. Here are a few tips on caring for the Rodgers.

Console and Pedalboard

A frequent dusting with a soft, clean cloth is usually all that is required. A small amount of Johnson's Cream Polish on the cloth will keep the organ smudge-free, and will help remove fingerprints. Waxes, oils, or silicone-base polishes should not be used. Always wipe the finished surfaces with the grain, using straight and even strokes.

Plexiglass Music Rack

To avoid scratches on plexiglass, the music rack should be cleaned only with products made specifically for plexiglass cleaning and polishing. One such product is Meguiar's Mirror Glaze, made by the Mirror Bright Polish Company of Pasadena, California. Apply with a very soft cloth, using straight and even strokes.

Keyboards and Stop Tabs

Keyboards and Stop Tabs should be cleaned with the plastic cleaner suggested above, or with a soft cloth dampened with water and a mild soap. DO NOT USE SOLVENTS (alcohol, gasoline, carbon tetrachloride, etc.).

Since extreme cold, heat, or exposure to sunlight may injure the finish of any piece of fine furniture, the organ console or finished speaker cabinets should not be placed over a heat register or near and open window.

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