RODGERS

York 650B, Kent 705B
and
Glasgow 740B
Owner's Manual

OWNER'S MANUAL

FOR

YORK 650B
KENT 705B
AND
GLASGOW 740B

AUGUST, 1987

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THE RODGERS YORK 650B, KENT 705B AND GLASGOW 740B

The RODGERS York 650B, Kent 705B and Glasgow 740B Organs combine the finest organ traditions and classical tonal schemes with Rodgers patented Serial-Keyed Microprocessor-controlled circuitry to give the organist and the listener truly fine organ sound. These instruments' design began with the development of comprehensive specifications that allow music from all periods and performance schools to be played in an accurate and authentic manner.

ALL RODGERS ORGANS are manufactured to console specifications set forth by the American Guild of Organists. These specifications create a uniformity as to compass of keyboards (61 notes) and pedalboard (32 pedals), and the placement of keyboards in relation to the pedalboard. The latter requirement allows people of various sizes to play an organ comfortably. There are also specifications for the placement of stop tablets and couplers. Rodgers has always adhered to these specifications in its classic organs to provide comfortable organs for all who play.

Your organ contains the following divisions: The Great Organ; the Swell Organ; and the Pedal Organ. Each division derives its name from its function in the tonal scheme of the organ.

The GREAT ORGAN has the boldest Principal (Diapason) ensemble and a solid Flute ensemble to support the Principals. An appropriate word for ensemble is "chorus," which generally means that two or more pitch levels (8′, 4′, 2′, etc.) of a tonal family are sounding simultaneously. There are softer accompanimental stops of Flute and Principal tone which provide a subtle texture to support the solo stops of the Swell Organ.

The optional POSTIV ORGAN functions when a Rodgers Pipe Augmented Pipe Set is added to your instrument. The Positiv Organ plays from the Swell Keyboard giving the player the flexibility of a secondardy pipe division to act as a foil to the Great. It has Principal and Flute Choruses that add sparkle to the Swell Organ and are very useful in hymn playing. The Positiv pipes are affected by the swell couplers.

The name for the SWELL ORGAN originated when pipes were placed inside a special chamber called a swellbox. One side of the swellbox has Venetian shutters which are controlled by a pedal called the Swell Pedal. This pedal enables the organist to control the dynamic level (loudness and softness) of this division by gradually opening and closing the shutters, thereby creating crescendos and decrescendos. This was not possible in earlier organs, as the dynamics were determined solely by the number of stops drawn. The modern Swell Organ has a secondary Principal Chorus, complete Flute Chorus, Celeste and Reed voices, and couplers, which give this division large tonal flexibility.

The PEDAL ORGAN was so named because its keys are played by the feet. All Rodgers Organs have a complete pedal organ which will provide a suitable foundation for any manual registration.

THE MUSICAL RESOURCES OF YOUR RODGERS ORGAN

There are two major categories of organ tone–Flue and Reed:

FLUE: This category includes Principals (Diapasons), Flutes, and Strings. These voices are produced by similarly constructed pipes called flue pipes. These pipes make a sound when air enters and is channeled through a thin opening, directing the air column upward against the lip of the pipe. This vibrating air sheet sets up vibrations in the column of air inside the pipe which creates the musical tone. Its principle is that of the common whistle.

REED: In this pipework, sound is generated by a metal tongue (reed) vibrating against a metal shallot, with flat, open portion of the shallot facing the tongue. These parts are contained in the "boot" of the pipe. The resonator (uppermost tubular section) affects the timbre (color) and pitch of the particular pipe. Such voices as the TROMPETTE, and OBOE are members of the Reed Family. They are easily recognizable because their LEDs (Light Emitting Diodes) are tinted red and their stop tab engravings are in red.

THE PRINCIPAL (DIAPASON) FAMILY

The Principals are the tonal family unique to the organ. There is no orchestral counterpart to the Principal nor can it be duplicated by any orchestral instrument. When played in chorus, such as 8′ PRINCIPAL, 4′ OCTAVE, and 2′ SUPER-OCTAVE on the Great manual, the resulting sound provides body, clarity, and the base to which the other tone families of the organ must relate and blend.

The Mixture stops are made up of several pitches of high-pitched Principal pipes. The pitches selected augment the natural harmonic overtone series. A mixture's prime function is to add sparkle to the Foundation tone of the organ. The Roman numeral on the stop tablet indicates the number of pitches sounding when a single note is depressed, e.g., MIX-TURE IV (four pitches).

When used sensitively with suitable Foundation stops and/or Reeds, a Mixture provides the crown of the tonal spectrum. When used in combinations for hymn playing, Mixtures provide pitch clarity for the ear, resulting in better con-gregational singing.

THE FLUTE FAMILY

The Flute family has a dual role in good organ design. The Flutes must support the Principals and, in addition, provide another fund of tone color for solo and accompaniment voices. The most developed Flute Chorus is in the Swell Organ where Flutes are available from 16′ through 1′ pitches. In the Great Organ the Flutes give added body when used with the Principals.

By combining unison and non-unison (mutation) Flute stops, the organist can create synthesized solo voices. The 2⅔′ NASARD and the 1⅗′ TIERCE on the Swell manual can be used in combination with Flutes of 8′ and/or 4′ pitches to produce the classic solo voice called a Cornet. The combination and proper balance of unison and non-unison pitches which comprise these combinations are a standard practice of organ design dating back hundreds of years.

The combination of the Great 8′ BOURDON and the 2⅔′ Nasat is a cool, elegant solo voice.

Flutes are found in the Pedal Organ as well–playing at 16′ pitches, as well as supplying Flute tone at 8′, 4′, and 2′.

THE STRING FAMILY

Strings are small scaled (reduced diameter) Principals that are decreased in volume and have a brighter timbre. Strings are most useful as accompanimental stops since they are subtle, and with their abundance of harmonics (natural overtones) each note of the most complex chord can be heard with distinction.

The String family stops on your organ are the 8′ GEMSHORN, and the 8′ SALICIONAL.

CELESTES

A celeste is a special musical effect designed to create the "orchestral sound" of multiple identical instruments playing at the same time, e.g., a section of violins. Celeste sound is useful for enriching Flute and String tones, but is never used with Reeds.

Rodgers Classic Series Instruments have Celeste stops which engage separate and individually tunable pitch sources to produce authentic organ Celestes. The GEMSHORN CELESTE II and FLUTE CELESTE II on your organ provide a tonal kaleidescope of warm, romantic organ tones.

THE REED FAMILY

REED voices on your Rodgers organ include both chorus and solo reeds. Chorus reeds are so named as they must tonally top off the principal chorus of each division. The Solo reeds must provide enough unique color to adequately be heard above suitable accompaniment registrations and will also double as minor chorus reeds.

The 8′ Trompette is a chorus type reed which can be used with the swell couplers or the 16′ Contre Trompette and 4′ Clairon on the Glasgow 740B to create a reed chorus. The Oboe is a semi-chorus reed that can be used either as a chorus reed or a solo reed. A very strong solo reed, the 8′ Festival Trumpet is best used sensitively for festive occasions, or heroic solo melodies. A REED FF tab is located in the General Division. This stop tablet accoustically doubles the volume (in decibel power) of the reed voices.)

PERCUSSIONS

The Percussions found on your Rodgers organ are the CARILLON and HARP. These voices are independent of all other voices, and they have volume and sustain length controls. On the Glasgow 740B three alternate carillons are available.

The HARP is effective when used in combination with soft voices of accompanimental texture. The CARILLON is best used one note at a time. The SALICIONAL and GEMSHORN CELESTE II are good stops for accompanying the CARILLON.

Optional are the Harpsichord, Piano and Grand Piano. The Piano voices are useful in supplying the percussive sounds often called for in contemporary organ literature while the Harpsichord is useful for a more traditional approach to percussive sound.

Stop And Coupler List
York 650B, Kent 705B and Glasgow 740B

GREAT	SWELL	POSITIV (optional)	PEDAL
PRINCIPALS			
8′ PRINCIPAL	4′ PRINCIPAL	4′ PRINCIPAL	8′ OCTAVE
4′ OCTAVE	PLEIN JEU IV	2′ OCTAVE	4′ CHORALBASS
2′ SUPEROCTAVE	CYMBALE II (740)		MIXTURE IV
MIXTURE IV			
FLUTES			
8′ BOURDON	16′ BOURDON DOUX	8′ BOURDON	32′ CONTRE BOURDON (740)
4′ FLUTE	8′ GEDACKT	4′ FLUTE	16′ SUBBASS
2⅔′ NASAT	8′ FLUTE CELESTE II	1⅓′ QUINT	16′ BOURDON DOUX
2′ WALDFLOTE	4′ NACHTHORN		8′ FLUTE
CORNET III	2⅔′ NASARD		4′ NACHTHORN
	2′ BLOCKFLOTE		2′ FLUTE
	1⅗′ TIERCE		
	1′ SIFFLOTE		
STRINGS			
8′ GEMSHORN	8′ SALICIONAL		
	8′ GEMSHORN CELESTE II		
REEDS			
	16′ CONTRE TROMPETTE (740)		
	8′ FESTIVAL TRUMPET		
	8′ TROMPETTE		16′ CONTRE TROMPETTE
	8′ OBOE		
	4′ CLARION (740)		
MAIN TREMULANT			
TREMULANT	TREMULANT (740)	PIPE TREMULANT	
PERCUSSIONS			
HARP (705/740)			
CARILLON (705/740)			
HARPSICHORD (OPTIONAL)			
16′ GRAND PIANO (OPTIONAL)			
8′ PIANO (OPTIONAL)			
COUPLERS			
4′ GREAT TO GREAT (740)	16′ SWELL TO SWELL		8′ GREAT TO PEDAL
16′ SWELL TO GREAT	SWELL UNISON OFF		8′ SWELL TO PEDAL
8′ SWELL TO GREAT	4′ SWELL TO SWELL		4′ SWELL TO PEDAL
4′ SWELL TO GREAT			

GENERALS
CELESTE TRANSFER
FLUTE TREMULANT FULL
MAIN CHORUS OFF
REEDS FF
MAIN OFF
ANTIPHONAL ON
GREAT/PEDAL PIPES OFF
GREAT/PEDAL ANCILLARY ON

RODGERS PIPES

Your Rodgers Organ's microprocessor has been programming to accept the additional of 1, 2, 4 or 6 ranks of Rodgers pipes. Stops that are programmed to play pipes are marked with an asterisk in the specification pages at the end of this book. By using the Pipes Off and Ancillary On stop tablets those voices can be set to play pipes, electronic voices or both.

At the heart of Rodgers traditoin of organ-making are the pipes, exquisitely built to Rodgers exacting standards from the finest metals and woods. Our techniques originate with old-world organ builders, whose pipe-making methods go back centuries. Their experience led to Rodgers' integrated pipe augmented designs, which combine time-honored pipe practices with electronic technology. To preserve classical pipe-making practices, we keep cut-ups as low as possible and use low wind pressures. This allows the whole pipe to resonate with a greater richness of tone, and provides a rich palette of harmonics.

Perhaps the most crucial step in pipe making is the scaling. Rodgers metal pipes are variably scaled, or sized, according to the specific requirements for their role in the tonal scheme. Variable mouths, cut-ups and tapering are used in the scalling, tailoring each rank to its most useful musicality. The resulting effect is a sound much more full-bodied and emphatic than the size or number of ranks would suggest.

Finally, when all the ranks of pipes have been completed and passed numerous inspections, they are ready for installation. Under the strict supervision of Rodgers experts, pipes are voiced according to the specific characteristics of their surroundings. It is this classic blend that makes the Rodgers Pipe Augmented Organs stunning masterpieces of visual and acoustical art.

SPECIAL FEATURES

TURN-ON/TURN-OFF

To turn the organ on, *press the POWER switch firmly for a couple of seconds* and then release it. During the short delay in turning on, your organ's microprocessor tests your instrument to insure proper operation in accordance with its specifications, then the power switch lights up and the organ is ready to play. Should the microprocessor test uncover problems in the instrument's operation it will not turn on. If repeated attempts fail to light up your instrument's power switch, contact an authorized Rodgers serviceman or your Rodgers dealer.

To turn off the organ, press and release the POWER switch again.

The organ automatically turns itself off if left idle for more than two hours. Just before turning off, the computer flashes the POWER lamp as a warning to the organist. Pressing any piston or key will prevent the organ from turning off for another two hours. This feature prevents the organ from being left on by mistake.

COUPLERS

There are two kinds of couplers on your Rodgers Organ: intermanual and intramanual couplers.

The function of an Intermanual Coupler is to enable the stops of one division or keyboard to be played on another keyboard or the pedalboard. Examples of Intermanual Couplers are SWELL TO GREAT 8′ and SWELL TO GREAT 4′. Intramanual couplers allow voices to be played at a different pitch level or levels on those voices' home manual. Examples of Intramanual Couplers are SWELL TO SWELL 16′ and SWELL TO SWELL 4′. Couplers greatly increase your organ's flexibility.

DUAL MEMORY COMBINATION ACTION

One of the exciting features of your Rodgers Organ is its combination action which is programmable by the organist from the console. The organist can select favorite registrations and make rapid changes in tone color using this advanced system.

The York 650B, Kent 705B, and Glasgow 740B have dual memory systems with two memories behind each piston. Both memories may be used at any time. Memory One is always accessible for reprogramming, but the Memory Two is locked and requires an access code before reprogramming.

PROGRAMMING COMBINATION ACTION

The numbered General and Divisional (740 only) pistons and Dual Memory piston M2, located on the piston rail(s) of the York, Kent, and Glasgow "B" series organs are programmed at the factory with various stop combinations generally used by most organists. These combinations are displayed by the stop tab LED's and lighted piston reversibles.

To reprogram combination action:

Memory 1

(1) Press the piston rail Cancel (0) piston. The lights of any activated stops and/or pistons (except the M2 piston) will go out.

(2) If the M2 reversible is lighted, select Memory 1 by pressing M2 once. The light will go out.

(3) Select the desired stop combination and any special effect reversibles on the Piston Rail.

(4) Hold the SET piston and press the piston to be reprogrammed.

(5) Cancel all stops by pressing the (0) piston. Now press the reprogrammed piston. The new stop combination will be indicated by the lighted tabs and pistons.

Memory 2

(1) Before Memory 2 can be reprogrammed, it must be "unlocked." Hold the SET and press the M2 piston, which will start flashing. Then hold the Set and press General piston #2. The M2 piston will stop flashing.

(2) Memory 2 may now be reprogrammed, using the same routine described above for Memory 1.

PROGRAMMING ACCESS CODE COMBINATION ACTION (MEMORY TWO)

TO SET THE MEMORY ACCESS CODE

1. Write down the code(s) you want to enter. (The code can be any numeric sequence of up to eight digits where no digit is used consecutively.)
2. Place the "Combination Access Key" magnet just in front of the headphone jack under the keydesk. The power lamp should now start flashing.
3. Press the M2 memory piston.
4. Enter your personal code for Memory 2 on the General pistons. (All of the organs are set with the code "2" at the factory. You may change the code as you wish.)
5. Press the SET piston.
6. Now press the General Cancel Piston (0 piston). Your new access code will be retained. Memory 2 will remain locked.

TO UNLOCK MEMORY 2 (NEW ACCESS CODE)

1. While holding the SET piston in, press M2. M2 memory piston will start flashing.
2. Enter the new "Access Code" on the General pistons. The M2 lamp will stop flashing.

NOTE: If a mistake is made, press General Cancel "0" which will stop the lamp flashing, leaving the memory locked.

CHIFF AND AIR PUFF

Chiff and Air Puff are natural speech characteristics of Classically voiced pipes. These characteristics give additional clarity to both pitch and attack. There are several chiff circuits on your Rodgers Organ affecting the Principal and Flute voices, and they are always on. Their levels are adjustable to the requirements of the room in which your organ is located.

CHORUS CONTROL

The Chorus effect is patterned after the natural tuning interaction of pipes in a pipe organ. The effect gives a sense of motion to flute and principal stops. When the organ is turned on, the chorus effect is automatically engaged. It may turn it off by pressing "Chorus Off" reversible piston.

TREMULANTS

Tremulants can be most useful when judiciously used. Each manual division has an independent Tremulant.

When turned on, Tremulants affect only the stops in the division where that stop tablet is located. Each independent Tremulant is adjustable for both speed and depth. It is recommended that these adjustments be made by AUTHORIZED PERSONNEL ONLY.

The Flute Tremulant Full tablet affects all the Flute voices on the manual divisions of the organ. It is a deeper and faster tremulant than those mentioned above and is useful where Evangelistic music is used. It also has independent speed and depth controls.

THE CONTINUO PISTON

The name of this accessory device has been borrowed from the ancient term "Basso Continuo" meaning thoroughbass. When this lighted piston (located under the Great manual) is pressed, any stops or couplers on the Pedal Organ will sound from the lowest key being played in the bass of the Great manual, providing a Pedal Bass without having to actually use the feet. Rodgers microprocessor circuitry prevents its "jumping" allowing repeated bass notes to be played with proper effect.

In its normal setting, the CONTINUO affects keys 1-24 of the Great manual, but its compass is programmable. As few notes as 1-13, or as many notes as 1-32 may be programmed. The procedure for programming the compass is as follows:

1. Hold in SET and press CONTINUO. The CONTINUO piston will start flashing.
2. Release both pistons.
3. While CONTINUO is flashing, press any key which corresponds to the highest note to which you wish the compass to extend. You may select any note from key 13 to key 32. After you have pressed the key, the CONTINUO piston will shut off.
   NOTE: When you press the key to set the compass, no sound will be heard, so that you will not make a disturbance if you program the compass during a performance.
4. To use the new compass, press the CONTINUO piston.
   NOTE: When the organ is turned off, the compass of the CONTINUO will revert to 24 notes.

SOLO PISTON

When this lighted piston (located under the Great manual) is pressed, it allows any stop or coupler of the Swell Organ to sound from the highest key being played on the Great manual. Thus, a solo melody and an accompaniment can be played from the same manual. The unique control allows the player to repeat notes without the SOLO "jumping" so use of this device does not require a special technique.

In its normal setting, the SOLO affects keys 25-61 of the Great manual, but its compass is programmable, and may be extended downward to key 13, or stopped at key 49. The procedure for programming the compass is as follows:

1. Hold in SET and press SOLO. The SOLO piston will start flashing.
2. Release both pistons.
3. While SOLO is flashing, press the key which corresponds to the lowest note to which you wish the compass to extend. You may select any note from key 13 to key 49. After you have pressed the key, the SOLO piston will shut off.
   NOTE: When you press the key to set the compass, no sound will be heard, so that you will not make a disturbance if you program the compass during a performance. (Provided Great stops and Swell to Great couplers are off.)
4. To use the new compass, press the SOLO piston.
   NOTE: When the organ is turned off, the compass of the SOLO will revert to keys 25-61.

USING THE CONTINUO AND SOLO:

Some very interesting effects are made possible with these two accessory devices.

A. Suppose you wish to play a solo on the Swell OBOE, with accompaniment on the FLUTE CELESTE II and GEMSHORN, with an appropriate Pedal.
   1. Select the Swell OBOE. Select the FLUTE CELESTE II and the Great GEMSHORN. Press CELESTE TRANSFER to place the Celeste on the Great. Select the Pedal BOURDON DOUX 16′ and the GREAT TO PEDAL 8′. Press CONTINUO and SOLO pistons.
   2. Play on the Great manual. The lowest note being played will sound the Pedal combination, the highest note will sound the OBOE, and the notes between will play the accompaniment from the Great.

B. Suppose you wish to "solo out" the tune of a hymn on the Trompette, but wish to have both hands on the Great.
   1. Select the Swell TROMPETTE. Use Memory I, General 5 of the factory settings for Great and Pedal voices. Press the SOLO piston.
   2. Play the hymn on the Great Manual. The top-note melody will be played on the TROMPETTE while the remainder of the notes will sound the selected Great stops. The Pedal will play normally.
   3. Press CONTINUO. Now the Pedal combination will play from the lowest Great key. The entire piece can now be played on the Great Manual keys alone.

Experimentation will reveal many special effects and useful improvisational techniques impossible on less advanced organ systems.

CELESTE TRANSFER

The Celeste Transfer piston activates a special coupler that transfers only the celeste(s) to the Great Manual. This allows celeste accompaniment on the Great for Solo voices on the Swell. Both Celeste voices transfer via the CELESTE TRANSFER piston.

ALTERNATE MIXTURE PISTONS (Glasgow 740B)

Very often, in modern organs, Mixture stops which are appropriate for the playing of great organ literature are too high pitched, or of the wrong harmonic emphasis to be useful in an accompanimental role. For example, the Swell PLEIN JEU—which is used in choral accompaniments as well as for a complementary harmonic crown to the Reeds. The choral accompaniment would require lower pitches to blend with the voices, whereas the Reed Chorus needs high, sharper mixture tone to add the essential eclat to this exciting sound. *ALTERNATE MIXTURE* piston solve this problem.

For each manual Mixture stop on the *GLASGOW 740,* there is a lighted *ALT MIX* piston. When operated, it directs the microprocessor to assign a completely different Mixture—different in pitch and structure—to the Mixture stop tablet with which it is associated. In the unaltered state, the Mixtures are in the lower, more "accompanimental" form. When the *ALT MIX* is pressed, it lights and indicates that the altered state—higher pitched and brighter composition—is in effect. The *ALTERNATE MIXTURE* pistons may be set on their respective divisional pistons or on the Generals.

CRESCENDO AND EXPRESSION PEDALS

On the York 650 and Kent 705B there is one Expression Pedal. The Glasgow 740B has one Expression Pedal and a Crescendo Pedal (on the right). As the Crescendo Pedal is depressed, a predetermined selection of stops are added to the ensemble.

TUTTI PISTON AND TOE STUD (740B)

Sometimes it is desirable to have a full organ registration suddenly and quickly. To do so on the Glasgow 740B simply push the TUTTI Piston or TUTTI Toe Stud. To cancel the full organ (TUTTI), push the TUTTI Piston or the TUTTI Toe Stud again.

On your Rodgers Organ you can actually set your own Tutti. To do so, follow the instructions below.

TO READ WHAT IS SET ON TUTTI:
While holding TUTTI in, press the SET piston.

TO SET TUTTI:
Unlock Memory 2.
Set up your desired combination, then while holding SET in, press TUTTI.
Turn off the organ to relock the memory.

MAIN OFF/ANTIPHONAL ON CONTROLS

These tablets operate when an antiphonal speaker system is connected to your Rodgers Organ.

The basic concept of an antiphonal division is to place antiphonal speakers at the opposite end of the room from the main sound source. This placement allows greater musical flexibility because the sound originates from either end of the listening area, or from both ends simultaneously.

The MAIN OFF tab shuts off the sound of the main body of speakers, and the ANTIPHONAL ON tab turns on the auxiliary, or antiphonal speakers.

NOTE: If the MAIN OFF tab is depressed, the ANTIPHONAL ON must also be depressed, or the organ will not sound through either system.

TRANSPOSER

The Transposer will raise or lower the pitch of the organ four semitones (half-steps) in either direction. It is controlled by a knob at the right hand side jamb. The Transposer is especially useful for accompanying, eliminating the need to mentally transpose music on the printed sheet into a different key. Many singers need a key change to accommodate their voice range, sometimes as far as a major third in either direction. The Transposer accomplishes these key changes with the touch of a piston.

Another important feature of the Transposer is that it returns to normal pitch (0 piston) automatically when the organ is shut off. This avoids the problem of the organ being in the wrong key the next time it is played.

HEADPHONE JACK

Your Rodgers Organ has a a Headphone Jack located under the keydesk near your right knee. When you plug in a set of headphones, the speaker system shuts off, allowing you to play in privacy. It is recommended that you use a standard eight (8) ohm headphone set. Your Headphone Jack is designed to run only ONE set of headphones at a time.

PIPES OFF/ANCILLARY ON

On Pipe Augmented instruments, those voices marked with an asterisk (*) on pages 21 and 22 will normally be derived from real pipes. Turning both Pipes Off and Ancillary On Stop Tablets on turns off the pipes and tells the microprocessor to use the organ's electronic circuitry to create these voices. Turning the Ancillary On Stop Tablet on without the Pipes Off Stop Tablet allows both pipes and electronics to both play at once on any of the appropriate voices.

TUNING KNOB

Your Rodgers organ is equipped with a tuning compensation knob which allows you to tune the entire organ easily and quickly to a piano or other instrument which may not be at "Concert Pitch" when played with the organ. When the control knob is pushed in, the organ returns to "Concert Pitch" (A440).

If your organ is Pipe Augmented, the Tuning Knob will bring the pipes and electronics into tune with each other.

OPTION KNOB (740B)

Turning the Option Knob allows you to select Major, Minor, or Flemish-tuned carillons on the GLASGOW 740B.

ZIMBELSTERN (740B)

The Glasgow 740B is prepared for the optional ZIMBELSTERN. A reversible Toe Stud operates this feature on the Glasgow 740B.

PROGRAMMABLE ALTERNATE LEVEL SELECTIONS

In order to perform the following program features, the selector switch on the multifunction board (MFB) must be in the UP position.

(1) DUAL-LEVEL STOPS (MFB Switch Up)

Most of the Principal, Flute, and some reed stops are provided with selectable loud and soft volume levels. These levels are preset at the factory, but may be individually changed to their alternate levels if desired.

To select the desired stop volume level, press and hold the SET piston and press the POWER switch. The POWER switch light will start flashing. With the POWER switch flashing, press and hold SET and press General piston number 1. All stops on soft level will show LEDS with a steady light while loud levels will be shown by flashing LEDS. Non-programmable stops will remain dark. To change a stop volume level, simply depress the stop. The alternate level will then be displayed. Stop voices may not be heard at this time. To hear your selection press the POWER switch and the processor returns the organ to the playing mode with the new stop volume levels you have selected.

(2) CHIFF LEVELS (MFB Switch Up)

Most flute and some principal stops have selectable chiff levels. Chiff levels are preprogrammed at the factory, but may be changed or turned off.

To select the desired chiff levels, press and hold the SET piston and press the POWER switch. The POWER switch will start flashing. With the POWER switch flashing, press and hold SET and press General piston number 2. A selectable chiff is available on all stops that show a lighted LED when depressed. Now strike a key on the appropriate manual. The chiff level for that octave will be displayed on the transposer (this operation is on an octave-by-octave basis). Number 1 "sharp" is Chiff Off while 2, 3 and 4 "sharp" are volume levels. To turn off the chiff on a particular stop, turn the transposer knob to number 1 "sharp" and play a note in each octave of the keyboard, each time turning the transposer knob to number 1 "sharp" and restriking the key. To raise the volume level of the chiff follow the same procedure for each octave on the keyboard, but select number 2, 3 or 4 "sharp" on the transposer as desired. You may restrike the keys to hear the selection you have made. To return to the playing mode simply press the POWER switch. Your selections will be retained.

(3) LOCKING IN ALTERNATE LEVELS

Place the selector switch on the multifunction board (MFB) in the DOWN position. This will prevent anyone changing the Alternate Levels you have selected.

Care And Maintenance Of Your Rodgers Organ

As with any fine musical instrument, reasonable care is necessary to protect your investment in your Rodgers Organ. Normally, you should experience no difficulties because it has been carefully designed, and only the finest component parts are used in its manufacture. Even the finest equipment, however, is subject to occasional service. Your Rodgers Service Representative is fully equipped and qualified to handle any service problems which may arise.

Your new Rodgers organ is not only a fine musical instrument, but 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. Each finish coat is thoroughly dried before the next coat is applied. This results in a finish that is lasting and easy to keep looking beautiful. Following are a few tips on caring for your Rodgers organ.

CONSOLE AND PEDALBOARD

A frequent dusting with a soft, clean cloth is usually all that is required. For a lacquered finish, a small amount of commercial polish on the cloth will keep the organ smudge-free and help remove fingerprints. Waxes, oils, or silicone base polishes should not be used. For an oiled finish, a fine quality furniture oil will enhance the beauty of the wood. Always wipe the surfaces with the grain, using straight, even strokes.

Since extreme cold, heat, or exposure to sunlight may injure the finish of any fine piece of furniture, neither the console nor finished speaker cabinets should be placed over a heat register or near an open window.

KEYBOARDS AND STOP TABLETS

Keyboards and Stop Tablets should be cleaned with a soft cloth slightly dampened with water and a mild soap. Avoid dripping water between the keys. DO NOT USE SOLVENTS (alcohol, gasoline, carbon tetrachloride, etc.).

PLEXIGLAS MUSIC RACK

To clean your music rack use a soft cloth with a mild solution of soap and warm water. Wipe dry.

LEVELING GLIDES

To assure optimum performance and life of the moving parts of the console it should always be level. Uneven floors tend to distort the case over a period of time, and extreme stresses will damage the case work and equipment. The Leveling Glides are under each corner of the console and bench and are mounted on heavily-threaded pins. These may be adjusted as much as 1½ inches to compensate for irregularities in the floor. A carpenter's spirit level can assure the most accurate settings.

Rodgers Five-Year Limited Warranty

The Rodgers Organ Company warrants every part of your Rodgers console against defective materials for a period of five years beginning on the date of purchase (for original retail purchasers from an authorized Rodgers dealer only).

IT IS IMPORTANT THAT YOU COMPLETE THE WARRANTY REGISTRATION CARD INCLUDED WITH THIS MANUAL AND RETURN IT TO US TO VALIDATE YOUR WARRANTY!

Rodgers Limited Warranty provides any needed replacement parts during its five-year term. Labor, in connection with the replacement of parts, is not covered by the factory warranty. Contact your authorized Rodgers dealer for details on his labor warranty.

Complete factory warranty terms are spelled out in the Rodgers Limited Warranty certificate available at your Rodgers dealer or mailed to you upon receipt of your Warranty Registration Card.

A General Guide For Accompanying And Leading Congregational Singing

Since the primary use of keyboard instruments in the worship service is for rhythm leadership and pitch reference, a few words about the general use of pitch registers, i.e., 8′, 4′, 2′, etc., might be useful.

The human ear can identify pitch much easier, if the tone richness is increased by the addition of upper harmonics (overtones). When playing for a group of singers it is better to use manual stops of various piches, not just 8′ stops! If the group singing is in excess of 50 people, it is usually beneficial to the singers to add the Swell Plein Jeu IV as the first Mixture, followed by the Great Mixture IV. These would be added, of course, after the Foundations are playing at 8′, 4′, and 2′. It is also essential to build the musical tone upon a good foundation, so be sure there is adequate 16′ pedal tone to support the manual registration.

You will discover that the organ can be played at a lower dynamic level. When the sound is brighter, a lower volume with brighter sounds can lead congregational singing without offending listeners with the instrument's overall loudness. This is true whether the organ is either pipe, electronic, or a combination of pipes and electronics.

It is recommended that less experienced organists use the Foundations F or Foundations FF registrations for bold and majestic hymns and use the Foundations P and Foundations mF for more expressive and contemplative hymns. It is also musically correct to discreetly add the Swell to Great 4′ coupler in addition to the Swell to Great 8′ coupler when additional brilliance is required.

Registration Suggestions

The following pages of registrations are guidelines for selecting appropriate stops to match broad suggestions given in most printed organ literature. There will be variances of registration, depending upon the music, acoustics of the room, and the spirit of the performance.

One of the great joys of the Rodgers Organ is the incredible tone color possibilities. Your experiments with varying combinations of stops will prove a never-ending source of imaginative realizations of musical potential.

Great Organ Registration Suggestions

Given Suggestions	Appropriate Registration
Flute*	8′ BOURDON
String*	8′ GEMSHORN
Foundations p	8′ BOURDON 8′ GEMSHORN
Foundations mf	8′ BOURDON 8′ GEMSHORN 4′ FLUTE
Foundations f	8′ PRINCIPAL 8′ BOURDON 4′ OCTAVE 4′ FLUTE
Foundations ff	8′ PRINCIPAL 8′ BOURDON 4′ OCTAVE 4′ FLUTE 2′ SUPEROCTAVE
Full Great	8′ PRINCIPAL 8′ BOURDON 4′ OCTAVE 4′ FLUTE 2′ SUPEROCTAVE 2′ WALDFLOTE MIXTURE IV CORNET III

**Tremulant may be added*

SWELL ORGAN REGISTRATION SUGGESTIONS

Given Suggestions	Appropriate Registration
Flutes*	8′ GEDACKT
Strings*	8′ SALICIONAL 8′ GEMSHORN CELESTE II
Reed (Solo)*	8′ TROMPETTE OR 8′ OBOE
Reed (Big Solo)	8′ FESTIVAL TRUMPET 8′ TROMPETTE REEDS FF
Reed Chorus (650/705)	8′ TROMPETTE 16′ SWELL TO SWELL 4′ SWELL TO SWELL
Reed Chorus (740B)	16′ CONTRE TROMPETTE 8′ TROMPETTE 4′ CLAIRON
Foundations p	8′ SALICIONAL 8′ GEDACKT
Foundations mf	8′ SALICIONAL 8′ GEDACKT 4′ NACHTHORN
Foundations f	8′ SALICIONAL 8′ GEDACKT 4′ PRINCIPAL 4′ NACHTHORN 2′ BLOCKFLOTE
Full Swell	16′ BOURDON DOUX 8′ SALICIONAL 8′ GEDACKT 4′ PRINCIPAL 4′ NACHTHORN 2′ BLOCKFLOTE PLEIN JEU IV 8′ TROMPETTE

**Tremulant may be added*

PEDAL ORGAN REGISTRATION SUGGESTIONS

Given Suggestions	Appropriate Registration
Flutes	16′ SUBBASS 8′ FLUTE
Foundations p	16′ BOURDON DOUX
Foundations mf	16′ SUBBASS 8′ FLUTE
Foundations f	16′ BOURDON DOUX 16′ SUBBASS 8′ OCTAVE 8′ FLUTE 4′ CHORALBASS
Full Pedal	32′ CONTRE BOURDON (740) 16′ SUBBASS 16′ BOURDON DOUX 8′ OCTAVE 8′ FLUTE 4′ CHORALBASS 2′ FLUTE MIXTURE IV 16′ CONTRE TROMPETTE
Pedal Solo	4′ CHORALBASS or 4′ NACHTHORN 2′ FLUTE

LARGER ENSEMBLE SOUNDS

FULL ENGLISH SWELL COUPLED TO F FOUNDATIONS ON GREAT

SWELL	GREAT	PEDAL
8′ SALICIONAL	8′ PRINCIPAL	16′ SUBBASS
4′ PRINCIPAL	8′ BOURDON	16′ BOURDON DOUX
4′ NACHTHORN	4′ OCTAVE	8′ OCTAVE
2′ BLOCKFLÖTE	4′ FLUTE	8′ FLUTE
IV PLEIN JEU	16′ SWELL TO GREAT	4′ CHORALBASS
8′ TROMPETTE	AND/OR	8′ SWELL TO PEDAL
	8′ SWELL TO GREAT	

Both hands are on the Great Manual. For Variation, both hands can be placed on the Swell.

For a special emphasis on the melody line; press the Solo piston. Playing with both hands on the Great you will have the top note emphasized by the Swell voices.

SUGGESTED FULL ORGAN

SWELL	GREAT	PEDAL
16′ BOURDON DOUX	8′ PRINCIPAL	32′ CONTRE BOURDON (740)
8′ SALICIONAL	8′ BOURDON	16′ SUBBASS
8′ GEDACKT	4′ OCTAVE	16′ BOURDON DOUX
4′ PRINCIPAL	4′ FLUTE	8′ OCTAVE
4′ NACHTHORN	2′ SUPEROCTAVE	8′ FLUTE
2′ BLOCKFLÖTE	IV MIXTURE	4′ CHORALBASS
IV PLEIN JEU	8′ SWELL TO GREAT	IV MIXTURE
8′ TROMPETTE		16′ CONTRE TROMPETTE
		8′ GREAT TO PEDAL
		8′ SWELL TO PEDAL

SUGGESTED SOLO REGISTRATIONS

	GREAT	SWELL	PEDAL
REED SOLO (For Lyric Use)	8′ GEMSHORN	8′ OBOE	16′ BOURDON DOUX
REED SOLO (For Processionals)	8′ BOURDON 8′ GEMSHORNE 4′ OCTAVE (2′ WALDFLÖTE)	8′ TROMPETTE	16′ SUBBASS 8′ OCTAVE 8′ FLUTE 4′ NACHTHORN
FLUTE SOLO (with orchestral accompaniment)	8′ BOURDON	8′ GAMBA	16′ BOURDON DOUX
May be inverted as follows:	8′ GEMSHORN (Tremulant)	8′ GEDACKT	16′ BOURDON DOUX
CORNET (On Swell with mP Foundations on Great[1])	8′ GEMSHORN (4′ FLUTE) (Tremulant)	8′ GEDACKT (4′ NACHTHORN) 2⅔′ NASARD 2′ BLOCKFLÖTE 1⅗′ TIERCE	16′ BOURDON DOUX 8′ FLUTE (4′ NACHTHORN)
DIALOGUE FLUTES (Uncouple manuals and pedal)	8′ BOURDON 4′ FLUTE	8′ GEDACKT 2⅔′ NASARD (1′ SIFFLÖTE)	16′ BOURDON DOUX 8′ FLUTE (2′ FLUTE)

[1]Common Classic-Baroque sound of French and German origin.

Since many denominations use more vibrant organ tones for congregational singing, we are including some registrations designed specifically with tremulants on, especially the Flute Tremulant Full tab.

SOFT FOUNDATION TONE

SWELL
8′ GEDACKT
8′ SALICIONAL
4′ NACHTHORN

GREAT
8′ BOURDON
8′ GEMSHORN
(HARP)
MAIN TREMULANT

PEDAL
16′ BOURDON DOUX
8′ FLUTE

GENERAL
FLUTE TREMULANT FULL

SWELL MELODIC SOLO (with mF Accompaniment Great)

SWELL
8′ GEDACKT
8′ SALICIONAL
4′ NACHTHORN
2⅔′ NASARD
1⅗′ TIERCE
1′ SIFFLÖTE
8′ OBOE

GREAT
8′ BOURDON
8′ GEMSHORN
4′ FLUTE
(HARP)
MAIN TREMULANT

PEDAL
16′ SUBBASS
8′ FLUTE
8′ GREAT TO PEDAL

GENERAL
FLUTE TREMULANT FULL

REED CHORUS AND PRINCIPAL CHORUS

Very commonly called for in organ literature are the Reed Chorus and Principal Chorus. It is also common to include the Swell IV Plein Jeu (the Swell Mixture) with the 8′ Trompette to give additional sparkle and texture to the Reed tone.

SWELL
IV PLEIN JEU
8′ TROMPETTE
16′ SWELL TO SWELL
4′ SWELL TO SWELL
or (on 740B)
16′ CONTRE TROMPETTE
8′ TROMPETTE
4′ CLAIRON

GREAT
8′ PRINCIPAL
4′ OCTAVE
2′ WALDFLÖTE
IV MIXTURE

PEDAL
16′ SUBBASS
8′ OCTAVE
8′ FLUTE
4′ CHORALBASS
IV MIXTURE
8′ SWELL TO PEDAL

York 650B/Kent 705B
Combination Action Factory Presets

Stop Name	Piston Number Memory 1					Memory 2					L/S
SWELL	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**	**L/S**
Bourdon Doux 16′											S
Gedackt 8′			•	•	•		•	•		•	L
Salicional 8′			•	•	•					•	
Gemshorn Celeste II	•										
Flute Celeste II		•				•					
Principal 4′				•	•					•	L
Nachthorn 4′		•	•	•	•		•			•	L
Nasard 2⅔′											S
Blockflote 2′				•	•			•		•	S
Tierce 1⅗′											S
Sifflote 1′											S
Plein Jeu IV					•					•	S
Cymbel II								•		•	L
Festival Trumpet 8′									•		
Trompette 8′									•	•	L
Oboe 8′		•									
Swell to Swell 16′											
Swell Unison Off											
Swell to Swell 4′											
POSITIV	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**	**L/S**
Bourdon 8′				•	•					•	
Principal 4′					•					•	
Flute 4′											
Octave 2′										•	
Quint 1⅓′											
Pipe Tremulant											
GENERAL	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**	**L/S**
Flute Tremulant Full											
Main Off											
Antiphonal On											
Great/Pedal Pipes Off	•	•									
Great/Pedal Ancillary On	•	•	•	•	•	•	•	•	•	•	

Stop Name	Piston Number Memory 1					Memory 2					L/S
PEDAL (no blank)	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**	**L/S**
Subbass 16′				•	•				•	•	
Bourdon Doux 16′	•	•	•	•	•	•	•	•	•	•	
Octave 8′				•	•				•	•	L
Flute 8′			•	•	•		•	•	•	•	L
Choralbass 4′				•	•				•	•	L
Nachthorn 4′					•			•	•	•	L
Flute 2′					•					•	L
Mixture IV										•	S
Contre Trompette 16′										•	L
Great to Pedal 8′										•	
Swell to Pedal 8′					•					•	
Swell to Pedal 4′											
GREAT	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**	**L/S**
Principal 8′			•	•	•				•	•	
Bourdon 8′	•		•	•	•		•	•	•	•	L
Gemshorn 8′								•			
Octave 4′				•	•			•	•	•	L
Flute 4′	•		•	•	•				•	•	L
Nasat 2⅔′											S
Superoctave 2′					•					•	L
Waldflote 2′			•	•				•	•	•	L
Cornet III							•				S
Mixture IV										•	L
Main Tremulant		•									
Swell to Great 16′											
Swell to Great 8′			•	•	•					•	
Swell to Great 4′											
Harp		•									
Carillon						•					
Grand Piano 16′											
Piano 8′											
Harpsichord											
GENERALS	**1**	**2**	**3**	**4**	**5**	**1**	**2**	**3**	**4**	**5**	**L/S**
Main Chorus Off											
Reeds ff									•		
Celeste Transfer		•									

GLASGOW 740B COMBINATION ACTION FACTORY PRESETS

Stop Name	Piston Number: Generals									Divisionals			
SWELL	**T**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**1**	**2**	**3**	**4**
Bourdon Doux 16′									•				•
Gedackt 8′	•				•	•	•		•		•	•	•
Salicional 8′	•				•	•	•		•			•	•
Gemshorn Celeste II		•		•						•			
Flute Celeste II			•	•									
Principal 4′	•					•	•		•			•	•
Nachthorn 4′	•		•		•	•	•		•		•	•	•
Nasard 2⅔													
Blockflote 2′	•					•	•		•				•
Tierce 1⅗′													
Sifflote 1′	•												
Plein Jeu IV	•						•		•				•
Cymbel II	•								•				•
Contre Trompette 16′	•								•				•
Festival Trompette 8′								•					
Trompette 8′	•							•	•				•
Oboe 8′	•		•										
Clairon 4′	•												•
Tremulant			•	•									
Swell to Swell 16′	•												
Swell Unison Off													
Swell to Swell 4′	•			•									
POSITIV	**T**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**1**	**2**	**3**	**4**
Bourdon 8′	•					•	•		•				
Principal 4′	•						•		•				
Flute 4′													
Octave 2′	•								•				
Quint 1⅓′													
Pipe Tremulant													
GENERAL	**T**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**1**	**2**	**3**	**4**
Flute Tremulant Full													
Main Off													
Antiphonal On													
Great/Pedal Pipes Off													
Great/Pedal Ancillary On	•	•	•	•	•	•	•	•	•				

GLASGOW 740B COMBINATION ACTION FACTORY PRESETS (Cont.)

PEDAL	T	1	2	3	4	5	6	7	8	1	2	3	4
Contre Bourdon 32′	•							•	•				•
Subbass 16′	•			•	•	•	•	•	•			•	•
Bourdon Doux 16′	•	•	•	•	•	•	•		•	•	•	•	•
Octave 8′	•					•	•	•	•			•	•
Flute 8′			•	•	•	•	•	•	•		•	•	•
Choralbass 4′	•					•	•	•	•			•	•
Nachthorn 4′					•	•	•	•	•			•	•
Flute 2′	•					•	•		•			•	•
Mixture IV	•						•		•			•	•
Contre Trompette 16′	•								•				
Great to Pedal 8′	•				•	•	•		•				
Swell to Pedal 8′	•			•	•	•	•		•				
Swell to Pedal 4′													
GREAT	**T**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**1**	**2**	**3**	**4**
Principal 8′	•				•	•	•		•			•	•
Bourdon 8′	•	•		•		•	•	•	•	•	•	•	•
Gemshorn 8′				•				•			•		
Octave 4′	•					•	•	•	•			•	•
Flute 4′	•			•	•	•	•	•	•		•	•	•
Nasat 2⅔′													
Superoctave 2′	•						•		•				•
Waldflote 2′	•					•		•	•				•
Cornet III													
Mixture IV	•								•				•
Main Tremulant				•	•								
Great to Great 4′	•												
Swell to Great 16′													
Swell to Great 8′	•	•		•	•	•	•		•				
Swell to Great 4′				•									
Harp			•										
Carillon													
Grand Piano 16′													
Piano 8′													
Harpsichord													
Piano Harpsichord Unexpressed													
GENERALS	**T**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**1**	**2**	**3**	**4**
Main Chorus Off													
Reeds ff	•							•					
Celeste Transfer			•										

GLASGOW 740B COMBINATION ACTION FACTORY PRESETS

Memory 2

Stop Name		Piston Number: Generals								Divisionals			
SWELL	**T**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**1**	**2**	**3**	**4**
Bourdon Doux 16′													
Gedackt 8′				•	•		•	•	•	•	•	•	•
Salicional 8′				•	•		•	•	•			•	•
Gemshorn Celeste II			•	•	•	•	•	•	•			•	•
Flute Celeste II		•	•					•	•	•		•	
Principal 4′					•								•
Nachthorn 4′				•	•	•	•	•		•		•	•
Nasard 2⅔												•	•
Blockflote 2′					•				•		•		•
Tierce 1⅗′												•	
Sifflote 1′													•
Plein Jeu IV													
Cymbel II													
Contre Trompette 16′													
Festival Trompette 8′													•
Trompette 8′									•				•
Oboe 8′								•	•			•	•
Clairon 4′													
Tremulant			•			•	•	•	•			•	•
Swell to Swell 16′			•			•	•	•	•			•	•
Swell Unison Off												•	
Swell to Swell 4′			•										
POSITIV	**T**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**1**	**2**	**3**	**4**
Bourdon 8′				•	•			•	•				
Principal 4′													
Flute 4′						•	•	•	•				
Octave 2′									•				
Quint 1⅓′													
Pipe Tremulant						•	•	•	•				
GENERAL	**T**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**1**	**2**	**3**	**4**
Flute Tremulant Full						•	•	•	•				
Main Off													
Antiphonal On													
Great/Pedal Pipes Off		•	•	•		•	•	•	•				
Great/Pedal Ancillary On		•	•	•	•	•	•	•	•				

GLASGOW 740B COMBINATION ACTION FACTORY PRESETS
Memory 2 (Cont.)

PEDAL	T	1	2	3	4	5	6	7	8	1	2	3	4
Contre Bourdon 32′													
Subbass 16′					•	•	•	•	•			•	•
Bourdon Doux 16′		•	•	•	•	•	•	•	•	•	•	•	•
Octave 8′						•	•	•				•	•
Flute 8′				•		•	•	•	•		•	•	•
Choralbass 4′													•
Nachthorn 4′													•
Flute 2′													
Mixture IV													
Contre Trompette 16′									•				•
Great to Pedal 8′							•	•	•				
Swell to Pedal 8′													
Swell to Pedal 4′													
GREAT	**T**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**1**	**2**	**3**	**4**
Principal 8′				•	•		•	•	•				
Bourdon 8′			•	•	•	•	•	•	•	•	•		
Gemshorn 8′					•	•	•	•	•			•	
Octave 4′					•			•	•				
Flute 4′				•	•		•	•	•		•	•	
Nasat 2⅔′													
Superoctave 2′													
Waldflote 2′					•				•				
Cornet III													
Mixture IV													
Main Tremulant						•	•	•	•				
Great to Great 4′													
Swell to Great 16′													
Swell to Great 8′				•	•								
Swell to Great 4′													
Harp			•			•					•		•
Carillon	•												
Grand Piano 16′													
Piano 8′													
Harpsichord													
Piano Harpsichord Unexpressed													
GENERALS	**T**	**1**	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**1**	**2**	**3**	**4**
Main Chorus Off													
Reed ff													
Gt Alternate Mixture													
Sw Alternate Mixture													
Celeste Transfer													

RODGERS YORK 650B, KENT 705B AND GLASGOW 740B
SPECIFICATIONS

GREAT ORGAN:
- *8′ Principal
- *8′ Bourdon
- 8′ Gemshorn
- *4′ Octave
- *4′ Flute
- *2⅔′ Nasat
- *2′ Super Octave
- *2′ Waldflöte
- Cornet III
- Mixture IV
- Tremulant
- 4′ Great to Great (740)
- 16′ Swell to Great
- 8′ Swell to Great
- 4′ Swell to Great
- Harp (705 & 740)
- Carillon (705 & 740)
- 16′ Grand Piano (prepared for)
- 8′ Piano (prepared for)
- Harpsichord (prepared for)
- Piano/Harpsichord Unexpressed (prepared for) (740)

SWELL ORGAN:
- 16′ Bourdon Doux
- 8′ Gedackt
- 8′ Salicional
- 8′ Gemshorn Celeste II
- 8′ Flute Celeste II
- 4′ Principal
- 4′ Nachthorn
- 2⅔′ Nasard
- 2′ Blockflöte
- 1⅗′ Tierce
- 1′ Sifflöte
- Plein Jeu IV
- Cymbale II
- 16′ Contre Trompette (740)
- 8′ Festival Trumpet
- 8′ Trompette
- 8′ Oboe
- 4′ Clairon (740)
- Tremulant
- 16′ Swell to Swell
- Swell Unison Off
- 4′ Swell to Swell

*Indicates pipe or pipe/electronic doubling on Pipe Augmented instruments.

POSITIV ORGAN:
(Provision/Pipes)
(No Electronics)
- *8′ Bourdon
- *4′ Principal
- *4′ Flute
- *2′ Octave
- *1⅓′ Quint
- Pipe Tremulant

PEDAL ORGAN:
- 32′ Contre Bourdon (740)
- 16′ Subbass
- 16′ Bourdon Doux
- 8′ Octave
- 8′ Flute
- *4′ Choralbass
- *4′ Nachthorn
- *2′ Flute
- Mixture IV
- 16′ Contre Trompette
- 8′ Great to Pedal
- 8′ Swell to Pedal
- 4′ Swell to Pedal

GENERALS:
- Celeste Transfer
- Flute Tremulant Full
- Main Chorus Off
- Reeds FF
- Main Off
- Antiphonal On
- Great/Pedal Pipes Off
- Great/Pedal Ancillary On

OPTIONS:
- Tracker Touch Keyboards
- Wooden Core Keyboards
- Reverse Color Wooden Keyboards
- Pipe Extensions
- Custom Finishes
- Piano/Harpsichord Voices

DIMENSIONS:
- Height: 48¼″ 122.6 cm
- Width: 59-⅝″ 151.5 cm
- Depth Without Pedalboard: 31″ 78.8 cm
- Depth with Pedalboard: 49¾″ 125.1 cm
- Console Weight: 600 lbs., 272 kg

FCC NOTICE

This instrument uses and generates small amounts of radio frequency energy. It has been type tested and found to comply with the most stringent limits for Class A or B computing devices in accordance with the specifications in Subpart J of Part 15 of the FCC Rules, which are designed to provide reasonable protection against radio and television interference in a residential installation.

If not installed and used in accordance with the instruction manual, this instrument might cause interference to some radio and television reception. In the unlikely event this occurs, the user is encouraged to try to correct the interference. The measures listed below are in order of simplicity.

A. Turn the organ off and on to see if it is really the cause of interference.

B. Move the line cord around (coil or uncoil it a different way), or route it differently to the power outlet, or try another outlet on a different circuit.

C. Move the organ farther away from the radio or television receiver, or orient one or both in a different direction.

D. Re-orient the receiver antenna, or move the antenna farther away from the organ.

E. Your dealer or serviceman will have other remedies, depending on your specific situation.

NOTES

General Terminology

These definitions apply to Rodgers electronic organs, pipe augmented organs and full pipe organs. Most definitions apply to the products of other builders, as well.

ACCESS CODE—A numeric sequence of up to eight digits that is chosen by the organist to be used as the combination to unlock one of the combination action memories for programming registrations.

ACTIVITY—An effect which in pipe organs, causes a slight random change, or a fluttering of the pure tone. In Rodgers electronic organs, unique digital circuitry causes random variation of the voices, imparting this pipe organ characteristic. The Chorus control activates this simulation of the natural interaction of pipes in a pipe organ.

AEOLIAN-SKINNER ORGAN COMPANY—The famous Boston-based organ builder, directed by G. Donald Harrison, that was responsible for many notable pipe organ installations and for the development of the "AMERICAN CLASSIC" school of organ building. In 1974, Rodgers purchased the complete scalings, records, drawings and files of this celebrated organ builder.

A.G.O.—The organization of organists, the American Guild of Organists. The A.G.O. grants proficiency degrees on the basis of annual examinations: Associate (A.A.G.O.) and Fellow (F.A.G.O.). It publishes a monthly magazine, *The American Organist*. This organization has set specifications for the standardization of organ consoles, placement and order of organ stop controls, inclusion of proper couplers, etc.

AIR PUFF—A natural speech characteristic of classically voiced pipes. It is a transitory effect that gives the initial breathiness heard from windblown pipes.

ALTERABLE CARILLON—A special programming of the Carillon stop on most Rodgers instruments that allows the organist access to three separate tunings: (1) Major-tuned bells, (2) Minor-tuned bells, and (3) Flemish-tuned bells.

ALTERNATE MIXTURE—An altered state for a mixture voice, where the microprocessor assigns a completely different mixture—higher in pitch and brighter in composition—to the mixture stop control. The alternate mixture provides the harmonic crown to the Reeds, while the normal mixture is designed for choral accompaniments.

ANCILLARY—On Rodgers Pipe Augmented Organs an electronic division that supplements stops that normally play pipes. The organist may choose to play only pipes, only electronics or both on these voices by using the Ancillary On and Pipes Off stop controls.

ANTIPHONAL—This organ division is usually placed at the opposite end of a room from the main organ. It is used for echo effects, alternating choruses, or for augmenting the the main organ in congregational singing. In pipe organs the Antiphonal is a separate division. In electronic instruments it would normally include most divisions speaking through a separate amplification and speaker system.

AUDIO CHANNELS—Separate electronic networks with amplification that carry the electronic organ's voices to the speaker system. Normally three (two manual channels and a separate pedal channel) is the least separation acceptable in a classical electronic organ.

AUTOMATIC TURN-OFF—Rodgers instruments are programmed to automatically turn themselves off if left idle for more than two hours. A warning is flashed to the organist before turning off, in case the organist wishes to reset the instrument. This feature prevents the organ from being left on by mistake.

BLOWER—Electric motor-driven units that produce the air supply necessary in a pipe organ.

CELESTE—A celeste is a special musical effect designed to create the "orchestral sound" of multiple identical instruments playing at the same time, e.g., as section of violins. On pipe organs and many Rodgers organs a double set of separate and individually tunable pitch sources are used to create celeste voices. Celeste effects and celeste tunings are methods of creating celeste sound when a separate set of pitch sources are not available.

CELESTE TRANSFER—A special microprocessor controlled coupler that allows celeste voices to transfer from the Swell Organ to the Great Organ creating celeste accompaniment on the Great for solo voices on the Swell Organ.

CHEST—A Honduras Mahogany airtight box that contains electric actions to release air streams into each pipe according to the keys operated causing the pipes to sound.

CHAMBER—A room, open on one side, in which the pipes are placed. The open side is often finished with grille cloth or opens directly into the church or auditorium. Tone chambers should ideally have an interior finish of hard plaster or Masonite for proper tone dispersion.

CHIFF—The transient harmonic component that precedes the tone in a pipe voiced in the classical manner. On electronic organs, this is created by the momentary keying of a higher pitch than the pitch being played. This type of articulation is useful in playing contrapuntal music.

CHOIR ORGAN—Generally denotes the bottom keyboard of a three-manual organ. This division operates as an accompanimental division, and also provides the stops for the traditional Positiv division. It contains both Principal and Flute ensembles with full couplers available to increase its flexibility.

COAXIAL CABLE—This single wire supply line that carries the data stream from the organ console to pipe chests or Glockenspiel.

COMBINATION ACTION—Any device on an organ by which previously selected groups of stops can be brought on at will by the depressing of a button (piston) or toe stud. The means by which these combinations are retained are:

- **Pre-Set:** Combinations that do not visibly affect the stops already set up on the stop rail. These combinations are selected and wired in at the factory. This system is used on very small pipe organs and on some inexpensive electronic organs, generally not of the type suitable for church use.
- **Hold-and-Set:** The combinations are retained by depressing the desired piston and physically moving the tabs to the desired positions while holding the piston in.
- **Capture:** The combinations are set by depressing a Setter Piston (marked SET) and then depressing the piston on which the combination is to be set. Releasing both pistons then *captures* the new combination.

Rodgers Dual Memory Combination Action operates in both the Hold-and-Set and Capture modes. No preset systems are used with Rodgers organs.

CONCERT PITCH—All Rodgers organs are set at the factory at "concert pitch " (A440) where middle A is tuned to a frequency of 440 Hertz (cycles) per second. Rodgers Tuning Control allows variation from A440 to match another instrument or pipes, then instantly retunes to A440 when the selector is pushed in.

CONTINUO—A special microprocessor device that allows stops or couplers of the Pedal Organ to sound from the lowest key being played in the bass of the Great Organ. This provides pedal bass without having to use the pedal keys. It is an extremely important feature for pianists substituting on the organ while learning pedal technique.

COUPLERS—There are two basic types:

- **Inter-Manual:** Enables an entire division to be played on another keyboard, usually at three different pitch levels (e.g., 16′ Swell to Great, 8′ Swell to Great, 4′ Swell to Great).
- **Intra-Manual:** Enables an entire division to be played against itself an octave higher or lower (e.g., 16′ Great to Great, 4′ Swell to Swell), or silenced altogether (e.g., Great Unison Off).

Sub couplers are at the 16′ pitch level, Unison couplers at the 8′ pitch and Super couplers at the 4′ pitch level. A.G.O. console specifications include all of these various types of couplers. Couplers greatly increase an organ's flexibility and are particularly important in increasing their resources available on moderate size instruments.

C.P.U.—Central Processing Unit. This is the microprocessor unit that controls a Rodgers organ. Many of the unique features of a Rodgers organ and much of Rodgers' high reliability level starts with this special organ computer.

CRESCENDO—In organ terminology, a Crescendo Pedal gradually adds a pre-selected succession of stops as it is depressed. When fully depressed, the Crescendo Pedal results in a Forte organ sound. Normal crescendo sequences cut out all percussion, celeste and tremulants when they are about one-third open. Rodgers Programmable Orchestral Crescendos give organists the chance to create their own crescendo sequences which may include celestes and tremulants for Romantic uses.

DIVIDED EXPRESSION—Denotes more than one expression pedal on an organ, so that voices on one division may be brought up in volume, while voices in another division may be kept soft.

DRAWKNOB—The oldest and most traditional manner of operating the stops of the organ. A knob, with the name of the stop on it, is drawn out to turn on the stop, pushed in to turn it off. Rodgers offers a lighted drawknob system which illuminates when turned on. Lighted drawknobs provide an immediate unmistakable indication of stops currently in use and do not tend to stick or have high current draw of mechanical systems. Because there is no physical movement when lighted drawknobs are activated by the combination action, the system is not only extremely reliable, but totally silent.

ECHO ORGAN—An antiphonal organ of refined and soft tone, often used for effects of a very ethereal nature.

EN CHAMADE—On pipe organs, a loud, horizontal solo reed stop. On Rodgers electronic organs, a special exponential horn and driver system with its own amplification, which carries only the loudest reed voice.

EXPRESSION SHOE—A foot-operated pedal which, on a pipe organ, opens and closes the venetian shutters of a swellbox, controlling the volume of an organ division. On Rodgers electronic organs, the expression shoe controls not only the volume, but also the treble, giving a "caged" sound when closed. This more closely resembles a pipe organ sound that a volume-only control can.

FACADE—The front display pipes that are exposed and visible on a pipe organ.

FINISHING—The judgmental process whereby the various tonal elements of an organ are adjusted, controlled, modified, and harnessed to provide the musical personality of the instrument. Finishing must be done on-site by a person with a fine ear and a sure knowledge of music. To be finished, an instrument must be voiceable. This custom fitting of an organ to its playing environment is vital to fine organ installations. Digital tone electronic organs cannot properly provide for on-site finishing since they cannot really be voiced in any manner analogous to voicing in a pipe organ.

FLEMISH-TUNING—The cluster of partials of Flemish Carillon where the tertian is flattened instead of natural as in the English Carillon. Flemish tuning is an alternate on most Rodgers carillons.

FLUE STOPS—Non-reed stops, namely the Foundation, Flute, and String families. Flues generate their tones by the action of a sheet of wind against a sharp lip. This sets a column of air in motion within the walls of the pipe, in the manner of a toy whistle.

FLUTES—The tonal family that supports the Principals and also provides another set of tonal colors for solo and accompaniment voices, Flutes may be open or stopped. Open flutes are full length flue stops such as the Hohlflote. Tapered flutes such as the Spitzflote are nar-

rower at their open tops. Stopped flutes speak an octave lower than their length would suggest because of the cap or stopper which closes the top of the pipe. The Holzgedackt and Bourdon are stopped flutes.

FOOT (PITCH)—The general term used to indicate the manner in which pitch is designated in an organ. A rank of pipes, the longest of which is 8 feet, will produce the standard concert pitch on an organ keyboard; consequently, such a stop is called an 8′ stop. A 16′ stop speaks the octave below; a 4′ stop speaks the octave above, etc.

FRACTIONAL PITCHES—Organ stops that speak other than unison or octave pitches (e.g., 5 1/3′, 2 2/3′, 1 3/5′, 1 1/3′). These are also called Mutations, and are useful in building up synthetic solo combinations or adding color to ensembles.

FUNDAMENTAL—The portion of the musical tone that defines the pitch of the tone to the ear, usually the lowest pitched harmonic of the tone.

GENERATOR (PITCH)—An electronic oscillator which generates a fixed pitch which, in Rodgers designs, is used as the pitch reference for a single note on the instrument. Divider oscillators are a shared or unified pitch generation system that, while less expensive to build, create problems in tonal versatility and sound. The single master clock (oscillator) system is the least expensive pitch generation system, but this shortcut results in poor organ ensemble and unauthentic celestes. In Rodgers organs, single master clock units are used only for piano/harpsichord voices. All actual organ voices use individual oscillators for pitch generation.

GENERATOR (TONE)—The distinct voicing network that shapes one of the waveforms generated by the pitch generator. Thus, a single pitch generator may generate different waveforms which are used to make many different voices in the organ. On Rodgers organs, the output of the pitch generator is fed into individual note voicing circuits. Each pitch has its own individual waveform with the volume of each note individually set for perfect scaling. Divider oscillator and master clock (oscillator) systems typically use only one waveshape per voice and all pitches of a voice are created from the exact same waveform. This results in the unauthentic bass and treble found on these instruments.

GLOCKENSPIEL—An authentic struck metal bar percussion voice that can provide an effective tonal accent. It is a separate device designed to be located remotely from the console.

GREAT ORGAN—The most important division of the organ. Other manual divisions usually couple to it with sub, unison, and super couplers. It is characterized by complete development of the Principal Chorus, the sound which is unique to the organ. It is the lower manual on two-manual organs, the middle manual on three-manual instruments.

HARMONIC—Any one of the many pitch partials that give a musical tone its primary quality is called a harmonic. The relative intensity of these harmonics, conversely, determines the tone quality of a given sound.

HEADPHONE JACK—A special jack for use with stereo headphones that, when actuated, shuts off organ speakers and pipes to allow silent practice without disturbing others.

KEYING—The process by which a pipe or tone generator is made to speak and cut off. On Rodgers electronic organs, individual voice keyers include separate attack and release controls by note. Digital recall systems and overall filter systems are unified in their attack and decay, typically using one overall system for all voices rather than the individual attack and decay by note of each voice found on the Rodgers.

KEYER—The circuitry which blocks or transmits an audio signal corresponding to one note of a scale. A keyer circuit may modify the input waveform and impart certain attack and decay characteristics. A keyer may be identified by type of waveform it transmits, or actual voice. If a device analogous to a rank of pipes exists within the electronic organ, it is the keyer. However, state-of-the-art electronics allow use of a single keyer note at various volume and filter levels which effectively allows one keyer to give the effect of many ranks of pipes. This is not true in organs creating voices from single digital waveforms or single overall voice filters.

LED—Light Emitting Diode, used to indicate on or off for organ voices on Rodgers LED stop tablet consoles. LEDs have lower current drain and are longer lasting than incandescent lamps.

MAIN ORGAN—The body of the instrument, usually containing the Choir, Great, Swell, and Pedal divisions. Echo divisions are built elsewhere in the auditorium.

MANUALS—Keyboards played with the hands.

MIXTURE—A compound stop consisting of two or more ranks of high-pitched unison and fifth sounding principal tone. These stops are used to reinforce the natural upper harmonics of a full ensemble, and add brilliance and definition. Alternate mixtures designed for use with reed choruses in playing great organ literature are standard on most Rodgers organs.

MUTATION—See "Fractional Pitches."

NATURALS—The white keys on the manuals and maple keys on the pedalboard. On some instruments, manual keys are "reversed" in color with a dark grenadilla wood used for the naturals.

OSCILLATOR—An electronic device that produces a sustained alternating impulse of electricity at a fixed pitch. The oscillator provides the pitch references for each note of the instrument. Rodgers oscillators are unaffected by temperature and humidity, with the highest stability in the industry, virtually eliminating the need for periodic organ tunings. Oscillators may be individual and tunable as on Rodgers electronic organs or unified without any individual adjustment available as on a master clock (oscillator) systems where one or a few oscillators are shared to create all pitches in the instrument. Rodgers does not use master clock systems except in its piano/harpsichord circuitry where a double system is used.

PEDAL—The organ division played by the feet. This division provides the bass line and foundation for the manual registrations, and has its own solo stops as well.

PEDALBOARD—The Pedal keyboard (clavier). The A.G.O. specifies a concave and radiating pedalboard of 32 notes.

PERCUSSIONS—Typical percussion voices on a classical organ include the Harp, Carillon and Chimes and often, on electronic organs, the Harpsichord and Piano. The Piano is used to provide the percussive sounds often called for in contemporary organ literature, while the Harpsichord is useful for a more traditional approach to percussive organ sound.

PIPE—The metal or wood single note windblown tone producing device that is the basis for pipe organ sound. The two basic types are the flue pipe and the reed pipe. Each pipe is its own pitch generator, tone generator, and audio system.

PIPE AUGMENTATION—The combining of windblown pipes with electronic voices to create a combination instrument with the main principal and flute choruses coming from real pipes and supplementary voices being generated electronically. Most Rodgers organs are programmed for the addition of pipes on installation or at a future date.

PISTONS—Finger operated push-button switches that access the organ's memory in the combination action. They are located on the piston rails below each keyboard. These pistons are also used to access special microprocessor test and voicing programs built into each Rodgers console.

PRINCIPALS—The tonal family unique to the organ that has no orchestral counterpart. The Principal Chorus (8′, 4′, 2′) is the base to which all other organ voices relate. Also sometimes called the Diapason. Rodgers principals are the most authentic and pipe-like of any electronic manufacturer.

PRESETS—See "Combination Action," number 1. Preset systems are no longer used on Rodgers organs.

RANK—In pipe terminology, a rank is defined as a set of pipes possessing a uniform tone quality, one pipe for each note on the keyboard. A rank, in electronic organs, is nearly impossible to define, due to the multiple sounds available from a single tone generator.

REED—One of the two classes of organ stops. A reed pipe generates its tone by the vibration of a brass tongue against a rectangular opening, the resulting tone being given security of pitch and timbre by a resonator placed on the reed assembly. Reeds are the most colorful organ family. They are used in choruses and as solo stops.

REGISTRATION—Choosing and combining stops to play a given piece of music. The art of combining the sounds of an organ in a given room to properly enhance the music being played.

REGULATION—A voicing procedure in which each note of each stop is adjusted to assure its proper relation to the other notes of the stop and that stop's relation to the rest of the organ.

REGULATOR—An air regulation device used to maintain even pressure within the pipe chest. This may be a separate device located between the blower and chest, or built into the chest itself (the Schwimmer system).

REVERBERATION—The ability of a room to sustain a sound. This quality is to be distinguished from an Echo, which is an undesirable repeated "bounce" between two parallel surfaces. Reverberation is generally measured in terms of the number of seconds required for a sound to die away completely.

REVERSIBLE ACTION—A device applied to certain critical couplers or stops on an organ that allows them to be drawn or retired through the operation of a piston or toe stud. Pressing the piston once turns on the device; pressing the piston again reverses the action. Reversibles are generally applied to the following: 8′ Great to Pedal, 8′ Swell to Pedal, 8′ Swell to Great, 32′ Stops.

SCALING—The modification of the harmonic structure throughout the compass of an individual voice. Rodgers electronic organ voices are scaled in imitation of organ pipes. Uniform harmonic structures, as in overall filter systems or digital tone systems, are less expensive to build, but are lifeless and musically uninteresting in comparison to a properly scaled voice.

SCHWIMMER—A built-in air regulator system used in many Rodgers pipe chests.

SET BUTTON—The piston that is pressed before pressing the piston on which a combination is to be set. This applies only to Capture Action.

SHARPS—The typically black keys of manuals and pedalboards. On Rodgers wooden-core keyboards, manual sharps are made of real ebony or rosewood (a nice variation to the more common black).

SOLO COUPLER—A special Rodgers microprocessor device that allows any stop or coupler of the Swell organ to sound from the highest key played on the Great manual. Thus, a solo and accompaniment can be played from the same manual. The Solo Coupler can be used with the Continuo to give the effect of two manuals and pedal all played from the Great keyboard.

SOSTENUTO—The Sostenuto allows a chord to be sustained without holding the keys down. Its use is called for frequently in piano transcriptions of orchestral accompaniments for choral works. It is also useful to sustain a chord when making registration changes or changing pages of music.

STOP—Strictly speaking, a stop is a chromatic series of tones of like tone quality, one tone for each key on the keyboard. In practice, a distinction is made between **speaking stops**

(defined above), and **non-speaking stops** (couplers, tremulants, antiphonal controls, expression couplers, etc.).

STOP TABLET—The hand engraved plastic tongue that identifies a stop (voice) and actuates that voice when turned on. Most Rodgers stop tablets use LEDs for an instantaneous indication of voices on. Totally silent when actuated by a memory piston, Rodgers LED stop tablets offer improved reliability over older, mechanical action designs. On Rodgers LED stop tablet consoles, the stop tablets are arranged in two rows with the Swell organ the first division on the top row and the Pedal organ first on the lower row, in line with A.G.O. console specifications.

STRAIGHT ORGAN—A pipe organ term for an organ that has a separate individual pipe for each note of each available voice on the instrument. Such a design can often be expanded musically by judicious unification, which increases the versatility of the instrument. No electronic organs can be properly termed "straight organs" since all involve the use of a limited number of pitch generators, tone generators and audio channels to create the effect of pipe organs with many more pitch, tone and sound sources.

STRINGS—These are smaller scaled principal stops that are decreased in volume and have brighter timbre. Strings are useful as accompanimental stops.

SUSTAIN—A device that permits a more gradual (decay) of the tone of a sound. Most commonly affecting only Flute, Harp, and Carillon stops.

SWELL ORGAN—The more romantic division of the organ, named for the fact that it is enclosed in a box with shutters on the front, giving it the ability to "swell" in volume. The Swell contains Solo and Chorus Reeds, as well as the Strings and Celeste stops and full intramanual couplers. It is normally the top manual on two or three manual organs.

SYNTHETIC REED—Using mutation pitches on the organ, one can often synthesize reed sounds that aren't found on that particular instrument. For instance, Flutes at 8′, 2⅔′, and 1⅗′, drawn together and played as a solo melody will make a fairly respectable Clarinet. A 4′ and 2⅔′ Flute (or an 8′ String and a 2⅔′ Flute) makes a good solo Oboe.

TEST FUNCTIONS—Rodgers instruments include several microprocessor self-test programs that may be used as an aid in trouble-shooting organ problems. In addition, the organ test mode also includes special chiff and level adjustment programs used in voicing the instrument.

TOE STUDS—Foot operated chrome switches that duplicate the memory pistons and are also used for the Tutti and reversibles.

TRANSPOSER—A device that raises or lowers the pitch of the organ in semitones (half-steps) allowing the organ to sound at a different pitch than it is played. Transposers should return to normal pitch when the memory cancel is used or the organ is shut off. In Rodgers Pipe Augmented organs, both the pipes and the electronics transpose.

TRACKER TOUCH—A mechanism applied to the keyboards of the modern organ, which simulates the top-resistant type of touch characteristic of the tracker-action pipe organ. This touch, available as an option on the Rodgers, promotes clean, articulate playing.

TREMULANT—A rhythmic undulation in pitch and/or volume that is used as a special effect. Individual divisions usually have their own tremulants with a Flute Tremulant Full used to create a Gospel sound from the flute stops.

TUNING CONTROL—A special control that allows Rodgers organs to be quickly tuned to a piano or other instrument not at "concert pitch." Pushing the control knob in quickly retunes the organ to A440. The tuning control does not affect the pipes on Rodgers Pipe Augmented instruments.

TUTTI—A Reversible Action which, when operated, instantly brings on Full Organ. When engaged again, the organ reverts back to its original registration, since this action does not affect the stop tabs. Rodgers' Tuttis are programmable by one organist.

TWEETER—The high-frequency reproducing unit of a High-Fidelity speaker; essential for clarity and brilliance in organ sound.

UNIFICATION—The switching process whereby a set of pipes or tone generators can be played at another pitch level (16′, 8′, 4′, 2⅔′, etc.) and/or another division of the organ to increase the instrument's versatility. Unification in an electronic organ is often combined with individual level controls, filters, etc., eliminating the missing notes and lack of tonal variation that are negatives to pipe organ unification. All electronic organs are unified. Pitch generators and tone generators are widely shared in all electronic organ designs with master clocks and a limited number of wave shapes unified to create electronic organs often claiming equivalency to relatively large pipe organs.

VAN ZOEREN, INC.—A pipe organ firm headed by Allan Van Zoeren, a noted pipe organ finisher and tonal expert. In 1984, CBS purchased Van Zoeren, Inc. as part of an expansion of Rodgers pipe organ building capabilities.

VOICING—The complex process following the testing of an organ, in which every stop in the instrument is carefully scaled and graded for correct tone quality. This also involves making sure that each stop adds into the ensemble, without asserting itself unduly. A good deal of this is done at the factory, but it culminates in the finishing process at the installation site. Digital tone organ systems are incapable of on-site voicing by individual notes or voices. Overall filter per voice organ systems may or may not include voicing by voice, but do not allow for adjustment of individual notes.

WOOFER—The large cone-type loudspeakers responsible for the production of the powerful low-frequency tones of an organ. For the profound 32′ tones, Rodgers uses specially designed twin 15″ woofers in a ported cabinet or the 30″ super woofer.

ZIMBELSTERN—A mechanical struck-bell device often located high up in the facade of European organs. Rodgers Zimbelstern uses eleven high-pitched bells struck by strategically placed clappers to produce a continuous series of high-pitched bell sounds, which augment the tonal color of the organ.

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