



Rodgers T787

Owner's Manual



SAFETY INSTRUCTIONS

| | | |
|---|---|---|
|  | CAUTION RISK OF ELECTRIC SHOCK DO NOT OPEN |  |
| ATTENTION: RISQUE DE CHOC ELECTRIQUE NE PAS OUVRIR | | |
| CAUTION: TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT REMOVE COVER (OR BACK). NO USER-SERVICEABLE PARTS INSIDE. REFER SERVICING TO QUALIFIED SERVICE PERSONNEL. | | |



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the product.

INSTRUCTIONS PERTAINING TO A RISK OF FIRE, ELECTRIC SHOCK, OR INJURY TO PERSONS.

IMPORTANT SAFETY INSTRUCTIONS SAVE THESE INSTRUCTIONS

WARNING - When using electric products, basic precautions should always be followed, including the following:

1. Read these instructions.
2. Keep these instructions.
3. Heed all warnings.
4. Follow all instructions.
5. Do not use this apparatus near water.
6. Clean only with a damp cloth.
7. Do not block any of the ventilation openings. Install in accordance with the manufacturers instructions.
8. Do not install near any heat sources such as radiators, heat registers, stoves, or other apparatus (including amplifiers) that produce heat.
9. Do not defeat the safety purpose of the polarized or grounding-type plug. A polarized plug has two blades with one wider than the other. A grounding type plug has two blades and a third grounding prong. The wide blade or the third prong are provided for your safety. When the provided plug does not fit into your outlet, consult an electrician for replacement of the obsolete outlet.
10. Protect the power cord from being walked on or pinched particularly at plugs, convenience receptacles, and the point where they exit from the apparatus.
11. Only use attachments/accessories specified by the manufacturer.
12. Never use with a cart, stand, tripod, bracket, or table except as specified by the manufacturer, or sold with the apparatus. When a cart is used, use caution when moving the cart/apparatus combination to avoid injury from tip-over.
13. Unplug this apparatus during lightning storms or when unused for long periods of time.
14. Refer all servicing to qualified service personnel. Servicing is required when the apparatus has been damaged in any way, such as power-supply cord or plug is damaged, liquid has been spilled or objects have fallen into the apparatus, the apparatus has been exposed to rain or moisture, does not operate normally, or has been dropped.



For the U.K.

IMPORTANT: THE WIRES IN THIS MAINS LEAD ARE COLOURED IN ACCORDANCE WITH THE FOLLOWING CODE.

BLUE: NEUTRAL
BROWN: LIVE

As the colours of the wires in the mains lead of this apparatus may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:

The wire which is coloured BLUE must be connected to the terminal which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal which is marked with the letter L or coloured RED.
Under no circumstances must either of the above wires be connected to the earth terminal of a three pin plug.

Lithium Battery warning

Caution: Danger of explosion if lithium battery is incorrectly replaced. Replace only with same or equivalent type.

Manually operated mains power switch

Caution: The mains power switch does not completely disconnect this equipment from the mains power when the switch is in the off position. Remove power cord from mains outlet when servicing equipment.

FCC NOTICE

Radio and Television Interference

Rodgers Trillium organs use and generate small amounts of radio-frequency (RF) energy. The instrument complies with the limits set for Class B computing devices. FCC Rules, Part 15, Subpart J define the limits for radio and television interference in a residential installation.

Follow the installation and the use instruction in the manual, or the instrument could potentially cause interference with some radio or television reception. In the unlikely event this occurs, we encourage the user to try the following corrective measures:

- ✓ Turn the instrument OFF to see if it is the actual source of the interference.
- ✓ Disconnect the peripheral devices and their input/output cables one at a time. If the interference stops, it is caused by the peripheral device or its I/O cable.
- ✓ Try coiling and uncoiling the instrument's power cord in different ways.
- ✓ Connect the instrument's power cord to a power outlet on a different circuit.
- ✓ Move the instrument further away from the radio or television receiver.
- ✓ Turn the radio or television receiver until the interference stops.
- ✓ Connect the radio or television receiver to a different power circuit.
- ✓ Reorient or move the receiver antenna further away from the instrument. Consider installing a rooftop antenna with coaxial cable lead-in between the antenna and receiver.
- ✓ Consult the nearest Rodgers dealer for more information if the above corrective measures don't remove the interference.

NOTICE TO USERS

Information in this document is subject to change without notice. No part of this manual may be translated into any language, stored in a retrieval system, reproduced or transmitted in any form or by any means, electronic or mechanical, including photocopying and recording, for any purpose without the express written permission of **Rodgers Instruments LLC**.

RODGERS INSTRUMENTS LLC

1300 N.E. 25th Avenue
Hillsboro, Oregon 97124
USA
(503) 648-4181
www.rodgersinstruments.com

RODGERS IN CANADA

5480 Parkwood Way
Richmond, B.C. V6V 2M4
(604) 270-6332

©Copyright 2000. Rodgers Instruments LLC, a member of the Roland Group. All rights reserved. Printed in the United States of America. QuickMenu™, Rodgers®, Rodgers Classic Organs®, Digital Dynamic Wind™, Dimensional Sound Modeling®, Parallel Digital Imaging®, Voice Palette™, DVM™, PDI™, TrueChimes™, Rodgers SmartCard™, and Trillium™ are trademarks or registered trademarks of Rodgers Instruments LLC, Hillsboro, Oregon. RSS® is a registered trademark of the Roland Corporation.

CONTENTS

| | |
|--|-----|
| SAFETY INSTRUCTIONS..... | I |
| FCC NOTICE | II |
| Radio and Television Interference | ii |
| NOTICE TO USERS | III |
| CONTENTS..... | V |
| INTRODUCTION | 2 |
| How to Use this Manual | 2 |
| QUICK TOUR | 4 |
| Console Controls..... | 4 |
| Turn On/Turn Off | 4 |
| Manuals and Pedalboard | 5 |
| Activating Stops..... | 5 |
| Couplers | 5 |
| General Cancel..... | 6 |
| Using Pistons to Select Registrations | 6 |
| About General and Divisional Pistons..... | 6 |
| Setting a Piston | 8 |
| Combination Memory Levels | 8 |
| Unlocking and Locking a Combination Memory | 9 |
| Reversibles..... | 9 |
| Expression Shoes and Controls..... | 10 |
| Crescendo Pedal and Controls | 10 |
| Transposer..... | 10 |
| Tremulants | 11 |
| Tutti..... | 11 |
| Melody Coupler | 12 |
| Bass Coupler | 12 |
| FEATURES | 13 |
| Console Displays, Indicators, and Menus..... | 13 |
| QuickMenu™ | 13 |
| Changing a Setting with QuickMenu..... | 14 |

| | |
|--|----|
| Accessing Organ Control Functions with SET and the Select knob | 14 |
| Getting Menu Information | 16 |
| Console Menu Map..... | 16 |
| Master Tuning..... | 21 |
| Unlocking Master Tuning..... | 21 |
| Adjusting Pitch..... | 22 |
| Tremulant Controls | 22 |
| Adjusting Tremulant Settings | 22 |
| Crescendo..... | 23 |
| Unlocking Crescendo..... | 23 |
| Setting Crescendo Sequence | 23 |
| Locking Crescendo | 24 |
| Restoring Factory Crescendo Setting..... | 25 |
| TUTTI Settings | 25 |
| Viewing Tutti Setting..... | 25 |
| Unlocking or Locking Tutti | 25 |
| Setting Tutti | 26 |
| Restoring Factory Tutti Setting..... | 26 |
| Melody and Bass Couplers | 27 |
| Setting Range of the Melody Coupler | 27 |
| Setting Range of Bass Coupler | 27 |
| Antiphonal On/Main Off..... | 28 |
| Controlling Pipes | 28 |
| Pipes Off/Ancillary On | 28 |
| Automatic Shutdown Timer..... | 29 |
| Rodgers SmartCard Memory System™ | 29 |
| Inserting a SmartCard | 30 |
| Saving to a SmartCard | 30 |
| SmartCard Folders | 31 |
| Selecting a SmartCard Folder | 31 |
| Storing Tutti Settings on a SmartCard | 32 |
| Deleting a Tutti from a SmartCard | 32 |

| | |
|---|----|
| Storing Additional Settings on a SmartCard..... | 33 |
| Deleting Settings from a SmartCard..... | 33 |
| Deleting a Memory Level from a SmartCard..... | 33 |
| Using your SmartCard on Other Rodgers Organs..... | 33 |
| About Stop Families..... | 34 |
| Other Families..... | 34 |
| Pitch Designations..... | 35 |
| Celeste ranks..... | 36 |
| More about Couplers..... | 36 |
| Intermanual couplers..... | 36 |
| Pedal/Great Piston Coupler..... | 36 |
| Temperaments..... | 37 |
| Ancient Temperaments..... | 37 |
| Well Temperaments..... | 37 |
| Selecting a Temperament..... | 38 |
| Digital Dynamic Wind™..... | 39 |
| Wind Supply..... | 39 |
| Adjusting Wind Supply..... | 39 |
| Random Detuning..... | 40 |
| Shutter Thickness..... | 40 |
| Setting Shutter Thickness..... | 41 |
| Voice Palette..... | 42 |
| Making a Voice Palette Selection..... | 42 |
| Resetting Voice Palette Selections..... | 44 |
| Master Volume Control..... | 44 |
| Adjusting Master Volume..... | 44 |
| Audio Save..... | 45 |
| Saving Audio Control Settings..... | 45 |
| Stereo Headphone Jack..... | 45 |
| Adjusting Headphone Settings..... | 45 |
| Auxiliary Controls..... | 46 |
| Adjusting Auxiliary Inputs..... | 46 |
| Room Modeling..... | 48 |

| | |
|--|----|
| Adjusting Room Modeling Settings..... | 48 |
| Console Settings..... | 49 |
| MIDI (MUSICAL INSTRUMENT DIGITAL INTERFACE)..... | 50 |
| MIDI Coupler Settings..... | 50 |
| Tone | 50 |
| MIDI Channel | 54 |
| Octave Shift | 56 |
| Velocity..... | 57 |
| Pan..... | 60 |
| Sustain/Sostenuto/Soft | 61 |
| Reverb | 62 |
| Chorus | 63 |
| Expression..... | 63 |
| Global MIDI Settings..... | 64 |
| All Notes Off Command..... | 64 |
| Master Channels..... | 65 |
| Registrations | 66 |
| Multitrack Mode | 68 |
| Local On/Off..... | 69 |
| Sequencer Update | 70 |
| Setting Velocity Sensitivity | 72 |
| MIDI Device ID | 73 |
| Tone Names | 74 |
| MIDI Connections | 75 |
| MIDI Save..... | 75 |
| Saving MIDI Control Settings | 75 |
| Saving a Combination Memory to a Sequencer | 75 |
| Saving a Combination Memory | 75 |
| Restoring a Combination Memory..... | 76 |
| SPECIFICATIONS..... | 78 |
| Rodgers T787 Controls Specification..... | 78 |
| RODGERS T787 CONSOLE DIMENSIONS | 79 |
| FACTORY DEFAULT COMBINATION SETTINGS | 80 |

| | |
|--|----|
| Restoring Factory Default Combination Settings | 80 |
| DEMONSTRATION TOOLS | 82 |
| Accessing the Rodgers Ambiance Demo..... | 82 |
| Playing the Demo Songs..... | 82 |
| CARE AND MAINTENANCE..... | 84 |
| Console and Pedalboard..... | 84 |
| Keyboards and Stop Tabs | 84 |
| Pipes on Pipe-Augmented Instruments..... | 84 |

INTRODUCTION

Grand, glorious sound is the hallmark of the Rodgers Trillium™ 787. Providing a rich and spacious ensemble sound complemented by crystal-clear definition, the Rodgers T787 will take you to new musical heights, while sustaining the tradition of quality, craftsmanship and innovation you've come to expect from Rodgers.

Dimensional Sound Modeling® is the 21st Century standard in digital organ-building technology. Dimensional Sound Modeling ushers in a new era of choice and control to create authentic pipe organ sound and room acoustics as never before possible. Dimensional Sound Modeling technology takes you from virtual to reality. With unmatched user control over every major facet of the organ, you can create a sound and an acoustical environment modeled to your taste and musical needs.

The Rodgers T787 features Rodgers' exclusive Voice Palette™ system which allows you to easily access numerous additional sounds. These voices, available as alternate selections behind many stops, greatly expand the tonal resources of the instrument. Each selection can be easily stored in the organ's memory system, allowing you to authentically recreate virtually any musical style or individual performance desired with the push of a button.

With remarkable flexibility, superior sound and the option of adding real pipes at any time, the Rodgers T787 is a perfect choice for any home, concert or worship setting.

Built entirely in Oregon by dedicated, expert craftsmen, our consoles are meticulously handcrafted of hardwoods and veneers, and are designed to the exacting standards of the American Guild of Organists.

This manual will help with the exploration of the expansive capabilities and the variety of features and functions offered by this instrument. As highly sophisticated as the Rodgers T787 is, the features are easy to use and easy to access, creating a most satisfying musical experience for the player and listener alike.

To keep abreast of the latest news and other items of interest, visit the Rodgers website at: www.rodgersinstruments.com.

How to Use this Manual

This manual is divided into four main sections:

- Quick Tour** – An introduction to the T787. Use this section to familiarize yourself with the instrument. (Page 4).
- Features** – A more detailed description of controls and features. Use this section to find additional information about the capabilities and operation of the T787. (Page 13).
- MIDI** – A description of organ features and settings for use with an external MIDI (Musical Instrument Digital Interface) device. (Page 50).
- Specifications** – Dimensions and Stoplist. (Page 78).

QUICK TOUR

To get started, here is an overview of the basic operations of the Rodgers T787.

Console Controls

Many console controls which will be referred to in this overview are illustrated in Figure 1.

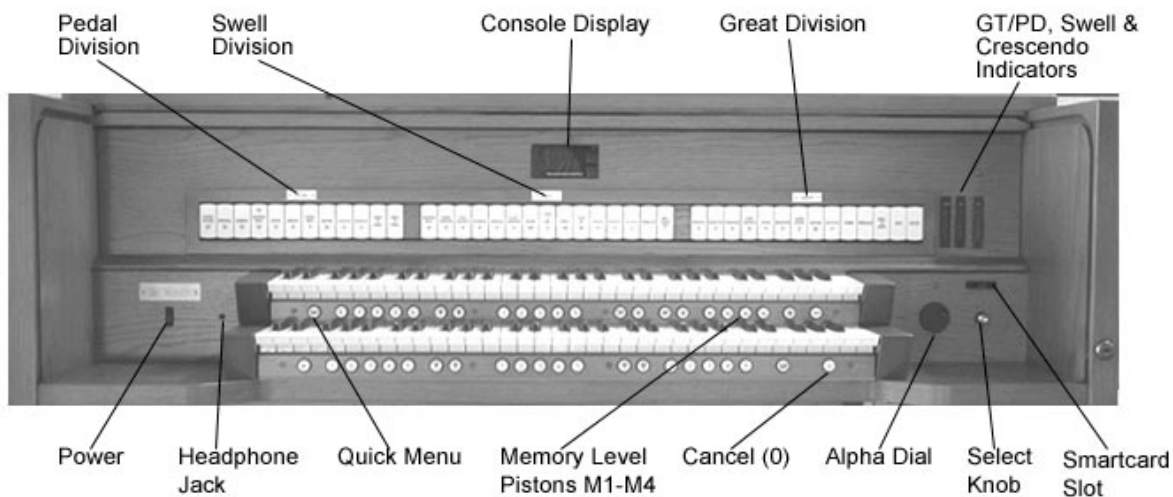


Figure 1. Console Controls.

Turn On/Turn Off

To turn the organ on:

1. Press and hold the top part of the On/Off switch in the left panel until **RODGERS T787 CLASSIC ORGAN** or your personalized greeting appears in the Console Display. Release the switch. The organ then performs a self diagnostic test of its systems over the next few seconds. When completed, the Console Display reads **TRANSPOSER 0** and shows the clock. The Rodgers T787 is ready to play.

To turn the organ off:

1. Press and hold the lower part of the On/Off rocker switch for 1-2 seconds, and release.



The organ is also equipped with a Automatic Shutdown feature. See page 29.

Manuals and Pedalboard

The T787 has two keyboards played by the hands, commonly referred to as **manuals**. In order from bottom to top, they are the **Great manual** and the **Swell manual**. Each manual plays an assortment of stops, known as a **division**. Stops played by the Great manual make up the **Great division**, and stops played by the Swell manual are referred to as the **Swell division**.

The keyboard played by the feet is referred to as the **pedalboard**, and stops which are played by the pedalboard make up the **Pedal division**.

The stops in each division are designated by nametags: **Great**, **Swell**, and **Pedal**.

Activating Stops

The term **stop** is used to describe a single voice on an organ. The T787 has a large array of stops, each of which is given a name, such as **Principal 8'**, **Clairon 4'**, **Mixture IV**, etc. A stop sound will be heard if it is activated and keys or pedals which control it are also activated. For example, the **Principal 8'** stop in the Great division will sound if it is activated and notes are played on the Great manual.

To activate a stop:

1. Press the bottom half of the rocker tablet until it lights, and release.

To silence a stop:

1. Press the top half of the rocker tablet until the light goes off, and release.

Couplers

A **Coupler** is a control which allows a division of the organ to be played from a different manual. For example, by activating the **Swell to Great** coupler, you could play stops in the Swell division from the Great manual. ("*Swell to Great*" literally means, "connect the *Swell* division to the *Great* manual").

These couplers are referred to as **intermanual couplers**, because they connect a division associated with one manual to an additional manual or to the pedalboard. They are activated by rocker tabs located above the Swell manual and allow you to control multiple divisions from one manual. Couplers allow you to control a larger portion of the organ from one manual or the pedalboard and are useful in achieving larger or more varied registrations.

To activate a coupler:

1. Press the bottom half of the rocker tablet until it lights, and release.

To disengage a coupler:

1. Press the top half of the rocker tablet. The light will go out.

General Cancel

Activated stops and couplers can be cleared quickly by pressing the **General Cancel** piston, (labeled '0') located under the Great manual on the right-hand side of the keyboard. Simply press and release this piston to cancel a registration.

Using Pistons to Select Registrations

By now, you may have experimented with combinations of stops and couplers and have started to get a feel for the tremendous versatility of the T787. In organ terms, these combinations of stops and couplers are referred to as **registrations**.

Obviously, once you've found a desirable registration, you'll want to be able to recall it quickly and easily. This is done through the **combination action** of the T787. With Rodgers' powerful digital technology, you can store and recall stops, pistons and even MIDI settings.



The Rodgers MIDI system is covered in great detail, starting on page 50.

The combination action of the T787 is comprised of **pistons**, each of which can store a combination of stops, couplers and other settings. These pistons are located beneath the manuals of the organ (commonly referred to as **thumb pistons**) or on the kneeboard to the left and right of the expression shoes (commonly referred to as **toe pistons**).

Pressing a piston with your thumb or foot will cause its stored registration to be recalled instantly.

Your Rodgers organ has factory-set registrations on many pistons – try them!

However, each of the available pistons in the Rodgers combination action can be easily changed to suit your particular needs and tastes. The next section introduces this extremely useful system and illustrates how to make use of its many features.

About General and Divisional Pistons

The T787 has two different types of pistons, **general** and **divisional** pistons. General pistons affect the entire organ, while divisional pistons affect a single division. For example, you could use a single *general* piston to recall stops, couplers and MIDI settings on every division at once, or you could use a Swell *divisional* piston to change the Swell alone.

General pistons, numbered 1 to 10, are located on thumb pistons under the left-hand side of the Great and Swell manual. In addition, they are duplicated on toe pistons to the left of the expression shoes.

To recall a registration stored on a general piston, you could press either the corresponding thumb piston or toe piston; in other words, to select general piston 7, you could either press thumb piston 7 under the Swell manual or toe piston 7 on the kneeboard. This duplication of pistons allows you to use either your thumb or foot to recall the same registration, depending on what is most convenient.

There are five divisional pistons for the Great and Swell; these pistons are numbered 1 to 5 and are located under the corresponding manual. For example, Great divisional pistons are located underneath the Great manual near the middle of the keyboard, and Swell divisional pistons are under the Swell manual.

Pedal divisional pistons are thumb pistons to the right of the Great divisional pistons numbered 1 to 5.

General pistons are commonly used to make changes which affect the entire instrument. Use these pistons when you want to affect all stops and couplers with a single control.

Divisional pistons work well when you want to affect only a single division. For example, if you want to change stops in the Swell without affecting the rest of the instrument, you could use a Swell divisional to change only the Swell registration.

Refer to Figure 2 for the location of general and divisional pistons.

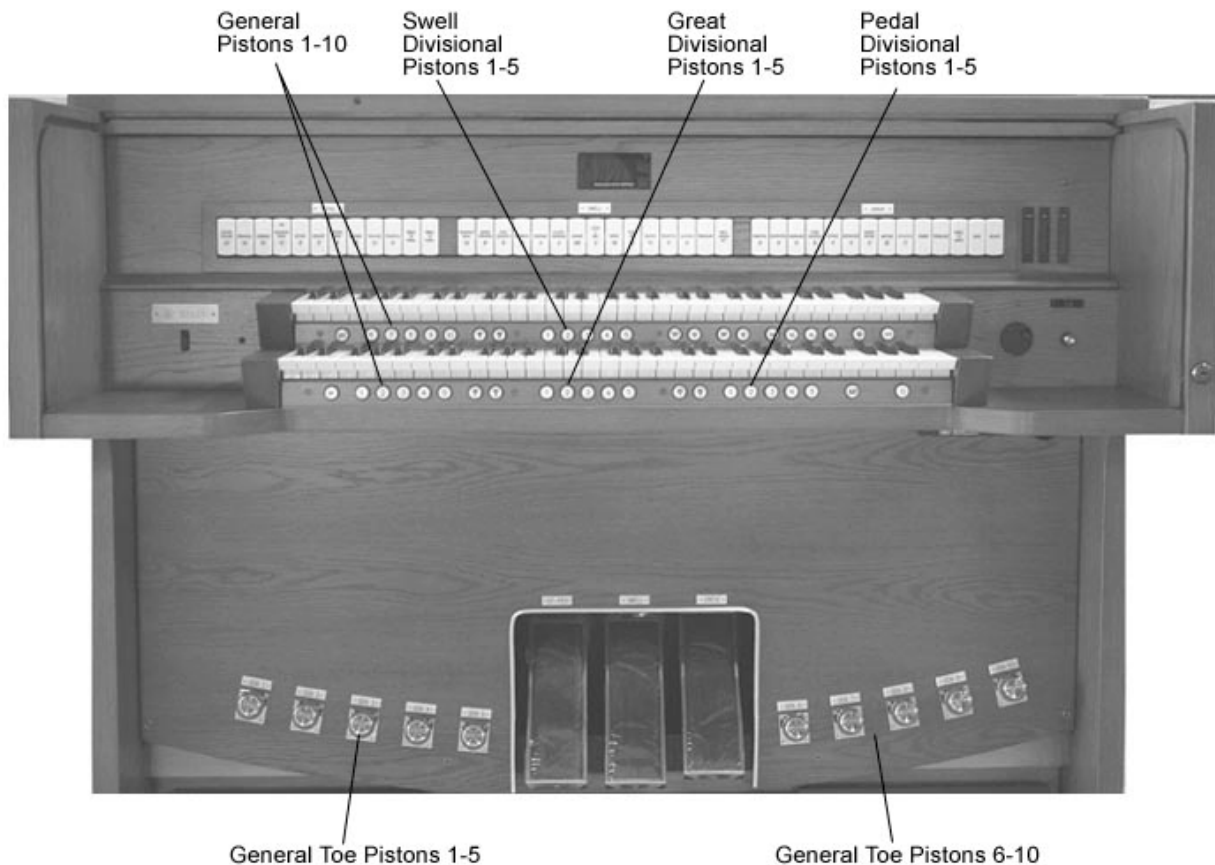


Figure 2. Piston Locations.

Setting a Piston

The Rodgers T787 is equipped with factory registrations, each of which can be used for a wide variety of wonderful musical effects. However, the contents of any piston can be easily changed to suit your particular needs.

To set a new registration on a piston:

1. Select the desired stops, couplers and MIDI settings.
2. Press and hold the SET piston, located on the left hand side under the Great manual.
3. While continuing to hold SET, press the piston to be programmed.
4. Release both pistons. The new registration is now stored.



A memory level must be unlocked before it can be changed. See below.

Combination Memory Levels

The T787's advanced combination action has four memory levels, effectively multiplying the number of available combination pistons by four. Pistons stored on one memory level don't affect those stored on other memory levels; each of the memories is independent.

Many organists keep regularly used registrations, such as those used for hymns, on one memory and use other memory levels for preludes, postludes and choral accompaniments, which may change week to week.

A variety of useful registrations are included with your new Rodgers T787. Memory 1 contains registrations commonly used for church and classical organ literature. Memory 2 contains orchestral registrations, and Memory 3 contains registrations from the Evangelical, Gospel and Theatre organ traditions.

Memory Levels can be selected by pressing the corresponding piston located on the left-hand side under the Choir manual. These pistons are labeled **M1**, **M2**, **M3** or **M4**.

To select a memory level:

1. Press the corresponding memory piston (**M1**, **M2**, **M3** or **M4**). It will light.

When the organ is powered on, **M1** is automatically selected.



Rodgers SmartCard Memory System™ gives you unlimited memory levels. See page 29 for more information.

Unlocking and Locking a Combination Memory

When shipped from the Rodgers factory, all memory levels are unlocked so that pistons can be changed easily. If desired, each memory level can be locked individually so that it cannot be changed.

To lock a memory level so that it cannot be changed:

1. Press and hold the memory piston (**M1**, **M2**, **M3** or **M4**) corresponding to the memory level you want to lock. **USING INTERNAL MEMORY** or **USING CARD MEMORY** will appear in the Console Display. Continue to hold the memory piston. After approximately 5 seconds, **MEMORY (#) UNLOCKED** or **MEMORY (#) LOCKED** appears in the Console Display.
2. If **MEMORY (#) LOCKED** appears, the memory level is already locked; release the memory piston. If **MEMORY (#) UNLOCKED** appears, go to step 3.
3. While continuing to hold the memory piston, rotate the Alpha dial until the console display reads **MEMORY (#) LOCKED**.
4. Release the memory piston. The memory is now locked.

To unlock a memory level so that it can be changed:

1. Press and hold the memory piston (**M1**, **M2**, **M3** or **M4**) corresponding to the memory level you want to unlock. **USING INTERNAL MEMORY** or **USING CARD MEMORY** will appear in the Console Display. Continue to hold the memory piston. After approximately 5 seconds, **MEMORY (#) UNLOCKED** or **MEMORY (#) LOCKED** appears in the Console Display.
2. If **MEMORY (#) UNLOCKED** appears, the memory level is already unlocked; release the memory piston. If **MEMORY (#) LOCKED** appears, go to step 3.
3. While continuing to hold the memory piston, rotate the Alpha dial until the console display reads **MEMORY (#) UNLOCKED**.
4. Release the memory piston. The memory is now unlocked.

Reversibles

The Rodgers T787 is equipped with a number of **reversible** controls, so named because pressing them once will activate them, pressing them again will turn them off. These reversibles, located on thumb and toe pistons, are especially useful in a performance when you want to quickly activate or remove a single coupler, stop or other setting.

Press the thumb or toe piston to turn on, and press again to turn off. All reversible thumb pistons light when engaged. Each specific function controlled by a reversible is also discussed elsewhere in the manual.

Expression Shoes and Controls

The Rodgers T787 has two **expression shoes** which are used to control the volume of the organ. The left shoe normally controls the volume of the Great and Pedal divisions and the middle shoe controls the volume of the Swell division. *See figure 3 below.*

Figure 3. Expression and Crescendo Shoes



When an expression shoe is pressed forward, the volume of the division increases; when the shoe is drawn back, the volume of the division decreases. The position of the two expression shoes are displayed on two expression indicators, located on the right-hand side of the coupler rail.

There are also a number of very useful features which allow you to modify the way the organ is expressed (i.e., how the volume is controlled). Each of these particular controls is activated by a thumb piston which can be set in a general combination. If the thumb piston is lit, the control is activated. These controls are each described next.

Crescendo Pedal and Controls

The slightly raised shoe on the right is the Crescendo shoe. This shoe gradually adds a predetermined selection of stops as it is pressed forward. It does not affect the stops already in use on the organ but merely adds to them as the Crescendo is activated. Closing the Crescendo shoe subtracts the stops in reverse order.

Stops added by the Crescendo shoe do not light as they are activated. A Crescendo indicator which shows the position of the Crescendo shoe is located on the right-hand side of the coupler rail next to the two expression indicators.

Transposer

The Transposer allows you to change the key of music played. Commonly, this is used to accommodate a soloist or instrumentalist who prefers accompaniment in a different key than what is written or to easily raise or lower the pitch of a hymn. The Transposer position is

normally shown in the Console Display. If another screen appears in the display (i.e., while programming a specific parameter), you can easily return to the Transposer by pressing the **General Cancel** thumb piston.

Turning the Select knob while **TRANSPOSER 0** is displayed lowers or raises the pitch of the organ as much as four semitones (half-steps). Rotating the Select knob clockwise raises the pitch of the organ by semitones; rotating counter-clockwise lowers the pitch by semitones.

Pressing General Cancel returns the Transposer to '0', (no transposition).

Tremulants

Tremulants create a change in pitch (sharp and flat), amplitude (volume) and timbre (tone quality). The use of the tremulant adds warmth and expressiveness to solo or small ensemble combinations. It is not common to use tremulants in larger classical ensembles. In some romantic ensembles, tremulants are used judiciously. In some gospel and evangelical musical traditions, tremulants with a wider and deeper excursion are frequently used.

There are two types of tremulant controls on the Rodgers T787; *divisional* tremulants which affect only the stops in their respective division and *general* tremulants which affect all divisions.

The two divisional tremulants are for Great and Swell; they are controlled by tabs within each division.

The general tremulant, Flute Tremulant II, is located on a thumb piston under the Swell manual, labeled **FLUTE TREM II**. This tremulant finds its best use in gospel, theatre and evangelical music. The Flute Trem II affects Flute voices.

A tremulant is activated by selecting its control (it will light). Divisional tremulants can be stored with registrations in both general and corresponding divisional pistons; general tremulants can only be stored on general pistons.



Each tremulant can be modified easily to suit your tastes and needs. See page 22.

Tutti

There are times when a full organ registration is needed immediately. **Tutti** controls allow you to engage full organ quickly without canceling the registration which is set.

To activate Tutti, press **TUTTI**. This control is located on both thumb pistons and toe pistons. As this is a reversible control, simply press it again to turn Tutti off and return to the current registration.

When Tutti is activated, the Tutti indicator located directly above the Crescendo indicator is lit. Pressing **General Cancel** will cancel Tutti.



Tutti can be reprogrammed, if desired. See page 26.

Melody Coupler

One of the most popular organ registrations utilizes a melody voice on one manual and accompaniment on another manual. Sometimes, however, it is difficult to separate the hands on two manuals. For this reason, the Rodgers **Melody coupler** was devised.

When a Melody coupler is activated, the highest note played on the Great manual uses a registration from another manual. This allows you to have both an accompaniment and solo registration, even though you're playing on one manual.

The coupler is located on a tab above the Swell manual. The Melody coupler lights when it is engaged.

When **MEL** is engaged, any selected stop or MIDI voice in the *Swell* division sounds from the highest key being played on the Great manual.

The Melody coupler is intended to be used when the corresponding intermanual coupler is not engaged. For example, when Melody is engaged, the Swell to Great couplers should not be used to achieve the proper "Melody" affect.

In its default setting, the Melody coupler operates when the top note (the *melody* note) is between keys 25 and 61 on the Great manual. However, the lower end of its range is programmable and may be extended down to key 13 or up to key 49. See page 27.



The Melody Coupler can be set only in General combination pistons.

Bass Coupler

The **Bass coupler** is much like the Melody coupler described above, except that it adds the Pedal registration to the lowest note played on the Great manual. This allows you to easily add a Pedal part to anything played on the Great manual.

The **BASS** coupler is located on a tab above the Swell manual. When engaged, the piston lights, and any selected registration in the Pedal division will sound from the lowest key being played on the Great manual. This provides a pedal bass sound without actually playing the pedalboard.

In the default setting, the Bass Coupler affects keys 1 through 24 of the Great manual, but its range is can extend up to key 32 (top of the pedalboard range). See page 27 for more details.



The Bass Coupler can be set only in General combination pistons.

FEATURES

The following section presents the capabilities of the T787 in greater detail. Use this portion of the Owner's Manual to become more familiar with the many innovative features of your fine Rodgers instrument.

Console Displays, Indicators, and Menus

The Rodgers T787 is equipped with an informative display for many of the console functions described in this section. The Console Display normally indicates the Transposer setting, however, it can be used to adjust many other controls and preferences including MIDI settings, Voice Palette selections, Dimensional Sound Modeling parameters, Tremulant rate and depth, and many others.

Two controls are used to select and modify the features found in the Console Display. The smaller knob is the *Select knob*; it is used to select the menu item to be changed. The larger recessed dial is called the *Alpha dial*; it is used to change the settings in a selected menu.

Most of the features which can be modified in the Console display will follow this pattern:

Select Knob – selects item to change

Alpha Dial – changes selected item

The following section will describe how the Console display is used, outline the basic navigation techniques and give you a map of what can be found and set by the organist. After that, each control found in the display will be described in more detail.

QuickMenu™

With the incredible number of features contained within the T787, a system was needed which would provide you quick, easy access. Rodgers' exclusive **QuickMenu** is the answer. QuickMenu offers simple, direct access to a myriad of functions.

These functions are arranged in a logical hierarchy, beginning with broad categories and continuing with menus that are functionally related to them. To access a particular control or feature of the T787, go first to the appropriate category and then access the desired menu from a list and change the desired setting.

The first level of the QuickMenu hierarchy contains categories, for example, **MIDI Settings**, **Pipe Modeling**, and **Room Modeling**, to name a few. The next level of the hierarchy contains a list of the names of menus that are functionally related to a selected category. The third level of the hierarchy displays a menu item with a user settable field.

Graphically, the QuickMenu hierarchy can be represented this way:

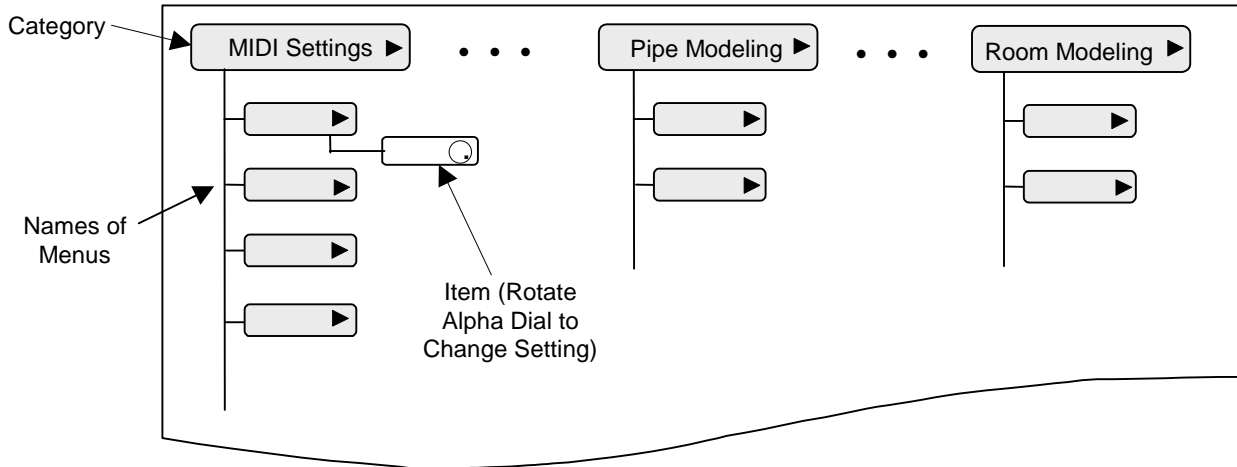


Figure 4. Category and Menu Hierarchy

Now that you have an idea about how the menus are organized, we'll discuss how to navigate through the menus using QuickMenu or by using the Select Knob and Alpha-Dial.

Changing a Setting with QuickMenu

To use QuickMenu to view or change settings:

1. Press and release the **QUICKMENU** piston (left side, under swell manual).
2. Turn the Select knob to select a desired category (it becomes highlighted).
3. Press and release the **QUICKMENU** piston. Menu items related to the selected category will be displayed.
4. Rotate the Select knob to display a particular menu name or item.
5. Rotate the Alpha dial to change the setting.

Press the **QUICKMENU** piston repeatedly to exit an item or menu and return to the category.

Accessing Organ Control Functions with SET and the Select knob

If desired, you can access all console functions with the **SET** piston and Select Knob alone (without using QuickMenu).





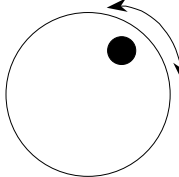

To access a console function with SET and Select:

1. Hold **SET** and turn the Select knob in either direction until the desired category is highlighted.
2. Release **SET** and turn the Select knob to select a menu name within a category.





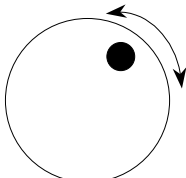

3. Rotate the Alpha dial to change settings in the selected menu.

To recap the differences between using QuickMenu and using SET and the Select Knob to navigate through the menus in the Console display:

From QuickMenu

- 1 Press  and release.
- 2 Turn Select knob  to select a desired category (it becomes highlighted).
- 3 Press  and turn Select knob  to display a particular item. Rotate the Alpha dial to change its setting. 
- 4 Press  to exit and implement changes.

With SET piston, Select knob, and Alpha dial

- 1 Press and hold  and turn Select knob  in either direction to move between categories.
- 2 Release  and turn Select knob  to move between menus and items. Selected menu or item is highlighted.
- 3 Turn Alpha dial  to change settings.
- 4 Press  to exit and implement changes.

Getting Menu Information

The T787 is also equipped with “help screens” which briefly describe the currently selected Category, Menu or Item. This is especially helpful when you want a hint about how to use a particular control.

To see the help screen for a particular window:

1. Select the desired Category, Menu or Item.
2. Press and hold the **QUICKMENU** piston and press **SET**.



A help window will appear that briefly describes the current window.



Console Menu Map









In previous sections, the organization of the menus and basic navigation techniques have been discussed. The following section is a listing of all of the parameters and controls which can be accessed and changed. Use the following table to familiarize yourself with the wide variety of controls available to you and see where they are located within the menu system.











The column on the far left is the Category which is selected first; the next three columns list Menus, Items and Settings. Each listing can be accessed with QuickMenu or SET and the Select Knob, as described above.
























Each of these parameters and controls is discussed later in this section of the manual; the following table is included here to give you a “road map” of the many controls available to you.

| Category | Menu | Item | Settings | Comments |
|--|-----------|----------------------|--------------------------|---|
| Transposer  See page 10. | | Transposer Tuning | 4b – 4# 427.5 – 452.8 | This default console menu appears when Cancel is pressed. |
| | | | | |
| SmartCard Memory System  See page 29. | SmartCard | Folder | A – Z | Category appears only when SmartCard is inserted. |

| Category | Menu | Item | Settings | Comments | |
|--|----------------|-------------|--|---|--|
| MIDI Couplers  See page 50. | Tone | Tone Names | PGM, MSB, LSB | Sets PGM, MSB, & LSB numbers or tone names. Tone names & numbers displayed. | |
| | Coupler | | GT A, GT B, PD A, PD B, SW A, SW B | | |
| | Channel | | 1 – 16 | | |
| | Octave | | DN2 – UP2 | | |
| | Velocity | | KBD, EXP, 2–127 | | |
| | Pan | | -64 – 64 | | |
| | Foot Switch | | Off, Sustain, Soft, Sostenuto | | |
| | Sustain | | ON, OFF | | |
| | Reverb | | 0 – 127 | | |
| | Chorus | | 0 – 127 | | |
| | Expression | | VOL, EXP, OFF | | |
| MIDI Settings  See page 64. | Multitrack | | ON, OFF | | |
| | Master Channel | PD, GT, SW | Off, Send, Receive, Send/Receive | | |
| | Registrations | Send | | None, Stops, Pistons, Stop/Piston | |
| | | Recv | | None, Stops, Pistons, Stop/Piston | |
| | Seq. Update | | ON, OFF | | |
| | Local | | ON, OFF | | |
| | Keybd Velocity | | LIGHT, NORMAL, HEAVY | | |
| | Device ID | | 1 – 32 | | |
| ToneNames | | Off, GM, GS | | | |

| Category | Menu | Item | Settings | Comments | |
|--|---|--------------|--|----------|---|
| Audio Control  See page 44 and following. | Master Volume | | -20.00 – 5.00  | | |
| | Aux In Audio | Main Volume | OFF– 6.25 | | This menu appears only when headphones are disconnected. |
| | | Main Balance | -10 – 10  | | |
| | | Ant Volume | OFF, -31.25 – 6.25 | | |
| | | Ant Balance | -10 – 10  | | |
| | | Bass | -14 – 14 | | |
| | | Treble | -14 – 14 | | |
| | | Gain Boost | 0 – 18.75 | | |
| | Aux to Ant | | Off, On | | |
| | Line Out Gain | | 0 – 18.75 | | |
| | Line Out Mode | | Stereo, Mono | | |
| | Headphone Aud  | Volume | -20.00 – 5.00 | | These adjustments appear only with headphone plug inserted into headphone jack. |
| | | Balance | -10 – 10  | | |
| | | Bass | -14 – 14 | | |
| | | Treble | -14 – 14 | | |
| | Aux In Audio  | Volume | OFF – 6.25 | | These adjustments appear only with headphone plug inserted into headphone jack. |
| | | Balance | -10 – 10  | | |
| Bass | | -14 – 14 | | | |
| Treble | | -14 – 14 | | | |
| Gain Boost | | 0 – 18.75 | | | |

| Category | Menu | Item | Settings | Comments |
|--|--|-------|---|--|
| Pipe Modeling  | Temperament  See page 38. | | Equal, Mean-Tone, Pythagorean, Kirnberger, Werckmster I, Werckmster III, Young I, Young II | |
| | Wind Supply  See page 39. | | Flexible, Normal, Fixed | |
| | Shutters  See page 40. | | PD, GT, SW  pp  ppp  pppp  UnEncl | |
| | Tremulants  See page 22. | | GT Main, GT Main II, GT Spare, GT Flute, GT Flute II, SW Main, SW Main II, SW Vox, SW Flute, SW Flute II | |
| | | Depth | -9 – 9 | |
| | | Rate | -9 – 9 | |
| Voice Palette  See page 42. | Stop | | Select from list | |
| | Voice | | Voice list | Changing stop also changes voices. See Making a Voice Palette Selection on page 42 for Stop and Voice combinations. |

| Category | Menu | Item | Settings | Comments |
|--|--|--------------|--|----------|
| Room Modeling  See page 48. | Room Size | |  Room  Stage  Sml hall  Med hall  Sml Church  Med church  Lrg church  Cathedral | |
| | Wall Type | |  Drapery  Carpet  Acou Tile  Wood  Brick  Plaster  Concrete  Marble | |
| | Rvb Lvl | | OFF, -20 – 5 | |
| Console  See page 49. | Lamp Level  | | BRIGHT, DIM | |
| | Pedal to Great Piston Coupler  | | OFF, ON | |
| | Master Tuning  | | Locked A=440, Adjustable, Manual Only | |
| | Time Set  | | Hrs, Min, AM/PM | |
| | Contrast  | LCD Contrast | 1 – 31 | |

Master Tuning

Normally, the Rodgers T787 is set to standard concert pitch (A=440.0Hz). However, it can easily and quickly be tuned flat or sharp to match the pitch of another musical instrument, such as a piano or harp. The Master Tuning control adjusts one-half semitone sharp or flat.

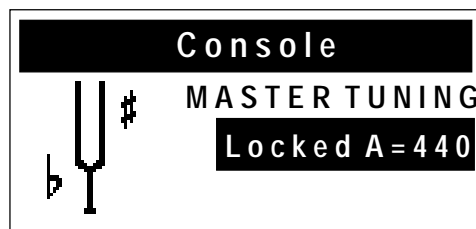
In instruments augmented with pipes, the Master Tuning feature is used to bring the electronics in tune with the pipes. The pitch returns to A=440.0 when the organ is turned off.

Normally, the Master Tuning control is locked and the Transposer is the only parameter in the default display (see page 10). However, when the Master Tuning control is unlocked, both the Transposer and Master Tuning settings appear in the display; each can be easily changed.

Unlocking Master Tuning

To unlock Master Tuning and allow it to be changed:

1. Press and release the **QUICKMENU** piston.
2. Turn the Select knob clockwise until the **Console** category shows on the display.
3. Press and release the **QUICKMENU** piston to select the Console category.
4. Turn the Select knob clockwise until **Master Tuning** appears.
5. Press and release the **QUICKMENU** piston to select Master Tuning. The following display will appear:



6. Rotate the Alpha dial to select either **Adjustable** or **Manual Only**. Either of these selections will unlock the Master Tuning control.
7. Press General Cancel ('0') to save your changes and exit.

The instrument will remember this selection when it is powered off.



*The difference between **Adjustable** and **Manual Only** Master Tuning settings is that in the Adjustable setting, pitch can be adjusted at the console or via an externally connected MIDI device. In the Manual Only setting, pitch can be adjusted only from the console (see below).*

Adjusting Pitch

Once the Master Tuning control has been unlocked, you can change the pitch of the T787 by rotating the Alpha dial clockwise to raise the pitch or counterclockwise to lower the pitch.

The Transposer function is still controlled by the Select Knob.



This setting is retained when the organ is turned off.

Tremulant Controls

The first section of this manual described how tremulants are activated, what stops they control and how they are often used. Another impressive feature of the T787 are the **User-Adjustable Tremulants**. Although the tremulants are carefully set at the factory and adjusted when the organ is voiced, each may be modified for rate and depth by the organist to meet a particular musical need or suit an individual taste.

What's more, the T787 has a number of tremulants per division, each of which can be adjusted individually. This allows you to custom-tailor a tremulant for a specific family of stops without affecting the rest of the stops in the division. This tremendous flexibility is a dramatic improvement over other designs, in which a single tremulant controls an entire division (sometimes, the entire instrument!).

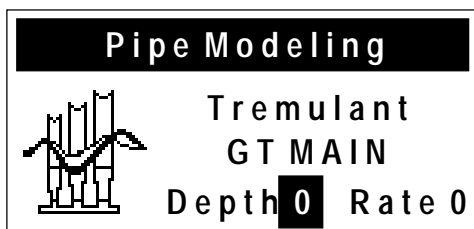
Following is a list of tremulants which can be easily adjusted, which stops they control and how they are activated.

| Division | Tremulant | Stop(s) Affected | Comments |
|----------|-----------|----------------------------|---|
| Great | Main | Principal, Reed and String | Activated when Great Tremulant is selected |
| | Spare | | Reserved for custom use |
| | Flute | Flute | Activated when Great Tremulant is selected |
| | Flute II | Flute | Activated when FLUTE TREM II is selected |
| Swell | Main | Principal, Reed and String | Activated when Swell Tremulant is selected |
| | Flute | Flute | Activated when Swell Tremulant is selected |
| | Flute II | Flute | Activated when FLUTE TREM II is selected |

Adjusting Tremulant Settings

To change the rate and depth for a tremulant:

1. Determine which tremulant you'd like to adjust from the table above.
2. Press and hold the **SET** piston.
3. While continuing to hold **SET**, activate the appropriate tremulant control (i.e., the tremulant control in the Great or Swell, or **FLUTE TREM II**). A screen like this is displayed :



(this screen would be displayed if the Great tremulant had been selected)

4. Release the **SET** piston.
5. If the tremulant you want to change is already selected in the display (**GT MAIN** or “Great Main” in the screen shown above), go to step 6. If not, turn the Select knob to highlight the tremulant name, then rotate the Alpha-Dial until the tremulant you want to change is shown in the display.
6. Turn the Select Knob and highlight the value for **Depth** or **Rate**.
7. Rotate the Alpha Dial until you achieve the desired result; the range for each of these settings is from **-9** to **+9**. You can preview your changes by selecting a corresponding stop and playing a note while making an adjustment.



These settings are retained when the instrument is turned off.

Crescendo

The Crescendo indicator is located to the far right above the swell manual. This indicates the progressive stages of the Crescendo as the shoe is opened.

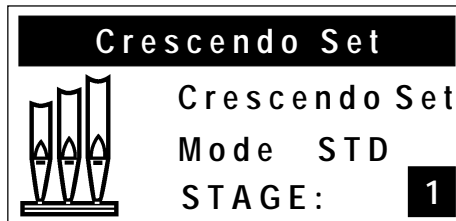
The Crescendo must be unlocked to set a Crescendo sequence. Once the sequence is set, it may be locked again to prevent accidental change.

Unlocking Crescendo

1. Press and hold the **GT/PED UNENCL** piston for approximately five seconds until **CRESCENDO LOCKED** appears in the Console Display.
2. While continuing to hold **GT/PED UNENCL**, rotate the Alpha Dial either direction until the Console Display reads **CRESCENDO UNLOCKED**.
3. Release the **GT/PED UNENCL** piston. The Crescendo is unlocked.

Setting Crescendo Sequence

1. Press and hold the **SET** piston.
2. Press the **GT/PED UNENCL** piston. The piston flashes and the Console Display reads:



The stops and couplers currently set on stage one of the 63 stages in the Crescendo sequence turn on.

3. The current sequence may be viewed by advancing through the stages one at a time using the Alpha Dial. At each stage, the stage number (1 to 63) is indicated in the Console Display, and the stops and couplers set at this stage turn on.
4. To add one or more stops to the sequence, go to the stage where the stop(s) is to be added, turn the stop(s) on, and press SET.
5. To delete a stop(s), go to the first stage in which the stop(s) turns on, turn the stop(s) off, and press SET.

Each stop can be turned on at any stage and turned off at any later stage. As an example, assume the SWELL 8' BOURDON is to turn on at stage 1 and off at stage 25. Go to stage 1, turn on the SWELL 8' BOURDON, and press SET. Then go to stage 25, turn off the SWELL 8' BOURDON, and press SET.

To clear the entire Crescendo sequence (stages 1 through 63), hold SET and press General Cancel (0). This also resets the current stage number to 1 so that a new sequence can be entered.

When building a completely new sequence, it is advisable to first write the new sequence down, then assign stage numbers from 1 to 63 to each stop or group of stops in the sequence. Sometimes there are more stages than stops in the sequence, so it is necessary to skip some stages to make the sequence end at or near stage 63. If this is not done, the sequence ends before the Crescendo shoe is fully depressed.

To exit the CRESC SET MODE menu at any time, press General Cancel. Any changes in the sequence made up to this point are saved.

Note: If the original factory setting is desired, see Restoring Factory Crescendo Setting below.

Locking Crescendo

1. Press and hold the **GT/PED UNENCL** piston for approximately five seconds until CRESCENDO UNLOCKED appears in the Console Display.
2. While continuing to hold **GT/PED UNENCL**, rotate the Alpha Dial either direction until the Console Display reads CRESCENDO LOCKED.
3. Release **GT/PED UNENCL**. The Crescendo is locked.

Restoring Factory Crescendo Setting

1. Press and hold the **GT/PED UNENCL** piston for approximately five seconds. The Console Display reads **CRESCENDO LOCKED** or **CRESCENDO UNLOCKED**.
2. While holding **GT/PED UNENCL**, press and hold **SET** for an additional five seconds. The Console Display reads **CRESCENDO FACTORY DEFAULT**.
3. Release both pistons.

TUTTI Settings

The flexible computer-based control system of the T787 allows you to easily view and change the contents of **Tutti**, if desired. In addition, you can always restore the Tutti contents to factory defaults.

Viewing Tutti Setting

Normally, stops stored in Tutti do not light when the control is activated.

To cause all stored stops and couplers to light so that Tutti can be viewed:

1. Press and hold the **TUTTI** piston.
2. While holding the piston, press **SET**. The stops and couplers contained in the Tutti will light.
3. Press General Cancel (**'0'**) to return to the Transposer menu.

Unlocking or Locking Tutti

The Tutti controls are usually locked to prevent accidental changes. Before they can be programmed, they must be unlocked. After they have been changed, it's also a good idea to lock them again.

To unlock or lock Tutti:

1. Press and hold the **TUTTI** piston for approximately five seconds; **TUTTI LOCKED** or **TUTTI UNLOCKED** appears in the Console Display.
2. If desired setting (Unlocked/Locked) appears in the display, release the Tutti piston. Otherwise, go to step 3.
3. While continuing to hold the Tutti piston, rotate the Alpha dial in either direction to change the setting.
4. Release the Tutti piston.

Setting Tutti

To change the contents of Tutti:

1. Make certain Tutti is unlocked (see “Unlocking or Locking Tutti” on Page 25).
2. Select the desired stops.
3. Press and hold **SET** and press the Tutti piston.

You may want to lock the Tutti again after programming to prevent accidental changes.

Restoring Factory Tutti Setting

The factory defaults for **Tutti** is stored within the instrument, even after the Tutti settings has been changed. Because of this, the Tutti can be restored to its original factory setting, if desired.

To reset Tutti setting to factory default:

1. Make certain Tutti is unlocked (see “Unlocking or Locking Tutti” on Page 25).
2. Press and hold **TUTTI**. After five seconds, the console display reads **TUTTI UNLOCKED**.
3. While continuing to hold the Tutti piston, press and hold **SET** for an additional five seconds. The console display reads **TUTTI FACTORY DEFAULT** when the Tutti is reset.
4. Release both pistons.

Remember to lock the Tutti again once you're finished.

Melody and Bass Couplers

These controls provide great flexibility. The Melody Coupler allows you to use a different registration for the top note played on the Great so that you can accentuate the melody note even though both hands are on one manual. When **MEL** is activated, the top note on the Great will use the Swell registration.

The Bass Coupler is similar in concept, except that when it is activated (i.e., the **BASS** tab is lit), the bottom note played on the Great will use the registration from the Pedal division. This allows you to easily add a Pedal part to a piece of music which is played only on the Great manual.

Normally, the Melody Coupler operates over a very specific range from key 25 to key 61 on the Great manual. However, the bottom note of the range for each coupler can be moved, if desired.

Likewise, the range of the Bass Coupler normally at key 1 and extends to key 25 on the Great manual; the top note of its range may be changed.

Setting Range of the Melody Coupler

To change the range of a Melody Coupler:

1. Press and hold the **SET** piston, then press **MEL**. The Melody Coupler will begin flashing.
2. Release both controls.
3. While the Melody Coupler continues to flash, press a key on the Great manual corresponding to the lowest note of the new range. Any note from key 13 to key 49 may be selected. After the selected key has been pressed, the Melody Coupler turns off.

Setting Range of Bass Coupler

To change the range of the Bass Coupler:

1. Press and hold the **SET** piston, then press **BASS**, which begins flashing.
2. Release both controls.
3. While **BASS** is flashing, press a key on the Great manual that corresponds to the highest note the range is to extend. Any note from key 1 to key 32 may be selected. After the selected key has been pressed, the Bass Coupler turns off.



*Note: When a key is pressed to set the range, no sound is heard even if stops are on, so no disturbance is made if programming during a performance.
The new range of these couplers is remembered when the organ is powered off.*

Antiphonal On/Main Off

The T787 contains controls which can operate an additional speaker system. If your instrument is equipped with an antiphonal speaker setup, the **ANTIPHONAL ON** tab will activate this system. The **MAIN OFF** tab silences the main organ system.

An antiphonal speaker system is so named because it is normally installed a substantial distance from the main organ. This difference in physical placement allows for a variety of effects.

For example, activating the **ANT ON** and **MAIN OFF** controls will cause the entire instrument to be heard through the antiphonal speaker system only. Activating the **ANT ON** control alone means the organ will be heard through both the main and antiphonal organs together.

It is also for the installer to change the function of these controls. Contact your authorized Rodgers dealer for more information.



*In the factory configuration of these controls, if **MAIN OFF** is engaged, **ANT ON** must also be engaged or the organ will not sound.*

Controlling Pipes

One of the great innovations from Rodgers is the successful, elegant marriage of traditional organ pipes and digitally sampled voices. In fact, any of the stops in the Rodgers T787 can be programmed to control real wind-blown pipes, allowing the opportunity to expand the instrument at any time.

If a limited range of pipes is available, digital voices from the Rodgers T787 can be used to supplement the rank and fill out the entire range. What's more, the organ's software is already prepared to control expression shades, so that expressed pipe divisions can be controlled in conjunction with digital voices.

Contact your authorized Rodgers representative for additional information about adding pipes to your Rodgers instrument. These additions can be done at the time of installation or years later. Both new pipework and older pipe ranks can be incorporated successfully in most cases.

Pipes Off/Ancillary On

If the Rodgers T787 is equipped with pipe ranks, certain stops control pipe voices and other stops control digitally sampled voices. There are two pistons affecting the pipe stops; Ancillary On (**ANC ON**) and Pipes Off (**PIPES OFF**).

When the **ANC ON** piston is engaged, digital voices play from the stops which normally control pipe voices. These digital voices are often referred to as the "Ancillary". When the **PIPES OFF** piston is engaged, the wind-blown pipe ranks are silenced.

This configuration provides tremendous flexibility in choosing a registration. When both pistons are unlit, stops controlling pipework will play the wind-blown pipe ranks. For example, when **ANC ON** is engaged, stops normally controlling pipework will play both the wind-blown pipe ranks and the digital Ancillary voices for those stops. When both **ANC ON** and **PIPES OFF** are selected, only the digital Ancillary voices will be heard (the pipe voices

are silenced). This system, in effect, gives you three choices for stops which control pipes: the pipe rank alone, the Ancillary rank alone or both the pipe and Ancillary ranks together.



*If the **PIPES OFF** piston is engaged, the **ANC ON** piston must also be engaged for the pipe stop's digital ancillary voice to sound.*

Automatic Shutdown Timer

When the organ is on and left unattended, the power automatically turns off after two hours. Operating any key, stop, or control resets the timer for another two hours.

Playing the organ from a remote MIDI keyboard or sequencer also resets the timer.

Rodgers SmartCard Memory System™

The T787 is equipped with a powerful SmartCard Memory System. This exclusive feature provides the ability to store all registrations in multiple memory levels, Crescendo, Tutti and other settings in a removable SmartCard. This device is convenient to carry and allows you to carry your favorite registrations and organ settings with you.

When the card is inserted, the organ uses it for storage of piston contents and numerous other parameters, such as Tutti registrations, Crescendo sequences, Tremulant settings and even lamp levels. When the card is removed, its contents are protected from further changes.

This is of tremendous value in situations where more than one organist has access to the console. If a number of organists play the instrument regularly, each can have their own card. When they play the instrument, they can insert their own SmartCard and have instant access to their favorite registrations and preferred Tutti, Crescendo and Tremulant controls. When finished, they can take their card with them and not worry about someone else changing their favorite settings by accident.

What's more, the organ uses its internal memory whenever a SmartCard is not inserted. This means that a visiting organist who does not have a SmartCard can still use the internal memory for piston storage when playing for a worship service or concert.

Many of the functions of a SmartCard are accessible via the Console display, however, the screens only appear if a SmartCard is inserted in the slot. After inserting the card, turn the Select knob to move between selections in this display and turn the Alpha dial to change the value in a selection.

The SmartCard slot is located to the left of the coupler rail.

Smart Media cards are manufactured by several companies in various memory sizes, and can be purchased at camera stores, office supply stores, department stores or ordered on-line. The Smart Media Card stores information for use with devices such as digital cameras, MP3 players, and more. If you already use a Smart Media Card with another device, the same card can be used with the T787. The card does not need to be re-formatted for use with the T787.

Inserting a SmartCard

To insert a SmartCard so that it can be used:

1. Insert the card firmly in the slot with the gold contacts facing down. The red LED will light for a few seconds as the contents of the card are loaded into the organ.

Saving to a SmartCard

A new card contains no combination memories. As long as an empty card is inserted in the T787, the organ uses the internal memory when recalling pistons. As soon as pistons are saved to the SmartCard, however, the card will be used rather than the internal memory.

To save registrations onto a SmartCard:

1. Select the desired memory level by pressing pistons **M1**, **M2**, **M3** or **M4**.
2. Set any piston in the normal manner by holding **SET**, then pressing a combination piston.

The piston will be saved to the SmartCard, along with all other pistons in the active memory level.



To save internal memory settings to your SmartCard without changing any piston settings, press a piston to recall its combination, then hold SET, and press the same piston again. This will transfer the internal memory to the SmartCard.

The contents of the entire memory level (*all* pistons) have now been copied to the SmartCard. Because the card now contains a copy of the currently selected memory, the *card* memory is now used instead of the *internal* memory from this point. Setting a piston now affects only the card memory and not the console internal memory. This is true until a different memory level is selected or until the SmartCard is removed. It is important to remember the following points:

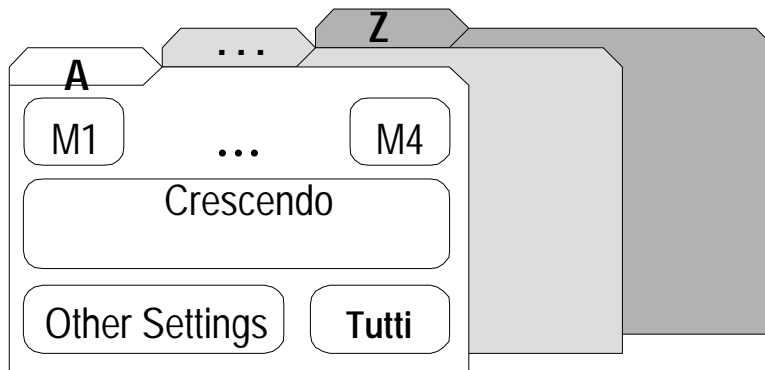
- When a SmartCard is in the slot, any memory levels existing on the card replace the corresponding instrument console internal memory, which is temporarily suspended.
- Setting any piston while a SmartCard is inserted copies the current memory level to the SmartCard if it did not already exist on the card. The SmartCard must be removed in order to set pistons to internal memory levels.
- When a memory select piston (**M1**, **M2**, **M3** or **M4**) is pressed and held, a message appears in the Console Display indicating whether the internal memory or the SmartCard memory is being used.

- If an internal memory is accidentally copied to the SmartCard, or if a memory level is to be removed on the SmartCard so the internal memory can be used instead, you can delete the memory level from the SmartCard. See page 33.

SmartCard Folders

The capacity of a Rodgers SmartCard is much greater than that of the organ's internal combination memory. In order to make easy use of this additional capacity, Rodgers uses the concept of memory folders. Like a file folder, a memory folder is used to store groups of information on the SmartCard. In this case, each folder can contain a copy of each console memory level, plus a copy of the Crescendo sequence, Tutti and other settings. Folders on a SmartCard are labeled A through Z.

This means that a single SmartCard can contain up to 26 different copies of all six Memory Levels, Crescendo Sequences, Tutti and other console settings, giving you tremendous storage capability.



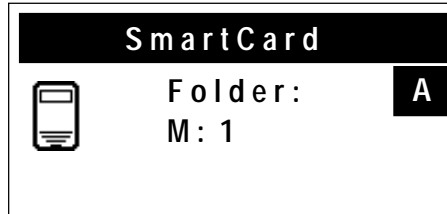
When a SmartCard is first used, it is initialized to use Folder A. This folder is used until a new folder is selected. The selected folder is saved when the card is removed and later reinserted.

Selecting a SmartCard Folder

You have the opportunity to select a SmartCard Folder whenever a card is inserted into the instrument.

To select a SmartCard Folder:

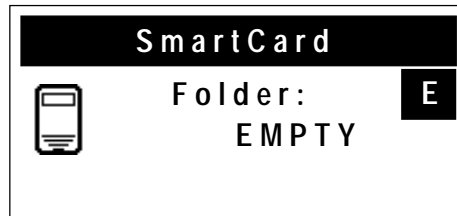
1. If no SmartCard is currently inserted in the instrument, insert card using procedure outlined above and go to step 3.
2. If SmartCard is already inserted, use the following procedure to get to the SmartCard screen:
 - Press **QUICKMENU** and rotate the Select Knob to select **SmartCard** in the display.
 - Press **QUICKMENU** again to select and display the SmartCard screen:



3. Rotate the Alpha dial until the desired folder appears in the display. Folders are labeled A through Z.

Each folder is completely independent. For example, each folder can contain its own pistons, Tutti and other settings.

The second line in the SmartCard display shows the number of memories the folder contains and if a Crescendo sequence is stored, while the third line shows Tutti and the other settings. If a folder has nothing in it, the second line displays **EMPTY**.



Storing Tutti Settings on a SmartCard

In addition to the combination memory levels, the SmartCard can also store copies of Tutti. If a Tutti set operation is performed while the card is inserted, the new Tutti is stored on the card rather than in the internal memory. Like the combination memory levels, Tutti stored on a SmartCard automatically becomes active whenever the card is inserted in the slot.

The Memory Card screen will display which Tutti, if any, are stored on the card.

Deleting a Tutti from a SmartCard

To remove a Tutti from a SmartCard:

1. Press and hold General Cancel ('0').
2. While continuing to hold General Cancel ('0'), press **TUTTI**. A message appears in the Console Display confirming deletion of the corresponding Tutti from the SmartCard.

! *Tutti must be unlocked before it can be deleted from a SmartCard. Once a Tutti has been deleted from the SmartCard, the corresponding internal Tutti immediately becomes active.*

Storing Additional Settings on a SmartCard

Several additional settings can also be stored on a SmartCard. Changing any of these settings causes all of them to be moved to the card (if, of course, they were not previously stored on the card). The settings stored on the SmartCard automatically take effect when the card is inserted. The settings stored on the SmartCard are:

| | |
|--------------------------|--------------------------------------|
| Melody Note Range | Master Tuning Lock Status |
| Bass Note Range | Tremulant Adjustments |
| Wind Stabilizer status | Console Lamp Intensity |
| Shutter Thickness | MIDI Stop Change Send/Receive Enable |
| Voice Palette selections | |

Deleting Settings from a SmartCard

To delete these additional settings from a SmartCard:

1. Press and hold General Cancel ('0'), then press **SET** momentarily. A message appears in the Console Display indicating the settings have been deleted from the Card.

Deleting a Memory Level from a SmartCard

To delete a memory level from a SmartCard:

1. Hold General Cancel ('0') and press the corresponding piston for the memory level to be deleted (**M1**, **M2**, **M3** or **M4**).
2. A message appears in the display confirming the memory level has been deleted from the SmartCard.



Once a memory level has been deleted from the SmartCard, the corresponding internal memory level immediately becomes active.

Using your SmartCard on Other Rodgers Organs

The same SmartCard can be used in more than one Rodgers organ equipped with the SmartCard feature. The information on the SmartCard is kept separate for each organ model. If a folder is created on a particular model, that folder is accessible only on that same model of Rodgers organ. A SmartCard can hold sets of folders for several Rodgers organ models. When a SmartCard is inserted into a console slot, any folders created on that same model are available.

It is important to remember, although folders created on one model are invisible on another model, these folders reduce the amount of free memory space on the card.

About Stop Families

Organ stops are grouped into four main families: Principals, Flutes, Strings and Reeds. Each of these families is well represented on your Rodgers instrument.

The **Principal** family is the group of stops which are unique to the organ, they aren't imitative of other instruments. Principals are often referred to as the "backbone" of the organ and play a strong role in hymn accompaniments and as the foundation of many chorus registrations. Examples of stops belonging to the Principal family are **Principal, Octave, Super Octave, Choralbass** and **Prestant**.

In addition, mixture stops, with names such as **Furniture, Mixture** and **Plein Jeu**, consist of multiple Principal ranks; the Roman numeral following the name denotes the number of ranks contained in the mixture. For example, a **Mixture IV** stop contains four ranks of Principal pipes.

The **Flute** family consists of stops which are generally imitative of orchestral flutes and recorders. This is an extremely diverse group of stops which function in a myriad of ways, from acting as a solo color to serving as the basis of ensemble registrations, either by themselves or in combination with other stops. Examples of flute stops are the **Rohrflöte, Flauto Traverso** and **Spitzflöte**.

String stops do exactly what you would imagine — they imitate the sound of orchestral strings. These ranks are smaller in scale than most other ranks and usually have a lot of upper harmonics and a "clean" or "silvery" timbre. This characteristic makes them well suited to accompaniment and softer ensembles. String stops include the **Viole Celeste II**. Other stops which are a cross between a String and Flute color are the **Erzähler** and **Gemshorn**.

Members of the **Reed** family are also very diverse and are used for everything from solo colors to the fiery crown in a full organ registration. These stops, also, are often imitative of orchestral reeds. Examples of reed stops are the **Trompette, Hautbois** and **Cromorne**.

Other Families

In addition to the four families of stops listed above, your T787 also has a few other stop families which can be used.

The **Percussion** family contains voices such as the **Chimes** and **Harpsichord**. These stops have a percussive attack and gradually grow softer as you hold the note. Rodgers' advanced **TrueChimes™** system insures that all aspects of the digital chimes voice is exceptionally realistic. Unlike many other systems, the decay of notes played on the Chimes isn't affected by changes in the registration.

Also present in the T787 specification are voices in the **Orchestral** and **Choral** families. Found as Voice Palette selections, these timbres allow a myriad of opportunities for musical expression. Examples of Orchestral colors include the **Strings** and **Slow Strings**; Choral voices are represented by **SATB Oo** and **SATB Ah** textures.

Pitch Designations

The stops and couplers on your Rodgers T787 each have a pitch designation, listed in “feet”, (8’, 4’, 16’, etc.). **8’** refers to *concert pitch*; a note played on an 8’ stop will have an identical pitch as the same note played on a piano. **16’** represents an octave *below* concert pitch; a note played on a 16’ stop will sound an octave below an 8’ stop.

This system of designating pitches represents the approximate length of open organ pipes; the largest pipe in an 8’ rank is approximately eight feet long; the largest pipe in a 16’ rank is about sixteen feet long. Other footages and their relationship to concert pitch are listed in the table below:

| Pitch | Relationship to concert pitch |
|-------|---|
| 32’ | two octaves below |
| 16’ | one octave below |
| 8’ | equal to concert pitch (also known as ‘Unison’) |
| 4’ | one octave above |
| 2’ | two octaves above |
| 1’ | three octaves above |

When whole numbers are used (as shown in the table above), it implies that the pitch of the stop is a certain number of octaves above or below the 8’ pitch. **Mutation** stops, on the other hand, are different in that they have fractions in their pitch designations. This means that their pitch falls somewhere other than on the octave.

| Mutation | Common name | Relationship to concert pitch |
|----------|-------------|-------------------------------|
| 2-2/3’ | Nazard | one octave and a fifth above |
| 1-3/5’ | Tierce | two octaves and a third above |
| 1-1/3’ | Larigot | two octaves and a fifth above |

Mutations are most commonly from the flute family and are often used with other flute stops in solo registrations or ensembles used in early organ music. Because mutations often appear in divisions with a number of other flute stops, a great diversity of solo color can be achieved by using various combinations of stops. See the following table for common solo registrations utilizing mutations.

| Registrations Using Mutations With Other Flute Stops | | | | | |
|--|----|--------|----|--------|--------|
| 8’ | 4’ | 2-2/3’ | 2’ | 1-3/5’ | 1-1/3’ |
| * | | * | | | |
| * | * | | | | * |
| * | * | * | | | |
| * | * | | | * | |
| * | * | * | * | * | |

Larger organs will often have one or two mutation stops from the principal family. In most cases, these ranks are used to add color to the principal chorus.

Celeste ranks

Celestes are unique among organ stops in that they are intentionally tuned sharp or flat in relation to the rest of the instrument. Celestes are paired with a partner rank (often called a “unison”) which is similar in color to the celeste rank but is in tune with the balance of the organ.

When the unison and celeste are drawn together, the tuning discrepancy between the two ranks creates a beautiful undulating quality suitable for lush, romantic textures. Celestes are either from the string or flute family, with the latter usually being the quieter of the two.

More about Couplers

Intermanual couplers

Intermanual couplers enable stops of one division to be played on another keyboard or the pedalboard. Examples of intermanual couplers are **SWELL TO GREAT**, and **GREAT TO PEDAL**. These couplers are located on the tilt tabs above the Swell manual.

The first name listed in the coupler is the division which is being “coupled”; the second name denotes the division which the division is coupled to. “Swell to Great” literally means, “Connect the *Swell* division *to* the *Great* manual.”

The **SWELL UNISON OFF** coupler is quite unique in that it silences notes at concert or *unison* pitch (hence, the name). For example, selecting the **SWELL UNISON OFF** coupler would cause activated stops in the Swell division to be silent even when notes are played on the Swell manual.

The Unison Off couplers are also useful when you want to couple a division somewhere else without having it sound on its native manual (i.e., you want to couple stops in Swell division to the Great but don’t want them to play from the Swell manual).

The intramanual Swell Unison off coupler on the T787 is located on a tab located above the Swell Manual.

Pedal/Great Piston Coupler

The T787 is also equipped with a coupler for the Pedal and Great divisional pistons. When activated, this causes a Pedal divisional piston to be activated when the same numbered Great divisional piston is selected. This couples the two sets of Divisional pistons.

To enable or disable the Pedal/Great Piston Coupler:

1. Press and release the **QUICKMENU** piston.
2. Rotate the Select Knob to highlight **Console**, then press and release **QUICKMENU** to select the category.

3. Rotate the Select Knob to highlight **PD/GT Cplr** then press and release **QUICKMENU**.
4. Rotate the Alpha Dial to select **On** or **Off**.
5. Press General Cancel ('0') to exit.



The status of this coupler is retained when the instrument is turned off.

Temperaments

In recent years, there has been a renewed interest in authentic interpretation of organ literature written before the adoption of Equal Temperament tuning. Until the middle of the 18th century, the relative pitches of the notes of the scale were chosen to favor music written in key signatures with few sharps or flats; more remote keys produced varying degrees of aural distress. Many composers of the day utilized moderately out of tune intervals to evoke momentary tension to the listener. With the adoption of the Equal Temperament (Well-Tempered) tuning system, almost universal today, all keys became equally out of tune, and the intentions of these earlier composers were lost, to some degree.

The Rodgers T787 offers a choice of eight temperaments: Equal, Mean-Tone, Kirnberger, Werckmeister I, Werckmeister III, Young I, Young II and Pythagorean. This selection of temperaments allows the organist to hear these historical works as their composers heard them, or to explore the application of unequal temperament to new music.

Ancient Temperaments

Pythagorean: Pythagoras (582-500 B.C.) was a brilliant Greek theorist and mathematician. The Pythagorean temperament is characterized by pure fifths and fourths. The Pythagorean theory founded a diatonic scale which served as a model throughout the Middle Ages.

Mean-Tone: Mean-Tone temperament improves on the Pythagorean tuning by slightly contracting each of the four fifths needed to generate a major third. Major thirds and in-tune fifths are slightly narrow, and the differences between the major and minor seconds are smoothed out. Many artists now prefer Mean-Tone temperaments when performing 15th through 17th century repertoire.

J.S. Bach's *Well Tempered Clavier*, written in 1722 and between 1738 and 1742, is a collection of 24 paired preludes and fugues written in every major and minor key. The title refers to the use of a temperament in which all keys are satisfactorily in tune, but not necessarily an absolutely equal temperament.

Well Temperaments

Kirnberger: Johann Philipp Kirnberger (1721-1783) was a German composer and pupil of Bach from 1739 and 1741. His temperament favored pure fifths, as in the Pythagorean model, but performance was improved in many keys.

Werckmeister I and III: Andreas Werckmeister experimented with temperaments in the latter part of the 17th century. In Werckmeister I he further refined the Mean-Tone temperament. In Werckmeister III, four tones are practically tuned identical to Equal Temperament (C, D#, F# and A).

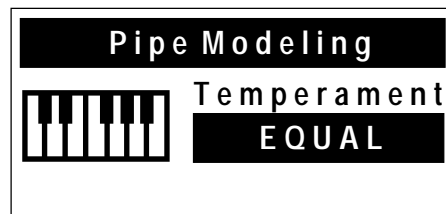
Young I and II: Young Temperaments offer further refinements to the Mean-Tone model, except with slightly higher pitched sharps.

Equal: Equal Temperament is the modern standard which utilizes a succession of 12 semitones of equal size, allowing performance in all keys successfully. The fifths are slightly narrowed and the upward thirds are considerably sharp, but unlimited modulation from key to key is possible.

Selecting a Temperament

To select a temperament:

1. Press and release the **QUICKMENU** piston.
2. Rotate the Select knob until **Pipe Modeling** is highlighted.
3. Press **QUICKMENU** to select the Pipe Modeling category.
4. Rotate the Select knob to until **Temperament** is highlighted.
5. Press **QUICKMENU** to select Temperament. The following screen is displayed:



6. Rotate the Alpha dial until the desired temperament appears.
7. Press General Cancel ('0') to exit.

! *When the organ is turned off, temperament reverts to **Equal**, the default setting. Also, the instrument can be quickly returned to **Equal** temperament by holding General Cancel ('0') and momentarily pressing **SET**. This Reset procedure also returns MIDI settings and Voice Palette selections to their defaults.*

Digital Dynamic Wind™

Part of the personality of an individual pipe organ relates to the steadiness of the wind supply to the pipes. Because air is an elastic medium, there is some amount of give in the wind supply of every pipe instrument. Some organs exhibit more unsteadiness than others according to the type of wind regulators used (single or multiple reservoirs, schwimmer regulators, etc.). A small amount of unsteadiness in the wind helps the listener to identify the sound as that of a wind-blown instrument, although too much can be distracting. Certain types of music, though, seem to gain charm from a less-than-perfect wind system.

Another characteristic of pipe organs involves changes in pitch that occur in individual pipes when playing large numbers of pipes together. These pitch changes are due both to variations in wind pressure as the wind demand becomes greater and to the influence of the sound from neighboring pipes. This latter effect is greatest upon large-scale flute voices and least upon narrow-scaled string voices. Even though this results in significant detuning, the human ear seems to perceive instead an increase in ensemble effect.

A part of Dimensional Sound Modeling, Rodgers' exclusive Digital Dynamic Wind emulates these characteristics by modeling the behavior of pipe organ wind regulating devices and the response of pipes to a slightly unsteady wind supply. Some independent ranks have their own software reservoir, and each voice is programmed to respond to wind variations in the same way its equivalent pipe rank or ranks would respond.

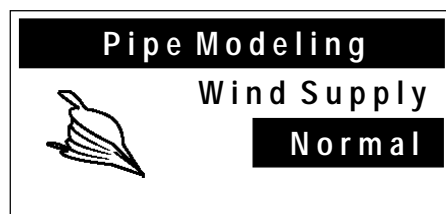
Wind Supply

Adjusting the behavior of the organ wind system is accomplished via the Wind Supply menu item in the Pipe Modeling menu. Wind Supply operates much like pipe instruments. In the **Flexible** position, the wind has a noticeable unsteadiness, or a slight sag of the initial pitch, in the playing of rapid passages or large chords. The **Normal** position reduces this somewhat, and the **Fixed** position makes the wind steady under all conditions.

Adjusting Wind Supply

To select Wind Supply setting:

1. Press and release the **QUICKMENU** piston.
2. Rotate the Select Knob to highlight **Pipe Modeling**.
3. Press and release **QUICKMENU** to select the Pipe Modeling category.
4. Rotate the Select Knob to highlight **Wind Supply**.
5. Press and release **QUICKMENU**. The following screen is displayed:



8. Rotate the Alpha dial to select **Flexible**, **Normal**, or **Fixed**.
9. Press General Cancel ('0') to exit.



The Wind Supply setting is saved when the organ is turned off.

Random Detuning

One of the essential ingredients of a pipe organ ensemble arises from the small amount of pitch deviation in each pipe. No matter how carefully an instrument is tuned, small changes in temperature or humidity cause the pipes to drift slightly from their original pitches. Reed pipes are especially prone to drift in tuning because of cyclic temperature variations.

The Random Detuning feature causes selected notes to receive a small amount of detuning. The amount of detuning is chosen at random for each note of each voice. Some notes are not detuned at all. The number of notes detuned and the maximum amount of detuning are selected for each voice to mimic the behavior of an equivalent pipe set. For instance, reeds exhibit more pitch fluctuation than flutes. Because the detuning is random, there is no degradation of the overall temperament of the instrument and the amount of detuning is no more than one would experience in a recently tuned pipe instrument.

This detuning process happens each time the organ is turned on. Once computed, the pitch of each note remains constant. Thus, the tuning of the instrument is a little different each time it is powered on, as it would be with a pipe organ. The amount of Random Detuning present in the organ is set by a Rodgers representative during final voicing.

Shutter Thickness

The minimum volume of each division when its Expression Shoe is closed can be adjusted to suit specific musical needs or personal tastes. In the Pipe Modeling category, the **Shutters** menu allows four settings: **pp**, **ppp**, **pppp**, or **UnEncl**. As shutter thickness increases, the volume of the division when the expression shoe is completely closed decreases.

| Setting | Shutter Thickness | Minimum Volume |
|---------|-------------------|----------------|
| pp | Thin | soft |
| ppp | Medium | quite soft |
| pppp | Thick | very soft |

This Pipe Modeling feature is analogous to adjusting the thickness of expression shutters on a pipe organ; the thicker the shutters, the less sound transmitted when the expression shoe is closed. In all cases, the settings do not affect the sound when the expression shoe is open.

Should you ever desire that a division **not** respond to movement of the expression shoes, you can set the division to Unenclosed (“**UnEncl**”). This setting, however, is usually only selected when

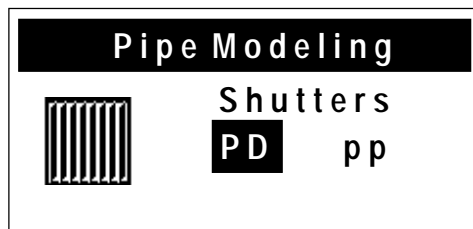
installing a pipe/electronic combination organ with enclosed pipe divisions. When speakers for the enclosed division (Swell) are placed inside a pipe organ swell box, the digitally sampled electronic stops in this division can sound at a constant volume by setting the shutter control menu item to Unenclosed. Then the expression of those stops, like the pipes in the swell box, are controlled by the swell shades.

Shutter settings for each division can be set individually.

Setting Shutter Thickness

To select the Shutter Thickness for a division:

1. Press and release the **QUICKMENU** piston.
2. Rotate the Select Knob to highlight **Pipe Modeling**.
3. Press and release the **QUICKMENU** piston to select the Pipe Modeling category.
4. Rotate the Select Knob to highlight **Shutters**.
5. Press and release the **QUICKMENU**. The following screen is displayed:



6. Rotate the Alpha dial to select the desired division.
7. Turn the Select knob clockwise (right) to select the shutter setting.
8. Rotate the Alpha dial to select the desired shutter thickness: **pp**, **ppp**, **pppp**, or **UnEncl**.
9. Press General Cancel ('0') to exit.

If the expression shoe is closed and notes are played on voices in the division being adjusted, the change is heard immediately.



All shutter thickness settings are saved when the organ is turned off.

Voice Palette

Many of the speaking stops on the Rodgers T787 have alternate voices that can be selected and used in performance via Rodgers' exclusive **Voice Palette** feature. Voice Palette gives you a tremendous amount of added flexibility; for example, not only can you choose whether to use the Great **Principal 8'** stop in a registration, you can also choose whether that particular stop uses the default **Principal 8'** rank, or the stop's Voice Palette choice: the **Diapason 8'**. Either selection can be used.

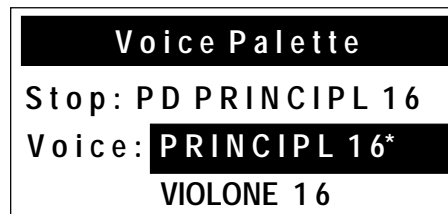
Voice Palette was so named because it greatly increases the number of tonal colors at your disposal; there are many more ranks available to you than the number of actual stops on the instrument.

Stops with Voice Palette alternatives are denoted with a dot ('•') on the stop face for easy identification.

Making a Voice Palette Selection

To make a Voice Palette selection:

1. Press and hold the **SET** piston.
2. Activate the stop to be changed. (For example, select the Pedal **Principal 16'**). The following screen appears in the display:



3. Rotate the Alpha dial to view and select from the available Voice Palette alternatives. The voice may be previewed (i.e., played) as it is selected.
4. Press General Cancel ('0') to exit.

Voice Palette selections are stored in combination pistons, allowing you to quickly switch from one Voice Palette selection to another. For example, one piston could specify the **Principal 16'** voice for the Pedal stop in this example; another could specify the **Violone 16'** voice.



The default Voice Palette selections are denoted with a "" in the display.*

A complete listing of T787 stops and their Voice Palette alternatives (if any) follows.

| T787 STOP LIST WITH VOICE PALETTE ALTERNATIVES | | |
|--|-----------------------|---------------------------------|
| DIVISION | STOP | VOICE PALETTE ALTERNATIVES |
| Great | Principal 8' | Diapason 8' |
| | Rohrflöte 8' | |
| | Gemshorn 8' | |
| | Flûte Celeste II 8' | Erzähler Celeste II 8' |
| | Octave 4' | Principal 4' |
| | Spitzflöte 4' | Unda Maris II 4' |
| | Super Octave 2' | Waldflöte 2', Quintflöte 1 1/3' |
| | Fourniture IV | |
| | Cromorne 8' | Trompete 8', Royal Trumpet 8' |
| | Chimes | Harpsichord, SATB Ah, SATB Oo |
| Swell | Bourdon Doux 16' | Strings, Slow Strings |
| | Geigen Principal 8' | Viole 8' |
| | Viole Celeste II 8' | |
| | Bourdon 8' | |
| | Prestant 4' | |
| | Flauto Traverso 4' | |
| | Nazard 2 2/3' | |
| | Flûte à Bec 2' | |
| | Tierce 1 3/5' | |
| | Plein Jeu IV | |
| | Basson 16' | Fagot 16' |
| | Trompette 8' | Royal Trumpet 8' (Gt) |
| | Hautbois 8' | Brass |
| | | |
| | | |
| Pedal | Contre Violone 32' | |
| | Principal 16' | Violone 16' |
| | Subbass 16' | Bordun 16' |
| | Bourdon Doux (SW) 16' | |
| | Octave 8' | |
| | Gedackt 8' | |
| | Choralbass 4' | Nachthorn 4' |
| | Mixture IV | Rohrschalmei 4' |
| | Posaune 16' | Basson 16' |
| | Trompete 8' | |



Using a stop containing a Voice Palette alternative will play either the default voice OR the Voice Palette alternative voice. For example, the Principal 8' stop can be set to play either the Principal 8' voice OR the Diapason 8' voice, but not both voices simultaneously.

Resetting Voice Palette Selections

All stop tabs return to their default voices when the organ is turned off, or when you press and hold General Cancel ('0') and momentarily press **SET** (this Reset procedure also returns MIDI couplers to their last saved status and returns Temperament to **Equal**).

Master Volume Control

Special situations and individual preferences sometimes require a temporary change in the overall volume of the organ. This may be due to an overly large attendance and the need for additional sound to fill the room; at other times, it may be desirable to reduce the overall level of the organ to accommodate a smaller audience. These changes are easily accomplished.

Adjusting Master Volume

To adjust Master Volume:

1. Press the **QUICKMENU** piston.
2. Rotate the Select knob to highlight **Audio Controls**.
3. Press **QUICKMENU** to select the Audio Controls category.
4. Rotate the Select knob to highlight **Master Volume**.
5. Press **QUICKMENU** to select Master Volume. The following screen is displayed:



6. Turn the Alpha dial to change the volume level.



Normally, changes to Master Volume are temporary. However, an Audio Save may be performed to save this setting as the default. See the next section.

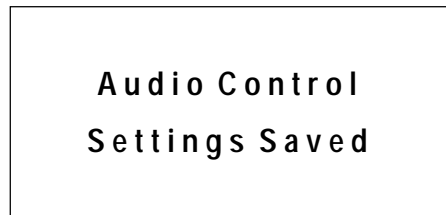
Audio Save

Changes made to audio settings are temporary, i.e., they are lost when the organ is turned off. If desired, however, audio settings can be saved and so that they are retained when the organ is powered off.

Saving Audio Control Settings

To save the Audio Control Settings:

1. While in any Audio Controls Menu, press and hold **SET**, then press and hold General Cancel ('0') for approximately five seconds.
2. Continue holding both pistons until the display shows:



3. Release **SET** and General Cancel ('0').

The Audio Control settings are now saved and will be retained when the organ is turned off.

Stereo Headphone Jack

The console is equipped with a 1/4" stereo headphone jack located near the power switch on the left panel. Plugging a set of headphones into this jack disables the sound from all speakers, and disables any pipe ranks connected to the instrument. When using headphones, the Headphone menu replaces the Master Volume menu. This menu allows the adjustment of volume, balance, bass, and treble heard through the headphones. These adjustments do not affect the organ speakers in normal playing mode.

Adjusting Headphone Settings

To adjust headphone settings:

1. Insert the headphone plug into the headphone jack.
2. Press the **QUICKMENU** piston.
3. Rotate the Select knob to highlight **Audio Controls**.
4. Press the **QUICKMENU** piston to select the Audio Controls category.

5. Rotate the Select knob to highlight **Headphone Aud.**
6. Press the **QUICKMENU** piston to select the Headphone Audio category. The following screen is displayed:



7. Rotate the Alpha dial to select the setting to be adjusted (**VOLUME, BALANCE, BASS, TREBLE**).
8. Rotate the Select knob to advance to the next field (**0.00** in the example above).
9. Rotate the Alpha dial to change the value of the selected parameter.



All four parameters can be adjusted, if desired, without exiting the display. Simply use the Select knob to move between fields and the Alpha dial to change the field. In addition to settings for the main speaker system, Dimensional Sound Modeling has separate parameters for when headphones are inserted into the instrument. This allows you to select a different reverb when using headphones.

Auxiliary Controls

The Rodgers T787 is equipped with stereo auxiliary input jacks (one for the left channel and one for the right channel) located on the connector panel under the keydesk to the right. When using these input jacks, audio signals from other sound generating devices like synthesizers, MIDI sound modules, and tape players are mixed into the organ's main audio system. A series of menus in the Audio Controls category are used to adjust the characteristics of the auxiliary inputs.



*Public address systems should **NOT** be connected through the organ's audio system.*

Adjusting Auxiliary Inputs

To adjust the settings for the Auxiliary Inputs:

1. Press the **QUICKMENU** piston.

2. Rotate the Select knob to highlight **Audio Controls**.
3. Press the **QUICKMENU** piston to select the Audio Controls category.
4. Rotate the Select knob to highlight **Aux In Audio**.
5. Press the **QUICKMENU** piston to select the Auxiliary Audio category. The following screen is displayed:



6. Rotate the Alpha dial to select the setting to be adjusted (**VOLUME, BALANCE, BASS, TREBLE**).
7. Turn the Select knob to advance to the next field (**0.00** in the example above).
8. Rotate the Alpha dial to change the value of the selected parameter.

Normally, these settings are temporary and are lost when the organ is powered off. If desired, an Audio Save procedure can be performed which causes the new settings to be retained when the organ is turned off. See “Audio Save” on page 45.



All four parameters can be adjusted, if desired, without exiting the display. Simply use the Select knob to move between fields and the Alpha dial to change the field.

Room Modeling

The sound we normally hear allows us to perceive the distance from the sound source because it is a combination of two different types of sounds: The sound that reaches our ears directly and the sound that reaches us with some delay after it reflects off of walls and other surfaces. A component of Dimensional Sound Modeling, the **Rodgers Sound Modeling™** system allows you to specify the acoustic you desire for the T787.

Room Modeling does much more than add simple decay to the sound of the instrument, it uses leading-edge technology to go beyond three-dimensional sound and create a sense of distance, shape and ambience to what is heard in the room. What's more, the menu system is extremely descriptive and intuitive.

The Room Modeling menus allow you to specify the size of room and type of wall covering for the T787 acoustic. For example, if you wanted to hear the instrument in a large room, you could select "**Large Church**" or "**Cathedral**"; if you wanted to change the wall covering from a soft to a hard material, you could select "**Concrete**" or "**Marble**".

It is also possible to change the amount of acoustic treatment heard in the room using the Reverb Level control.

Adjusting Room Modeling Settings

To change the Room Modeling Settings:

1. Press and release **QUICKMENU**.
2. Rotate the Select knob to highlight **Room Modeling**.
3. Press and release **QUICKMENU** to select the Room Modeling category.
4. Rotate the Select Knob to highlight desired setting: **Room Size**, **Wall Type** or **Reverb Level**.
5. Press **QUICKMENU** to select the setting.
6. Rotate the Alpha dial to change the setting.
7. Press General Cancel (**'0'**) to exit.

You can preview the changes by playing the organ while adjusting the setting.

Normally, these changes are temporary. However, you can perform an Audio Save so that the changes are retained when the instrument is turned off. See Audio Save on page 45.

Console Settings

The Console category contains these menus:

| | | |
|--------------------------------------|---|---|
| Lamp Level | Sets brightness of music rack, pedal light and lighted controls | Settings are Bright and Dim. |
| Pedal to Great Piston Coupler | Couples Pedal and Great Divisional Couplers | Can be set On or Off. See "Pedal/Great Piston Coupler" on Page 36 for more information. |
| Master Tuning | Adjusts the instrument's pitch | Settings are Locked, Adjustable and Manual Only. See Master Tuning on Page 21. |
| Time Set | Sets the clock | Rotate the Select knob to select hour, minute or AM/PM, then change selected value by rotating the Alpha dial. If neither AM or PM is selected, the clock operates in 24-hour mode. |
| Contrast | Adjusts viewing contrast in console display | Select this parameter and then rotate Alpha dial to adjust. |

To change one of these parameters:

1. Press and release the **QUICKMENU** piston.
2. Rotate the Select knob to highlight **Console**.
3. Press and release the **QUICKMENU** piston to select the Console category.
4. Rotate the Select knob to highlight the menu above to be adjusted.
5. Press and release the **QUICKMENU** piston to select the desired menu.
6. Rotate the Alpha dial to change the setting.



Some of these Console settings can be stored on a Rodgers SmartCard.

MIDI (MUSICAL INSTRUMENT DIGITAL INTERFACE)

Rodgers organs have tremendously powerful MIDI capabilities, offering remarkable possibilities for musical expression. MIDI, which is an acronym for **M**usical **I**nstrument **D**igital **I**nterface, allows you easily control a myriad of sounds and effects. These additional musical colors are located in a separate device, typically a MIDI sound module. In addition, you can use a MIDI sequencer for advanced record-and-playback capabilities.

MIDI couplers are at the heart of the MIDI system on the T787. These couplers, labeled **MIDI GT A**, **MIDI GT B**, **MIDI SW A**, **MIDI SW B**, etc., are located on the piston rails. The Great, Swell, and Pedal each have two couplers; since each coupler typically controls one sound, you can layer up to two MIDI sounds from each of these divisions.

When a MIDI coupler is activated (i.e., its piston is lit), it will access sounds in an external MIDI module.

MIDI Coupler Settings

Each coupler also has a number of parameters which provide great flexibility in the way a sound is controlled. These parameters are:

| Parameter | Description |
|-------------|---|
| Tone | Specifies the sound or effect controlled by the MIDI coupler |
| Channel | Specifies the MIDI channel used by the coupler (MIDI GT A is changeable) |
| Octave | Specifies the octave of the sound; octave can be shifted up or down |
| Velocity | Specifies whether a sound has a fixed velocity (or attack), or whether the velocity is affected by movements of the expression shoes or the force of fingers when actual notes are played |
| Pan | Specifies the location of a sound within the stereo field |
| Foot Switch | Specifies whether a sound responds to the foot switch control and what effect is used (Sustain, Sostenuato or Soft) |
| Reverb | Specifies the amount of reverb for the sound |
| Chorus | Specifies the amount of chorus for the sound |
| Expression | Specifies the type of volume message used to control the level of the sound |

The parameters for each coupler can be set individually and saved in combination pistons. This allows great flexibility and advanced control of instruments accessed via MIDI. In addition, these controls are easy to select and change.

Each of these parameters will now be discussed in more detail.

Tone

This parameter selects the instrument (or ‘tone’) which is heard when the MIDI coupler is activated and keys are pressed on the appropriate manual or pedalboard.

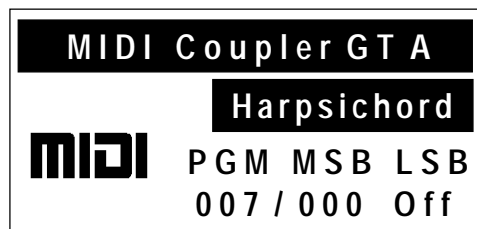
Tones in external MIDI sound modules can be selected in one of two ways: by name or by number. Either of these techniques works well, and you may find that you use both operations from time to time, depending on which is most appropriate and expeditious.

Selecting Tones by Name

When a **GS Format** or **General MIDI** ('GM') sound module is connected to the organ, tones can be selected by name using the console display. For many organists, this is the preferred method of selecting a tone.

To select a tone by name:

1. Press and hold SET, then press the MIDI coupler piston to be programmed. It will begin to flash, indicating it is ready to be programmed and a screen similar to the following is displayed:



2. Rotate the Alpha dial to select the desired tone. (**Off** may also be selected to prevent a MIDI coupler piston from sending any program change information).
3. Once desired tone is displayed, press the MIDI coupler again (it will stop flashing).

The tone selection procedure is complete. Combination pistons which are set while the MIDI coupler is activated will also store the tone selection.



In order to select tones by name, the "tone name" parameter must be set to "GS" or "GM". See "Tone Names" on page 74 for more information.

Previewing Tones by Name

It may be desirable to preview sounds during the selection process by scrolling through the list of available tones and playing a few notes until you find the desired instrument. When selecting a tone by name, the preview process can be done from the Console display.

To preview tones by name:

1. Hold **SET** and press the MIDI coupler (it will flash).
2. Release **SET** and press the flashing MIDI coupler again (it will stop flashing).
3. Rotate the Alpha dial to scroll through the list of available tones. You may also play on the corresponding keyboard or pedalboard to hear each sound as it is selected.

Selecting Tones by Number

If desired, you can select tones in external MIDI sound modules by number, rather than name. Although most people will use the “Selecting Tones by Name” procedure outlined on page 51 above, in some cases, this procedure might be preferred.

For some organists, this may be faster than scrolling through the list of available tones in a GS or GM sound module. Also, this is the technique which can be used for non-GS/GM sound modules. This powerful technique ensures that the T787 can select tones in any sound module which follows the MIDI standard.

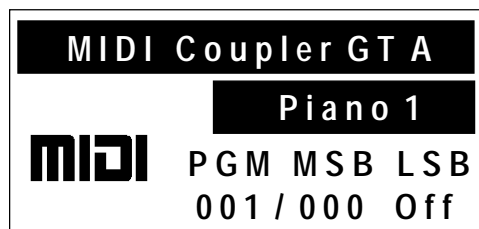
When selecting a tone in an external MIDI sound module, the organ sends up to three separate MIDI messages, a *Program Change* message and one or two *Bank Select* (or “variation”) messages. When selecting tones by name, as outlined in the section above, these messages are generated automatically; when you select an instrument, the appropriate Program Change and Bank Select messages are sent.

When selecting a tone by number, you select sounds by specifying each of the actual MIDI messages, the Program Change and the Bank Select message(s), by number.

Before selecting a tone by number, you’ll need to determine the appropriate values for Program Change and Bank Select by referring to the charts which came with your sound module.

To select a tone by number:

1. Press and hold **SET**, then press the MIDI coupler piston to be programmed. It will begin to flash, indicating it is ready to be programmed and a screen similar to the following is displayed:



2. To specify Program Change, use the Select knob to highlight **PGM** and rotate the Alpha dial to change the value.

3. To specify Bank Select MSB, use the Select knob to highlight **MSB** and rotate the Alpha dial to change the value.
4. To specify Bank Select LSB, use the Select knob to highlight **LSB** and rotate the Alpha dial to change the value.

The tone selection procedure is complete. Combination pistons which are set while the MIDI coupler is activated will also store the tone selection.

You can use the Select knob and Alpha dial to change the Program Change, MSB or LSB parameter anytime a MIDI Coupler screen is displayed. Simply use the Select knob to highlight the desired field and rotate the Alpha dial to change the value.

No messages are sent when a parameter is set to **OFF**. This allows MIDI couplers to be activated without sending Program Change or Bank Select messages; an isolated application, but one which is easily achieved when necessary.

Saving a MIDI Sound in a Combination Piston

Once a MIDI sound has been selected for a MIDI coupler piston, the same Program Change and Bank Select messages are sent each time the coupler piston is activated. A selected MIDI sound on a MIDI coupler piston can be saved on a General or Divisional combination piston for immediate recall.

To save a MIDI sound on a combination piston:

1. Select a MIDI sound on the desired MIDI coupler, using the procedure above.
2. Press and hold the **SET** piston, then press the combination piston where the MIDI sound is to be saved.
3. Release both pistons.

This will save the MIDI sound into the combination piston. If desired, you can also save organ registrations with MIDI sounds by activating stops and couplers between steps 1 and 2 above.



*Instead of saving, you may press and hold General Cancel ('0') and momentarily press **SET** to return MIDI couplers to their defaults. This Reset procedure also returns Voice Palette selections to their defaults.*

More about MSB and LSB Messages

As stated above, '**MSB**' and '**LSB**' are "Bank Select" messages; they are acronyms for "Most Significant Bit" and "Least Significant Bit". They are typically used to select variations of sounds. The reason that both are supported in the T787 is that some manufacturers use MSB for Bank Select while others use LSB.

The GS Format, for example, uses MSB for Bank Select. This also means that, when the Tone Names parameter is set to **GS**, the LSB field cannot be altered, since this message is not used.

The General MIDI, or GM, standard uses Program Changes only; no Bank Select messages are used. When the Tone Names parameter is set to **GM**, neither the MSB or LSB fields can be altered.

When Tone Names are set to **OFF**, then all messages (Program Change, MSB and LSB) can be selected and changed in the console display.

See “Tone Names” on Page 74 for more information.

Also, consult the owner’s manual for your particular MIDI sound module if you have questions about what messages are used to select sounds.

General MIDI and GS Format

In the past, most MIDI sound modules provided a maximum of 128 sounds. These were selected by using MIDI Program Change messages. Unfortunately, there were no standard sound assignments for those messages. For example, one sound module may have had a trumpet on Program Change #39, yet another sound module would have chimes on #39.

With the creation of General MIDI (GM), a standard list of 128 sounds was defined, each of which corresponds to one of the 128 available Program Change messages.

The GS Standard honors that same standard list of GM sounds, but also allows access to *more* than those 128 sounds through the use of Bank Select messages (using the MSB commands). The GS Standard adds the ability to select up to 128 “Variations” of each of the 128 standard GM sounds, expanding the total number of possible sounds to 16,384.

For example, Program Change #1 in a GM module specifies **Piano 1**. A GS module will also have **Piano 1** for Program Change #1 but, in addition, can have 127 other variations of that particular sound.

The GM instruments are often referred to as “Bank 0” sounds; the GS variations of that sound will be in other Banks: Bank 8, Bank 16, etc.

Many manufacturers of MIDI sound modules have added – or will soon add – support for GS Format.

MIDI Channel

Each of the T787 MIDI Couplers can control a different tone. This is accomplished by using separate **MIDI Channels**. Because the channels are independent, the instruments can be controlled individually. Moreover, since there are two MIDI couplers each for the Great, Swell, and Pedal, you can layer two sounds on each manual and in the Pedal.

Please note that these MIDI couplers are not affected by the organ’s intermanual or intermanual couplers; for example, activating the **Swell to Great 8’** coupler will not cause the Swell MIDI couplers to play from the Great keyboard.

The Great A MIDI coupler normally sends on MIDI channel 1, however, it can be set to send on any of the 16 available MIDI channels. All of the channels for other couplers are fixed.

Following are the MIDI coupler pistons and their MIDI channels:

| Division | Coupler | MIDI Channel |
|----------|------------|--------------|
| Great | MIDI GT A | Channel 1* |
| | MIDI GT B | Channel 5 |
| Swell | MIDI SW A | Channel 2 |
| | MIDI SW B | Channel 6 |
| Pedal | MIDI PED A | Channel 3 |
| | MIDI PED B | Channel 7 |

* May be changed to any of the sixteen MIDI channels.

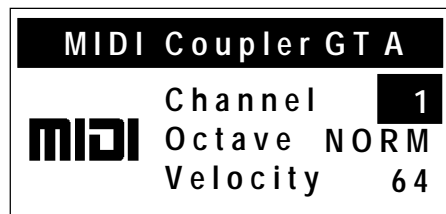
Changing the Great MIDI Channel

Generally, you won't need to reassign the Great A MIDI coupler channel to use most MIDI sound modules. However, there will be times when it is necessary or desirable to send MIDI information on a channel other than those listed above.

Common applications for changing the Great A MIDI coupler channel include the creation of multi-track sequences and accessing sounds in a module which receives on a channel other than those listed above.

To change the Great A MIDI coupler channel:

1. Hold the SET piston and press **MIDI GT A**. The coupler piston will flash.
2. Rotate the Select knob to highlight the MIDI channel field:



3. Rotate the Alpha dial to select the new MIDI channel (1 – 16).
4. Press either the flashing MIDI coupler piston or General Cancel ('0') to exit.

The Great A MIDI coupler channel assignment is saved with other settings in a combination piston. It can also be saved permanently by performing the MIDI Save procedure. See “MIDI Save” on page 75.



*Instead of saving, you may press and hold General Cancel ('0') and momentarily press **SET** to return MIDI couplers to their defaults. This Reset procedure also returns Voice Palette selections to their defaults.*

Octave Shift

Normally, sounds controlled by MIDI couplers play at concert pitch; playing middle C on an organ keyboard with a corresponding MIDI coupler active will cause middle C to be heard. The Octave Shift control allows you to shift sounds controlled by MIDI couplers up or down by one or two octaves. Each MIDI coupler can be shifted independently.

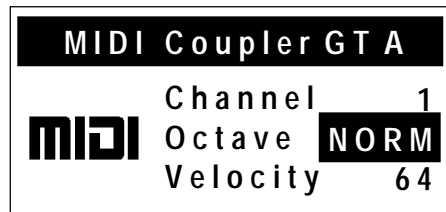
This is tremendously useful. When controlling a single sound from a keyboard or pedal, Octave Shift allows the instrument to play in a range which may be more appropriate; for example, you can shift a Tuba down one octave so that it plays at a more normal pitch.

Another nice effect is to use both MIDI couplers in a division to control a soft ensemble sound, such as **Slow Strings**, but set one coupler to play the sound at normal pitch and set the other so that the sound is shifted down one octave. When you combine the two, you achieve a warmer ensemble than if you used one voice alone.

Shifting the Octave of a MIDI Coupler

To shift a MIDI coupler up or down by octaves:

1. Hold **SET** and press the MIDI coupler piston (it will flash).
2. Rotate the Select knob to highlight the **Octave** field:



3. Rotate the Alpha dial to select the desired setting (**UP 2**, **UP 1**, **NORM**, **DN 1** or **DN 2**).
4. Press either the flashing MIDI coupler piston or General Cancel ('0') to exit.

The Octave Shift selection procedure is complete. Combination pistons which are set while the MIDI coupler is activated will also store the this setting. A MIDI Save may be performed to save this setting as the default. See “MIDI Save” on page 75.



Instead of saving, you may press and hold General Cancel ('0') and momentarily press SET to return MIDI couplers to their defaults. This Reset procedure also returns Voice Palette selections to their defaults.

Velocity

MIDI note velocity controls the attack quality and loudness of MIDI sounds. It relates to the amount of force used by the organist when striking a key and ranges from a value of 2 (extremely light) to a value of 127 (extremely hard). In addition to obvious changes in volume at higher velocities, the timbral nature of sounds can also change, usually characterized by an increase in high frequency content.

Rodgers organs can send out a constant (fixed) velocity value from the keyboard, a changeable velocity value sent relative to the position of the expression shoe, or a keyboard-responsive velocity controlled by the actual force of the fingers. Your choice of velocity control can be individually selected on each MIDI coupler piston, and these settings can then be saved on combination pistons.

To summarize:

- **Fixed Velocity** (keyboard sends a fixed value between 2-127)
- **Expression Velocity** (velocity value is controlled by the position of the expression shoe)
- **Keyboard Velocity** (keyboard responds to velocity from player's fingers)



On instruments with wooden keyboards, keyboard velocity control is not available.

Fixed Velocity

With Fixed Velocity, the same velocity value is used for all notes played by a MIDI coupler. The velocity can be set to any value from 2 to 127.

It is often useful to use this parameter to adjust the overall volume and attack characteristic of sounds controlled via MIDI. Reducing the velocity value would make an instrument softer; increasing the value would make it louder.

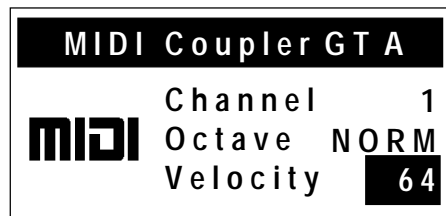
This allows you to adjust the level of a sound in relation to organ stops or other MIDI sounds. For example, if you were controlling two sounds, one from **MIDI GT A** and one from **MIDI GT B**, the Fixed Velocity value could be used to adjust the level of the sounds in relation to each other. If the sound controlled by **MIDI GT B** were too loud,

you could reduce the Fixed Velocity value for that coupler and achieve a more satisfying balance.

Selecting Fixed Velocity

To set a Fixed Velocity value for a MIDI coupler:

1. Hold the **SET** piston and press a MIDI coupler piston. (The MIDI coupler will flash).
2. Rotate the Select knob until the **Velocity** field is highlighted:



3. Rotate the Alpha dial to select the desired velocity value (2-127).
4. Press either the flashing MIDI coupler piston or General Cancel ('0') to exit.

The velocity selection procedure is complete. Combination pistons which are set while the MIDI coupler is activated will also store the velocity setting. A MIDI Save may be performed to save this setting as the default. See "MIDI Save" on page 75.



Instead of saving, you may press and hold General Cancel ('0') and momentarily press SET to return MIDI couplers to their defaults. This Reset procedure also returns Voice Palette selections to their defaults.

Expression Velocity

With Expression Velocity, the velocity value is determined by the position of the related expression shoe when the note is played. As the expression shoe is pushed further open, for example, the velocity value of notes played increases; as the expression shoe is closed, the velocity value decreases. This mode allows you to control both overall level and the attack characteristic of instruments by moving the expression shoe.

When in Expression Velocity mode, the volume value for the coupler is set to 127 ("full"), and movements of the expression shoe will not change the MIDI volume message; only the expression value of notes played will change. This means that notes which are held down will be unaffected by movement of the expression shoe — only new notes played will respond to changes in the shoe position.

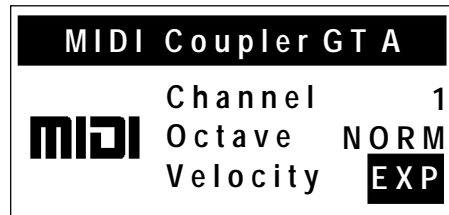
Also, instruments controlled by couplers set in Expression Velocity mode will typically be much louder when the expression shoe is pushed open — because both the volume

and velocity are set to full, the instrument will be significantly louder than when using a lower fixed velocity value.

Selecting Expression Velocity

To set a coupler to Expression Velocity mode:

1. Hold **SET** and press the MIDI coupler piston. (The MIDI coupler will flash).
2. Rotate the Select knob to highlight the **Velocity** field in the console display:



3. Rotate the Alpha dial to select Expression Velocity (**EXP**).
4. Press either the flashing MIDI coupler piston or General Cancel ('0') to exit.

The velocity selection procedure is complete. Combination pistons which are set while the MIDI coupler is activated will also store the velocity setting. A MIDI Save may be performed to save this setting as the default. See "MIDI Save" on page 75.



*Instead of saving, you may press and hold General Cancel ('0') and momentarily press **SET** to return MIDI couplers to their defaults. This Reset procedure also returns Voice Palette selections to their defaults.*

Keyboard Velocity

Keyboard velocity mode allows the velocity value of each note to be determined by the actual physical force used when the key is played, just like a piano keyboard. The harder the key is depressed, the louder the note and sharper the attack. This is especially useful when controlling percussive instruments and/or when you want to use key velocity as a means of musical expression.

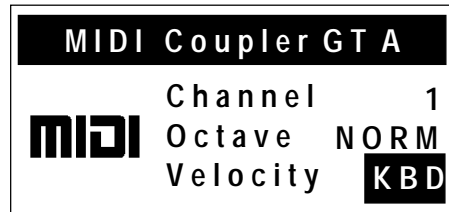
There are also a variety of velocity curves available which allow you to specify how sensitive the keyboards are. See "Setting Velocity" on page 72 for more information.

Organ stops are not affected by keyboard velocity. Also, wood keyboards are not velocity sensitive.

Selecting Keyboard Velocity

To select Keyboard Velocity for a MIDI coupler:

1. Hold **SET** and press the MIDI coupler piston. (The MIDI coupler will flash).
2. Rotate the Select knob to highlight the **Velocity** field in the display:



3. Rotate the Alpha Dial to select Keyboard Velocity (**KBD**).
4. Press either the flashing MIDI coupler or General Cancel (**'0'**) to exit.

The velocity selection procedure is complete. Combination pistons which are set while the MIDI coupler is activated will also store the velocity setting. A MIDI Save may be performed to save this setting as the default. See "MIDI Save" on page 75.

! *Instead of saving, you may press and hold General Cancel ('0') and momentarily press SET to return MIDI couplers to their defaults. This Reset procedure also returns Voice Palette selections to their defaults.*

Pan

MIDI sound modules which conform to the GM and GS Format standards support the Pan message, which allows you to place an instrument at a specific point within a stereo field. When the Pan message is set to **'0'**, the instrument is located in the center; directly between left and right.

As the value is decreased, the instrument moves further and further into the left side of the stereo field. A value of **'-64'** denotes the instrument is as far left as possible.

As the value is increased, the instruments further and further right in the stereo field. A value of **'64'** denotes the instrument is as far right as possible.

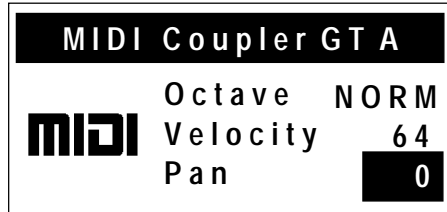
Each MIDI coupler can have its own individual Pan value.

Note that L-R imaging may be different depending upon speaker set-up. PAN is especially useful when sending audio to a stereo PA system or recording.

Setting the Pan value for a MIDI Coupler

To set the Pan value for a MIDI coupler:

1. Hold **SET** and press the MIDI coupler piston. (The MIDI coupler will flash).
2. Rotate the Select knob to highlight the **Pan** field in the display:



3. Rotate the Alpha Dial to select the desired Pan value
4. Press either the flashing MIDI coupler or General Cancel ('0') to exit.

Sustain/Sostenuto/Soft

The T787 is equipped with a foot switch which can be programmed to control one of three MIDI effects: **Sustain**, **Sostenuto** or **Soft**. These three effects are analogous to the types of pedals found on an acoustic piano. The Sustain function causes all notes to be sustained, whereas the Sostenuto function sustains only those notes which are held while the switch is activated (subsequent notes played while the switch is depressed will not be sustained). The Soft function reduces the overall volume of the voice.

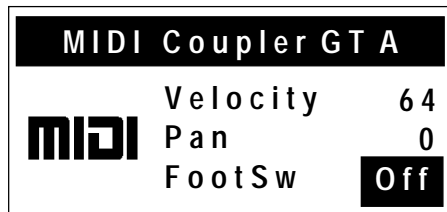
The foot switch is located on the top left edge of the Great/Pedal expression shoe. Press the switch towards the left to activate the function; release the switch to deactivate.

Each MIDI coupler can be set to perform these functions.

Enabling/Disabling a Foot Switch Function for a MIDI Coupler

To enable or disable a foot switch function for a MIDI coupler:

1. Hold **SET** and press the MIDI coupler piston (the MIDI coupler will flash).
2. Rotate the Select knob to highlight the **FootSw** field:



3. Rotate the Alpha dial to select the desired setting (**Off**, **Sust**, **Sost**, or **Soft**)
4. Press either the flashing MIDI coupler or the General Cancel to exit.

The Foot Switch Function selection procedure is complete. Combination pistons which are set while the MIDI coupler is activated will also store this setting. A MIDI Save may be performed to save this setting as the default. See “MIDI Save” on page 75.

! *Instead of saving, you may press and hold General Cancel ('0') and momentarily press SET to return MIDI couplers to their defaults. This Reset procedure also returns Voice Palette selections to their defaults.*

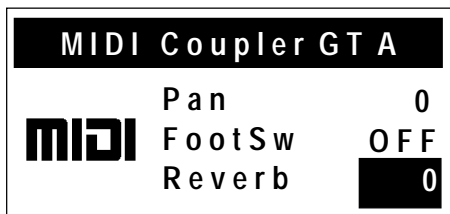
Reverb

An independent reverb level (from 0-127) may be set for each MIDI coupler. This value controls the reverb within the MIDI device itself, not the RSS[®] Room Modeling system within the organ.

Setting the Reverb Level for a MIDI Coupler

To set the Reverb value for a MIDI coupler:

1. Hold **SET** and press the MIDI coupler piston. (The MIDI coupler will flash).
2. Rotate the Select knob to highlight the **Reverb** parameter in the display:



3. Rotate the Alpha dial select the desired Reverb value.
4. Press either the flashing MIDI coupler or General Cancel ('0') to exit.

The Reverb selection procedure is complete. Combination pistons which are set while the MIDI coupler is activated will also store the Reverb value. A MIDI Save may be performed to save this setting as the default. See “MIDI Save” on page 75.

! *Instead of saving, you may press and hold General Cancel ('0') and momentarily press SET to return MIDI couplers to their defaults. This Reset procedure also returns Voice Palette selections to their defaults.*
To avoid possible distortion, do not use very high reverb levels.


Chorus

An independent chorus level (from 0-127) may be set for each MIDI coupler. Chorus adds a slight pitch fluctuation to a given sound; it is often used for guitar and electric piano tones.

Setting the Chorus Level for a MIDI Coupler

To set the Chorus level for a MIDI coupler:

1. Hold **SET** and press the MIDI coupler piston. (The MIDI coupler will flash).
2. Rotate the Select knob to highlight the **Chorus** parameter in the display:

| MIDI Coupler GT A | | |
|---|--------|-----|
|  | FootSw | OFF |
| | Reverb | 0 |
| | Chorus | 0 |

3. Rotate the Alpha dial to select the desired Chorus value.
4. Press either the flashing MIDI coupler or General Cancel ('0') to exit.

The Chorus selection procedure is complete. Combination pistons which are set while the MIDI coupler is activated will also store the Chorus value. A MIDI Save may be performed to save this setting as the default. See "MIDI Save" on page 75.

! *Instead of saving, you may press and hold General Cancel ('0') and momentarily press **SET** to return MIDI couplers to their last saved status. This also returns Voice Palette selections to their defaults.*

Expression

The MIDI language specifies two separate messages for setting the level of a tone: Expression (CC#11) and Volume (CC#7). It is possible to send either of these messages on a MIDI coupler when the corresponding shoe is moved. This setting can be made independently for each MIDI coupler.

Most newer MIDI modules respond to either message, causing changes in the level of a tone. In most MIDI applications, Volume (CC#07) is used to set relative balances among the various parts while Expression (CC#11) is used to create changes in the level of each part.

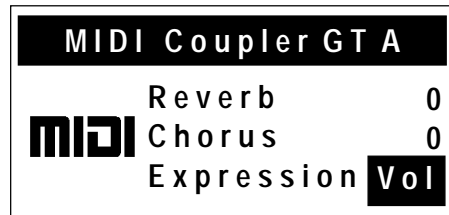
Because it was the first message of this type, the T787 factory default specifies the Volume (CC#7) message for all couplers; typically, this setting is able to be used with most MIDI sound modules. However, any coupler can be set to use the Expression (CC#11) message if

desired. If you don't want to send either Volume or Expression from the shoes for a given MIDI coupler, set this parameter to OFF.

Setting the Expression/Volume Parameter for a MIDI Coupler

To set the Expression/Volume parameter for a MIDI coupler:

1. Hold **SET** and press the MIDI coupler piston. (The MIDI coupler will flash).
2. Rotate the Select knob to highlight the **Expression** parameter:



3. Rotate the Alpha dial to select the desired setting (**Off**, **Exp** or **Vol**).
4. Press either the flashing MIDI coupler or General Cancel ('0') to exit.

The Expression selection procedure is complete. Combination pistons which are set while the MIDI coupler is activated will also store the Expression value. A MIDI Save may be performed to save this setting as the default. See "MIDI Save" on page 75 for more information.



*Instead of saving, you may press and hold General Cancel ('0') and momentarily press **SET** to return MIDI couplers to their defaults. This Reset procedure also returns Voice Palette selections to their defaults.*

Global MIDI Settings

In addition to the various MIDI parameters that can be stored relative to individual MIDI couplers, there are a number of global MIDI settings which affect the entire instrument. Each of these will be described in this section.

All Notes Off Command

Occasionally, it is desirable to send a MIDI "All Notes Off" message from a keyboard to reset notes played by external equipment.

To send an "All Notes Off" message from the T787 Sequencer Out and MIDI Out ports:

1. Press and hold **SET** then momentarily press General Cancel ('0'). Release both pistons.

An “All Notes Off” message will be sent on all 16 MIDI channels from both the **SEQ OUT** and **MIDI OUT** ports of the organ.

Master Channels

Much of the discussion about MIDI so far has dealt with the actions of the MIDI couplers; those controls which allow you to play the instruments in an external MIDI sound module. However, the stops and divisions of the Rodgers T787 can also be recorded by a sequencer and played back, either with or without sounds from an external sound module.

In order to keep the sounds of the organ separate from those of a MIDI sound module, certain **Master Channels** have been reserved specifically for the T787. One channel is reserved for each division:

| | |
|----------------------|----|
| Great Master Channel | 12 |
| Swell Master Channel | 13 |
| Pedal Master Channel | 14 |

The organ sends and receives note and volume information on these channels unless they are disabled. Most likely, the Master Channels will always be enabled in your situation, however, there are a few unique setups where it might be desirable to suppress the transmission or reception of information for one or more organ divisions.

When controlling the T787 from an external MIDI keyboard, sending note information from the keyboard to the organ on a Master Channel will cause the respective keyboard or pedalboard to play. For example, sending notes on channel 12 will cause the same effect as playing those identical notes on the Great keyboard.



*All Master Channels can be disabled quickly through the use of the **Multitrack Mode**. See page 68 for more information.*

Enabling or Disabling a MIDI Master Channel

The status of each Master Channel can be set individually using the following procedure. Available options are: **Send & Receive** (the normal mode), **Send only**, **Receive only** or **Off** (no Send or Receive).

To enable or disable MIDI Send and/or Receive on a Master Channel:

1. Press and release the **QUICKMENU** piston.
2. Rotate the Select knob to highlight **MIDI Settings**.
3. Press and release **QUICKMENU** to select the MIDI Settings category.
4. Rotate the Select knob to highlight **Master Channels**.

5. Press and release **QUICKMENU** to select Master Channels. The following screen is displayed:



6. To change the Master Channel in the display, use the Select knob to highlight the Master Channel field (**PD** in the example above) then rotate the Alpha dial to change the selection.
7. To change the Master Channel status in the display, use the Select knob to highlight the Master Channel field (**Send/Recv** in the example above) then rotate the Alpha dial to change the selection.
8. Press General Cancel ('0') to exit.



*All Master Channels are reset to **Send & Receive** when the organ is powered off.*

Registrations

In addition to note and volume information sent on the Master Channels, the Rodgers T787 sends and receives MIDI information related to registrations. This information can be used to control the stops and couplers of a separate Rodgers organ or, more commonly, can be recorded by a sequencer (along with the note and volume information on the Master Channels) and then recreated during playback.

Registration information is normally transmitted and received in the form of System Exclusive (SysEx) messages. Every time there is a change in a stop or coupler, a SysEx message is generated by the organ which gives the updated status of *all* stops and couplers. Each of these SysEx messages, then, communicates the status of the entire instrument.

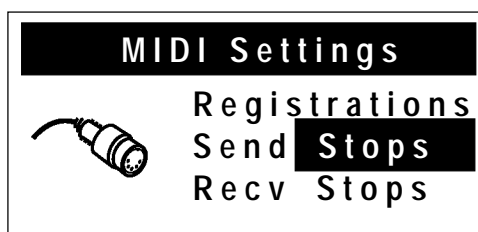
If desired, the T787 can transmit Program Changes when combination pistons are pressed on the organ. These messages only communicate which pistons are pressed, not the status of stops and couplers. This is often useful when controlling the T787 from a remote MIDI keyboard which sends Program Changes or from a different model of Rodgers organ. The Program Changes are sent and received on one of the Master Channels.

System Exclusive messages normally provide the optimum control over registrations, both those made by pressing pistons and those changed by hand. Factory default settings of both Send and Receive are set to **Stops** (System Exclusive messages). Available options are: **Stops, Pistons** (Program Change messages), **Stops and Pistons** and **Off**.

Selecting MIDI Registration Settings

To change the Send or Receive status of Registration messages:

1. Press and release the **QUICKMENU** piston.
2. Rotate the Select knob to highlight **MIDI Settings**.
3. Press **QUICKMENU** to select the MIDI Settings category.
4. Rotate the Select knob to highlight **Registrations**.
5. Press **QUICKMENU** to select the Registrations category. The following screen is displayed:



6. Rotate the Select knob to highlight the desired field (**Send** or **Recv**).
7. Rotate the Alpha dial to change the setting.
8. Press General Cancel ('0') to exit.



Registration settings are saved when the organ is turned off.

Using Pistons to Control a Second Rodgers Console

In cases where two Rodgers organs are available, it is possible to play either or both instruments from one location. This configuration is often seen in situations where two Rodgers organs are installed in the same building. In these setups, the controlling console is referred to as the "Master", and the console played from a remote location is known as the "Slave".

In order for the two consoles to communicate, a MIDI connection must be made between the "Sequencer Out" jack of the Master console and the "Sequencer In" jack of the Slave. (A number of third-party companies make special systems to transmit MIDI over long distances).

Once this connection is made, the Master console can access the resources of the slave console. Most often, it is best to use pistons to control registrations at both locations; when a certain piston is pressed on the Master console, the same piston is selected at the Slave console.

To set up both consoles so that pistons are used to control registrations:

1. Select **Pistons** in the **Registrations Send** field of the Master console.
2. Select **Pistons** or **Stops and Pistons** in the **Registrations Received** field of the Slave console.

After this setup is accomplished, pressing a piston on the Master console will select that piston and the same numbered piston on the Slave console. The contents of each piston can be different.

If there are times you want to use the resources of one instrument alone (i.e., the other is silent), use a piston to activate a registration on the console to be heard, and set the same piston on the “silent” console so that it contains no active stops. That way, even though a piston is selected on both the Master and the Slave console, only the instrument which has stops activated will be heard.



You can also use the Local Off control to silence the Master console. See page 69.

Multitrack Mode

There are times when it is desirable to use the Great manual of the T787 to create a “Multitrack” or layered sequence using an external MIDI sequencer and sound module. This setup is most often used by people who have developed an advanced MIDI knowledge; it configures the organ so that it is optimized for the layering of MIDI instruments.

When the organ is in Multitrack Mode, the following changes occur:

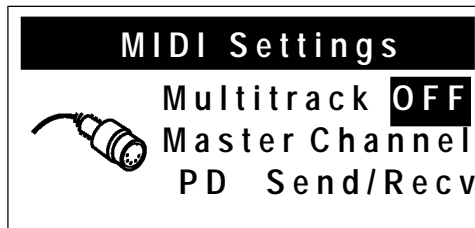
1. The transmission of note and volume information on all Master Channels is disabled.
2. Stop/piston information is no longer sent when a piston is pressed or a Start command received.
3. MIDI Update is turned off.
4. MIDI couplers do not send program changes when there is a MIDI Start command.

These changes ensure that only information related to the MIDI couplers is transmitted; no organ information will be sent and recorded. This allows you to record only the information related to MIDI instruments in your Multitrack sequence.

Many display screens related to the features which are disabled in Multitrack Mode are not available while Multitrack Mode is enabled (Master Channel Status, Stop Message Transmission, etc.). Also, Multitrack Mode must be disabled before the organ can be sequenced.

To turn Multitrack Mode On or Off:

1. Press and release the **QUICKMENU** piston.
2. Rotate the Select knob to highlight **MIDI Settings**.
3. Press **QUICKMENU** to select the MIDI Settings category.
4. Rotate the Select knob to highlight **Multitrack**.
5. Press **QUICKMENU** to select Multitrack Mode. The following screen is displayed:



6. Rotate the Alpha dial to select the desired setting (**On** or **Off**).
7. Press General Cancel ('0') to exit.



*The organ returns to **Multitrack Mode Off** when it is powered down.*

Local On/Off

The Local On/Off control provides opportunities for some very unique MIDI setups, many of which will not be used by most organists. However, should the need arise, the control is available.

When the T787 is in the **Local On** condition, the instrument operates normally. This is the default setting.

When the T787 is in the **Local Off** condition, the stops, keyboards and pedalboard of the organ are disconnected from the internal ("Local") sounds of the instrument, so that activating stops and playing notes won't result in any sound being heard.

However, the instrument still transmits MIDI information which can be recorded or used to control a separate Rodgers organ. This feature can be used to silence the Master console completely when one Rodgers organ is used to control another Rodgers console.

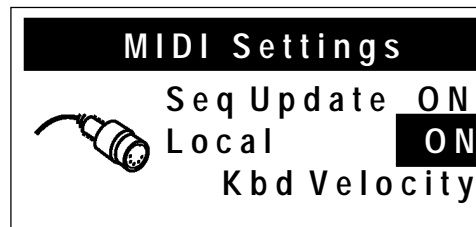
Also, in the **Local Off** condition, "Local" organ voices can still be played by a sequencer or remote keyboard connected to the T787 MIDI IN jack; this means that the sounds of the T787 can be controlled by a remote source even when "Local Off" is selected.

Finally, **Local Off** can be useful in specific sequencing applications when you are recording both organ and MIDI voices. To use it, MIDI SOFT THRU must be enabled on your sequencer.

Selecting the Local Control Setting

To select **Local On** or **Local Off**:

1. Press and release the **QUICKMENU** piston.
2. Rotate the Select knob to highlight **MIDI Settings**.
3. Press **QUICKMENU** to select the MIDI Settings category.
4. Rotate the Select knob to highlight **Local**.
5. Press **QUICKMENU** to select the Local Control setting. The following screen is displayed:



6. Rotate the Alpha dial to select desired setting (**OFF** or **ON**).
7. Press General Cancel ('0') to exit.



*The organ reverts to **Local On** when the instrument is powered off.*

Sequencer Update

MIDI sequencers generate MIDI messages when they start and stop, namely **Start**, **Stop** and **Continue**. The organ uses these sequencer messages to automatically record the stop and expression status at the beginning of a sequence. When a MIDI **Start** command is received, the organ sends the status of all stops and couplers plus the position of the expression shoes to the sequencer so that the initial status of the organ is recorded in the sequence and later recreated during playback.

The organ also sends program change, bank select and expression information for all active MIDI couplers when a **Start** command is received.

The **Sequencer Update** control in the MIDI Settings menu defines how the organ responds to Start, Stop and Continue messages sent from a sequencer. When the value is set to **On**, proper communication is ensured. This is the configuration which should be used in the vast

majority of applications. When set to **Off**, the organ does not respond to **Start**, **Stop** and **Continue** messages; this configuration is reserved for very specific uses and won't be applicable to most users.

To recap the actions of the T787 when **Sequencer Update** is set to **On**: When the Start message is received, the organ sends current stop, expression, program change and bank values to the sequencer.

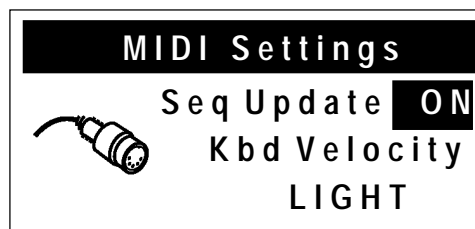
When the Stop message is received, the organ restores its expression values based on the physical position of the shoes, but stores the last expression value from the sequence in its internal memory. This avoids any potential conflict between the last expression value on the sequence and the actual position of the shoes (resulting in a sudden change of volume when a shoe is touched).

When the Continue message is received the stored expression value is restored, ensuring that the sequence continues to play at the correct volume.

Most hardware sequencers (like the Rodgers PR-300S) transmit the Start, Stop and Continue values automatically unless you manually disable them. Some software sequencers may need to have the Start/Stop/Continue transmission enabled from within their MIDI configuration menus.

To turn Sequencer Update On or Off:

1. Press and release the **QUICKMENU** piston.
4. Rotate the Select knob to highlight **MIDI Settings**.
5. Press **QUICKMENU** to select the MIDI Settings category.
6. Rotate the Select knob to highlight **Seq Update**.
7. Press **QUICKMENU** to select the Sequencer Update setting. The following screen is displayed:



8. Rotate the Alpha dial to select desired setting (**OFF** or **ON**).
9. Press General Cancel ('0') to exit.



*The organ reverts to **Sequencer Update On** when the instrument is powered off.*

Setting Velocity Sensitivity

As stated in the “Keyboard Velocity” section on page 59, sounds played from MIDI couplers can be controlled by velocity-sensitive keyboards, where the strength of a key strike determines the volume and attack characteristic of a note. In addition to this parameter in the MIDI coupler settings, there is also a global setting which determines the velocity sensitivity of the keyboards — how much pressure is needed to achieve a high velocity value.

There are three available velocity curves to choose from:

- **LIGHT**: most sensitive – Light keystrokes can achieve a higher than normal velocity.
- **NORMAL**: normal sensitivity – a direct relationship between touch and sound result
- **HEAVY**: least sensitive – Heavier than normal keystrokes are required to achieve high velocity values.

These three curves allow you to choose the keyboard response which is most comfortable. This setting affects all keyboards of the instrument.

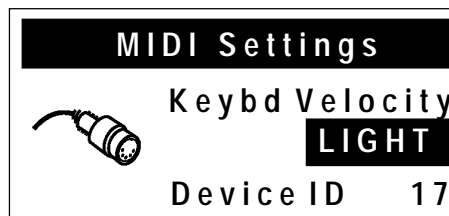


Wood keyboards are not velocity sensitive. Also, this velocity sensitivity only affects sounds in an external MIDI module. Organ voices are not velocity sensitive.

Setting the Keyboard Velocity

To select a keyboard velocity setting:

1. Press and release the **QUICKMENU** piston.
2. Rotate the Select knob to highlight **MIDI Settings**.
3. Press and release **QUICKMENU** to select the MIDI Settings category.
4. Rotate the Select knob to highlight **Keybd Velocity**.
5. Press **QUICKMENU** to select the Keyboard Velocity parameter. The following screen is displayed:



6. Rotate the Alpha dial to select the desired setting (**LIGHT**, **NORMAL** or **HEAVY**).
7. Press General Cancel ('0') to exit.

A MIDI Save may be performed to save this setting as the default. See “MIDI Save” on page 75 for more information.



*Instead of saving, you may press and hold General Cancel ('0') and momentarily press **SET** to return MIDI couplers to their defaults. This Reset procedure also returns Voice Palette selections to their defaults.*

MIDI Device ID

MIDI Device ID is an identification number used in System Exclusive Stop Control messages. This ID number can be used to allow independent control over multiple organ consoles connected via MIDI or to facilitate storing multiple sets of registration information on a sequencer recording.

Normally, the organ both sends and recognizes an ID number of 17; stop messages with other ID numbers are ignored. When multiple consoles are controlled via MIDI, each can use a different ID number, thereby allowing independent control of each console's registration.

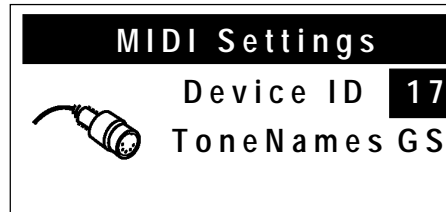
The number can be set to 1, or 17 through 32. Setting the ID to 1 produces Stop Control messages that are compatible with older Rodgers PDI and C-Series organs.

In most cases, the ID will not need to be changed.

Setting MIDI Device ID

To select a different MIDI Device ID:

1. Press and release the **QUICKMENU** piston.
2. Rotate the Select knob to highlight **MIDI Settings**.
3. Press **QUICKMENU** to select the MIDI Settings category.
4. Rotate the Select knob to highlight **Device ID**.
5. Press **QUICKMENU** to select the Device ID category. The following screen is displayed:



6. Rotate the Alpha dial to select a new Device ID number.
7. Press General Cancel ('0') to exit.



The Device ID reverts to a value of 17 when the instrument is powered off.

Tone Names

As detailed in the “MIDI Coupler Settings” section starting on page 50, the T787 can display the names of tones which are selected in the MIDI Coupler screens. This allows you to select instruments by name, if desired.

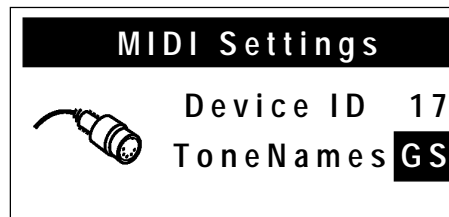
When you specify tones by name using either the GM or GS tone maps, the T787 automatically generates the appropriate Program Change and Bank Select messages. This is a powerful feature, since many different GM and GS Format modules are available.

If you use a module that does not conform to either GM or the GS Format sound set, or goes beyond the sounds available in those standards, you can set the Tone Names parameter to OFF. In this case, names will not be displayed and you will be able to manually set the Program Change, Bank Select MSB and Bank Select LSB when calling up a sound in the MIDI Coupler Settings screen. In this case, refer to the user manual for your MIDI device to determine the values to use for each.

Setting the Tone Names Parameter

To set the Tone Names Parameter:

1. Press the **QUICKMENU** piston.
2. Rotate the Select knob to highlight **MIDI Settings**.
3. Press **QUICKMENU** to select the MIDI Settings category.
4. Rotate the Select knob to highlight **ToneNames**.
5. Press **QUICKMENU** to select the Tone Names category. The following screen is displayed:



6. Rotate the Alpha dial to select the desired setting (**GS**, **GM** or **Off**).
7. Press General Cancel ('0') to exit.

A MIDI Save may be performed to save this setting as the default. See MIDI Save on page 75.



*Instead of saving, you may press and hold General Cancel ('0') and momentarily press **SET** to return MIDI couplers to their defaults. This Reset procedure also returns Voice Palette selections to their defaults.*

MIDI Connections

There are multiple MIDI jacks on the T787, labeled **SEQ IN/OUT** and **MIDI IN/OUT/THRU**.

Always connect a sequencer or sequencer/sound module combination (such as the Rodgers PR-300S) to the **SEQ IN/OUT** ports on the organ. **The sequencer must not be in Soft Thru mode.** Any other MIDI instruments or keyboards should use the ports labeled **MIDI**.

MIDI Save

Many changes to MIDI settings are temporary and are lost when the organ is turned off. However, the MIDI Save procedure can store many of these new settings as the default, so that the change is retained when the organ is powered off.

Please note that there are a few MIDI settings which cannot be changed and saved using the MIDI Save procedure.

Saving MIDI Control Settings

To perform the MIDI Save procedure:

1. While in any MIDI menu, make the desired changes.
2. Press and hold the **SET** piston, then press and hold General Cancel ('0'). Continue to hold both pistons for approximately five seconds, until the following screen is displayed:



10. Release both pistons. The changes have been saved as the default.

Saving a Combination Memory to a Sequencer

The contents of any combination memory may be saved to a MIDI sequencer and later reloaded into the organ. This allows storage of registrations in an external device.

Saving a Combination Memory

To save a combination memory to a sequencer:

1. Make sure the sequencer is connected correctly to the **SEQ IN** and **SEQ OUT** jacks.

2. Start the sequencer in Record mode.
3. Wait until sequencer is recording (after the count-in measures, if any) then hold SET and momentarily press the memory piston (**M1**, **M2**, **M3** or **M4**) corresponding to the memory you wish to store.
4. Release both pistons. The console display will read:

**Memory Copied
To Sequencer Port**

11. Wait five seconds, then perform steps 3 and 4 above to send another memory to the sequencer, if desired. Make certain you leave a few measures of space between the memories which are saved.
12. When all memories have been recorded, stop the sequencer.

Remember to save the sequence after all memories have been recorded.

Restoring a Combination Memory

To restore a memory which has been saved to a sequencer:

1. Make certain sequencer is connected correctly to the **SEQ IN** and **SEQ OUT** jacks.
2. Begin playback of the sequence containing the piston information.
3. Stop the sequencer as soon as a memory piston (**M1**, **M2**, **M3** or **M4**) begins to flash. This indicates that a memory has been received by the organ. (The particular memory piston which flashes denotes which memory level has been received from the sequencer).
4. Hold **SET** and press the memory piston where you'd like the memory stored. This selection can be *any* of the available memory pistons.
5. Release both pistons. The memory will be saved.
6. If more memories exist in the sequencer recording (and you want to write them into the instrument) press Play to start the sequencer from that point and then follow steps 3 through 5 again.

When copying more than one memory to the sequencer, it is necessary to wait a few measures between saving individual memories, or place them on different tracks. This procedure reduces confusion regarding the location of the memories on the sequencer.

When playing back the memories, play only one at a time. Each time the organ starts to receive a new memory, it discards any previous information in the temporary holding area. It is necessary to transfer each memory to its destination memory in the organ before playing back the next.



If a Rodgers SmartCard is inserted when recording or playing back combination memories, and the card memory is in use for the memory level being saved/restored, the memory is saved from or restored to the SmartCard rather than the internal memory.

SPECIFICATIONS

Rodgers T787 Controls Specification

GREAT (Manual I)

Principal 8' (*Diapason 8'*)
Rohrflöte 8'
Gemshorn 8'
Flüte Celeste II 8' (*Erzähler Celeste II 8'*)
Octave 4' (*Principal 4'*)
Spitzflöte 4' (*Unda Maris II 4'*)
Super Octave 2' (*Waldflöte 2'*,
Quintflöte 1 1/3')
Fourniture IV
Cromorne 8' (*Trompette 8'*, *Royal
Trumpet 8'*)
Chimes (*Harpichord, SATB Ah, SATB
Oo*)
Tremulant
Swell to Great
MIDI Great A
MIDI Great B

SWELL (Manual II)

Bourdon Doux 16' (*Strings, Slow
Strings*)
Geigen Principal 8' (*Viole 8'*)
Viole Celeste II 8'
Bourdon 8'
Prestant 4'
Flauto Traverso 4'
Nazard 2 2/3'
Flüte à Bec 2'
Tierce 1 3/5'
Plein Jeu IV
Basson 16' (*Fagot 16'*)
Trompette 8' (*Royal Trumpet 8' (Gt)*)
Hautbois 8' (*Brass*)
Tremulant
Swell Unison Off
MIDI Swell A
MIDI Swell B

PEDAL

Contre Violone 32'
Principal 16' (*Violone 16'*)
Subbass 16' (*Bordun 16'*)
Bourdon Doux 16' (Sw)
Octave 8'
Gedackt 8'
Choralbass 4' (*Nachthorn 4'*)
Mixture IV (*Rohrschalmei 4'*)
Posaune 16' (*Basson 16'*)
Trompette 8'
Great to Pedal
Swell to Pedal
MIDI Pedal A
MIDI Pedal B

GENERAL CONTROLS

Melody
Bass
Flute Tremulant II
Main Off
Antiphonal On
Great to Pedal Unenclosed
Pipes Off
Ancillary On
QuickMenu
Tutti

COMBINATION PISTONS

General 1-2-3-4-5-6-7-8-9-10
General 1-2-3-4-5-6-7-8-9-10 (toe)
Swell 1-2-3-4-5
Great 1-2-3-4-5
Pedal 1-2-3-4-5
General Cancel
Set
Tutti

MEMORY PISTONS

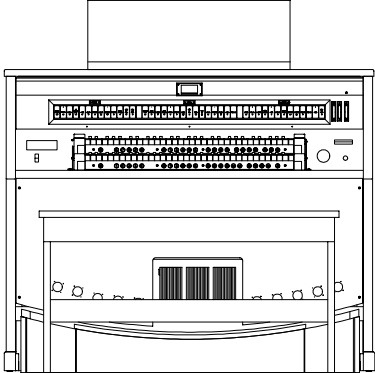
Memory 1
Memory 2
Memory 3
Memory 4

SHOES (all with indicators)

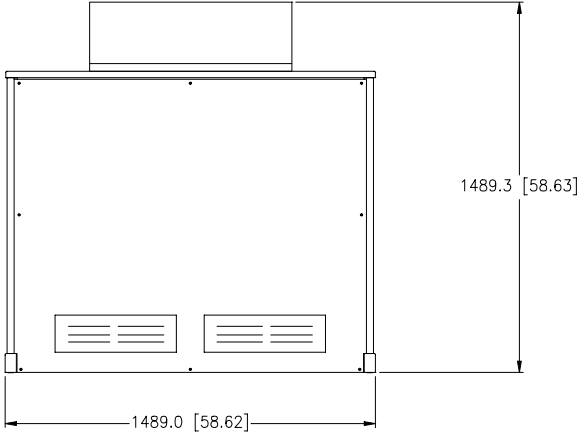
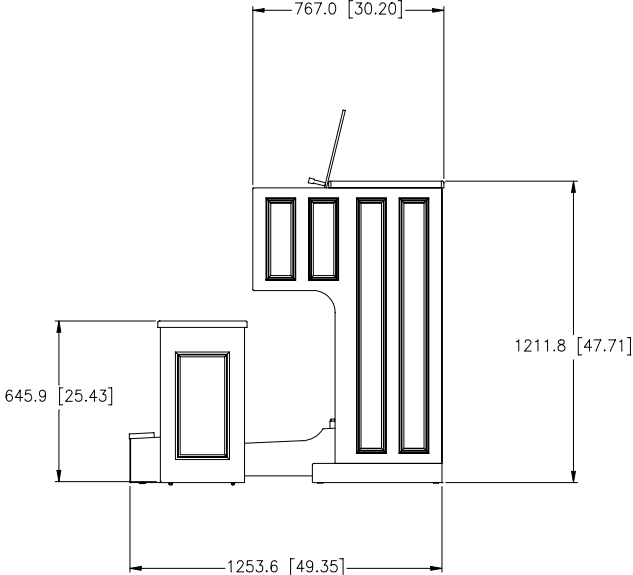
Gt/Ped Expression
Swell Expression
Crescendo

Italicized voice names in parentheses are available through Voice Palette system.

RODGERS T787 CONSOLE DIMENSIONS



(T787 SHOWN)



NOTE: DIMENSIONS IN MM [INCHES]

FILE: T787MAN.DXF

FACTORY DEFAULT COMBINATION SETTINGS

The Rodgers T787 is shipped from the factory with default settings on combination memories **M1**, **M2**, and **M3**. Registrations on these memories can be changed, but if the original factory default settings are desired, they can be restored by performing the following procedure.

Restoring Factory Default Combination Settings

To restore the Factory Default Combination Settings:

1. Press and hold the memory piston to be restored (M1, M2, or M3) for approximately five seconds. The display shows **LOCKED** or **UNLOCKED**.
2. While holding the memory piston, press and hold SET for an additional five seconds until the display shows **MEMORY (#) FACTORY DEFAULT**.
3. Release both pistons.

The memory has been returned to factory defaults.



Each memory must be individually restored by performing the above procedure.

DEMONSTRATION TOOLS

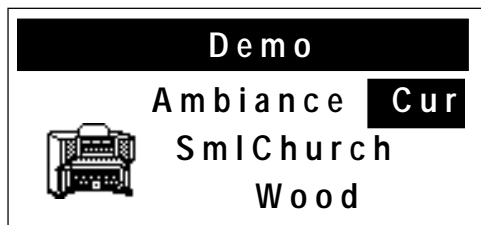
The T787 organ has two demonstration tools which allow you to display the exceptional functionality and sound quality of your instrument. One of these tools presents the power of the **Rodgers Sound Space** system; the other plays demo songs located in the internal memory of the organ.

Accessing the Rodgers Ambiance Demo

The Ambiance Demo allows you to quickly scroll through a number of preset Room Modeling examples without affecting the default setting for your instrument. This means the instrument will return to the normal Room Modeling setting after you exit the Ambiance Demo screens.

To access the Rodgers Ambiance Demo:

1. Hold General Cancel ('0') and press **QUICKMENU**. The following screen is displayed:



2. Rotate the Alpha dial to select from the available demo settings (**Cur** denotes the current default setting).
3. Press General Cancel ('0') to exit.



The organ can be played while previewing any of these Ambiance settings.

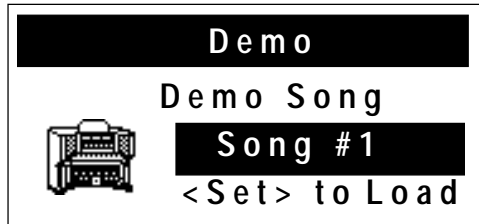
Playing the Demo Songs

The T787 is equipped with a Demo Song player which will play MIDI sequences stored inside the instrument. This feature allows you to demonstrate the T787 or to audition the sound of the instrument from another location in the room (by starting a demo song and then walking around).

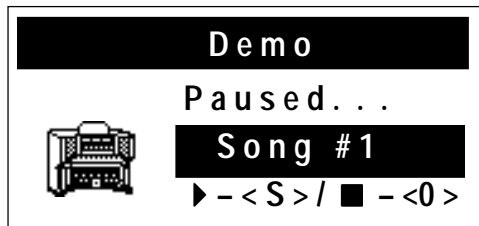
There are a number of factory included demo songs stored inside your instrument. These songs are non-changeable.

To play songs:

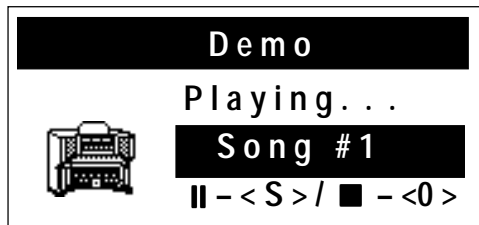
1. Hold General Cancel ('0') and press **SET**.
2. Rotate the Select knob to move to the Demo Song screen:



3. Rotate the Alpha dial to select the desired song.
(**Song #1** is used in the example above).
4. Press **SET** to load the selected song. The **SET** piston flashes when the song is loaded and the following screen is displayed:



5. Press **SET** again to begin playback of the selected song. (Press General Cancel instead if you want to exit without playing the song). During playback, the following screen is displayed:



6. During playback, pressing **SET** will pause the song and causes the **SET** piston to flash; pressing **SET** again will cause playback to resume from that point. Pressing General Cancel ('0') during playback will cause the song to reset to the beginning.
7. Pressing General Cancel ('0') twice during playback or once from a paused state will exit the Demo song screens.

CARE AND MAINTENANCE

As with any fine musical instrument, reasonable care is necessary to protect your investment. Normally no difficulties should be experienced, as only the finest component parts are used by Rodgers. If your instrument should require 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. A final catalytic process protective coat makes the Rodgers console impermeable to many harmful substances. The resulting finish 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. 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 a window.

Keyboards and Stop Tabs

Keyboards and tabs 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.).

Pipes on Pipe-Augmented Instruments

The pipes should never be handled or touched by anyone but a qualified organ service representative.

INDEX

- additional settings
 - deleting from card, 33
 - storing on card, 33
- ancillary on, 28
- antiphonal speaker system, 28
- automatic shutdown, 29
- auxiliary inputs
 - adjusting, 46
- basic operations, 4
- chorus
 - MIDI, 63
- cleaning keyboards and stop tabs, 84
- clock, setting time, 49
- combination memory
 - saving on card, 30
 - saving via MIDI, 75
- connecting a sequencer, 75
- coupler pistons, MIDI, 55
- couplers, 36
- Crescendo
 - locking, 24
 - setting, 23
 - unlocking, 23
 - using, 23
- Crescendo sequence
 - clearing, 24
 - viewing, 24
- Crescendo sequence and Tutti
 - storing on card, 32
- Crescendo setting
 - restoring factory default, 25
- Crescendo shoe, 10
- deleting a memory, 33
- detuning
 - random, 40
- device ID, 73
 - MIDI, 73
- Dimensional Sound Modeling, 2
 - Digital Dynamic Wind, 39
- expression
 - setting, 64
- FCC notice, ii
- folders
 - personal memory card, 31
- GM (General MIDI) Standard, 54
- GS Standard, 54
- headphone jack, 45
- headphone settings
 - adjusting, 45, 46
- hold
 - see Sustain, 61
- interference
 - radio and TV, ii
- intermanual & intramanual
 - explanation, 36
- keyboards and stop tabs, cleaning, 84
- lamp level
 - saving to card, 33
- maintenance, 84
- Master Tuning, 21, 33
 - for pipe augmentation, 21
- Master Volume, 44

- menus
 - console, 13
- MIDI
 - coupler pistons, 55
 - device ID, 73
 - note velocity, 57
- MIDI settings, 13
 - save, 33
- MIDI update with Start, Stop, Continue, 70
- modifying features, 13
- names, sound (MIDI), 74
- new folder
 - selecting, on memory card, 32
- notice, FCC, ii
- octave shift, 56
- off
 - turning off/on, 4
- PDI, 73
- Pipe Modeling
 - shutter thickness, 40
- pipes, 2, 21, 28, 39, 40, 41
- pitch
 - Digital Dynamic Wind, 39
 - random detuning, 40
 - temperaments, 37
- power off, 4, 29
- power on, 4
- Program Change, 53, 54
- random detuning, 40
- restoring factory Crescendo setting, 25
- reversible pistons, 9
- saving range on card, 33
- selecting new folder
 - on memory card, 32
- sequence
 - adding stops, 24
 - building new, 24
- sequencer, connecting, 75
- shift
 - octave, 56
- shoes, 10
- shutdown
 - automatic, 29
- shutter thickness, 40
- speaker system
 - antiphonal, 28
- stereo headphone jack, 45
- supply
 - wind, 39
- sustain, 61
- sustain switch, 61
- switch
 - sustain, 61
- temperaments, 37, 38
 - ancient, 37
 - selecting, 38
 - well, 37
- time, setting clock, 49
- toe pistons, 9
- tone names
 - setting, 51
- Transposer, 10, 13
- tremulants
 - adjusting, 22
 - purpose of, 11
 - saving to card, 33

Tuning master

 see Master Tuning, 21

user menus

 with SET and Select, 14

velocity

 keyboard, 59

 MIDI, 57

viewing Crescendo sequence, 24

Voice Palette, 2, 13, 42

 accessing, 42

volume

 master volume, 44

wind supply, 39



1300 N.E. 25th AVENUE, HILLSBORO, OREGON 97124 • (503) 648-4181

1905-787B