

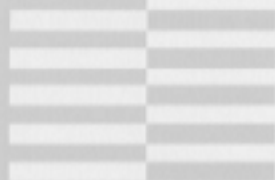
**YAMAHA**

GENERAL  
**MIDI**  
INSTRUMENT

TONE GENERATOR

**TG300**

Owner's Manual 1



**GETTING STARTED GUIDE**

## Safety Notes

Please read the following before operating your TG300.

### Safety information

- Make sure that the power supply adaptor's power cord is not located in a position where it is likely to be walked on, pinched, or both by other equipment placed near to it.
- Do not expose the TG300 to extremes of humidity.
- Do not place the TG300 near water.
- Do not place the TG300 in areas subject to extremely low temperatures.
- Do not place the TG300 in a location subject to excessive dust.
- Do not place the TG300 in a location subject to vibration.
- Do not expose the TG300 to severe shocks.
- Do not place the TG300 in direct sunlight, close to heating units, or in areas subject to high temperatures.
- The ambient temperature where the TG300 is located should be between 10°C and 35°C (50°F and 95°F).

### Warnings

- Use only the power supply adaptor supplied with the TG300.
- The power supply adaptor should be connected to an AC receptacle only of the type described in this *Getting Started Guide* or as marked on the power supply adaptor.
- Before connecting the adaptor to the TG300, make sure it is disconnected from the wall-power (mains) outlet. Always connect the adaptor to the TG300 and then plug the adaptor into the wall-power (mains) outlet.
- To reduce the risk of electric shock, do not remove the cover of the TG300.
- To reduce the risk of fire and electric shock, do not expose the TG300 to rain or moisture.
- The TG300 contains no user serviceable parts. Refer all servicing to qualified personnel.
- The TG300 uses digital circuits that operate at high frequencies. When used close to TV or radio equipment, interference may occur. If this is the case, simply relocate the TG300 or the equipment.
- If any of the following should occur, the TG300 should be serviced by qualified personnel:
  - The power supply adaptor's power cord or plug becomes damaged in any way.
  - Metal objects or liquids get inside the TG300.
  - The TG300 is exposed to rain.
  - The TG300 is dropped, the enclosure is damaged, or both.
  - The TG300 does not operate normally or a marked change in performance is noticed.

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# Introduction

## Welcome to the TG300

Thank you for purchasing a Yamaha TG300. The TG300 is an Advanced Wave Memory (AWM2) 16-part multi-timbral tone generator. It uses 16-bit PCM sounds, digital filters, and contains a high-performance Digital Signal Processor (DSP) for quality effects. See page 1 of the *Reference Guide* for a complete list of TG300 features.

## TG300 User Guides

The TG300 is supplied with two user guides: this *Getting Started Guide* and an *Reference Guide*.

This *Getting Started Guide* explains how to set up your TG300 and start playing.

The *Reference Guide* explains all TG300 functions and features. It also includes a useful glossary of TG300 related terminology and an index for locating information quickly.

We recommend that you start with this *Getting Started Guide*, then move on to the *Reference Guide*. You may want to refer to the *Reference Guide* for more detailed information while using this guide.

## Unpacking

The TG300 packaging should contain the following items. Make sure that you have them all. Write down the TG300 serial number in the box below.

1	TG300	Serial No:
1	Power Supply Adaptor (British model: PA-1210, Other Countries: PA-1207)	
1	<i>Getting Started Guide</i>	
1	<i>Reference Guide</i>	
1	<i>Sound Lists &amp; MIDI Data</i> booklet	

## Installation

The TG300 should be sited on a flat stable surface. Somewhere that complies with the "Safety Notes" on page i.

The TG300 can be rack mounted using the Yamaha rack-mount kit RK200. The Yamaha TS100 tilt stand can be used to angle mount the TG300 for desktop use.

**Note:** *If you use either one of these mounting kits, use only the fixing screws supplied with the TG300 or the kit.*

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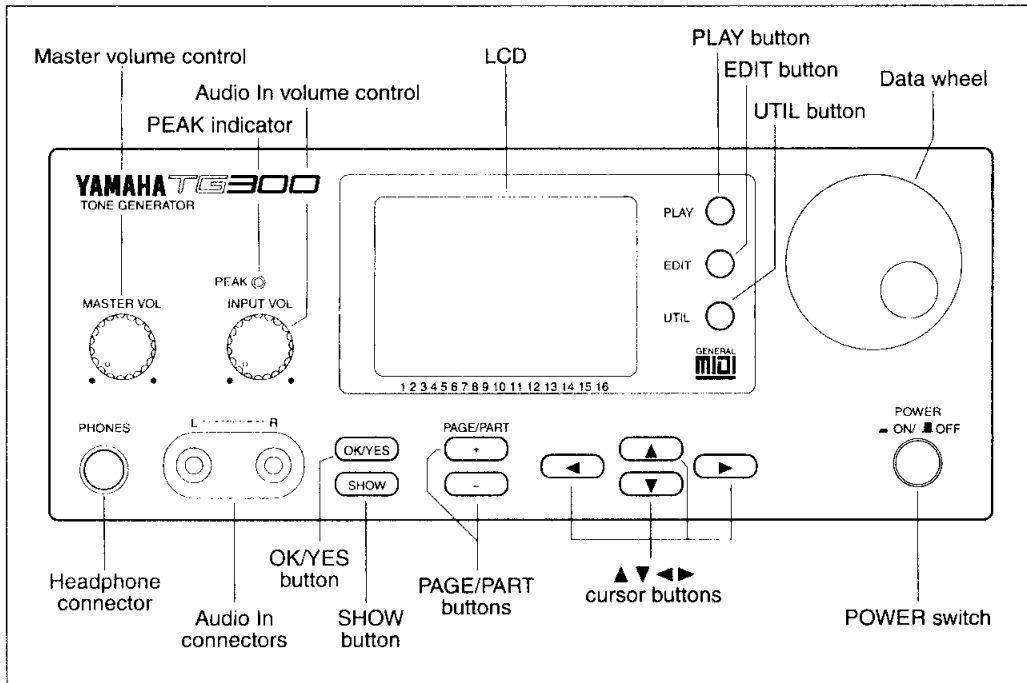
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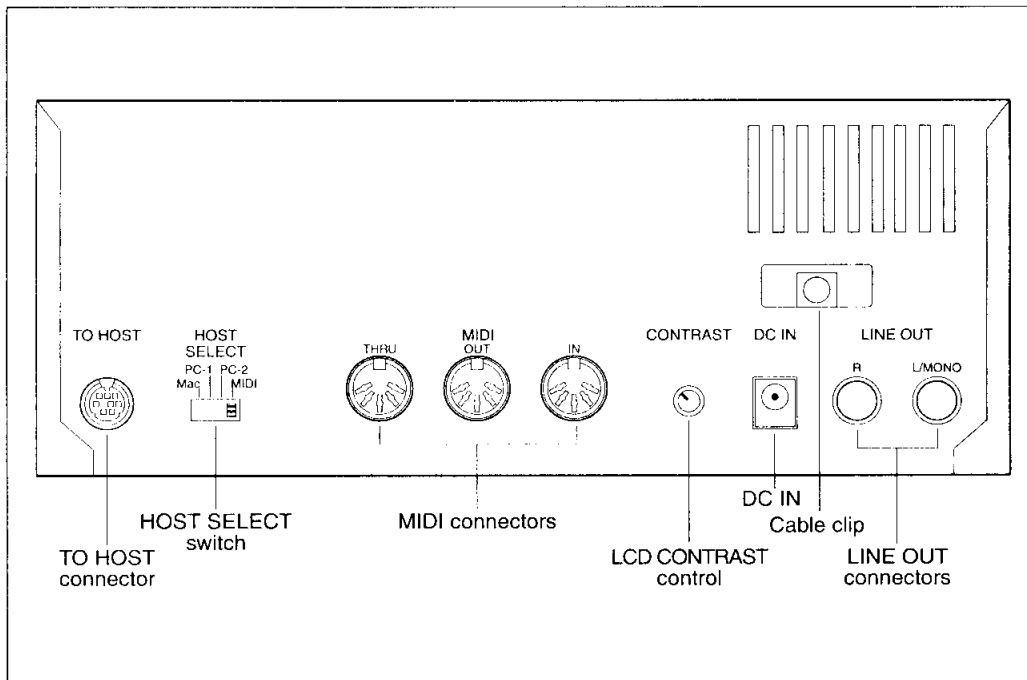
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# 1 Controls & Connections

## Front Panel



## Rear Panel



## 2 TG300 with a MIDI Keyboard

In this chapter, we explain how to use the TG300 with a MIDI keyboard, electronic piano, or any keyboard instrument that can output MIDI data.

### What You'll Need

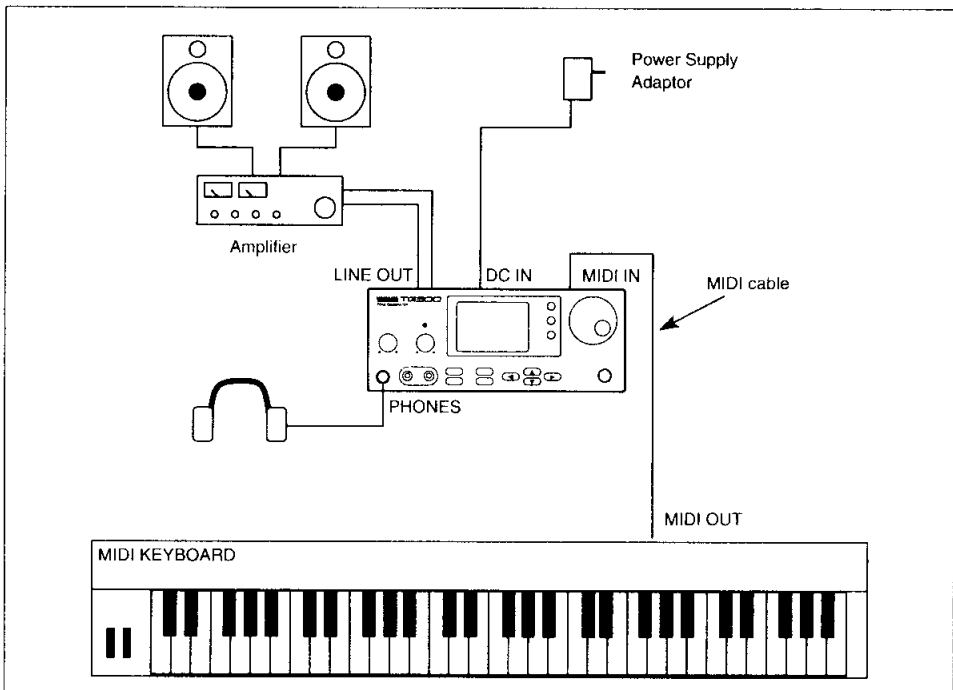
- The TG300 and its power supply adaptor.
- A MIDI keyboard, electronic piano, or any keyboard that can output MIDI data.
- An amplifier. This could be a keyboard amplifier, hi-fi amplifier, audio mixer, etc.
- Audio connecting cables.
- A MIDI cable.

### Making the Connections

**Warning:** Before making any connections, make sure that all your equipment is powered off, and the TG300 power supply adaptor is not connected to an AC receptacle.

1. Connect the MIDI cable from the MIDI keyboard's MIDI OUT connector to the TG300's MIDI IN connector.
2. Connect the audio cables from TG300's R and L/MONO LINE OUT connectors to the amplifier inputs. If the amplifier has only one input, use the L/MONO connection only.
3. Set the TG300's HOST SELECT switch to MIDI.
4. Connect the power supply adaptor to the TG300's DC IN connector.
5. Plug the power supply adaptor into a suitable AC receptacle.

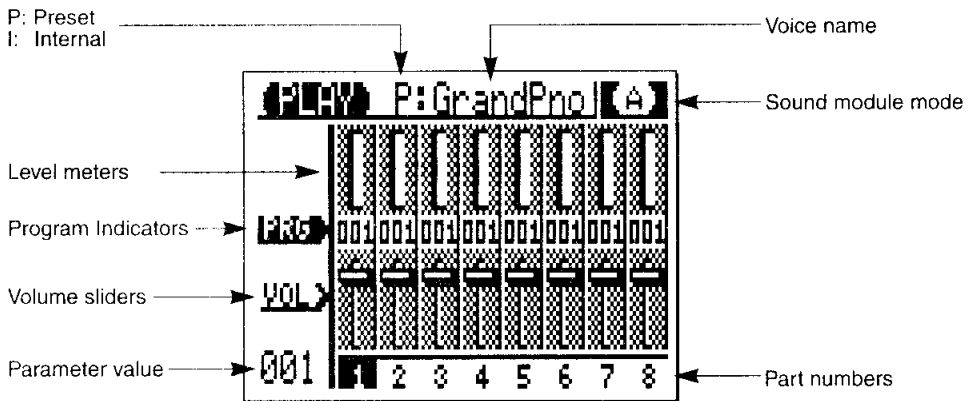
The following illustration shows the TG300 connected to a MIDI keyboard. A pair of headphones are shown as an alternative to an amplifier:



## Switching on the Power

### 1. Press the TG300's POWER switch.

After the Welcome display, the following display will appear:



This is the Play Zoom Display.

### 2. Power on your MIDI keyboard.

### 3. Turn down the amplifier's volume control, then power on.

## Settings

### 1. Set the MIDI keyboard so that it sends MIDI data on MIDI Channel 1.

### 2. Set the amplifier's volume control for normal listening.

### 3. Set the TG300's MASTER VOL control to about half way.

### 4. Play the keyboard.

If everything is OK, you should now be playing and hearing a piano voice.

If no sound is being produced, check the following:

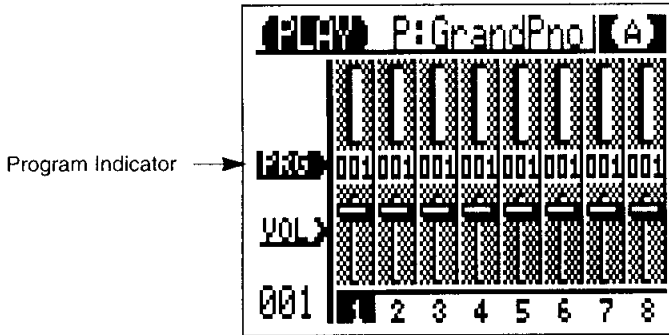
- Is all your equipment powered on?
- Is the MIDI keyboard set to MIDI Channel 1?
- Are the audio and MIDI cable connections OK?
- Is the TG300 HOST SELECT switch set to MIDI?
- Is the TG300 MASTER VOL control turned up?
- Are the amplifier settings OK?

## Selecting Voices

Voices can be selected using the TG300 controls or by sending MIDI Program Change messages from a MIDI keyboard.

### Selecting Voices on the TG300

1. Press the [PLAY] button to select the Play Zoom Display shown below. It may already be selected.



2. Press the [▲] cursor button repeatedly to select PRG. It may already be selected.
3. Use the [◀] and [▶] cursor buttons to select a part. Use the PAGE/PART [+/-] buttons to show parts 1 to 8 or parts 9 to 16.
4. Use the data wheel to select voices.

The name of the selected voice is shown at the top of the Play Zoom Display. See the *Reference Guide* for a full list of TG300 voices.

Voices can also be selected in the EDIT PART menu. See “Program Number (Program No.)” on page 23 of the *Reference Guide*.

**Note:** Different voices are available for each sound module mode. If you have not changed the sound module mode, use the voice list for GM-A.

## Selecting Voices from a MIDI Keyboard

To select a voice from a MIDI keyboard, send a MIDI Program Change message on MIDI Channel 1 from the MIDI keyboard to the TG300. MIDI Program Change numbers correspond to voice numbers. So, for example, sending MIDI Program Change number 36 will select TG300 voice 36.

Refer to the MIDI keyboard’s operating manual for details about sending MIDI Program Change messages.



## Sound Module Modes

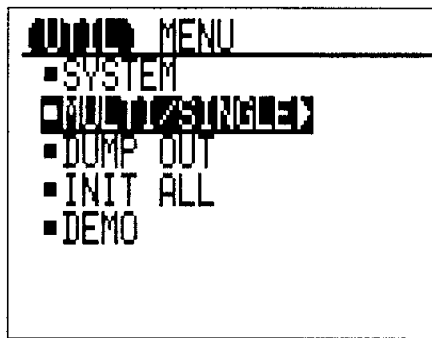
Unless you have changed the sound module mode, the current mode will be GM-A. The letter in the top right-hand corner of the Play Zoom Display or Play View All Display (see page 15 of the *Reference Guide*) shows the current mode. GM-A is one of the TG300 multi modes. The other multi modes are GM-B and C/M. Although you can use multi modes with a MIDI keyboard, they are intended for use with multi-timbral MIDI sequencing.

Single mode is specifically intended for use with a MIDI keyboard. It provides 128 editable internal voices, and each voice can be assigned a preset effect program or an internal effect program.

The following procedure explains how to select Single mode:

**1. Press the [UTIL] button.**

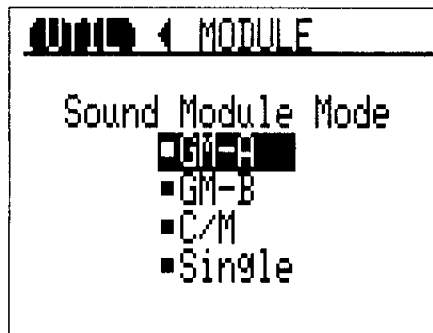
The UTIL MENU shown below will appear:



**2. Use the [▲] and [▼] cursor buttons to select MULTI/SINGLE.**

**3. Press the [▶] cursor button.**

A display similar to the one shown below will appear:



**4. Use the data wheel or the [▲] and [▼] cursor buttons to select Single.**

**5. Press the [PLAY] button to select Play Zoom Display or Play View All Display.**

The **[S]** in the top right-hand corner of the LCD shows that the current sound module mode is Single. To select voices in Single mode, see “Selecting Voices” on page 5. See the *Sound Lists & MIDI Data* booklet for a full list of voices available in Single mode.

## 3 TG300 & Computer with MIDI Interface

In this chapter, we explain how to use the TG300 with a computer that has a MIDI interface.

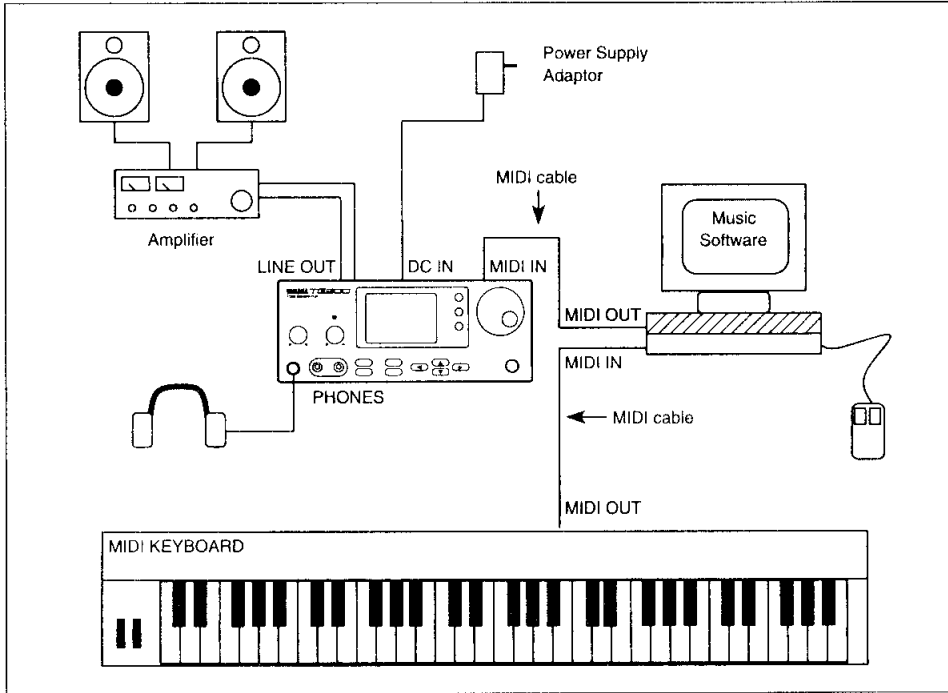
### What You'll Need

- The TG300 and its power supply adaptor.
- A MIDI keyboard.
- A computer with a MIDI interface.
- Music software such as a MIDI sequencer.
- An amplifier. This could be a keyboard amplifier, hi-fi amplifier, audio mixer, etc.
- Audio connecting cables.
- Two MIDI cables.

### Making the Connections

**Warning:** *Before making any connections, make sure that all your equipment is powered off, and the TG300 power supply adaptor is not connected to an AC receptacle.*

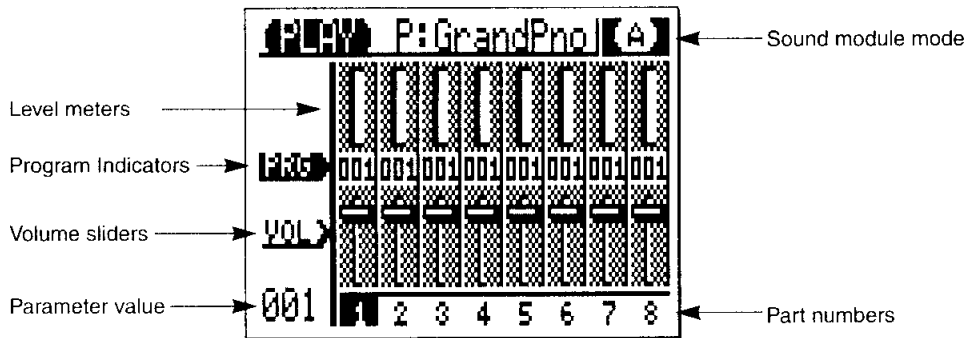
1. **Connect a MIDI cable from the MIDI keyboard's MIDI OUT connector to the computer or MIDI interface's MIDI IN connector.**
2. **Connect a MIDI cable from the computer or MIDI interface's MIDI OUT connector to the TG300's MIDI IN connector.**
3. **Connect the audio cables from TG300's R and L/MONO LINE OUT connectors to the amplifiers inputs. If the amplifier has only one input, use the L/MONO connection only.**
4. **Set the TG300's HOST SELECT switch to MIDI.**
5. **Connect the power supply adaptor to the TG300's DC IN connector.**
6. **Plug the power supply adaptor into a suitable AC receptacle.**  
The following illustration shows the TG300 connected to a computer that has a MIDI interface:



## Switching on the Power

1. Press the TG300's POWER switch.

After the Welcome display, the following display will appear:



This is the Play Zoom Display.

2. Power on your MIDI keyboard.
3. Power on the computer and monitor, then start up your music software.
4. Turn down the amplifier's volume control, then power on.

## Settings

1. **For multi-timbral sequencing, the TG300 should be used in one of its multi sound module modes: GM-A, GM-B, or C/M.**  
The current sound module mode is indicated in the top right-hand corner of the Play Zoom Display and the Play View All Display. The initial setting is GM-A. See “Selecting Multi Modes” on page 18 of the *Reference Guide* for more details.
2. **Set the MIDI keyboard so that it sends MIDI data on MIDI Channel 1.**  
(note that in C/M mode, part1’s MIDI Channel is initially set to OFF)
3. **Set the amplifier’s volume control for normal listening.**
4. **Set the TG300’s MASTER VOL control to about half way.**
5. **To simplify operation, set sequencer tracks 1 to 16 to MIDI Channels 1 to 16.**  
Track1, MIDI Channel1, will then correspond to TG300 part1. Track2, MIDI Channel2, will correspond to TG300 part2, and so on.

### MIDI Channel-to-part settings:

- When the TG300 is initialized, parts 1 to 16 are set to MIDI Channels 1 to 16.
- To check or set the MIDI Channel to part settings:
  1. **Press the [EDIT] button to select the EDIT MENU.**
  2. **Use the [▲] cursor button to select PART.**
  3. **Press the [▶] cursor button to enter the EDIT PART menu.**
  4. **Use the [▲] and [▼] cursor buttons to select RcvChannel.**
  5. **Use the data wheel to select a MIDI Channel.**

6. **Select track1 on the sequencer.**
7. **Play the keyboard.**  
If everything is OK, you should now be playing and hearing a piano voice.  
If no sound is being produced, check the following:
  - Is all your equipment powered on?
  - Is the MIDI keyboard and sequencer set to MIDI Channel 1?
  - Is the sequencer’s MIDI THRU option set to on?
  - Are the audio and MIDI cable connections OK?
  - Is the TG300 HOST SELECT switch set to MIDI?
  - Is the TG300 MASTER VOL control turned up?
  - Are the amplifier settings OK?

## Where to Go from Here

Selecting other sequencer tracks will allow you to play other TG300 parts. When a TG300 sound module mode is first selected, all parts except part10 (drums) are assigned the same voice, usually piano, so you will probably want to assign a different voice to each part.

Voices can be assigned to parts using the TG300 controls or by sending MIDI Program Change messages from your music software, sequencer, etc. Refer to the operating manuals supplied with your music software for details about sending MIDI Program Change messages. See also “Selecting Voices” on page 17 of the *Reference Guide*.

Part parameters such as volume, pan, etc., can also be controlled from your music software using MIDI Controller type messages. Of course, these parameters can also be set using the TG300 controls. See “Editing Parts” on page 21 of the *Reference Guide*.

## 4 TG300 & Computer without MIDI Interface

In this chapter, we explain how to use the TG300 with a computer that does not have a MIDI interface. In this case, the TG300 works as a MIDI interface.

### What You'll Need

- The TG300 and its power supply adaptor.
- A MIDI keyboard.
- A computer with a serial port (RS232C or RS422).
- Music software such as a MIDI sequencer that supports the TG300 TO HOST connection.
- An amplifier. This could be a keyboard amplifier, hi-fi amplifier, audio mixer, etc.
- Audio connecting cables.
- A MIDI cable.
- A HOST cable. See "Connecting to a Computer" on page 82 of the *Reference Guide*.

### Making the Connections

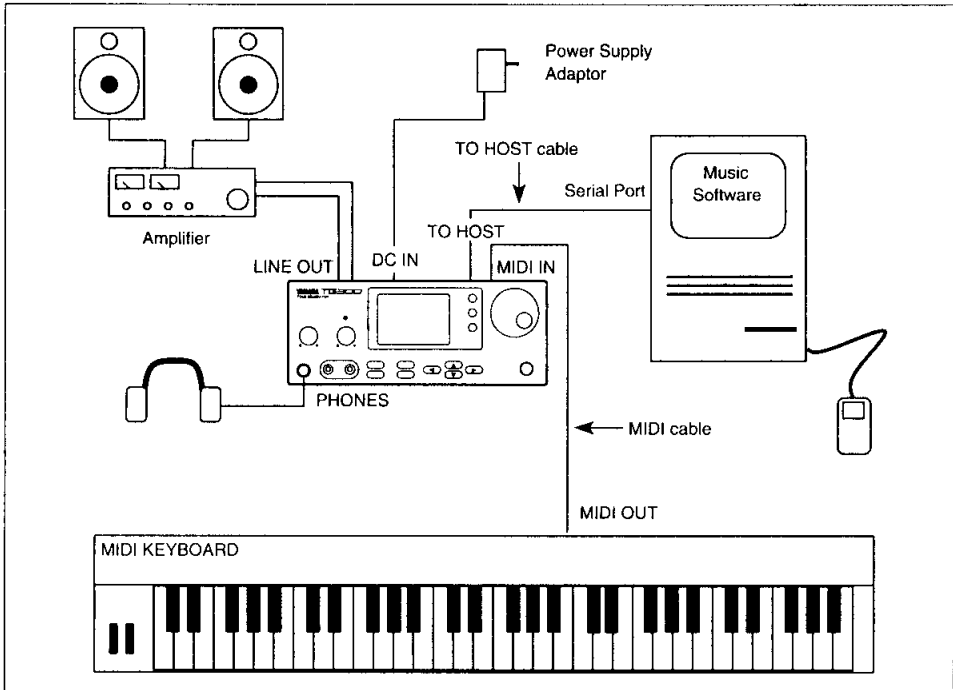
**Warning:** Before making any connections, make sure that all your equipment is powered off, and the TG300 power supply adaptor is not connected to an AC receptacle.

- 1. Connect a MIDI cable from the MIDI keyboard's MIDI OUT connector to the TG300's MIDI IN connector.**
- 2. Connect the HOST cable from the TG300's TO HOST connector to a serial port on the computer.**

On a Macintosh computer this will be the Printer or Modem port. On a PC/AT type computer it will be the COM1 or COM2 port. Check the operating manuals supplied with your computer and music software for more information about which serial port to use.
- 3. Connect the audio cables from TG300's R and L/MONO LINE OUT connectors to the amplifiers inputs. If the amplifier has only one input, use the L/MONO connection only.**
- 4. Set the TG300's HOST SELECT switch to PC-1, PC-2, or Mac.**

See "Connecting to a Computer" on page 82 of the *Reference Guide* for more details.
- 5. Connect the power supply adaptor to the TG300's DC IN connector.**
- 6. Plug the power supply adaptor into a suitable AC receptacle.**

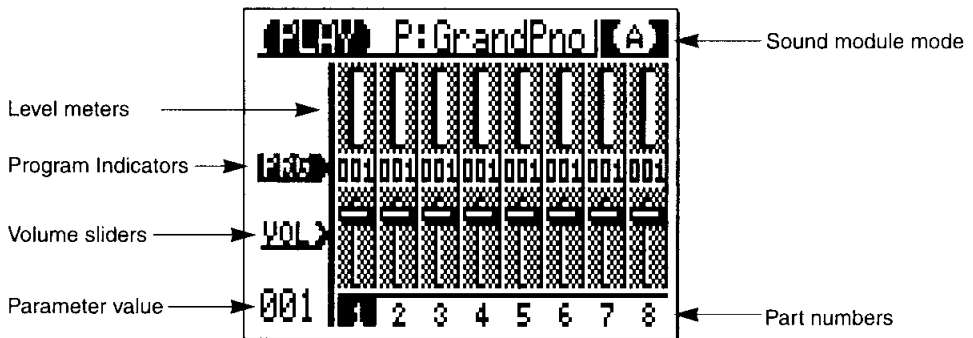
The following illustration shows the TG300 connected to a computer without a MIDI interface:



## Switching on the Power

### 1. Press the TG300's POWER switch.

After the Welcome display, the following display will appear:



This is the Play Zoom Display.

2. Power on your MIDI keyboard.
3. Power on the computer and monitor, then start up your music software.
4. Turn down the amplifier's volume control, then power on.

## Settings

1. **For multi-timbral sequencing, the TG300 should be used in one of its multi sound module modes: GM-A, GM-B, or C/M.**

The current sound module mode is indicated in the top right-hand corner of the Play Zoom Display and the Play View All Display. The initial setting is GM-A. See “Selecting Multi Modes” on page 18 of the *Reference Guide* for more details.

2. **Set the MIDI keyboard so that it sends MIDI data on MIDI Channel 1.**
3. **Set the amplifier’s volume control for normal listening.**
4. **Set the TG300’s MASTER VOL control to about half way.**
5. **In the music software’s MIDI options, select Standard MIDI Interface. Also, turn on the MIDI THRU or ECHO option.**
6. **To simplify operation, set sequencer tracks 1 to 16 to MIDI Channels 1 to 16.**  
Track1, MIDI Channel1, will then correspond to TG300 part1. Track2, MIDI Channel2, will correspond to TG300 part2, and so on.
7. **Select track1 on the sequencer.**
8. **Play the keyboard.**

If everything is OK, you should now be playing and hearing a piano voice.

If no sound is being produced, check the following:

- Is all your equipment powered on?
- Is the MIDI keyboard and sequencer set to MIDI Channel 1?
- Is the sequencer’s MIDI THRU or ECHO option set to on?
- Are the audio and MIDI cable connections OK?
- Is the TG300 TO HOST switch set correctly?
- Is the TG300 MASTER VOL control turned up?
- Are the amplifier settings OK?

## Where to Go from Here

Selecting other sequencer tracks will allow you to play other TG300 parts. When a TG300 sound module mode is first selected, all parts except part10 (drums) are assigned the same voice, usually piano, so you will probably want to assign a different voice to each part.

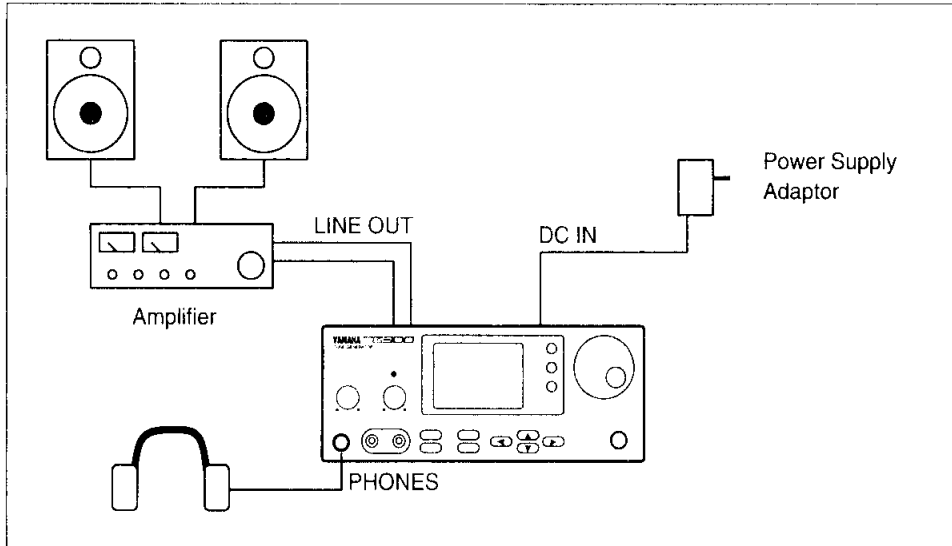
Voices can be assigned to parts using the TG300 controls or by sending MIDI Program Change messages from your music software, sequencer, etc. Refer to the operating manuals supplied with your music software for details about sending MIDI Program Change messages. See “Selecting Voices” on page 18 of the *Reference Guide* for more details.

Part parameters such as volume, pan, etc., can also be controlled from your music software using MIDI Controller type messages. Of course, these parameters can also be set using the TG300 controls. See “Editing Parts” on page 21 of the *Reference Guide* for more details.

## 5 Playing the Demo Songs

The TG300 includes three demo songs that provide a good example of the quality of the TG300 voices, and also show off its multi-timbral capabilities.

To play the demo songs, you need the TG300, its power supply adaptor, an amplifier, and some audio cables. The following illustration shows what is required:



### Selecting Songs

1. Press the [UTIL] button.
2. Press the [▼] cursor button to select DEMO.
3. Press the [▶] button or the [OK/YES] button.
4. Use the [▲] and [▼] cursor buttons to select a song.

### Starting Playback

5. Press the [OK/YES] button to start playback.  
During playback the Play View All Display and Play Zoom Display are demonstrated.

**Note:** When a demo song is played, all parameters except voice data and internal effect data are initialized. Be sure to save any important settings (via MIDI Bulk Dump) before starting playback.

When the selected song has finished, the next song will be played, and so on. Song playback will repeat continuously until stopped.

### Stopping Playback

6. Press any button to stop playback.



## 6 Using GM Song Data

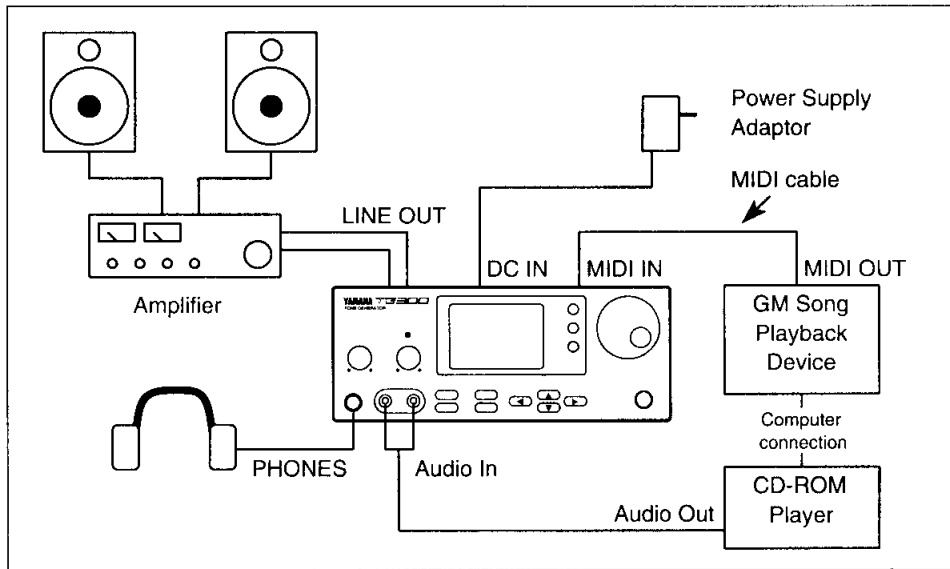
In this chapter, we explain how to playback General MIDI (GM) song files using the TG300. There is a growing library of GM songs available from third-party suppliers, and, of course, you can also record your own. GM songs are often used to provide musical accompaniment for computer-based multimedia presentations. Many multimedia CD-ROM discs contain GM compatible MIDI data.

The audio output of a CD-ROM player can be connected directly to the TG300 Audio In connection. In this way, the audio from the CD-ROM disc can be mixed with the TG300 sounds.

To use GM songs, the TG300 should be set to either GM-A or GM-B multi mode. See “Selecting Multi Modes” on page 18 of the *Reference Guide*. GM songs that contain a GM System On message will automatically select GM-A multi mode when playback is started. However, this will work only if the song data is received while the TG300 is in Single mode. In other modes, the GM System On message is ignored.

GM songs can be played using a MIDI sequencer, a dedicated hardware sequencer, a MIDI data recorder (MDR), or MIDI synthesizer that has an MDR function such as the Yamaha SY99. The earlier chapters in this Guide explain how to connect the TG300 to computers with and without MIDI interfaces.

The following illustration shows what is required to playback GM songs using the TG300. To use the CD-ROM player, the GM playback device must be a personal computer.



When a GM song starts playing, MIDI Program Change messages are sent to the TG300. These messages tell the TG300 which voices to assign to each part. This ensures that data meant for a piano is played by a piano voice, data meant for a bass is played by a bass voice, and so on.

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