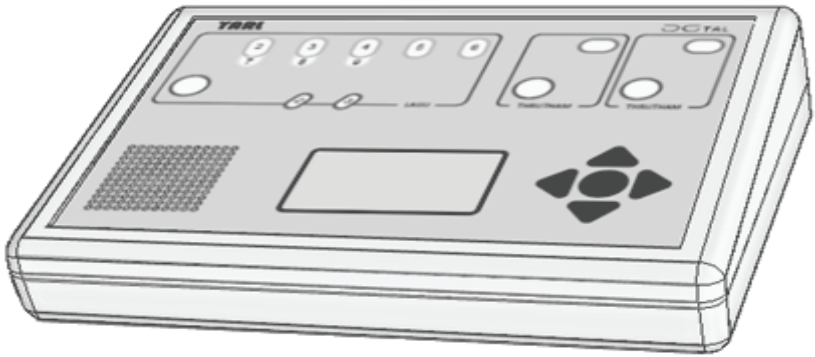
USER GUIDE

DGTAL

The following items are contained in the package.

User Guide	Earphone	Batteries
AC Adaptor	Add-on Adaptors	Carry-Case
		

WARNING

Plastic bags used in the packaging of your unit are not toys. To avoid danger of suffocation, please keep these bags away from babies, children and dispose of them properly.

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DISCLAIMER

All possible care has been taken in the preparation of this user guide. However, specification and particulars in relation to the product referred to in this document are subject to change without prior notice. Some photographs contain samples which are representative only. This unit may vary in colour and appearance. Yarl Technologies will not be held liable for any errors or omissions in this document.

1 CONNECTING A POWER SOURCE TO DGTAL

The unit can be powered from the AC adaptor and/or batteries.

To use the AC adaptor:

1. Connect the AC adaptor to the wall outlet and connect the other end of the cable provided to the DC power socket located on the back panel of the unit.

NOTE: If the AC plug is not compatible with the wall socket, use the add-on adaptor provided to interface with the wall socket.

To use batteries:

1. Remove the battery cover on the underside of the unit
2. Carefully note the correct orientation of the batteries displayed on the inside of the battery compartment. Install four AA-size batteries into the compartment according to the orientation shown.
3. Close the battery cover.

NOTE: Either AA/LR6 alkaline batteries (such as those provided in the kit) or rechargeable AA NiMH / NiCd batteries may be used.

If both power sources are available, the unit will use the AC source and the batteries will be used as a backup source. However, it is recommended that the batteries be removed from the unit when the AC source is being used often.

WARNING

- If batteries are installed in the incorrect orientations, damage to the instrument and to the batteries may result.
- Dispose of old batteries at your local battery disposal centre.

2 CONTROL PANELS

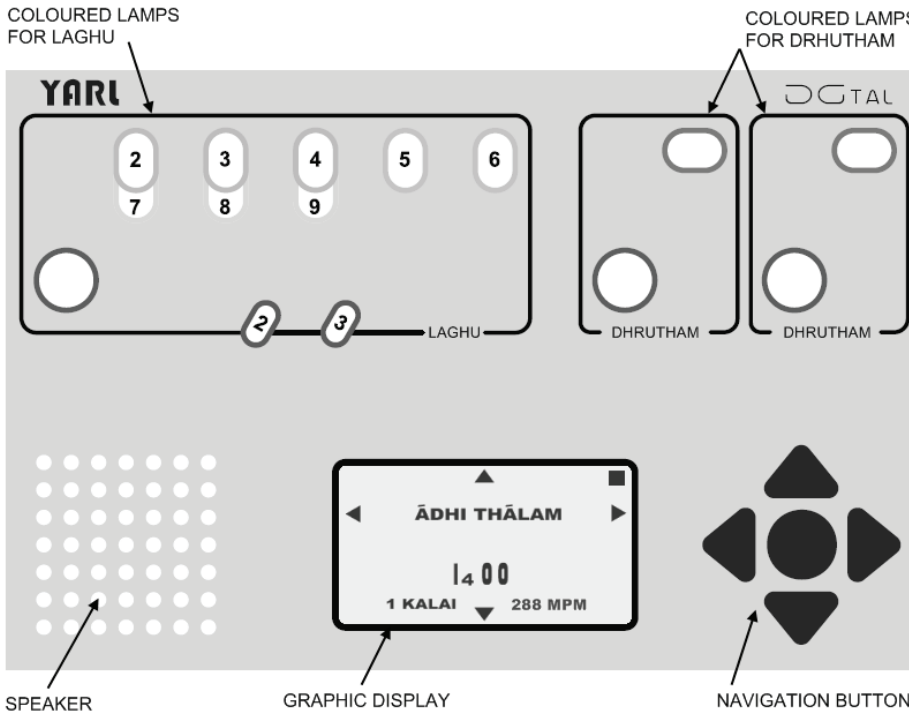

Figure 2.1 Main Controls - Top Panel

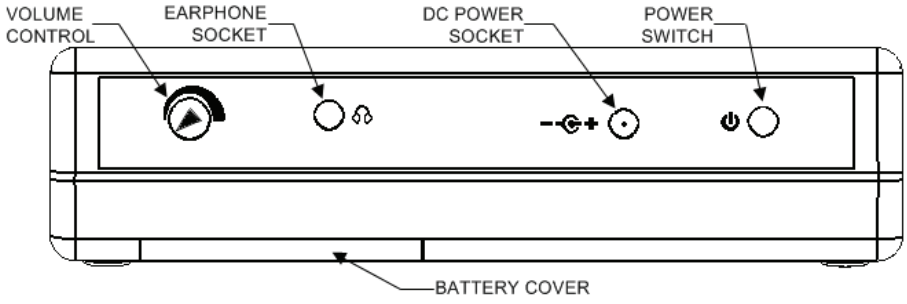

Figure 2.2 Auxiliary Controls - Back Panel

3 TURNING DGTAL ON/OFF

To turn on:

Press the power switch on the back panel to turn on power. The display will show the version number and the model name for a few seconds. Then it will display the screen shown in Figure 3.1.

Figure 3.1 Initial display

To turn off:

Press the power switch on the back panel to turn off power.

4 PLAYING/STOPPING A THÃLAM

To play:

Press the centre (●) button to play the selected THÃLAM. The symbol at the top right-hand corner of the screen will change from ■ to ►.

To stop:

Press the ● button to stop the THÃLAM being played. The symbol at the top right-hand corner of the screen will change from ► to ■.

NOTE: Do not press and hold the ● button for too long.

To adjust the volume:

Turn the volume control dial on the back panel clockwise and anti-clockwise to increase and decrease the volume respectively.

5 READING THE DISPLAY

The graphic display conveys important pieces of information. This can include a combination of the following elements:

- Details of a particular menu selection → centre of top-half of the screen e.g.

CHATURASRA JÃTHI
THRIPUTA THÃLAM

- The GATHI of the THÃLAM→ bottom left-hand corner of the screen
- The LAYAM of the THÃLAM in MATHRA (beat) per minute (MPM) → bottom right - hand corner of the screen
- The beat pattern of the THÃLAM → bottom centre of the screen
- ►/■ symbols indicating the current mode of operation → top right-hand corner of the screen
- Arrow symbols (▲▼◄►) and ● indicating possible buttons user can press to make a particular selection

6 NAVIGATING THE MENUS

6.1 NAVIGATION CONTROLS

The navigation controls are shown in Figure 6.1. The arrow buttons are used make selections while the centre (●) button is generally used to play/stop the selected THÃLAM. However, the centre button may also be used to store particular selections as default selections in some cases.

Figure 6.1 Navigation Controls

6.2 ADJUSTING GATHI AND LAYAM

While a THÃLAM is playing, the GATHI and the LAYAM can be adjusted using the arrow buttons introduced in the previous subsection: 6.1 Navigation Controls.

To adjust the GATHI:

Use the ◄/► buttons to change the GATHI , as shown in Figure 6.2. The available selections are 1 KALAI, 2 KALAI, 3 GATHI, 5 GATHI, 7 GATHI, 9 GATHI.

NOTE: When playing CHÃPPU THÃLAM, GATHI is set to 1 KALAI and cannot be adjusted.

To adjust the LAYAM:

Use the ▲/▼ buttons to increase or decrease the LAYAM respectively, as shown in Figure 6.2. The LAYAM is displayed as MÃTHRA (beats) per minute (MPM) available selections range from 120 MPM to 480 MPM.

Figure 6.2 Adjusting GATHI and LAYAM

NOTE: When the unit is turned off, any adjustments made to the GATHI and LAYAM will be lost and when the unit is turned back on, the default GATHI and LAYAM will be loaded instead. To customize the default settings for GATHI and LAYAM, refer to subsection 6.3.5 Default Settings.

6.3 SELECTING A THÃLAM

While a THÃLAM is not playing, the user can navigate through the various THÃLAM selections. The diagram shown below illustrates how to navigate the Main Menu using the ▲/▼ buttons.

One of the main features of the unit is that it offers the option of quick-selecting 5 of the most commonly used THÃLAM in Carnatic music. Another feature of the unit is that it allows the user to select between 35 THÃLAM (of which there are 7 THÃLAM and 5 JÃTHI for each THÃLAM) and 6 CHÃPPU THÃLAM.

The menu item DEFAULT SETTINGS allows the user to change and store new values to the default settings. Each of these menu items are described in the following sections.

COMMON THÃLAM
▲ ▼
CHÃPPU THÃLAM
▲ ▼
STANDARD JÃTHI
▲ ▼
STANDARD THÃLAM
▲ ▼
DEFAULT SETTINGS
▲ ▼
COMMON THÃLAM

Figure 6.3 Navigating the Main Menu

6.3.1 COMMON THÃLAM

To select one of the COMMON THÃLAM, navigate to the corresponding Main Menu item as detailed in section 6.3. Then use the ◄/►buttons to navigate the COMMON THÃLAM sub-menu as shown on the right in the diagram below.

NOTE: Hold down the ◄/► buttons to scroll through the sub-menu items and release when the desired COMMON THÃLAM is displayed.

When the unit is turned on, the default screen displays the default ÃDHI THÃLAM as shown in Figure 6.4, which is found under the COMMON THÃLAM Main Menu item.

Figure 6.4 Navigating the COMMON THÃLAM Sub-Menu

ÃDHI THÃLAM
◄↑ ↓►
RÜPAKA THÃLAM
◄↑ ↓►
JHAMPA THÃLAM
◄↑ ↓►
ADA THÃLAM
◄↑ ↓►
EKA THÃLAM
◄↑ ↓►
ÃDHI THÃLAM

6.3.2 CHÃPPU THÃLAM

To select one of the CHÃPPU THÃLAM, navigate to the corresponding Main Menu item as detailed in section 6.3. Then use the ◄/►buttons to navigate the CHÃPPU THÃLAM sub-menu as shown in the diagram below.

NOTE: Hold down the ◄/► buttons to scroll through the sub-menu items and release when the desired CHÃPPU THÃLAM is displayed.

KHANDA CHÃPPU
◄↑ ↓►
MISRA CHÃPPU
◄↑ ↓►
SANKEERNA CHÃPPU
◄↑ ↓►
THISRA CHÃPPU
◄↑ ↓►
CHATURASRA CHÃPPU
◄↑ ↓►
RÛPAKA CHÃPPU
◄↑ ↓►
KHANDA CHÃPPU

Figure 6.5 Navigating the CHÃPPU THÃLAM Sub-Menu

6.3.3 STANDARD JÃTHI

To select one of the JÃTHI, navigate to the corresponding Main Menu item as detailed in section 6.3. The screen will display Figure 6.6. The ◄/► arrows are displayed on either side of the JÃTHI selection.

NOTE: The THÃLAM selection displayed beneath the JÃTHI selection is found under the STANDARD THÃLAM Main Menu item.

Figure 6.6 Navigating the JÃTHI Sub-Menu

CHATURASRA JÃTHI
◄↑ ↓►
KHANDA JÃTHI
◄↑ ↓►
MISRA JÃTHI
◄↑ ↓►
SANKEERNA JÃTHI
◄↑ ↓►
THISRA JÃTHI
◄↑ ↓►
CHATURASRA JÃTHI

Use the ◄/►buttons to navigate the JÃTHI sub-menu as shown on the right in the diagram above.

NOTE: Hold down the ◄/► buttons to scroll through the sub-menu items and release when the desired JÃTHI is displayed.

6.3.4 STANDARD THÃLAM

To select one of the THÃLAM, navigate to the corresponding Main Menu item as detailed in section 6.3. The screen will display Figure 6.7. The ◄/► arrows are displayed on either side of the THÃLAM selection.

NOTE: The JÃTHI selection displayed above the THÃLAM selection is found under the STANDARD JÃTHI Main Menu item.

Use the ◄/►buttons to navigate the THÃLAM sub-menu as shown on the right in the diagram below.

NOTE: Hold down the ◄/► buttons to scroll through the sub-menu items and release when the desired THÃLAM is displayed.

Figure 6.7 Navigating the THÃLAM Sub-Menu

THRIPUTA THÃLAM
◄↑ ↓►
JHAMPA THÃLAM
◄↑ ↓►
RÛPAKA THÃLAM
◄↑ ↓►
MATIYA THÃLAM
◄↑ ↓►
DHURUVA THÃLAM
◄↑ ↓►
EKA THÃLAM
◄↑ ↓►
ADA THÃLAM
◄↑ ↓►
THRIPUTA THÃLAM

6.3.5 DEFAULT SETTINGS

To change the default settings, navigate to the corresponding Main Menu item as detailed in section 6.3. Then use the ◄/►buttons to navigate the DEFAULT SETTINGS sub-menu as shown in the diagram below.

NOTE: Hold down the ◄/► buttons to scroll through the sub-menu items and release when the desired DEFAULT SETTING is displayed.

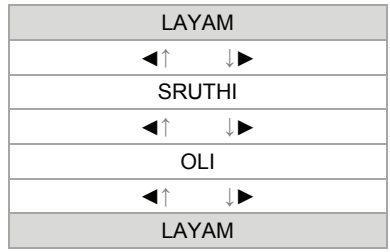

Figure 6.8 Navigating the DEFAULT SETTINGS Sub-Menu

To change the GATHI / LAYAM default settings:

1. Use the ◄/►buttons to navigate to the LAYAM Default Settings Sub-Menu item (The screen will now display Figure 6.9)
2. Press the • button (The screen will now display Figure 6.10)
3. Use the ◄/►buttons to change the GATHI. The available selections are 1 KALAI, 2 KALAI, 3 GATHI, 5 GATHI, 7 GATHI, 9 GATHI.
4. Use the ▲/▼ buttons to increase or decrease the LAYAM respectively. The LAYAM is displayed as beats per minute (BPM). The available selections range from 120BPM to 480BPM.
5. Press the • button to store new settings as default settings (The screen will now display Figure 6.9)

NOTE: Hold down the ▲/▼/◄/► buttons to scroll through the available selections for KALAI and LAYAM and release when the desired selections are displayed.

Figure 6.9 GATHI and LAYAM Default Settings Display

Figure 6.10 Changing GATHI and LAYAM Default Settings Display

To change the SRUTHI default settings:

1. Use the ◄/►buttons to navigate to the SRUTHI Default Settings Sub-Menu item (The screen will now display Figure 6.11)
2. Press the • button (The screen will now display Figure 6.12)
3. Use the ▲/▼ buttons to increase or decrease the SRUTHI respectively. The SRUTHI is displayed as KATTAI. The available selections are from 1 KATTAI to 6.5 KATTAI in 0.5 KATTAI intervals. (The unit will play a sample sound of the selected SRUTHI)
4. Press the • button to store new settings as default settings (The screen will now display Figure 6.11)

NOTE: Hold down the ▲/▼ buttons to scroll through the available selections for SRUTHI and release when the desired selections are displayed. Hold down the ◄/►buttons to replay the sample sound of the selected SRUTHI.

Figure 6.11 SRUTHI Default Settings Display

Figure 6.12 Changing SRUTHI Default Settings Display

To change the OLI default settings:

1. Use the ◄/►buttons to navigate to the OLI Default Settings Sub-Menu item (The screen will now display Figure 6.13)
2. Press the • button (The screen will now display Figure 6.14)
3. Use the ◄/►buttons to navigate the three parts of the audio components of the selected THÃLAM, found under the OLI sub-menu as shown in Figure 6.15.
4. Use the ▲/▼ buttons to change the OLI selection. The available selections are either ON or OFF.
5. Press the • button to store new settings as default settings (The screen will now display Figure 6.13)

NOTE: Hold down the ◄/► buttons to scroll through the three parts of the audio components of the selected THÃLAM and release when the desired selections are displayed.

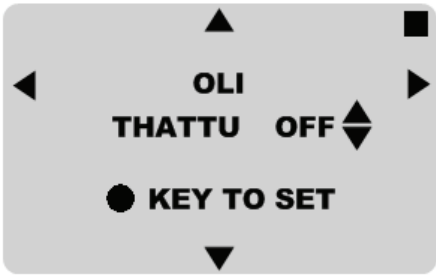

Figure 6.13 OLI Default Settings Display

Figure 6.14 Changing OLI Default Settings Display

THATTU ON
◄↑ ↓►
VEECHU ON
◄↑ ↓►
VIRAL ON
◄↑ ↓►
THATTU ON

Figure 6.15 Navigating the OLI Sub-Menu

Any changes made to the DEFAULT SETTINGS have been stored. When the unit is turned off and turned back on, the new DEFAULT SETTINGS will be loaded.

7 MAINTENANCE OF DGTAL

Proper maintenance of the unit and accessories is required to prevent unwanted damage.

- Store the unit in a cool, dry place.
- To clean the DGTAL unit or the carry case, use moist cloth. DO NOT use spirits, alcohol, thinner, turpentine. These solvents could react with the material and cause damage to the surface.
- When storing the unit over a long term period, it is recommended that the batteries be removed from the compartment and stored in the respective slots in the carry case. This should prevent acid leakage from the battery into the unit.

8 TROUBLESHOOTING

If the DGTAL unit does not work or behaves unusually; carry out the following tests before contacting Yarl Technologies with the problem and the results of the tests. This will aid Yarl Technologies in diagnosing the problem.

Problem: **Display is blank and pressing any button does not turn on any of the lights.**
Tests:

1. Is the power switch on the back panel of the unit pushed in completely?
2. Is the power adaptor plugged into the wall socket and turned on? – If so, does the adaptor power indicator turn on when the switch at the power outlet is turned on?
3. If operating on batteries, does the problem persist if the batteries are replaced?

Problem: **Display is blank but pressing the ● button turns on the lights and plays ĀDHI THĀLAM.**
Tests:

1. Turn on the power, press the ◄/► buttons and then press the ● button. Does a THĀLAM, other than ĀDHI THĀLAM, play?
2. If operating on batteries, does the problem persist if the batteries are replaced?

Problem: **Display shows ĀDHI THĀLAM but pressing any button does not turn on the lights or play a THĀLAM.**
Tests:

1. Press the buttons on a side and at an angle. Does the display change?

Problem: **When playing a THĀLAM there is no sound.**
Tests:

1. Is the volume control dial turned fully clockwise?
2. Are the SASABDA Default Settings set to SASABDA (and not to NISSABDA) for all three elements of the selected THĀLAM?

Problem: **When playing a THĀLAM some or all of the LED lamps do not turn on.**
Tests:

1. **Select and play a different THĀLAM. Do the same LED lamps remain turned off?**

9 TECHNICAL SPECIFICATIONS

LED Lamps	170^{o} viewing angle, 6m viewing distance under daylight conditions, intensity 600mcd
Beat Deviation	+/- 24 µS deviation within beats
LCD graphic display	120^{o} viewing angle, 6 O'clock viewing direction, backlight (white or green/yellow), sleep mode after 20 seconds
Audio	2W, 8ohm, 40mm speaker, earphone with 1.8 metre cable, frequency response: 200Hz – 12kHz
SRUTHI range	1 KATTAI to 6.5 KATTAI (2093Hz to 3951Hz)
Power rating	300mW, 60mA @ 5Vdc (under test conditions)
Power sources	4 x AA/LR6 2350mAh alkaline batteries (included in the kit). 4 x AA NiMH / NiCd 2000mAh rechargeable batteries 100Vac to 240Vac, 50/60Hz, 9Vdc adaptor with 2 metre cable (included in the kit).
Battery life	On 2350mAh battery, continuous playing time is approx 32hrs (tested with sound volume set very low)
Operating Temperature	0 – 40 ^{o}C (32 – 104 ^{o}F)
Operating Humidity	10 – 90%
Dimensions	DGTAL Unit 208(W) x 145(D) x 32/52(H) mm Carry Case 320(W) x 200(D) x 55/70(H) mm
Weight	DGTAL Unit: Approx. 400g (excluding the batteries) Carry Case: Approx. 900g (including DGTAL Unit, AC/DC adaptor, add-on adaptors, ear phone, batteries)

10 WARRANTY TERMS AND CONDITIONS

Warranty only applies to situations where a defect has arisen, wholly or substantially, as a result of faulty manufacture, parts or labour. Warranty is valid for **12 months from the invoice date**. Warranty is rendered void if the product is serviced or modified in any way by an unauthorized service agent.

The warranty does not apply to situations where damage is caused by other factors or negligence, including without limitation:

- Wear and tear from use
- Surface damage such as scratches, cracks and stains
- Accidental or intentional abuse and/or mishandling of the product
- Failure to follow operating instructions
- Direct exposure to elements of the environment such as sun light, rain and lightning strikes
- Battery acid leakage, exposure to liquid substances or infiltration of foreign particles

Upon contacting Yarl Technologies with the problem, Yarl Technologies will diagnose the problem and provide a suitable solution in a timely manner. This may require transport of the damaged product to and from Yarl Technologies. Any loss or consequential damage incurred during transportation is not covered by this warranty. **These costs will be borne, in full, by the client**.

Keep this User Guide for future reference.

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