ELECTRICAL SPECIFCTION & TEST DATA

	DESCRIPTIONS	FREQ.	UNIT	NOM.	LIMIT
А.	MP3 PLAYER				
1.	Output level	1kHz	V	1.0V	+/- 2db
2.	Output level difference	1kHz	0db	less than	2db
	between channels				
3.	Frequency response	20Hz	db	-0.5db	+/- 2db
	(Using 1kHz 0db as	100Hz	db	0	+/- 2db
	reference)	10kHz	db	-0.5db	+/- 3db
		20kHz	db	-3.0db	+/- 3db
4.	Separation degree	1kHz	0db	More that	an 60db
5.	Harmonic distortion	1kHz	%	less than	0.2%
	factor T.H.D Noise				
6.	S/N Ratio	1kHz	db	More that	an 80db

B. MP3 RECORD

REC ON MP3 fs 44.1KHz / 192Kbps	s or 128Kbps	SG 1V=0	db 2.2Korm in –6db	
1. REC/PLAY OUTPUT	1KHz	v	0.8V +/- 2dl	0
2. S/N Ratio	1KHz	db	60 50	
3. Distortion Rec / Play	1KHz	%.	0.5 5	
4. Rec / Play Frequency response	100Hz	db	-1 +/- 3db)
	10KHz	db	-1 +/- 3db	,
5. Separation degree Rec / Play	1kHz	db	More than 50db	

C. USB / SD CARD

1.	Outside Line record in 128MB ~ 16G		SD / SDHC / USB	
2.	Inside copy use on SD Card & USB	128MB~16G	SD / SDHC / USB	

ROLLS HR73 MP3 Recorder

QUICK START GUIDE

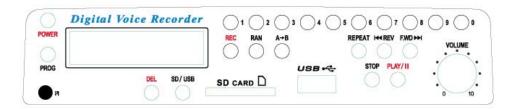
SPECIFICATIONS Min. Input Impedance: Output Impedance: Digital Record: Sample Rate: External Memory:	10k Ohms unbalanced 1K Ohms line, 16 Ohms Headphone MP3 Format 44.1 KHz, 128K OR 192Kbps (CD quality) SD Card slot (cards not included) USB (thumb drive not included)
Memory Access:	SD card and USB connector
Inputs:	Stereo RCA
Outputs:	Stereo RCA, 1: 1/8" (3.5mm)
Power:	ROLLS PS27
Current Consumption:	< 200 mA
Size:	8.625" W x 1.75" H x 8" D
Weight:	2.5 lbs

Thank you for your purchase of the HR73 MP3 Player-Recorder. Please review this guide carefully to ensure proper operation.

WARRANTY INFO

Please visit our website; www.rolls.com, for complete information on the Rolls Warranty, and to register and initiate this product's warranty.

Rolls Corporation Salt Lake City, UT 08/10



Features

- Records through the Line-in source directly to a USB (thumb drive) or SD Card.

- Recording format is in MP3 audio format.
- Playing format: MP3, WMA.
- Compatible up to 16G USB, SD card / SDHC.
- Easily playback recorded tracks stored in USB thumb drive or SD card.
- Delete function when playing single song.

Operation and function of the front panel

POWER: Switching power on/off.	
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VOLUME: Volume control, turn to adjust desired volume.

- USB socket: To insert a USB thumb drive storage device.
- SD CARD socket: To insert SD Card.
- 0~9 Numeral keys: To select the tracks, e.g., to play 89th track, simply press 8 & 9 and press PLAY.
- USB/SD: Switching from USB to SD mode.
- RAN: Play in random order. Also for changing record sound quality adjustment.
 - **Play in random order:** Press once to play in a random order.
 - **Recording quality adjustment**: Press RAN button for more than 3 seconds. To choose the recording quality. Press REW or F. FWD key to select 128Kbps or 192Kbps.

HOW RECORDING IS SAVED TO THE SD CARD OR THUMB DRIVE:

When you record using the HR73 to an SD card or use the USB to record to a thumb drive, the HR73 sets up a folder called RECORD and in that folder is another folder called LINE IN. This is where the LINE INPUT RE-CORDINGS are stored on your external device. If you are having problems playing back your recorded tracks it is due to the main folder (the one that has the main recording folder saved) also has other files that are not in folders. This does not allow the HR73 to access the recorded material. To fix the problem make sure that all files are in folders in the main section of your device. Or simply move all files to the RECORD/LINE IN folder. This only applies to files already on you device. All recorded files from the HR73 will go to the RECORD/LINE IN folder and will have no problems playing. If you are unsure of how to move files we recommend using a new storage device that does not have files on it, or reformatting your device before recording tracks from the HR73.

FAQ:

When I plug the HR73 into my computer I cannot access anything?

The USB from the HR73 will not work with a computer. The only function of the USB for the HR73 has is to play thumb type (external) drives. Once the HR73 is plugged into a computer USB port all buttons on the front of the HR73 become inoperable. PLUGGING THE HR73 TO A COMPUTER MAY DAMAGE THE HR73 OR THE COMPUTER.

I can not delete all items?

When using the delete all function if there is more than one folder on the memory you will not be able to delete all. The folders will have to be removed or all files moved to one folder to remove all files. Or you can delete items one at a time.

Why can I not play what I just recorded?

You have recorded to a folder called the record/line in folder. You cannot access the folder to play tracks if the main folder has individual songs in it. All songs must be in a folder so that the unit can access them.

I get no sound from the STEREO OUTPUTS?

Make sure the VOLUME level is turned up. If the level is at 0 you will hear no sound out of the Stereo Outputs.

I cannot record on to a USB thumb drive?

Reformat your thumb drive. There may be items that the HR73 will not recognise on the memory.

PLAYBACK and A-B SELECTION:

Select the track you wish to listen to, press the PLAY button to begin playback. If you wish to hear a certain portion of the program material repeated; begin playing the track, when the material reaches the beginning of the part you want repeated, press the A-B button once. When the material reaches the ending of the part you want repeated, press the A-B button again. This portion of the material will then playback repeated continuously until either the A-B button is pressed again, or the STOP button is pressed. As described below.

A↔ B: Section Repeat Play

- > Press once to start playing the beginning of selection.
- Press again to stop at the end of selected area. The device repeats to play selected material.
- ➢ Press it again to stop playing. LCD display A↔ B will be disappeared from the LCD display.

Deleteing current playing track

Press DEL button, LCD display flashes DEL FILE, reminding you to delete the file, press DEL again to confirm the deletion, LCD display shows **DEL END**.

- > **Delete all the files:** In the stop-play mode operation.
 - Press the Stop button
 - Press DEL key for over 5 seconds.
 - LCD display shows "**DEL ALL**" to confirm whether you want to delete all the files.
 - Then press DEL key again to delete all the files.

- To cancel delete function, just wait for LCD to stop flashing and cancellation of delete all function.

➢ IF THERE ARE MULTIPLE FOLDERS IN MEMORY THE DE-LETE ALL FUNCTION WILL NOT WORK. YOU MUST DE-LETE ITEMS ONE AT A TIME.

REAR PANEL

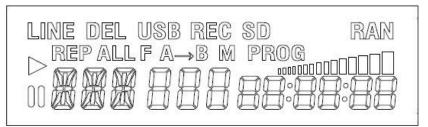


- LINE INPUTS: Two RCA (stereo) line level Input jacks.
- Power Jack: Connects to the enclosed Rolls Power Adapter.
- Stereo Outputs: RCA: Unbalanced RCA outputs. 1/8" (3.5mm): Stereo Line/Headphone Output

Recording

- REC: Recording function key, record through the Line-in channel
 - ➢ When USB and SD Card are both in the device :
 - Press the REC button. LCD display flashing to indicate will be recorded to USB or SD.
 - Use USB / SD button to select the option to record to USB or SD card.
 - Press REC again to start to record, LCD starts flashing to indicated that recording has started. (this is not a signal indicator)
 - Press STOP button to stop recording.
 - When only single USB or SD Card in the device
 - Press REC to begin recording, LCD flashes to indicate recording has started. Press STOP button to stop recording.
 - Recorded tracks are saved in the last folder of the USB or SD card called "RECORD/LINE IN" folder. The track number in the REC Folder will start from "REC 001 ", and increase gradually. To Play recorded tracks, simply press PLAY under REC folder.

LCD Display



- ✓ LINE: Indicates line in audio source. Will only light when in record mode.
- ✓ DEL: Displays delete function. Delete can only be done when the track to be deleted is playing.
- ✓ REP: Repeatedly playing a single track.
- ✓ REP ALL: Repeat all tracks.
- ✓ RAN: Playback in random order.
- ✓ PROG: To operate programmed function.
- ✓ A-B: When repeat playing a specific section. Will loop between the two indicated spots. To exit A-B loop press the button once more.
- ✓ USB When in USB function.
- \checkmark SD When in SD card function.
- ✓ REC When in recording function.
- ✓ ፪፪፪ Under the MP3 mode, display the folder number.
- ✓ 888 Display the current playing track.
- ✓ BBBBBB Track time in minutes and seconds.

USB / SD Playing

- PLAY/II: Play and pause, press to play, press again to pause.
- STOP: Press to stop playing
- USB / SD: Select to use US or SD Card
- RAN: Press once to play in a random order, press again to cancel random play
- REPEAT: Repeat function, needs to operate in the playing mod
 - Press once, LCD screen displays "REP", will repeatedly playback currently playing track.
 - Press twice, LCD screen displays "REP ALL", will be repeated play all tracks.
 - Press 3 times, cancel repeat playback function. The LCD display REP will be eliminated.

PROGRAMING TRACKS

- PROG: Program memory playback. Program in the stop-play mode, can program up to 99 songs
 - Press STOP button to stop playback.
 - Press PROG button, LCD displays PROGRAM. Select desired songs by using number keys 0 to 9, REV key or F. WD key.
 - Press PROG button to store 1st song, LCD display shows "00 01" for the 1st song. Press << PROG >> again for storing 2nd song; LCD display shows "00 02". Start over above process for storing more songs. Press PLAY / II to play the tracks stored in the preset program. After being programed the unit will play the selected tracks over and over until the stop button is pressed to exit the program mode.
- REV: Backward. Press to go back to last track. Press and hold for 3 seconds to rewind the track.
- F. WD: Forward. Press to forward to next track. Press and hold for 3 seconds to fast forward the track.
- DEL: Delete single tracks or all of the files.