

**SIMPLWINDOWS NAME:** Linn Ikemi

**CATEGORY:** CD

**VERSION:** 1.0

**SUMMARY:** Controls all basic functions on a Linn Ikemi CD Player

**GENERAL NOTES:** This module will control a Linn Ikemi CD Player. This device must be polled for status. There are three types of polling:

1. Use the POLL-ALL input to poll all the parameters of the Ikemi. This should only need to be done once, upon startup of the system, to get the Crestron system in synch with the Ikemi. The POLL-ALL-BUSY output will be high while this poll is in progress.
2. Poll the transport status using the POLL-TRANSPORT input. This will return the current stats of play/stop/pause. If used, this input should be driven by an Oscillator with a high time of .1 sec and a low time of 1.9 sec. It is only necessary to enable this polling while the touch screen is actually displaying a CD control screen.
3. Poll the current track using the ENABLE-TRACK-POLL input. You should put a 0 or a 1 on this input, to enable/disable track polling respectively. If a 1 is on this input, whenever the transport is polled, (using the POLL-TRANSPORT input), the track will also be polled.

Note that Crestron must wait for a reply to every command before sending the next command. Therefore, the speed at which we can send commands to the Ikemi is limited by the Ikemi. Some commands which are known to take a significant amount of time to execute are:

1. INTRO-PLAY-ON - Can take at least 6 seconds to execute
2. RANDOM-PLAY-ON - Can take at least 20 seconds to execute
3. SHUFFLE-PLAY-ON - Can take at least 20 seconds to execute

This module will prevent any other commands from being sent to the Ikemi while the previous command is being executed. The BUSY output will be high while a command is being executed.

**CRESTRON HARDWARE REQUIRED:** CNXCOM,  
ST-COM

**SETUP OF CRESTRON HARDWARE:** Baud Rate -9600  
Parity - Even  
Data Bits - 7  
Stop Bits - 1

**VENDOR FIRMWARE:** None

**VENDOR SETUP:** None

**CABLE NUMBER:** Use the cable that is included with the Ikemi

## CONTROL:

<b>PLAY</b>	D	Issues Play command
<b>STOP</b>	D	Issues Stop command
<b>PAUSE</b>	D	Issues Pause command
<b>SEARCH-PREV</b>	D	Searches backward within a track as long as button is held
<b>SEARCH-NEXT</b>	D	Searches forward within a track as long as button is held
<b>TRACK-PREV</b>	D	Reverses Disc One Track
<b>TRACK-NEXT</b>	D	Advances Disc One Track
<b>INDEX-PREV</b>	D	Reverses To Previous Index
<b>INDEX-NEXT</b>	D	Advances To Next Index
<b>TRACK-KEY-0-9, CLEAR</b>	D	Keypad used to enter a new track number. Track entered will be reflected at the NEW-TRACK-NUMBER output
<b>TRACK-KEY-ENTER</b>	D	Pulse to activate the track entered
<b>INTRO-PLAY-ON/OFF</b>	D	Activates/Deactivates Intro Play Mode
<b>DIGITAL-OUTPUT ON/OFF</b>	D	Activates/Deactivates the digital output
<b>RANDOM-PLAY-ON/OFF</b>	D	Activates/Deactivates Random Play Mode
<b>SHUFFLE-ON/OFF</b>	D	Activates/Deactivates Shuffle Play Mode
<b>PROGRAM-CLEAR</b>	D	Clears current program in Ikemi
<b>REPEAT-ON/OFF</b>	D	Activates/Deactivates Repeat Function
<b>REPEAT-START/END</b>	D	Sets the repeat start and end points
<b>IR-ON/OFF</b>	D	Enable/Disable control from the IR Remote
<b>POLL-TRANSPORT</b>	D	Pulse to poll the transport status
<b>ENABLE-TRACK-POLL</b>	D	Use a 0 or 1 to enable/disable track polling whenever transport status is polled
<b>POLL-ALL</b>	D	Pulse once on startup to poll all settings for the Ikemi
<b>IKEMI -RX\$</b>	S	Serial signal to be routed from a 2-way RS232 port

## FEEDBACK:

<b>BUSY</b>	D	High while a command is being executed
<b>POLL-ALL-BUSY</b>	D	High while a POLL-ALL is in progress
<b>NO-DISC-ERROR</b>	D	No disc is loaded
<b>PLAY-FB</b>	D	Disc is playing
<b>STOP-FB</b>	D	Disc is stopped
<b>PAUSE-FB</b>	D	Disc is paused
<b>CURRENT-TRACK-NUMBER</b>	A	True feedback indicating the track currently playing
<b>NEW-TRACK-NUMBER</b>	A	Indicates the new track number being entered
<b>INTRO-PLAY-ON/OFF-FB</b>	D	Indicates the state of intro play
<b>DIGITAL-OUTPUT-ON/OFF-FB</b>	D	Indicates the state of the digital output
<b>RANDOM-PLAY-ON/OFF-FB</b>	D	Indicates the state of random play
<b>SHUFFLE-ON/OFF-FB</b>	D	Indicates the state of shuffle play
<b>REPEAT-ON/OFF-FB</b>	D	Indicates the state of the repeat function
<b>REPEAT-START/END-FB</b>	D	Repeat start/end points set

<b>REPEAT-BAD-COMMAND-FB</b>	D	Error issued when bad repeat command is issued
<b>IRON/OFF-FB</b>	D	Indicates IR control is enabled/disabled
<b>IKEMI-TX\$</b>	S	Serial signal to be routed to a 2-way RS232 port

<b>.UPZ FILE USED FOR TESTING:</b>	5.12.01x.upz
<b>COMPILER USED FOR TESTING:</b>	SimplWindows Version 1.52.01
<b>SAMPLE PROGRAM:</b>	Linn Ikemi Demo Program
<b>REVISION HISTORY:</b>	None