

**Exhibit B-1: Infringement of U.S. Patent validity of U.S. Patent No. 8,004,389**

**via the Roku TV, Roku Ultra, Roku Premiere (2018), Roku Premiere+ (2018), Roku StreamingStick, Roku StreamingStick+, Roku 4, and any variations of the same that include the remote control set-up functionality discussed herein (“Roku Streaming Products with Device Control”)**

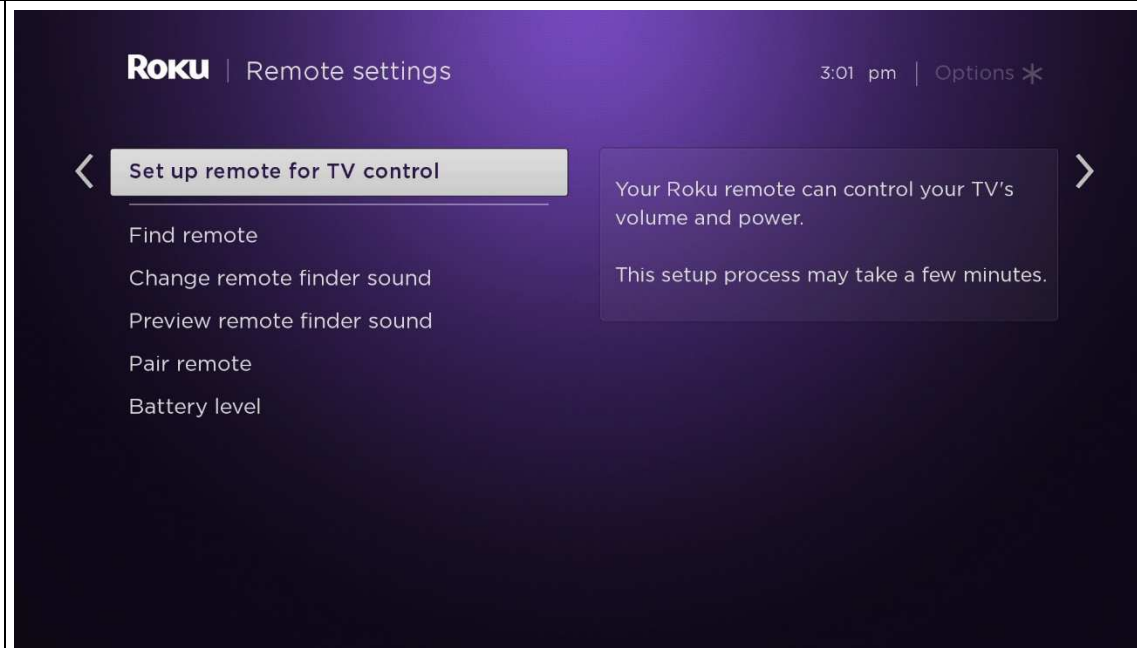
The infringement contentions are provided based on information obtained to date and may not be exhaustive. UEI’s investigation of Roku’s infringement is ongoing. UEI reserves the right to seek to supplement and/or amend these disclosures to identify additional asserted claims, accused instrumentalities, and/or to further identify where each element of each asserted claim is found in each accused instrumentality, including on the basis of discovery obtained from Roku and from third-parties during the course of this litigation.

The accused instrumentalities and associated documents discussed and/or cited herein are representative in all material aspects for all other accused instrumentalities identified in this chart. Based on information presently available to UEI, each of the Roku Streaming Products with Device Control is understood to operate in the same manner with respect to the contentions provided in this chart. Roku has not yet produced discovery in this litigation, and UEI reserves the right to amend its contentions as to these products should Roku provide information showing any relevant differences between the products or any additional products containing the same functionality.

<b>Pat. No. 8,004,389</b>	<b>Roku Streaming Products with Device Control</b>
A method comprising:	<p>The Roku Streaming Products with Device Control perform the claimed method when a user chooses to “Set up a remote for Device control.”</p> <p>Set up a remote for TV control:</p>

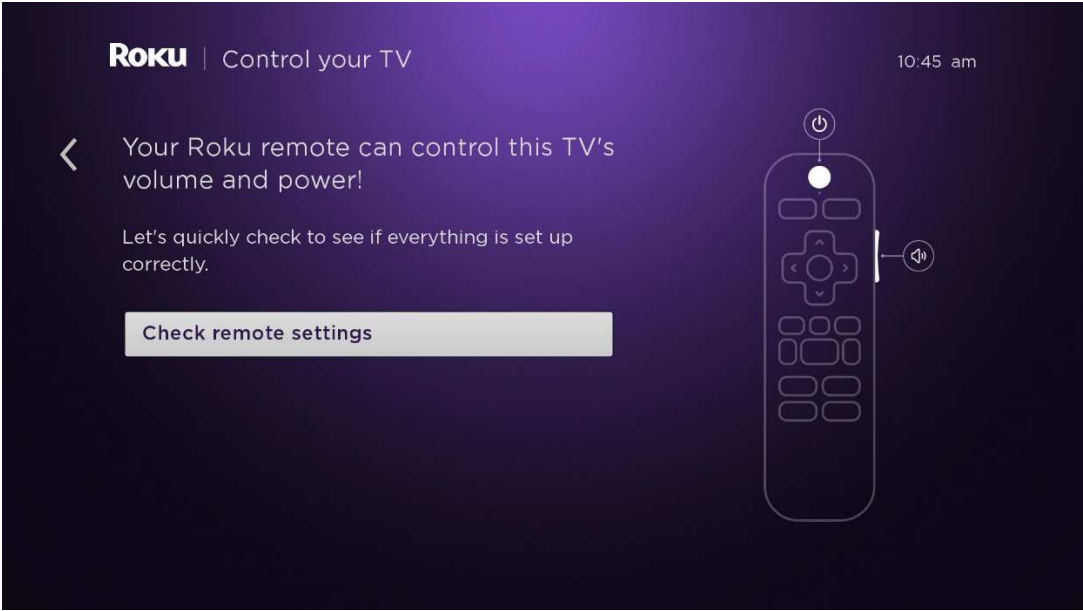
Pat. No. 8,004,389

## Roku Streaming Products with Device Control

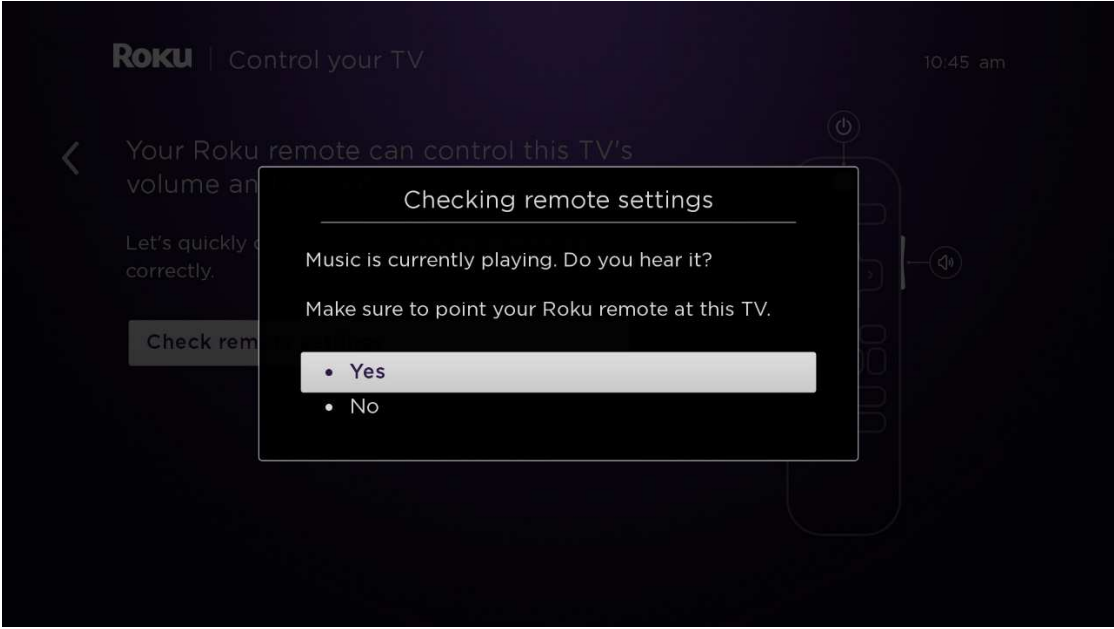


(images taken from <https://support.roku.com/article/115013019828-how-do-i-set-up-my-roku-enhanced-remote-to-control-my-tv->, UEI\_001310).

Additionally, at least the products comprising Roku streaming players will perform the claimed method when the user completes the “Control your TV” portion of the devices’ initial setup:

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	 <p>(images taken from <a href="https://support.roku.com/article/115013019828-how-do-i-set-up-my-roku-enhanced-remote-to-control-my-tv-">https://support.roku.com/article/115013019828-how-do-i-set-up-my-roku-enhanced-remote-to-control-my-tv-</a>, UEI_001310).</p> <p>See also <a href="https://support.roku.com/article/360004786894-why-is-my-roku-enhanced-remote-not-controlling-volume-and-power-on-my-tv-">https://support.roku.com/article/360004786894-why-is-my-roku-enhanced-remote-not-controlling-volume-and-power-on-my-tv-</a>, UEI_001327 (providing instructions for setting up the Roku Enhanced Remote).</p>
<p>receiving a keystroke indicator signal from a remote control device, wherein the keystroke indicator signal indicates a key on said remote control device that a user has pressed;</p>	<p>The Roku Streaming Products with Device Control receive a keystroke indicator signal from the Roku remote control, wherein the keystroke indicator signal indicates a key on the Roku remote that the user has pressed.</p> <p>A user of a Roku Streaming Product presses one of the keys on the Roku remote:</p>

Pat. No. 8,004,389	Roku Streaming Products with Device Control
	<div data-bbox="716 207 1098 492" data-label="Image"> </div> <p data-bbox="602 500 1885 570">The Roku Streaming Products will respond (or not respond) based on which button is pressed on the remote control due to a signal received from the remote, which is a keystroke indicator signal.</p>
<p data-bbox="151 594 583 808">generating a key code within a code generator device using the stroke indicator signal, wherein key code is part of a codeset that controls an electronic consumer device;</p>	<p data-bbox="602 594 1898 699">The Roku Streaming Products with Device Control are key code generators that generate a key code after receiving a keystroke indicator signal, wherein said key code is part of a codeset that controls an electronic device.</p> <p data-bbox="602 740 1885 846">An example of a generated key code is the code that corresponds to a function of an external device, such as volume or power. This process occurs during set-up and regular operation of the Roku Streaming Products.</p> <p data-bbox="602 886 1864 1032">Roku informs its customers that the Roku players narrow the list of “remote codes” during remote setup and program the “correct code” to the remote. (<i>See, e.g.,</i> <a href="https://support.roku.com/article/360004786894-why-is-my-roku-enhanced-remote-not-controlling-volume-and-power-on-my-tv-">https://support.roku.com/article/360004786894-why-is-my-roku-enhanced-remote-not-controlling-volume-and-power-on-my-tv-</a>, UEI_001327 at 28).</p> <p data-bbox="602 1065 1860 1138">The key code is part of a codeset that controls an electronic consumer device, such as the set of IR codes for control of a TV.</p>
<p data-bbox="151 1162 567 1268">modulating said key code onto a carrier signal, thereby generating a code signal;</p>	<p data-bbox="602 1162 1877 1414">The Roku Streaming Products with Device Control can modulate key codes onto a carrier signal to communicate with the Roku remote. The Roku Streaming Products with Device Control communicate with the Roku remotes by modulating data onto wireless signals. For example, the Roku Streaming Products with Device Control program Roku remotes with remote codes for TVs. (<i>See, e.g.,</i> <a href="https://support.roku.com/article/360004786894-why-is-my-roku-enhanced-remote-not-controlling-volume-and-power-on-my-tv-">https://support.roku.com/article/360004786894-why-is-my-roku-enhanced-remote-not-controlling-volume-and-power-on-my-tv-</a>, UEI_001327 at 28). This programming is conducted via sending data over a carrier signal, e.g., a wireless connection via Wi-Fi or Wi-Fi Direct.</p>

Pat. No. 8,004,389	Roku Streaming Products with Device Control
<p>transmitting said key code signal n said key code generator device;</p>	<p>The Roku Streaming Products with Device Control transmit key code signals to the remote control using wireless Wi-Fi or Wi-Fi Direct signals. <i>See, e.g.</i>, <a href="https://support.roku.com/article/115013256808-what-type-of-remote-control-does-my-roku-streaming-device-use-">https://support.roku.com/article/115013256808-what-type-of-remote-control-does-my-roku-streaming-device-use-</a>, UEI_001317 (describing that Roku “enhanced” remotes communicate with the Roku devices over a wireless network)</p>
<p>identifying said codeset using it from a user of said remote trol device, wherein said codeset identified when said user stops ssing a key on said remote control ice.</p>	<p>The Roku Streaming Products with Device Control identify the codeset using input from a user of said remote control device, wherein said codeset is identified when said user stops pressing a key on said remote control device.</p> <p>The codeset is identified when the Roku user stops pressing a key on the Roku remote. The user provides input to the remote control via the “OK” button in response to questions “Music is currently playing. Do you hear it?” and “Did the music stop playing?”</p> 

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