

Exemplary Data Flows

Exemplar Data Flows

IPG Patents

- **Displaying a program**
- **Storing program information**
- **Causing an A/V display to selectively display a program listing**
- **IPG with Picture-in-Picture**

Displaying a Program

Displaying a Program

IPG Patents

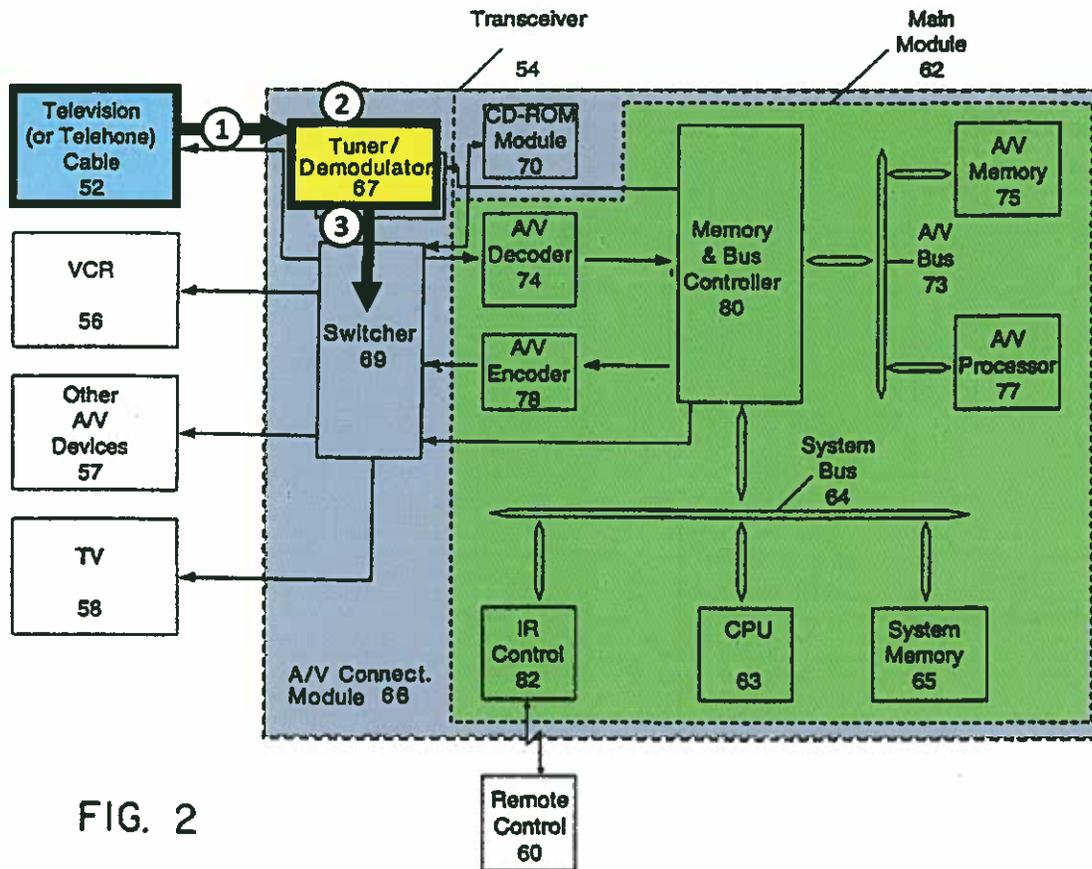


FIG. 2

1. Information is transmitted from service provider.
2. Information is demodulated to obtain programs as described earlier.
3. Tuner tunes to selected channel.

Displaying a Program

IPG Patents

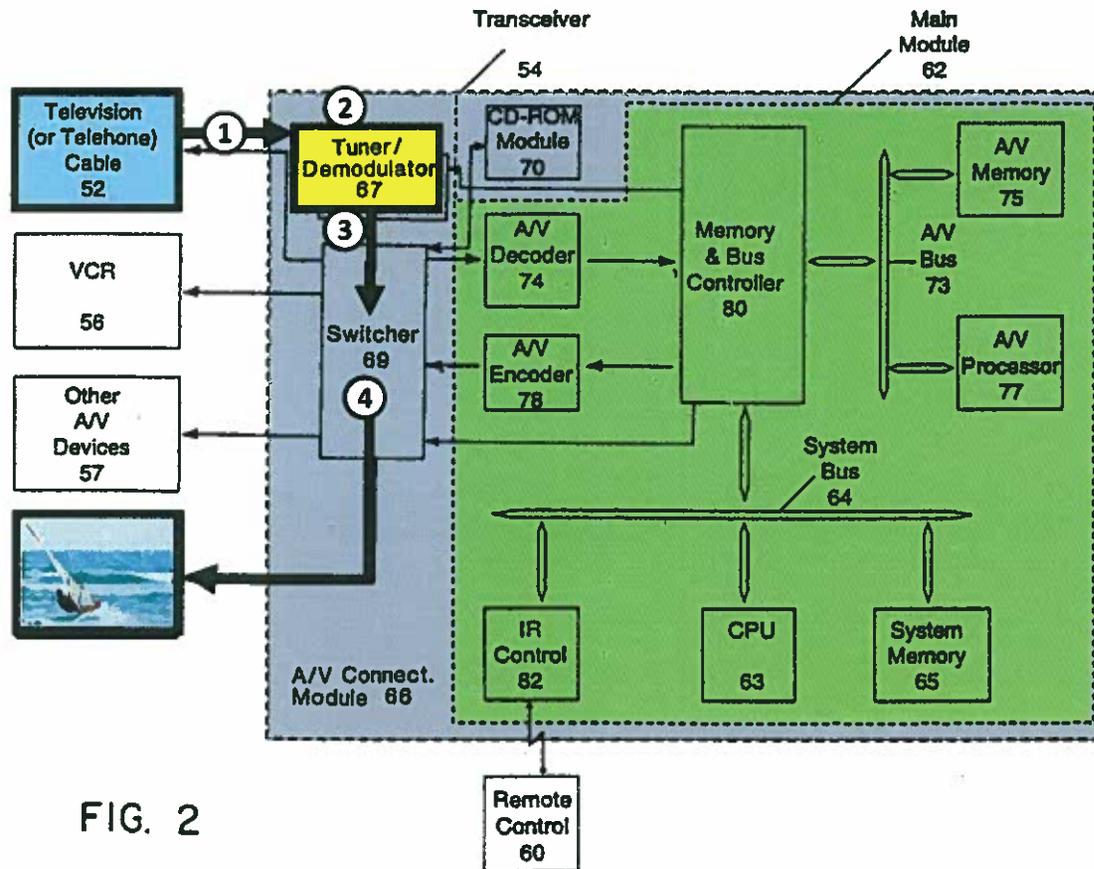


FIG. 2

1. Information is transmitted from service provider.
2. Information is demodulated to obtain programs as described earlier.
3. Tuner tunes to selected channel.
4. Switcher sends to TV for display.

Storing Programming Information

Storing Program Information

IPG Patents

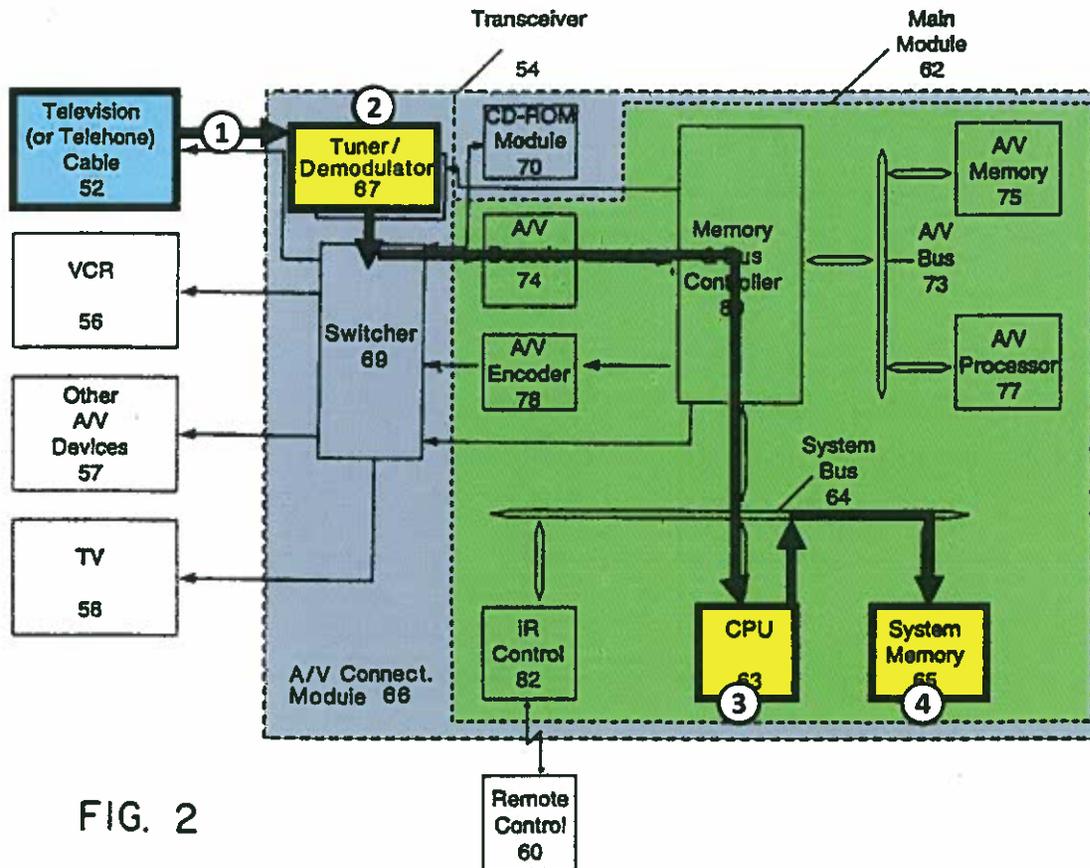


FIG. 2

1. Information transmitted by service provider.
2. Information demodulated to obtain programming information.
3. CPU selects programming information.
4. Selected programming information transferred over a bus and stored in memory.

Causing an A/V Display to Selectively Display a Program Listing

Selectively Display Program Listing

IPG Patents

- **Function: causing an A/V display to selectively display a program listing.**

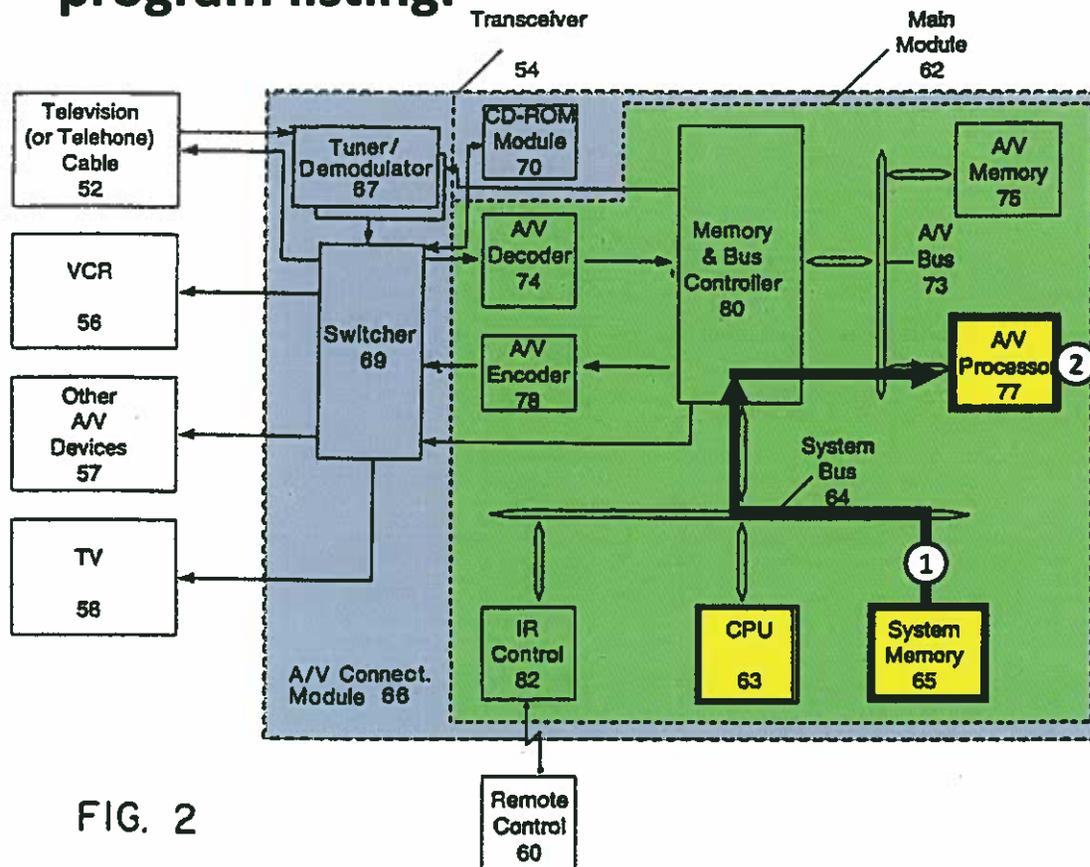


FIG. 2

1. In response to guide button, CPU retrieves programming information from memory.
2. Programming information is used by the A/V Processor to generate IPG.

Selectively Display Program Listing

IPG Patents

- **Function: causing an A/V display to selectively display a program listing.**

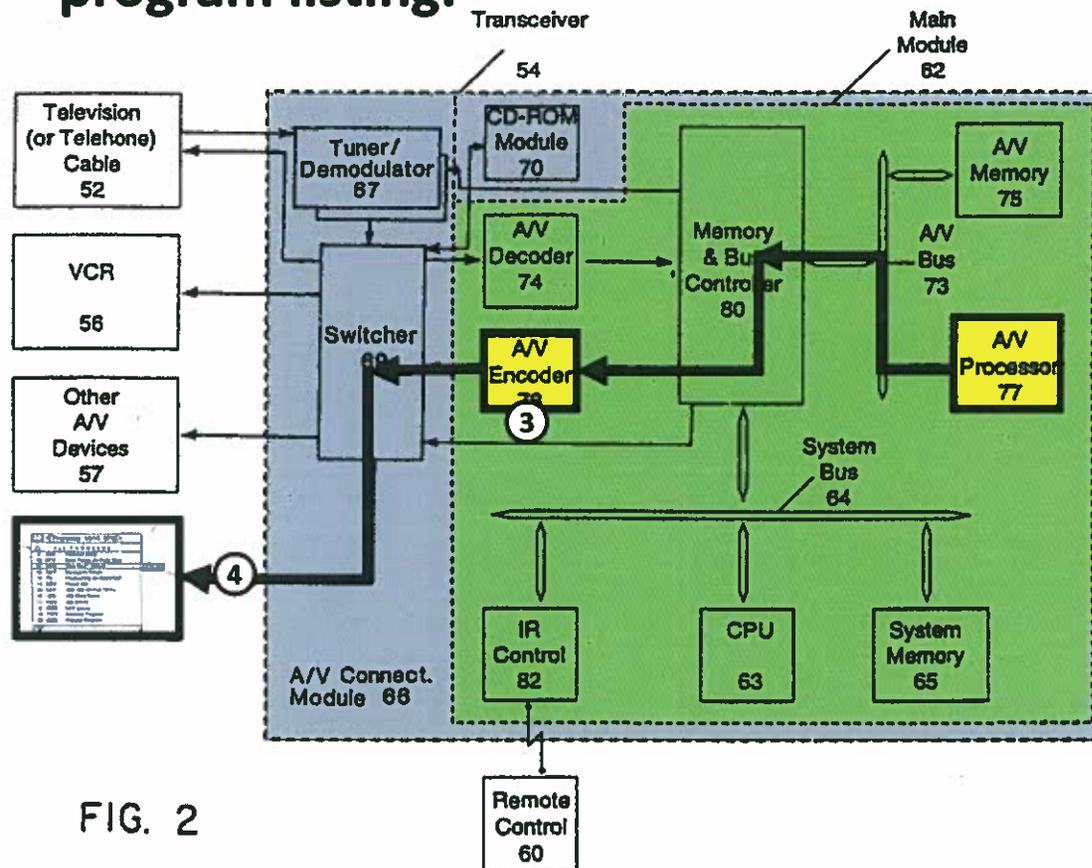


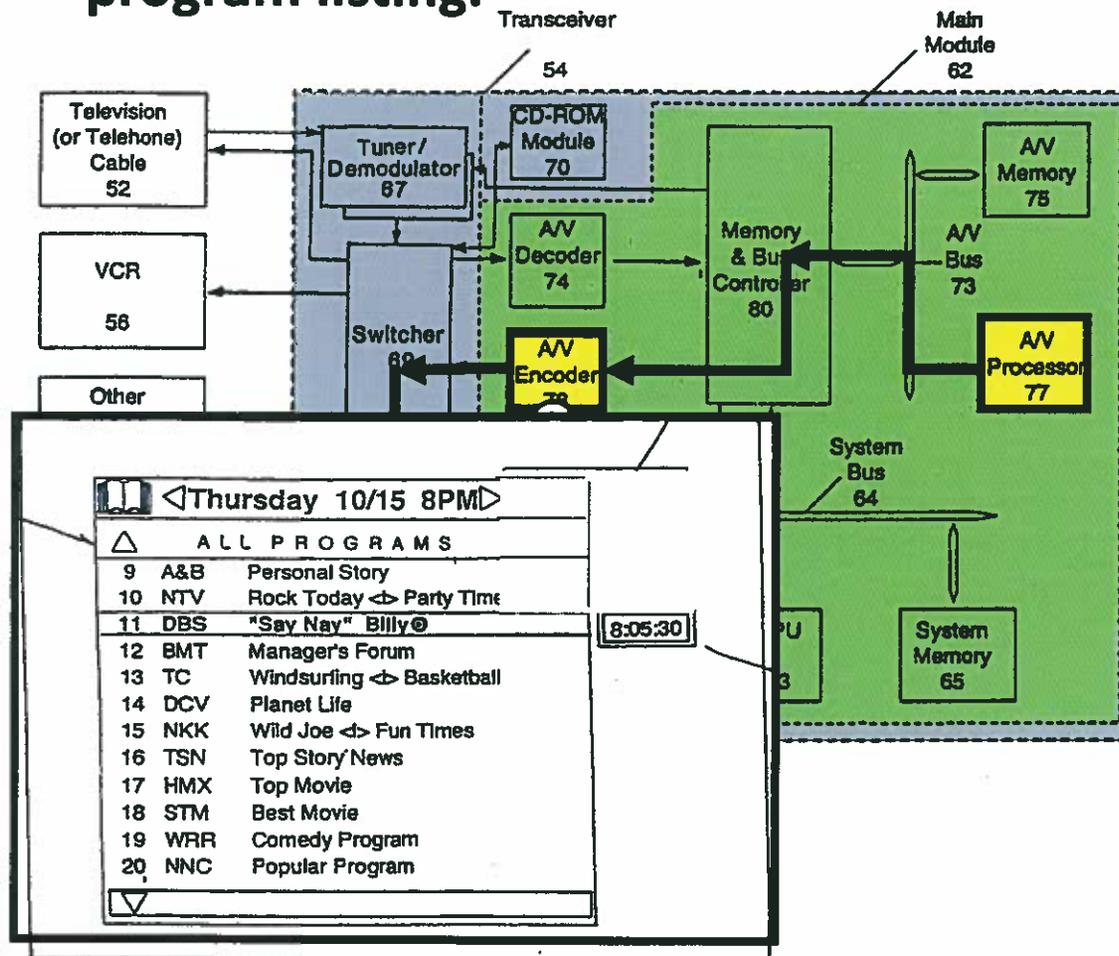
FIG. 2

1. In response to guide button, CPU retrieves programing information from memory.
2. Programming information is used by the A/V Processor to generate IPG.
3. IPG data is A/V encoded for display.
4. Interactive guide is displayed on a television.

Selectively Display Program Listing

IPG Patents

- **Function: causing an A/V display to selectively display a program listing.**

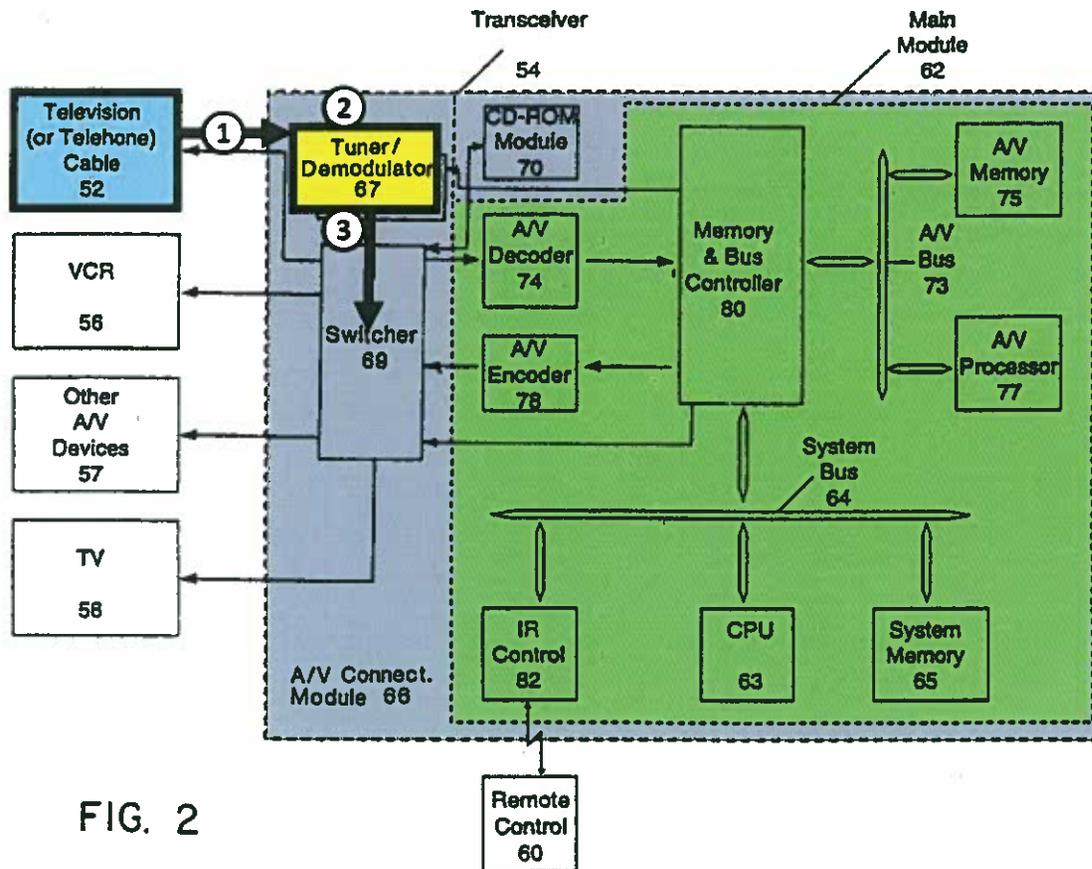


1. In response to guide button, CPU retrieves programing information from memory.
2. Programming information is used by the A/V Processor to generate IPG.
3. IPG data is A/V encoded for display.
4. Interactive guide is displayed on a television.

IPG with Picture-in-Picture

IPG with Picture-in-Picture

IPG Patents



1. Information is transmitted from service provider.
2. Information is demodulated to obtain programs as described earlier.
3. Tuner tunes to selected channel.

IPG with Picture-in-Picture

IPG Patents

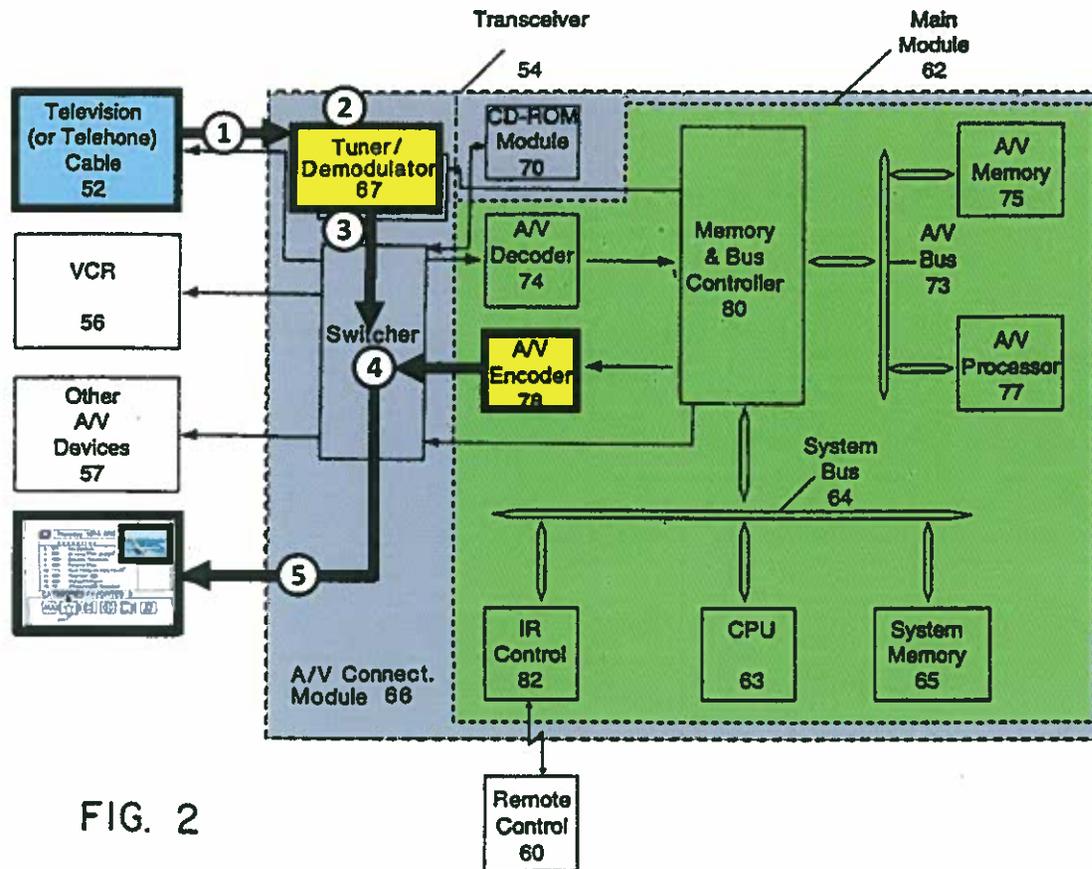
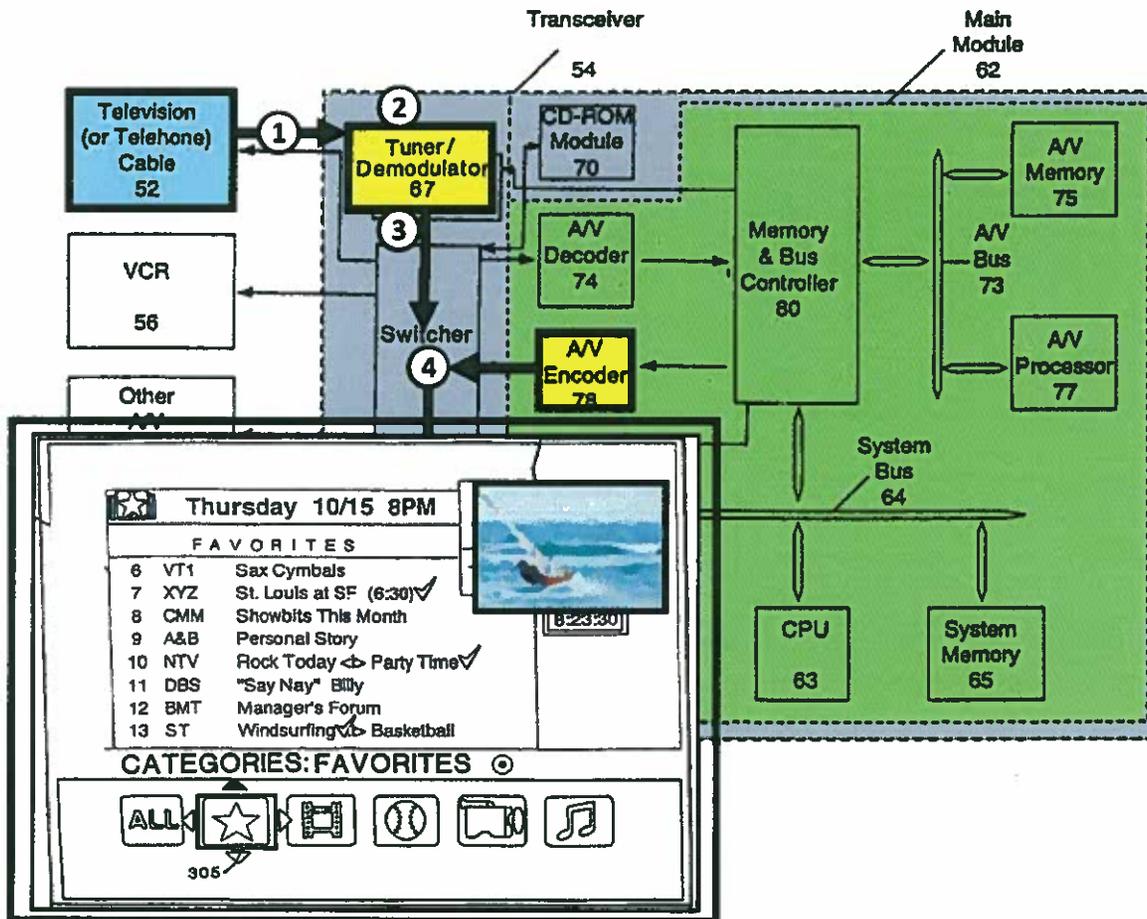


FIG. 2

1. Information is transmitted from service provider.
2. Information is demodulated to obtain programs as described earlier.
3. Tuner tunes to selected channel.
4. Picture can be overlaid in A/V Connect Module with IPG from A/V Encoder to display simultaneously.
5. Interactive guide with picture is displayed on a television.

IPG with Picture-in-Picture

IPG Patents



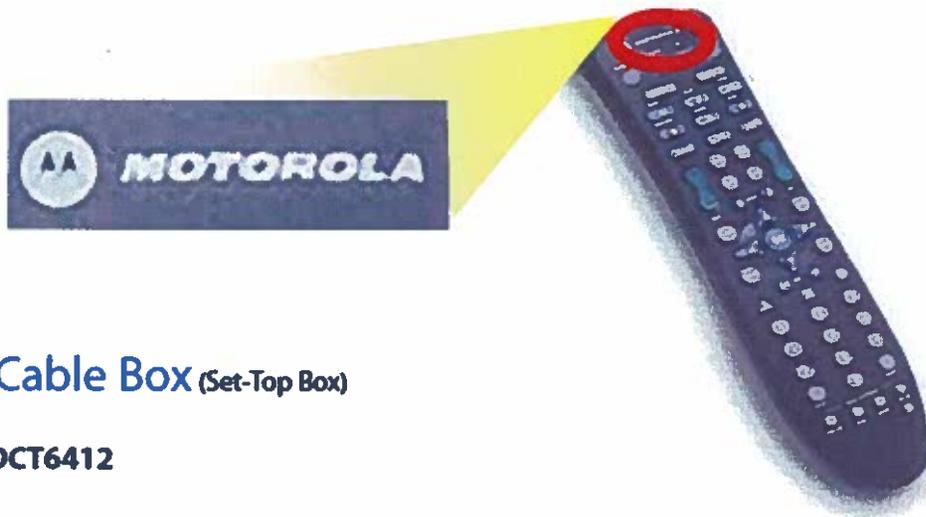
1. Information is transmitted from service provider.
2. Information is demodulated to obtain programs as described earlier.
3. Tuner tunes to selected channel.
4. Picture can be overlaid in A/V Connect Module with IPG from A/V Encoder to display simultaneously.
5. Interactive guide with picture is displayed on a television.

Accused Motorola Products

Accused Motorola Products

IPG Patents

- The accused products are cable set-top boxes and digital video recorders with an interactive program guide and a remote control.



Digital Cable Box (Set-Top Box)

Motorola DCT6412

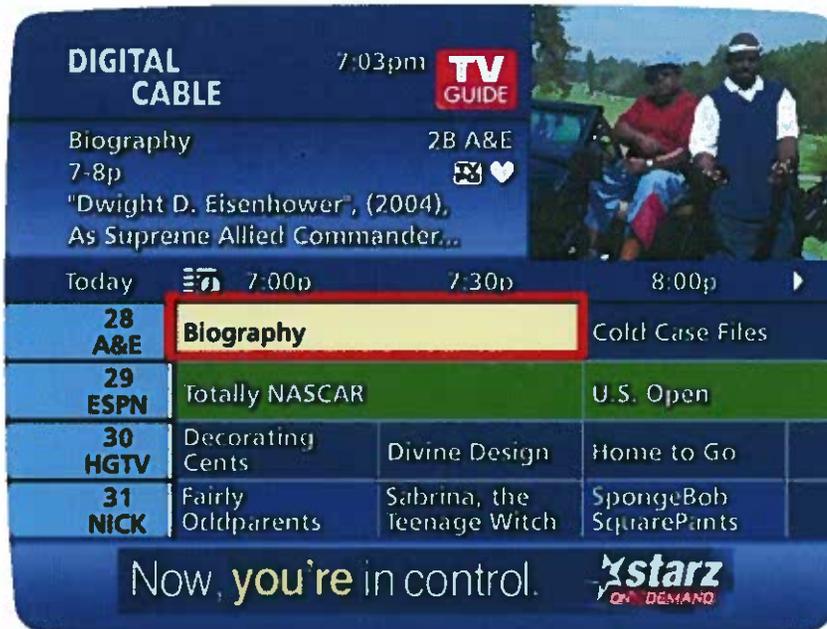
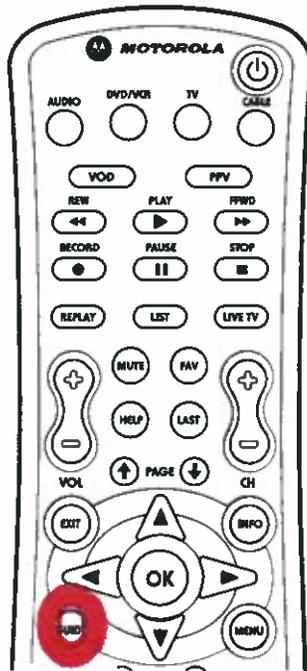


iGuide User's Reference Manual, p. 6 & 11v

Accused Motorola Products

IPG Patents

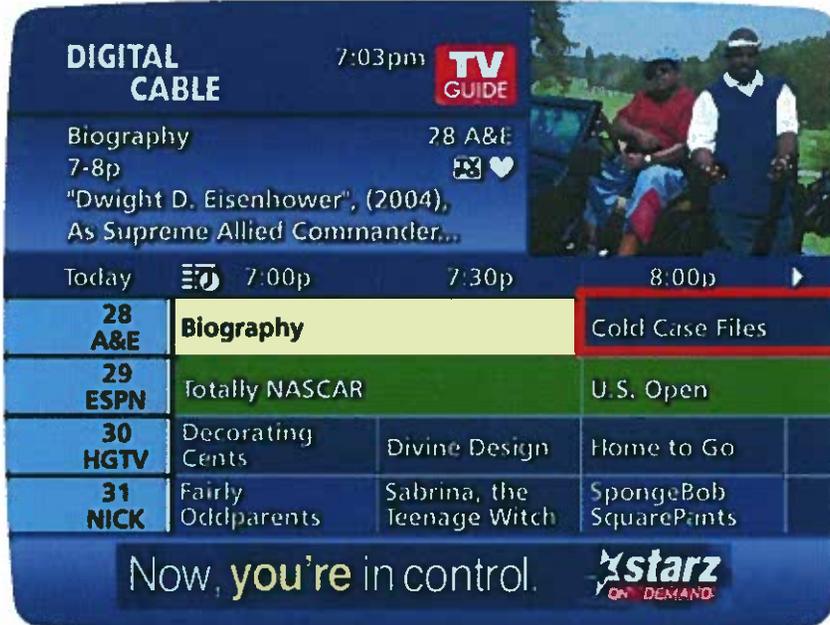
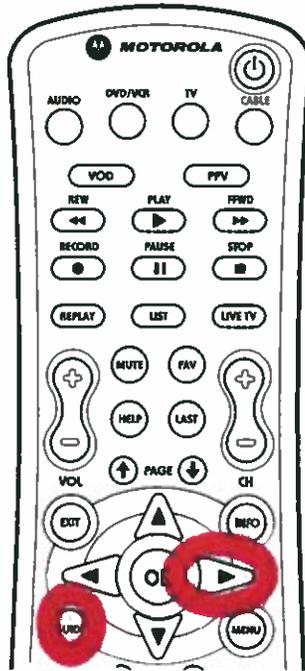
- **Motorola Set-Top Box Features: Listings by Time**



Accused Motorola Products

IPG Patents

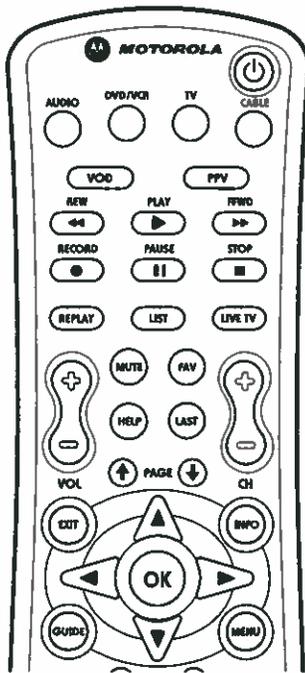
- **Motorola Set-Top Box Features: Listings by Time**



Accused Motorola Products

IPG Patents

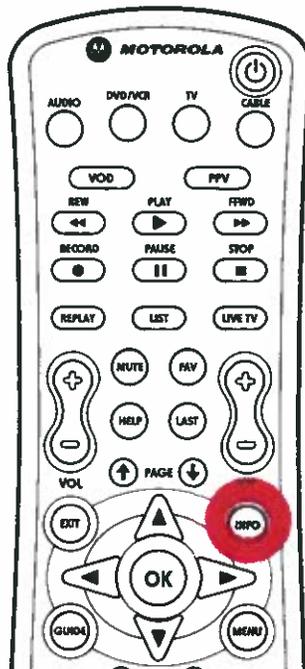
- **Motorola Set-Top Box Features: More Information**



Accused Motorola Products

IPG Patents

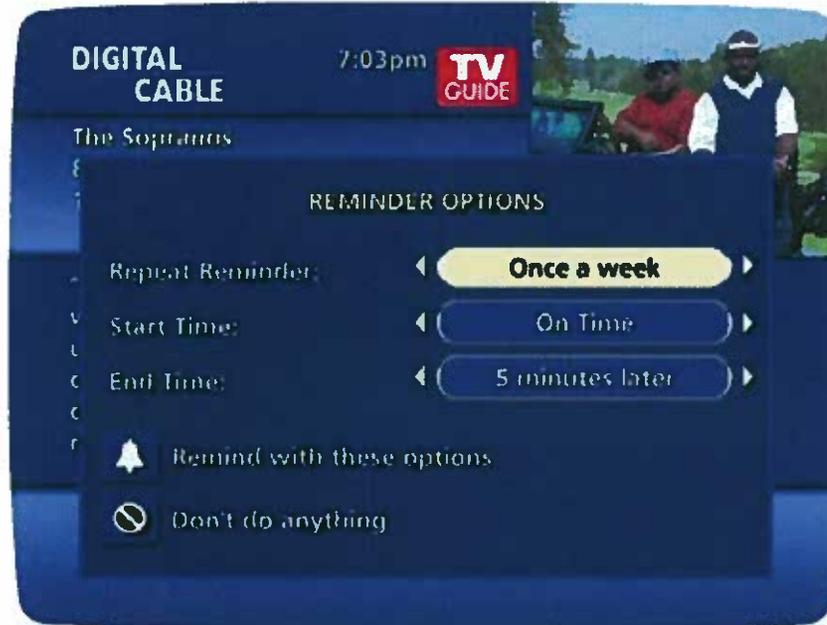
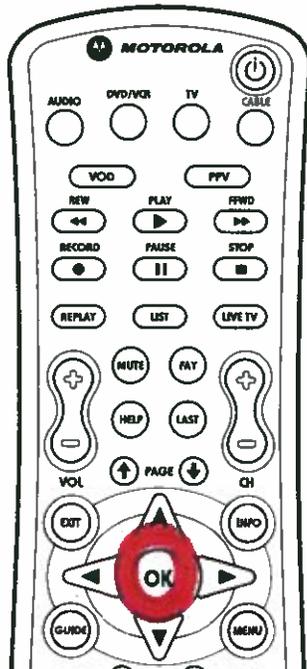
- **Motorola Set-Top Box Features: More Information**



Accused Motorola Products

IPG Patents

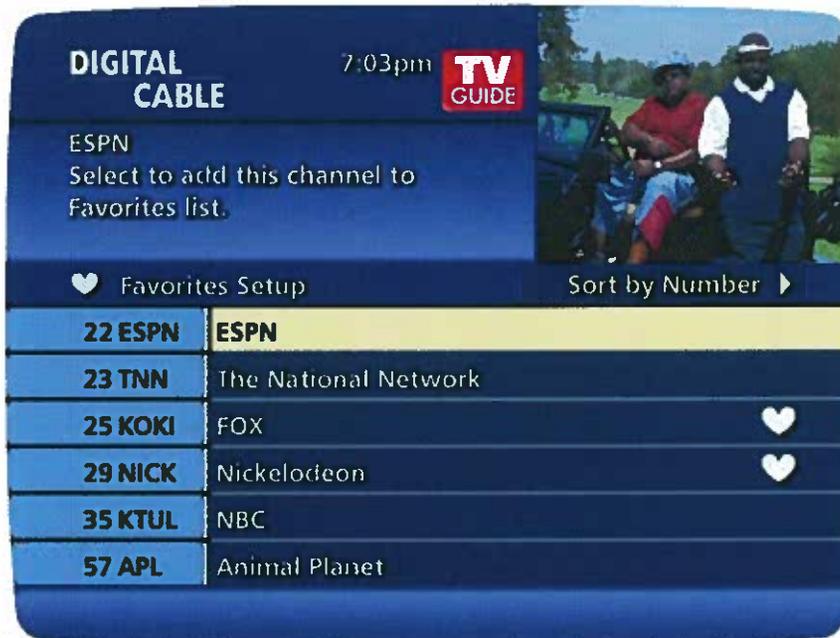
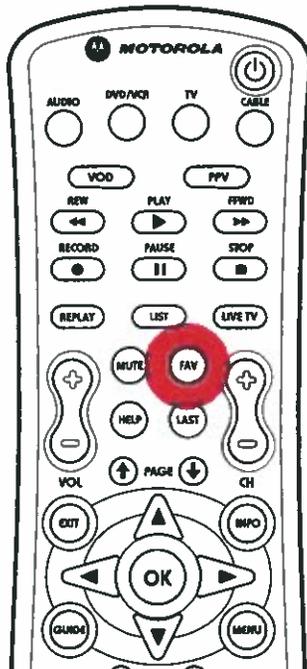
● Motorola Set-Top Box Features: Reminders



Accused Motorola Products

IPG Patents

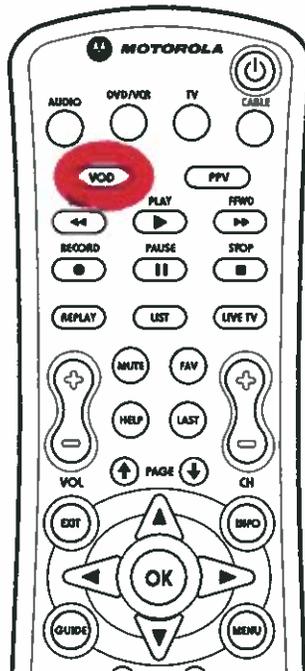
● Motorola Set-Top Box Features: Favorites



Accused Motorola Products

IPG Patents

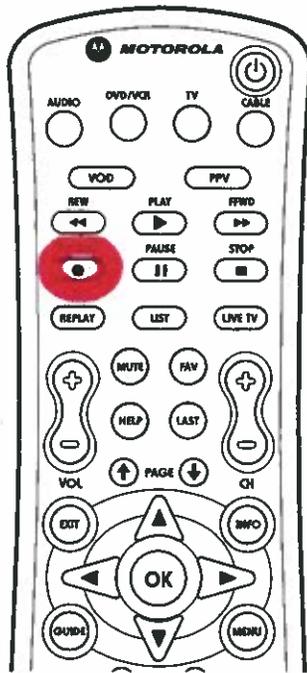
- **Motorola Set-Top Box Features: On Demand Menu**



Accused Motorola Products

IPG Patents

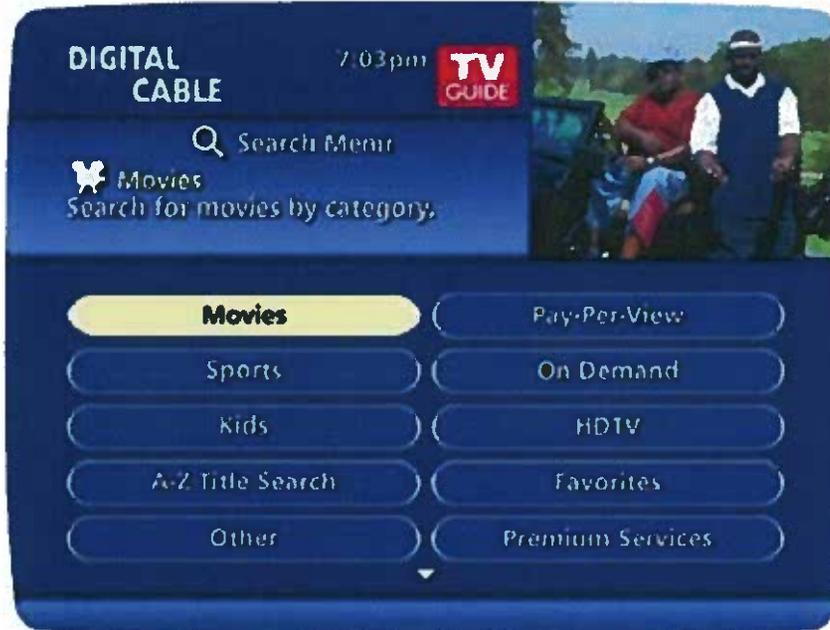
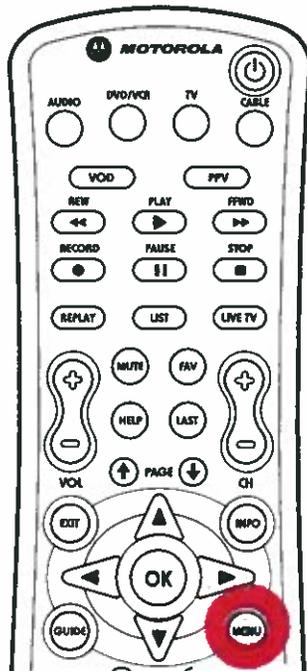
● Motorola Set-Top Box Features: Recording



Accused Motorola Products

IPG Patents

● Motorola Set-Top Box Features: Filtering by Category

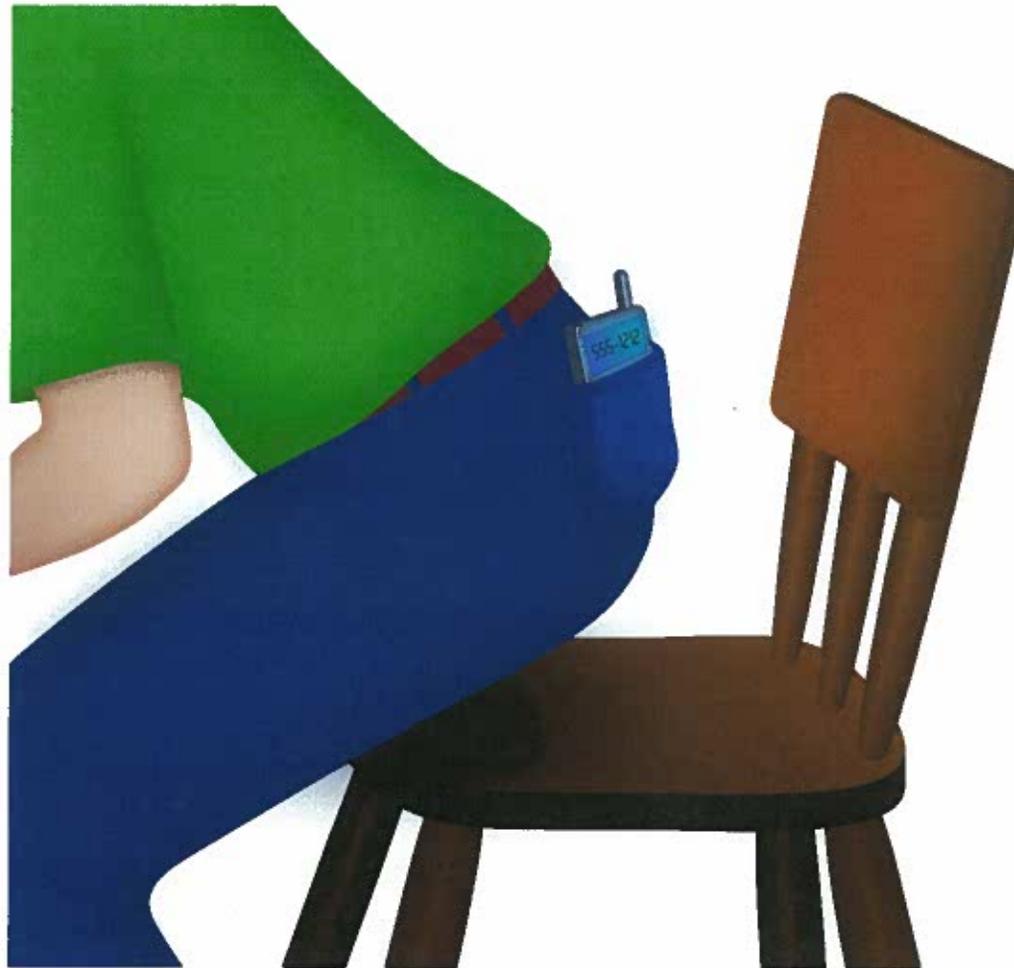


'849 Patent

Gesture-to-Unlock

Goal: Preventing Accidental Calls

'849 Patent



State of the Art: Physical Locks

'849 Patent

Physical Cover

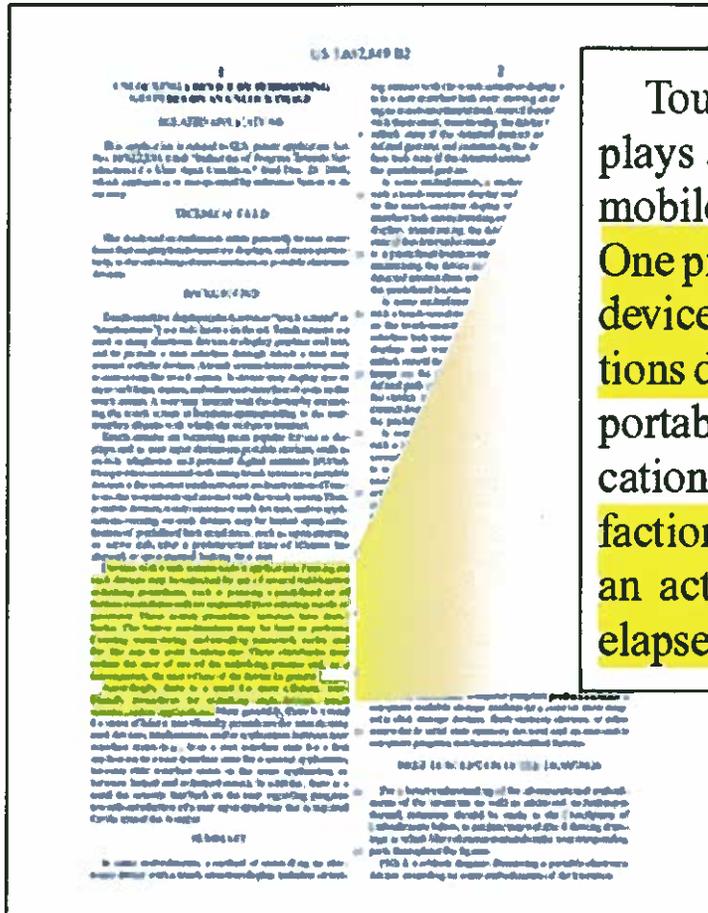


Physical Switch



State of the Art for Touchscreens: Screen Lock

'849 Patent



Touch screens are becoming more popular for use as displays and as user input devices on portable devices, such as mobile telephones and personal digital assistants (PDAs). One problem associated with using touch screens on portable devices is the unintentional activation or deactivation of functions due to unintentional contact with the touch screen. Thus, portable devices, touch screens on such devices, and/or applications running on such devices may be locked upon satisfaction of predefined lock conditions, such as upon entering an active call, after a predetermined time of idleness has elapsed, or upon manual locking by a user.

'849 patent at 1:30-40

State of the Art: Passwords

'849 Patent

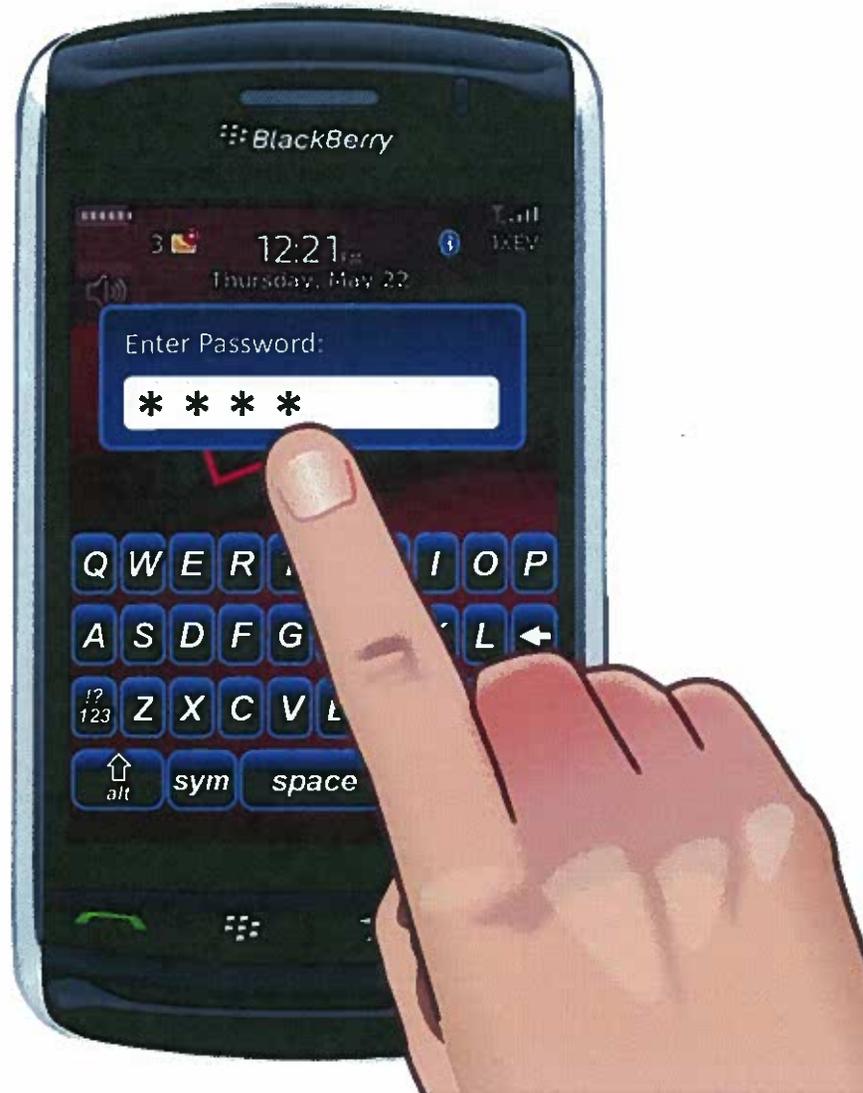
Blackberry



State of the Art: Passwords

'849 Patent

Blackberry



State of the Art: Passwords

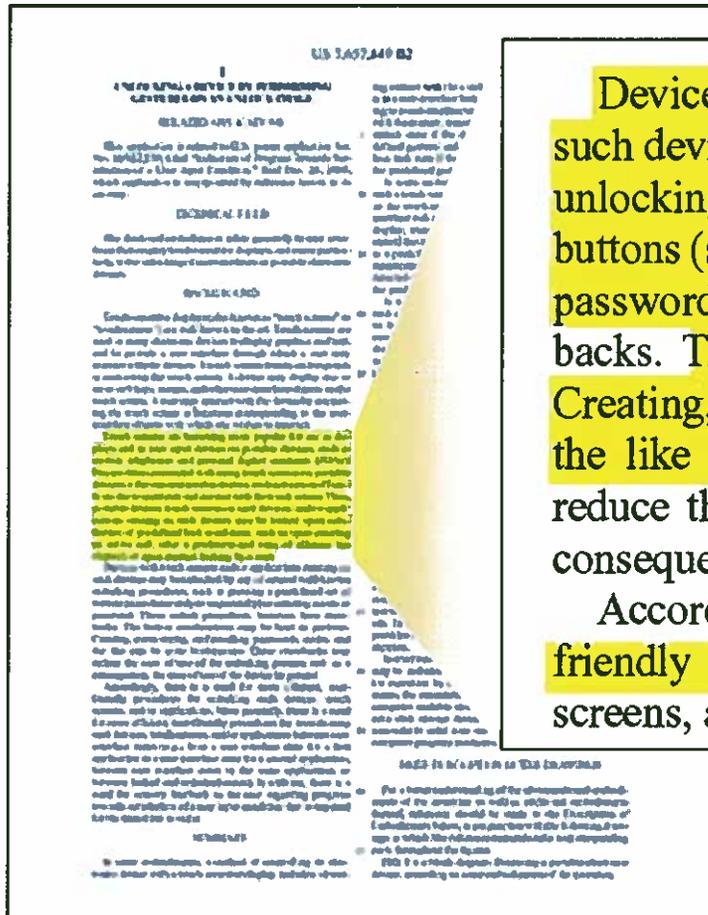
'849 Patent

Blackberry



State of the Art: Passwords

'849 Patent



Devices with touch screens and/or applications running on such devices may be unlocked by any of several well-known unlocking procedures, such as pressing a predefined set of buttons (simultaneously or sequentially) or entering a code or password. These unlock procedures, however, have drawbacks. The button combinations may be hard to perform. Creating, memorizing, and recalling passwords, codes, and the like can be quite burdensome. These drawbacks may reduce the ease of use of the unlocking process and, as a consequence, the ease of use of the device in general.

Accordingly, there is a need for more efficient, user-friendly procedures for unlocking such devices, touch screens, and/or applications.

'849 patent at 1:41-53

'849 Patent Solution: Gesture-to-Unlock

'849 Patent

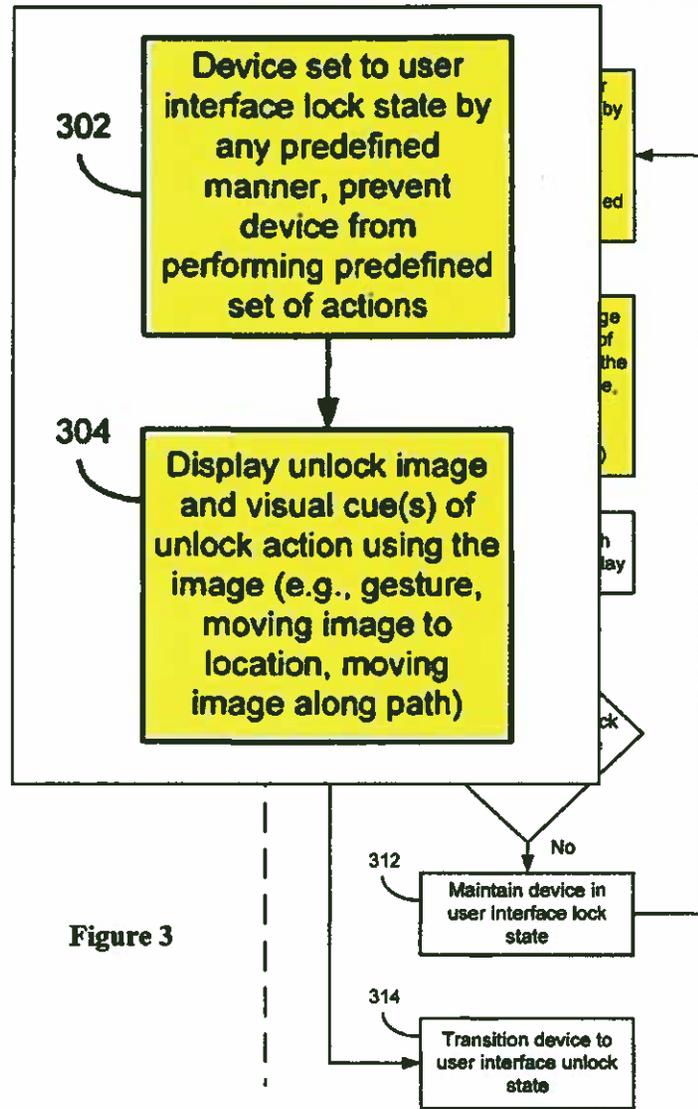
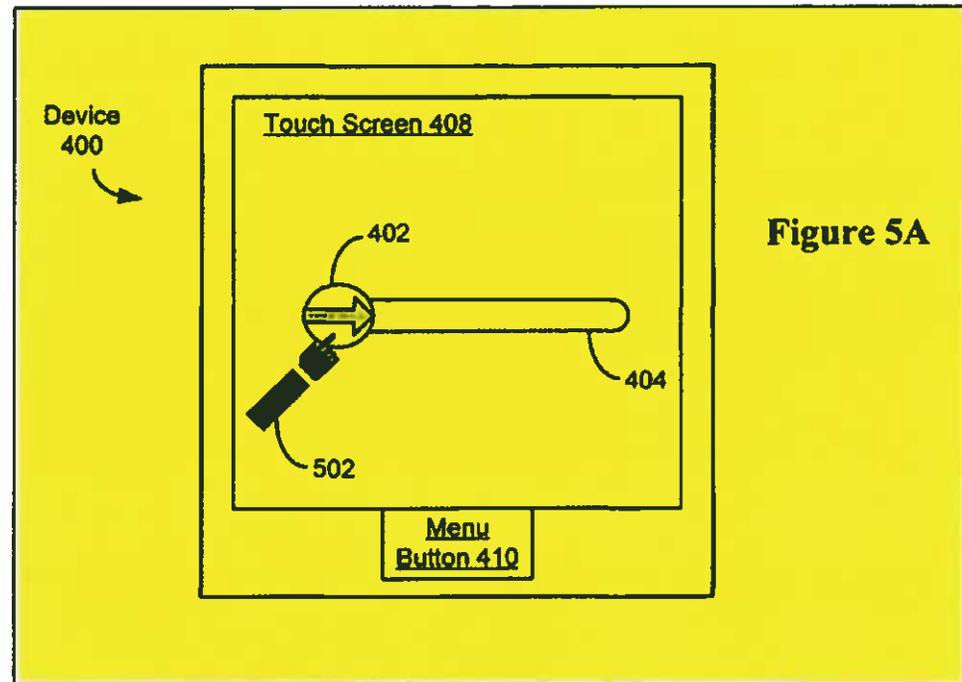


Figure 3



'849 Patent, Figs. 3 & 5A

'849 Patent Solution: Gesture-to-Unlock

'849 Patent

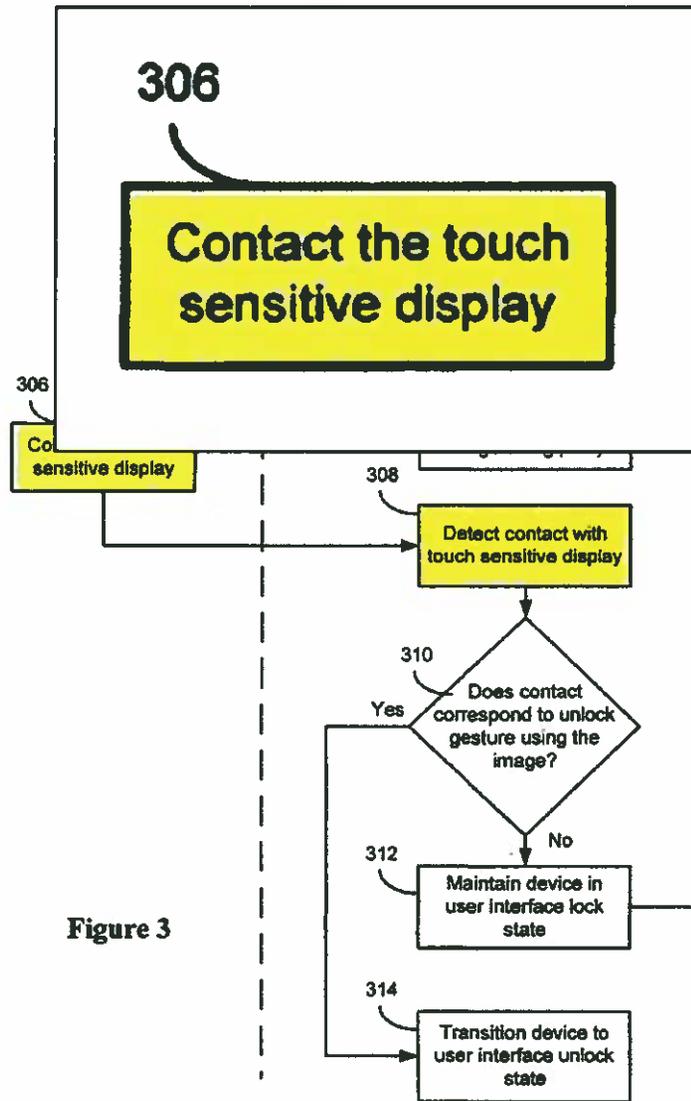


Figure 3

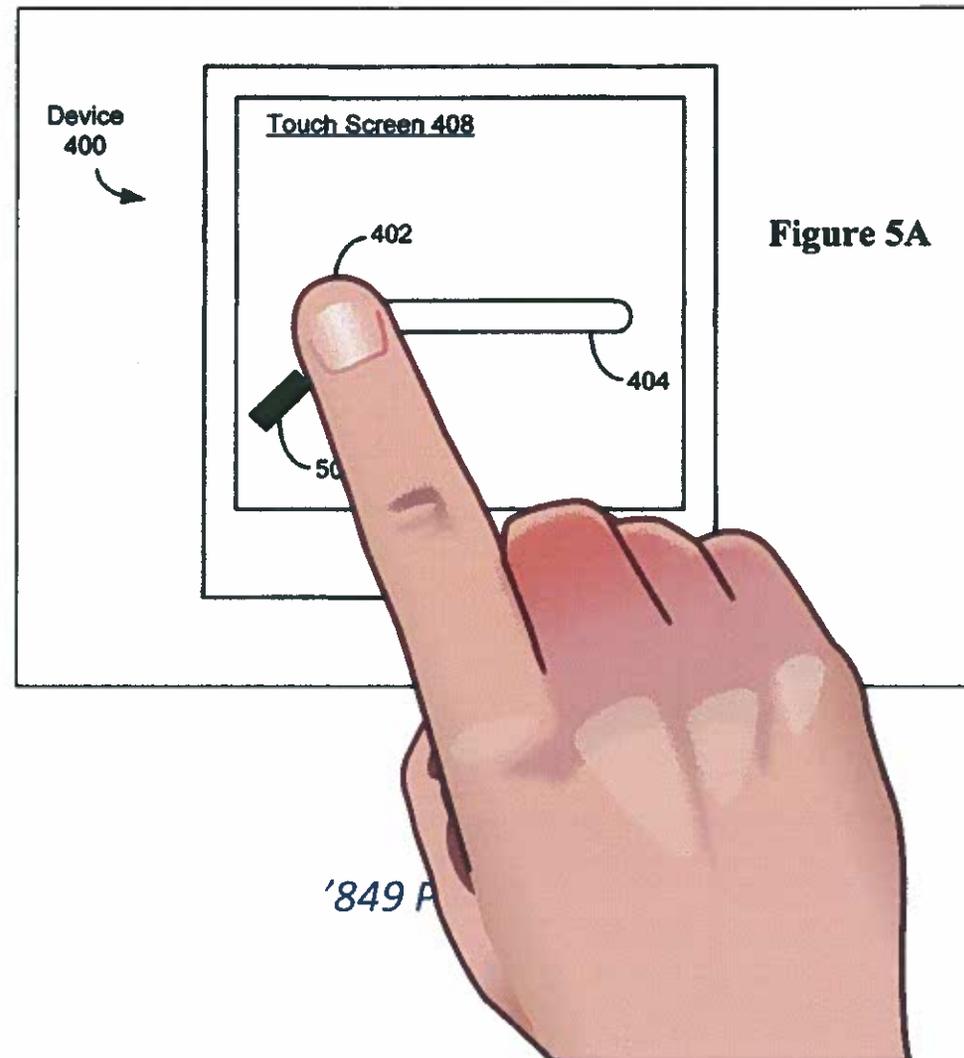
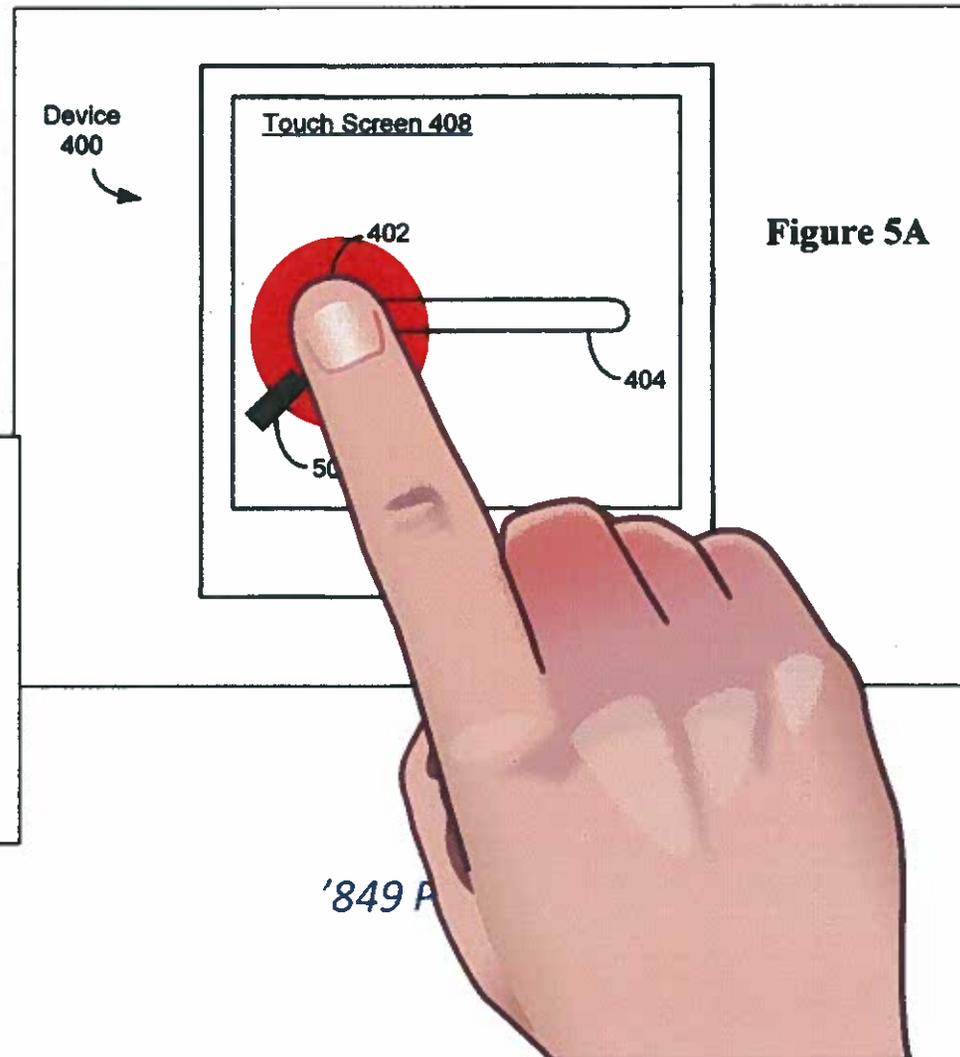
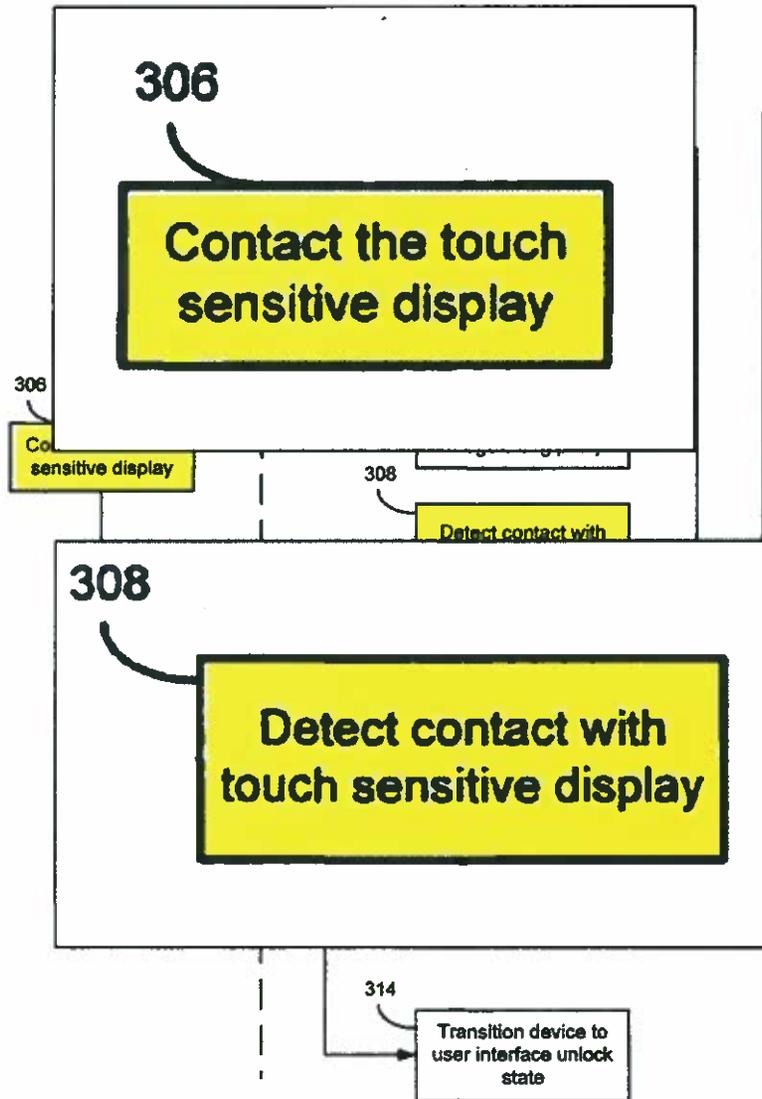


Figure 5A

'849 P

'849 Patent Solution: Gesture-to-Unlock

'849 Patent



'849 Patent Solution: Gesture-to-Unlock

'849 Patent

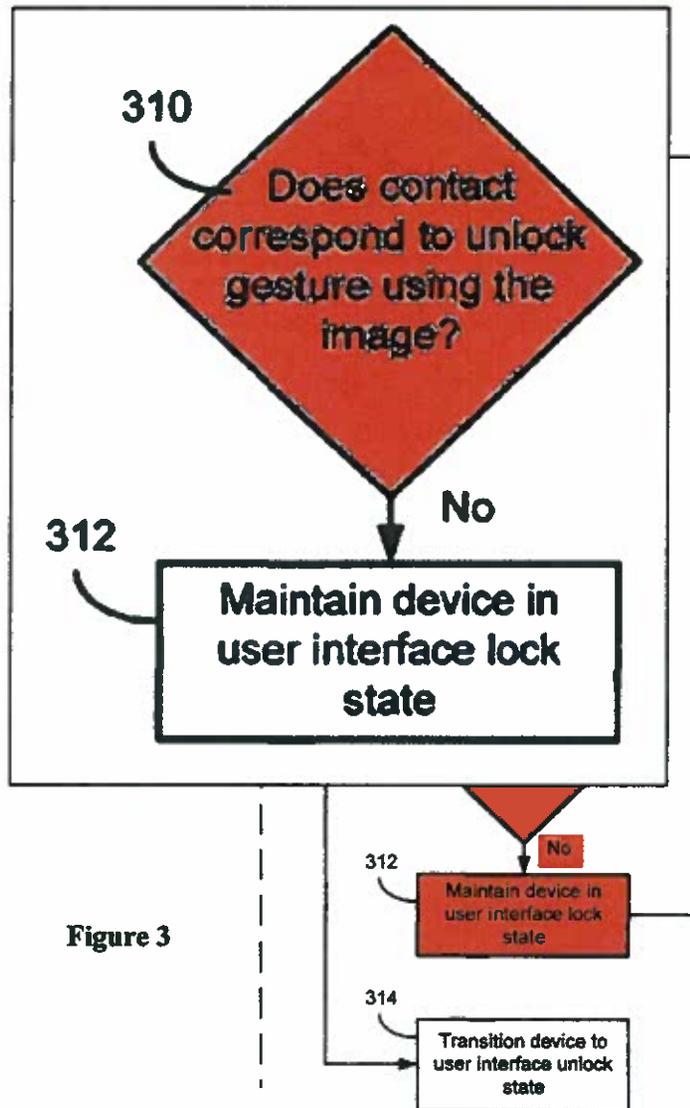


Figure 3

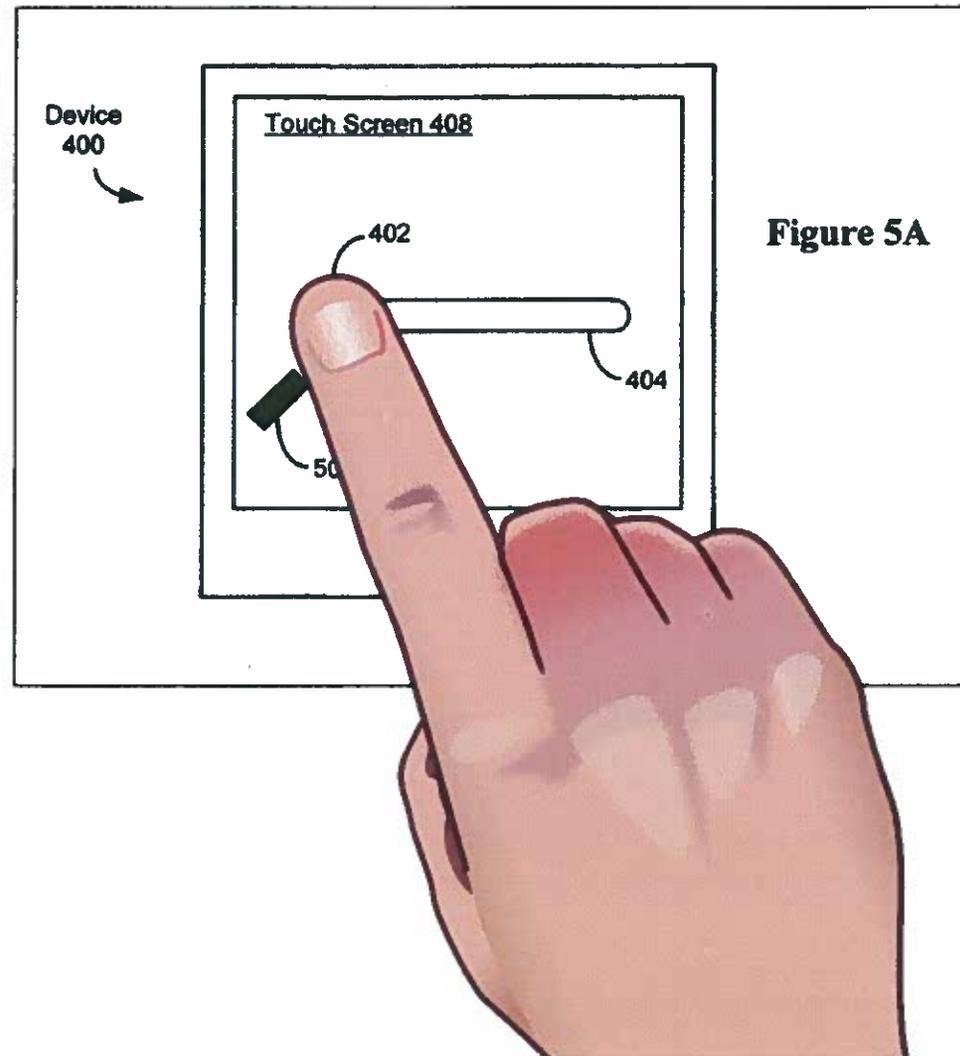


Figure 5A

'849 Patent Solution: Gesture-to-Unlock

'849 Patent

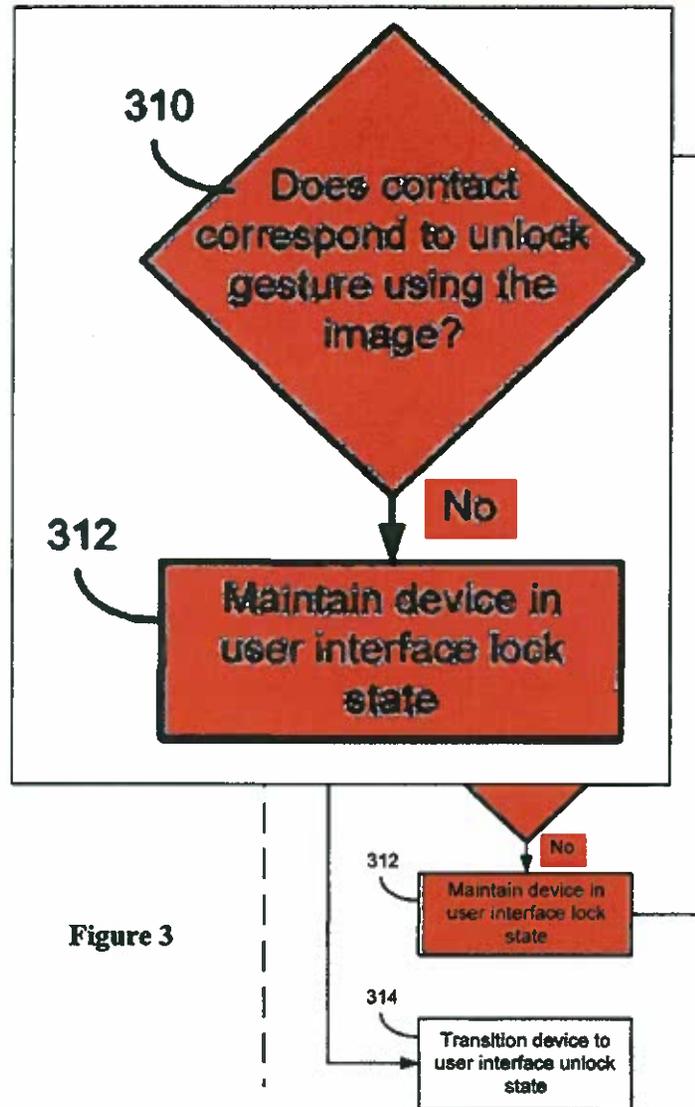


Figure 3

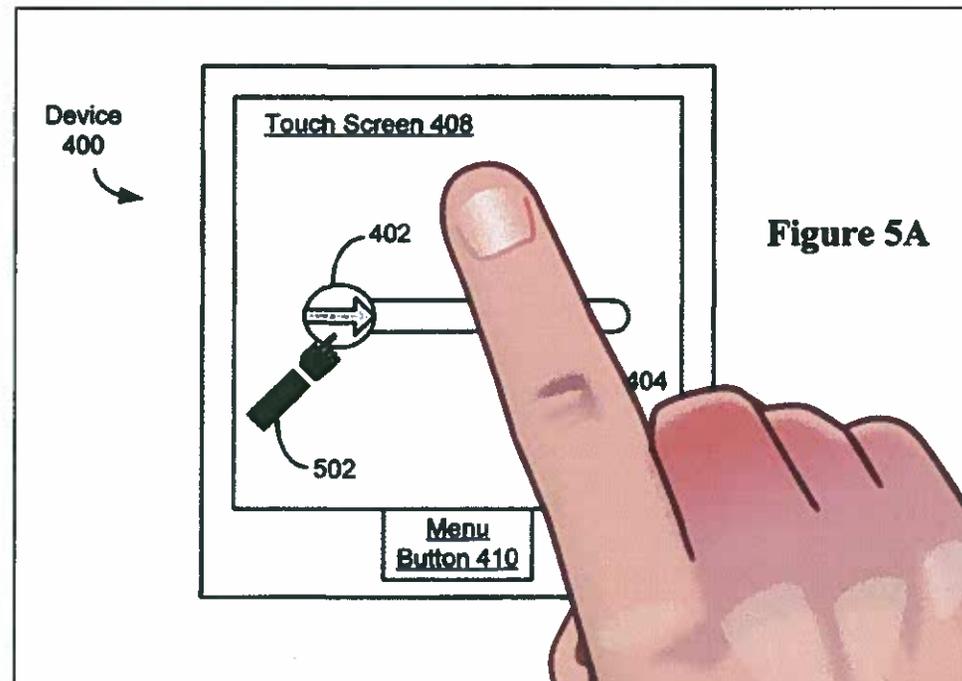
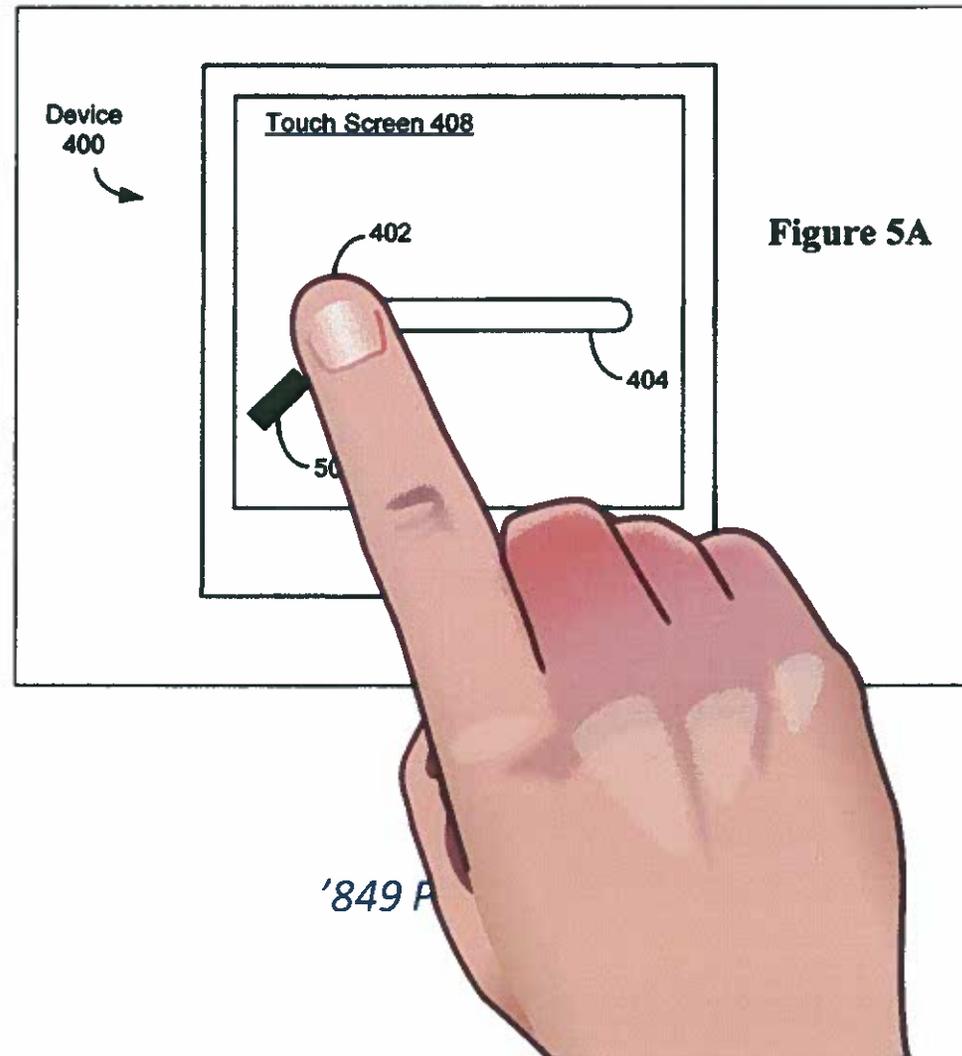
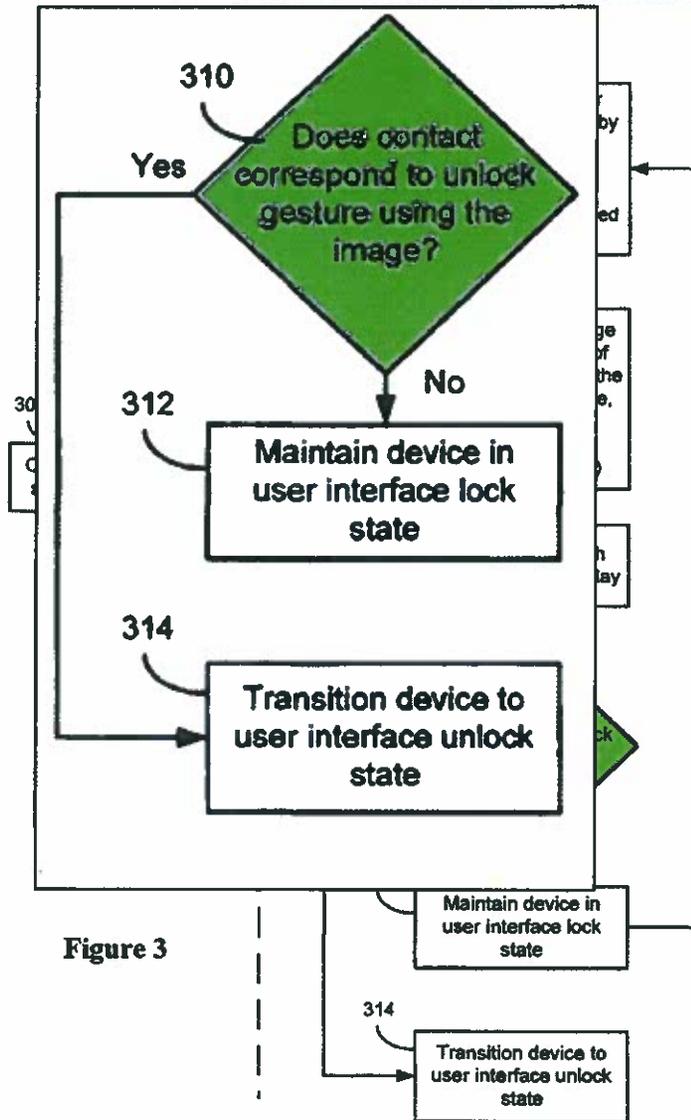


Figure 5A

'849 Patent Solution: Gesture-to-Unlock

'849 Patent



'849 P

'849 Patent Solution: Gesture-to-Unlock

'849 Patent

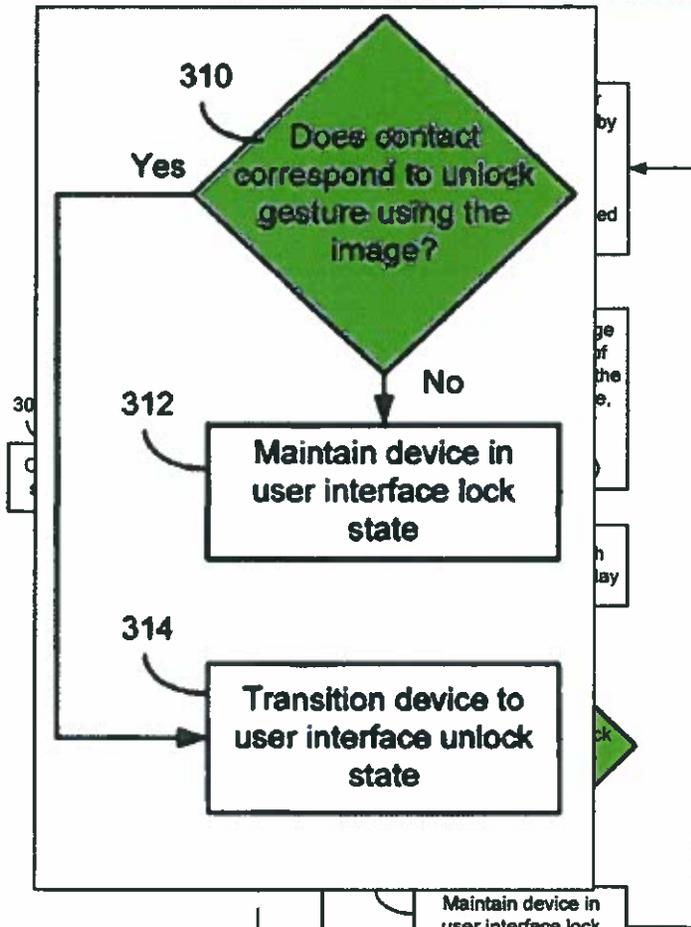


Figure 3

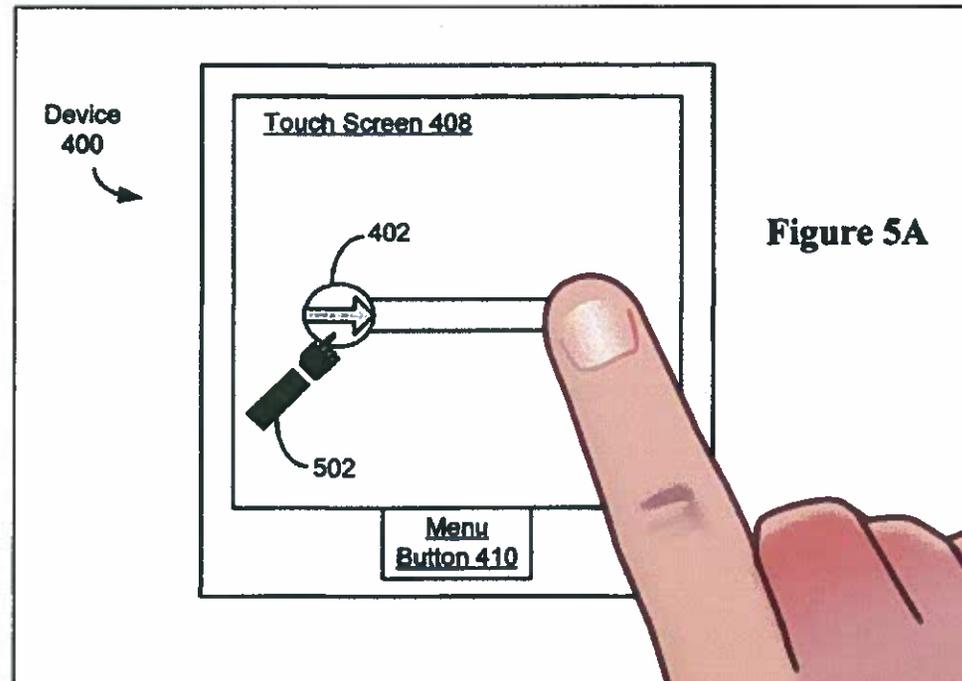
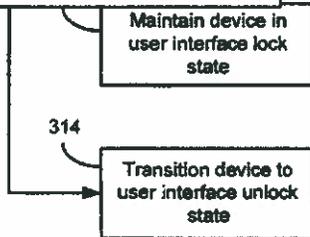


Figure 5A

'849 Patent, Figs. 3

'849 Patent Solution: Gesture-to-Unlock

'849 Patent

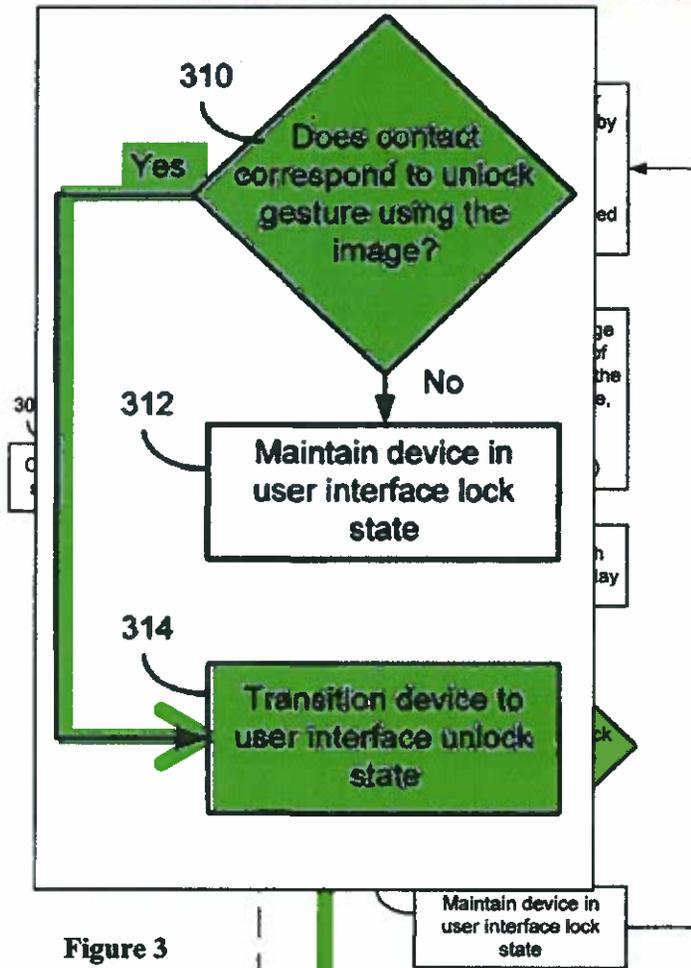


Figure 3

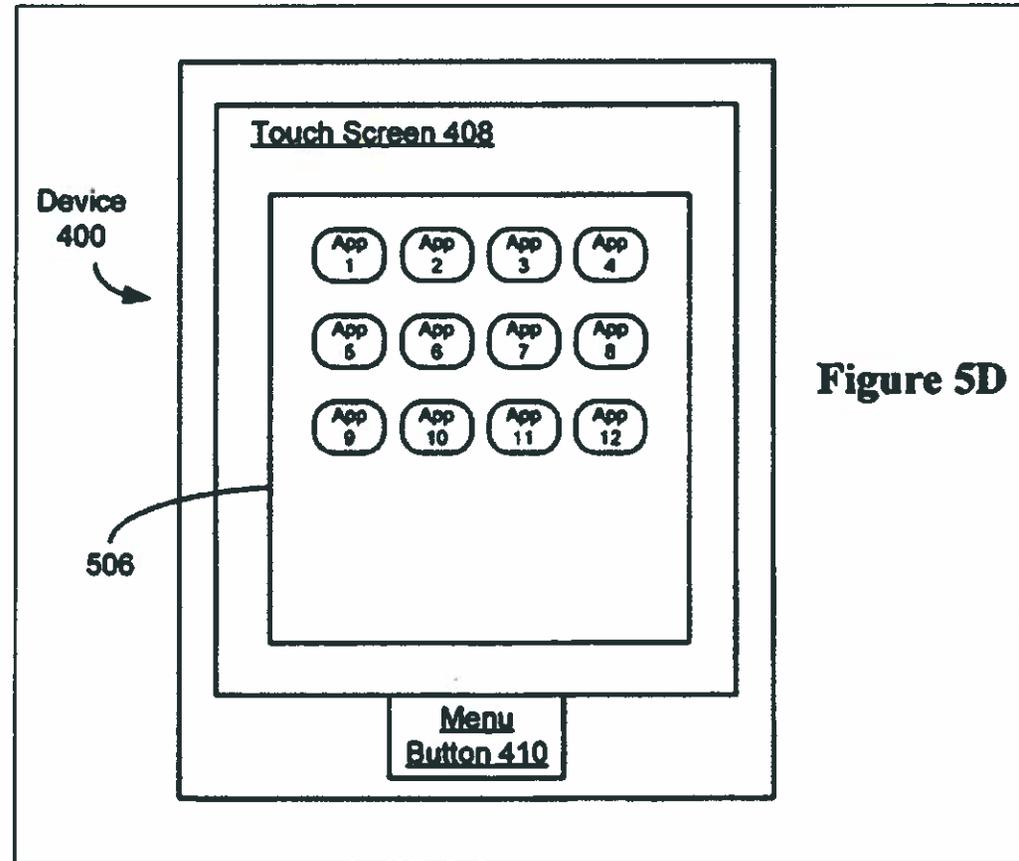
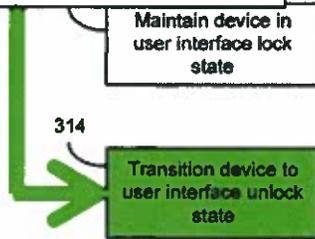


Figure 5D

'849 Patent, Figs. 3 & 5D



iPhone: Simplifying the Unlock Step

'849 Patent

iPhone



iPhone: Simplifying the Unlock Step

'849 Patent

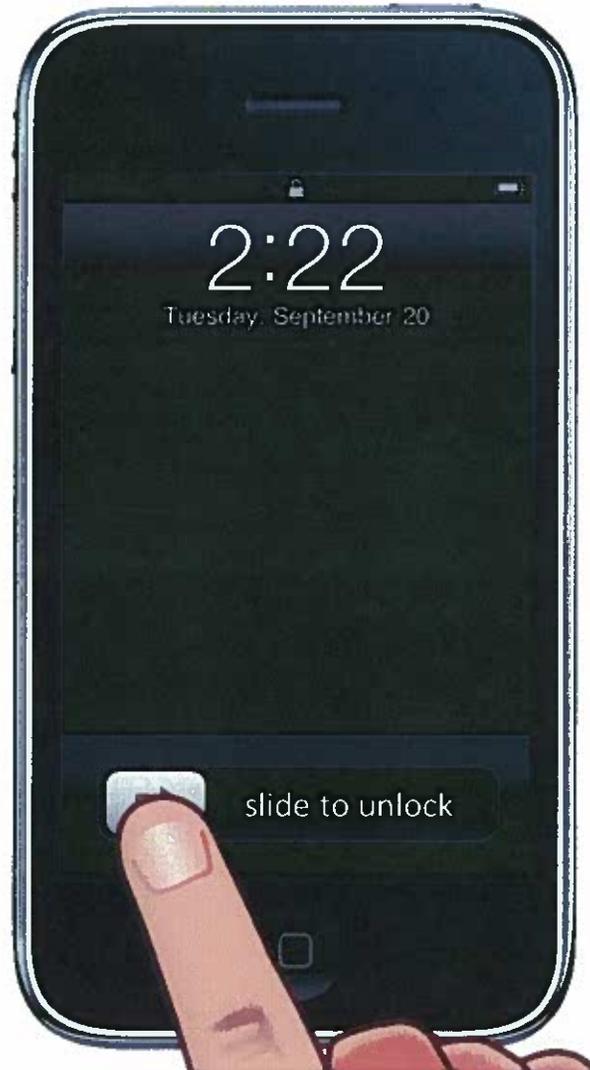
iPhone



iPhone: Optional Passcode Step

'849 Patent

iPhone



iPhone: Optional Passcode Step

'849 Patent

iPhone



Android: Simplifying the Unlock Step

'849 Patent

Droid 2



Android: Simplifying the Unlock Step

'849 Patent

Droid 2



Android: Simplifying the Unlock Step

'849 Patent

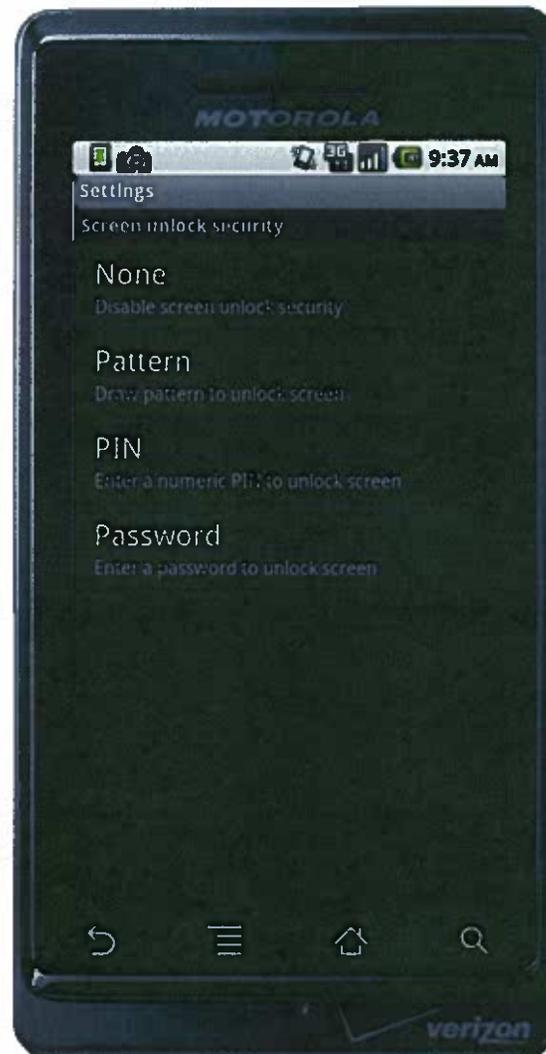
Droid 2



Android: Optional Pattern/PIN/Password Step

'849 Patent

Droid 2



Android: Simplifying the Unlocking Step

'849 Patent

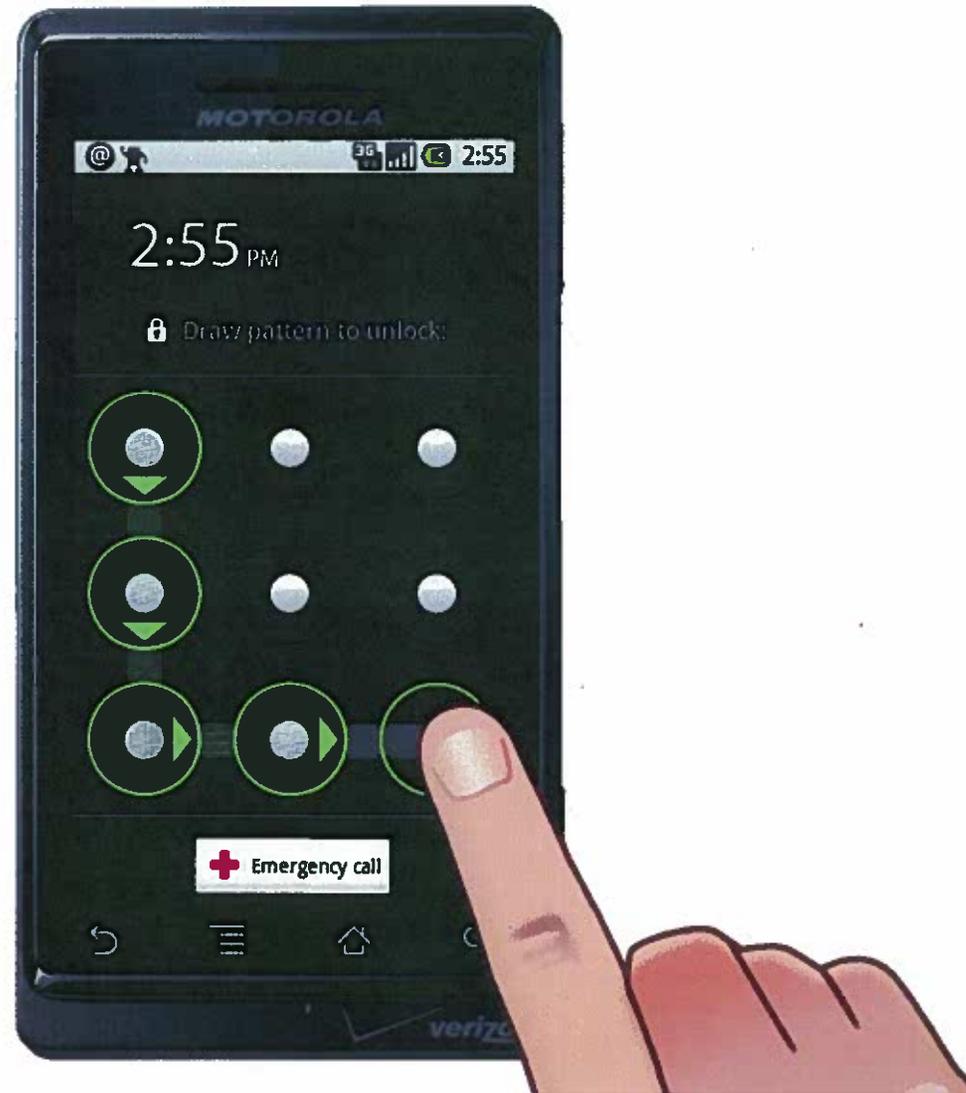
Droid 2



Android: Simplifying the Unlocking Step

'849 Patent

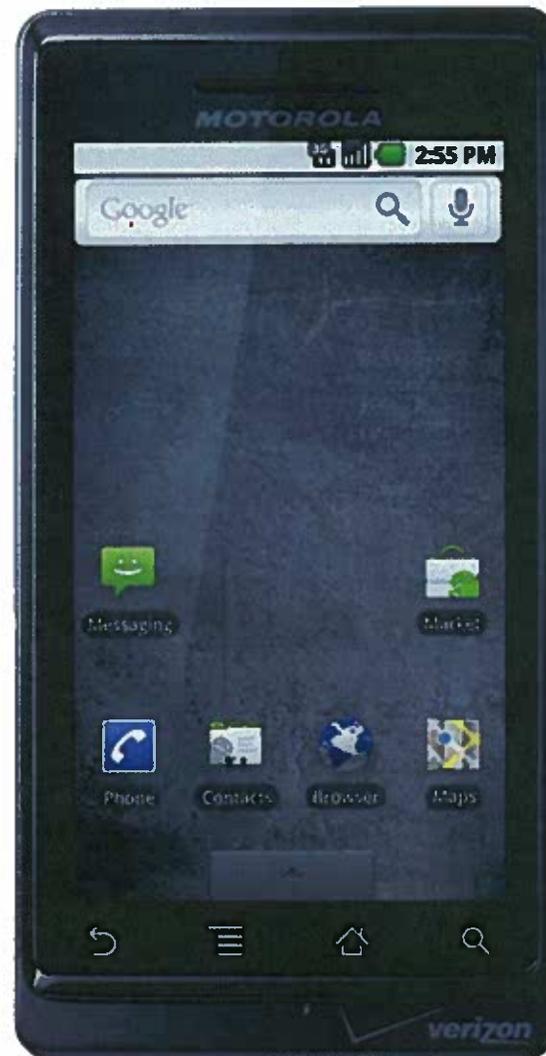
Droid 2



Android: Simplifying the Unlocking Step

'849 Patent

Droid 2



Android: Simplifying the Unlocking Step

'849 Patent

Motorola Xoom



Android: Simplifying the Unlocking Step

'849 Patent

Motorola Xoom



Android: Simplifying the Unlocking Step

'849 Patent

Motorola Xoom

