

## **ClickToPhone application note**

### **Call Answering/Call Ending**

#### ***in Android 6.0.1 with Security Update December 2016***

With the December 2016 security update to Android 6.0.1 it is no longer possible for third party apps to answer an incoming call.

To overcome this problem a number of alternative methods of answering and ending calls have been introduced into ClickToPhone V165.

These methods utilize the bluetooth modules within HouseMate to either answer a call using a simulated home key, a mouse gesture or a hands free command. Consequently devices which do not contain a HID (such as ClickToPhoneV2 or the original version 1 HouseMate) can no longer be used to answer calls.

This application note explains the new options which can be found within the ClickToPhone app at [Project Settings->Preferences->Telephony Preferences->Answering/Ending calls.](#)

We have raised this issue with the Accessibility product manager at Google who has indicated that there may be a way for third party apps to regain control of the telephony functions in a future release of the accessibility services. If this occurs it will be implemented within ClickToPhone and used as the default method of controlling the phone.

## Call Answering

The following options should be tried in sequence if you are not able to answer a call the standard way.

### 1. Answer Method = Default

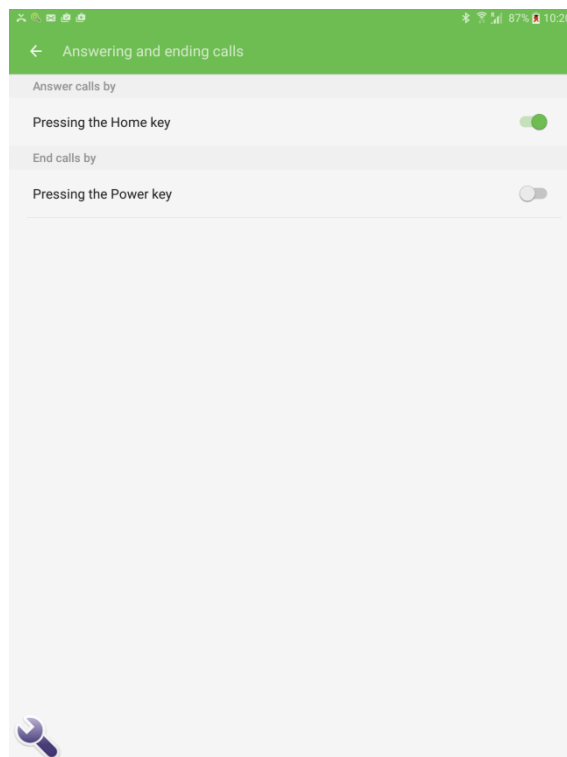
On some devices enabling the [Telephony Preferences->Answering/Ending Calls->Restore System Dialer](#) option allows you to use either the Default or Headset hook option. Try this before moving on to the other methods.

### 2. Answer Method = Headset hook

This option simulates pressing the button on a connected bluetooth headset. It most likely will not work on 6.0.1 but it is worth trying as not all devices are affected.

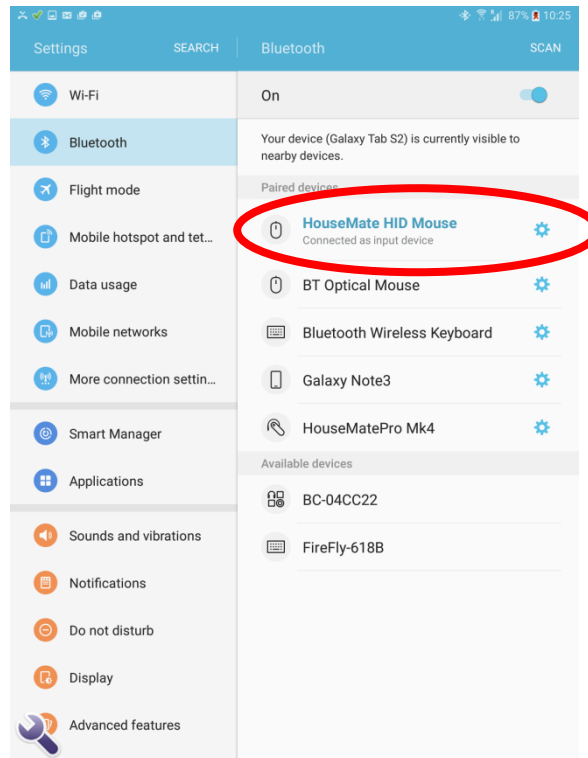
### 3. Answer Method = Home Key

This option simulates pressing the physical home key on your device. First, you must enable the option that allows you to answer an incoming call by pressing your home key. This is normally found at [Settings->Accessibility->Answering and ending calls](#).

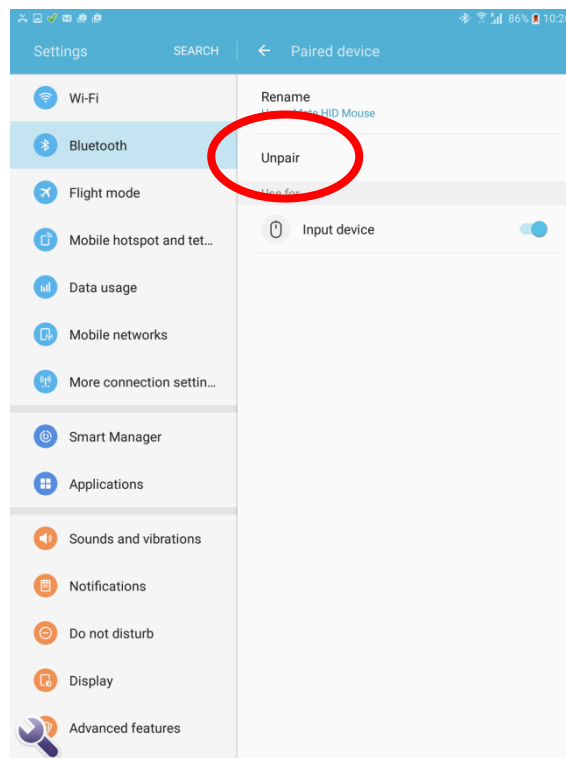


Before going any further, test that your phone is answering an incoming call by ringing it and then pressing the phone's physical home key.

Before you can use HouseMate to answer a call in this way you must ensure that it is configured as a HID Combi. It is only a HID Combi that can issue a home key command. Go to [Settings->Bluetooth](#) to see the list of connected devices.

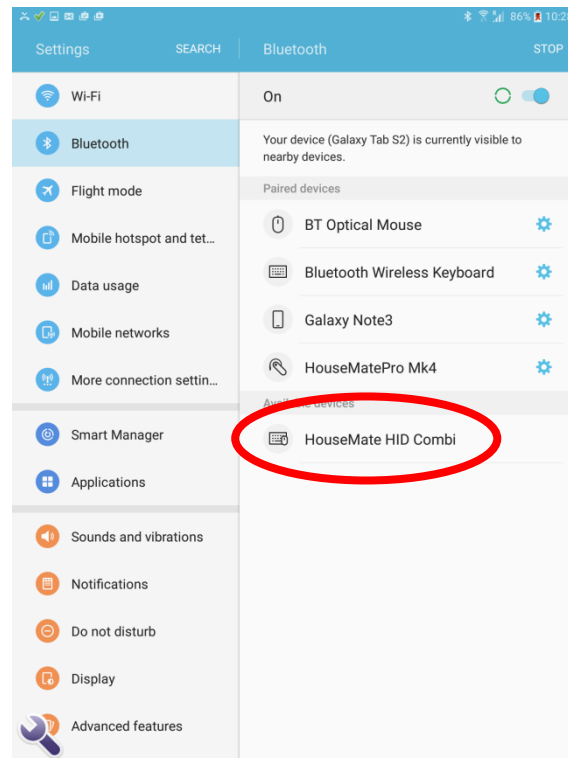


If the HID is connected as a HID Mouse you will have to re-initialise it. Before you can do this you need to unpair it. Click on the settings wheel beside the HID Mouse entry and choose [Unpair](#).



Now return to the ClickToPhone app and go to **Project Settings->Preferences->Bluetooth Setup->Advanced Settings->HID Module->Profile** and choose '**Mouse/Keyboard Combi**'.

HouseMate will make a long beep, disconnect and switch off. Return to the phone's bluetooth settings and choose **Scan** to refresh the list of available devices. You should see '**HouseMate HID Combi**' appear in the list. Click on HouseMate HID Combi to initiate the pairing.



**Note:**

- Sometimes it is necessary to turn off and on bluetooth before the phone will recognise that the HID has changed its profile/name.
- On some devices when you connect a bluetooth keyboard the system forces you to return to the default soft-keyboard app. As ClickToPhone is essentially a soft-keyboard it will quit in this case. Phone's that exhibit this behavior cannot use this method of answering the call. Re-initialise the HID as a Mouse and use the Gesture method of answering a call instead.

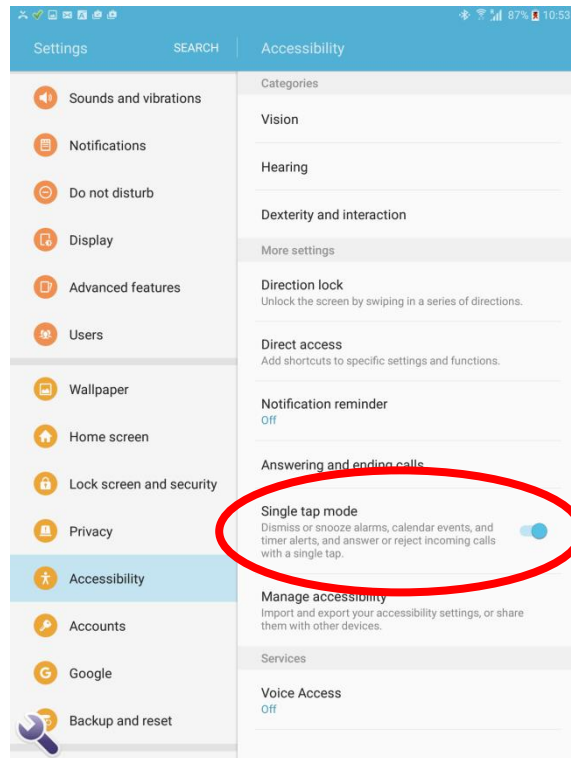
Now, return to the ClickToPhone telephony preferences and set the **Call Answering** option to **Home Key**.

Ring the phone, press your switch and confirm that the call was answered.

If the call failed to answer try the next option.

## 4. Answer Method = Gesture

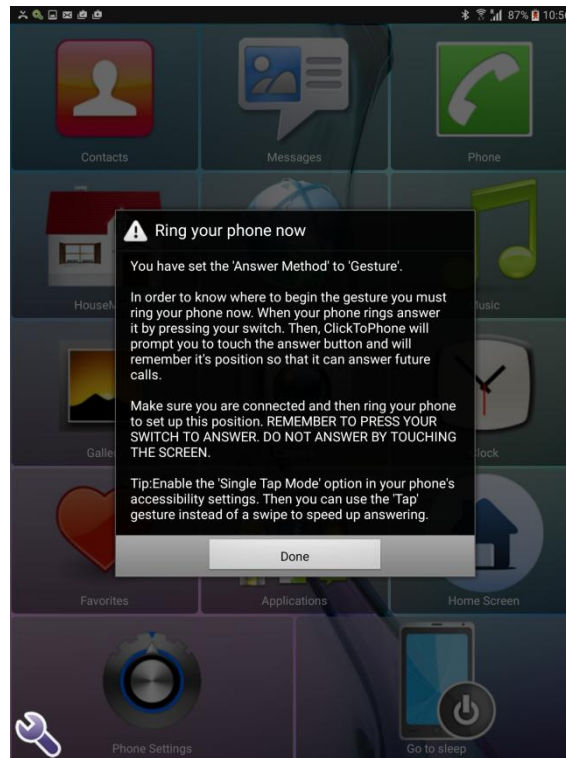
This option answers a call by making a gesture on the screen. The gesture can be a swipe to the left, a swipe to the right or a tap. To speed up the answering process it is best to choose the **'Tap'** method. In order to use the Tap method you must first enable the phone's [Settings->Accessibility->Single tap mode](#).



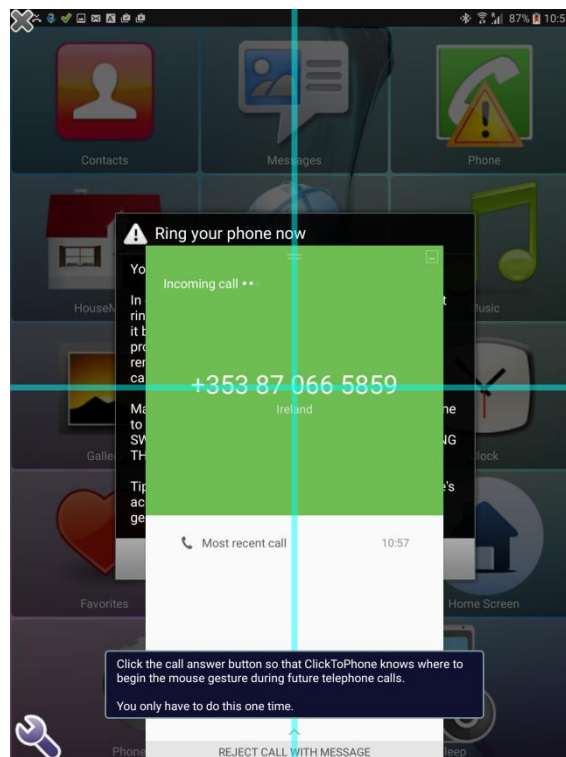
### Note:

- Unfortunately some devices do not have this option. In this case the Swipe method must be used.
- Currently this method can only be used in one device orientation.

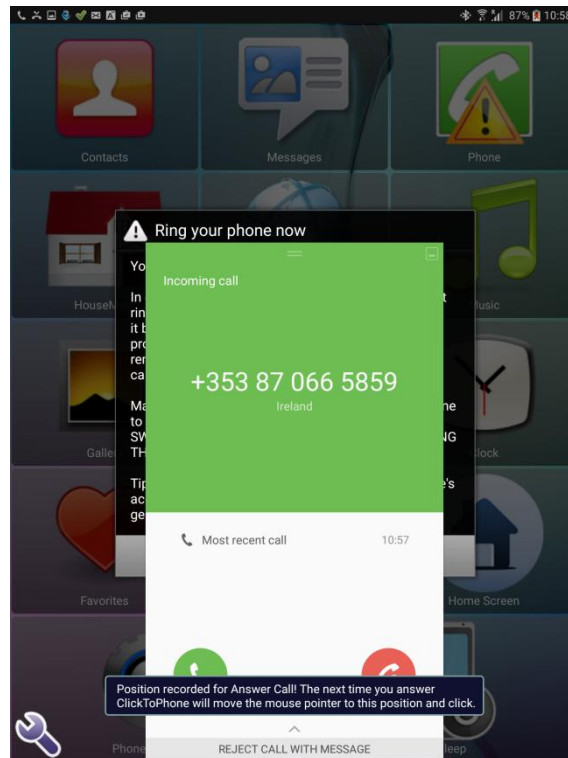
Now change the call answering method to **'Mouse Gesture'**. You will be prompted to ring your phone when you return to the ClickToPhone homepage. ClickToPhone needs to record the position of the Call Answer button so that it knows where to execute the gesture.



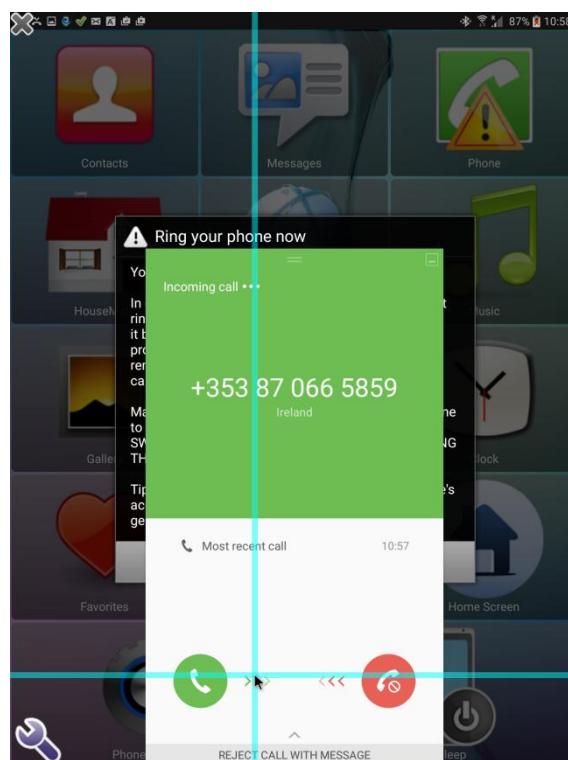
Make sure you are connected to your hardware and then ring your phone. Remember to answer the call using the HouseMate switch, not by touching the screen. After you press your switch you will see a popup message asking you to press the call answer button.



When you press the button the call will not be answered but you will see a message saying that the position was recorded.



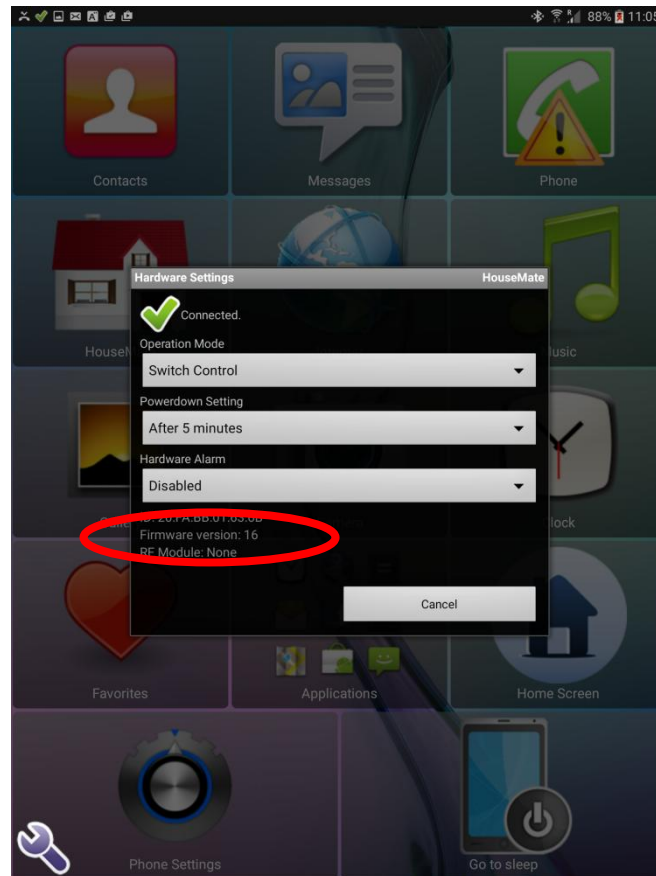
Now press your switch to answer the call. You should see the mouse cross-hairs move to the newly recorded position and the call should answer with the chosen gesture.



If you are using the Swipe gesture method you can change the duration of the swipe to suit your device under [Telephony Preferences->Answering/Ending Calls->Duration](#).

## 5. Answer Method = Hands Free Protocol

This option is only available to HouseMatePro Mk4 devices running firmware 16 or higher. You can view the firmware version by going to [Project Settings->Hardware Settings](#).



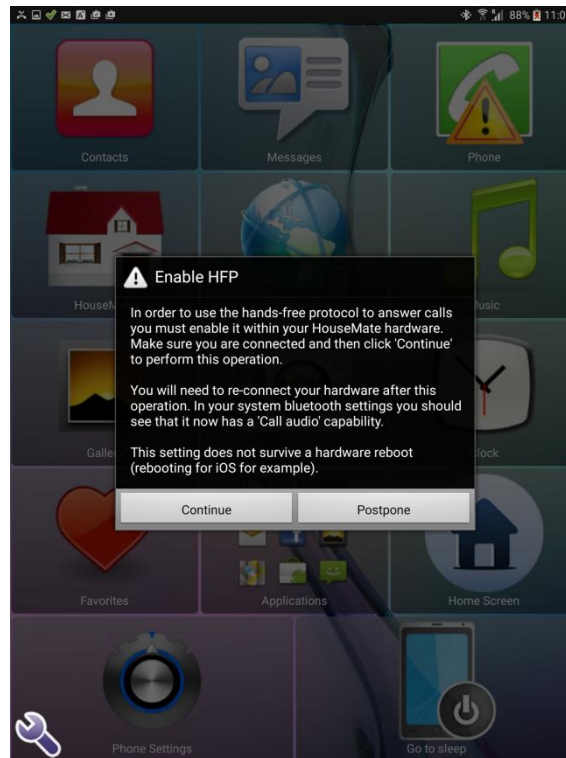
If your device is running an older version it can be updated by an engineer using a firmware update kit. Unfortunately Mk3 and earlier devices cannot be updated because the bluetooth module they contain does not support the Hands Free Profile. These devices must use one of the previous methods.

In order to use this method the bluetooth module within HouseMate must be reconfigured to support the Hands Free Profile. This is a bluetooth profile that enables remote control over the telephony functions of the phone, such as answering and ending calls.

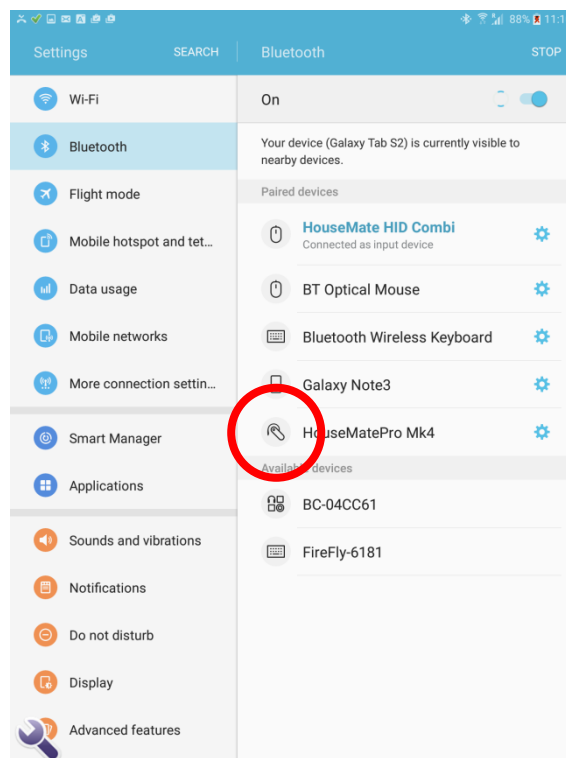
When you change the call answering method to '[Hands Free Profile](#)' you will be prompted to enable the Hands Free profile, or [HFP](#), within your hardware.

**Note:** This setting will not survive a device reboot, so if you reboot your device for iOS and then reboot it back again to Android you will have to carry out this procedure again.

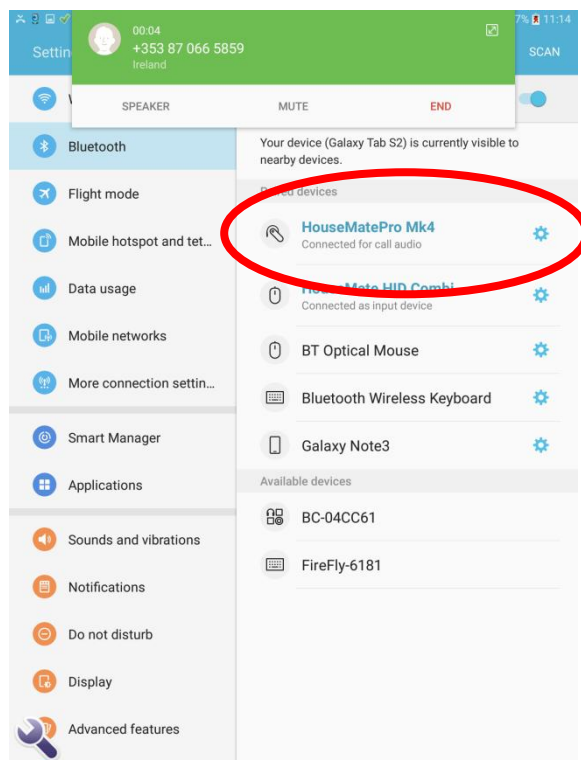




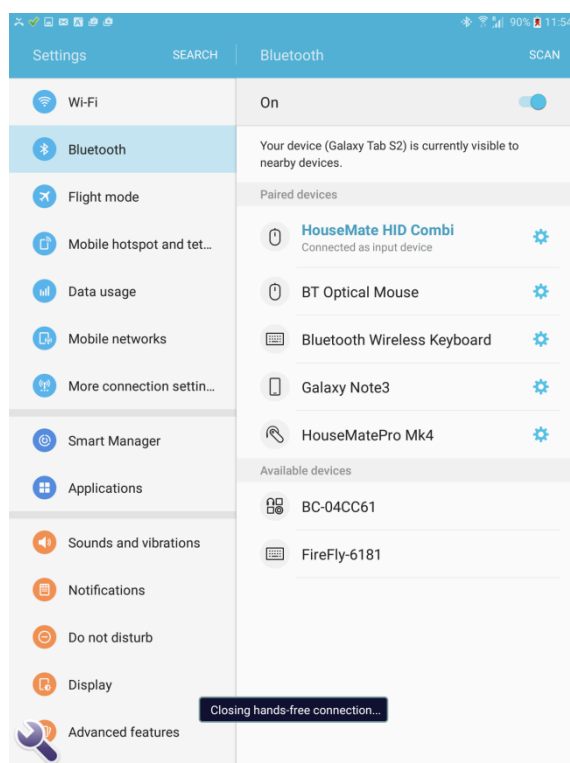
Click '**Continue**' to enable the HFP profile. HouseMate will beep several times and then disconnect. Switch it on again and after it connects go to the Phone's bluetooth Settings and confirm that the HouseMatePro entry now supports the hands free profile. You should see that the icon has changed to represent a headset or speaker.



Now ring your phone and answer it by pressing the switch. If the answering has been successful you should see that the HouseMatePro Mk4 entry has turned blue.



When you end the call, you should see a popup message ‘Closing Hands Free connection...’ and the HouseMatePro Mk4 entry should change color back to black again.



## Ending Calls

Most devices running 6.0.1 will end the call using the default method. However there have been a few cases where the default method has not worked.

### 1. End Method = Default

On some devices enabling the [Telephony Preferences->Answering/Ending Calls->Restore System Dialer](#) option allows you to use either the Default or Headset hook option. Try this before moving on to the other methods.

### 2. End Method = Headset hook

This option simulates pressing the button on a connected bluetooth headset.

### 3. End Method = Tap

This options makes a click on the Call End button. When you change the Ending Calls option to '[Tap](#)' you will be prompted to ring the phone so that the position of the End Call button can be recorded. As with the Answering Method end the call with the switch. You will be prompted to press the Call End button. After you press the button a pop-up message will confirm that the position has been recorded. Now when you press your switch again you should see the cross-hairs move to the recorded position and a tap will end the call.

### 4. End Method = Hands Free Profile

This method uses the hands free profile within HouseMatePro Mk4 hardware to end a call. You must have previously set the [Answer Method](#) to Hands Free Profile in order to end the call using this method.