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Pretorian
TECHNOLOGIES LTD.

INSTRUCTIONS

J-Pad Access Device for iPad, iPhone and iPod



Pack Contents

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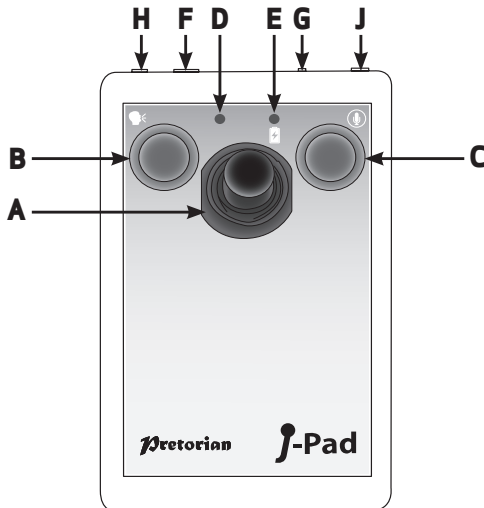
J-Pad unit
USB charging cable
These instructions

Product Description

J-Pad is a highly intuitive joystick access device for the iPad/iPhone/iPod, providing comprehensive access to all iPad functions. Specifically designed around a wide variety of users' needs, J-Pad is simple to set up and use, but

loaded with features to cater for all requirements. Although simple to operate, to ensure you get the maximum benefit from J-Pad, please take time to read this booklet.

- **Wireless connection to the iPad using Bluetooth 2.1**
- **Intuitive joystick operation**
- **Supports Voiceover and Switch Control features**
- **Touch sensor buttons or, optionally, plug-in up to two external switches**
- **Unique line by line scanning facility**
- **Access to Apps, music and media, still and video photography and on-screen keyboard**
- **Fully supports Siri and iBooks page turning**
- **Integral rechargeable lithium-ion battery; charged from any USB socket**
- **Approximately 30 hours battery life between charges**
- **30 metres operating range**



Compatibility

Throughout these instructions all references to iPad are applicable to any of these Apple products.

iPad (all versions)
iPod Touch 3rd Generation and later
iPhone 3GS and later

Note: Throughout these instructions all references to iPad are applicable to any of the above Apple products.

J-Pad is not suitable for use with Android tablets, Apple Macs or personal computers. Please refer to the Pretorian Technologies website for products which are suitable for these platforms.

Charging your J-Pad

Before using your J-Pad ensure the battery is fully charged by plugging the charging cable into the charging socket [F] and the USB connector into a computer USB port. The charging LED [E] will illuminate (green) to show charging is taking place. Once charged the LED is extinguished.

Connecting to your iPad

Wake up J-Pad by moving the joystick in any direction. The status LED [D] will flash rapidly to indicate that it is not yet paired with an iPad. If the LED does not flash rapidly, please refer to the 'Connecting your J-Pad to a different iPad' section of these instructions.

Go to the Bluetooth menu on your iPad (Settings → Bluetooth). Ensure Bluetooth is turned on using the slider at the top of the screen.

After a few seconds J-Pad should appear as a 'discoverable' device which will appear as something similar to:

Pretorian-V56.1-ABC1

Tap on the name and the pairing process will begin. Typically it takes around 20 seconds to connect, after which the iPad will state the device is 'connected'.

Bluetooth Connections

Once connected with a specific iPad your J-Pad will no longer be visible ('discoverable') to other iPads. If you turn off your iPad, disable Bluetooth, or go out of range of the J-Pad the connection between the two devices is automatically re-established when you next power-on, turn on Bluetooth or go back into range.

To connect to a different iPad please refer to the 'Connecting your J-Pad to a different iPad' section in the manual.

Changing Mode Settings

To establish the current Mode setting, or to change it, first put the unit into Programming Mode by pressing the Feature Button [G] for approximately 2 seconds. The unit emits a warbling beep as it enters Programming Mode and the status LED [D] lights.

While in Programming Mode, move the joystick [A] downwards and listen to the number of beeps that are emitted from the unit. This tells you the current setting without making any changes, according to the following table:

1 Beep	Mode 1
2 Beeps	Mode 2
3 beeps	Mode 3
4 Beeps	Mode 4
5 Beeps	Mode 5

Note that this table is also shown on the rear of J-Pad for easy reference.

Once the current Mode setting has been established, should you wish to make a change, simply move the stick downwards a number of times until the correct number of beeps are emitted. Once you are happy with the setting, press the Feature button [G] briefly and the unit emits a warbling beep once again to indicate it is leaving Programming Mode and storing the new settings.

General Operating Guide

Modes 1 to 4 are configured for use with Voiceover mode. For further details on how to use J-Pad in these modes, please refer to Section 2.

Mode 5 is configured for use with Switch Control mode. Please refer to Section 3 when using J-Pad in this mode.

On-Screen Keyboard

Because J-Pad appears to the iPad as a keyboard, the iPad automatically turns off the on-screen pop-up keyboard. It is highly likely that you will need the keyboard to be enabled so that its keys may be scanned.

J-Pad allows you to deploy the on-screen keyboard any time you are in a text box simply by pressing the feature button [G] *briefly*. To turn it off again, press the feature button *briefly* once more.

Note that the iPad only allows the on-screen keyboard to be deployed when a text input box is selected. It is automatically hidden when the text box is deselected but will pop up again automatically when another is selected.

Connecting your J-Pad to a different iPad

If, when waking up your J-Pad, the status LED [D] does not continue to flash rapidly, this indicates that it is already connected to another iPad in the vicinity. In this case you will need to 'forget' this connection before you can reconnect with another iPad.

Go to the Bluetooth menu on the iPad to which J-Pad is currently

connected (Settings→Bluetooth) and tap the blue tab adjacent to the unit name, for example:

Pretorian-V56.1-ABC1

Then tap on 'Forget this device'. At this point the unit is no longer connected to any iPad and will appear as 'discoverable' on all iPads in the vicinity. You can now

reconnect with a different iPad simply by tapping on the unit name in the Bluetooth menu.

Note that if an iPad to which the unit is connected is removed from the vicinity of the J-Pad, the connection will automatically be lost and again the J-Pad will become 'discoverable' to all other iPads in the vicinity.

Automatic Sleep Mode

To conserve battery life, J-Pad automatically enters a low power sleep mode if it remains unused for one hour. Moving the joystick in any direction instantly wakes the unit again. While asleep, the connection with iPad is lost but is automatically re-established within a few seconds of wake-up.

If the unit remains unconnected to an iPad for a period of more than 5 minutes, it will also enter sleep mode

Note that the green and red buttons are disabled while in sleep mode to conserve power, so these will not wake the unit.

Using External Switches

If, due to limited motor skills, the user needs to lean on the red and green touch sensitive buttons to gain access to the joystick, the buttons will operate inadvertently. To avoid this situation, plug external switches into sockets [H] and/or [J]. Doing so disables the touch sensitive buttons and they cease to function until the external switch is unplugged.

Note that disabling the touch sensitive buttons is done on an individual basis, so if you need to disable the green button [B], plug a switch into socket [H]. Similarly, to disable the red button [C], plug an external switch into socket [J].

Accessing Siri

More recent iPads and iPhones contain a voice recognition feature named Siri. This can be quite useful for users who would benefit from J-Pad. To gain access to Siri on an iPad, the user presses and holds the Home button for two seconds. This may prove difficult for some.

Therefore, a facility has been included in J-Pad where pressing the red button [C] for two seconds also launches Siri. A further, brief, press hides Siri.

Users who find it difficult to release a button quickly may find that Siri deploys inadvertently. To avoid this, please refer to the following section:

Disabling Extended Press Features

Users who take an extended time to release when touching the red and green buttons [B and C], or to release the external switches, may find that Siri and Voice Prompt deploy accidentally.

To disable (or re-enable) the extended press facilities, first put the unit into Programming Mode by pressing the Feature Button [G] for approximately 2 seconds. The unit emits a warbling beep as it enters Programming Mode and the status LED [D] lights.

While in Programming Mode, move the joystick [A] upwards and listen to the number of beeps that are emitted from the unit. This tells you the current setting without making any changes, according to the following table:

1 Beep	Allow extended press features (default setting)
2 Beeps	Disable extended press features

Note that this table is also shown on the rear of J-Pad for easy reference.

Once the current setting has been established, should you wish to make a change, simply move the stick upwards a number of times until the correct number of beeps are emitted. Once you are happy with the setting, press the Feature button [G] briefly and the unit emits a warbling beep once again to indicate it is leaving Programming Mode and storing the new settings.

Battery Life and Battery Charging

A fully charged battery gives approximately 30 hours of use. When the battery is getting low, the charging LED [E] begins to blink red. This is an indication that you should charge the battery soon.

Plug the charging cable into the charging socket [F] and then into a USB socket on a computer. Ensure the computer is turned on.

While charging, the charging LED will be illuminated green. Once charging is complete (a matter of around 2 hours if fully discharged) the charging LED will be extinguished. You can then unplug the cable. Note that you can carry on using the J-Pad while it is charging.

J-Pad plugs into a computer USB port for charging purposes only-it does not give any functional connection this way).

J-Pad can also be charged via the charger plug supplied with iPad-simply plug the USB cable into this instead of a PC.

SECTION 2

Using J-Pad with Voiceover

In modes 1 to 4, J-Pad makes use of the Voiceover feature built into iPad. Voiceover must be enabled on your iPad to take advantage of the features that modes 1 to 4 offer. This section describes how to choose the mode which is most suitable to your needs and how to use J-Pad in your chosen mode.

Turning on Voiceover mode

Go to the Voiceover menu on your iPad (Settings → General → Accessibility → Voiceover) and slide the Voiceover switch to 'On'. Provided the volume is turned sufficiently high you will hear a message stating that Voiceover is turned on.

It can sometimes be useful to have the facility to turn Voiceover on and off quickly, for example if a teacher or carer needs to gain occasional access

to the iPad. It is possible to set the iPad so that a triple-click of the Home button turns Voiceover on and off.

To enable this feature in iPad, go to the Triple-click menu on your iPad (Settings → General → Accessibility → Accessibility Shortcut) and ensure Voiceover is ticked.

Choosing the right Voiceover mode

There are a variety of operating modes which may be selected according to the user's needs. To select a mode, please refer to the Mode Settings section of these instructions.

It is difficult to generalise about which mode suits particular situations or individuals. However, the following points should help in choosing between them:

- If iBooks page turning is important - consider Mode 1 or Mode 2 with the buttons (or external switches) set to iBooks Page Forward and Page Back (see section entitled "Changing Mode Settings").
- If the user cannot easily use switches, consider Mode 2
- If the user engages in large amounts of navigation of the home screen and/or browses many web pages, consider Modes 3 or 4.
- If the user needs to access switch adapted apps as well as some navigation, use Mode 2.

The following sections list the features of each mode:

Mode 1 (General Purpose Navigation)

In Mode 1, the J-Pad functions as follows:

Joystick Up = Move up one block, or Page Forward in iBooks

Joystick Down = Move down one block, or Page Back in iBooks

Joystick Left = Scan one item to the left

Joystick Right = Scan one item to the right

Green button [B] = Select item

Red button [C] = Close item (equivalent to pressing home button on iPad).

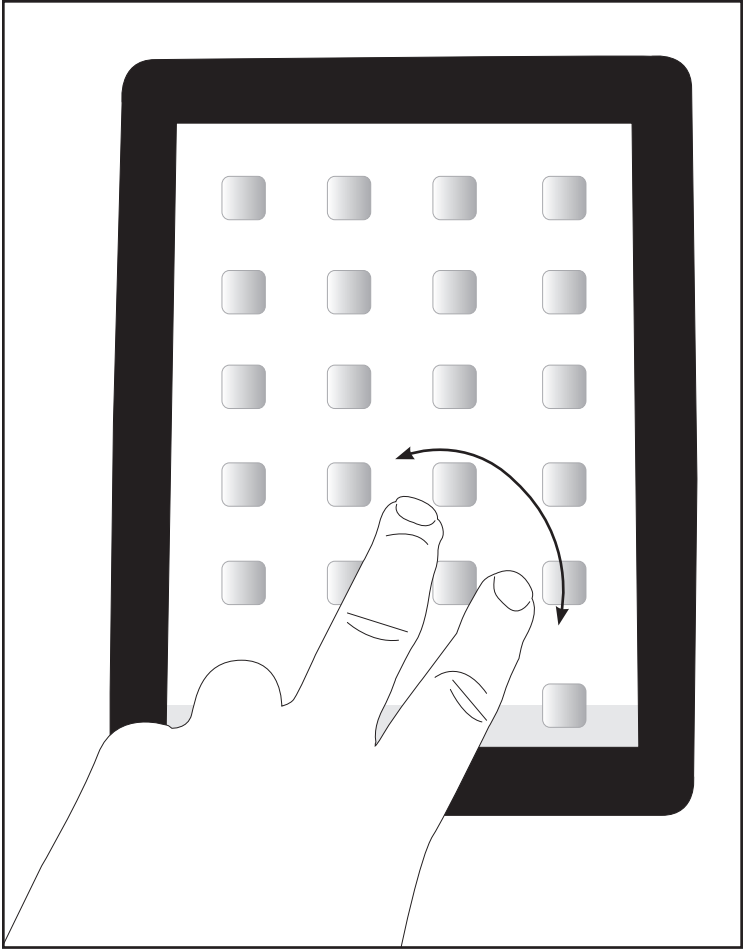
Mode 1 is a general purpose mode and is suitable for a wide variety of users. The iBooks accessibility is attractive to many, although this mode does require sufficient dexterity to be able to operate the touch sensitive buttons (or to use external switches if plugged in).

When the joystick is moved up or down, the exact function carried out by iPad is decided by the Voiceover Rotor. By default, iPad has the Rotor set to "Characters" which means that up and down movements of the joystick will spell out the name of the highlighted icon.

This is a useful facility when using Voiceover for visual impairments but of little use for navigation. You may therefore wish to change the Rotor settings.

To achieve this, with Voiceover turned on, place two fingers on the touch screen and rotate them in either a clockwise or anticlockwise direction. As you do so, you will see a rotor dial appear on screen. You can select any setting you feel is appropriate, although Pretorian recommends "Containers" for use with J-Pad.

For more information on using the Voiceover Rotor, please refer to the iPad user guide by launching Safari, selecting the iPad User Guide from the favourites list then navigating to Settings → Accessibility → Using Voiceover rotor control.



Mode 2 (Stick Only with optional switch access)

In Mode 2, the J-Pad functions as follows:

Joystick Up = Select item

Joystick Down= Close item

Joystick Left= Scan one item to the left

Joystick Right= Scan one item to the right

Mode 2 is intended for users who do not have the dexterity to easily operate either J-Pad's touch sensitive buttons or external switches. In this mode, all navigation is achieved using the joystick.

Although the red and green touch sensitive buttons [B & C] are not used for general navigation, they can be configured (in Mode 2 only) to become access switches for switch adapted apps. Please refer to the section entitled 'Switch Adapted App Access' for more information.

Mode 3 (Line scanning mode- Portrait)

In this mode, the J-Pad functions as follows:

Joystick Up = Scan one line up with iPad in portrait mode

Joystick Down= Scan one line down with iPad in portrait mode

Joystick Left= Scan one item to the left

Joystick Right= Scan one item to the right

Green button [B]= Select item

Red button [C]= Close item (equivalent to pressing home button on iPad).

Line by line scanning in Voiceover is unique to J-Pad and allows incredibly efficient navigation of the home screen, web pages and any screen where there are many items.

To get the maximum benefit from this feature, it is useful to know how it functions.

When moving the stick down, for example, J-Pad sends four 'forward' instructions to the iPad. It is equivalent to quickly moving the stick four times to the right. Because there are four apps per line on the Home screen, when the iPad is in portrait mode it scans a whole row at a time.

If you use this feature to navigate in a web page for example, it will move four items to the right. Similarly, if you use it to scan the on-screen keyboard, it will move four keys to the right, and so on.

Mode 4 (Line scanning mode- Landscape)

In this mode, the J-Pad functions as follows:

Joystick Up = Scan one line up with iPad in landscape mode

Joystick Down= Scan one line down with iPad in landscape mode

Joystick Left= Scan one item to the left

Joystick Right= Scan one item to the right

Green button [B]= Select item

Red button [C]= Close item (equivalent to pressing home button on iPad).

Line by line scanning in Voiceover is unique to J-Pad and allows incredibly efficient navigation of the home screen, web pages and any screen where there are many items.

To get the maximum benefit from this feature, it is useful to know how it functions. When moving the stick down, for example, J-Pad sends five 'forward' instructions to the iPad. It is equivalent to quickly moving the stick five times to the right. Because (when the iPad is in landscape mode) there are five apps per line on the Home screen, this means it scans a whole row at a time.

If you use this feature to navigate in a web page for example, it will move five items to the right. Similarly, if you use it to scan the on-screen keyboard, it will move five keys to the right, and so on.

Voice Prompts

Although users with visual impairments can find voice prompts useful, they add little to the scanning process and can prove to be a distraction. If you do not want them, press and hold the green button [B] on J-Pad for three

seconds until the voice announces 'Speech Off'. Following this you will hear no more voice prompts. To re-engage voice prompts, press and hold the green button [B] once again.

** See also: Disabling Extended Press Features Section*

Built-In Auto Scanning

If the user cannot easily hold the joystick off centre for an extended period of time while scanning, the Auto-Scan mode allows the unit to automatically send repeated scanning commands to the iPad until the joystick is next operated.

The speed at which the auto scanning takes place can be varied between one step every 2 seconds up to one step every 0.8 seconds. There is also an 'escalating' setting where the speed increases over time, which can be very useful in scanning large amounts of items.

To enable the Auto-Scanning feature, first put the unit into Programming Mode by pressing the Feature Button [G] for approximately 2 seconds. The unit emits a warbling beep as it enters Programming Mode and the status LED [D] lights.

While in Programming Mode, move the joystick [A] to the right and listen to the number of beeps that are emitted from the unit. This tells you the current setting without making any changes, according to the following table:

1 Beep	Auto-Scanning Off (default setting)
2 Beeps	Low scanning speed
3 beeps	Medium scanning speed
4 Beeps	High scanning speed
5 Beeps	Escalating scanning speed

Note that this table is also shown on the rear of J-Pad for easy reference.

Once the current setting has been established, should you wish to make a change, simply move the stick to the right a number of times until the correct number of

beeps are emitted. Once you are happy with the setting, press the Feature button [G] briefly and the unit emits a warbling beep once again to indicate it is leaving Programming Mode and storing the new settings.

Switch Adapted App Access (available in Mode 2 only)

Mode 2 does not normally make use of the red and green buttons [B and C], but these may be used for switch adapted app access if you wish. If external switches are plugged into J-Pad, these take on the switch adapted access settings.

Most switch adapted apps use either Space/Enter or -1 / -3 for access. Some apps give you the choice between these two industry standards.

J-Pad allows you to choose between these two standards or it can configure the buttons to be Page Forward and Page Back in iBooks.

1 Beep	Buttons do not function (default setting)
2 Beeps	Space/ Enter
3 beeps	-1 / -3
4 Beeps	iBooks Page Forward and Page Back

Note that this table is also shown on the rear of J-Pad for easy reference.

Once the current setting has been established, should you wish to make a change, simply move the stick to the left a number of times until the

correct number of beeps are emitted. Once you are happy with the setting, press the Feature button [G] briefly and the unit emits a warbling beep once again to indicate it is leaving Programming Mode and storing the new settings.

SECTION 3 Using J-Pad with Switch Control

When set to mode5, J-Pad makes use of the Switch Control feature built into iPad. Switch Control must be enabled on your iPad to take advantage of the features that mode 5 offers. This section describes how to set up Switch Control on your iPad and how to use J-Pad in mode 5.

Introduction

iOS7 and later operating systems include the Switch Control accessibility feature, allowing the user to scan apps, menu items and the pop-up keyboard without using the touch screen. In mode 5, J-Pad may be used as the Bluetooth switch device to allow you to scan and select items and launch and close apps.

Setting up Switch Control

1. With J-Pad already paired to your iPad, go to Settings → Accessibility → Switch Control and tap on 'Switches'. Then tap on 'Add New Switch' and 'External'. You will be asked to activate your external switch. At this point, move the joystick to the right. Once your iPad has recognised the joystick movement, it will ask you to type in a name for it. Type 'Joystick Right' or similar. Next you will be asked to assign this movement to a particular task from a list. Tap on 'Move to Next Item'.
2. Repeat the above but this time when prompted to activate the external switch, move the joystick to the left. Once your iPad has recognised the joystick movement, it will ask you to type in a name for it. Type 'Joystick Left' or similar. Next you will be asked to assign this movement to a particular task from a list. Tap on 'Move to Previous Item'.
3. Repeat the above but this time when prompted to activate the external switch, press the green button. Once your iPad has recognised the joystick movement, it will ask you to type in a name for it. Type 'Green Button' or similar. Next you will be asked to assign this movement to a particular task from a list. Tap on 'Select Item'.

Please note that the function of the red button is inherent to iPad and does not need to be programmed. The names you type for each function described above are entirely arbitrary and can be anything you like.

4. Finally return to the Switch Control main menu and turn on Switch Control using the slider at the top of the screen.

Please ensure that Auto-Scanning is turned off. (Due to limitations in the current Switch Control implementation in iPad, Auto Scanning does not work with manual scanning devices such as J-Pad). However, J-Pad's built-in auto-scanning feature described in section 2 may be used instead. Please refer to Section 2, Built-In Auto-Scanning for more information.

Press the Home button on iPad to return to the home screen. You should see a highlight around the top row of icons.

Tutorial videos are available on the Pretorian Technologies' website - please visit www.pretorianuk.com/j-pad and click on Videos.

Row Scanning

When the Switch Control cursor first appears on the home screen, a whole row of icons will be highlighted. Move the joystick downwards to move the cursor from one row to the next. You can go back up again by moving the joystick upwards. Switch Control contains a wrap feature where a downward movement when the dock is highlighted sends the cursor to the top of the screen; or an upward movement when the top row is highlighted moves the cursor down to the dock.

Scanning within a Row

Once the correct line has been arrived at, press the green button on J-Pad. You can now scan the items on the row by moving the joystick left or right.

Launching an App

Once you have arrived at the app you would like to run, press the green button again and it will launch.

Scanning within the app is much the same as described above.

Closing an App

To close an app at any time, simply press the red button on J-Pad.

Returning to Row Scanning

When scanning with a Row, once the end of the row has been reached, the whole row is highlighted with a dotted line after the next movement of the joystick. If you click the green button with the dotted highlight shown, this returns Switch Control to row scanning.

A similar technique is used when scanning a block of menu items, a block of data in the web browser etc.

Maintenance

Your J-Pad has no user serviceable parts. If repair is necessary the unit should be returned to Pretorian Technologies or an authorised distributor.

J-Pad contains a lithium-ion battery that isn't user replaceable. Although the unit uses the very latest battery technology, it may eventually need to be

replaced. Please contact Pretorian Technologies or your local distributor prior to returning.

Disposal of batteries is often subject to local laws. Please consult your local authorities for information relating to your locale. Never dispose of a battery in fire.

Troubleshooting

If your J-Pad doesn't operate correctly, please use the following guide to determine the cause. If, after following this guide, you unit still doesn't operate, please contact your supplier before returning it.

Symptom	Possible Cause/ Remedy
J-Pad is not 'discoverable' on my iPad	<ul style="list-style-type: none">• Ensure battery is charged.• Ensure unit is awake by moving joystick• Unit may be connected to another iPad which is in range. Use 'forget this device' in Bluetooth menu of other iPad to make unit available again
My J-Pad has been connected to this iPad before but won't connect now	<ul style="list-style-type: none">• Reconnection should be automatic but if necessary, got to the Bluetooth menu and click the J-Pad entry. If this doesn't work, try 'forget this device' and then re-connect
The green and red buttons don't work	<ul style="list-style-type: none">• You may have external switches plugged in• Unit may have gone to sleep. Move Joystick to wake up• Unit is in Mode 2 (Stick Only) with switch access set to 'None'. Reprogram as required.
The keyboard doesn't pop up when I'm in a text entry box	<ul style="list-style-type: none">• Press the feature button on the rear of J-Pad [G]. This should re-enable the pop-up keyboard

Warranty

Your J-Pad is warranted against defects in manufacture or component failure. The unit is designed for domestic and educational applications. Use outside these areas will invalidate the warranty. Unauthorised repair or modification, mechanical abuse, immersion in any liquid or connection to incompatible equipment will also invalidate the warranty.

The Apple brand name is used for identification purposes only and is acknowledged.

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For use with firmware revision 56.1 onwards



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