Brief Statement: Results may vary from patient to patient. Not everyone who receives Medtronic DBS therapy will experience the same results. Some people may experience significant symptom relief from DBS therapy, and others may experience minimal relief. Talk to your doctor to see if Medtronic DBS therapy is right for you.

For further information, please consult your healthcare professional who can explain the benefits & risks and important safety information.
USING THIS GUIDE

This guide provides basic information to help you use your Medtronic deep brain stimulation (DBS) system. It also describes other Medtronic resources available to help you as you begin living with your implanted DBS system.

Your Medtronic Patient Identification Card 3

Programmer Basics 5

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For additional information, you may also refer to the Patient Programmer 37642 Medtronic DBS Therapy user manual and Recharger 37751 Charging System user manual. You can find step by step instructions at medtronic.com/DBSProgrammerRecharger
YOUR MEDTRONIC PATIENT IDENTIFICATION CARD

Your Medtronic Patient Identification (ID) Card contains important information about your medical device and includes your physician’s phone number in case you have a medical question or emergency. Keep your ID card with you at all times, and ensure the information on it is accurate.

Your ID card:
- Identifies you as having an implanted device in case of an emergency.
- Includes a toll-free number to contact Medtronic.
- Helps Medtronic maintain current and accurate information for your records.

Your ID card allows you to notify security personnel and health professionals that you have an implanted medical device. Present your ID card when you have any medical or dental procedures, or when you must pass through a security screening system (such as airport security) where your device may set off an alarm.

GETTING AN IDENTIFICATION CARD

You should have received a temporary ID card at the time of your implant procedure. You will automatically receive a permanent plastic ID card from Medtronic, 3-4 weeks after the procedure. There is no fee for the card. Contact Patient Registration at the number below if you do not receive a permanent ID card in 4-6 weeks.

We recommend that you carry your ID card with you at all times. If you move or change physicians, or if any of the other information on the card changes, contact Patient Registration to update your information and request a new card. You may also update your card online at www.medtronic.com by selecting the Patients tab, then clicking on Manage ID Card under the Tools heading.

If your ID card is lost or stolen, Patient Registration can issue a replacement card. Patient Registration can also issue an extra card for a spouse.

Patient Registration Contact Information:
Call Medtronic DBS Helpline at +44 (0) 1923 205101.
Monday – Friday, 9:00 to 16:00 GMT.
PROGRAMMER BASICS

1. THERAPY ON/OFF KEY
   - Turns therapy ON or OFF.
   - Programmer (antenna) must be placed directly over the neurostimulator while pressing the THERAPY ON/OFF KEY.
   
   Note: You must synchronize the neurostimulator and the programmer using the CHECK KEY before turning therapy ON or OFF.

2. CHECK KEY
   - Synchronizes the neurostimulator and the programmer.
   - Used to check the neurostimulator battery status.

3. POWER/BACKLIGHT ON/OFF KEY
   - Turns the patient programmer ON and OFF.
   - Holding the key down turns the screen backlight ON or OFF.

4. SELECTION KEYS
   - Makes selections or changes based on the information displayed on the screen.

5. NAVIGATOR KEYPAD
   - Allows you to scroll through menu options and is used to clear informational messages on the screen.
   - Press the up ▲ and down ▼ keys to move the box to the desired row.
   - Press the left ◀ and right ► keys to see additional options in a selected row.

For additional information, you may also refer to the Patient Programmer 37642 Medtronic DBS Therapy User and Recharger 37751 Charging System user manual.

See Your Medtronic DBS Patient Therapy Guide for information on warnings, precautions, risks, and benefits.
### Information Screens

<table>
<thead>
<tr>
<th>Screen Description</th>
<th>What to Do</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Programmer is attempting to communicate with the neurostimulator</strong></td>
<td>- Place the programmer or the detachable antenna over the neurostimulator.</td>
</tr>
<tr>
<td><strong>Communication in progress</strong></td>
<td>- Continue to place the programmer or the detachable antenna over the neurostimulator.</td>
</tr>
</tbody>
</table>
| **Poor communication** | - The programmer attempted to communicate with the neurostimulator.  
- Communication was unsuccessful.  
- Reposition the programmer with the screen facing outward or the antenna over the neurostimulator.  
- If using the antenna, check that the antenna is connected properly, reposition the antenna or remove and place the patient programmer with the screen facing outward, and try the communication again.  
*Note:* If none of the above resolve the poor communication screen, contact Medtronic DBS Helpline for further troubleshooting assistance.  
(See number at end of book) |
| **Programmer batteries are low and need to be replaced** | - Make sure you have extra AAA alkaline batteries available. |
| **ERI (elective replacement indicator) condition** | - The neurostimulator battery is close to its End of Service date.  
- Therapy will not be available soon.  
- Call your physician immediately.  
- Press any arrow on the NAVIGATOR KEYPAD to clear this message.  
- Once this screen is cleared, a flashing ERI icon will appear on the Battery row of the Therapy screen. |

### Warning Screens

<table>
<thead>
<tr>
<th>Screen Description</th>
<th>What to Do</th>
</tr>
</thead>
</table>
| **Programmer batteries are depleted** | - Programming is not possible.  
- Replace the patient programmer batteries now. |
| **Synchronize the programmer and neurostimulator** | - Place the programmer or the antenna directly over the neurostimulator and press the CHECK KEY. |
| **EOS condition** | - Neurostimulator battery is at End of Service.  
- Therapy has stopped.  
- Neurostimulator must be replaced to resume therapy.  
- Call your physician immediately. |
**ATTACHING THE ANTENNA**

1. Place the antenna directly over the neurostimulator.

2. Pull the fabric of your clothing through the large opening in the antenna. Then, wedge the fabric in the narrow slit to secure the antenna in place.

3. Push the antenna plug firmly into the antenna jack \( \uparrow \) on the patient programmer.

*Note: The antenna is optional. To use the programmer without the antenna, place the programmer over the neurostimulator with the screen facing outward.*

**SYNCHRONIZING YOUR PATIENT PROGRAMMER WITH YOUR NEUROSTIMULATOR**

1. Place the programmer (with the screen facing outward) or antenna over the neurostimulator and press the CHECK KEY \( \square \).

*Note: Using the CHECK KEY \( \square \) to synchronize also turns on the patient programmer.*

2. The Therapy screen appears displaying the neurostimulator battery status dependent on the device you have.

   - **Simple mode**
     - On
     - OK
   - **Advanced mode**
     - On
     - 2.85
   - **Activa RC Only**
     - Low

   *Battery status*
   - OK
   - ERI
   - Battery near end of service

*Note: If you have two neurostimulators implanted, your patient programmer can communicate with both neurostimulators, but only one at a time. The programmer only displays information about the neurostimulator it is presently synchronized with. The programmer must be turned off and then synchronized with the other neurostimulator.*

*You and your physician may have selected Advanced Mode based on your need to adjust your therapy.*
THERAPY SCREEN BASICS

There are two therapy modes available: Simple and Advanced. Your physician will decide which mode you’ll receive and will discuss your therapy settings with you.

If you have an Activa SC, the display would look like the below.

If you have an Activa PC or Activa RC that is delivering therapy to both sides of your body, then the display would look like the below.

You may have the ability to change therapy settings when in Advanced Mode, if prescribed by your physician.

The neurostimulator battery status is displayed on the Therapy screen.

THERAPY SCREEN ICONS

<table>
<thead>
<tr>
<th>Row</th>
<th>Icons</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Status</td>
<td>🌵</td>
<td>Therapy is ON</td>
</tr>
<tr>
<td></td>
<td>🌵</td>
<td>Therapy is OFF*</td>
</tr>
<tr>
<td>Battery</td>
<td>🌵 🧨 Battery OK  🧨 ERI Battery near end of service</td>
<td>Neurostimulator battery status (nonrechargeable)</td>
</tr>
<tr>
<td>Parameter/Group**</td>
<td>🌵</td>
<td>Active group</td>
</tr>
<tr>
<td></td>
<td>🌵</td>
<td>Amplitude</td>
</tr>
<tr>
<td></td>
<td>🌵</td>
<td>Pulse width</td>
</tr>
<tr>
<td></td>
<td>🌵</td>
<td>Rate</td>
</tr>
</tbody>
</table>

* When the “text on” display format is activated, the word OFF will flash when the neurostimulator is turned off. When the “text off/icon only” display format is activated, the Warning icon (i.e., an exclamation mark in a triangle) will flash.

** The Parameter/Group row only appears in Advanced mode. If only one group is available, this row displays only the parameter setting icon.
SELECTING A NEW GROUP

Only select the group that your physician has recommended for your specific needs. The group feature is only available in the Advanced mode.

1. Hold the programmer (or antenna) over the neurostimulator (with the screen facing outward) and press the CHECK KEY .

2. Press the down arrow on the NAVIGATOR KEYPAD to move the selection box to the Parameter row.

3. Press the right arrow on the NAVIGATOR KEYPAD to display the available groups. The Group settings screen appears.

4. Press the up or down arrow on the NAVIGATOR KEYPAD to highlight the desired group.

5. Hold the programmer (or antenna) directly over your neurostimulator and press the CHECK KEY to synchronize with the programmer. The Communication screen briefly appears followed by the Therapy screen. The Therapy screen will display your new therapy parameters and group setting.
CHANGING THERAPY SETTINGS

The ability to change therapy settings is only available in Advanced mode. You can only change the settings of the active group.

1. Hold the programmer (or antenna) over the neurostimulator (with the screen facing outward) and press the CHECK KEY.

2. Press the down ▼ arrow on the NAVIGATOR KEYPAD to move the selection box to the Parameter row.

3. Press the Selection Key directly under the displayed setting you want to adjust.

4. Press the desired selection key again to increase or decrease the selected therapy setting as needed.

Note: Access to increase or decrease the settings is determined by your physician.

5. Press an arrow on the NAVIGATOR KEYPAD to return to the Therapy screen.

Note: If you have multiple neurostimulators, the programmer must be turned off prior to communicating with another neurostimulator. Repeat steps 1-5 for the other side of your body if desired.
If you have changed your therapy settings and want to return to the settings selected by your physician, follow these steps:

1. Hold the programmer (or antenna) over the neurostimulator (with the screen facing outward) and press the CHECK KEY.

2. Press the down arrow on the NAVIGATOR KEYPAD to move the selection box to the Parameter row.

3. Press the right arrow on the NAVIGATOR KEYPAD to display the available groups. The Group settings screen appears.

4. With the selection box highlighting the current group, press the right arrow on the Navigator key. The Group reset screen appears. Then press the CHECK KEY. The programmer beeps when the group settings are changed (if the audio is turned on).

Note: If the group you want to change back to physician settings is not active, you must first select that group to make a change.
BATTERY CHECK: DEVICE AND PROGRAMMER

CHECKING YOUR NEUROSTIMULATOR BATTERY STATUS

You can check your neurostimulator by either placing your patient programmer over your implant or by using the antenna.

Press the CHECK KEY : The Therapy screen appears.

---

Simple mode Advanced mode

**Status Row**

---

**Battery Row**

The second row on the Therapy screen is the Battery row. This row tells you the battery status of your neurostimulator. The Battery row typically displays OK.

---

If you have an Activa RC Neurostimulator, the display will include the battery charge level.

**Neurostimulator battery charge level is low**

- Therapy will not be available soon.
- Charge the neurostimulator battery immediately.
- Refer to the manual packaged with the charging system.

If the Battery row displays ERI (elective replacement indicator):

- The neurostimulator battery is close to its End of Service date.
- Therapy will not be available soon.
- Call your physician.
- Press any arrow on the NAVIGATOR KEYPAD to clear this message.

- Once the screen is cleared, a flashing ERI icon will appear on the Battery row of the Therapy screen.

If you have a Activa RC, you have 1 year from ERI to EOS.

If you have a Activa PC/SC, you have approximately 3 months from ERI to EOS with typical movement disorder settings.

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**Battery status**

---

If you have an Activa RC Neurostimulator, the display will include the battery charge level.

**Neurostimulator battery charge level is depleted**

- Therapy has stopped.
- Charge the neurostimulator battery immediately.
- Refer to the manual packaged with the charging system.

If the Battery row displays EOS (end of service):

- The neurostimulator battery is at End of Service.
- Therapy has stopped.
- Neurostimulator must be replaced to resume therapy.
- Call your physician immediately.

---

Note: Your patient programmer has two display format options: “text on” and “text off/icon only.” The programmer screens in this guide display the “text on” format (i.e., the screens display icons and accompanying text). Please refer to the Patient Programmer Model 37642 User Manual for more information about display format options.

IMPORTANT: It is very important to check your neurostimulator battery every day.

It is important for you to recharge your battery on a regular, frequent basis as recommended by your doctor to make sure that the neurostimulator battery remains charged.
CHECKING YOUR PATIENT PROGRAMMER BATTERY STATUS

You can check your patient programmer battery by either placing your programmer over your implant or by using the antenna. Press the CHECK KEY : The Therapy screen appears.

To display the current programmer battery status:
- **Simple mode:** Press the right arrow on the NAVIGATOR KEYPAD twice to display the programmer battery status.
- **Advanced mode:** Press the up arrow on the NAVIGATOR KEYPAD once to highlight the Status row, then press the right arrow.

Review the status of the programmer battery.

If the programmer batteries are low:
- You can finish programming.
- Press any arrow on the NAVIGATOR KEYPAD to clear the screen; then continue programming.
- Replace the programmer batteries before the batteries become depleted.

If the programmer batteries are depleted:
- Programming is not possible.
- Replace the programmer batteries now.

**Note:** The Battery Status screens for the neurostimulator and programmer are displayed differently.
If you have a rechargeable neurostimulator, this section explains how to recharge both your neurostimulator and the recharger.

The Recharging System includes the following components:

1. **The Recharger** charges your implanted neurostimulator.
2. **The Antenna** establishes communication between the neurostimulator and the recharger, when charging the neurostimulator.
3. **The Belt** can be used to keep the antenna positioned directly over the neurostimulator during a charging session.
4. **The AC Power Supply** charges the recharger using AC power. Plug one end into a wall outlet and the other end into the recharger.

Other charging options:

You may use an adhesive disc to hold the antenna in place (Ref.: 040618):

These double-sided adhesive discs provide better antenna coupling during recharging, preventing the antenna head from moving unintentionally and thereby improving the recharge time.

It is recommended not to place the adhesive directly on the skin.

A belt may be available for abdominal placements.

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**Audio Control Key**
- Turns the recharger on.
- When the recharger is on, pressing the Audio Control key again turns the audible status tones on and off.

**Start Charge Key**
- Begins charging the neurostimulator.

**Stop Charge Key**
- Ends or interrupts the neurostimulator charging session.
CHARGING YOUR NEUROSTIMULATOR

To charge your neurostimulator:

1. **Position the antenna.** Press your skin where your neurostimulator is located to determine the best place for the antenna. Depending on the location of your implanted neurostimulator, you may use the belt or adhesive disc to ensure the antenna is correctly positioned for charging.

2. **Press the green Start Charge key** on the recharger, after the antenna is in place.

3. The **Recharger Wait** screen will display on the recharger, indicating that the neurostimulator and recharger are trying to communicate with each other. Note: If you want to check your signal strength after moving the antenna, press the green **Start Charge** key to get immediate feedback.

4. When charging begins, the **Neurostimulator Recharging** screen will appear. The bottom row of boxes on this screen will indicate the strength of the charging signal.

   - **1** A Neurostimulator is ON (●) or OFF (○).
   - **2** Audio is ON or OFF
   - **3** Status row — Displays information for the neurostimulator and the recharger
   - **4** Recharge Progress row — Indicates the progress of the recharging session.
   - **5** Recharge Efficiency row — Indicates the efficiency of the recharging signal between the neurostimulator and the recharger (more black boxes mean better efficiency and shorter recharge duration).

   If all eight boxes are solid black, the charging signal is as strong as possible, and the charging session will be as short as possible. **Note:** These black boxes are only an indicator of the charging signal strength and do not indicate how much the battery has been charged.

5. **Adjust signal strength.** Signal strength can be improved by ensuring that the antenna is not placed over bulky clothing. You can also increase the charging signal strength by either adjusting the dial or repositioning the antenna. To adjust the dial, turn it a quarter turn in either direction. Then press the **Start Charge** key again.

6. When recharging begins, you will see the **Neurostimulator Recharging** screen. This screen is used to:
   - Check the status and progress of the neurostimulator recharging session.
   - Show you the battery status of your recharger.
   - Display a flashing battery icon for the neurostimulator, indicating that the battery is recharging.

   **Note:** The recharge efficiency (number of boxes filled) is dependent on the position of the antenna and the location and depth of your implant. In some cases, you may reach your maximum efficiency with less than eight black boxes filled. Use the dial on the antenna to improve efficiency.

7. When your neurostimulator battery is almost full, the **Neurostimulator Charge Sufficient** screen will appear. It is ok to stop charging at this point.

**Charge Sufficient screen**
Neurostimulator charging tips:

- Turning stim on/off with the recharger for DBS is disabled.
- If the recharger loses its connection to your neurostimulator, you may hear three beeps and the Reposition Antenna screen will appear.

To reestablish the connection, reposition the antenna over your neurostimulator and press the green Start Charge key again.

If you need to interrupt your charging session, press the Stop Charge key on the recharger. To resume the charging session, press the Start Charge key again.

CHARGING THE RECHARGER

1. Plug the AC power supply cord into an AC outlet. A green light on the power supply indicates it has power.
2. Connect the AC power supply. The recharger will automatically start to charge when connected to the AC power supply, and the recharger charging session will be displayed.

BEFORE YOUR MRI

Depending on the type of DBS system you have, you may be eligible for either a full-body or head-only MRI scan. You can help your physician and radiologist determine which type of scan you are eligible for by following these guidelines.

1. **Tell the physician who prescribed your MRI scan that you have an implanted Medtronic DBS system.** An MRI scan could be prescribed by a variety of physicians, including a general practitioner, orthopedist, oncologist, or a pain specialist.
2. **Contact the physician who manages your DBS to discuss your upcoming MRI scan.** Your neurologist should tell you if you can safely undergo the type of MRI scan prescribed.
   
   Your neurologist may also provide you or your radiologist with a copy of the MRI Patient Eligibility Form. The information on this form can help the radiologist confirm your eligibility for the prescribed MRI scan.
3. **When your MRI appointment is scheduled.** You will want to work with the physician who manages your DBS therapy to prepare for your scan. Make sure your bring your programmer and patient ID card with you the day of the scan.

If you have questions about your MRI Scan eligibility or how to prepare your DBS system for an MRI scan, contact your physician who manages your DBS therapy or Medtronic DBS Helpline at +44 (0) 1923 205101.

Instructional videos explaining how to charge your implanted neurostimulator and your recharger may be viewed at the following website: medtronic.com/recharging
WE ARE HERE TO HELP

The following resources are available to assist you with your implanted DBS system.

Call Medtronic DBS Helpline at +44 (0) 1923 205101
Monday – Friday, 9:00 to 16:00 for assistance with:

- Programmer or recharger troubleshooting.
- Information around living with your DBS system.
- Your Medtronic Patient ID card.

Follow up with your doctor for assistance with:

- Medical concerns.
- Management of your therapy, including what stimulation level you should use and adjustments to stimulation level, if needed.

Help with your Medtronic DBS patient programmer or recharging system

- Your physician, nurse, or Medtronic representative may show you how to use your programmer or recharger. Call the clinic if you need more help or have questions.
- You will receive a manual with detailed instructions.
- Medtronic DBS Helpline can send you another copy of your manual or answer questions about how to use your programmer.