



MYONYX

Mobile App Help



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The MyOnyx Mobile App Help



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Overview

The MyOnyx Mobile App extends the capabilities of the MyOnyx device.

In addition to electrostimulation (ES), which is available on the standalone MyOnyx device, the MyOnyx Mobile App allows for electromyography (EMG), and EMG-triggered stimulation (ETS). It provides remote control of the hand-held device, giving you greater flexibility over the use of the MyOnyx system with your patients.

The user-friendly interface provides immediate visual and audio feedback, making it easy for both you and your patients to understand and assess performance and progress in training sessions. You can review training sessions, manage patient profiles, set up protocols, and analyze data.

Minimum Requirements

The minimum requirements for the app are as follows:

- Android tablet, at least 7 inches in landscape view
- Android version 7, 8, or 9
- Bluetooth v 4.1
- Google account or Google Play Store account
- MyOnyx device (SA9020) and appropriate accessories

Data Storage

The following information is stored on the app.

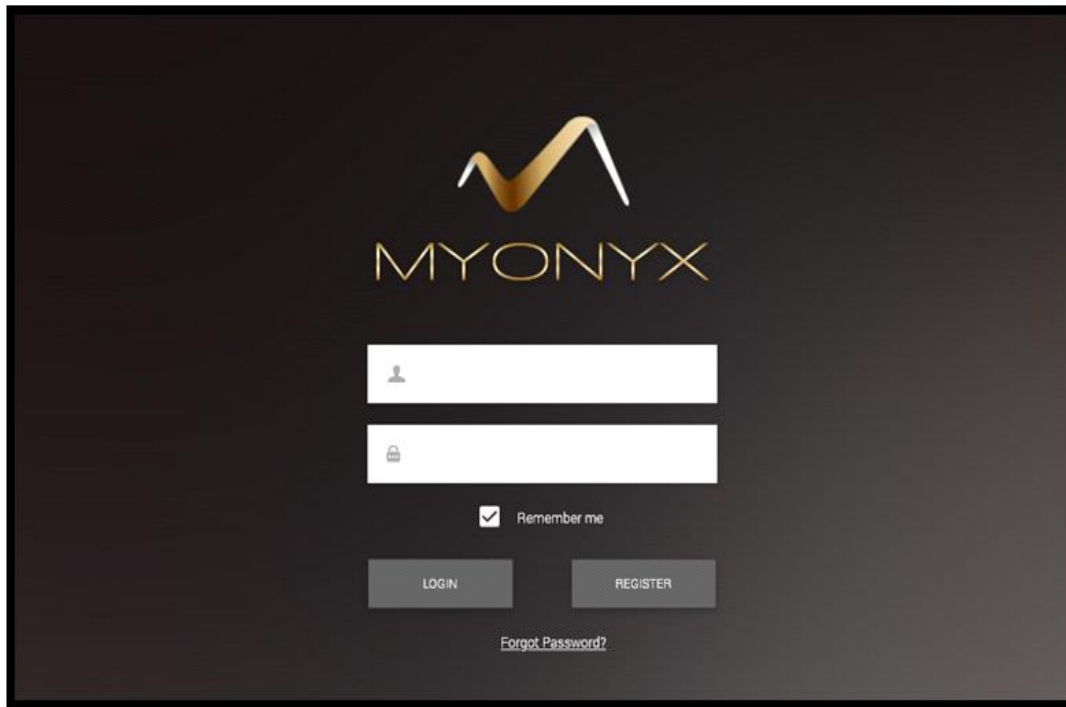
- The first and last name of the patient and a Patient ID.
- Biofeedback program settings, session data stream, and markers set by the clinician.

Warnings and Precautions

Before using the MyOnyx Mobile App, read the *MyOnyx User Guide*. To ensure safety, pay attention to the precautionary information and operating instructions.

Creating a Clinician Account

To log in and begin using the MyOnyx Mobile App, you need a clinician account.



To create an account

1. Launch the app by tapping the shortcut icon on the tablet.
2. Tap **Register** on the Clinician login page.
The New Clinician page opens.
3. Enter a valid email address in the **Username** text box.
4. Enter and confirm a password.
5. Tap **Create and Login**.

Logging into log **in to your account**

1. Launch the app.
The Clinician login page opens.
2. Enter your login data in the **Username** and **Password** fields.
3. Tap **Login**.

Tip: Tap **Remember Me** to skip entering the username the next time you log in. However, you need to enter your password manually whether this setting is on or off.

Recovering a Forgotten Password

To recover a forgotten password

1. Tap **Forgot password**.
2. Enter your email address when prompted.
3. Tap **Reset password**.

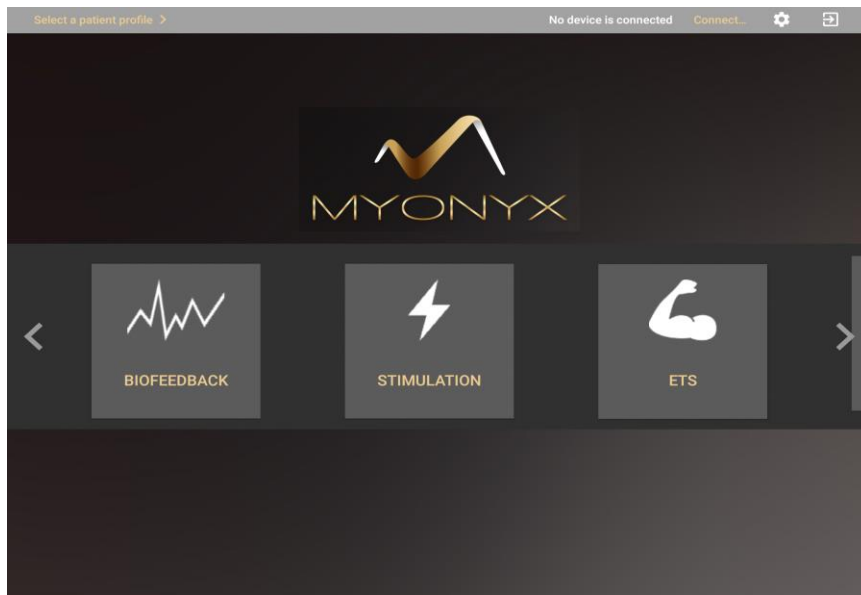
A temporary password will be sent to you by email.

Restoring Data

The Restore Data feature is used for importing data from one instance of the app to another on the same tablet or an a different one. See Backup on page 11.

The Home Screen

When you log in to the app, the Home screen is presented.



From the Home screen, you have access to all the modalities and all functionalities on the app/ Navigate to the Home screen and:

- Connect or disconnect to or from a MyOnyx device.
- Select a patient profile.
- Select a modality: Biofeedback, Stimulation, or ETS.
- Review a recorded session and statistics.
- Access sessions saved on a connected device.
- Define the settings for the app.
- View, edit, create, and delete custom electrostimulation programs.

The MyOnyx Status Bar



The status bar, at the top of the screens, displays the following information:

- **Patient Name** and **ID** of the currently selected patient
- **Selected Modality and Protocol**
- **Connect/Disconnect** button
- **Serial Number** of the connected device
- **Battery status icon** showing the battery level of the connected device

- **Settings** button
- **Logout** button

Connecting to the MyOnyx Device

To begin, pair the MyOnyx device and tablet via Bluetooth. Refer to the *MyOnyx User Guide* for instructions and details.

Note: You can pair multiple MyOnyx devices to a tablet. However, you can connect only one MyOnyx device and app at a time.

To connect a device with the app

1. Turn on the MyOnyx device.
2. Log in to the MyOnyx Mobile App.
3. Ensure the device and app are paired as described in the *MyOnyx User Guide*.
4. Tap **Connect** on the status bar of the app.
If multiple devices are available, a list appears.
5. Select the device you want from the list.
When it is connected, the ID of the device is shown on the status bar of the app.

Disconnecting the MyOnyx Device

To disconnect the device, tap **Disconnect** on the status bar of the app.

Note: If the Bluetooth connection is lost during a training session, the session pauses on the app but continues uninterrupted on the device.

Managing Patient Profiles

The Patient Profile contains the patient's first name, last name, a unique ID, and the recorded sessions saved for the patient. All your profiles are stored in the Patient List.

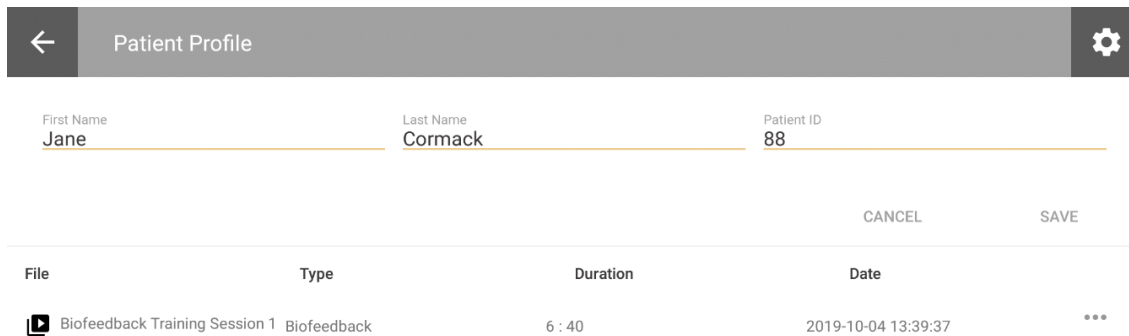
Note: You have access only to the patient profiles you create, not to those created by other clinicians. The same applies to the Patient List.

Viewing the Patient List

The Patient List gives you quick access to the Patient Profiles you have created. It presents a list of the profiles by the patient's first name, last name, patient ID, and their saved sessions.

The Patient List is private. You cannot access the Patient List or the Patient Profiles of another clinical even if they are using the same instance of MyOnyx Mobile on the same tablet, and they cannot access your Patient List or your Patient Profiles.

To view the Patient List, tap **Select Patient** or tap the Patient Profile on the status bar at the top of the screen.



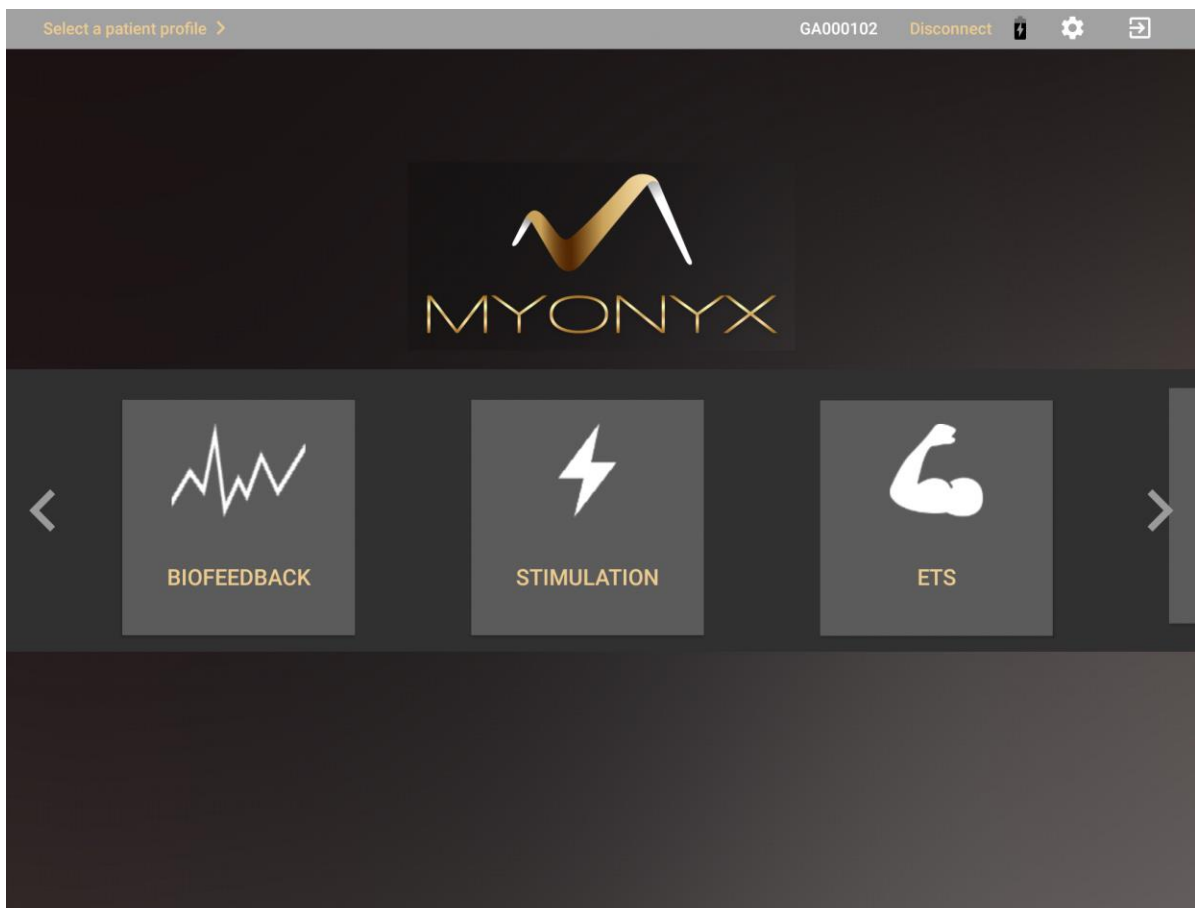
Sessions are displayed by Session Name, Protocol, Duration, and Date and Time.

Creating a New Patient Profile

To create a patient profile:

1. Log in to the MyOnyx Mobile App.

Note: You do not need to be connected to a device to manage patient profiles.



2. Tap **Select a Patient Profile** on the status bar at the top of the screen.
The Patient List appears.

← Patient Profile ⚙️

First Name: Jane Last Name: Cormack Patient ID: 88

CANCEL SAVE

File	Type	Duration	Date
------	------	----------	------

3. Tap the plus sign (+) to create a new patient profile.
A secondary screen opens.
4. Enter the patient's details in the **First Name**, **Last Name**, and **Patient ID** text boxes.
5. Tap **Save**.

Note: All fields are required. The ID must be unique.

Select the new profile to start a session or tap the plus sign (+) to create another profile.

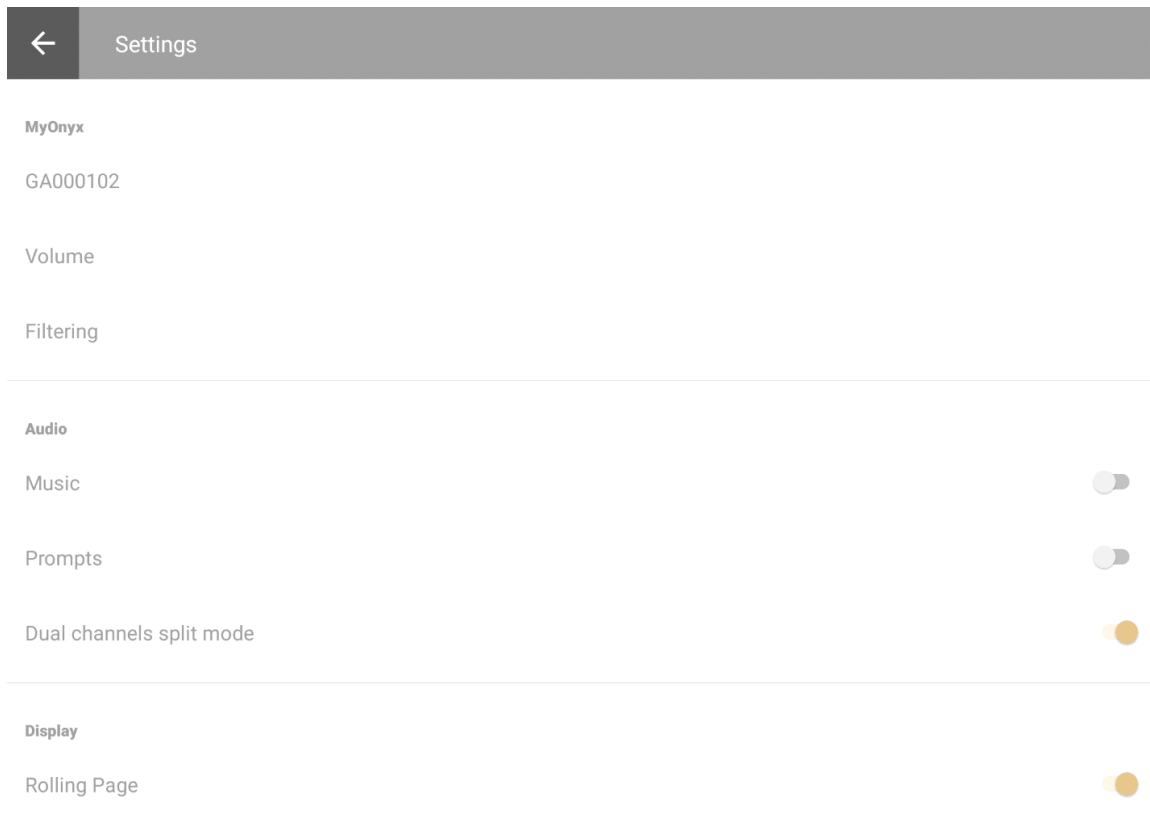
Deleting a Patient Profile

To delete a patient profile with all their saved sessions

1. Open the Patient List and select the patient profile to remove.
2. Tap the ellipsis (...) beside the patient's name.
3. Tap **Delete**.
A confirmation message appears.
4. Tap **Yes** to continue.

Defining the MyOnyx Mobile App Settings

Tap the gear icon at the top right of the status bar to view or modify the settings.



Note: Settings are common to all clinicians using the app.

MyOnyx

The MyOnyx setting displays the Serial Number of the connected device or the message “No device connected.”

Tap in this field to connect a paired device or disconnect the currently connected device.

Volume

Tap **Volume** to adjust the volume on the MyOnyx device.

Tip: You can mute the audio on the device and control the volume with the physical buttons on the tablet.

Filtering

To enhance the signal, you can apply the following filters.

Notch Filtering

Set Notch filtering to 0, 50, or 60. This removes the electrical interference at the specific frequency on the EMG signal.

Harmonics Filtering

Turn on Harmonics Filtering for better results in EMG sessions, especially at low signals. If the charger is plugged into an outlet without a three-pin connection, try unplugging it during sessions.

Audio

Music

The music setting applies to biofeedback sessions only. If it is enabled, sound plays from the app and is disabled on the device.

Sound indicates that the patient is in condition. It varies according to the dual channel split mode setting:

Dual Channel Split Mode

This parameter is used in dual-channel biofeedback programs. Activate it to play different sounds on each channel as audio feedback during training sessions.

If this setting is disabled, the app plays one sound if a condition is set above the threshold and another if it is set below. The same applies to single-channel biofeedback sessions.

Voice Prompts

Voice prompts are used to indicate the beginning of each phase and provide audio feedback during sessions. Turn this setting on or off.

Display

Rolling Page

The Rolling Page setting is used for biofeedback programs with line graphs.

If it is disabled, the graph appears as a static page. When the timeline reaches the end, it jumps back to the beginning. Enable the Rolling Page setting if you prefer to see the page move continuously from left to right.

General

Backup

The purpose of the backup is to save all your data to a file that can be copied to another tablet, or another folder, and accessed from another instance of the MyOnyx Mobile App.

The following information is backed up:

- Your clinician username and password
- Your patient files, including patient names, IDs, and saved sessions.

To create a backup

1. Log in the MyOnyx Mobile App.
2. Tap **Settings** > **Backup**.

The backup file is saved to the download folder on your tablet. You can share it via email or another application to copy it to another tablet.

To restore the data

Note: When you install a new instance of the app, do not create a clinician account on the new app. When you restore the data, your login credentials will be restored with the other data. Nothing will be restored if you create an account on the new app.

1. Save the backup file to the download folder on the second tablet.

Note: The filename and folder must be the same on both tablets.

2. Launch the MyOnyx Mobile App on the second tablet.
3. Tap **Restore Data**.

Once the data are restored, you have access to your clinician account, and your patient profiles, including saved sessions. However, you need to redefine your settings.

Help

Turn on this setting to add the Help file to the app.

User Settings

Switch User

Select this option to change the current user. Select another user from the list.

Delete Current User

Select this option to delete the currently logged-in user and all data associated with the user. A confirmation message is displayed.

Change Password

Select this option to change the password of the currently logged in clinician.

Running Electrostimulation Sessions

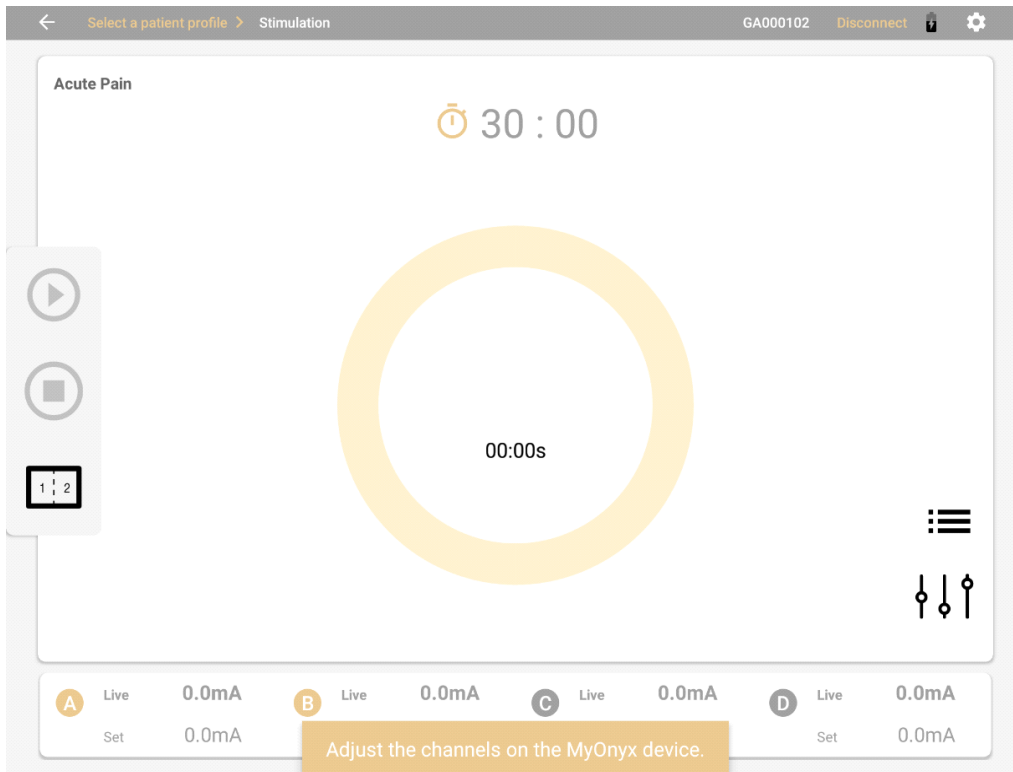
The Electrostimulation (ES) modality provides remote control over the ES functionality on the device. It gives you all the information shown on the device with enhanced visualization. Both you and your patient can easily view the amplitude of the channels and the progress of the session.


- Select up to four channels for ES.
- Run ES sessions with or without selecting a patient.
- Perform sessions in single- or dual-program mode.
- Select or modify the predefined programs or create your own.
- Perform live sessions only.
- Recording is not available for ES. There are no ES review screens.

Note: Before starting a session, refer to the *MyOnyx User Guide*. Read all the safety information and the instructions for connecting cables and placing electrodes and probes.

To begin an ES session:

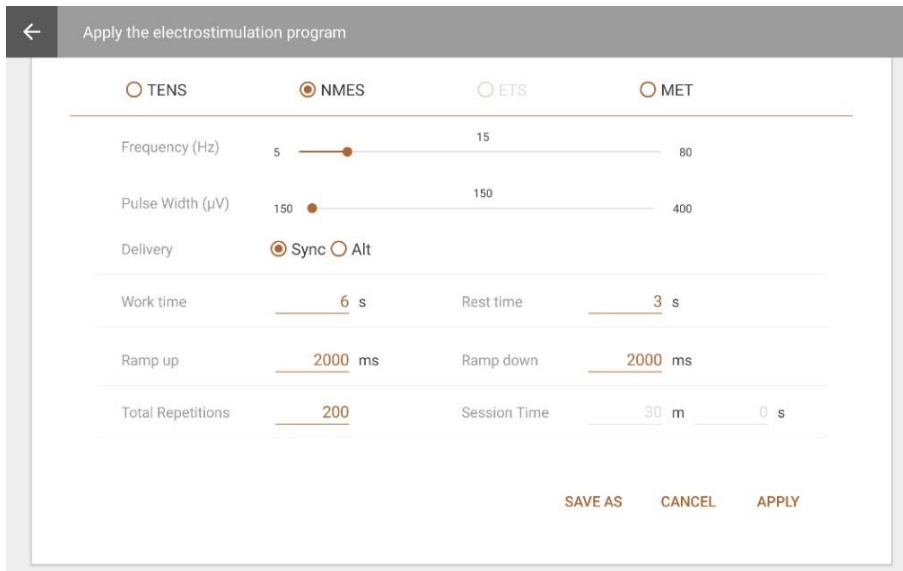
1. Connect the cables to the device and place the electrodes on the patient as required for the session and as described in the *MyOnyx User Guide*.
2. Tap **Stimulation** on the Home screen of the app.
The ES screen appears.
3. If you are performing the session with a patient
 - Tap **Select Patient** on the status bar.
 - Select a patient profile for the session.



4. Tap the **program selection menu**  at the bottom right of the screen.
5. Select one of the default programs from the list:
 - Acute Pain
 - Atrophy
 - Chronic Pain
 - Circulation
 - Endurance
 - Microcurrent
 - Strengthening Small Muscle
 - Strengthening Large Muscle
 - Stress Incontinence
 - Urge Incontinence

Note: If you have created and saved custom programs, they appear in the list with the default programs.

6. Tap the program configuration menu  to view or modify the parameters of the selected program.

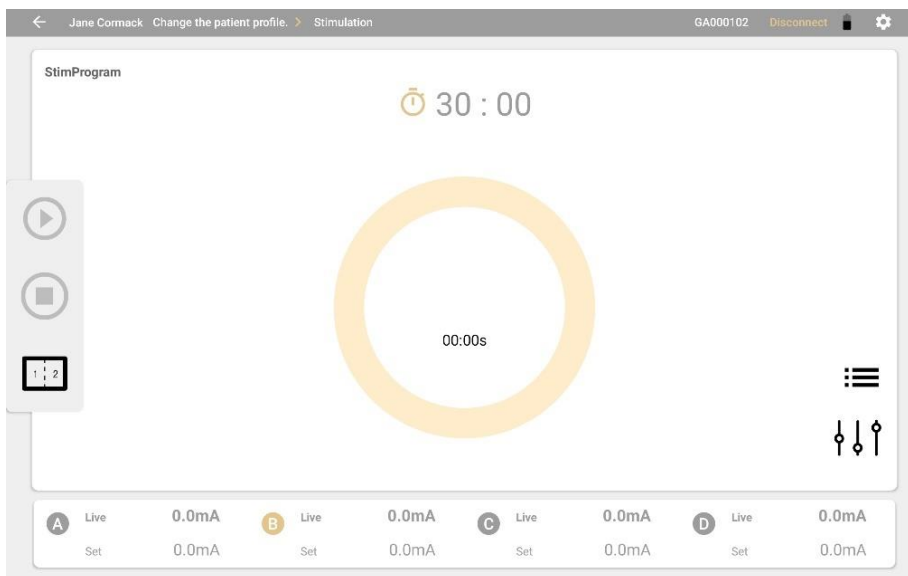


As an example, the screen shot shows the Endurance program parameters. You can modify these by overwriting the text on the screen and moving the sliders.

7. Tap **Save as** to save the modified program under a new name.
8. Tap **Apply** to apply your modifications to the current session only.

Note: The **Apply** button is not available on the Programs screen. These modifications are not saved.

The default program is not modified. **StimProgram** is displayed at the top left of the screen during the session. Parameters are not saved.




For further details on the default programs and parameters, see [The Default Electrostimulation Programs](#) on page 44.

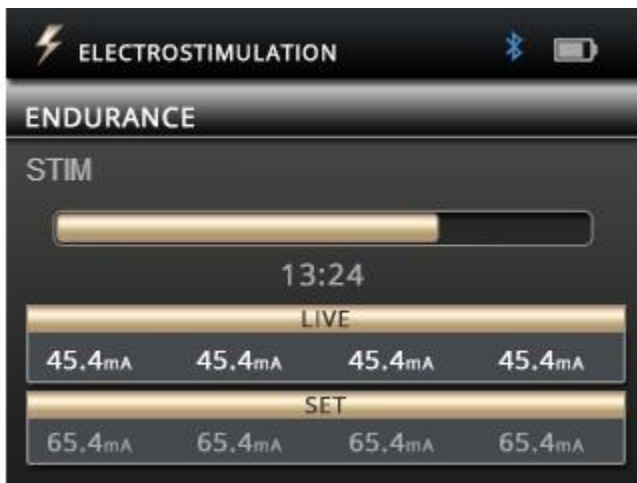
- When you select an electrostimulation program, the four channels of the MyOnyx device are displayed at the bottom of the screen on the app. The program or protocol is displayed at the top of the screen.

Note: If you have modified the program for the current session, **StimProgram** is displayed. Otherwise, the name of the program is displayed.

The letters A, B, C, and D, corresponding to the channels, light up and flash on the MyOnyx device.

- Select the channels required for your session.
- Adjust the amplitude on the device, as described in the *MyOnyx User Guide*.
When the amplitude is adjusted, the device displays a message prompting you to start the session:
- Press **OK** on MyOnyx device or tap the **Play**  on the app to start the session.

The screen on the MyOnyx device shows the following:



- The **Set amplitude** on all active channels: This is the maximum intensity of ES that you want the device to generate during the session work phase.
- The **Live amplitude** on all active channels: This is the real-time level of the ES that is generated during the session. The Live value is at zero during the rest phase. It changes during the ramp-up/ramp-down times and due to amplitude modulation.
- Total remaining session time
- Current work (STIM) or rest phase
- Progression of the current phase
During the session, the **Play** button on the app changes to **Pause**.

The app displays:

- The selected program

- **Time:** You can switch between the countdown timer to show the time remaining or the clock to show the elapsed time. You can also toggle between the two icons on the app before or during the session.
- The Set amplitude and Live amplitude for all active channels. Beside each channel, the Set amplitude is displayed in gray. The Live amplitude is displayed in bigger, bold text.

During the **Rest** phase, the Live amplitude is at zero (0). It increases during the work phase to the maximum defined as the Set amplitude.

Note: To pause the session, press the **Back** button on the device or the **Pause** button on the app.

To stop the session, do one of the following:

- Press the **Back** button again
 - Press the **On/Off** power button on the device
 - Press the **Stop** button on the app.
-

Running Sessions in Dual Program Mode

In dual program mode, two programs are displayed side by side on both the app and on the device. Channels are grouped into pairs, Channels A and B for the program on the left and C and D for the program on the right.

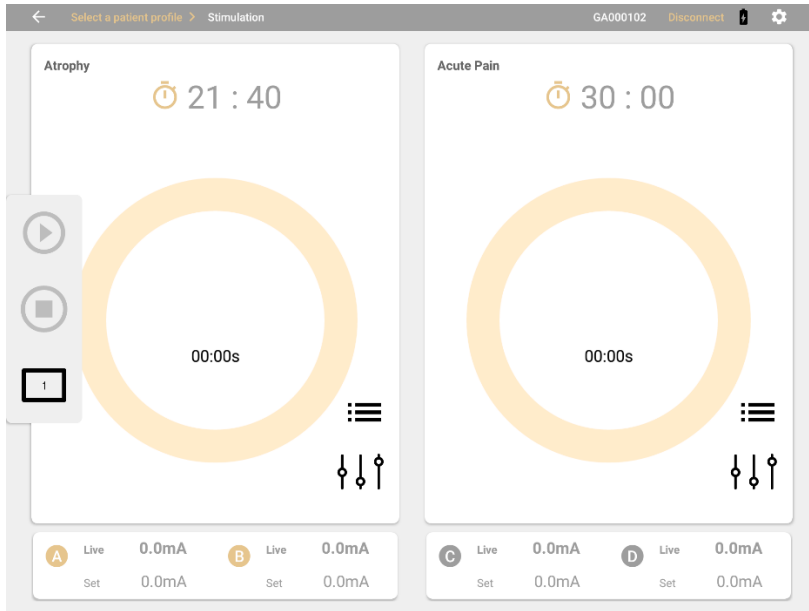
The two programs can have different modalities and different delivery types. As well, the number of cycles, the duration of the program, and the current session phase can be different.

To run a session in dual Electrostimulation mode:

1. Turn on the MyOnyx device and connect to the app.
2. Connect the cables to all at least one channel in each pair. For example, you could connect a cable to Channel A for the program on the left and to Channel C for the program on the right.
3. Place electrostimulation electrodes on the patient, as described in the *MyOnyx User Guide*.

Note: Make sure the electrodes are not touching each other.




4. Tap the **Split Screen** icon on the app.



The screen shows two programs side by side. Default programs are displayed if this is the first time you are running a session. Otherwise, the last-run program is selected for each group of channels.

5. Tap the **Protocol Selection icon** and select new programs if required.
6. Tap the configuration icon and make any modifications to the two programs.
7. Set the amplitude on the device.
8. Press **Play**.

The stimulation modality screen has the following features:

Feature	Description
 Stopwatch or Time Remaining Counter	<p>A stopwatch showing the time elapsed or a countdown timer is shown. Tap to toggle between these.</p> <p>In dual mode, an icon for each program is shown.</p>
 Program Selection	<p>Tap the Program Selection icon to select a program from the list.</p> <p>The last program run is automatically selected. For the first session, a default program is selected.</p>
 Program Editor	<p>Tap the Program Editor to modify the selected program.</p>
Split Screen Icon	<p>Tap the Split Screen icon to toggle between single and dual program mode.</p> <p>Note: This button is not available when a program is in session.</p>

Feature	Description
Merge Screen Icon	If the screen is in dual program mode, tap the Merge screen icon to switch to single exercise mode. Note: This button is not available when a program is in session.
Play	The Play button is enabled when the amplitude adjustment is complete. Tap Play to start the session. During a session, the Play icon become a Pause icon
Active Phase	The active phase is displayed in the center of the screen, Rest, STIM, Pause, or Session Over
Amplitude	The Live and Set amplitudes for all channels are shown at the bottom of the screen, as on the device. If the channel is inactive, both the Live and Set amplitudes are at zero (0).
Stop	Tap Stop to stop the session on the app and the device. Session Over is displayed on the app.

Running Biofeedback Sessions

Using the Biofeedback modality, you can add Electromyography (EMG), pressure, or a combination of these to your training and assessment sessions. The user-friendly views, line graph, bar graph, animation, and pattern, provide variety and make it easy for you and your patients to understand the signal and visualize their progress.

- Switch between the four views: line graph, bar graph, animation, and pattern.
- Set static, automatic, or dynamic thresholds.
- Select predefined protocols for training and assessment sessions.
- Define your own protocols by adjusting the parameters.
- Save parameters and load them automatically when you open the modality.
- Record and save sessions for review.

Biofeedback Sessions

Biofeedback sessions comprise cycles of work and rest phases. To assess or train a muscle or group of muscles, the clinician places electrodes on the patient's skin above or in the area of the muscle group.

The clinician asks the patient to either contract or relax a group of muscles in the work phase, depending on the goal of the program. The patient rests during the rest phase. Then, the cycle repeats. The number of cycles and the length of each phase is set in the protocol configuration.

Standard, Alternating, and Open Biofeedback Sessions

You can select any of the following biofeedback session types:

Standard Biofeedback can be performed on one or two channels. The session comprises cycles of Work and Rest phases. In the Work phase, the patient contracts or relaxes the targeted muscles, depending on the goal of the program. The patient rests during the Rest phase. The cycle repeats as many times as possible for the duration of the session.

Alternating or Reciprocal Biofeedback requires two channels, A and B. The session begins with a Work phase on Channel A and a Rest phase on Channel B. Then, it switches to a Rest phase on Channel A and a Work phase on Channel B. The patient works the muscles in one group, by either contracting or relaxing them and rests the other, then switches. For the entire session, the patient alternates back and forth working one set of muscles and resting the other.

Note: You can use any of the views for Alternating biofeedback, except Pattern View.

Open Sessions are Standard Biofeedback sessions with a single Work phase and no Rest phase. They can be run on one or two channels. You can define a session length for an open session or start and stop it manually.

Setting Thresholds and Conditions

Biofeedback can be performed in single or dual-channel mode on Channels A and B. Thresholds are set by channel. For dual-channel mode, you can configure two thresholds. For each threshold, you can set a condition, asking the patient to stay either above or below the threshold for as long as possible during the work phase.

During the work phase of the session, the client tries to reach the threshold and stay in condition.

The signal from each active channel is presented on a line or bar graph, video, or pattern, making it easy for clients to assess their ability and progress in training sessions. You can add positive audio feedback when the client is successful. To do this, enable audio on the Settings page. See *Defining the MyOnyx Mobile App Settings* on page 9.

For biofeedback sessions, you can define Static or Dynamic thresholds.

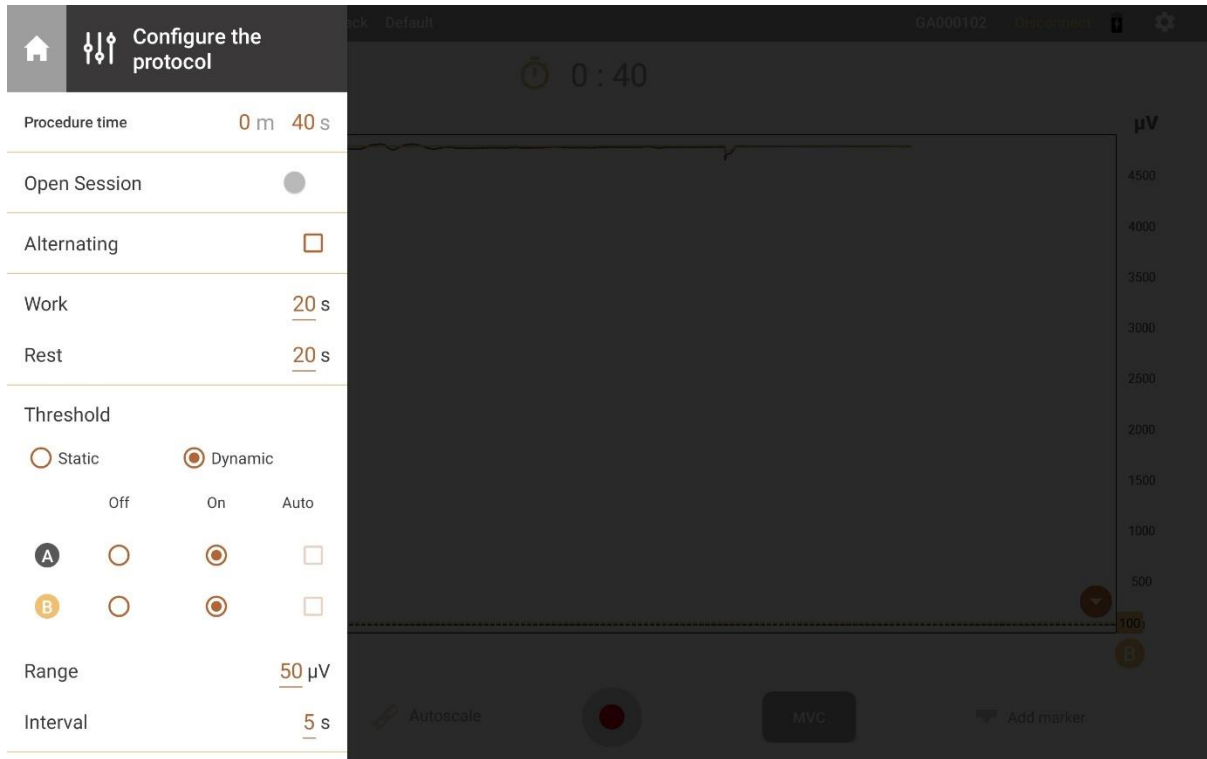
Static thresholds can be manual or automatic. You can change the position of a manual threshold by selecting it on the screen and dragging and dropping it into place. You can do this at any time during the session. If the threshold is automatic, you drag and drop it into place for the first cycle. For the subsequent cycles, it changes position automatically based on the contraction the patient holds during the work phase.

Dynamic thresholds shift position based on the time interval you set when you configured the protocol. Whether the condition is above or below the threshold also changes. The purpose of using dynamic thresholds is to challenge the patient.




Configuring a Biofeedback Protocol

Before configuring a protocol, connect the required cables to the MyOnyx device and place the electrodes on the patient, following the instructions in the *MyOnyx User Guide*.

Configure the parameters for a session as described in this section.



Biofeedback Configuration Parameters

Feature	Description
	Tap the Open icon to expand the sidebar menu.
	Tap the Collapse icon to close the sidebar menu.
	Tap the Home icon to return to the Home page. Note: This icon is not available while you are running a session.
Procedure Time	Enter the minutes (m) and seconds (s) the session will last. Note: The maximum time is four hours or 240 minutes.
Open Session	Tap Open Session to run an open biofeedback training session. An open session consists of a Work phase only. The Alternating, Work, and Rest options not required and are disabled. Tip: If you want to start and stop the session manually, rather than setting a fixed time, enter zero (0) in the Procedure Time field. The session will run for up to four hours or until you stop it manually.
Alternating	Alternating is available if both Channels A and B are configured. Check Alternating to configure an Alternating biofeedback session. In this type of session, the cycle begins with a Work phase on Channel A and a Rest phase on Channel B. It then switches to a Rest phase on Channel A and a Work phase on Channel B. Then, a new cycle begins. Uncheck this option for Standard biofeedback. In this type of session, the cycle consists of a Work phase on all channels followed by a Rest phase on all channels.

Feature	Description
Work and Rest Times	Enter the Work and Rest times according to the type of session as follows: Alternating: Enter the seconds (s) in the Work phase. Standard: Enter the seconds (s) in the Work and Rest phases. Pattern View: Work, Rest, and Alternating parameters are disabled.
Thresholds	Note: The threshold must be set at 2,000 μV or below.
Threshold Type	Select Static to set the threshold manually. Then, drag and drop it into position, before starting the session. Note: In pattern view, you can adjust the threshold for channel B only. Select Dynamic to calculate a new threshold at the specified interval. The purpose is to challenge the patient's control.
Static Threshold	A or B: You can configure a threshold for each active channel in most views. In Pattern View, you can configure a threshold for Channel B only. Off: Select Off to remove the threshold for the channel. Up/Down: Select Up to set the condition above the threshold. Select Down to set it below. Auto: Select Auto to define the threshold automatically. Drag and drop it into position for the first cycle. The position for each new cycle will be based on the maximum contraction held in the Work phase.
Dynamic Threshold	A or B: You can configure a threshold for each active channel in most views. In Pattern View, you can configure a threshold for Channel B only. Off: Select Off to remove the threshold for the channel. On: Select On to display a threshold for the channel. Interval: Enter the time that must elapse before a new threshold position is generated and the threshold shifts position automatically. Dynamic thresholds shift position based on the interval defined here. For example, enter 10 seconds to shift the threshold position every 10 seconds. Then, set the range. Range: Enter a value in microvolts (μV) for the upper and lower limit of the random dynamic threshold range. This is calculated from the initial position of the threshold. The new threshold is generated randomly and can be above or below the initial position. For example, if the initial position of your threshold is 100 μV and you enter 25 μV , then 25 is added to 100 for the upper limit (125) and subtracted from 100 for the lower limit (75). Following this example, a new threshold could be generated anywhere between 75 and 125 μV .
Load Protocol	Tap Load protocol to select a previously saved protocol from a list and load the parameters to the screen and to the device.
Save Protocol	Tap Save after defining the parameters for your protocol. Then, enter a name.
Delete Protocol	Tap Delete to remove a protocol from the list. A confirmation message is displayed.

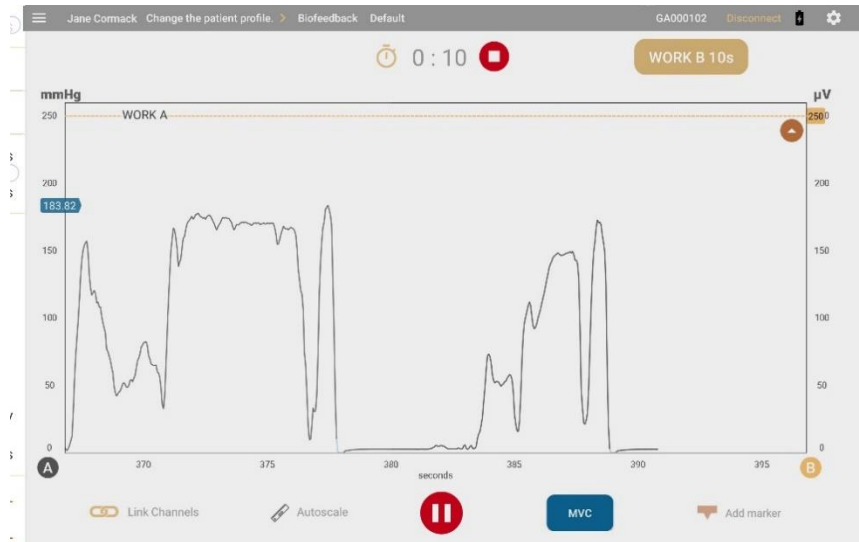
Starting a Biofeedback Session


To run a biofeedback training session:

1. Turn on the MyOnyx device.
2. Set up the MyOnyx as described in the *MyOnyx User Guide*.
3. Launch the app and connect the device.
4. Tap **Select a Patient Profile** on the status bar and select a profile.
Note: This step is optional.
5. Tap **Biofeedback** on the Home screen of the app.
6. The app detects the type of biofeedback, EMG or pressure, and the screen opens automatically, showing the appropriate scale:
 - **EMG biofeedback, μV scale**



- **Pressure biofeedback, mmHg**



7. To change the default protocol, tap the protocol on the status bar. Select a biofeedback protocol from the list of available protocols.
8. Adjust the settings as desired by selecting the menu button.
9. Review the biofeedback protocol if required.
10. Tap the **Play/Record** button . The device displays the following information:

- Remaining session time
- Total elapsed time
- Status and progression of the current work or rest phase
- μV and mmHg levels for the current phase.


The biofeedback screen on the app varies according to the view selected.



Four views are available: line graph, bar graph, animation, and pattern. You can scroll left or right to switch to a different view before or during a session except for Pattern View.

Note: You can scroll to or from Pattern view only before the session begins, not while it's in progress.

Common Biofeedback Screen Features

The following parameters are common to all views:

Feature	Description
Stop:  (next to the countdown timer)	Tap Stop to stop the session. The Review screen is displayed.
Active Phase	The current Work or Rest phase is displayed in a text box.
Voice Prompt	A voice prompt indicates the beginning of each phase and provides audio feedback when the patient reaches the threshold.

Feature	Description
A and B Labels	<p>Channels A and B are available for biofeedback. A label for each active channel is shown on the screen.</p> <p>Channel A changes from gray to blue when the patient is in condition, Channel B from gold to brown.</p> <p>Tap a label to show or hide the scale, signal, and threshold for the channel.</p>
Thresholds	<p>A static, automatic, or dynamic threshold can be added for each active channel.</p> <p>An arrow indicates whether the condition is set above or below the channel,</p> <p>Tap on a threshold line to show the value.</p> <p>For static thresholds drag and drop the line into position.</p> <p>For automatic thresholds, position the threshold line for the first cycle. It adjusts automatically in subsequent cycles according to the level of contraction the patient holds.</p> <p>The color of the threshold line changes when the patient is in condition.</p>
Auto Scale	<p>Turn on Auto Scale if you want the graph to be resized automatically when the signal changes so that it is always visible.</p> <p>Note: When auto scale is enabled, you cannot pan or zoom on a y-axis manually.</p> <p>Turn off Auto Scale if you want to pan or zoom in or out of the graph manually.</p>
Link	<p>Link is available if both Channels A and B are used.</p> <p>When Link is enabled, both channels are panned or zoomed in or out together. This can be done automatically or manually.</p> <p>When Link is disabled, each channel is panned or zoomed in or out independently.</p>
Using Auto Scale and Link together	<p>If both Auto scale and Link are enabled, both y axes are adjusted automatically and together when the signal changes.</p> <p>If Auto scale is enabled and Link is disabled, each y-axis is adjusted automatically but separately when the signal changes.</p> <p>If Auto scale is disabled and Link is enabled, the graph is not automatically resized. Both y axes are adjusted together when you pan or zoom on the graph manually.</p> <p>If both Auto scale and Link are disabled, the graph is not automatically resized. When you pan or zoom on a y-axis, the scale changes on that axis only. The two y axes are independent.</p>
MVC	<p>MVC is the amplitude of the maximum voluntary contraction the patient reaches during the session.</p> <p>Tap MVC to calculate and display the MVC value.</p>
Play  /Pause 	<p>Tap Play to start a session.</p> <p>During a session, the Play button changes to a Pause button. Tap it to pause a session.</p>
Add Marker	<p>Tap Add Marker to mark a point for the graph for future reference. Your markers are visible in Line View and Review mode.</p>

Line Graph View



The line graph shows the Live signal as a colored line for each active channel.

x Axis

The **x-axis** represents the timeline. By default, this is 0 – 30 seconds. Tap, hold, and release the **x scale** to switch to another timeline, between 5 and 200 seconds.

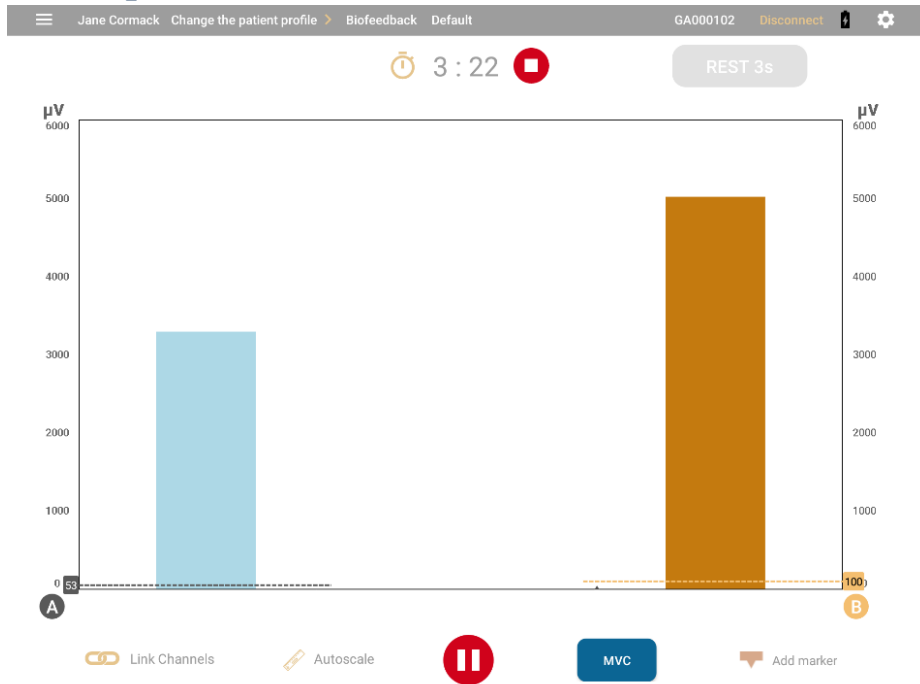
y Axes

A y-axis is shown for the signal from each active channel, A and B, in microvolts (µV) for EMG or mmHg for pressure biofeedback. The default scale is 0-100.

When you start the session, the RMS signal starts at 0.

Tip: Enable **Rolling Page** under Settings to see the page move continuously from left to right during the session. Otherwise, the page is static and the signal jumps back to the beginning when it reaches the end of the timeline.

Bar Graph View



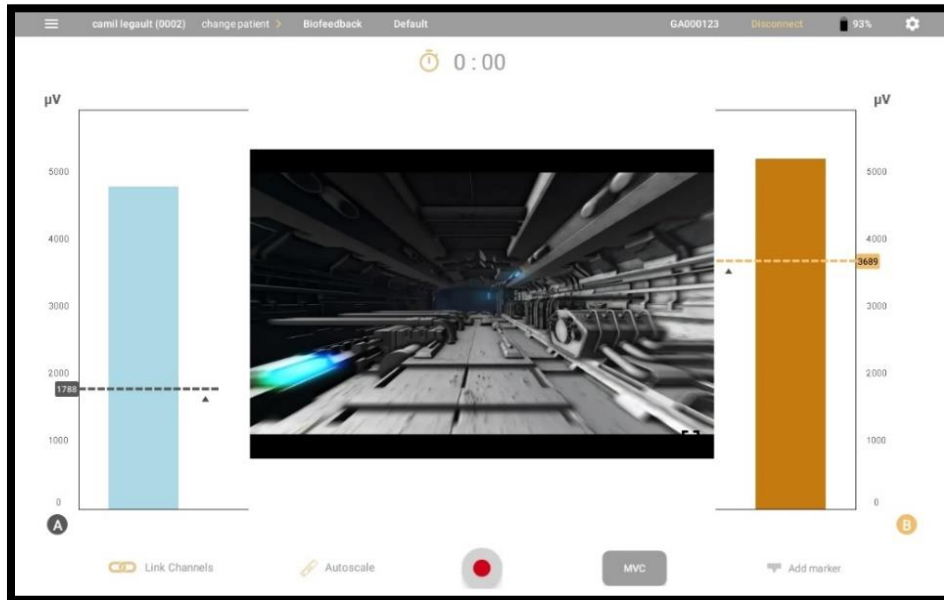
The Bar Graph displays a bar for each active channel with a y-axis in microvolts (μV) for EMG. The default scale for both is 0-100.

The bars change color when the patient is in condition. Channel A changes from gray to blue when the patient is in condition, Channel B from gold to brown.

y Axes

A y-axis is shown for the signal from each active channel in microvolts (μV) for EMG or mmHg for pressure biofeedback. The default for both signals is 0-100.

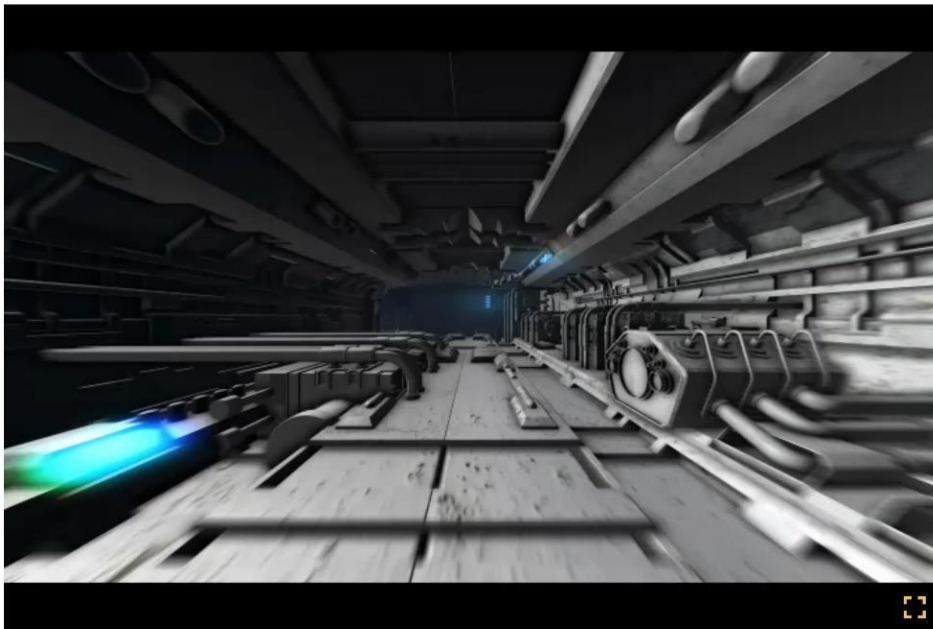
Animation View



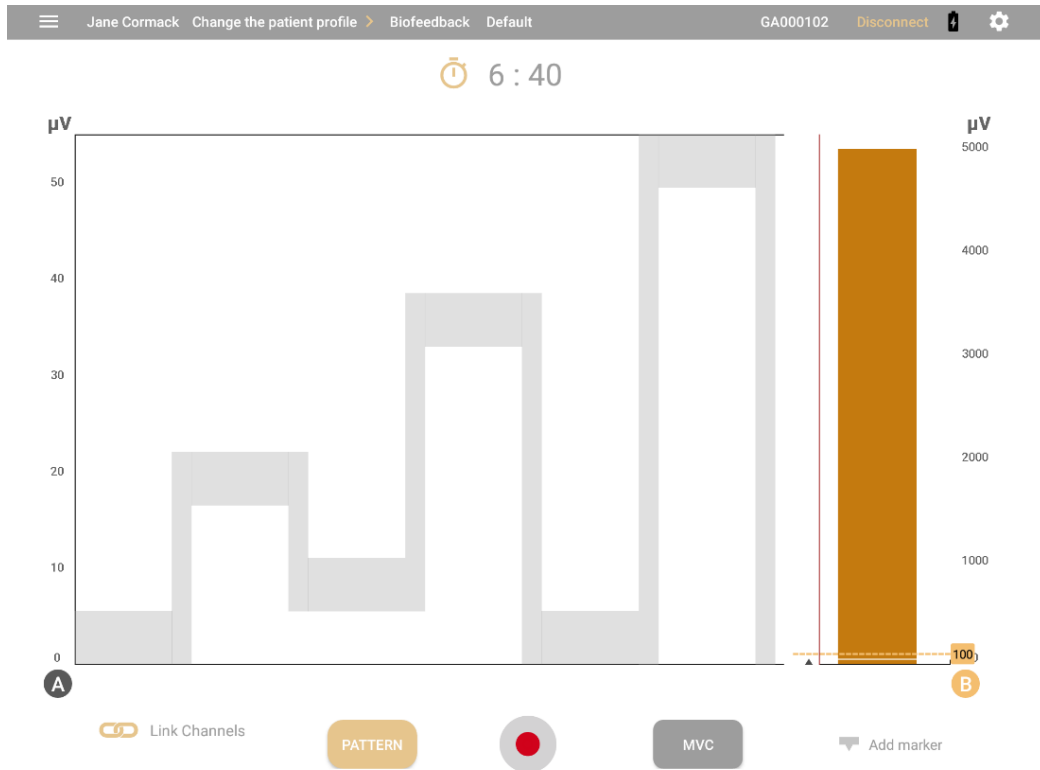
Animation View displays a bar graph for the active channels and an animation. When the patient is in condition, the animation plays.

Four video animations are available. To **change the animation**, swipe the animation view up or down to change the animation.

Tap **Full Screen** to play the video in the entire screen. The active phase is displayed.



Pattern View



Pattern View displays a pattern for Channel A and a bar graph for Channel B. The patient tries to follow the pattern with the signal. You can change the pattern by tapping **Pattern**.

In Pattern View, the entire session consists of a single **Work** phase. There is no **Rest** phase.

Note: During a session, you cannot pan to Pattern View or away from it.

The x-axis displays the timeline in seconds. This varies according to the pattern selected.

Channel B shows a bar graph with a y-axis in microvolts (μV) for EGM or mmHg for pressure biofeedback. The default scale is 0-100. The bar changes from gold to brown when the patient is in condition.

Creating a Custom Pattern

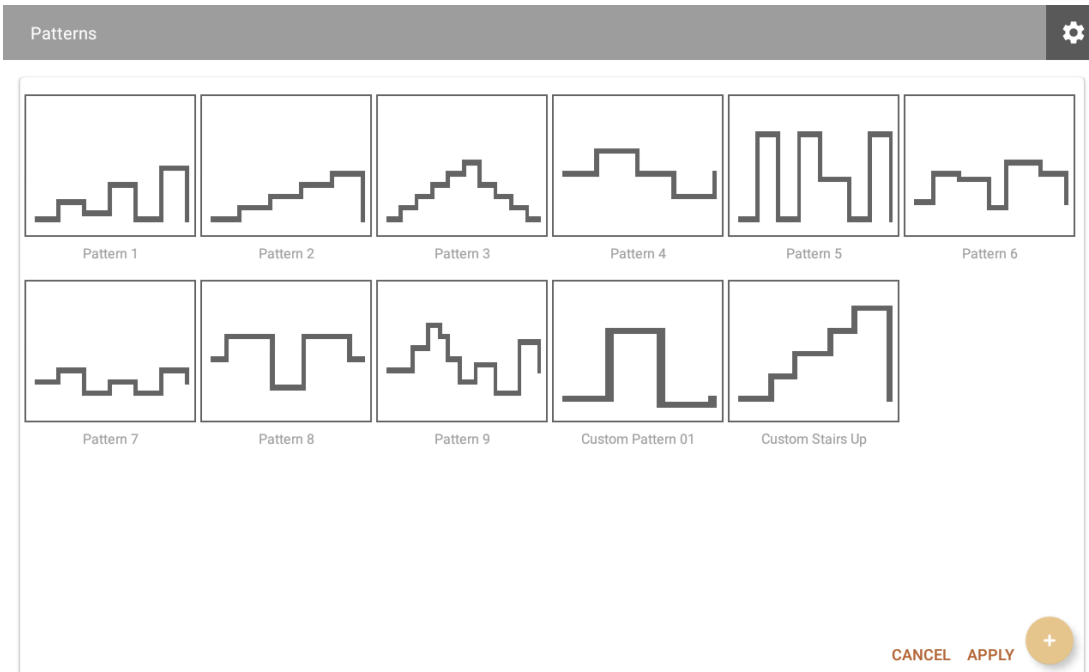
You can select a predefined pattern or create your own.

To create your own pattern

1. Tap **Pattern** on the Pattern View screen.

Tip: If you are not in Pattern View, go to the home screen, tap Biofeedback, then swipe from the default Line View to Pattern View.

The Pattern List opens, displaying both the default and previously created patterns.



2. Tap the **Plus** button (+) to create a new pattern.

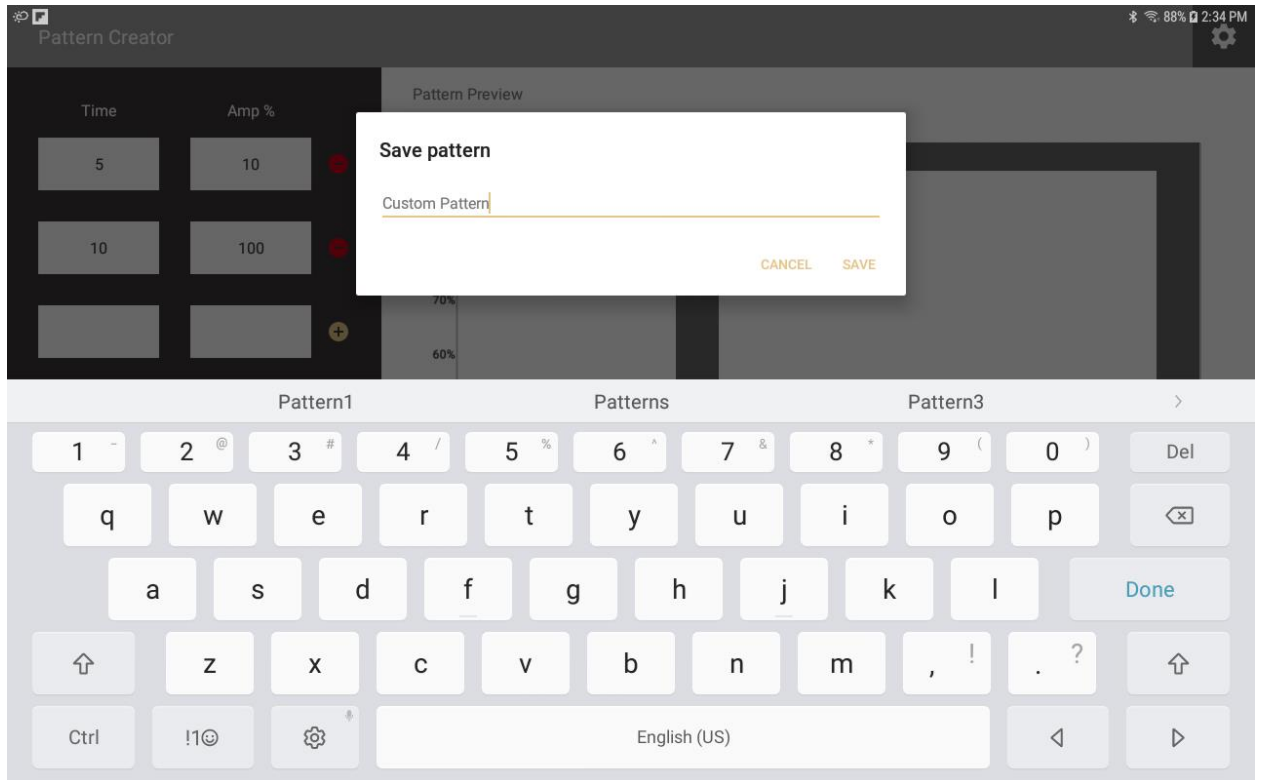
The Pattern Creator screen opens:



3. Enter the time and amplitude for each stage in the fields on the left.

A preview of the pattern is displayed on the right, with the time along the x-axis and the amplitude on the y-axis. It is updated immediately.

4. Tap **Save as** to enter a name for your pattern.



Tip: To save time, you can edit an existing pattern and save it under a new name.

To do this, select a pattern when you open the Pattern List and modify the Time and Amplitude values as required, then save the pattern under a new name.

Running ETS Sessions

The ETS modality combines electromyography (EMG) to measure the electrical activity of a muscle and electrostimulation (ES) to stimulate it. In an EMG-Triggered Stimulation (ETS) session, the EMG signal is presented to the patient, in one of two different views, a line graph or a bar graph.

Sessions comprise cycles of work, rest, and electrostimulation (STIM) phases.

During the work phase, the patient tries to reach a threshold and to keep the signal above it. If the patient is successful, ES is delivered to the muscle.

With the ETS modality, you can perform the following:

- Perform sessions using one or two channels in synchronous or alternating mode.
- Switch between the line graph and bar graph views.
- Set static or automatic thresholds.
- Select predefined protocols for training and assessment sessions.
- Define your own protocols by adjusting the parameters.

- Save parameters and load them automatically when you open the modality.
- Record and save sessions for review.

Synchronous and Alternating Sessions

As in biofeedback, you can run ETS sessions on channel A or B or on both channels.

Sessions run on two channels, or dual channels, can be synchronous or alternating. Sessions comprise cycles of work, rest, and electrostimulation. Both ES and STIM are abbreviations for electrostimulation.

In synchronous sessions, both channels cycle through the applicable work, electrostimulation (STIM), and rest phases, at the same time. Alternating sessions start with a work phase on Channel A followed by a STIM, and Rest phase if applicable. Then, Channel B runs through the cycle.

Finite and Infinite Work Phases

The phases depend on whether an infinite or finite work phase is selected for the program.

If the work phase is Finite, each cycle begins with a Work phase. If the patient is successful, it includes a STIM phase and ends with a Rest phase. If the patient is unsuccessful, there is no electrostimulation (STIM) phase, only a Work and a Rest phase, repeated by another Work and Rest phase until the patient reaches the threshold in a Work phase.

If the work phase is Infinite, the session starts with a Work phase. If the patient is successful, the electrostimulation (STIM) phase begins. It lasts for the specified duration and is followed by a Rest phase. Then, the cycle of Work, STIM, and Rest repeats and lasts to the end of the session. If the patient is unsuccessful, the Work phase continues until the patient reaches the threshold and activates the STIM phase.

Setting Up an ETS Session

Before beginning an ETS session, review the information in the *MyOnyx User Guide*.

As in a biofeedback session, you place electrodes on the patient's skin above a muscle or set of muscles. Channel A and B can be used for ETS sessions.

Configuring the MyOnyx for an ETS Session



Before configuring an ETS session, connect the patient drive and the required cables to the device. Then, place the electrodes on the patient's skin as described in the *MyOnyx User Guide*.

- Use Channel A and / or B for ETS.
- Use electrostimulation electrodes.
- Use the patient drive.

Configuring an ETS Session on the MyOnyx Mobile App

To configure a protocol for ETS:

1. Launch the MyOnyx Mobile App.
2. Tap **ETS**.
The ETS screen appears.
3. Tap the side menu to configure a new protocol.
4. Define the parameters as described in the following table:

Feature	Description	
	Tap the Open icon to expand the sidebar menu and configure an ETS protocol. At the end of the session, the current protocol is automatically saved. The fields are populated with the previously run protocol.	
	Tap the Collapse icon to close the sidebar.	
Home	Tap the Home icon to return to the Home page.	
Procedure Time	For Finite Work phase sessions , the procedure time is disabled. It is defined by the number of repetitions and the length of the Work, STIM, and Rest phases. For Infinite Work phase sessions , enter the number of minutes (m) and seconds (s) in the session.	
Work Phase	Select Finite or Infinite . For Finite Work phase sessions , you must set the number of repetitions and the length of the Work, STIM, and Rest phases. The procedure time is disabled. The number of cycles in the session is based on the setting for the No. of Repetitions. For Infinite Work phase sessions , you do not input the Work Time	
Channel	This field is populated automatically with one of the following, based on the channel setup and the program selected. None (if no cables are detected) Channel A Channel B Dual Synchronous (Channels A and B work synchronously) Dual Alternating (Channels A and B alternate)	
Work	For Finite Work phase sessions, enter the Work phase duration in seconds. For Infinite Work phase sessions, this setting is disabled.	
STIM	Enter the STIM phase duration in seconds.	
Rest	Enter the Rest phase duration in seconds.	
No. of Repetition	For Finite Work phase sessions, enter number of repetitions for the cycle. For Infinite Work phase sessions, this field is disabled.	
Program	Select an Electrostimulation (STIM) program for the session.	
Threshold	A or B	Define the threshold settings for each active channel. Note: The threshold must be set at 2,000 μ V or below.
	Off	Select Off to disable the threshold for the channel.

Feature	Description													
	Up Arrow	The Up arrow is selected but disabled. In ETS, the condition is always above the threshold.												
	Auto	The position of the automatic threshold is set as follows: If Infinite Work phase is selected, the position of the threshold is set according to the position of the signal at 90 seconds. If Finite Work phase is selected, the position of the threshold is set according to the position of the signal at the end of the first Work phase. The position is based on the patient's success in the previous work phase, as follows.												
		<table border="1"> <thead> <tr> <th>Trial</th> <th>Threshold</th> </tr> </thead> <tbody> <tr> <td>Successful In first quarter</td> <td>Increases 12.5%</td> </tr> <tr> <td>Successful In second quarter</td> <td>Increases by 5%</td> </tr> <tr> <td>Successful In third quarter</td> <td>No change</td> </tr> <tr> <td>Successful In fourth quarter</td> <td>Decreases by 5%</td> </tr> <tr> <td>Unsuccessful</td> <td>Decreases by 12.5%</td> </tr> </tbody> </table>	Trial	Threshold	Successful In first quarter	Increases 12.5%	Successful In second quarter	Increases by 5%	Successful In third quarter	No change	Successful In fourth quarter	Decreases by 5%	Unsuccessful	Decreases by 12.5%
Trial	Threshold													
Successful In first quarter	Increases 12.5%													
Successful In second quarter	Increases by 5%													
Successful In third quarter	No change													
Successful In fourth quarter	Decreases by 5%													
Unsuccessful	Decreases by 12.5%													
Load protocol	Tap Load protocol to select a protocol from the list.													
Save protocol	Tap Save after defining the parameters for your protocol. When the prompt appears, enter a name.													
Delete Protocol	Tap Delete to remove a protocol from the list. A confirmation message is displayed.													

Starting an ETS Training Session

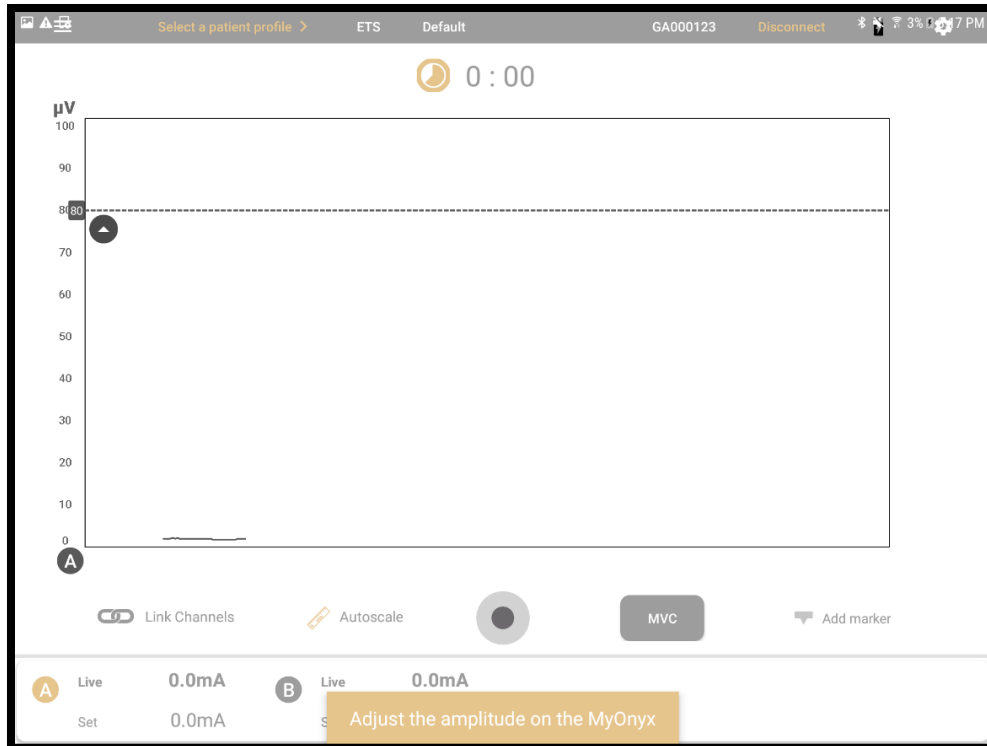
Before starting an ETS session, review all precautionary information in the *MyOnyx User Guide*, as well as the instructions on connecting cables and placing electrodes.

Note: Use electrostimulation electrodes for ETS, not EMG electrodes. Using the wrong electrodes may cause discomfort, skin irritation, and burns if prolonged.

Use the patient drive to ensure that readings are accurate.

To start an ETS training session:

1. Turn on your MyOnyx device.
2. Connect the cables to the channels and place the electrodes on the patient as required for the session.
3. Launch the MyOnyx Mobile App and connect the device.
4. Tap **Select Patient** to select a patient profile for the session.
5. Tap **ETS** on the **Home** screen of the app.
The ETS screen is displayed on the device and on the app.



A message appears on the app asking you to set the amplitude on the device.

6. Review the protocol configuration and make any modifications required.
7. Adjust the amplitude, on the device. Follow the instruction in the *MyOnyx User Guide*. When the amplitude is adjusted, the following message appears on the device.

Press OK to start the session.

8. Press **OK** on the device.
The following information is displayed on the device:
 - Active channels, A and B:
 - Time elapsed in the session
 - Active phase for each channel, Work, Rest, or STIM
 - EMG reading on each active channel during the Work and Rest phases. When ES is delivered, the EMG Reading is 0 for the channel.
 - The current cycle and the total number of cycles, shown as Trial x of x
In alternating mode, this information is shown for each channel.
 - Amplitude level during the Work and Rest phases, shown under STIM Live for the active channels. The amplitude is 0 during the Rest phases.
 - Set amplitude, shown under STIM Set during the Rest and Work phases.

The following screen shot show how information is displayed in dual-channel sessions:




The information displayed on the app varies according to the view selected. You can switch views during the session by scrolling left or right.



Views

Two views are available: line graph and bar graph. Scroll left or right to toggle between them.

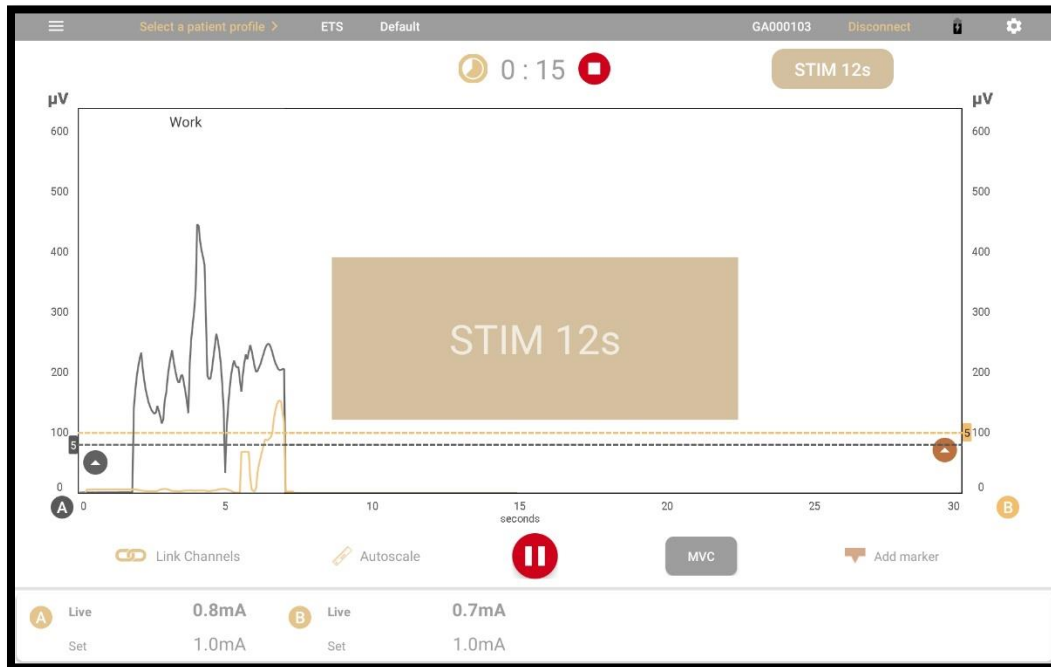
Common Features on the ETS Screens

The following parameters are available on both views:

Feature	Description
Stopwatch or Time Remaining Counter	A countdown timer or clock displays the time remaining or time elapsed. Tap the icon to switch between them before or during the session.
Stop:  (next to the countdown timer)	Tap Stop to stop the session. The Review screen is displayed. Tip: You can stop a session by pressing the power button on the device as well.
Active Phase	A text box displays the current phase, Work, Rest, or STIM.
Voice Prompt	If audio is enabled, a voice prompt indicates each phase, Work, STIM, Rest, or, for alternating ETS, Work A, STIM A, Rest A. Work B, STIM B Rest B.
A and B Labels	The A and B represent the channel or channels used in the session. Channel A and/or B can be used for ETS. Channel A changes from gray to blue when the patient is in condition, Channel B from gold to brown. Tap a label to show or hide the scale, signal, and threshold for the channel.
Thresholds	A threshold line is displayed on the graph for each active channel. It is dotted and colored to match the channel. Tap a threshold line to see the threshold value for the channel. An up arrow on each line indicates the condition is set above the threshold. This is always the case for ETS.

Feature	Description
	Two threshold types are available: Static and Automatic. You can select or change the type before or during the session.
Auto Scale	When Auto Scale is enabled, the scale of the graph adjusts automatically so that the signal is always visible. Note: When auto scale is enabled, you cannot pan or zoom on a y-axis manually. Turn off Auto Scale to pan or zoom in or out of the graph manually.
Link	Link is available if both Channels A and B are used. When Link is enabled , both channels are panned or zoomed in or out together. When Link is disabled , each channel is panned or zoomed in or out independently.
Using Auto Scale and Link together	If both Auto scale and Link are enabled, both y axes are adjusted automatically when the signal changes. If Auto scale is enabled and Link is disabled , each y-axis is adjusted automatically but separately when the signal changes. If both Auto scale and Link are disabled , you can pan or zoom in or out of each y axis separately. If Auto scale is disabled and Link is enabled , both y axes are adjusted when you pan or zoom on the graph manually.
MVC	MVC is the amplitude of the maximum contraction the patient reaches during the session. Tap MVC before or during the session to calculate the MVC and show the value on the graph. This is updated if the patient exceeds the value.
Record  / Pause 	Tap Record to start a session and begin recording. The Record button changes to a Pause button during the session. Tap . to pause the session. A message is displayed on the device, stating the program is paused.
Add Marker	Tap Add Marker to mark a point for the graph for future reference. Your markers are visible in Line View and Review mode.
Amplitude	The Live and Set amplitudes are shown for the Active channels, below the graph. The Set amplitude on all active channels: This is the maximum intensity of ES that you want the device to generate during the work phase of the session. The Live amplitude on all active channels: This is the real-time level of the ES that is generated during the session. The Live value is at zero during the rest phase. It changes during the ramp-up/ramp-down times and due to amplitude modulation.

Line Graph View



The Line Graph View displays the following information:

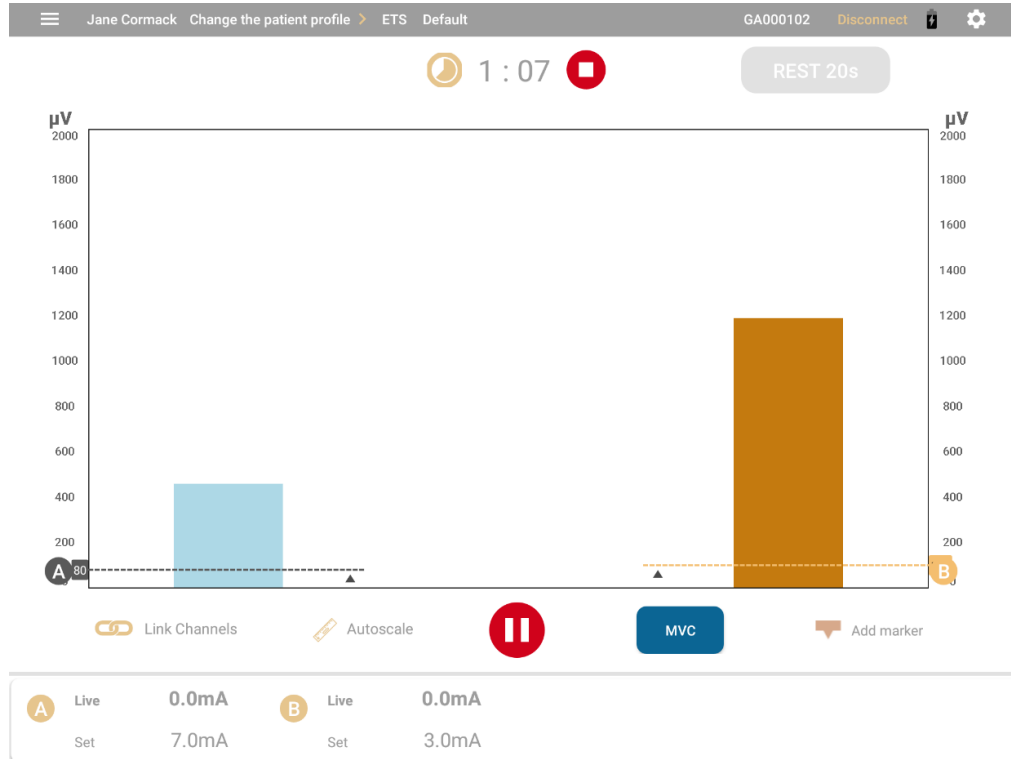
RMS Signal: The line graph displays a colored line for the RMS signal from each active channel. For Channel A, the line is gray when the signal is below the threshold. It changes to blue when the patient reaches the condition. Channel B changes from gold to brown when the patient reaches the condition.

x Axis: The **x-axis** represents the timeline. By default, this is 0 – 30 seconds. Tap, hold, and release the **x scale** to switch to another timeline. This can be between 5 and 200 seconds.

y Axes: A y-axis is shown for the signal from each active channel, in microvolts (μV). The default scale is 0-100.

Phases: During the session, the phases are displayed in boxes, The Work phase in brown, Rest phase in light gray color and STIM phase in gold color. During the ES phase, a large rectangular box is shown in the center of the screen. A timer shows the time remaining in the phase.

Bar Graph View

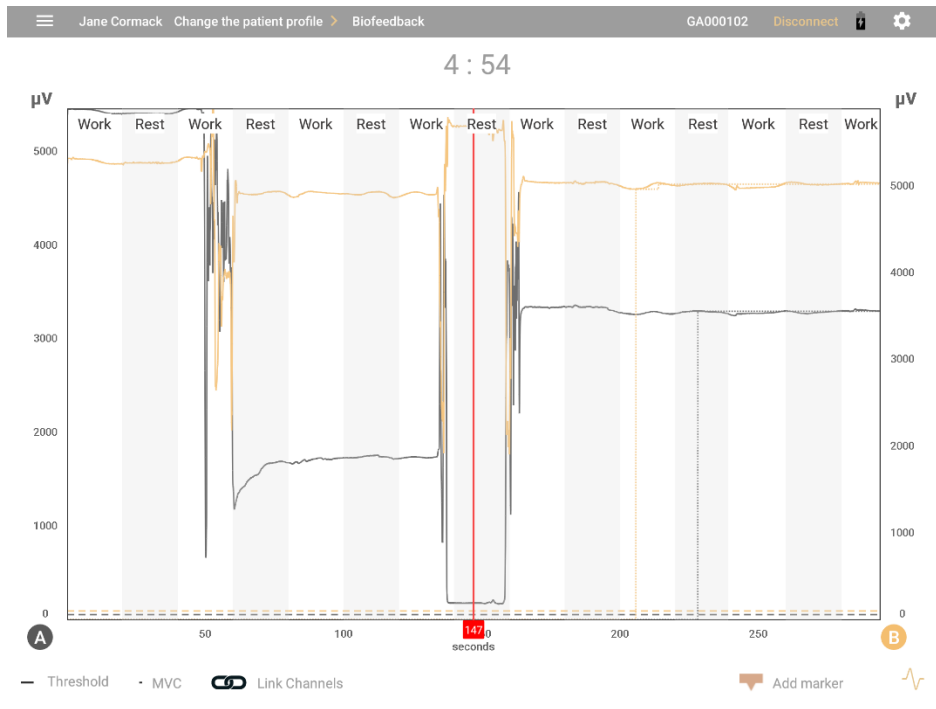


RMS Signal: In the bar graph view a colored bar is shown for the live RMS signal for each active channel. The bar for Channel A turns to blue when the patient meets the condition. For Channel B, it becomes dark gold.

y axes: A y-axis is shown for each active channel in microvolts (μV). The default scale is 0 to 100.

Reviewing Sessions

The Review screen appears automatically at the end of biofeedback and ETS sessions. It shows a line graph regardless of the view presented during the live session.





The x and y axes are the same as in Live view. You can pan left, right, up, and down to show more specific information about the session as you review it.

The recorded RMS signals are represented as one or two lines.

- Bolded sections indicate when the patient met the condition.
- If applicable, a space filler indicates the time the connection was lost.
- If MVC was enabled, it is indicated by a dotted line.
- Threshold variation is shown as a dashed line.
- A legend is shown on the bottom of the screen.



Review Parameters

Feature	Description
	Tap the Open icon to expand the sidebar menu and define how you want to save and share the session.
	Tap the Collapse icon to close the sidebar.
Home	Tap the Home icon to return to the Home page.
Save to Patient File	Tap this option and enter a name for the saved session if a patient was selected for the session. Otherwise, you must select a Patient file first.
Generate Report	Tap the plus (+) icon to expand or collapse the report menu and show or hide the following options:

Feature	Description	
	Create preview	This option is for the report only. It shows the following: <ul style="list-style-type: none"> • Session data, including the therapist email, Modality, Session date, Patient name, Session duration, and time of the session. • Images of the session graph, full screen and zoomed to the last user-selected value. • Session parameters, thresholds, and work and rest times. • Session Statistics: See the following table.
	Save to pdf	By default, the session is saved to the Downloads/ MyOnyx folder. Permission to save to this folder is granted when you install the app.
	Share	This option is enabled when you are previewing a report but not when reviewing a session. Tap Share to share the report via email or another application on the tablet.
	Print	This option is enabled if the session is saved. Tap Print to print the report via pdf.
Delete Session	Tap this option to delete the session. A confirmation message is displayed.	
Procedure Time	Displays the number of minutes (m) and seconds (s) in the session.	
Work	Displays the length of the Work phase.	
Rest	Displays the length of the Rest phase.	
STIM	Displays the name of the electrostimulation program, for ETS sessions.	
Threshold	Displays the threshold type. For biofeedback, this can be static, dynamic, or automatic. For ETS, it can be static or automatic.	
Pattern	Displays the Pattern ID for biofeedback sessions recorded in Pattern View.	

Statistics

Statistics are displayed for biofeedback and ETS sessions.

Jane Cormack Change the patient profile. > RETS Default GA000102 Disconnect  		
Avg. onset time	0 : 00	N/A
Avg. release time	0 : 21	N/A
Avg. work threshold time	0 : 00	N/A
Avg. relax threshold time	2 : 18	N/A
Min value	816.90	N/A
Max value	1043.29	N/A
Work mean	903.00	N/A
Rest mean	911.86	N/A
Work success rate	0.00	N/A
Rest success rate	1.00	N/A
Pattern success rate	N/A	

Feature	Description
Channels	Statistics are provided for the EMG channels used in biofeedback and ETS sessions.
Average Onset Time	Average time to reach the maximum contraction during the work phases of the session. Note: This is not calculated for biofeedback sessions in Pattern view.
Average Release Time	Average time to reach the minimum contraction during the rest phase. This is not calculated for biofeedback sessions in Pattern view.
Average Work Threshold Time	Calculated for ETS sessions only, this is the average time to reach the work-phase threshold.
Minimum Value	Minimum contraction held by the patient during the session.
Maximum Value	Maximum contraction held by the patient over all Work phases during the session.
Work Mean	The mean value of the EMG signal during the work phases in the session.
Rest Mean	The mean value of the EMG signal during the rest phases in the session. This is not calculated during biofeedback sessions in Pattern view.

Feature	Description
Work Success Rate	In Biofeedback , the percentage of time the patient was in condition during the work phases of the session. In ETS , the number of successful trials compared to the total number of trials.
Rest Success Rate	In Biofeedback , the percentage of the time the patient was not in condition during the Rest phases of the session. In ETS , the percentage of time the patient kept the EMG value below the threshold in the Rest phases.
Average Work Threshold Time	Calculated for ETS only , this is the average time to reach the threshold condition, during the Work phases.
Pattern Success Rate	Calculated for biofeedback sessions in Pattern view only , this is the percentage of time the patient was in condition and followed the pattern successfully.

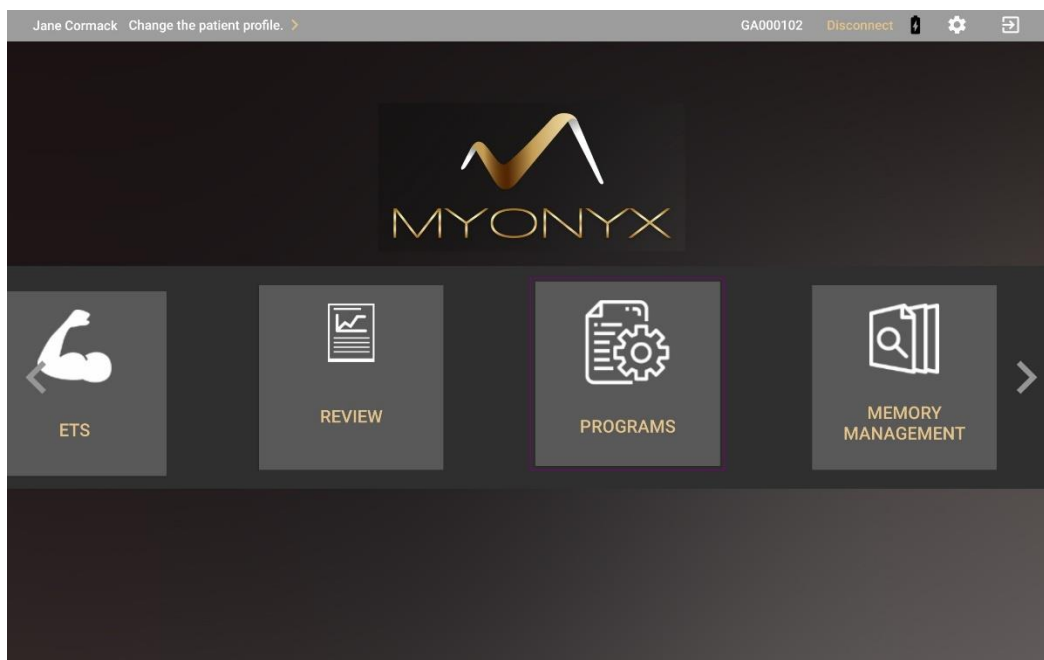
ES and ETS Programs

Open the Program screen to access the ETS programs saved on the app and the electrostimulation programs saved on both the app and device. Use the program screen to perform the following actions:

- View the programs saved on the app and the device.
- Transfer programs from the app to the device or from the device to the app.
- Create, modify, or delete a custom program.

To access this the Programs screen

1. Go to the Home page of the app.








2. Tap **Programs**.

Electrostimulation programs on the tablet			
Category: All categories			
Default	Atrophy	NMES	⋮
Default	Chronic Pain	NMES	⋮
Default	Circulation	NMES	⋮
Default	ETS Large Muscle	ETS	⋮
Default	ETS Small Muscle	ETS	⋮
Default	Endurance	NMES	⋮
Default	Strengthening Large Muscle	NMES	⋮
Default	Strengthening Small Muscle	NMES	⋮
Default	Stress Incontinence	NMES	⋮
Default	Urge Incontinence	NMES	⋮


You can return to the Home page by tapping the back arrow or open the Settings page by tapping the icon at the top right. The ES and ETS programs saved on the app are displayed under three headings:

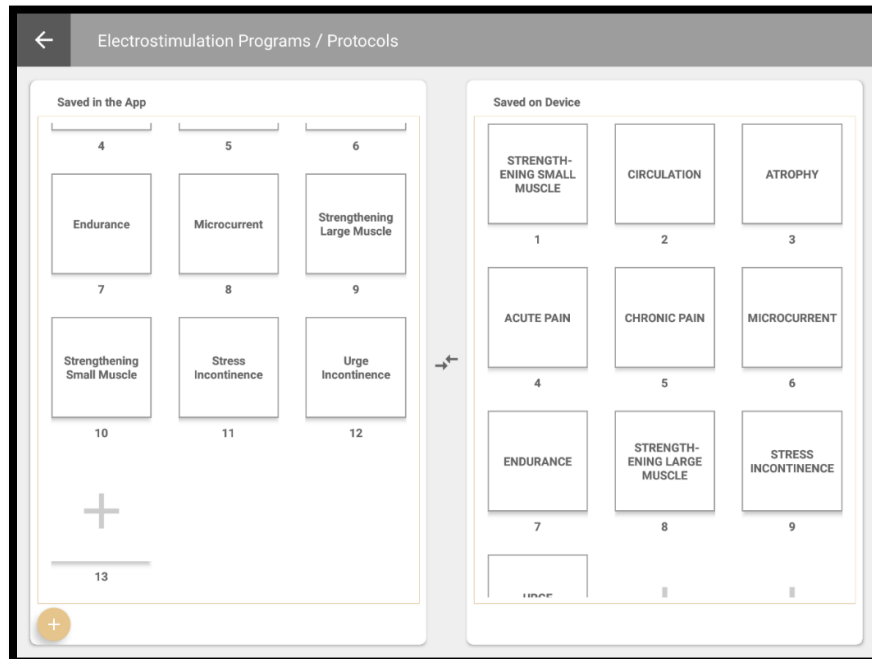
- **Category:** Default for the predefined programs or Custom for the user-defined programs.
- **Name:** The program name
- **Modality.** ETS or the type of ES, such as NMES, TENS, or MET

Programs Screen Icons

Icon	Description
	Tap the back arrow to return to the Home page of the app.
	Tap the Settings icon to open the Settings screen of the app.
	Tap the Program Transfer icon to transfer programs from the MyOnyx Mobile App to the device or from the MyOnyx device to the tablet.
	Tap the Plus icon to create a custom TENS, NMES, ETS, or MET program.
	Tap the ellipsis (...). Then select Edit or View to open the ETS or ES program parameters screen.

Transferring Programs

Tap the **Program Transfer** icon  to open the Electrostimulation Programs/ Protocols screen:



From this screen, you can perform the following actions:

- View lists of the programs displayed on the app and on the device.
- Upload electrostimulation programs to the device.
- Delete electrostimulation programs from the device.
- Transfer programs from the app to the device.

The left column displays the programs saved on the app. The right shows those saved on the device.

Note: A maximum of 20 programs can be saved on the device.

To transfer a program from the app to the device or from the device to the app

1. Select the program you want to transfer on the screen.
2. Drag and drop it from one side to the other.

A confirmation message appears. If the program already exists on the device, you can replace it.

The Default Electrostimulation Programs

The Programs screen lists the default ES programs from the MyOnyx device, along with the ETS programs and custom programs available on the app.

The ES programs are defined by

- **Program Name:** The default name of the program.
- **Modality:** The type of electrostimulation, i.e., TENS, MET, or NMES.
- **Delivery Type:** For the predefined ES programs, the delivery types are
 - **Synchronous**, delivered in a cycle of STIM and rest phases repeated throughout the session. All channels are on the same phase at the same time.
 - **Alternating**, like Synchronous, delivered in a cycle of STIM and rest phases. However, channels A and C are on one phase while even channels B and D are on another.
 - **Continuous**, delivered directly with no rest phase, at the same amplitude throughout the session.
- **Time:** The sum of all work and rest phases.
- **Total Repetitions:** A cycle is made up of electrostimulation (STIM) and rest phases. The type of phase, the length of each phase, and the number or times the cycle is repeated vary according to the parameters.
- **STIM Phase:** The period during which electrical stimulation is delivered.
- **Rest Phase:** The period during which no electrical stimulation is delivered.
- **Pattern** The following patterns are available:
 - **Continuous** delivered throughout the electrostimulation phase
 - **Burst** delivered at a rate of two bursts/second.
 - **Frequency Modulated:** Following a predefined pattern, the pulse rate (frequency) and pulse width increase and decrease. The amplitude may also decrease.
 - **Freq. + Amp. Low:** The pulse width, pulse rate, and amplitude decrease slightly, then return to the set value.
 - **Freq. + Amp. High:** The pulse width, pulse rate, and amplitude decrease to a greater extent, then return to the set value.
- **Ramp Up:** The time the live amplitude takes to go from zero to the level of the set amplitude.
- **Ramp Down:** The time the live amplitude takes to go from the level of the set amplitude to zero.
- **Pulse Rate:** The frequency that pulses are generated, in Hertz (Hz).
- **Pulse Width:** The length of time the pulse remains at high voltage, in microseconds.

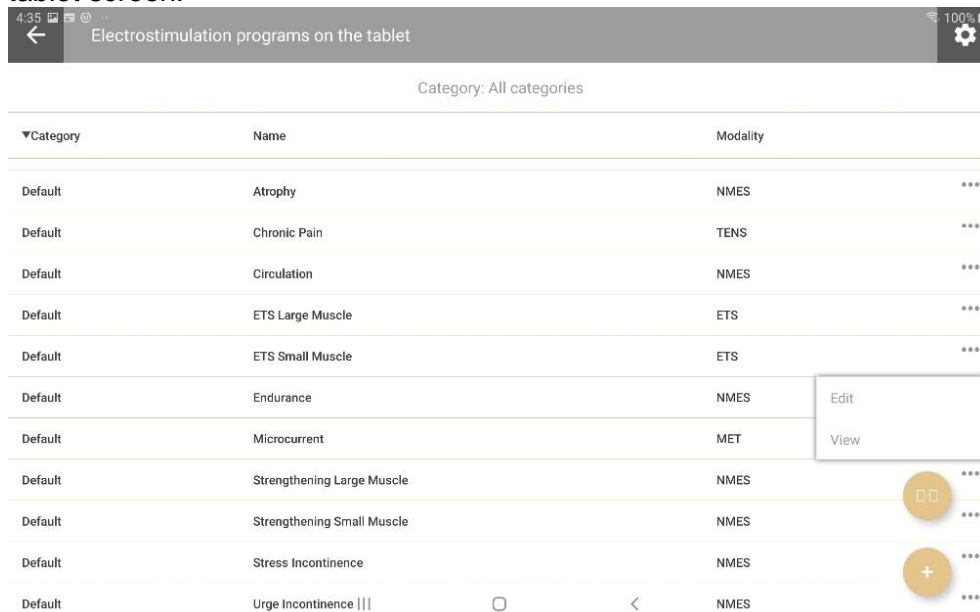
Viewing and Modifying the Default Electrostimulation Programs

You can view the default electrostimulation program parameters from the Programs screen or from the Electrostimulation screen.

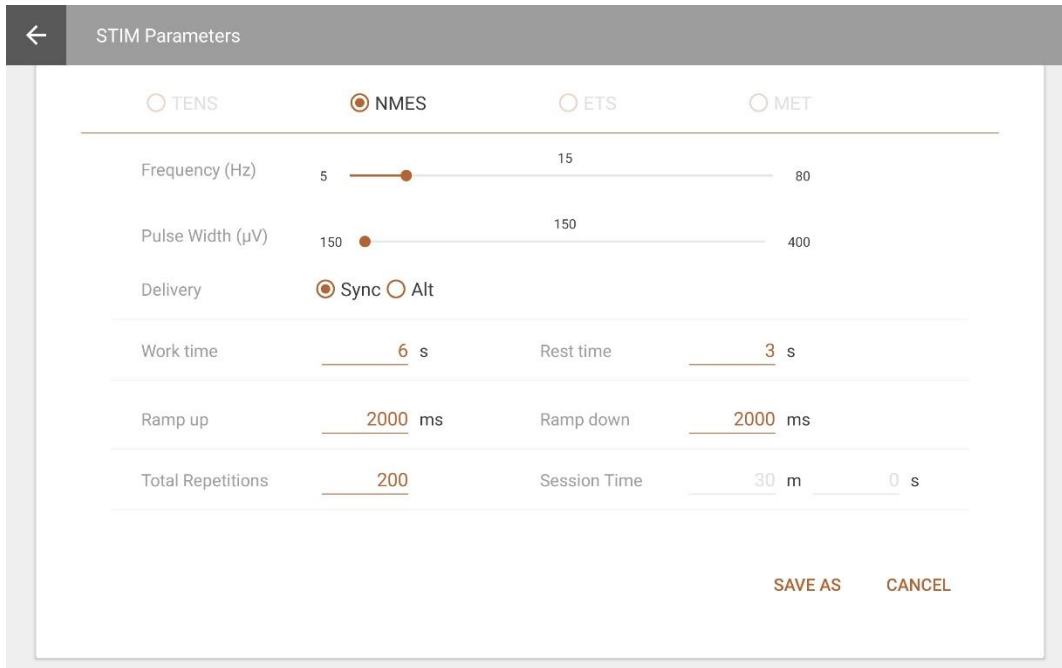
From the Programs screen, you can create a new custom program by modifying a default program and saving it under a new name. From the Electrostimulation screen, you can modify a default program and apply changes to the current session only. Your modifications are not saved.

To view or edit ES programs from the Programs screen

1. Tap **Programs** on the Home screen to open the Electrostimulation programs on the tablet screen.



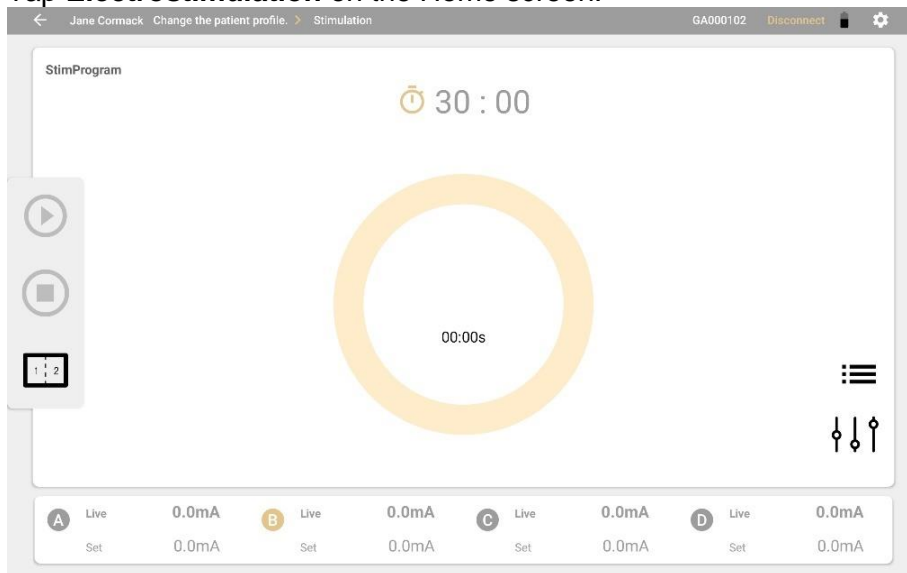
2. Select the program you want to view or edit.
3. Tap the ellipsis button (...) next to the program name.
4. Tap **View** or **Edit**.





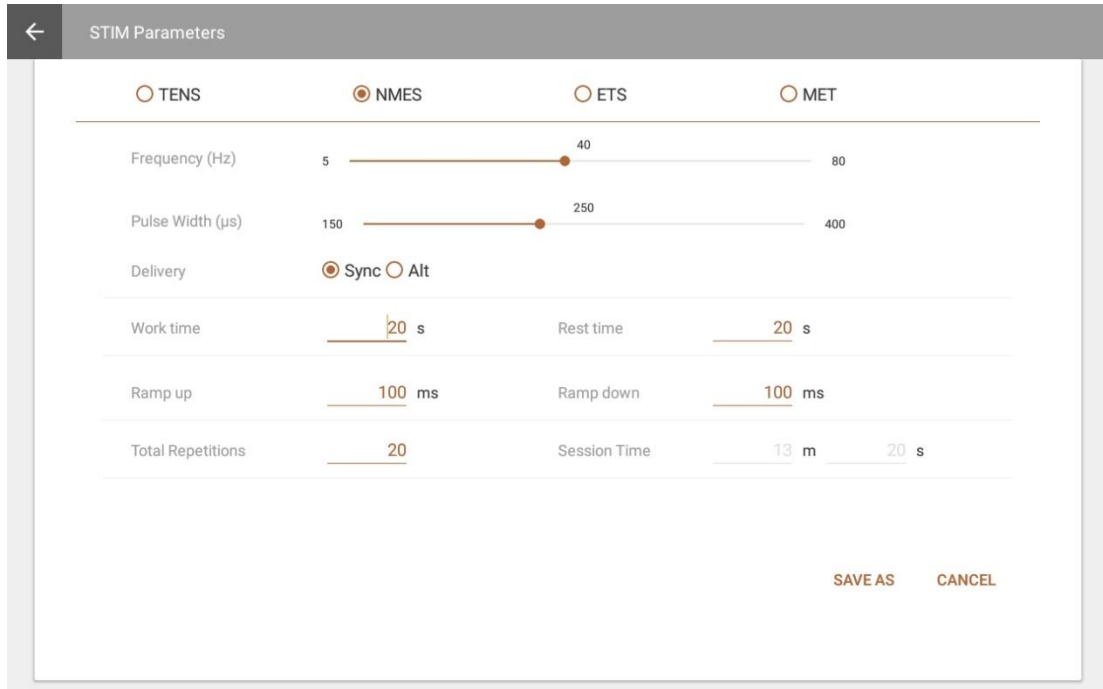
If you tap **Edit**, you can modify the parameters and save the program under a new name, as a Custom program.

To edit a program on the Electrostimulation screen

1. Tap **Electrostimulation** on the Home screen.



2. Tap the program selection icon  on the Stimulation screen.
3. Select a program.
4. Tap the program configuration icon . The STIM Parameters screen opens.



To configure a program for the current session, modify the parameters and tap **Apply**.

To save your modifications, tap **Save as** and enter a new program name. The program is saved as a custom program.

Neuromuscular Electrostimulation (NMES) Programs

The following Neuromuscular Electrostimulation (NMES) programs are available. The delivery type is synchronous, delivered in a cycle of STIM and rest phases. The pattern is continuous, delivered throughout the STIM phase.

Program Name	Time (min and sec)	Cycles	STIM phase (sec)	Rest phase (sec)	Pattern	Ramp-up (sec)	Ramp-down (sec)	Pulse Rate (Hz)	Pulse Width (µs)
Atrophy	21:40	100	5	8	Continuous	2	1	35	250
Circulation	5:00	60	3	2	Continuous	0	0	5	200
Endurance	30:00	200	6	3	Continuous	2	2	15	150
Strengthening Large muscle	29:10	50	15	20	Continuous	3	1	50	200
Strengthening Small muscle	20:50	50	10	15	Continuous	3	1	50	150
Stress Incontinence	21:20	80	6	10	Continuous	2	1	45	200

Program Name	Time (min and sec)	Cycles	STIM phase (sec)	Rest phase (sec)	Pattern	Ramp-up (sec)	Ramp-down (sec)	Pulse Rate (Hz)	Pulse Width (µs)
Urge Incontinence	21:20	80	6	10	Continuous	2	1	15	200

Modifying NMES Programs

You can make changes to the following fields, by overwriting the values in the text fields or moving the sliders left or right:

Parameter	Value Range	Default Value
Frequency (Pulse Rate)	5 – 80 Hz	40 Hz
Pulse Width	[150 – 400 µs]	250 Us
Delivery	Synchronous or Alternating	Synchronous
Work Time	1- 7200 s	20 s
Rest Time	1-7200 s	10 s
Ramp Up	[0 – 10000 ms]	100 ms
Ramp Down	[0 – 10000 ms]	100 ms
Total Repetitions	1 – 999	20 s
Session Time	[2- 999*(7200s+7200s)]	300 s

Transcutaneous Electrical Nerve Stimulation (TENS) Programs

TENS is designed to stimulate the nervous system with little or no motor contraction.

There are two TENS programs: Chronic Pain and Acute Pain. The delivery type for both is continuous. This means that ES is delivered throughout the session with no rest phase. For the chronic pain program, ES is delivered in a burst pattern at two bursts per second. The pattern for the acute pain program is called Frequency Modulated. The pulse rate and width increase and decrease following a predefined pattern. The parameters for these programs are listed in the following table:

Program	Pattern	Total Time (sec)	Cycles	STIM time (sec)	Rest time (sec)	Ramp-up (sec)	Ramp-down (sec)	Pulse Rate (Hz)	Pulse Width (µs)
Acute Pain	Modulated	1800	1	1800	0	0	0	100	150
Chronic Pain	Burst	1200	1	1200	0	0	0	100	200

Modifying a TENS Program

← STIM Parameters

TENS
 NMES
 ETS
 MET

Frequency (Hz)
5

40

80

Pulse Width (µs)
150

250

400

Delivery
 Sync Alt

Work time
 s
Rest time
 s

Ramp up
 ms
Ramp down
 ms

Total Repetitions

Session Time
 m s

SAVE AS CANCEL

You can make changes to the following fields, by overwriting the values in the text fields or moving the sliders left or right:

Parameter	Value range	Default value
Frequency (Pulse Rate)	[2 – 150 Hz]	80 Hz
Pulse Width	[50 – 250 µs]	150 µs
Delivery	Continuous (Fixed)	Continuous
Pattern	Burst Continuous Frequency Modulation Low Freq. + Amp. Modulation High Freq. + Amp. Modulation	Burst
Ramp Up	[0 – 10000 ms]	0 ms
Ramp Down	[0 – 10000 ms]	0 ms
Session Time	[0, 7200s]	300s

Microcurrent Electrostimulation Therapy (MET) Program

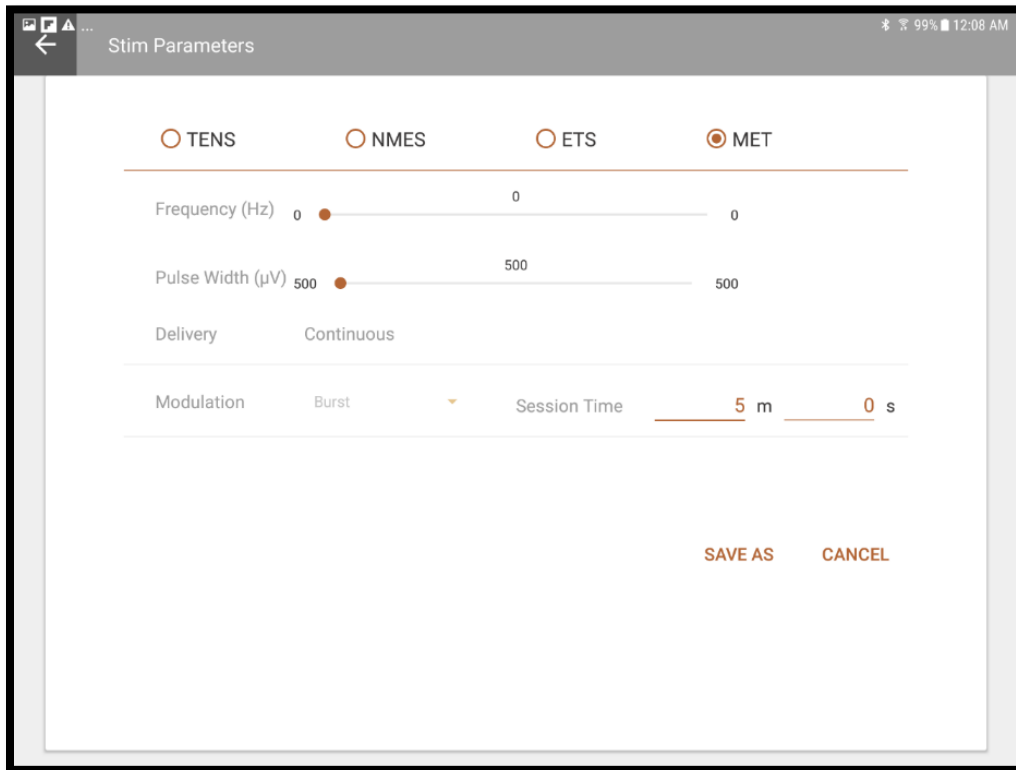
MET, like TENS, is used for treating some forms of pain. The main difference is that it is applied at much lower intensities. It is measured in microamps, rather than milliamps.

There is one MET program: Microcurrent. The delivery type is continuous. It is delivered at the same amplitude throughout the program. The pattern is also continuous. There is no variation in ES duration during the work phase.

The parameters for this program are listed in the following table:

Program	Total Time (sec)	Reps	STIM time (sec)	Rest time (sec)	Ramp-up (sec)	Ramp-down (sec)	Pulse Rate (Hz)	Pulse Width (µs)
Microcurrent	900	1	900	0	0	0	0.5	500,000

Modifying the MET Program



You can make changes to the following fields, by overwriting the values in the text fields or moving the sliders left or right:

Parameter	Value range	Default value
Session time	1-7200 s	300 s
Frequency (Pulse Rate)	0.5 Hz (Fixed)	0.5 Hz
Pulse Width	500 ms (Fixed)	500 ms
Delivery	Continuous (Fixed)	Continuous
Pattern	Continuous (Fixed)	Continuous
Ramp Up	0 (Fixed)	0 ms
Ramp Down	0 (Fixed)	0 ms
Session time	1-7200 s	300 s

EMG-Triggered Stimulation (ETS) Programs

EMG-Triggered Stimulation (ETS) programs are like NMES programs. They are designed for the same purpose. The number of repetitions, STIM phase time, and Rest phase time are adjusted within the ETS protocol settings. The delivery type is continuous.

Program Name	Cycles	STIM phase (sec)	Rest phase (sec)	Pattern	Ramp-up (sec)	Ramp-down (sec)	Pulse Rate (Hz)	Pulse Width (μs)
ETS Large muscle	50 (not used)	10 (not used)	15 (not used)	Continuous	3	1	50	200
ETS Small muscle	50 (not used)	10 (not used)	15 (not used)	Continuous	3	1	50	150

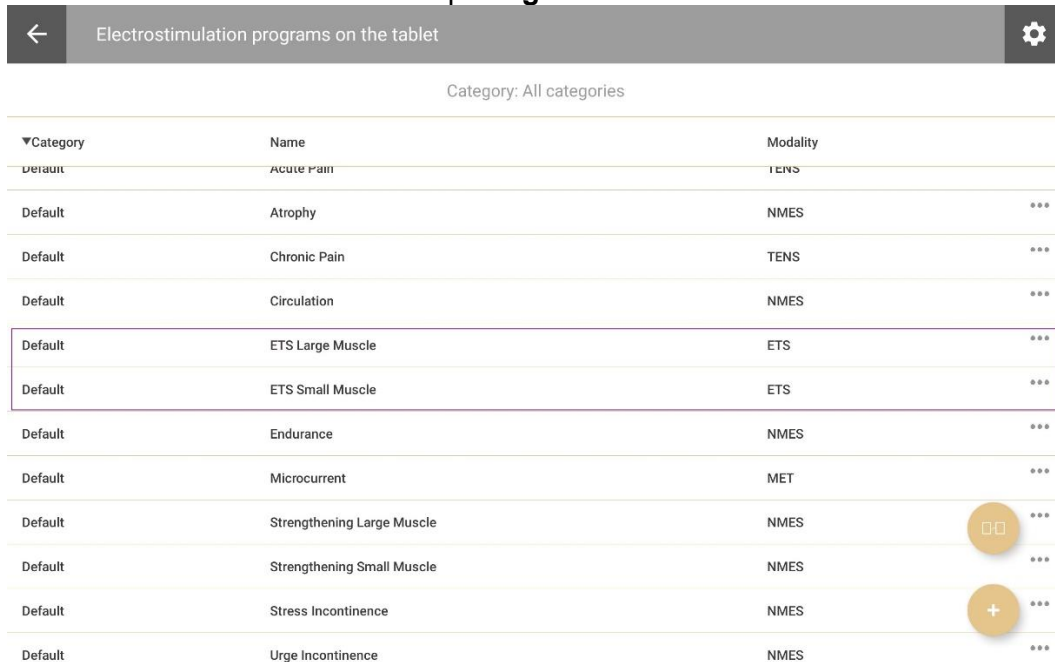
You can view ETS programs from the Programs screen only. If you want to modify a default program, you need to create a new custom program.

Modifying an ETS Program

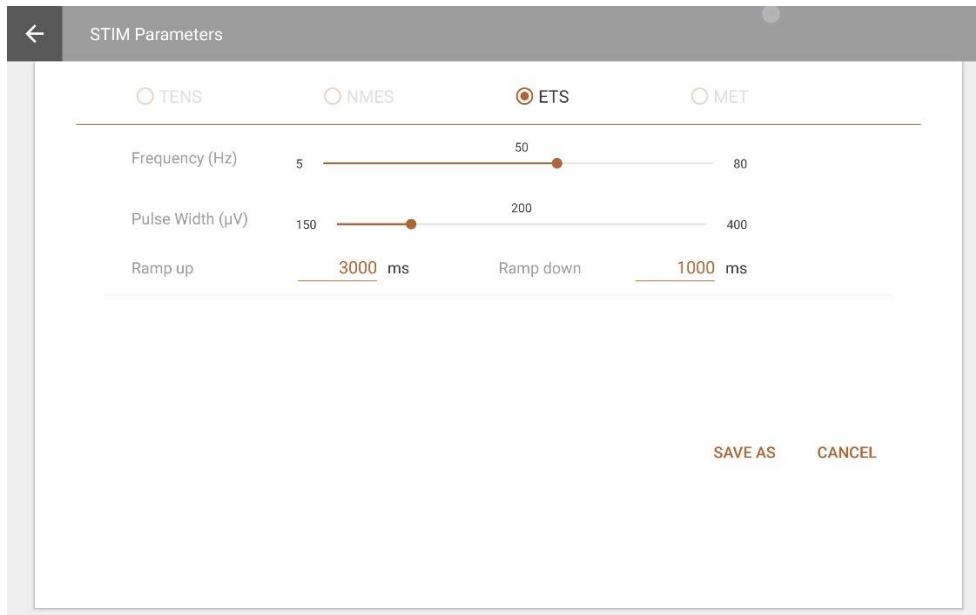
To modify ETS programs, you must go through the Programs screen.

To modify an ETS program:

1. Go to the Home screen and tap **Programs**.



2. Select an ETS program:
3. Tap the ellipsis (...) beside an ETS program and select **Edit**. The ETS screen opens.



4. Tap **ETS** to modify parameters for the ETS program. You can make changes to the following fields, by overwriting the values in the text fields or moving the sliders left or right:


Parameter	Value range	Default value
Frequency (Pulse Rate) Required	[5 – 80 Hz]	40 Hz
Pulse Width Required	[150 – 400 µs]	250 us
Ramp Up Required	[0 – 10000 ms]	100 ms
Ramp Down Required	[0 – 10000 ms]	100 ms

5. Tap **Save as** to apply your changes to the current session.

Custom Programs

You can create, edit, and delete the MyOnyx custom programs.

To view or modify a custom program

1. Tap **Programs** on the Home page.
2. Do one of the following:
 - Tap the ellipsis (...) beside a program name. Then, select **View** or **Edit**.
 - Tap the **Plus** icon  at the bottom of the screen and select the modality.

← STIM Parameters

TENS
 NMES
 ETS
 MET

Frequency (Hz) 5 80

Pulse Width (μ V) 150 200 400

Delivery Sync Alt

Work time s Rest time s

Ramp up ms Ramp down ms

Total Repetitions Session Time m s

SAVE AS CANCEL

Tap **Save as** and enter a new name to save your modifications as a custom program.

Creating a Custom NMES Program

← STIM Parameters

TENS
 NMES
 ETS
 MET

Frequency (Hz) 5 80

Pulse Width (μ V) 150 200 400

Delivery Sync Alt

Work time s Rest time s

Ramp up ms Ramp down ms

Total Repetitions Session Time m s

SAVE AS CANCEL

Parameter	Value Range	Default Value
Session Time	[2- 999*(7200s+7200s)]	13m 20 s
Total Repetitions	1 – 999	20 s
Work Time	1- 7200 s	20 s
Rest Time	1-7200 s	20 s
Ramp Up	[0 – 10000 ms]	100 ms
Ramp Down	[0 – 10000 ms]	100 ms
Frequency (Pulse Rate)	[5 – 80 Hz]	40 Hz
Pulse Width	[150 – 400 µs]	250 Us
Delivery	Synchronous or Alternating	Synchronous
Modulation	Continuous	Continuous

TENS

←
STIM Parameters

TENS
 NMES
 ETS
 MET

Frequency (Hz)
2

100
150

Pulse Width (µV)
50

150
250

Delivery
Continuous

Modulation
Light Modulation ▼
Session Time
30 m
 0 s

SAVE AS CANCEL

You can define the following parameters:

Parameter	Value Range	Default Value
Session Time	[0, 7200s]	300s
Frequency (Pulse Rate)	[2-150 Hz]	80 Hz
Pulse Width	[50-250 µs]	150 µs
Delivery	Continuous (Fixed)	Continuous

Parameter	Value Range	Default Value
Modulation	Continuous (Fixed)	Continuous

MET

STIM Parameters

TENS
 NMES
 ETS
 MET

Frequency (Hz) 0 0 0

Pulse Width (µV) 500 500 500

Delivery Continuous

Modulation Continuous Session Time 15 m 0 s

SAVE AS CANCEL

Parameter	Value Range	Default Value
Session Time	1-7200s	300s
Frequency (Pulse Rate)	0.5 Hz (Fixed)	0.5 Hz
Pulse Width	500 ms (Fixed)	500 ms
Delivery	Continuous (Fixed)	Continuous
Modulation	Continuous (Fixed)	Continuous
Ramp Up	0 (Fixed)	0 ms
Ramp Down	0 (Fixed)	0 ms

ETS Programs

The screenshot shows the 'STIM Parameters' screen with a back arrow on the left. At the top, there are four radio buttons: TENS, NMES, ETS (selected), and MET. Below this, there are three sliders: 'Frequency (Hz)' with a range from 5 to 80 and a value of 50; 'Pulse Width (µV)' with a range from 150 to 400 and a value of 200; and 'Ramp up' with a value of 3000 ms and 'Ramp down' with a value of 1000 ms. At the bottom right, there are two buttons: 'SAVE AS' and 'CANCEL'.

You can change the following parameters.

Name	Notes	Value Range	Default Value
Frequency (Pulse Rate)	Required	[5 – 80 Hz]	40 Hz
Pulse Width	Required	[150 – 400 µs]	250 µs
Ramp Up	Required	[0 – 10000 ms]	100 ms
Ramp Down	Required	[0 – 10000 ms]	100 ms

Memory Management

Tap **Memory Management** to access the sessions saved on the connected device. The button is disabled if no device is connected.

▼Category	Name	Modality
Default	Atrophy	NMES
Default	Chronic Pain	TENS
Default	Circulation	NMES
Default	ETS Large Muscle	ETS
Default	ETS Small Muscle	ETS
Default	Endurance	NMES
Default	Microcurrent	MET
Default	Strengthening Large Muscle	NMES
Default	Strengthening Small Muscle	NMES
Default	Stress Incontinence	NMES
Default	Urge Incontinence	NMES

Sessions are listed by Patient ID; session type; date and time; and length.

You can perform the following actions:

Sort: Tap the column heading of any field to change how sessions are sorted. Note that on the length field, the sort is in ascending order only.

Review: Tap on a session to open the Review screen and review it.

Download or Delete: Tap the ellipsis (...) to download a session to the Patient List or delete it from the device.

Note: The download button is disabled if the session is already downloaded.

Tip: You can delete all recorded sessions from the MyOnyx device, from the **Recording** screen under **Settings**. Refer to the *MyOnyx User Guide* for details.

References

Troubleshooting

Refer to the *MyOnyx User Guide* for troubleshooting details.

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