



 escribeHOST



Alerts



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Introduction

The **Alerts** feature in Cardiac Signals allows users to easily see alerts matching transmissions, and filter transmissions by alert priority.

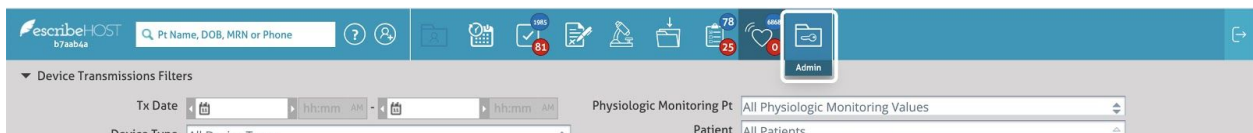
The **Custom Alerts** feature allows users to configure custom alerts. Users can select the conditions that trigger these alerts, and choose a priority.

This training document presents the step-by-step process to create a new custom alert, as well as how to view and filter Alerts in the transmissions list.

Create a new custom Alert

In this section, you will learn how to create a custom alert.

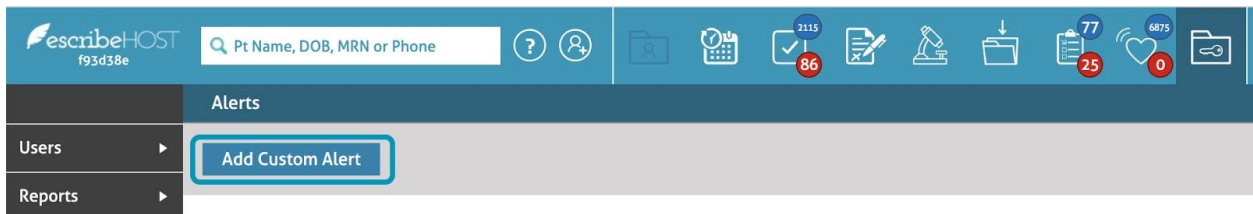
Go to the **Admin** module on the top navigation bar and select **Cardiac Devices** from the menu on the left.



Click **Alerts** from the dropdown menu.

Scheduling	External Battery	ALL	ALL	MDC_IDC_MSMT_BATTERY_VOLTAGE = 8
Orders Config	R4	BIO	IPG	MDC_IDC_EPISODE_VENDOR_TYPE >= 20
Cardiac Devices	RC 7.7	ALL	ALL	MDC_IDC_MSMT_BATTERY_REMAINING_I
Admin Tools	Impressions	ALL	ALL	MDC_IDC_EPISODE_TYPE >= 5
Account Config	Plans	ALL	ALL	MDC_IDC_EPISODE_VENDOR_TYPE Conti
	Map Dev -> ICD-10	ALL	ALL	MDC_IDC_EPISODE_TYPE = 30
	Impression Templates	BSX	ICD	MDC_IDC_EPISODE_VENDOR_TYPE Does
	Plan Templates	BSX	ICD	MDC_IDC_EPISODE_TYPE = normal
	Alerts	MDT	ALL	MDC_IDC_DEV_IMPLANT_DT = Never
	View Bill Batches	BSX	ALL	MDC_IDC_MSMT_BATTERY_REMAINING_I
	Create Bill Batch	ALL	ALL	MDC_IDC_SESS_TYPE >= 789
	Manage Recalls			

Click the **Add Custom Alert** button.



A pop-up displays.

The image shows a pop-up window titled 'Add Custom Alert' with a close button (X) in the top right corner. The form contains the following fields:

- Alert Priority ***: A dropdown menu with the text 'Select Priority'.
- Name ***: A text input field.
- Manufacturer**: A dropdown menu with the text 'All Manufacturers'.
- Device Type**: A dropdown menu with the text 'All Device Types'.
- Condition Type ***: A dropdown menu with the text 'Select one'.
- Operator ***: A dropdown menu with the text 'Select one'.
- Value ***: A text input field.

At the bottom left of the form is a blue square button with a white plus sign. At the bottom right, there are two buttons: a grey 'Close' button and a green 'Save' button. A legend at the bottom left indicates that an asterisk (*) denotes a required field.

Alert Priority. Select a priority from the following options in the dropdown menu.

- Red Alert (!!!) - High priority
- Yellow Alert (!!)
- Green Alert (!) - Low priority.

This field is required.

The screenshot shows a dialog box titled "Add Custom Alert" with a close button (X) in the top right corner. The "Alert Priority" field is highlighted with a red box and has a dropdown menu open showing three options: "Red Alert", "Yellow Alert", and "Green Alert". Other fields include "Name", "Manufacturer", "Device Type", "Condition Type", "Operator", and "Value". A legend at the bottom left indicates that an asterisk (*) denotes a required field. Buttons for "Close" and "Save" are located at the bottom right.

Name. Type in a short, meaningful name for the alert. You can type up to 30 characters. This field is required.

The screenshot shows a dialog box titled "Add Custom Alert" with a close button (X) in the top right corner. The form contains the following fields:

- Alert Priority ***: A dropdown menu with "Select Priority" as the current selection.
- Name ***: A text input field, highlighted with a red border.
- Manufacturer**: A dropdown menu with "All Manufacturers" as the current selection.
- Device Type**: A dropdown menu with "All Device Types" as the current selection.
- Condition Type ***: A dropdown menu with "Select one" as the current selection.
- Operator ***: A dropdown menu with "Select one" as the current selection.
- Value ***: A text input field.

At the bottom left, there is a blue square button with a white plus sign (+). At the bottom right, there are two buttons: a grey "Close" button and a green "Save" button. A legend at the bottom left indicates that an asterisk (*) denotes a required field.

Select a **Manufacturer** from the dropdown menu. By default, the Alert applies to **All Manufacturers**.

If a manufacturer is selected, the alert will only trigger for transmissions with a device from that manufacturer.

The image shows a software interface for adding a custom alert. The window is titled "Add Custom Alert" and has a close button (X) in the top right corner. The form contains several fields:

- Alert Priority ***: A dropdown menu with "Select Priority" as the current selection.
- Name ***: A text input field.
- Manufacturer**: A dropdown menu that is currently open, showing a list of options: "All Manufacturers", "Biotronik", "Boston Scientific", "Medtronic", and "St. Jude". The "Biotronik" option is highlighted.
- Device Type**: A dropdown menu with "All Device Types" as the current selection.
- Value ***: A text input field.

At the bottom left of the form, there is a blue square button with a white plus sign (+). At the bottom right, there are two buttons: "Close" (grey) and "Save" (green). A legend at the bottom left indicates that the asterisk (*) denotes a required field.

Device Type. Select a device type from the dropdown menu. By default the Alert applies to **All Device Types**.

If a device type is selected, the alert will only trigger for transmissions for that device type.

The screenshot shows the 'Add Custom Alert' dialog box. The 'Device Type' dropdown menu is open, displaying a list of device types: Pacemaker, Defibrillator, Cardiac Resynchronization Therapy - Defibrillator, Cardiac Resynchronization Therapy - Pacemaker, Monitor, and Other. The 'Alert Priority' dropdown is set to 'Select Priority'. The 'Name' field is empty. The 'Manufacturer' dropdown is set to 'All Manufacturers'. The 'Condition Type' dropdown is set to 'Select one'. The 'Operator' dropdown is set to 'Select one'. A plus sign button is visible in the bottom left. The bottom right has 'Close' and 'Save' buttons. A legend indicates that an asterisk (*) denotes a required field.

Now, build the condition(s) for this alert.

EXAMPLE:

- **Condition Type:** MDC_IDC_MSMT_BATTERY_REMAINING_PERCENTAGE
- **Operator:** <=
- **Value:** 10

Result: This alert will appear when the battery remaining percentage is less than or equal to 10%.

First, **select a Condition Type** from the dropdown menu. The options are:

- **MDC_IDC_EPISODE_TYPE** - Select this option when you want the alert to display based on the type of episode.
- **MDC_IDC_EPISODE_VENDOR_TYPE** - Select this option when you want the alert to display based on the vendor type.
- **MDC_IDC_MSMT_BATTERY_REMAINING_PERCENTAGE** - Select this option when you want the alert to display based on the remaining battery percentage of a device.
- **MDC_IDC_MSMT_BATTERY_REMAINING_LONGEVITY** - Select this option when you want the alert to display based on the remaining battery longevity of a device.
- **MDC_IDC_MSMT_BATTERY_VOLTAGE** - Select this option when you want the alert to display based on the battery voltage.
- **MDC_IDC_SESS_TYPE** - Select this option when you want the alert to display based on the session type.
- **MDC_IDC_DEV_IMPLANT_DT** - Select this option when you want the alert to display based on the implant date.

This field is required.

The screenshot shows the 'Add Custom Alert' dialog box with the following fields and values:

- Alert Priority *: Red Alert
- Name *: Example
- Manufacturer: All Manufacturers
- Device Type: All Device Types
- Condition Type *: Select one (dropdown menu is open, showing options: MDC_IDC_EPISODE_TYPE, MDC_IDC_EPISODE_VENDOR_TYPE, MDC_IDC_MSMT_BATTERY_REMAINING_PERCENTAGE, MDC_IDC_MSMT_BATTERY_REMAINING_LONGEVITY, MDC_IDC_MSMT_BATTERY_VOLTAGE, MDC_IDC_SESS_TYPE, MDC_IDC_DEV_IMPLANT_DT)
- Operator *: Select one
- Value *: (empty text field)

Buttons: Close, Save

Select an **Operator** from the dropdown menu that applies to the condition type selected earlier.

The operators compare the **transmission value** (the value in the transmission for the given Condition Type, e.g.: Battery Remaining Percentage),

to the **condition value** (the value in the alert for the condition, under “Value”).

The options include:

- = - Transmission value precisely matches the condition value.
- > - Transmission value is greater than the condition value.
- >= - Transmission value is greater than or equal to the condition value.
- < - Transmission value is less than the condition value.
- <= - Transmission value is less than or equal to the condition value.
- **Contains** - Transmission value contains the entire condition value (at the beginning, middle, or end).
- **Does Not Contain** - Transmission value does not contain the entire condition value, anywhere.
- **Is Present** - Any transmission value is present. (condition value is not needed)
- **Is Absent** - No transmission value is present. (condition value is not needed)

This field is required.

The screenshot shows the 'Add Custom Alert' dialog box. The 'Alert Priority' is set to 'Red Alert'. The 'Name' field contains 'Example'. The 'Manufacturer' is set to 'All Manufacturers' and the 'Device Type' is set to 'All Device Types'. The 'Condition Type' is 'MDC_IDC_MSMT_BATTERY_R'. The 'Operator' dropdown menu is open, showing the following options: '=', '>', '>=', '<', '<=', 'Contains', 'Does Not Contain', 'is Present', and 'is Absent'. The 'Value' field is empty. The dialog box has a 'Close' button and a 'Save' button. A legend at the bottom left indicates that an asterisk (*) denotes a required field.

Value. This field is the last part of the condition. Type in the value for the custom alert.

This field is required.

Add Custom Alert [X]

Alert Priority * [X]

Name *

Manufacturer [v] Device Type [v]

Condition Type * [X] Operator * [X] Value *

[+]

* Required

Add more. You can add more conditions by clicking in the + button. You can also **remove** conditions (except for the first condition) by clicking the **X** button.

Transmissions must match ALL conditions in order to match the alert. This means adding a second (or 3rd, etc) condition makes the alert match a more specific, smaller set of transmissions.

EXAMPLE:

Condition Type: MDC_IDC_MSMT_BATTERY_VOLTAGE

Operator: <

Value: 10.3

[+]

Condition Type: MDC_IDC_MSMT_BATTERY_REMAINING_PERCENTAGE

Operator: <

Value: 10

Result: This alert will appear for transmissions indicating that the battery voltage is less than 10.3V **AND** the remaining battery percentage is less than 10%.

The screenshot shows the 'Add Custom Alert' dialog box with the following configuration:

- Alert Priority: Red Alert
- Name: Example
- Manufacturer: All Manufacturers
- Device Type: All Device Types
- Condition 1: MDC_IDC_MSMT_BATTERY_REMAINING_PERCENTAGE, Operator: <=, Value: 10
- Condition 2: MDC_IDC_MSMT_BATTERY_VOLTAGE, Operator: <, Value: 10.3

At the bottom left, there is a plus sign (+) button to add more conditions. At the bottom right, there are 'Close' and 'Save' buttons. A legend at the bottom left indicates that an asterisk (*) denotes a required field.

Click the **Save** button to finish the process.



The new Alert displays in the Alerts list.

NOTE: You cannot edit alerts. You can only activate/deactivate an Alert by selecting the checkbox in the **Activate** column, or remove the Alert by clicking the **Delete** icon.

Alerts that are not active will not appear on transmissions.

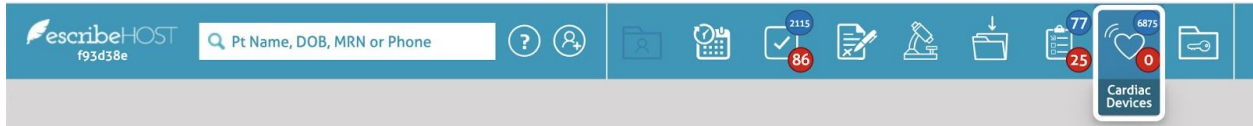
The screenshot shows the 'Alerts' management interface. At the top, there is a dark blue header with the word 'Alerts'. Below the header is a light grey bar containing a blue button labeled 'Add Custom Alert'. Underneath this bar, the text 'Choose when an alert is shown' is displayed. The main part of the interface is a table with the following columns: Name, Manufacturer, Dev Type, Condition, Active, and an empty column for actions. The table contains one row with the following data: Name: Example (with a red warning icon), Manufacturer: All, Dev Type: All, Condition: MDC_IDC_MSMT_BATTERY_REMAINING_PERCENTAGE >= 10, Active: , and an empty action column containing a trash can icon.

Name	Manufacturer	Dev Type	Condition	Active	
Example	All	All	MDC_IDC_MSMT_BATTERY_REMAINING_PERCENTAGE >= 10	<input checked="" type="checkbox"/>	

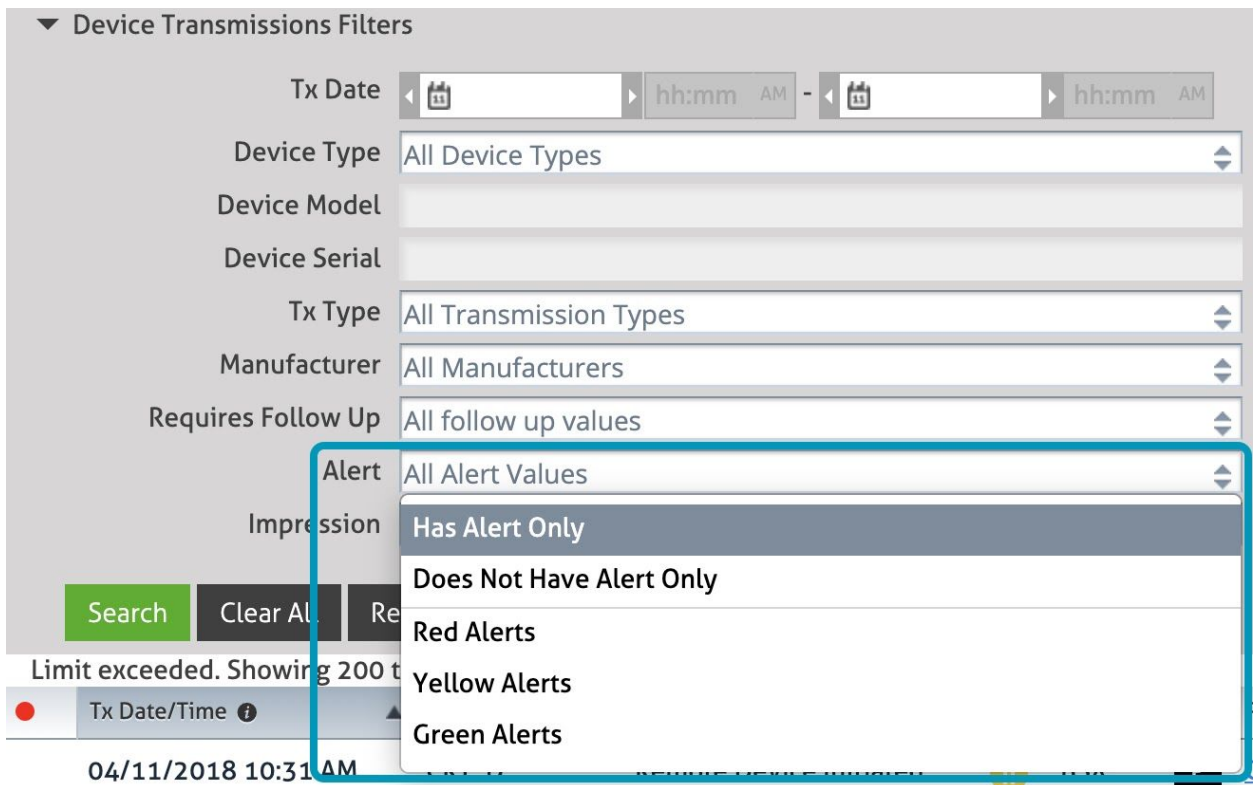
Filter and View Alerts in Transmissions

In this section, you will learn how to view and filter Custom Alerts and manufacturer-sent alerts in transmissions.

Go to the **Cardiac Devices** module from the menu.



In the **Device Transmission Filters**, you can filter by **Alert**. You can select a single priority to show only transmissions with alerts that match that priority, or you can show only transmissions with ANY alert, or only transmissions without any alerts.



Alerts display in a column next to the Transmission type and show the icon that corresponds to the Priority of the Alert. The color and number of exclamation points differs for each priority.

- Red: (!!!)
- Yellow: (!!)
- Green: (!)

Manufacturer-sent alerts and custom alerts are BOTH shown in this column.

NOTE: If a transmission has two or more Alerts, the icon displays the highest priority of any alert, custom or manufacturer-sent.

Tx Date/Time	Device Type	Tx Type	A	MFG	P
04/11/2018 10:31 AM	CRT_D	Remote Device Initiated	!!	BSX	P
10/10/2018 7:00 AM	ICD	Remote Scheduled	!!	BSX	
10/10/2018 7:00 AM	ICD	Remote Scheduled	!!	BSX	

Click on the **icon** to show a popup with details about each alert for the transmission.

The screenshot shows the escribeHOST interface with a search bar and navigation icons. Below the navigation bar, there is a section for 'Device Transmissions Filters' with a refresh button and a timestamp 'Updated 08/11/2020 7:13 PM'. A 'Start Review' button is also present. The main table displays 'Showing 9 txs.' with columns for Tx Date/Time, Device Type, Tx Type, A, MFG, P, and Patient. Two rows are visible, both for 'Remote Device Initiated' events on 'CRT_D' devices, with the second row highlighted. A popup window is open over the second row, displaying a list of alerts with their respective priority icons (Red, Yellow, Green) and text descriptions. The alerts include 'RC 7.7 BATTERY_REMAINING_PERCENTAGE >= 8', 'Test10082020 EPISODE_TYPE >= 5', 'redalertforConch BATTERY_REMAINING_LONGEVITY = 96', 'sesstype SESSION_TYPE >= 789', 'test EPISODE_VENDOR_TYPE is Present', and 'y EPISODE_VENDOR_TYPE Does Not Contain 7'. At the bottom of the popup, a 'Manufacturer Alert' is shown: 'Oct 10, 2018 07:04 - Red Alert - Left ventricular intrinsic amplitude out of range.'

When viewing a transmission, a clickable Alert Priority **icon** is visible in the top left, if any alerts are present.

Click on the **icon** to show a popup with details about each alert for the transmission.

The screenshot displays the escribeHOST interface. At the top, there is a search bar for patient information and a notification bell icon with a red '17' badge. Below this is a navigation bar with 'Tx Queue' and '38 of 51' items. The main header shows 'ICD Remote Device Initiated 01/07/2019 2:27 AM'. A sidebar on the left lists 'NOT-URG', 'Putorti, Cynthia2', 'Impressions', 'Plans 0', and 'Transmission test'. A popup window is open, listing three alerts: 'Alert1' (red icon), 'Alert2' (yellow icon), and 'Alert3' (green icon). Below the alerts is a 'Manufacturer Alert' (yellow icon) with the text 'Jan 06, 2019 22:06 - Yellow Alert - Antitachycardia pacing (ATP) therapy delivered to convert arrhythmia.' At the bottom, a 'Parameters' section shows 'Pacing Mode VVI' and 'Base Rate 50 bpm'.

Parameters	
Pacing Mode	VVI
Base Rate	50 bpm