

RescueNet 12-Lead User Guide

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Issue 1

ZOLL[®]

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Welcome to RescueNet 12-Lead, a web-based 12-Lead ECG management system. With RescueNet 12-Lead, you can manage the 12-Lead records sent from ZOLL defibrillators anywhere in your system.

Let Us Know What You Think

Your opinions are very important to us! Please let us know what you think of this guide. Sending comments is easy - just email to documentation@zoll.com.

Please include the document title and release number so we can easily identify the book you are referring to.

Thanks!

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Getting Started

Overview

RescueNet® 12-Lead is a web-based management system that uses a web browser to provide quick, easy access to critical 12-Lead records sent from ZOLL defibrillators. With RescueNet 12-Lead, users can view, distribute, close, add notes, and print 12-Lead records; search for Inbox and/or closed 12-Lead records, and run reports.

How it works. When your administrator signs up with ZOLL Online, the system creates a company and automatically assigns a Company ID. This ID is configured on every transmitting monitor or electrocardiogram (ECG) system used by your service and is part of the data when the monitor/defibrillator transmits the 12-Lead record. The RescueNet 12-Lead system receives the 12-Lead, identifies that the Customer ID belongs to your company, and displays the 12-Lead in your Inbox.

Before you can access RescueNet 12-Lead, your administrator must log onto ZOLL Online and configure the system. Step-by-step information is available for administrators in the *RescueNet 12-Lead Administration Guide*. After the system is configured, the administrator sends you an email invitation to register with ZOLL Online. For complete information on how to sign up and access RescueNet 12-Lead, see [ZOLL Online on page 1-4](#).

View 12-Leads - your Inbox. The Inbox is the repository of all 12-Leads received by RescueNet 12-Lead. The Inbox displays basic 12-Lead information such as the received and acquired date and time, the agency, unit, ETA, status, and interpretation.



Note: Estimated time of arrival (ETA) will be populated if the information is available from the sending monitor/defibrillator.

The 12-Lead Details page. Click a 12-Lead record to view the 12-Lead Details page. Use this page to view, add a note, edit the record's patient information, distribute, print, and close the 12-Lead.

Edit 12-Leads. You can edit the patient information, the E2B (EMS to Balloon time), and add notes to the 12-Lead record.

Distribute 12-Leads:

- ❑ **Distribution Methods:** In most cases, the system uses either a fax number or an email address to distribute 12-Lead records. The system also has the ability to distribute 12-Lead records to the Inbox of another RescueNet 12-Lead customer. To distribute a report to another customer's Inbox, your administrator must configure the customer as a Cooperating RescueNet 12-Lead Customer.
- ❑ **Distribution Lists:** To aid in the distribution of 12-Lead records, your administrator can create one or more lists of contacts and/or customers. These lists are called distribution lists and can be used for automatic or manual distribution.
- ❑ **Automatic distribution:** You may have one or more contacts/customers who need to see every 12-Lead record. In this case, your administrator can place these members in a distribution list and set the list for automatic distribution. Once set, the system automatically sends every new 12-Lead to members of the list.
- ❑ **Manual:** For customers and/or contacts who want to receive only certain types of 12-Lead records, select the 12-Lead record and manually enter an email address and/or fax number. If the contact or company exists in the system, type the first letter and select the name from the drop-down menu. To speed up the manual distribution process, you can choose a distribution list if available.

Close 12-Leads. 12-Lead records can be closed manually or automatically. You can view closed 12-Lead records using Search and Reports.

- ❑ **Manual:** You can manually close an opened 12-Lead record by clicking the Close button. Clicking Close removes the 12-Lead from the Inbox.
- ❑ **Automatic Incident Closure:** To reduce clutter, RescueNet 12-Lead automatically closes 12-Lead records and removes them from the Inbox after an pre-configured number of days. You can access closed 12-Lead records using Search or Reports.

Print 12-Leads or save to your PC. When you send a print request, the system takes an image of the 12-Lead record as it appeared when it was received by RescueNet 12-Lead and displays it in a PDF document on your screen. Since this is the original 12-Lead record that was acquired by the defibrillator, it will not show modifications users make with RescueNet 12-Lead. To view the PDF you must have a PDF reader installed on your computer. In addition to printing the 12-Lead, you can save a copy to your computer's disk.



Note: 12-Lead patient reports contains sensitive patient information and should be treated according to your organizations policies for accessing Protected Health Information (PHI).

Reports. RescueNet 12-Lead provides a 12-Lead Activity Report and an EMS to Balloon Report. You can filter the 12-Lead data by sent, received, or both sent and received. You can export report results to a PDF, Microsoft Word® or Microsoft Excel® format. For more information, see [Chapter 4: Reports](#).

Search. You can search the database for all 12-Lead records (Inbox and closed), all reports that match a specific criteria such as reports received on a given day or time, and individual reports. To retrieve all the reports with data in a specific field, use the special character %. In the results page, click a 12-Lead record to see the 12-Lead details. Once selected, you can edit the E2B and/or patient information, print, distribute, or close the 12-Lead record. For information, see [Chapter 3: Search](#).

Safety Considerations

Read the following cautions before using RescueNet 12-Lead.



Cautions

- ❑ Always read the electrocardiogram (ECG) signals to determine the presence or absence of an acute myocardial infraction (AMI). Do not rely solely on the acuity highlighting provided by the system to identify AMI victims.
- ❑ Do not delay patient care while attempting to correct 12 Lead ECG communications problems. Deliver care according to accepted standards and local protocols before addressing data communications issues.
- ❑ Always obtain a confirmatory 12 Lead ECG prior to performing any invasive or irreversible procedure on a patient.
- ❑ Do not make treatment or triage decisions based solely on the highlighting of received 12-Leads or the highlighting of ST segment measurements. Always make these decisions based on a clinical interpretation of the ECG signals themselves.
- ❑ Always verify patient identity on the 12-Lead ECG report before prescribing treatment.

ZOLL Online

ZOLL Online is a central site that provides access to RescueNet 12-Lead and other ZOLL EMS and fire products.

ZOLL Online Supported Browsers

Before you access ZOLL Online, verify that you are using one of the following supported browsers:

Name	Version
Microsoft Internet Explorer®	8 and 9
Mozilla Firefox® Web browser	12.x or later
Google Chrome®	14.0.x or later
Mobile Safari®	5.x or later

Sign Up

You will receive an email invitation from your administrator asking you to sign up with ZOLL Online. The email contains a link to ZOLL Online and an invitation code.

Use the following steps to register:

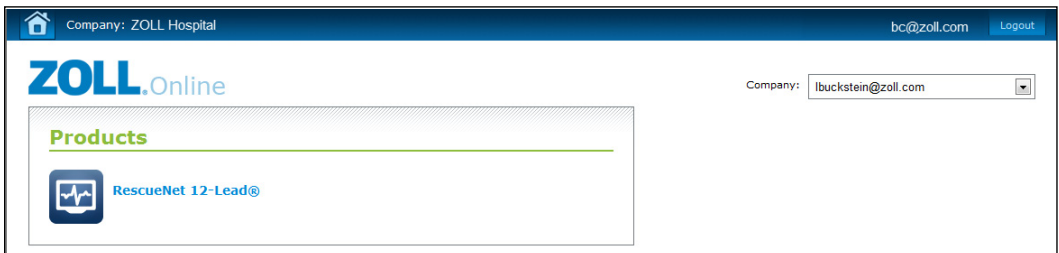
1. In your email invitation, click the ZOLL Online link. The ZOLL Sign Up page opens with your email address and invitation code pre-populated.
2. The Sign Up page contains the following fields:
 - a) **Email address:** Contains your email address. In ZOLL Online, your email address is the username that you will use to log onto the system.
 - b) **Password/Reenter Password:** Enter a password for this account.
 - c) **First/Last Name:** Enter your first and last name.
 - d) **Company:** Enter the name of the company you are joining.
 - e) **Invitation code:** Contains your invitation code. The system uses the invitation code to link you to the administrator's company.
 - f) **Terms of service:** Click **ZOLL Online terms of service** to read the terms of service. If you agree with the terms, check the box. You cannot sign up without agreeing to the terms of service.
3. Click **Sign up**.

The ZOLL Online home page opens. You can now access the application by clicking **RescueNet 12-Lead**.

Join Multiple Companies

Multiple administrators can send you an invitation to join their companies. If you are not logged onto ZOLL Online, you can join the company by clicking the link in the email. The Online Sign Up page displays with your username and invitation code pre-populated. If you are already logged on, see [Join a Company on page 1-6](#) for instructions.

When you are a member of multiple companies, you can select which company you want to log onto from the Company drop-down menu on the ZOLL Online home page. After you select the company, select the product. The company name that you are working under appears next to the home icon so you can easily identify which company you are currently logged onto. If you log off and back onto ZOLL Online, the system logs you onto the first company on the list which is sorted in alphabetical order.



My Account

From any ZOLL Online page, click your username to access your account information. In the My Account page you can change your password, update your security questions, or join a company.

Change My Password

1. In the My Account page, click **Change my password**.
2. Current password: Enter your current password.
3. New password/Confirm new password: Enter your new password.
4. Click **Change Password**.

Create a Company

1. In the My Account page, click **Create a company**.
2. Company name: Enter the new company's name.
3. Click **Create Company**. The company name will now appear in the Company drop-down menu on the home page.

Forgot Your Password

Forgot your password? No problem! Use the following steps to acquire a new one:

1. Access <http://www.zollonline.com> from any supported browser.
2. On the ZOLL Online Login page, click **Forgot password?**
3. The system prompts you to enter the email address that you used when you signed up with ZOLL Online. Enter the email address and click **Next**. The system sends a temporary password to the email address you entered. The ZOLL Online Login Page displays. Leave this window open and go to your email.
4. In the email that you receive, copy the temporary password and paste it in the password field on the ZOLL Online Login Page. Click **Log in**.
5. You will be prompted to enter a your temporary password again and then a new password.

Inbox

The Inbox defaults to the first page that displays when you log onto RescueNet 12-Lead. To minimize redundancy, the system provides only one Inbox per customer account. An action of a single user in a customer account impacts the Inbox of all users for that same account. For example, when a user clicks a new 12-Lead record, all users see the status for that record change from new to open. Likewise, when a user closes a 12-Lead record, the system removes the record from the view of all Inbox users.



RescueNet 12-Lead							A new 12-Lead has arrived Show *
							Inbox
							◀ Prev 1 Next ▶
Received Date/Time	Acquisition Date/Time	Agency	Unit	ETA	Status	Acute MI	Interpretation
2/21/2012 09:35	3/12/2009 02:16	ZOLL EMS	-----	-----	New		Marked sinus bradycardia with occasional premature supra-ventricular complexes Right bundle branch block Left anterior fascicular block *** Bifascicular block *** Abnormal ECG *** Unconfirmed ***
2/16/2012 19:18	3/12/2009 02:16	TriStar EMS	-----	-----	Open		Marked sinus bradycardia with occasional premature supra-ventricular complexes Right bundle branch block Left anterior fascicular block *** Bifascicular block *** Abnormal ECG *** Unconfirmed ***
2/16/2012 19:15	3/12/2009 02:16	TriStar EMS	-----	-----	Open		Marked sinus bradycardia with occasional premature supra-ventricular complexes Right bundle branch block Left anterior fascicular block *** Bifascicular block *** Abnormal ECG

The Inbox:

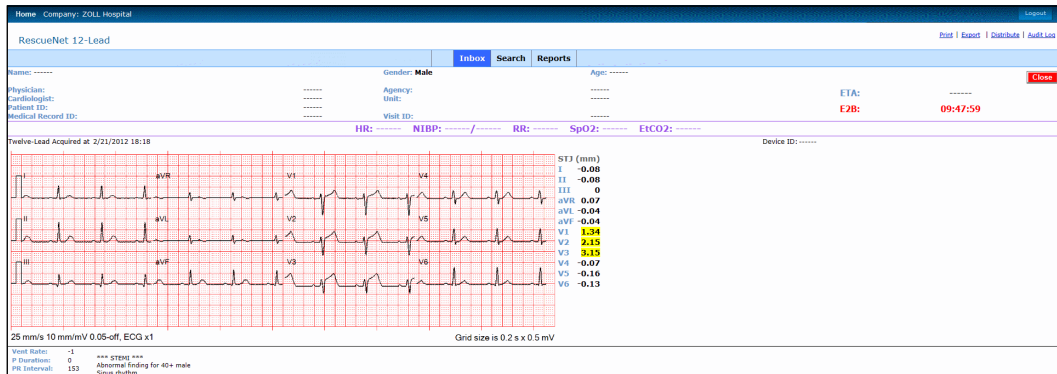
- ❑ Displays the most recently received 12-Lead record first. The order in which the 12-Lead records display on the page is based on received time, not acquired time.
- ❑ Displays a red background for new 12-Lead records; once opened the status changes to open and the background changes to blue.
- ❑ Allows you to view, print, and distribute a 12-Lead record without closing it. In this case, the 12-Lead record remains in the Inbox until it is automatically or manually closed.
- ❑ Provides an audible alert and an alert banner with the arrival of each new 12-Lead record. The alert banner appears above the navigation bar to the right of the page and provides links to the Inbox and to the 12-Lead Details page. The audible alert interval is configured by your administrator. If no interval is set, the alert sounds once. If an interval is set, the alerts sounds until the alert banner is acknowledged by closing the banner.
- ❑ Displays the acquired time as the exact time the device reports the acquisition regardless of the time zone the record is being viewed in.

Acute MI


If the defibrillator sends Acute MI information, a yellow alert symbol displays in the Acute MI column to indicate that patient may be experiencing a STEMI.

Home Company: ZOLL Hospital						
RescueNet 12-Lead						
Inbox Search Reports						
◀ Prev 1 Next ▶						
Received Date/Time	Acquisition Date/Time	Agency	Unit	ETA	Status	Acute MI
2/21/2012 17:19	2/21/2012 18:18	ZOLL Ambulance	-----	-----	Open	 *** STEMI *** Abnormal finding for 40+ male Sinus rhythm Low QRS voltage in chest leads [QRS deflection < 1.0 mV in chest leads] Acute ST elevation anterior infarct [marked STE in V2/V3]
2/21/2012 17:16	2/21/2012 18:14	ZOLL Ambulance	-----	-----	Open	Abnormal finding for 40+ male Sinus rhythm with frequent ventricular premature complexes Low QRS voltage in chest leads [QRS deflection < 1.0 mV in chest leads] Anterior infarct [STE in V1-V5], probably acute
2/21/2012 15:53	2/21/2012 16:52	ZOLL Ambulance	-----	-----	New	Abnormal finding for 40+ male Sinus rhythm Anterior infarct [STE in V1-V5], probably acute
2/21/2012 15:33	2/21/2012 16:32	ZOLL Ambulance	-----	-----	Open	Abnormal finding for 40+ male Sinus rhythm Anterior infarct [STE in V1-V5], probably acute
2/21/2012 14:03	2/21/2012 14:01	ZOLL Ambulance	-----	-----	Open	 *** STEMI *** Abnormal finding for 40+ female Sinus bradycardia Low QRS voltage in chest leads [QRS deflection < 1.0 mV in chest leads] Acute ST elevation inferoapical infarct [marked STE in II/aVF/III, ST dep in aVL/aVR]

For more information click the record to view the 12-Lead Details page.



The leads showing ST segment elevation or depression exceeding +1 or -1 highlight in yellow. The next section describes the 12-Lead Details page in more detail.



Caution: Do not make treatment or triage decisions based solely on the highlighting of received 12-Lead records or the highlighting of ST segment measurements. Always make these decisions based on a clinical interpretation of the ECG signals themselves.

12-Lead Details page

You access the 12-Lead Details page by clicking a 12-Lead record in the Inbox, Search Results page, or Reports Results page. The 12-Lead Details page displays the actual record and allows you to:

- Add a note and/or edit the 12-Lead's patient information, EMS Time, and Balloon Time - see [Edit - page 2-3](#).
- Distribute a 12-Lead to an email address, a fax number, and a distribution list - see [Distribute - page 2-6](#).
- Print the 12-Lead or save the 12-Lead - see [Print or Save the 12-Lead - page 2-7](#).
- Close a 12-Lead - see [Close - page 2-8](#).
- View the audit log for the 12-Lead - see [Audit Log - page 2-8](#).



Caution: Do not delay patient care while attempting to correct 12 Lead ECG communications problems. Deliver care according to accepted standards and local protocols before addressing data communications issues.



Caution: Always obtain a confirmatory 12 Lead ECG prior to performing any invasive or irreversible procedure on a patient.

Edit

Edit Patient

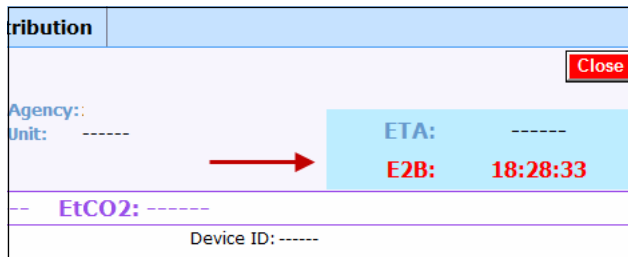
1. Roll your mouse over the upper section of the 12-Lead to highlight.
2. Click the highlighted section. The Edit 12-Lead Record dialog box opens.
3. Edit the fields as needed. Click the Patient date of birth (DOB) field to manually enter a patient's DOB or select a date from the pop-up calendar. When using the pop-up calendar, always select the day last before you click **Done**. For example: select the month, the year, and then the day.
4. Click **Save**.

Edit 12-Lead Record ✕

First Name:	<input style="width: 90%;" type="text"/>
Middle Name:	<input style="width: 90%;" type="text"/>
Last Name:	<input style="width: 90%;" type="text"/>
Gender:	<input type="text" value="Male"/> ▾
Patient DOB (MM/DD/YYYY):	<input style="width: 90%;" type="text" value="4/19/1972"/>
Patient ID:	<input style="width: 90%;" type="text" value="201"/>
Medical Record ID:	<input style="width: 90%;" type="text"/>
Visit ID:	<input style="width: 90%;" type="text"/>
Physician:	
First Name:	<input style="width: 90%;" type="text"/>
Middle Name:	<input style="width: 90%;" type="text"/>
Last Name:	<input style="width: 90%;" type="text"/>
Cardiologist:	
First Name:	<input style="width: 90%;" type="text"/>
Middle Name:	<input style="width: 90%;" type="text"/>
Last Name:	<input style="width: 90%;" type="text"/>
<input type="button" value="Save"/> <input type="button" value="Cancel"/>	

Edit EMS to Balloon Time (E2B)

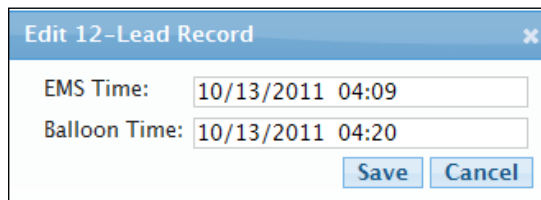
1. Roll your mouse over E2B to highlight.



The screenshot shows a software window titled "tribution" with a "Close" button in the top right. The form contains the following fields:

- Agency: []
- Unit: []
- ETA: []
- E2B: 18:28:33** (highlighted in blue, with a red arrow pointing to it)
- EtCO2: []
- Device ID: []

2. Click the highlighted section. The Edit 12-Lead Record dialog box opens.



The "Edit 12-Lead Record" dialog box contains the following fields and buttons:

- EMS Time: 10/13/2011 04:09
- Balloon Time: 10/13/2011 04:20
- Save
- Cancel

3. The E2B value is derived from the time difference between Balloon Time and Emergency Medical Services (EMS) Time. In this figure, the E2B value would be 00:11:00. You can enter the EMS and Balloon day and time manually or you can select a date from the pop-up calendar and a time from the slide bar.
 - **EMS Time:** The EMS Time field defaults to the time the 12-Lead record was acquired. If RescueNet 12-Lead receives multiple 12-Lead records for a single incident, the field displays the EMS time of the earliest acquired 12-Lead record.
 - **Balloon Time:** Enter the balloon time.
4. Click **Save**. The E2B displays in red.

Add Notes

To add a note:

1. Click **Add** under the Notes heading.

The screenshot shows an ECG waveform at the top. Below it, technical data is displayed: 25 mm/s 10 mm/mV 0.05-40 Hz, ECG x1 and Grid size is 0.2 s x 0.5 mV. A list of ECG parameters follows: Vent Rate: 72, P Duration: 82, PR Interval: 152, QRS Duration: 90, QT/QTc: 368/402, and P R T Axes: 69 53 65. The rhythm is identified as Normal sinus rhythm, Normal ECG, and Unconfirmed. Below the data is a blue header for 'Notes' with an 'Add' button. The main area contains the text 'No notes have been added'. At the bottom, there is a copyright notice for ZOLL Medical and a link to 'Terms and Co'.

The Add Note page opens.

The 'Add Note' dialog box is shown with a title bar, a close button, and a large text input area. At the bottom right, there are 'Save' and 'Cancel' buttons.

2. Type the note and click **Save**.
3. The system displays the date and time the note was added, the user who added the note, and the note under the Notes heading. Notes are visible to all Inbox users on your customer account.

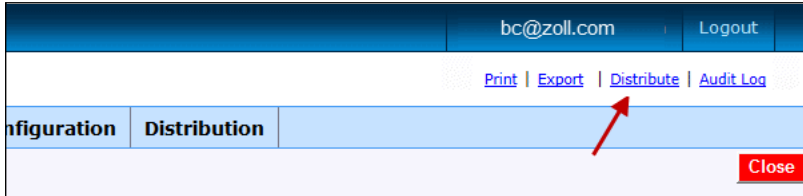
Notes			
Add	Date/Time	Who	Note
	12/20/2011 15:47	Dave Cook	Patient not responding.

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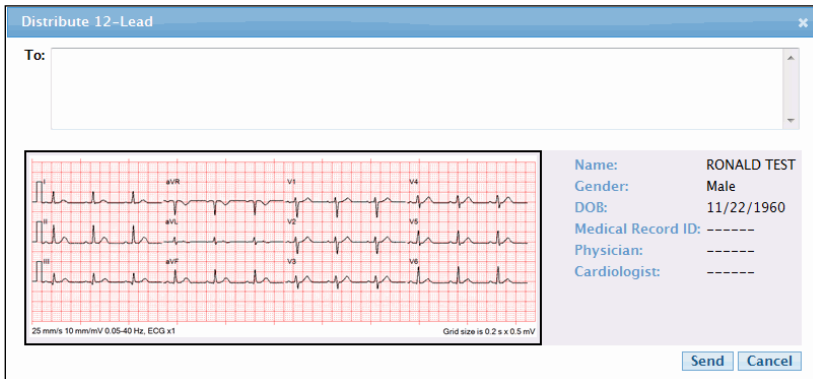
Distribute

Manually distribute a 12-Lead record to a contact, a distribution list, a Cooperating RescueNet 12-Lead Customer, or any valid email address or fax number. Enter the fax number as a long distance number such as 1 + area code + number.


1. In the right hand corner of the 12-Lead Details page, click **Distribute**.



The Distribute 12-Lead page opens.



2. In the To box: Enter an email address, fax number, Cooperating Customer, or distribution list name. If the contact, company, or distribution list exists in the system, type the first letter and select the name from the drop-down list.



Note: Enter the fax number as a long distant number (1+ area code+ number).

3. Click **Send** to distribute the 12-Lead record or **Cancel** to stop the operation.

If you distribute to the Inbox of a Cooperating RescueNet 12-Lead Customer, the 12-Lead record reflects all patient information modifications performed with RescueNet 12-Lead. If you distribute using email or fax, the 12-Lead reflects the image of the original 12-Lead sent by the transmitting monitor/defibrillator and will not show the patient information modifications made with RescueNet 12-Lead. Also, notes that you added to a record are not distributed with the 12-Lead.

Print or Save the 12-Lead

Select **Print** to take an image of the 12-Lead record that the transmitting monitor/defibrillator sent to RescueNet 12-Lead and display it in a PDF document on your computer screen. The system creates the image from the original transmitted record, so the image will not reflect any patient information changes performed with RescueNet 12-Lead.

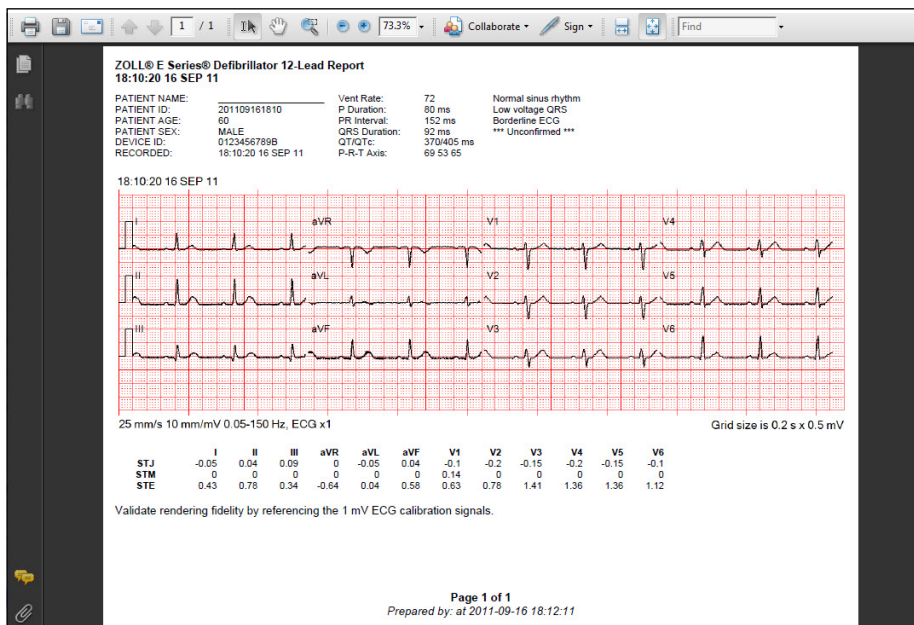


Note: You must install Adobe Reader on your computer to print a 12-Lead. You can download a free copy of Adobe Reader at <http://get.adobe.com/reader>.

1. In the **Inbox**, click the 12-Lead record to open the 12-Lead Details page.
2. In the right-hand corner of the 12-Lead Details page, click **Print**.



3. The system generates a PDF document and displays it on your computer screen.

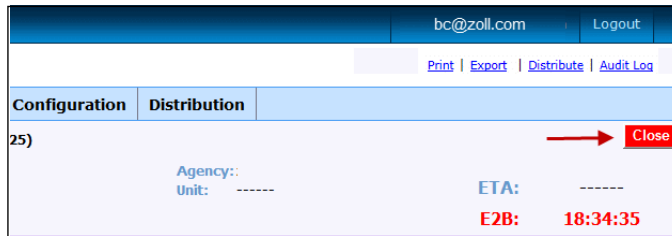


4. Use the menu bar at the top of the page to print and/or save the PDF to your PC.

Close

Manual close:

1. In the Inbox, click the 12-Lead record to open the 12-Lead Details page.
2. Click **Close**. The system closes the record, removes it from the Inbox, and sets the balloon time (if it has not previously been set). Use Search or Reports to view closed records.



Automatic close:

Your system administrator configures the number of days the system waits to automatically close 12-Lead records. When an opened 12-Lead record reaches that configured number of days (from 1 to 365), the system closes the record and removes it from the **Inbox**.

Audit Log

The **Audit Log** provides a list of actions performed on a 12-Lead record. The system displays a timestamp for each action along with a description of the area within the 12-Lead Details page where the action took place. The most recent events display first, the oldest last.

1. In the upper right hand corner of the 12-Lead Details page, click Audit Log.

The screenshot shows the full 12-Lead Details page for a record titled 'RescueNet 12-Lead'. At the top right, there are links for 'Print', 'Export', 'Distribute', and 'Audit Log'. The 'Audit Log' link is highlighted with a red arrow. Below the navigation bar, there are fields for 'Name:', 'Gender: Male', 'Age:', 'Physician:', 'Agency:', 'ETA:', 'Patient ID:', 'Unit:', 'E2B: 09:47:59', and 'Medical Record ID:'. Below these fields, there are fields for 'HR:', 'NIBP:', 'RR:', 'SpO2:', and 'ETCO2:'. The main content area displays a 12-lead ECG waveform. To the right of the waveform, there is a table of ST-T values (ST-T (mm)) for leads I, II, III, aVR, aVL, aVF, V1, V2, V3, V4, V5, and V6. The values are: I: -0.08, II: -0.08, III: 0, aVR: 0.07, aVL: -0.04, aVF: -0.04, V1: 2.26, V2: 2.13, V3: 2.13, V4: -0.07, V5: -0.16, V6: -0.13. Below the waveform, there is a note: '25 mins 10 mm/mV 0.05-off. ECG x1'. At the bottom, there is a 'Notes' section with the text 'No notes have been added'.

2. The Audit Log page displays.

RescueNet 12-Lead				Print Export Distribute
Inbox		Search		Reports
Name: Jane M Doe Gender: Female Age: 58 Years Medical Record ID: 12345678 Acquired: 1/12/2012 7:57:57 PM				
<Back to 12-Lead		<h2>Audit Log</h2>		
◀ Prev 1 2 3 4 5 6 7 8 9 10 ... 17 18 Next ▶				
2/2/2012 9:29:58 AM	:	PatientEncounter information was viewed by Tracy Gilmore		
2/2/2012 9:29:58 AM	:	PatientEncounter information was viewed by Tracy Gilmore		
2/2/2012 9:29:57 AM	:	TwelveLead information was viewed by Tracy Gilmore		

The patient information displays on the top line:

Name:	Jane M Doe	Gender:	Female	Age:	58 Years	Medical Record ID:	12345678	Acquired:	1/12/2012 7:57:57 PM
-------	------------	---------	--------	------	----------	--------------------	----------	-----------	----------------------

Each line in the log contains the following information:

11/18/2011 11:28:31 AM : Date and time of the event

TwelveLead information : Description of area within the 12-Lead page

was viewed by : Displays the action taken. Possible actions include; viewed, saved, searched, exported, and distributed. If a user edited the patient data, the audit log displays a 'PatientEncounter was saved by' entry. Currently, there is no entry for adding notes to the record.

Bob Cook : Name performing the action

Distributed 12-Lead records contain a view details link. Click the link to see who sent the 12-Lead, the distribution method they used, and the intended recipient.

:	Twelve Lead information was distributed by ZOLLDistributionAgent		hide detail
	To	From	Method
	Scott C	Scott A	cooperating customer

3. Click **Back to 12-Lead** to view the 12-Lead Details page.

Search

Use Search to find and view 12-Lead records (Inbox and closed) that match a specific criteria such as records received on a given day or time, and individual records. Except for age and date of birth (DOB), you can search using any combination of fields at one time and optionally include either an age or DOB. You can also use the wildcard % to do a generic search on all the fields with the exception of the date fields.

	Inbox	Search	Reports
Acquired Date Range:	From		To
Received Date Range:	From		To
Unit:			
Patient Name:	First	Middle	Last
<input checked="" type="radio"/> DOB	From		To
<input type="radio"/> Age			
Patient ID:			
Medical Record ID:			
Visit ID:			
Physician:	First	Middle	Last
Cardiologist:	First	Middle	Last
Agency:			
<input type="button" value="Search"/> <input type="button" value="Reset"/>			

1. To view all the 12-Lead records, leave the fields blank and click **Search**.
2. To search for a specific record, enter data in one or more of the following fields. The more detail you provide the more exact the search results become.
 - **Acquired Date Range and Received Date Range:** The acquired date range is the date and time the 12-Lead was acquired as it was recorded on the monitor/defibrillator. The received date range is the date RescueNet 12-Lead received the 12-Lead record.


Enter dates and times in the To and From fields. You can select the date and time from the pop-up calendar or manually enter the information in the following format: mm/dd/yyyy hh:mm.

- **Unit**
- **Acute MI:** Select Either, Yes, or No
- **Patient Name**
- **DOB and Age:** Select either date of birth (DOB) or the age. When you select DOB, a pop-up calendar appears. Select the month and the year before you select the day. If you select the day first, the system selects the current year.
- **Patient ID**
- **Medical Record ID**
- **Visit ID**
- **Physician**
- **Cardiologist**
- **Agency**

3. Click **Search**. A results page displays. If the number of matches exceeds the amount that can display on the page, page numbers appear on the top and bottom of the page. You can page forward or backward using the page numbers or the arrows to the right or the left of the numbers.

RescueNet 12-Lead				
		Inbox	Search	Reports
< Back to Search		◀ Prev 1 Next ▶		
Acquired: 11/22/2011 13:02 Received: 11/22/2011 14:42	Name: RONALD TEST Physician: ----- Cardiologist: ----- Patient ID: 55500-H0005552	Medical Record ID: -----	DOB: 11/22/1960 Agency: ----- Unit: ----- Visit ID: -----	
Acquired: 11/22/2011 13:02 Received: 11/22/2011 14:43	Name: RONALD TEST Physician: ----- Cardiologist: ----- Patient ID: 55500-H0005552	Medical Record ID: -----	DOB: 11/22/1960 Agency: ----- Unit: ----- Visit ID: -----	
Acquired: 11/22/2011 13:02 Received: 11/28/2011 07:49	Name: RONALD TEST Physician: ----- Cardiologist: ----- Patient ID: 55500-H0005552	Medical Record ID: -----	DOB: 11/28/1960 Agency: ----- Unit: ----- Visit ID: -----	
Acquired: 11/22/2011 13:02 Received: 11/28/2011 07:51	Name: RONALD TEST Physician: ----- Cardiologist: ----- Patient ID: 55500-H0005552	Medical Record ID: -----	DOB: 11/28/1960 Agency: ----- Unit: ----- Visit ID: -----	
Acquired: 11/22/2011 13:02 Received: 11/28/2011 07:51	Name: RONALD TEST Physician: -----		DOB: 11/28/1960 Agency: -----	

4. Click a record to view the 12-Lead Details page. From the 12-Lead Details page, you can add a note, distribute, print, or view the Audit Log. Click **Back to Search** to enter a new search.

	<p>Note: The Close button does not appear if the 12-Lead record is already closed.</p>
---	--

Reports

Through the Reports menu, you have quick and easy access to all the 12-Lead records that were received or sent by RescueNet 12-Lead.

Inbox	Search	Reports
12-Lead Activity Report		
Acquired Date Range:	From <input type="text"/>	To <input type="text"/>
Transaction Type:	12-Leads Distributed ▼	
<input type="button" value="Display"/>		<input type="button" value="Reset"/>
Report results will be limited to the first 1000 records matching your search criteria.		

You can choose to run the 12-Lead Activity or EMS to Balloon report and export the report results to a Microsoft Word®, Microsoft Excel®, or PDF document. The report data can be filtered by date and time or transaction type (sent, received, or transaction log).

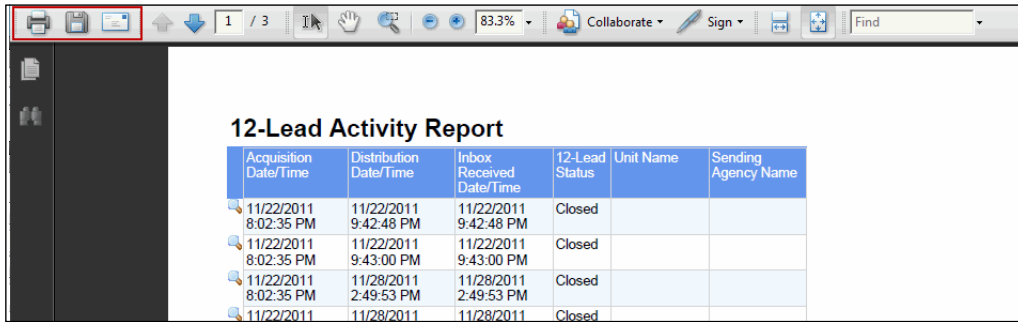
Inbox	Search	Reports
		12-Lead Activity
		EMS to Balloon

Exporting Reports

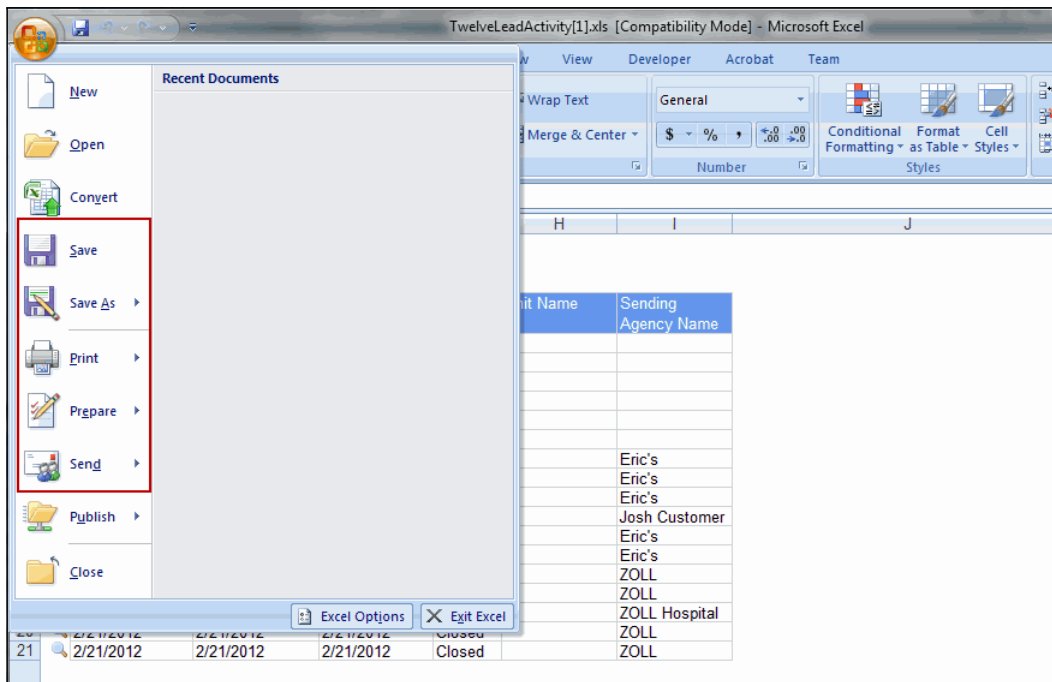
The Report Results screens displays a utility bar that appears at the top of the page. Use the bar to view additional report pages and export the report.

1 of 2		<input type="button" value="Excel"/> <input type="button" value="PDF"/> <input type="button" value="Word"/>
12-Lead Activity Report		
Acquisition	Distribution	Inbox

Once exported, you can print, email, or save the report.



Acquisition Date/Time	Distribution Date/Time	Inbox Received Date/Time	12-Lead Status	Unit Name	Sending Agency Name
11/22/2011 8:02:35 PM	11/22/2011 9:42:48 PM	11/22/2011 9:42:48 PM	Closed		
11/22/2011 8:02:35 PM	11/22/2011 9:43:00 PM	11/22/2011 9:43:00 PM	Closed		
11/22/2011 8:02:35 PM	11/28/2011 2:49:53 PM	11/28/2011 2:49:53 PM	Closed		
11/22/2011	11/28/2011	11/28/2011	Closed		



TwelveLeadActivity[1].xls [Compatibility Mode] - Microsoft Excel

File View Developer Acrobat Team

Wrap Text Merge & Center Number Conditional Formatting Format as Table Cell Styles

Recent Documents

- New
- Open
- Convert
- Save
- Save As
- Print
- Prepare
- Send
- Publish
- Close

Excel Options Exit Excel

Unit Name	Sending Agency Name
	Eric's
	Eric's
	Eric's
	Eric's
	Josh Customer
	Eric's
	Eric's
	ZOLL
	ZOLL
	ZOLL Hospital
	ZOLL
	ZOLL



Important Exporting Notes

- You must install Adobe Reader on your computer to export a report to a PDF. You can download a free copy of Adobe Reader at <http://get.adobe.com/reader>.
- When exporting a report to Excel format, the date/time columns are sized in such a way that only the date appears. You must re-size the column to expose the time portion of the column and view the data.
- Because the ZOLL E Series does not deal with time zones, it is possible to have an Acquired Date/Time that appears to occur after other timestamps in the system.

View 12-Lead Details Page

On the Report Results page, click a magnifying glass in the left column to view the 12-Lead Details page for that record.

	Acquisition Date/Time	Distribution Date/Time	Inbox Received Date/Time	12-Lead Status
	11/22/2011 8:02:35 PM	11/22/2011 9:42:48 PM	11/22/2011 9:42:48 PM	Closed
	11/22/2011 8:02:35 PM	11/22/2011 9:43:00 PM	11/22/2011 9:43:00 PM	Closed
	11/22/2011 8:02:35 PM	11/28/2011 2:49:53 PM	11/28/2011 2:49:53 PM	Closed

In the 12-Lead Details page you can view the actual record, edit the patient or E2B information, print or distribute the 12-Lead, add a note, or view the audit log.

Home Company: ZOLL Hospital
Logout

RescueNet 12-Lead

Name: RONALD TEST

Physician: -----

Cardiologist: -----

Medical Record ID: 55500-H0005552

Inbox Search Reports

Gender: Male

Agency: -----

Unit: -----

Visit ID: -----

Age: 51 Years

ETA: -----

E2B: 17:45:51

HR: ----- NIBP: -----/----- RR: ----- SpO2: ----- EtCO2: -----

Twelve-Lead Acquired at 11/22/2011 13:02 Device ID: -----

STJ (mm)

I -0.1

II 0.09

III 0.19

aVR 0

aVL -0.15

aVF 0.14

V1 -0.15

V2 -0.2

V3 -0.3

V4 -0.3

V5 -0.2

V6 -0.1

25 mm/s 10 mm/mV 0.05-40 Hz, ECG x1 Grid size is 0.2 s x 0.5 mV

Vent Rate: 72
P Duration: 82
PR Interval: 152 Normal sinus rhythm
QRS Duration: 90 Normal ECG
QT/QTc: 368/402 *** Unconfirmed ***
P R T Axes: 69 53 65

Notes

Add No notes have been added

12-Lead Activity Report

Use the 12-Lead Activity Report to view all the 12-Lead records in the system or specify an acquired date and time range to view specific 12-Lead records.

12-Lead Activity Report

Acquired Date Range: From To

Transaction Type:

Report results will be limited to the first 1000 records matching your search criteria.



Note: The system will deliver 1000 records for a single request. If your request is larger than 1000 records, only the first 1000 records display.

1. Acquired Date Range:

- a) **See 12-Leads for a specific date and time:** Click **From** and **To** in the Acquired Date Range field to manually enter the date and time or to select a day and time from the pop-up calendar.
 - Manually enter a date and time: Use the mm/dd/yyyy hh:mm format.
 - Pop-up calendar: Select the month and the year before you select the day. If you select the day first, the system selects the current year.
- b) **See all the 12-Leads in the system:** Enter today's date in the **To** field.

2. Transaction Type: Select one of the following from the drop-down list:

- a) **12-Leads Sent:** View sent 12-Lead records only.
- b) **12-Leads Received:** View received 12-Lead records only.
- c) **Transaction Log:** View both the sent and received 12-Lead records.

3. Click **Display** to start the search or **Reset** to clear the search fields. The transaction type you select impacts which columns of information display.

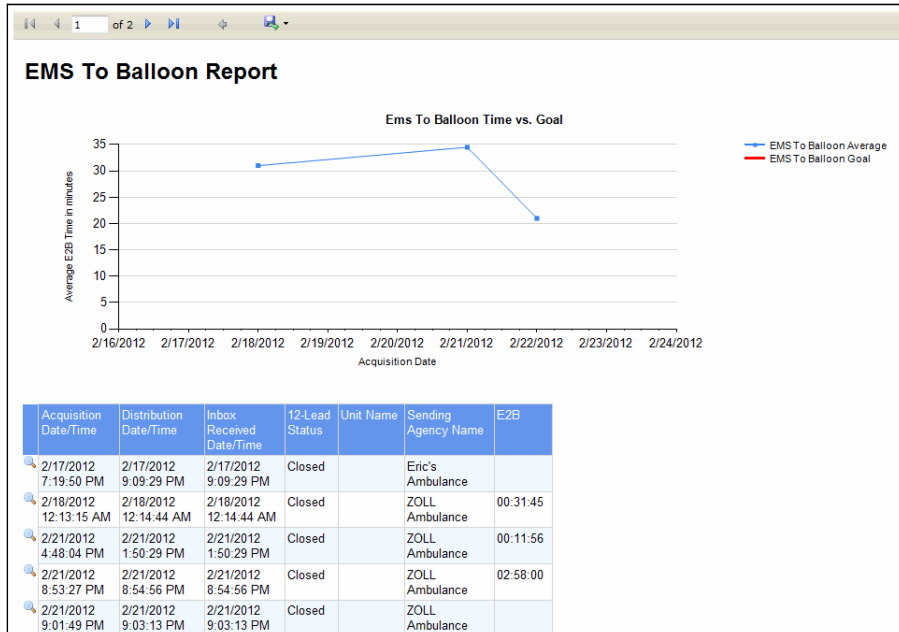
Acquisition Date/Time	Distribution Date/Time	Inbox Received Date/Time	12-Lead Status	Unit Name	Sending Agency Name	Distribution List	Destination Type	Destination	Transaction Type
11/22/2011 8:02:35 PM	11/22/2011 9:42:48 PM	11/22/2011 9:42:48 PM	Closed					ZOLL Hospital	Received
11/22/2011 8:02:35 PM	11/22/2011 9:43:00 PM	11/22/2011 9:43:00 PM	Closed					ZOLL Hospital	Received
11/22/2011 8:02:35 PM	11/28/2011 2:49:53 PM	11/28/2011 2:49:53 PM	Closed					ZOLL Hospital	Received
11/22/2011 8:02:35 PM	11/28/2011 2:51:12 PM	11/28/2011 2:51:12 PM	Closed					ZOLL Hospital	Received
11/22/2011 8:02:35 PM	11/28/2011 2:51:19 PM	11/28/2011 2:51:19 PM	Closed					ZOLL Hospital	Received
11/22/2011 8:02:35 PM	11/28/2011 2:51:24 PM	11/28/2011 2:51:24 PM	Closed					ZOLL Hospital	Received
12/21/2011 8:08:06 PM	2/17/2012 9:15:03 PM	2/17/2012 9:15:03 PM	New		Eric's Ambulance			ZOLL Hospital	Received
12/21/2011 8:08:06 PM	2/17/2012 10:08:55 PM	2/17/2012 10:08:55 PM	Open		Eric's Ambulance			ZOLL Hospital	Received
2/17/2012 7:19:50 PM	2/17/2012 9:09:29 PM	2/17/2012 9:09:29 PM	New		Josh Customer			ZOLL Hospital	Received
2/17/2012 7:19:50 PM	2/17/2012 9:09:29 PM	2/17/2012 9:09:29 PM	New		Eric's Ambulance			ZOLL Hospital	Received
2/17/2012 7:19:50 PM	2/17/2012 9:09:29 PM	2/17/2012 9:09:29 PM	New		Eric's Ambulance			ZOLL Hospital	Received

The columns of information include:

- **Acquisition Date/Time:** The date and time the 12-Lead record was acquired.
- **Distribution Date/Time:** The date and time RescueNet 12-Lead distributed the 12-Lead record.
- **Inbox Received Date/Time:** The date and time the 12-Lead record arrived in the RescueNet 12-Lead Inbox.
- **12-Lead Status:** New, opened, or closed.
- **Unit Name:** The unit name that obtained the 12-Lead record.
- **Sending Agency Name:** Name of the agency that performed the distribution.
- **Distribution List:** The name of the distribution list the system used to distribute the 12-Lead. For more information on distribution lists, see [Distribute on page 2-6](#).
- **Destination Type:** Destination types include email, fax, and RescueNet 12-Lead Cooperating Customer.
- **Destination:** Contains the destination type details such as the email address, fax number or Cooperating Customer name.
- **Transaction Type:** Received or sent.

EMS to Balloon Report

Move your mouse over Reports and select **EMS to Balloon**. There are two sections in this report; the EMS to Balloon Time vs. Goal graph and the report grid.



Note: The system will deliver 1000 records for a single request. If your request is larger than 1000 records, only the first 1000 records display.

1. Acquired Date Range:

a) **To view 12-Leads for a specific date and time:** Click **From** and **To** in the **Acquired Date Range** field to manually enter the date and time or to select a day and time from the pop-up calendar.

- Manually enter a date and time: Use the mm/dd/yyyy hh:mm format.
- Pop-up calendar: Select the month and the year before you select the day. If you select the day first, the system selects the current year.

b) **To view all the 12-Leads in the system:** Enter today's date in the To field.

2. Transaction Type: Select one of the following from the drop-down list:

- a) **12-Leads Sent:** View sent 12-Lead records only.
- b) **12-Leads Received:** View received 12-Lead records only.

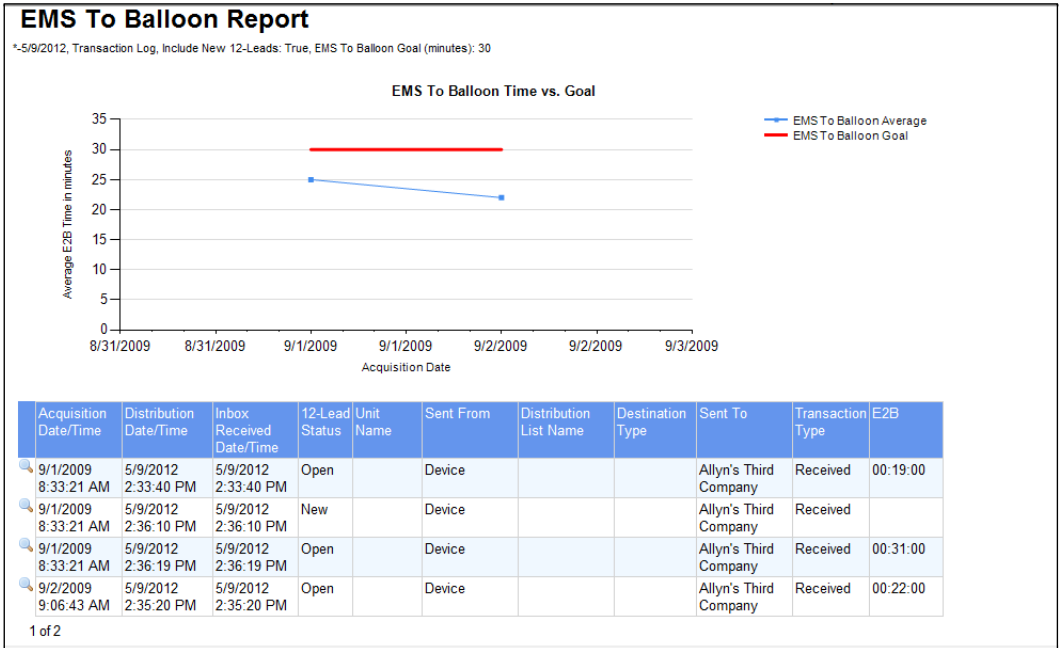
- c) **Transaction Log:** View both the sent and received 12-Lead records.
- 3. **Include New 12-Leads:** Check this box to include new 12-Lead data in the report.
- 4. **EMS To Balloon Goal:** If your company has an EMS to balloon goal, enter the goal in minutes. When you enter a goal, the system plots the time on the graph in red so you can easily see the records that fall in and out of goal range.
- 5. Click **Display** to view the report.

The columns of information include:

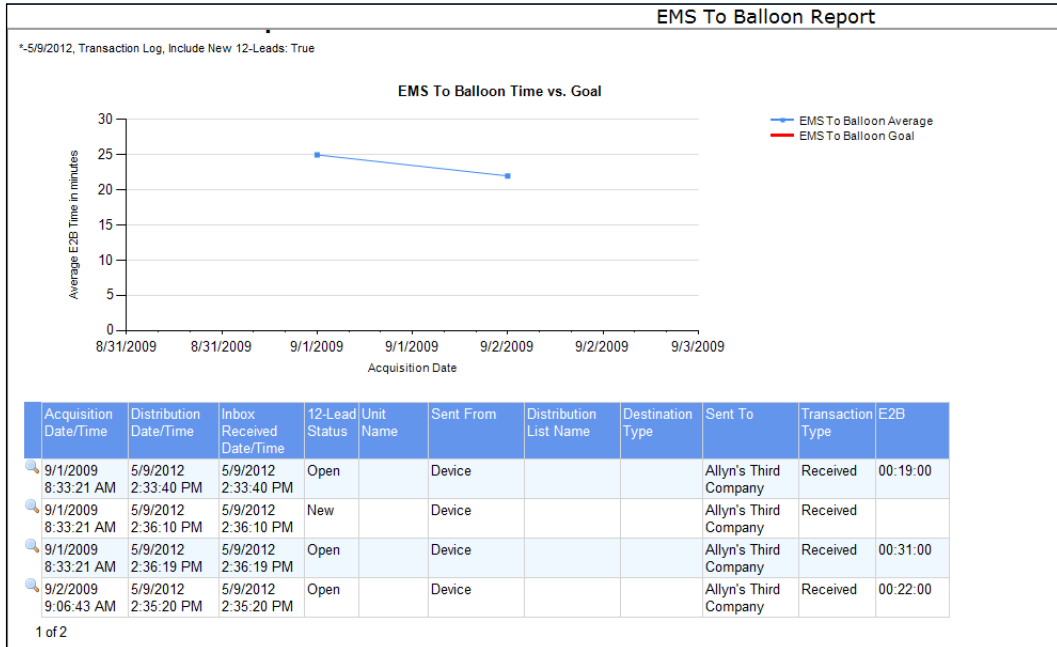
- **Acquisition Date/Time:** The date and time the 12-Lead record was acquired.
- **Distribution Date/Time:** The date and time RescueNet 12-Lead distributed the 12-Lead record.
- **Inbox Received Date/Time:** The date and time the 12-Lead record arrived in the RescueNet 12-Lead Inbox.
- **12-Lead Status:** New, opened, or closed.
- **Unit Name:** The name of the unit that obtained the 12-Lead record.
- **Sending Agency Name:** The agency name that sent the 12-Lead record.
- **Destination:**
 - Email address if destination type is email.
 - Fax number if destination type is fax.
 - Cooperating Customer name if destination type is Cooperating Customer.
- **Destination Type:** The destination type such as email, cooperating customer, and fax.
- **Distribution List:** The distribution list name.
- 6. **E2B:** Displays the E2B for this record. The E2B value is derived from the time difference between balloon time and EMS time. The EMS time and balloon time is set in the 12-Lead Details page. For information on how to set the E2B, see [Edit EMS to Balloon Time \(E2B\)](#) on page 2-4.

Report Examples

In the following example, a user generated a report using a transaction type of 12-Leads Sent and an EMS to Balloon Goal of 30 minutes. The goal displays in red on the graph. Since this is a sent report, the Distribution List, Destination type, and Destination columns display.



The next example shows a report generated with the transaction type of 12-Leads Received with no EMS to Balloon Goal specified.



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