

DIGITAL VOICE RECORDER MODEL DVR - FS

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Rev. I

INSTALLATION AND OPERATION MANUAL



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DIGITAL VOICE RECORDER

With Removable SATA Archive System

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SECTION 1 – INTRODUCTION

Congratulations on the purchase of your new JEI Model DVR version FS Digital Voice Recording System. You have purchased a recording system that incorporates the latest in computer technology and JEI's greater than 35 years of recorder research and development experience. Your recorder will provide the peace of mind that comes from knowing your critical communications are digitally captured and archived for as long as is required. Your DVR recorder requires very little maintenance to provide years of trouble free service.

Once connected to an analog audio signal source, the DVR automatically records your communication using a voltage drop sensor or Voice Activation circuitry (VOX). Recorded signals from each channel are recorded on an internal hard drive for instant retrieval of your most recent conversations (Instant Recall). At the top of the hour all the new recordings are copied to the archive drive. You will have an automatic backup of all of the recordings.

When the main hard drive fills-up with recordings, the oldest material is deleted from the hard drive first to provide sufficient space for new conversations (FIFO - First In First Out). The archive drive can be set to do a few different things when it gets close to being full. The most popular is to let the users know that it should be replaced with a fresh blank archive. Is easy just pull out the full drive and pop in a blank one. The recorder will take care of all the details.

The DVR can simultaneously record and playback so you will not miss recording a new conversation while you are listening to an old conversation. The system allows the conversations in process on any channel to be monitored as well.

Your system ships to you configured for recording and ready to go. One need only connect the cable set, power up the recorder, and apply audio signals to start recording.

Provisions for the re-installation of software are provided to allow users to recover from system failures or when directed by the manufacturer.

IF YOU NEED ASSISTANCE

It is highly recommended that the user review this manual to become familiar with the capabilities of the system. If you feel you need additional assistance, please call (888) 677-2844.

SECTION 2 – INSTALLATION

This section covers the proper mounting of your DVR and the steps required to connect your DVR to a recording source.

1. MOUNTING

- Mount in a clean, dry and air-conditioned environment. Excessive heat or cold will negatively affect operation. Condensing humidity will likely cause system failure.
- Excessive dust or sand will interfere with efficient operation of the Archive drive.
- Mount at eye level, if possible, for easy viewing.
- Ensure obstructions do not restrict airflow through the side panel and out the rear chassis door.
- JEI strongly recommends purchasing an Uninterruptible Power Supply (UPS) to allow a smooth shutdown of the DVR in the event of a power outage and to provide power surge protection for your investment.
- It is important for trouble free Removable Archive Disk drive operation to mount the system on a level surface.
- For rack mounting, remove the rubber feet and secure the rear of the DVR at the mounting lug.
- Do not mount near strong RF fields, electric motors, large TV monitors, powered speakers or any other strong magnetic field source.

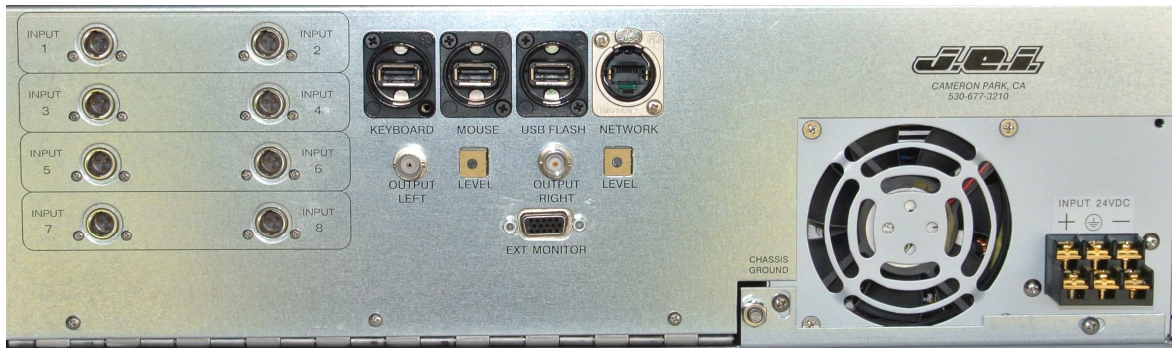
2. POWER

A standard JEI recorder unit is connected to standard 110 VAC or 220 VAC using a power cable. It is highly recommended that a power conditioning circuit be used to supply power to the recorder. On some DVR versions the voltage level should be set via a small red switch near the power plug. DVR units with “Full Range” marking or lacking a red switch will auto adjust to the voltage level.

DVR units that are configured for 24 volt power, have an exposed terminal bus for power. Connect your 24 volt supply to the outermost terminals using an appropriate gauge wire. The 24 volt power system used on the DVR is capable of drawing 700 watts.

DVR units that are configured for 12 volt power, have an exposed terminal bus for power. Connect your 12 volt supply to the outermost terminals using an appropriate gauge wire. The 12 volt power system used on the DVR is capable of drawing 500 watts.

3. AUDIO INPUT CONNECTIONS



DVR-FS with the High Fidelity Option

JEI Communication Recorders easily connect to a telephone or radio communication source in a number of ways. However, most connections require JEI interface cables or JEI Coupler Devices to bring the audio from the source device. DVR rear panel input connectors are defined at the point of sale.

The DVR-D and DVR-FS models are equipped with either DIN-5 (Standard) or BNC ports.

The DVR-E and DVR-FT models have RJ12 ports.

The DVR-FS models with the High Fidelity option have ports for Mini-XL female plugs

The ideal audio input level is in the -25 to +4 dBm range. The input impedance is 10K, unbalanced. Any input level between -20dBm (47mv P-P) and +4dBm (3.55v P-P) is acceptable. Input levels above the desired range will be compressed, which reduces the sound quality.

Care should be taken to establish connections with no audible noise on the line. Any audible noise may have sufficient level to trigger the VOX circuit and cause "dead-air" recordings. This situation is especially noticeable in remote radio setups. Be aware of public address systems integrated with radio operations, as these setups can be very noisy.

4. DIRECT AUDIO CONNECTION

For Connecting to a DIN-5 Port use the following pin assignments.

Use a DIN-5 plug. Connect Pin 3 to positive audio. Connect Pin 5 to negative audio. Coupler voltage is carried on Pin 6 (12 VDC.) Pin 5 also provides ground.

For Connecting to a RJ12 Port use the following pin assignments.

Use a RJ12 plug. Connect Pin 3 to positive audio. Connect Pin 4 to positive audio. Coupler voltage is carried on Pin 6 (12 VDC.) Pin 1 is ground.

For Connecting to a Mini-XL Port use the following pin assignments.

Use a Mini-XL female plug (Part number 1003-1163-ND, from Digi-Key Corporation)
The audio is carried on pins 2 and 3. Connect Pin 1 to the shielded ground. Connect Pin 2 to the negative audio. Connect Pin 3 to the positive audio.

5. TELEPHONE CONNECTION INSTRUCTIONS

The user decides whether they want to record all conversations on a particular phone line or a particular phone extension. For example, if a company has 25 phone lines and 8 extensions, it might be more efficient to connect to phone sets or workstations rather than incoming phone lines. The phone set connection is accomplished by the use of a multi-line phone coupler. By connecting to phone workstations, all calls to that workstation are captured no matter how many phone lines are in the hunt group. When connecting to the workstation, it is a simple matter to identify a user with a phone and particular conversation with that workstation. This connection method makes searching for audio files much simpler.

Couplers provide the "beep" tone during recording, a legal notification requirement in most states.

Recorders can also be connected via couplers directly to incoming phone lines at the punch down block. This connection method is necessary for certain operations. Microphones can be connected either through a coupling device or directly with the proper wiring setup. Contact JEI for wiring assistance.

Couplers for direct telephones include the following...

RTC-100T Single Line Coupler for single line desk phones.

D-TC-2CA Multi-Line Coupler for multi-line desk phones.

TC-3 Multi-line Coupler for multi-line desk phones

The specific coupler required considers your phone system and your recording needs. Contact JEI for assistance in matching a coupler to your phones.

5.1 TO RECORD ALL CALLS ON A PARTICULAR PHONE LINE

Part Number RTC-100T Single Line Telephone Coupler (Requires 5 Pin DIN or RJ12 jack on rear panel.)

Connect before the Switch (PBX) using a JEI part number RTC-100T (Figure 1) coupler. A telephone technician must install a phone outlet (USOC #RJ-11C jack) from the particular incoming analog telephone company (telco) line to the DVR recorder. This coupler allows for automatic recording of all conversations to/from any phone in the facility that uses that one phone line. The coupler triggers recording when it senses a drop in line voltage. One advantage the coupler has over others is it will begin recording from the first telephone ring. This information can be used to assess operator response time.

Notify the Phone Company that you are connecting this coupler to the telephone system. They will want to know the following:

- FCC Registration #HGV-270-17663-RC-N
- Ringer Equivalence 0.7

Plug the RTC-100T coupler into the incoming telco jack using a standard RJ11 cable, or JEI P/N 020-10016-001. We suggest that you connect the coupler to the phone before connecting to the DVR. Also, we suggest you mount the coupler to the wall to prevent damage to the coupler. Connect Cable Assembly P/N 020-10020-001 from the "To Recorder" jack of the RTC-100T into an open channel on the back of the DVR. You are ready to record.

Note: The recorder will run continuously if the coupler is plugged into the recorder but not connected to the phone line. For this reason, we recommend that the coupler not be plugged into the recorder until properly connected to the telephone system.

5.2 TO RECORD ALL CALLS ON A PHONE EXTENSION

METHOD 1

Part Number TC-3 Multi-Line Telephone Coupler
(Requires 5 Pin DIN or RJ12 jack on rear panel.)

Connect after the Switch (PBX) to a single-line extension using JEI part number TC-3. A telephone technician installs a phone outlet (USOC #RJ-11C jack) that taps into the extension block of a particular analog handset¹. This method is used infrequently because of the requirements of digital PBX and digital handsets.

METHOD 2

Part Number D-TC2CA Multi-Line Telephone Coupler
(Requires 5 Pin DIN or RJ12 jack on rear panel.)

Connect at the Handset/Headset using a modular 4x4 cable, supplied with the D-TC2CA or TC-3. The user can make this connection without the assistance of a telephone technician. This coupler is specifically designed for multi-line phone sets.

Disconnect the handset cord from the telephone base and plug the cord into the 4X4 receptacle on the JEI coupler. Plug the short cord on the coupler into the RJ14 receptacle on the telephone base (the connector slot used for the handset cord). Plug the long cord from the coupler into any open port on the back of the DVR with the RJ12 connector. The cord from the coupler to the DVR can be extended hundreds of feet to accommodate long distances between the DVR recorder and the phone workstation. Contact JEI for wiring instructions. Peel off the adhesive backing on the coupler to attach the coupler to the side or underneath of the telephone or desktop. The coupler can be hidden from view.

Note: Be advised that the wiring sets provided with the DVR couplers are not to be tampered with or extended without JEI wiring assistance. Two of the wires in the cables to the couplers provide power to the coupler and are not to be connected to the recorder or phone system in error. It is very important that any extensions of wiring take into account the unique pin-outs for each wire and its purpose. When installing wiring extensions, care must be taken to maintain wire color codes from junction to junction. Do not cross any wires in the set from end to end.

On some modern digital phones, the handset stays “live” even when placed in the cradle. If this condition exists, room noises will be picked up and recorded by the DVR. The condition can be stopped or prevented by installing a proximity switch. The optical proximity switch, provided with the TC-3, will tell the recorder when the handset is in or out of the cradle.

¹ Some phone systems transmit a digital signal from the switch (PBX) to the handset. These systems require a Digital-to-Analog Converter (DAC). Call JEI with the PBX manufacturer name and model number to check DAC availability.

6. TWO-WAY RADIO CONNECTION INSTRUCTIONS

To connect the DVR to a two-way radio system requires one of two couplers. The specific coupler required considers your radio system and your recording needs. Connection methods vary depending on the make and model of the base station or remote station in use.

6.1 TO RECORD AT THE REMOTE STATION:

Part Number D-RC-1

(Requires 5 Pin DIN or RJ12 jack on rear panel.)

This part is used to connect the DVR to a remote station. You have a remote station if your radio transmitter is NOT near the station.

Suggested methods of connection to the remote station:

- Remote (RTO) Line Connection – Both transmit and receive sides should be available.
- Unswitched Audio Outlet (Audio A Connection) – Many remote control stations are equipped with an outlet for connecting an amplifier or remote speaker for monitoring both transmit and receive audio. If available, this outlet provides an excellent point for connecting to the DVR.
- V.U. Meter Connection – If a V.U. meter is in use for monitoring both transmit and receive audio, connection can often be made at this point. One side must be chassis ground or isolation is required.
- Monitor Receive Connection – If it is not possible to make a satisfactory connection to the base station, it may be necessary to use an independent monitoring receiver. Connection can be made directly across the speaker terminals.

Note: The volume control of the receiver should be secured so that it cannot be moved after the proper level has been set.

Plug the RJ-type connector of the output cable on the coupler into the desired available channel on the back of the recorder. You are ready to record.

6.2 TO RECORD AT THE BASE STATION

Part Number RTC-100R

(Requires 5 Pin DIN or RJ12 jack on rear panel.)

This part is used to connect the DVR to a base station. You have a base station if the radio transmitter is near the recorder.

The RTC-100R mixes the base radio microphone and speaker audio to record both parts of radio conversations.

Connect an RJ11 gray satin cable, contacts 3 and 4 (the middle 2 of the 4 contacts of an RJ11) to the base radio speaker circuit. (JEI P/N 020-10017-001) This is an isolated input so polarity is unimportant. The RJ11 plugs into the "Rx" port of the RTC-100R.

Another RJ11 cable (JEI P/N 020-10017-001) attaches to the microphone circuit of the base radio. Attach the RJ11 contact 3 to "Mic Hi" and contact 4 to the shield ("Mic Lo"). The microphone circuit must be arranged so that the microphone is alive only when the PTT circuit is activated. The RJ11 plugs into the "Tx" port of the RTC-100R.

Use the 020-10020-001 cable assembly to connect the “To Recorder” output of the RTC-100R to the desired available channel on the back of the DVR-FS. NOTE: This cable utilizes two of its 6 conductors to power the RTC-100R. DO NOT CONNECT THE RADIO DIRECTLY TO THE DVR-FS.

7. EXTERNAL RECORDING CONTROL

Some models of recorder units offer external control of the recording process. Units equipped with this feature will have DB-9 connectors on the rear panel. If a cable is plugged into this port, the cable will control if audio is passed along to the recorder for the associated channel ports.

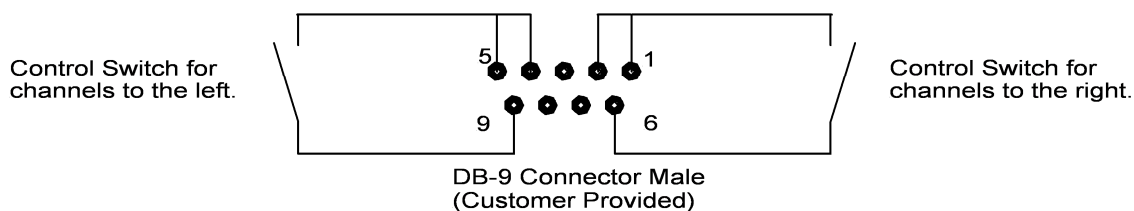
Each pair of channels will have a DB-9 female connector located between the channel ports. This connector will provide a control point for the two channel ports on the same row. An 8 channel record will have 4 DB-9 control points.

Each control port is a normally open circuit. When the circuit is open, no recording will happen on the controlled channel. If the circuit is closed, audio will be passed along to the recording processor.

For example, if you have a foot switch and the end of the control cable, stepping on the footswitch will allow recording. You could also use a toggle switch or a Push-To-Talk style button. (In this case it would be a Push-to-Record button.) An 8 channel recorder will have 4 control cables and 8 switch devices.

7.1 CONSTRUCTING A CONTROL CABLE

To use the recording control, you will need a custom cable that attaches to your control devices or switches. The following diagram shows how the cable needs to be constructed.



Start with a DB-9 male connector. To control the right channel port, connect pins 1 and 2 to one side of a switch device. Connect pin 6 to the other side of the switch device. To control the left channel port, connect pins 4 and 5 to one side of a switch. Connect pin 9 to the other side of the switch.

The circuit provides 12 VDC so you can wire in an indicator LED if you would like. Pins 6, 7, 8, and 9 are all ground pins. 12 ma flows when the circuit is closed.

8. KEYPAD CONVENTIONS

The 3U DVR units have built-in Keys on in the front panel for performing all user commands. User preference may dictate the addition of an external USB keyboard and mouse.

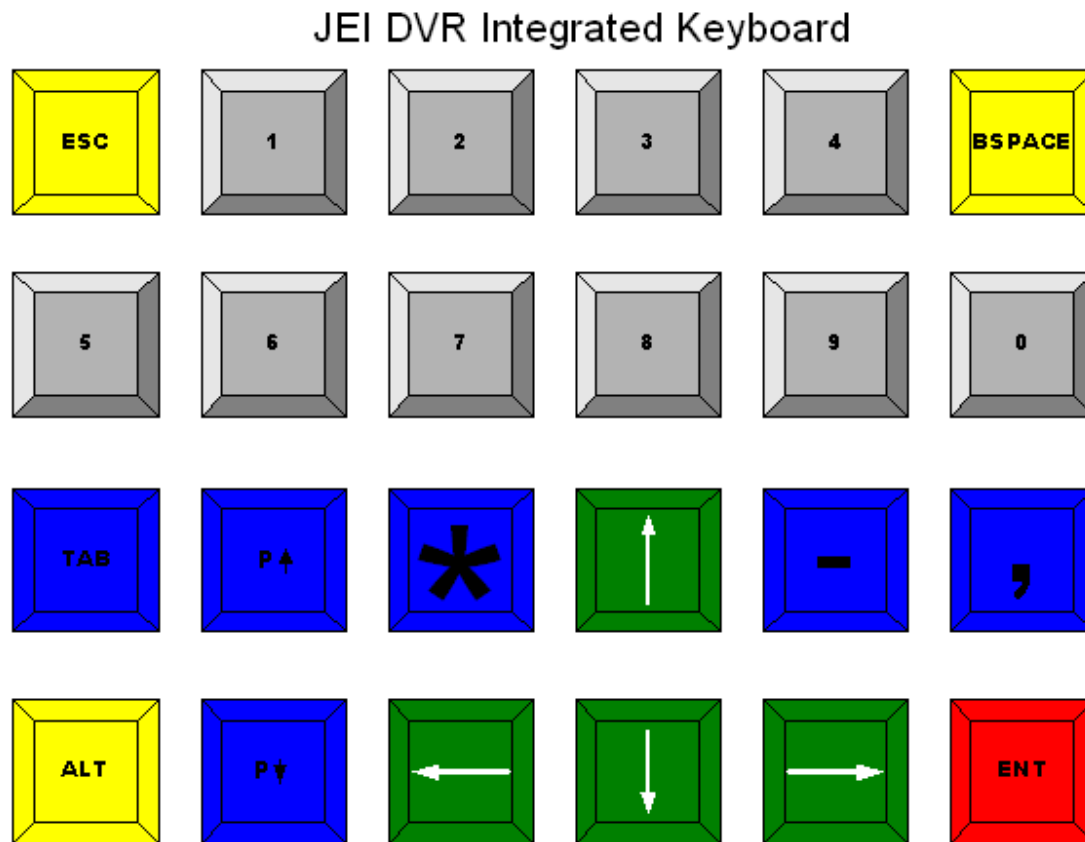


Figure 2.3 Keyboard Layout

KEY	Used for
ESC	Go Back to Previous Menu/selection buttons
TAB	Move to the next field or button
BSPACE	Erase characters one at a time from the editable fields.
ALT	tab navigation (i.e. ALT+1)
ENT	Enter Key
P↑	Scroll a screen full at a time in lists
P↓	Scroll a screen full at a time in lists
Arrow Keys → ↓ ↑ →	list navigation (one recording at a time)
*	Wild Card to be used in Check boxes/Search/Reports (i.e. 001*)
-	Range selection to be used in Search/Reports (i.e. 1 – 5)
,	Multiple selections to be used in Search/Reports (i.e. 2, 1, 5-6)
Numbers	Data entry and channel selection

9. ACTIVITY INDICATOR LIGHTS

(Optional feature)

Some Models of JEI Recorders have indicator lights on the front panel. On a DVR-FS model the lights are paired with a sensitivity knob below the lights. Turn the knobs to set the VOX sensitivity. The lights indicate that VOX has been detected. DVR-E models have lights that show the sound activity. They will flicker as the sound levels change.

Recorders with the High-Fidelity options do not have functional front panel indicators. However, the LEDs may still be installed in the unit. In this case the LEDs will always be dark.

10. REAR OUTPUTS

(Optional feature)

Recorders with the High-Fidelity option include rear panel output BNC connectors. The Left connector is for the playback of recorded audio. The Right connector is for the monitor function.

Sound will be produced from the front speaker. The speaker can be set for either playback or monitor depending on the position of the channel selector switch. The volume of the speaker can be controlled using the volume knobs just below the speaker.

The rear outputs always use the maximum available volume. The rear panel playback and monitor ports can output audio at the same time.

11. TURNING ON THE SYSTEM FOR THE FIRST TIME

1. Locate the system carefully. Route the audio feeds to the recorder unit carefully. Be mindful of nearby devices producing strong magnetic fields. Do not place the recorder in direct sunlight. Sun glare may make the monitor impossible to see.
2. Plug the power cord into a surge protector and/or Un-interruptible power supply. The DVR power supply can be set for 120 or 220 VAC service. Make sure the switch in back is set to the proper value for your local electric service.
3. The DVR-FS system comes with a SATA hard drive installed in the carrier, ready to archive at the top of each hour (default setting). DO NOT attempt to remove the drive until familiar with all instructions pertaining to use of the removable SATA system.

Contact J.E.I. for important information regarding SATA replacement hard drives.

4. Attach an external keyboard, mouse or full size monitor prior to applying power to the system.
5. Press the power button to start the machine.
6. Type **09876** in the LOGIN field to access the system.
7. Double click on the Channel 1 icon or type the number "1". The View tab will be activated and display a list of recordings. Press the "enter key" once. The highlighted file will be opened in the player and begin playback. If audio is present your system arrived in good health and is ready for recordings.

8. The DVR-FS utilizes the latest Serial ATA (SATA) hard disk drives to archive critical recordings. With some care and general maintenance, the DVR's Removable SATA Disk drive will provide years of trouble free service. The Removable SATA Disk stores information just like the system's main internal hard drive. Your DVR-FS system has been shipped with the SATA Archival disk installed. See Section 4 for instructions on how to mount subsequent replacement drives.

The DVR system utilizes a highly customized Windows 7 Professional operating system. Do not attempt to adjust any settings on the Operating System. Any attempt to change the parameters of Windows 7 Pro, other than items that JEI makes available to users will result in voiding of the warranty. JEI may authorize users to make changes to the system.

Be advised a full size color monitor, full size keyboard and mouse can be added to the system in the event space is not an issue. This manual addresses both stand-alone operations as well as expanded operations with extended equipment lists.

The integrated 5" monitor screen is monochrome.

A VGA Monitor may be connected to the rear VGA port to utilize a color screen.

Depending on the model, some JEI units have DVI video only. For these units, a DVI to VGA converter will allow a VGA monitor to be connected to the DVI port.

Some Advanced Recorders may be equipped with only HDMI video output. HDMI to VGA converters are available for using a VGA monitor.

SECTION 3 – BASIC OPERATION

1. GETTING STARTED

- a) Verify that **ALL CONNECTIONS** and all system checks described in Section 2 have been preformed.
- b) Start the system by pressing the POWER switch.

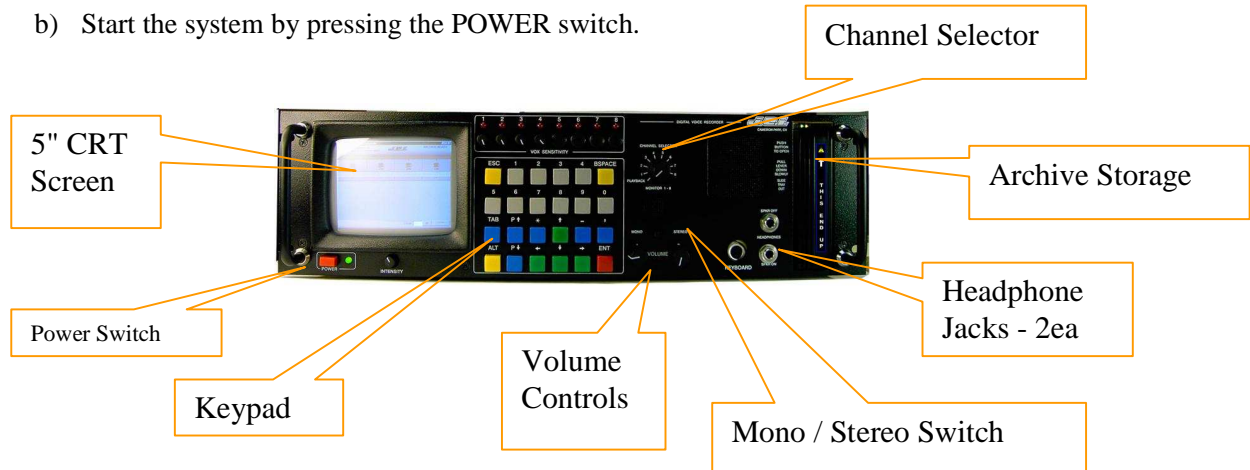
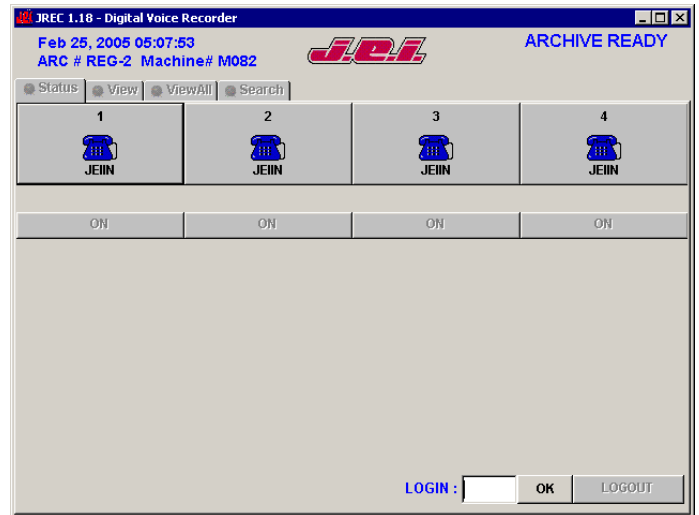


Figure 3.1.1 DVR-E

- c) Once the operating system as started, the JEL splash screen will appear (Pictured Right.) The Splash screen contains JEL's address, phone number and website if you need to contact JEL. The splash screen will be displayed for a few seconds, to avoid waiting, press the **Enter** key.
- d) A progress bar will be shown while basic checks and diagnostics are processed. The recorder is capturing audio during this process. Please do not interrupt the recorder while this progress bar is displayed. We have attempted to make the verification process as efficient as possible so it really should not take long.



- c) Once the startup processing is complete, you should see the Status tab. The Status tab displays the information about the condition of each channel available on your recorder. There are also some basic controls available from this screen. (Many of which are optional and your recorder might not show them.) More information about the Status tab is contained in section 3. You will notice that most of the items on the screen are inactive – that is because you need to logon to the system before you can access any of the features or recordings.



This screen is the starting point for most activity on the recorder. If at any time you have trouble using a feature and need to start over – just keep pressing the escape key until you get back to the Status tab.

2. USER ACCESS

LOG ON

- a) In order to gain access to the recordings on the recorder, you must logon first. Type the user **login** in the login field at the bottom of the screen. If it seems that you cannot type anything press the escape key until a cursor appears in the field. Once you have filled out the field, click the **OK** button or press the **Enter** key.

**THE FACTORY INSTALLED
ADMINISTRATIVE LOGIN IS 09876.**

Use this Login to enter the system for the first time.

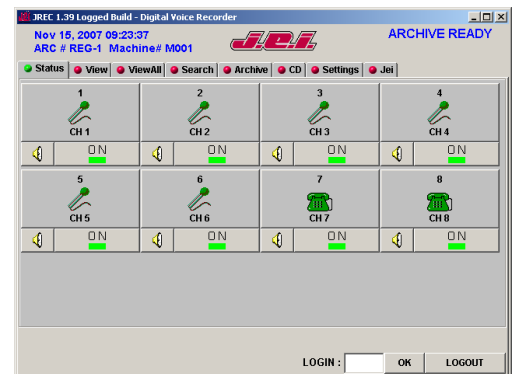
Make sure to change the assigned logins for the administrator and create new users immediately.

- b) When a valid login is entered, all of the feature and tabs will be enabled and the color of the elements will change depending on the users access level additional tabs may be shown. If a tab you were expecting to see is absent, an administrator might have changed your access level or you have accidentally used the wrong account. Logout and try again.
- c) If an incorrect Login is entered, the system prevents access to recorder and displays the “**Invalid Login**” message in the lower left hand corner of the screen. Other messages may appear here as well.

The JEI DVR has three levels of access to recording reports and system features. These levels of access correspond to the individual's job duties. The number of accessible tabs and other features are controlled by the access level. The three access levels are: Operator, Supervisor, and Administrator.

- The Operator has access to the Status, View, View All, and Search tabs to enable them to search and playback the recordings. Access can be established for all or selected channels.
- The Supervisor has access to the Status, View, View All, Search and Archive to enable them to search and playback the recordings. The Archive tab gives the Supervisor access to the historical recording and allows him to safely remove and replace existing archive drives. Various export features allow supervisors to send recordings to CDs or memory sticks. Access can be established for all or selected channels.
- The Administrator has all the access of the Supervisor plus access to the Admin Settings tab. Admin Settings is the tab for setting all the global recording settings, turning on/off features, and establishing user access. Administrators are also the only users that can safely shutdown the recorder.

For information on establishing logins and access levels, refer to Section 5, System Administration Settings.



LOG OFF

If the current user is inactive for an extended period, the DVR will automatically log out the user. The automatic logoff interval can be set by the administrator using the Settings tab.

The automatic log off feature prevents unauthorized access to recording by individuals without logins.

The administrator can disable the automatic logoff feature by setting the logout period to zero. In that case the system will not force any user to logoff.

The current user can end the session immediately by clicking the logout button on the Status tab (which should be done every time the user expects to leave the room.)

3. RECORDER STATUS

- a) The Status tab consolidates information on recorder activity. The user can monitor the all recording channels and the removable SATA archive cartridge info.

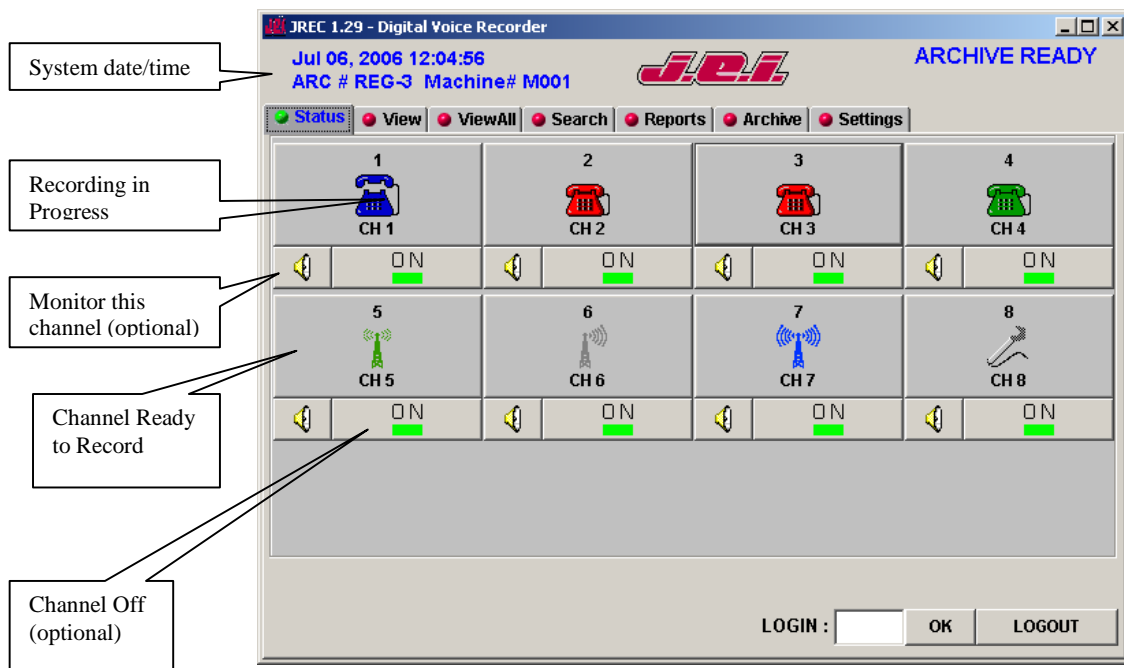


Figure 3.3.1 – Status Features

- b) The system Date and time is displayed in the top left corner.
- c) Archive status is in the upper right hand corner of the screen
- d) The center of the screen provides a graphical display of the various recording channels. Using color and icons, the user can quickly see the recording status of each channel. The colors of the Channel Buttons indicate:
- Blue = Recording in Progress
 - Green = Ready to Record
 - Fault = Recording Disabled because of Problem

- Idle = Recording Disabled by System Administrator
- e) The channel buttons also provide quick access to the list of recordings on a particular channel. There are three ways to jump from the Status tab to the view tab:
- Use the Mouse to left click on the channel button;
 - Use the **Tab** or Cursor keys to highlight the channel of interest and hit the **Enter** key;
 - Use the number keys to type the channel number. If your recorder has more than 9 channels, you will have to use 2 numbers to identify the channel – so channel 5 will be accessed by using the "0" key followed by the "5" key.

Of course, your user must have access rights to the channel before you can see the recordings. If you cannot get to a particular channel, check with the administrator to see if the channel has been assigned to you.

f) The small speaker icons below each channel button control the monitor circuit. Click on the speaker icon to engage the monitor for that channel. You will also need to verify that the front panel **channel selector is set on position 1** so that the audio will be routed to the speaker. Monitor can only observe one channel at a time. You will have to click it off before selecting another channel to monitor. This feature is optional and not available on all recorders.

NOTE: The front panel selector will have to be switch back to the playback setting so that you will be able to hear the audio. If you launch the player but dot hear anything – check the channel selector switch.

g) The on/off button below the channel icon can enable or disable recording on the corresponding channel. This is most useful for conference room recording solution where individual microphone must be turned off in certain situations. This feature is optional and not available on all recorders.

4. VIEW Tab

- a) The View Screen displays all the recordings for the selected channel. In the example (Shown Right), the recordings on **Channel 1** are displayed.
- b) The View tab displays the event number, Date, Time, Duration, and other information for each recording. The blue highlight bar indicates the selected recording. A use can select a recording using a variety of methods
- Use the Mouse to click on a row to select it
 - Use the Up and down arrow keys
 - Use the Page up and page down keys

Event #	Date	Start Time	Duration	Cc	Mark	Note
00105252006073956	05/25/2006	07:39:56	00:00:46			
00105252006074127	05/25/2006	07:41:27	00:00:27			
00105252006074249	05/25/2006	07:42:49	00:00:12			
00105252006074347	05/25/2006	07:43:47	00:00:26			
00105252006074444	05/25/2006	07:44:44	00:00:37			
00105252006074615	05/25/2006	07:46:15	00:00:21			
00105252006074835	05/25/2006	07:48:35	00:00:17			
00105252006074941	05/25/2006	07:49:41	00:00:19			
00105252006075047	05/25/2006	07:50:47	00:00:30			
00105252006075152	05/25/2006	07:51:52	00:00:32			
00105252006075306	05/25/2006	07:53:06	00:00:34			Note 5306
00105252006075404	05/25/2006	07:54:04	00:00:43			
00105252006075526	05/25/2006	07:55:26	00:00:35			
00105252006075616	05/25/2006	07:56:16	00:01:02			
00105252006075722	05/25/2006	07:57:22	00:01:02			
00105252006075836	05/25/2006	07:58:36	00:01:06			
00105252006075950	05/25/2006	07:59:50	00:01:03			Note 5950
00105252006080104	05/25/2006	08:01:04	???:??:??			

- c) The system assigns a unique Event # for your convenience. It would be a good practice to write down important event numbers on reports during an incident so that the audio can be retrieved quickly.
- d) The date, time, and duration show the recorder time when the recording began. Once recorded this time cannot be changed. The Duration is filled with question marks (?:?:?) to indicate that a recording is currently under way. The Duration shows hash marks or pound signs (##:##:##) to indicate that the recording was interrupted. This is typically due to the recorder unit being restarted or a loss of power.

If the system time is changed, backwards or forwards the new time will be used only when a new recording begins. This can lead to some “time gaps” appearing in the list of recordings – no recordings were actually missed it just looks strange in the list. It is important that the recorder time clock is set accurately coordinated with the other time systems in your organization.

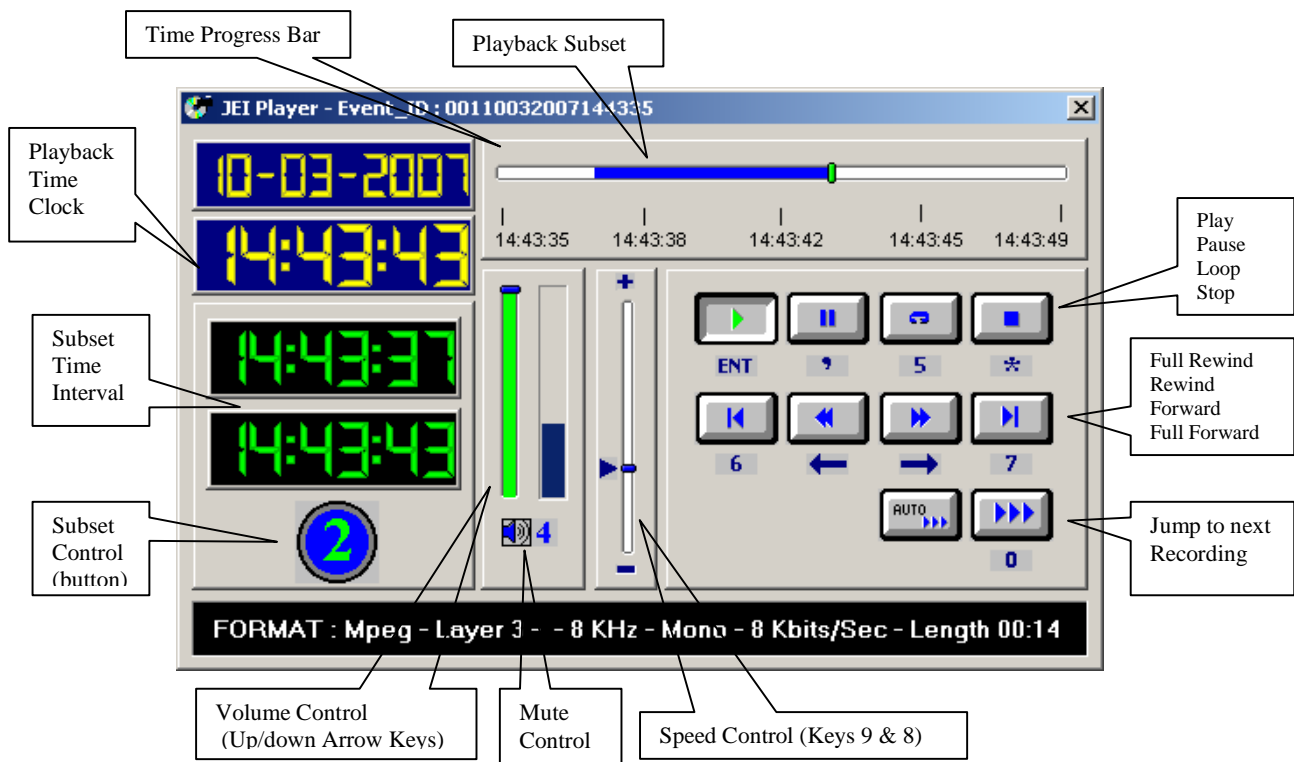
- e) The “Cc” column indicates that this is a continued call. If the letter “C” appears in the “Cc” column, the captured audio is longer than 1 hour in duration. The recording and the following recording should be considered as a single event. No audio data is lost – is has simply been split into more than one part. The maximum recording size of one hour was selected to limit the file sizes to manageable chunks that other software (like CD writers) can handle. This is a safety feature to prevent run away recordings that could waste hard drive capacity. If the channel is full of continued calls, you should adjust the recording sensitivity for the affected channel.
- f) To play the selected recording, simply press the **Enter** key or double click the left mouse button. Verify that the channel selector switch on the front panel is set on the Playback setting to route the audio to the speaker. The JEI Player (See the next section) appears and starts playing the corresponding audio. Once you are finished listening to the audio press **Escape** to exit the player.
- g) You can play back a recording that is currently recording, simply by selecting it in the list and playing it like any other recording. A few of the player features will be disabled. This capability is known as **Instant Recall**.
- h) The **Mark** button places a marker on the selected recording; an “M” indicator will be added to the record. This indicator can be used to flag particular records as being important.
- i) The **Note** Button allows you to enter important information about the call. The text entered in the Note Editor is saved when the editor is closed. The note editor can be closed by clicking on the X in the top-right corner or by using the ALT key to access the File menu. The File menu has both a Save and an Exit option. The Exit option both saves the text and exits the editor. The search features of the recorder will allow you to find recordings based on the contents of the notes. The first 20 characters of a note appear on the view tab.
- j) To exit the View tab and return to the Status Screen, hit the **Escape** key until you return to the Status tab or click on the Status tab with the mouse.



Caution: Some DVR recording systems are capable of high fidelity recordings using 48 kHz sample rates. Older sound cards may only operate up to 44.1 kHz sample rates or lower and thus playback will be inoperable. If you must playback using a lower fidelity sound card then you must adjust the recorder to record at no more than the maximum available sample rate of that sound card.

5. PLAYBACK CONTROLS

- Once the JEI Player (shown below) opens it will begin the playback immediately.
- The playback clock, located in the upper left hand corner of the screen, shows the actual time of the recording and track the current play position as the audio proceeds.



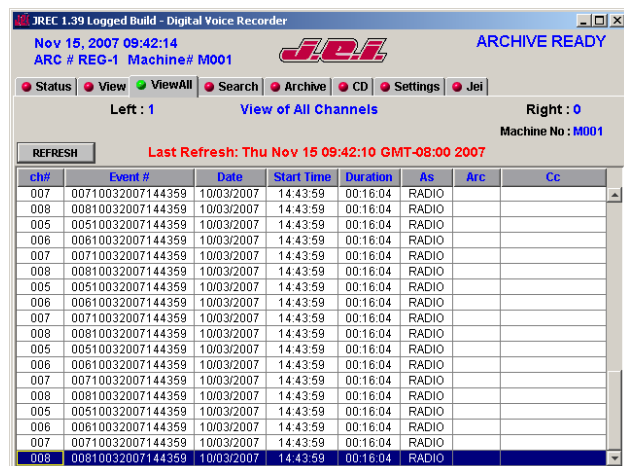
- At any time during playback, a portion of the original audio file can be selected as a segment for repeated playback – called a **Subset**.
 - Click the mouse or press 1 on the **subset control** when the playback reaches the **starting point** of the playback portion you wish to separate. The number "2" will appear on the circular digital display.
 - Click the mouse or press 2 on the **subset control** again when the playback reaches the **end point** of the playback portion you've separated. The number "3" will appear.
 - You have now marked a specific portion of the audio recording for repeated play/study.
 - If you click on the **subset control** again or hit the 3 keys, you will reset the subset shown on the time progress bar.
 - You can select the **loop control** to playback any portion of a recording over and over by click on the loop control or press 5.
 - The **subset time interval clock** shows the start and stop time of the subset selected.

- d) The player can be **closed**, at any time by, pressing the **Escape** key or clicking on the exit button at the top right corner.
- e) The Speed control (keys 9 & 8) change the playback speed of the audio. Increase the speed by moving the marker up or tap the 9 key. Decrease the speed by moving the marker down or using the 8 key.
- f) All functions can be accessed without a mouse via the keyboard by the items listed below each control.

ENTER	Play	7	Jump to End
ESC	Close the player	4	Mute
, (comma)	Pause	▲	Increase Volume
5	Loop	▼	Decrease Volume
*	Stop	9	Increase Speed
HOME	Jump to beginning	8	Decrease Speed
6	Jump to beginning	0	Jump to next recording
◀	Fast Rewind	1	Start a Subset
▶	Fast Forward	2	End a Subset
END	Jump to End	3	Clear the Subset

6. VIEW ALL

- Displays a more recent list of all channels in chronological order.² The View All tab (Figure 3.12) is useful when you are not sure of the specific channel that contains the recording of interest. View All helps if an incident involved recordings that were captured on many channels.
- If you are currently on the View tab, press Escape once and use the right arrow to activate the View All tab or use the mouse to activate the tab.
- An asterisk (*) in the “Arc” column indicates that the recording have been copied to the archive device. This allows you to track the progress of the archive.
- The Refresh button will update the list with the latest recordings.
- In most other ways the View All tab works the same way as the View tab (including selecting and playing back recordings).



² Only most recent recordings are displayed. More recordings may be found by using the search features.

7. SEARCHING

The search tab allows the user to search for recordings by any combination of channel, date, time, or audio source. Searches can be refined to include or exclude radio, microphone or telephone channels. There are four modes of searching, use the "MODE" button to switch to the next mode. The general search locates recordings that started between two specified date/times. The Spanning search locates recordings that started before and end after a specified time. The event numbers locates specific event numbers. The text search will locate recordings base on the attached notations.

#	S Date	S Time	E Date	E Time	Duration	As	Event Number
001	03/22/2013	03:50:19	03/22/2013	03:50:53	00:00:33	RADIO	00103222013035019
001	03/22/2013	03:50:56	03/22/2013	03:51:30	00:00:33	RADIO	00103222013035056
001	03/22/2013	03:51:32	03/22/2013	03:52:07	00:00:34	RADIO	00103222013035132
001	03/22/2013	03:52:09	03/22/2013	03:52:44	00:00:34	RADIO	00103222013035209
001	03/22/2013	03:52:46	03/22/2013	03:53:21	00:00:34	RADIO	00103222013035246
001	03/22/2013	03:53:23	03/22/2013	03:53:57	00:00:33	RADIO	00103222013035323
001	03/22/2013	03:54:00	03/22/2013	03:54:34	00:00:33	RADIO	00103222013035400
001	03/22/2013	03:54:36	03/22/2013	03:55:11	00:00:34	RADIO	00103222013035436
001	03/22/2013	03:55:13	03/22/2013	03:55:48	00:00:34	RADIO	00103222013035513
001	03/22/2013	03:55:51	03/22/2013	03:56:24	00:00:32	RADIO	00103222013035551

The Buttons

All of the search modes use a common set of buttons along the right edge of the Search tab. As you use the Mode button to change from one search mode to the next, these buttons will remain on the screen.

The Search button initiates the search process. Each time the search is engaged the results list will be cleared and repopulated with recordings that match the search criteria. If no recordings match your search criteria, which could happen if your date range is too far in the past, a message will let you know the no records were found.

The Clear All button erases the search results list, empties (or resets) all the search criteria fields and resets the checkboxes to the default state. Think of it as the OOPS button.

The Clear Row Button removes the selected row from the search results list; this can be used to fine-tune the list before printing a report or making a playback collection for external recording.

The Mode Button switches to the next search mode. The modes are General, Spanning, Event, and Text. Specifics of each mode will be covered in the next section.

The Print button prints a report of the entire search results list. A printer must be attached to the printer port on the back of the Recorder for this feature to function. Printing is restricted to Supervisor level access. If your access level is not high enough, the print button will never become enabled.

The Export button will allow Supervisors and Administrators to make copies of the specified recording to some other media (either a Flash Drive, a folder on the archive drive, or a custom location.)

The user may export the Highlighted recording in the search results or the user may export the entire contents of the list.

Export Options

Export Location

☒ Local ☐ Archive ☐ Custom

Export Path: C:\jeiexport

Recording Selection

☒ Selected Recordings ☐ Entire List

OK Cancel

The user enters the search criteria into the white field boxes. Once you have filled-in the field press the tab key to move to the next field.

The General Search

The channel field will specify a particular channel (1) or a list of channel numbers (1,3,5) or a range of channels (2-6). The search will be confined to the channels listed in the field.

The “Marked” search options allow a user to search based on the Marker flag on the View tab. The user can narrow a search to include just the recordings that are marked, the recordings that are not marked, or choose the ALL option to ignore the marker status of recordings

The Date and Time fields allow users to specify a starting date and time and an ending date and time. The recordings listed will only be the records that are between the two date/times. The user can skip entering the starting date/time to get the recordings that occurred before the end date/time. The user can skip entering the ending date/time to get the recording that occurred after the starting time. The time fields are optional and do not have to be entered in which case the date/time will not be a factor in the search process.

The Inputs selectors allow a user to search for records that come from a particular type of input source. The default input is “All” which really tells the search not to worry about the input source. Any combination of Radio, Mic, and Phone may be selected. The search results will be filtered to include only records that match one of the checked inputs.

The Spanning Search

The Spanning search is really more intuitive; it works much more like a brain works. Specify a date and time of interest and time period. The search results will bring back the recordings that were actually recording at the specified time.

The channel field will specify a particular channel (1) or a list of channel numbers (1,3,5) or a range of channels (2-6). The search will be confined to the channels listed in the field. If you leave the channel field blank all channels will be included in the search.

The Date and Time fields allow users to specify a date and time of interest. Since the Spanning Search is a precision search, all of the date/time fields must be entered.

The time span selectors allow you to set the tolerance of the search. If you select the 10-minute option, the search will find recordings that start or end within 10 minutes of the specified time.

The input selectors (Radio, Mic, and Phone) allow a user to restrict the search results to recordings that come from the specified input sources.

The Marked checkbox is a special case, if it contains a check mark, the search will find ONLY the recordings that have been marked. The unmarked recordings will not appear in the search results.

The Event Search

Once the Event search is displayed the event number field will automatically be active and ready to accept your search criteria. You can enter either entire event numbers or partial event numbers. When entering partial event numbers the asterisk (*) can be used to denote a partial search. The use of the asterisk is optional. This is a precision search, it is easy to make a typo in the event number field. Don't get discouraged – check your event number and just try the search again.

The Text Search

Once the Event search is displayed the event number field will automatically be active and ready to accept your search criteria. You can enter the text you need to find. The notes for all recordings will be examined and if your search text appears in the note the recording will be added to the search results. The text search looks for the exact phrase that you enter in the field. For example, if you have the following information on the recorder:

Recordings	
Event #	Note:
00105242006163243	123 West-Any St
00105242006164437	321 West Any St
00105242006172266	123 East Any St

Search criteria of "Any St" would return all three of these recordings. A search of "123" would find the first and third recordings. A search of "West Any" would only find the second recording. The first record is not found because the hyphen in the first note does not match the search criteria. It is a good idea to keep the search phrase as short as possible to generate the most matches. However, searching for common words is not really a good idea either. A search for "the" is likely to bring back more recordings than necessary. It may take a couple of attempts to get a handle on good search phrases for your organization.

The Results

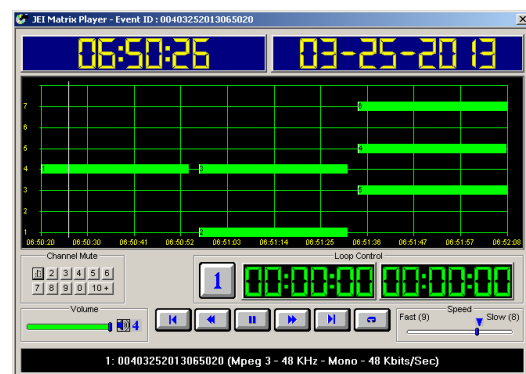
Once you have entered the search criteria and started the search, the system will create a list of matching recordings. This might take several minutes if the recorder has been running for a long time and has stored a lot of recordings.

The Clear Row, Note and Print buttons will become enabled once the results grid fills with recordings.

The search results list operates just like the View tab in regards to navigation, selection and playback. Simply highlight a recording and press Enter to open the JEI player.

As an optional feature, some recorder models include the export button. If this button is available, it enables the user to copy all the recordings in the search results to a specific folder.

Some recorders, depending on model, offer an additional feature on the Search tab. The Matrix Player feature allows a user to select multiple recordings for playback at the same time. If you select only one recording you will get the traditional single recording player. Select several recordings from the search results list using a click and drag operation via the mouse. When multiple recordings are selected the enter key will start the Matrix Player. The matrix playback interface is pictured to the right.



Most of the features in the JEI Player have been replicated in the Matrix Player. All of the key controls are the same. The subset controls are the same. The volume and speed controls are the same. One of the new features is the ability to mute and unmute a channel while it is playing. Click the channel number of the channel you wish to mute and

it will be silenced. Repeat the process to bring it back. Muted channels will have a red strikethrough drawn on them as well as a mute marker placed next to the channel number.

8. *CD Burning*

(Optional feature)

The CD tab is available only to supervisors and administrators. The tab allows the operator to select a series of recordings using searches and burn them to a CD-R disk. The CD Tab works much the same way as the Search tab. The CD tab search results include a checkbox for each row of the results. A checkmark in the checkbox indicates that you want that recording burned to the CD. You can toggle the checkmark on and off by clicking on it. You can also toggle the checkmark by highlighting one or more rows and pressing the spacebar.

Once you have selected all the recordings you want, place a blank CD-R* in the CD drive and click on the Burn CD button. A progress bar will be displayed while the recordings are copied to the buffer folder. Once the CD contents are prepared the CD Burning software will be engaged automatically. When the process is complete, the CD will be ejected. You just need to wait for the drive to open.

* The CD burning process requires a blank unformatted CD-R (CD *dash* R) disk. You cannot add files to an existing CD-R.

9. *SHUTDOWN PROCEDURE*

Following the proper shutdown procedure prevents hardware damage and/or data corruption.

- Login as Client Administrator
- **Stop the signals prior to shutdown (recommended)**
- Go to the Settings tab
- Click Shutdown

The recorder should power down. If a Windows message appears stating that it is safe to shutdown the system, press the Power Button down and hold it until the system stops.

SECTION 4 –SATA ARCHIVE SYSTEM

The DVR-FS utilizes the latest Serial ATA (SATA) drives to archive critical recordings. With some care and general maintenance, the DVR's removable SATA disk drive will provide years of trouble free service. Every hour on the hour the DVR-FS Recorder will automatically Archive the last conversations recorded during the previous hour. The SATA drive will continue to archive hourly until such time that it fills. The recorder will notify the user that the drive is **NEAR FULL or FULL**.

IMPORTANT NOTES:

- SATA archive hard drives are supplied for use in the DVR-FS / DVR-ES series systems only. Storage of any files other than those made in a DVR system using the J.E.I application may disrupt recorder operation and, under certain circumstances, may invalidate the warranty.
- To maintain the continuity and sequential order of the call records, use each SATA archive disk to its full capacity before replacing.
- When it is time to replace the archive drive, it is safe to have it removed from the system for up to 24 hours. The main system drive will continue to store all calls and will perform the archiving operation once the new drive is installed.
- The system administrator needs to determine the archive retention periods required for the facility. Records older than the required age can be erased during a reformat operation

J.E.I. Part Numbers and Recommended SATA replacement drives:

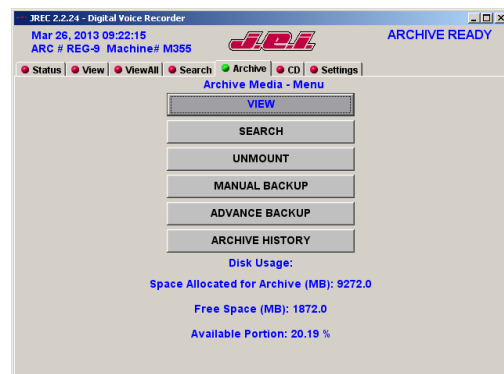
015-10018-001	SATA drive carrier (hard mounted in DVR chassis)
015-10019-001	SATA drive tray, removable
042-10011-001	SATA Hard Drive, replacement (J.E.I. part no.)

Recommended replacement SATA drives:

ST3500641AS	SATA drive, 500 GB, Seagate part no.
SSDSC2CW120A310	SATA drive, 120 GB SSHD, Seagate part no.
ST310005N1A1AS-RK	SATA drive, 1 TB, Seagate part no.

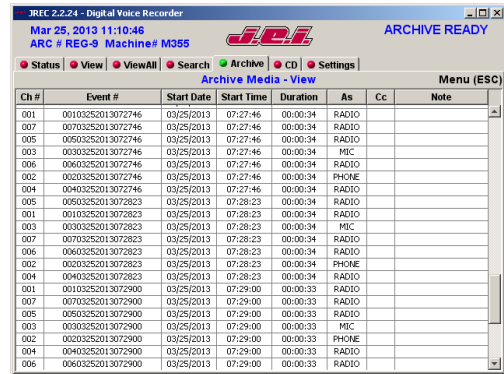
1. ARCHIVE TAB

The Archive Screen is give users access to a number of functions that deal with the archive disk. The archive tab shows some basic disk usage information at the bottom of the screen. When the available portion is less than 10% you should prepare another archive disk.



The View Button

The View Button will call up a list of the recordings on the Archive Disk. This list allows you to play back the recordings by selecting a recording and pressing the enter key. You can also double click on the recording to play it. It is likely that there are many thousands of recordings on the archive drive so this list could be very large. You can press the Escape key to return to the archive menu.



Ch #	Event #	Start Date	Start Time	Duration	As	Cc	Note
001	00103252013072746	03/25/2013	07:27:46	00:00:34	RADIO		
007	00703252013072746	03/25/2013	07:27:46	00:00:34	RADIO		
005	00503252013072746	03/25/2013	07:27:46	00:00:34	RADIO		
003	00303252013072746	03/25/2013	07:27:46	00:00:34	MIC		
006	00603252013072746	03/25/2013	07:27:46	00:00:34	RADIO		
002	00203252013072746	03/25/2013	07:27:46	00:00:34	PHONE		
004	00403252013072746	03/25/2013	07:27:46	00:00:34	RADIO		
005	00503252013072823	03/25/2013	07:28:23	00:00:34	RADIO		
001	00103252013072823	03/25/2013	07:28:23	00:00:34	RADIO		
003	00303252013072823	03/25/2013	07:28:23	00:00:34	MIC		
007	00703252013072823	03/25/2013	07:28:23	00:00:34	RADIO		
006	00603252013072823	03/25/2013	07:28:23	00:00:34	RADIO		
002	00203252013072823	03/25/2013	07:28:23	00:00:34	PHONE		
004	00403252013072823	03/25/2013	07:28:23	00:00:34	RADIO		
001	00103252013072900	03/25/2013	07:29:00	00:00:33	RADIO		
007	00703252013072900	03/25/2013	07:29:00	00:00:33	RADIO		
005	00503252013072900	03/25/2013	07:29:00	00:00:33	RADIO		
003	00303252013072900	03/25/2013	07:29:00	00:00:33	MIC		
002	00203252013072900	03/25/2013	07:29:00	00:00:33	PHONE		
004	00403252013072900	03/25/2013	07:29:00	00:00:33	RADIO		
006	00603252013072900	03/25/2013	07:29:00	00:00:33	RADIO		

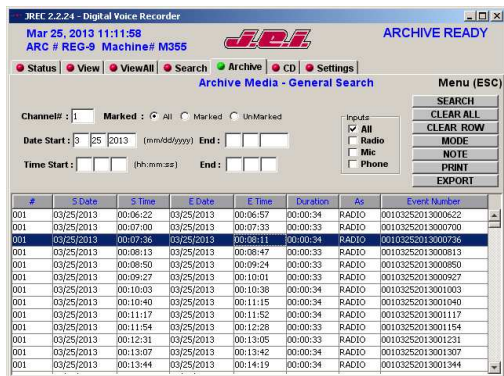
The Search Button

The user can perform two types of searches: General and Event. The General search feature allows recordings to be located by any combination of channel, date or time. Searches can be refined to include or exclude radio, microphone or telephone dedicated channels. The Event search feature allows the user to directly specify which recordings to locate.

General Search

The Archive General search operates in a similar manner to the Search tab. Enter the search criteria in the text boxes and click the appropriate check boxes and click the **Search** button. The display will list all the available recordings that matching the criteria.

To play a highlighted recording, hit the **Enter** key. You can also double click using the left mouse button on the recording of interest. The JEI Player appears and starts playing the corresponding audio file.



#	S Date	S Time	E Date	E Time	Duration	As	Event Number
001	03/25/2013	00:06:22	03/25/2013	00:06:57	00:00:34	RADIO	00103252013000622
001	03/25/2013	00:07:00	03/25/2013	00:07:33	00:00:33	RADIO	00103252013000700
001	03/25/2013	00:07:38	03/25/2013	00:08:11	00:00:34	RADIO	00103252013000738
001	03/25/2013	00:08:13	03/25/2013	00:08:47	00:00:33	RADIO	00103252013000813
001	03/25/2013	00:08:50	03/25/2013	00:09:24	00:00:33	RADIO	00103252013000850
001	03/25/2013	00:09:27	03/25/2013	00:10:01	00:00:33	RADIO	00103252013000927
001	03/25/2013	00:10:03	03/25/2013	00:10:38	00:00:34	RADIO	00103252013001003
001	03/25/2013	00:10:40	03/25/2013	00:11:15	00:00:34	RADIO	00103252013001040
001	03/25/2013	00:11:17	03/25/2013	00:11:52	00:00:34	RADIO	00103252013001117
001	03/25/2013	00:11:54	03/25/2013	00:12:28	00:00:33	RADIO	00103252013001154
001	03/25/2013	00:12:31	03/25/2013	00:13:05	00:00:33	RADIO	00103252013001231
001	03/25/2013	00:13:07	03/25/2013	00:13:42	00:00:34	RADIO	00103252013001307
001	03/25/2013	00:13:44	03/25/2013	00:14:19	00:00:34	RADIO	00103252013001344

Press the **Escape** key to close the playback and return to the Search.

The **Clear All** button will erase the search results and set all the search criteria to default values.

The **clear row** button allows you to remove recordings from the list to fine tune your search results.

The **Mode** button will switch to the event mode search.

The **Print** button allows you to print a report to a printer attached to the recorder. All of the recordings in the list will appear in the report.

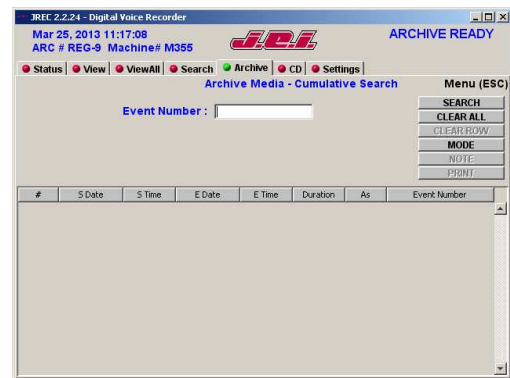
The Export button allows Supervisor and Administrators to copy recordings to external media.

You can use the **Escape** key to return to the Archive Menu.

Event Search

The Event Search is useful when the user knows the specific event or events. It is also useful in situations involving multiple events for the user to recreate an incident. The event search has only one field for the event number - simply enter an event number or the first part of an event number and press the enter key or click the search button. The results are accumulated so you can repeat the process to build up a list of events.

In all other respects the event search is identical to the general search.



Use the Escape key to return to the Archive Menu.

The Mount/Unmount button

The mounting control button changes state depending on presents of an Archive Disk. This button allows you to safely add or remove an Archive Disk. Instructions on using this button appear in the next section.

The Manual Backup button

The recorder automatically copies all new recordings on the hard drive to the Removable SATA Archive Disk drive at the top of the hour. The system hard drive provides instant access to the most recent recordings while the Removable Archive Disk is the archival medium for long-term storage.

The manual backup button forces the archive operation to happen on demand. Once the operator triggers the manual backup, the files that have not already been archived will be copied to the archive disk.

The Advance Backup button

The advance backup button will copy all the recordings from the internal storage location to the archive drive. The advance backup should only be used on relatively fresh (new or reformatted) drives. This feature might be useful if you have just changed archive drives and wish to have some amount of redundancy. It might also be useful if someone wants an “extra” copy of the recorders contents. The advance backup will not change the status of the recordings in the View All tab.

Archive History Button

The user can request a summary report of all SATA Archive Disks created on the DVR-FS by selecting the Archive History button. The report provides the following information, the archive identifier, the machine number, the date of the earliest recording on the archive, the date of the latest recording on the archive, the identifier of the old archive identifier if this driver has been recycled, and the status of the drive.

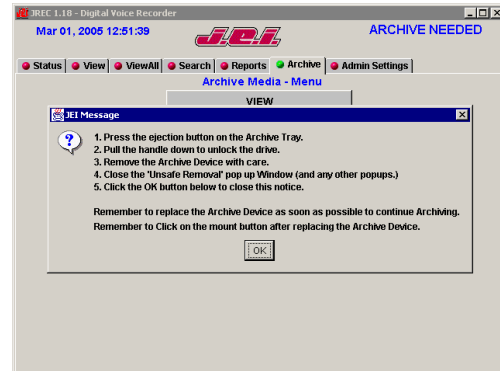
2. REMOVING AN ARCHIVE DRIVE



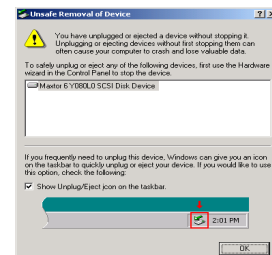
There is no need to turn off the power to the DVR-FS while removing or installing an Archival Disk. A supervisor can remove the drive while the power is running. This feature is called “hot swap”.

The following procedure will take you through all the steps to safely remove the archive.

- Logon as an administrator or supervisor.
- Go to the Archive Tab.
- Click on Unmount Button.
- DVR will pop up a warning message. Read and follow the instructions.
- Push the button at the top of the drive carrier. The lever handle will pop out.
- Swing the handle fully downward (near perpendicular to face of unit). This will disengage the drive tray from the carrier.



- Pull the drive out gently
- Windows may display a warning screen or a small popup at the bottom of the screen about removing the drive. The screen will appear as picture to the right:
- Click the OK button to dismiss the warning. The recording data on the drive is safe - the DVR system has already finished writing all the files.
- Click OK if Window Delayed Write failed screen appears.
- Click OK on the JEI warning message
- Button Unmount will change into Mount and “ARCHIVE READY” message will be replaced with “ARCHIVE NEEDED”.
- Do not leave Archive Disk drives sitting unprotected on a desk or near any field inducing or magnetic equipment. Store them carefully away between uses.



Note: It is not necessary for a Removable Archival Disk to be present for the DVR to record to its main drive. The SATA drive may be absent for at least 24 hours without any chance of data loss.

3. *REPLACEMENT OF A REMOVABLE SATA ARCHIVE DISK*

Caution must be taken to mount and insert the Serial ATA Hard Drive in its tray properly to prevent damage to connectors on the drive or the carrier mechanism. To ensure the SATA Drive is inserted properly, follow these steps.

- a. If your tray has a shell, you will need to remove it before installing a drive. The shell is just clipped in place but it may be very tight and you may need to use a screw-driver to remove it.
- b. Position the tray on a flat level surface with the open side up. Lay the bare SATA drive, label side up, flat inside the tray with the drive connector toward the open end of the tray. Ensure the threaded mounting holes on the sides of the drive line up with the through holes on the tray.
(JEI provides the first drive already mounted.)
- c. Install four (4) 6-32 x 3/8 binder head screws (included with tray). 2 per side, to attach the drive to the tray.
- d. Orient the SATA drive with arrow up and handle down.
- e. Slide the Removable Archive Disk tray into the drive bay carefully until the drive comes to a stop
- f. Use the key to lock the drive in place, the lock also engages the power to the drive and the green light should become illuminated.

Due to the volume of data that can be stored on a Removable Archive Disk, it can take up to 2 minutes to access the stored files. Allow the Archive Disk drive to position the disk before performing another archival operation. The Archival Disk indicates that it is ready by displaying “Archive Ready” at the top of the screen.

4. *FORMAT THE SATA ARCHIVE DISK:*

Disk you must have a correctly formatted SATA Disk with space available to perform normal archive operations. You have the option of using a brand new drive or reformatting one of your old ones. Any formatting operation will erase any data from SATA Archive Disk.

Follow these steps to Format a New SATA Archive Disk or reformat an Existing SATA Archive

1. Go to the Admin Settings.
2. Click on System Configuration.
3. Click on the Format Removable Drive
4. Click Yes on the warning screen
5. A popup progress bar shows that the format is working. The top right corner shows the percentage of the format of the SATA Archive Disk.
6. User may not use the system until the format is complete.
7. Recording of any incoming audio is not interrupted by this operation.
8. User can use the Network client to access the audio files. Or FTP the audio file from the recorder while the recorder is in format mode.
9. User interface will display the new ARC # on the top left corner and ARCHIVE READY on the top right corner.

10. The recorder returns to the normal mode operation. A backup will occur at the top of the next hour.

5. *ARCHIVE STORAGE AND HANDLING*

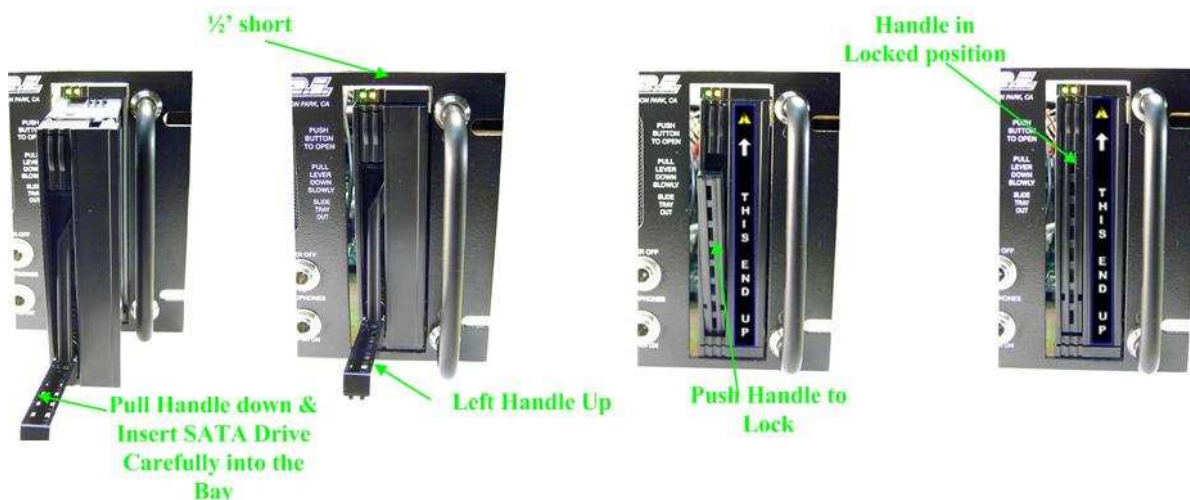
Do not leave Archive Disks on top of the recorder, near power radio microphones, under stapled or paper clipped documents, near magnetic fields, motors, fans, TV's or any other mechanical devices.

- Use a clean, dry, low-moisture container in an air-conditioned environment. Do not store in temperatures outside of 65 to 85 degrees F range.
- JEI suggests placing the Archive drives in a corrugated cardboard box, or original packaging, inside a locked file cabinet or storage locker.

6. *MOUNTING AN ARCHIVE DISK*

To Mount Removable SATA Archive Disk to the DVR unit, follow these steps:

- Follow instructions in Section 4.3 for physically installing a SATA drive in the removable tray and inserting it in the carrier.
- Orient the SATA drive with arrow up and handle down
- Slide the SATA Drive into the bay carefully **until the Drive comes to a stop.** (Note the drive is ½ inch short of being completely pushed into the drive bay.)
- Lift the handle up and lock it by lightly pressing inward. (In this process the drive is completely engaged and flush with the recorder.)



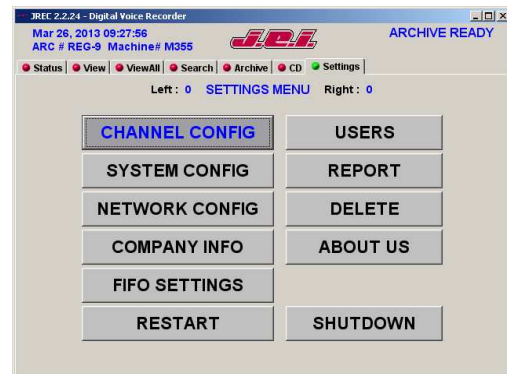
- Wait for few seconds.
- Tab to the Archive menu and Click the Mount button.
- Click OK on the warning message
- "Mount" button will change into "Unmount" and "ARCHIVE NEEDED" message will be replaced with "ARCHIVE READY".

SECTION 5 - SYSTEM ADMINISTRATION SETTINGS

The Settings tab contains buttons to configure all the features of the recorder. The administrator can adjust the configuration to the needs of the organization. Each of the Settings Buttons will call up the settings covering a particular aspect of recorder operations.

There are many settings that can be customized or adjusted to get the maximum benefits from the recorder.

Each button will be detailed in the remainder of this section.



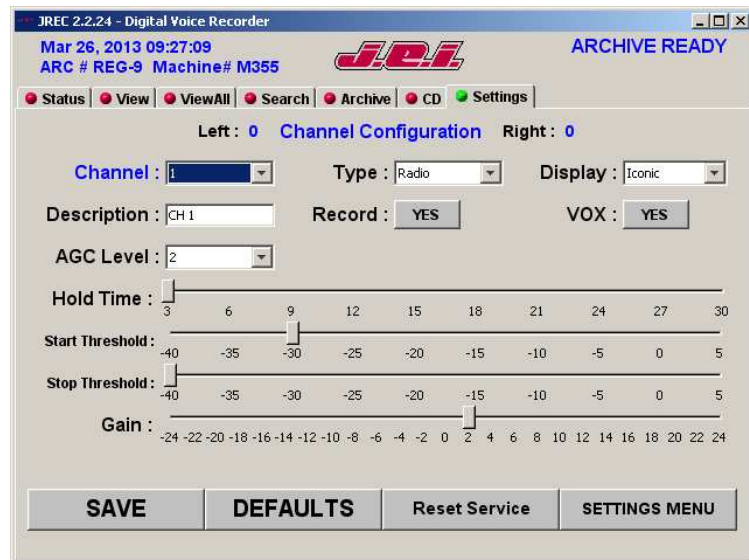
1. CHANNEL CONFIG

The Channel config button will display the settings for one channel at a time.

Channel Drop-down Selector:

This control allows the Admin to select which channel is displayed on the rest of this tab. Click the down arrow and select a channel - the other values on the form will change to reflect the setting for that channel.

Type: The type selector allows the Admin to set the display Icon for the current channel. The choices are Phone, Radio, and Microphone.



Display: The display selector allows the Admin to switch from an icon representation to a text label.

Description: The description appears on the Status tab and other places. The description can represent anything that is useful for your organization. Typical examples are phone numbers, radio identifiers, or functional names.

Record: Individual channels can be disabled or enabled. If the Record button reads YES, the channel will record normally. The record button is duplicated on the Status tab on some models of recorders.

VOX: The VOX button controls whether or not the recorder is voice activated or not. If this button reads YES, the voice activation circuit is engaged. If this button reads NO, the channel will record continuously while the Record button has a value of YES. There are few reasons to ever have this value set to NO.

AGC Level: The Automatic Gain Control (AGC) circuit inside the recorder offers three levels of operations. The highest level (2) is very aggressive at capturing voice – JEI recommends this level in most cases. The middle setting (1) uses an algorithm which is more suited for non-voice sounds. The final level (0) turns the AGC circuit off. The AGC level can be set on a per channel basis.

Hold Time: The hold time slider sets the amount of silence it takes to end a call. While a call is being recorded the system tracks the volume of the call, when no one has spoken for the specified hold time the recording is ended. If the caller starts talking again, a new recording will be started. You may want to increase the hold time if you subjects talk with longer gaps in their conversations. This might be the case with communication systems like ship-to-shore calls where there is a discernable gap between speakers.

Hold time will NOT address pings and pops in your audio. Such line noises are better address by adjusting the source equipment.

Start Threshold: The VOX circuit that determines when to record uses the Start Threshold to decide when to begin a recording. This value is rated in decibels. A value of 0 dB represents a very loud sound. A value of -40 dB represents a very quiet sound. The slider sets the triggering point for the VOX circuit.

Stop Threshold: The stop threshold slider set the value the VOX circuit uses to decide if a recording should end. This value is rated in decibels. If the incoming audio is below the stop threshold for longer than the Hold Time the recording is stopped.

Gain: The Gain slider is used to modify the strength of the incoming signal. This is not exactly the same as a volume control. When adjusting the Gain it is highly recommended that Gain settings be changed by small amounts at a time. If the gain is set too high, distortion will result and the audio will sound bad. The gain setting addresses audio quality not volume. If you want the playback to be very loud, use amplified speakers to listen to the recordings. Changes in Gain may require a system restart before they affect the recorded audio.

Save: The Save button will commit the settings displayed on the page to the current channel. The save button ONLY affects the channel specified in the Channel Selector dropdown. Each channel's settings must be saved separately. Remember to save your settings before you select a different channel.

Defaults: The Defaults button changes the Hold Time, Thresholds, and Gain back to the factory defaults.

Setup Menu: This button returns to the previous Settings Menu.

NOTE: Any adjustments to the Threshold or Gain values could result in either distorted recordings or loss of audio. Make any adjustment in the smallest possible increments. Run the recorder for several minutes and collect a number of recordings to see if the change has given you the desired results.

NOTE: If the recorder is recording when you make changes to the settings, the recording may be stopped and restarted.

NOTE: It is strongly recommended that you restart the recorder after you have made adjustments to all the channel settings. On some recorder models the settings will not take effect until after a restart.

2. USERS

The JEI DVR has three levels of access to recordings, reports and system features. These levels of access correspond to the individual's job duties. The three access levels are: Operator, Supervisor, and Administrator. The greater the level of access given to an individual, the greater number of screens and tabs the person will have access to.

Operator

Operator has the lowest level of access rights.

They have access to the Status, View, View All, and Search tabs to enable them to search and playback the recordings. Access can be established for all or selected channels.

Supervisor

Supervisor is the next higher level of access. A supervisor has all the access of an Operator plus access to the Reports and CD tabs. These permit the generation of reports, search/play of CDs.

Administrators

The Administrator has the highest level of access to the DVR. The Administrator has all the access of the Supervisor plus access to the Admin Settings tab. Admin Settings is the tab for setting all the global recording settings, turning on/off features, and establishing user access.

An administrator can click on the Users button in the settings to manage the recorder users.

JREC 2.2.24 - Digital Voice Recorder

Mar 25, 2013 13:13:28
ARC # REG-9 Machine# M355

ARCHIVE READY

Status View ViewAll Search Archive CD Settings Jei

User Login Configuration

Username	Login	Access	Remote	1	2	3	4	5	6	7	8
ADMIN 1	09876	ADMIN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
ADMIN 2	09877	ADMIN	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Supervisor	77777	SUPER	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
Operator	12345	OPER	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
New User	10004	OPER	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
New User	10005	OPER	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

SAVE NEW Delete SETTINGS MENU

(You must have two ADMIN users)

Figure 5.2 – Passwords Configuration

The password configuration display includes the Username, login, access level and a series of checkboxes that define which DVR resources that the user is allowed to use. Now the details...

Username: The username allows the administrator to assign a name to the user. This is strictly for the administrators benefit. The name may represent a class of user, their roll, their position, their actual name, or any other value that the local administrator deems useful. Just click on the field to change the text.

Login: The login is the value (or pin number) that the user will enter to access the system. The default user configuration includes 2 administrators, one supervisor, and one user. As shown in figure 5.2 you can add other users to the system. You can also change the login by clicking on the login field that you want to change. The minimum login length is 5 characters the maximum length is 10 characters. You must use the enter key on the keyboard or keypad to finish editing a login value. If you just click out of the field your changes will not be saved. The system will validate that the new login entered is valid and unique. The login value will revert to the original if it is rejected.



We strongly suggest that logins be confined to numeric characters since they are available from the built-in DVR keypad.

Access: The user access level sets the amount of resources and information that a user is allowed to access. User levels were detailed in subsection 3 above. If you click on the access level a dropdown list of available access levels will appear and allow you to select a new access level for the user. The system will verify that you have at least two users with the ADMIN access level. If you need to demote an ADMIN user, you must first promote another user first. In other words, you must set up a third ADMIN before demoting one of the existing admin users.

Remote: The remote checkbox indicates weather or not the user is allowed to access the recorder remotely. This setting will be used in a future version of the JNCS software. The JNCS client software will examine this setting and only give access to user that have this field checked. If the user does not have remote permission the JNCS software will reject the login.

Numbers: The remaining columns represent the channels. The user will only be able to access recording on channels that have checkmarks. This will allow the administrator to restrict access to sensitive channels to selected individuals. You will notice that there may be more channels listed here than are available on your recorder – this was done to support any future upgrade path for your recorder. (We can transfer configuration information such as your user list to a higher channel count recorder at the factory.)

The Save Button will commit the changes you have made to the user settings. You must click the save button in order to retain the settings – if you leave the users screen without saving – your changes will be lost.

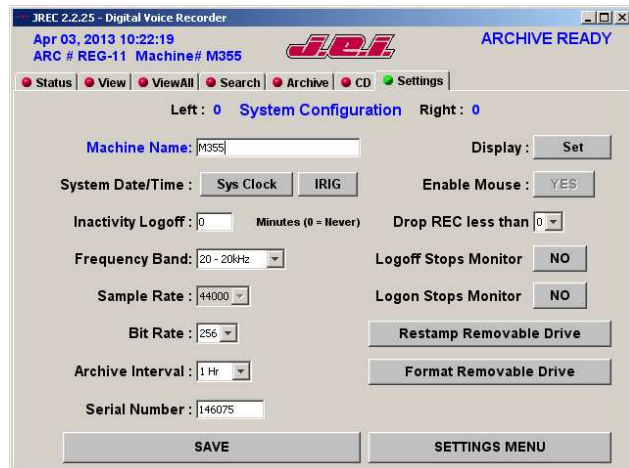
The New button will add a new user to the list. The user will be assigned default values and be assigned a unique password. You can change the information before you press the save button.

The Client Setup Menu button will return you to the previous menu. If you press this button before you save your changes – the changes will be lost.

3. SYSTEM SETTINGS

Machine Name: The machine name identifies the recorder. This is useful if you have multiple recorders. The machine name also appears on printed reports and is used by the archive system. Do not change the machine name.

System Date/Time: The Sys Clock button will bring up a dialog for changing the system date and time. The IRIG button will open the IRIG settings panel for recorder unit equipped the IRIG cards. Change the Time/Data will require that the system perform a reboot.



Inactivity Logoff: As a security feature, user inactivity (not moving the mouse or touching keys) will cause the system to automatically logoff. The inactivity period can be specified in the Setting | System Config page. If this value is set to zero (0) the automatic logoff is disabled. (However, the screen will still shut off after 20 minutes of inactivity.)

Frequency Band (optional, HF models only): High Fidelity recorder units have two selectable audio frequency settings. They may operate in a low band setting of 300-10kHz or a high band setting of 20-20kHz. When the Frequency Band setting is changed, the sample rate and bit rate settings will be automatically set for appropriate values. Low band bitrates are 8, 16, and 32. High band bitrates are 64, 128, and 256. If the Bit Rate setting is changed, the Frequency Band setting will also change to reflect the new bit rate value.

Sample Rate (optional): The sample rate dropdown selector allows the admin to set the recording frequency. Higher frequencies result in better quality audio. **High Sample Rate audio recordings consume disk space at a much higher rate.** Recording capacity will be greatly reduced as sample rate increases. Some recorders have fixed sample rate hardware and ignore this setting. High Fidelity recorders show a minimum sample rate for the given Bit Rate. On these recorders this setting may not be changed by the user and is shown for informational purposes only.

Bit Rate (optional): The Bit Rate dropdown selector allows the admin to set the Bit Rate for recording. Higher Bit Rates result in better quality audio. **Recording capacity will be greatly reduced as Bit Rate is increased.** For very low bit rate settings, the full audio frequency will be sacrificed. If recordings sound “tinny” or “hollow” increase the bit rate.

Archive Interval: The interval dropdown selector allows the admin to set the period between backups. The minimum backup period is 1 hour.

Serial Number: This field specifies the internal hardware serial number for the recorder unit. Do not change this value unless asked to do so by a JEI technician.

Enable Mouse: Some models of JEI recorder are configured as rack-mount units that do not have space for a mouse device. This button lets the recorder know that this is the case.

Logoff Stops Monitor: If the monitor circuit is set to listen to a live channel, the monitor will be silenced when the user logs off. If this button is set to NO the monitor will stay on, even after the user logs off.

Logon Stops Monitor: If this button reads YES, the monitor will be turned off when a new user logs onto the recorder.

Restamp Removable Drive: This button will replace the identity information on a removable SATA Archive Disk. No recording on the archive drive will be affected. This button allows a user to move an archive drive from one recorder (such as a primary unit) to a second recorder (such as a backup unit) without losing any information. The process will make a new entry in the Archive History.

Format Removable Drive: This button will format a removable SATA Archive Disk. If there is information contained on the disk it will be erased. This process will need to be performed when a new archive disk is added to the recorder. The process will make a new entry in the Archive History.

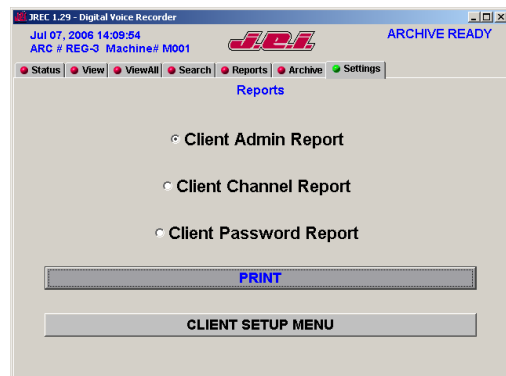
Save: The Save button will commit the settings displayed on the page to the system.

Setup Menu: This button returns to the previous Settings Menu.

4. REPORTS (ADMINISTRATIVE)

The JEI Recorder provides some basic administrator reports. All the reports are printable in any printer attached to the recorder.

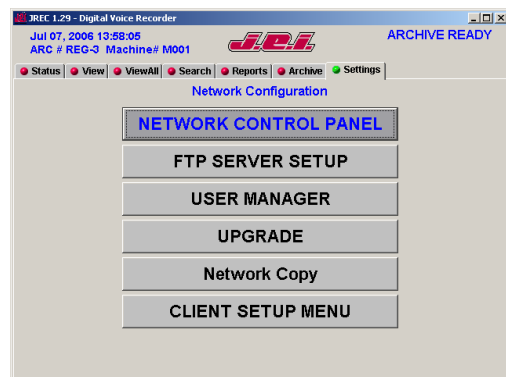
Using the report is simple: Select one of the reports and click the print button. This will bring up a print preview window. If you actually need to print the report click the print button on the preview panel.



5. NETWORK CONFIGURATION

The JEI Recorder is pre-configured with Basic Network settings. Click the Network Control Panel button to access the settings.

The JEI Recorder is configured as a FTP server for wide-area access to the recorded audio. All the settings are pre-set by JEI technicians and should never need to be changed. The FTP provides read-only access to the recent audio. Click the FTP Server Setup button to access the settings.



The JEI Recorder is set to use just one Windows User. If you need to change that user's login, click the User Manager Button.

The Upgrade button allows the admin to upgrade the recorder software. This should only be used on the advice of JEI personnel.

The Network Copy button will bring up the settings for the Network Duplication features. This feature will make duplicates of the recordings on another computer. The target system can be another

computer on the network or a FTP server. There are some special considerations that must be made on the target computer. Please contact JEI for more information on this feature.

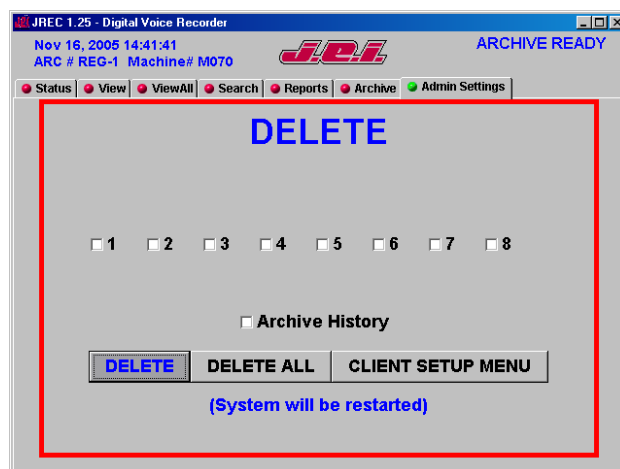
6. DELETION

Choosing the **Delete** button from Client Setup menu allows the administrator to delete selected channels of audio. The delete system removes entire channels of audio not individual recordings. The DVR operates this way to protect the chain of evidence and allow the recorder to serve as an indicator that a call did NOT occur. Deleting a whole channel meets most security concerns and is obvious and deliberate.

Delete affects only the main drive. Archive disks are unaffected.

Warning: Any delete activity is permanent.

There is no method available that will recover the thousands of recordings and the associated data. **JEI recommends performing a manual Backup** before using this option.



Once the delete screen appears, select the channels you wish to delete by putting checkmarks in the boxes next to the items. You can put the checkmarks using the mouse or by using tab to move to the checkbox and then pressing the asterisk (*) key.

The numbers shown in the center of the screen represent the channels.

The Archive History checkbox represents the historical list of the archive disks. If you delete this history the next disk will be formatted as REG-1.

Once you have selected the item you want to erase. Click the Delete button. A confirmation message will appear showing the items you selected. Click the OK button to proceed or the Cancel button to abort the deletion operation. If you choose to proceed, we are going to give you another chance to cancel. If you still choose to proceed, the recorder will delete your selected items and then automatically reboot.


If you really want to delete everything on the recorder, the Delete All button will do the job. We use the Delete All button just before we ship the recorders from the factory to clear out any test data generated during the quality assurance phase of production. The Delete All button resets the recorder to a factory fresh condition.

Note: After deleting one of the channels, you may notice that the View All list still contains files – this is intentional. The View All list is essentially a view into the archiving and data recovery mechanism of the recorder. Performing channel based delete operations would induce too much processing and the recorder would take longer to recover. Since our goal is to bring the recorder back online as quickly as possible, the View All list is exempt from deletion on a channel by channel basis. If you really need to delete the View All list your only option is to use the Delete All button.

7. *COMPANY INFO.*

The Company Info button will bring up a form that the admin can use to identify the company that owns the recorder. This information will appear on some of the reports generated by the system.

Just fill out the form and click the Save button.



The screenshot shows the 'JREC 1.29 - Digital Voice Recorder' window. At the top, it displays the date and time 'JUL 07, 2006 14:41:58', the device 'ARC / REG-3 Machine# M001', and the status 'ARCHIVE READY'. Below this is a menu bar with options: Status, View, ViewAll, Search, Reports, Archive, and Settings. The 'Company Information' form is the main content, featuring input fields for Company Name, Address, City, State, Country, Zip, Contact Person, and Phone. At the bottom of the form are two buttons: 'SAVE' and 'CLIENT SETUP MENU'.

8. *ABOUT US*

The About Us button will show you a little bit about JEI

9. *RESTART*

The restart button will save all recording information and safely reboot the recorder. This may be necessary when changing settings. A restart may also be necessary if the network (usually network servers) have had a major change or reconfiguration.

10. *SHUTDOWN*

The shutdown button will save all the recording information and safely power down the recorder. If the operating system puts up a "ready to shutdown" message, just hold the power button down until the recorder shuts off.

SECTION 6 Technical Specification - FS SERIES

	Narrow Band	High Fidelity
RECORDING CHANNELS	2, 4, 6, 8, 10, 12, 14, 16	2, 4, 6, 8
RECORDING MEDIA Internal (System)	500 GB SATA, standard	500 GB SATA, standard 120 GB SATA, SSHD Opt *
RECORDING MEDIA Archival	500 GB SATA, standard	500 GB SATA, standard 120 GB SATA, SSHD Opt *
APPROXIMATE RECORDING TIME ³ SYSTEM HARD DRIVE @Bit Rate	107,600 hours @ 8 kbps 58,400 hours @ 16 kbps 30,000 hours @ 32 kbps	107,600 hours @ 8 kbps on 500GB 58,400 hours @ 16 kbps on 500GB 30,000 hours @ 32 kbps on 500GB 3,800 hours @ 256 kbps on 500GB 23,000 hours @ 8 kbps on 120GB 8,000 hours @ 16 kbps on 120GB 6,700 hours @ 32 kbps on 120GB 900 hours @ 256 kbps on 120GB
APPROXIMATE RECORDING TIME REMOVABLE ARCHIVE DISK @Bit Rate	110,000 hours @ 8 kbps 59,700 hours @ 16 kbps 31,000 hours @ 32 kbps	110,000 hours @ 8 kbps on 500GB 59,700 hours @ 16 kbps on 500GB 31,000 hours @ 32 kbps on 500GB 3,650 hours @ 256 kbps on 500GB 26,000 hours @ 8kbps on 120GB 14,300 hours @ 16kbs on 120GB 7,400 hours @ 32 kbps on 120GB 840 hours @ 256 kbps on 120GB
DIGITALIZATION METHOD:	MP3	MP3
SIMULTANEOUS RECORD AND PLAYBACK	YES	YES
Record Control (VOX)	Standard	Standard
Record Control (Contact Closure)	Available Option	Available Option
Input Level Maximum	+16 dBu />10K Ω	+24 dBu />10K Ω
Input Impedance	10 K Ω	10 K Ω
Operational Input Level	-25 to +4 dBm	-25 to +6 dBm
VOX SENSITIVITY CONTROL	Per Channel	Per Channel
INPUT CONNECTORS	Din-5 w/Coupler RJ-11, Direct	Mini-XL, Direct only
Record Level	Automatic (AGC with Limiter)	Selectable: None, Standard, Aggressive
BIT RATE, supported (kBps)	8, 16, 32	8, 16, 32, 64, 128, 265
FREQUENCY RESPONSE	300 HZ TO 10KHZ	300 HZ TO 10KHZ 20 HZ TO 20KHZ @ 256 BPS
HARMONIC DISTORTION	$\leq 3\%$ @ 300-3400 Hz	$\leq 1\%$ @ 20-20kHz
DYNAMIC RANGE	> 50 dB	> 70 dB
SIGNAL TO NOISE RATIO	>38 dB	> 55 dB
OUTPUT: FRONT PANEL SPEAKER	YES	YES

³ Channel hours are approximations. Actual depends on traffic intensity and channel settings.

OUTPUT: 2 FRONT HEADPHONE JACKS	YES	YES
OUTPUT: REAR PANEL BNC	Optional	Optional
TIME/DATE FORMAT ⁴	24 HR. MIL. Format	24 HR. MIL. Format
Size	19.0" WIDE Per EIA Standard 5.25" HIGH 16.0" DEEP	19.0" WIDE Per EIA Standard 5.25" HIGH 16.0" DEEP
Weight	20 Lbs	31 Lbs
Form Factor	Rack Mount	Rack Mount
Colors	Black	Black
Power Requirements	115/230 V AC 50-60 HZ DC Output 550 Watts	115/230 V AC 50-60 HZ DC Output 550 Watts
Optional 12 Volt DC	500 Watt	500 Watt
Optional 24 Volt DC	700 Watt	700 Watt
External Monitor Port	Available	Standard
Time Synchronization	NTP IRIG (optional)	NTP IRIG (optional)
Network Interface	Standard	Standard

Environmental Specifications:

OPERATING TEMPERATURE	5°C to 40°C	0°C to 40°C
STORAGE TEMPERATURE	-20°C to 65°C	-5°C to 70°C
HUMIDITY	20 - 80% RH Non-Condensing.	20 - 80% RH Non-Condensing.
OPERATING ALTITUDE	0 – 7,000 Ft. Max	0 – 7,000 Ft. Max
VIBRATION OPERATING	Swept Sine 5 to 500 HZ @.25 \g peak 1 octave/min 3 axis, 3 Directions	Swept Sine 5 to 500 HZ @.25 \g peak 1 octave/min 3 axis, 3 Directions
SHOCK OPERATING	No Data Loss, Halt Sine, Performance, 5 G peak 3 MS, 3 Axis, 3 Directions, Internal 10 seconds.	No Data Loss, Halt Sine, Performance, 5 G peak 3 MS, 3 Axis, 3 Directions, Internal 10 seconds.

⁴ Date and Duration of each Conversation are provided

SECTION 7 - GENERAL MAINTENANCE

The DVR-FS is a high-tech instrument incorporating precision mechanical assemblies, electronic circuitry and custom software. It is designed to operate continuously and reliably for long periods of time. Preventive maintenance will help ensure your DVR-FS provides trouble free operation.

1. CHASSIS

- a) Clean the keyboard and front panel components as necessary, with clean water and a soft cloth. Do not use harsh chemicals to clean the external components.
- b) The DVR-FS recorder has a CRT Screen that can only be cleaned with clean water and a soft cloth. Any application of window cleaners or any vigorous scrubbing will permanently damage the screen.

2. INTERNAL SYSTEM MAINTENANCE

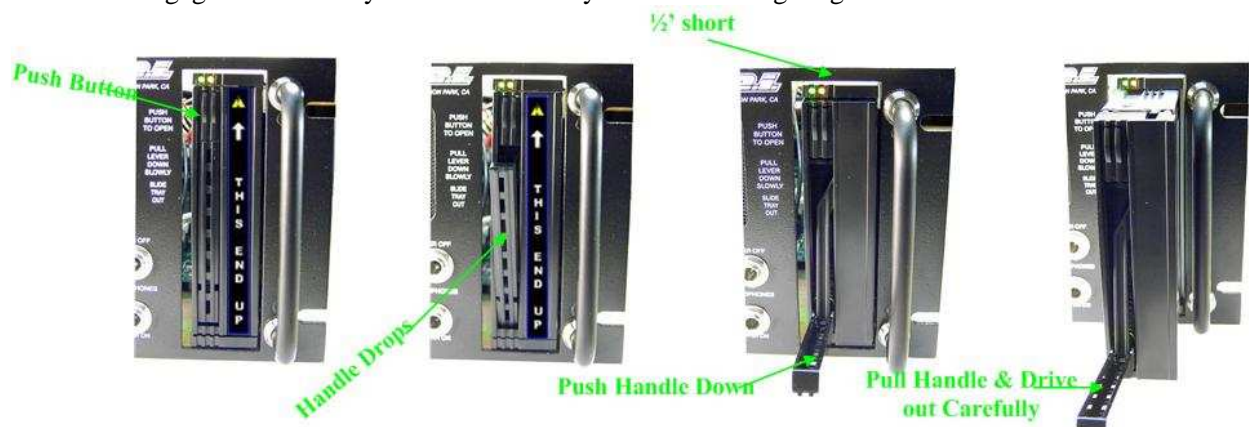
- a) Every 6-9 months, it is advisable that the chassis cover be removed on the DVR-FS to accomplish basic component cleaning.
- b) Shutdown the system by double clicking on Shutdown/Restart from Client Setup Menu.
- c) Remove either the top cover or the back cover to expose the internal components of the system.
- d) Touch an exposed metal part with your hand prior to touching anything else or ground yourself with a ground strap to prevent static hits.
- e) Use compressed air to clean all the cooling fans - CPU, chassis and power supply. Check that the fan blades move freely after cleaning.
- f) Apply even pressure to the tops of all computer cards to ensure that they are properly seated in their card slots.
- g) Check for burn marks or wiring chaffing against fans or metal edges.
- h) Blow the motherboard clean with compressed air.
- i) Turn the chassis upside down to dump any last hidden materials. Press the computer cards back down into their slots.
- j) Plug the power supply into a voltage source and start the system with the cover off.
- k) Make sure all the fans are running smoothly.
- l) Go through the shut down procedure and reinstall the cover.
- m) Test the box carefully after cleaning.

SECTION 8 –Removable OS/DATA Disk (Optional)

The following option is designed for situation in which the recordings are required to be secured when the recorder is taken off-line for an extended period. The JEI recorder solves this problem by placing both the operating system and the data storage on its removable drive system. If the unit needs to be secured, the drive is removed and moved to a secure location or locked in a safe.

1. REMOVING THE OS/DATA DRIVE

1. Shutdown the recorder
 1. Logon as an administrator
 2. Select the Settings tab
 3. Select the Shutdown button
 4. Click the Yes button to verify shutdown
 5. Click the Yes button to confirm shutdown.
 6. Wait for the system to shutdown.
2. Remove the drive.
 1. Push the button on the front of the drive tray. The lever handle will pop out.
 2. Swing the handle fully outward (nearly perpendicular to the face of the unit). This will disengage the drive tray from the drive bay. The following diagram illustrates.



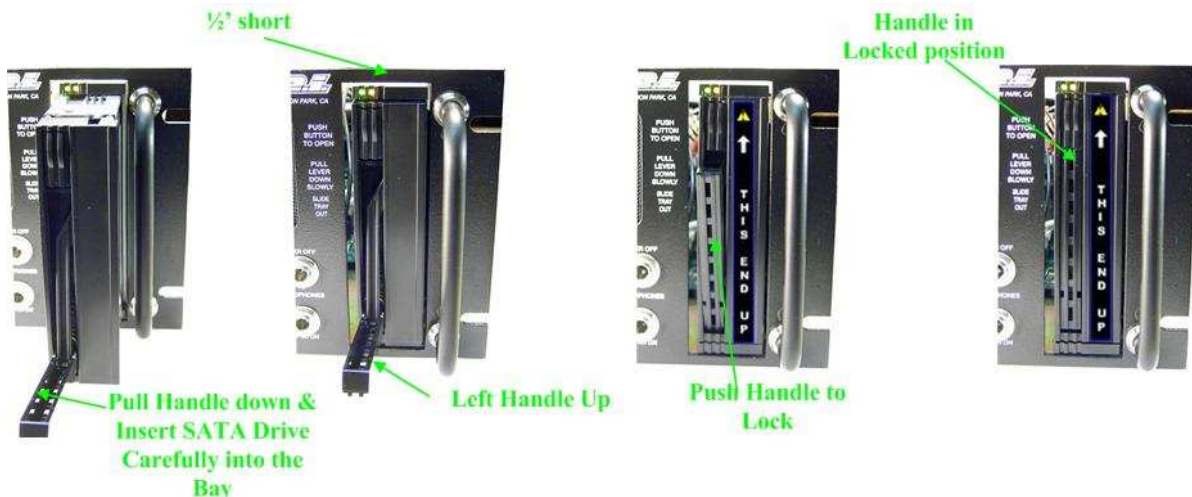
3. Pull the drive out gently, stop half way and take a firm grip on the body of the drive.
4. Close the handle by pressing it towards the drive until the latch click into place.
5. Place the drive in an anti-static container.
6. Store the drive in a secure location.

Note: The REMOVALBE OS/DATA configuration prevents the recorder from operating while the drive is removed.

2. MOUNTING THE REMOVABLE OS/DATA DRIVE

Caution must be taken to mount the OS drive tray into the drive bay. Damage to connectors on the drive or the bay mechanism will prevent proper operation of the recorder. To ensure the OS Drive is inserted properly, follow these steps.

1. Verify that the recorder unit is powered off
2. Remove the OS Drive from its anti-static container.
3. Press the latch button on the front of the tray.
4. Swing the lever handle out until it is nearly perpendicular to the face of the tray. (Do not force it – the plastic arm can break.)
5. Orient the drive so that the button is at the top and the handle is at the bottom.
6. Place the back end of the tray into the drive bay. Line up the grooves in the tray with the grooves in the bay. The tray will only fit in the bay one way – if it seem stuck or blocked, turn the tray over and try again.
7. Slide the tray forward into the bay until it stops. It will not be flush with the front of the recorder. About $\frac{1}{4}$ to $\frac{1}{8}$ th of the drive tray should be exposed.
8. Swing the lever handle up until it locks into position. This action should pull the tray all the way into the drive bay and lock.
9. The following diagram illustrates the process...



10. Once the drive tray is properly inserted into the drive bay, start the recorder unit using the power button on the left side of the recorder unit. The recorder will boot to the OS and automatically begin recording.

SECTION 9 – DVR-ES/FS PLAYBACK SYSTEM (Optional)

1. GETTING STARTED

Double Click on the JEI Playback icon from the Desktop or run the software by using the Start menu. The Status tab allows you to select the location drive for your archive. You can also mount/unmount an archive disk from this screen. The Export Path indicates where recording files will be located when the export features are used. Click the Browse button if you would like to select an alternative folder.

The SATA Archive Disk should already be connected to your PC. If the archive drive is not connected to your PC, connect it before using the Mount button in the playback software.

You can add the SATA Archive Drive using an external SATA and power cable. You may also have a removable bay installed in your PC. Contact JEI on other way to connect the SATA Archive to your PC.

Due to the volume of data that can be stored on a Removable Archive Disk, you must wait for the Archive Disk drive to settle into an operating state before performing any other Archival drive operations. Once the drive settles, click the mount button to check access. The Archive Disk drive is ready when the status message in the upper right hand corner of the monitor changes from “Archive needed” to “Archive Ready”.

The View Screen displays all the recordings from the archive.

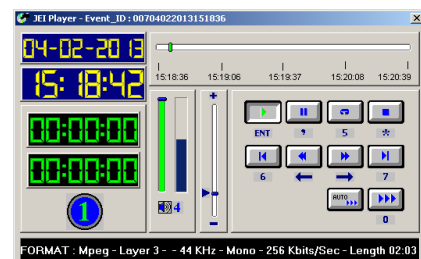
The DVR shows the Date, Time and Duration of each recording. The system assigns a unique Event # for your convenience.

If the letter “C” appears in the “Cc” column, the recording is longer than 1 hour in duration. For a recording that last longer than one hour, the DVR creates an additional time stamped audio file for the time beyond 1 hour. No audio data is lost. This is a safety feature to prevent run away recordings that could waste hard drive and tape capacity.

To play a particular recorded file, move the blue highlight bar to the recording of interest and hit the **Enter** key or left click the mouse. The JEI Player Screen (shown right) appears and starts playing the corresponding audio file.



ch#	Event #	Date	Start Time	Duration	As	Arc	Cc
3	00308292003070836	08/29/2003	07:08:36	00:00:06	PHONE		
4	00408292003070836	08/29/2003	07:08:36	00:00:11	PHONE		
1	00108292003070853	08/29/2003	07:08:53	00:00:05	PHONE		
4	00408292003070856	08/29/2003	07:08:56	00:00:02	PHONE		
3	00308292003070900	08/29/2003	07:09:00	00:00:11	PHONE		
1	00108292003070909	08/29/2003	07:09:09	00:00:02	PHONE		
3	00308292003070953	08/29/2003	07:09:53	00:00:10	PHONE		
4	00408292003070953	08/29/2003	07:09:53	00:00:11	PHONE		
1	00108292003070958	08/29/2003	07:09:58	00:00:05	PHONE		
3	00308292003071005	08/29/2003	07:10:05	00:00:03	PHONE		
1	00108292003071027	08/29/2003	07:10:27	00:00:10	PHONE		
3	00308292003071032	08/29/2003	07:10:32	00:00:02	PHONE		
4	00408292003071037	08/29/2003	07:10:37	00:00:02	PHONE		
3	00308292003071054	08/29/2003	07:10:54	00:00:02	PHONE		
1	00108292003071059	08/29/2003	07:10:59	00:00:13	PHONE		
4	00408292003071103	08/29/2003	07:11:03	00:00:10	PHONE		
1	00108292003075954	08/29/2003	07:59:54	00:00:02	PHONE		
3	00308292003075959	08/29/2003	07:59:59	00:00:02	PHONE		
4	00408292003080002	08/29/2003	08:00:02	00:00:10	PHONE		
1	00108292003080004	08/29/2003	08:00:04	00:00:13	PHONE		
3	00308292004070605	08/29/2004	07:06:05	00:01:40	RADIO		



2. ARCHIVE SEARCHES

The user can perform two types of searches: General and Event from the Search & Report tab. General searches for recordings can be accomplished by searching Combination of channel, date or time. Searches can be refined to include or exclude radio, microphone or telephone dedicated channels. When the user knows the event number(s) of a recording, they can search by these numbers.

The search options have a common set of buttons on the right edge of the screen.

The **search** button activates the search. In most cases the Enter key will also activate the search.

The **Clear All** button clears the recording list and resets the search criteria fields.

The Clear Row button removes the highlighted rows from the results list.

The **Mode** button will change what criteria the search is based upon.

The **Print** button will sent the list on the screen to a local printer.

The **Export** button will give you options to copy the recordings to your local drive.

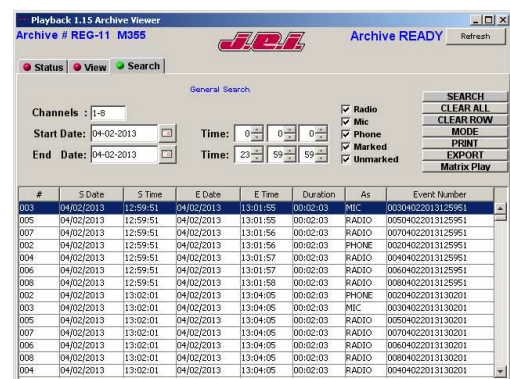
The **Matrix Play** button will open the selected recordings in the Matrix Player. This player will play the recordings based on their time sequence.

2.1 GENERAL SEARCH

Enter the search criteria and click the **Search** button. The DVR displays all the available records matching the criteria.

To play a recording, press the **Enter** key or double click on the recording of interest. The JEI Player Screen appears and starts playing the corresponding audio file.

Press the **Escape** key to close the player and return to the Search tab.

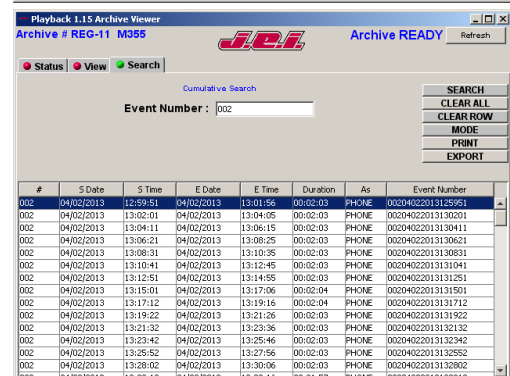


2.2 EVENT SEARCH

The Event Search is useful when the user knows the specific event or events. It is also useful in situations involving multiple events for the user to recreate an incident.

To search for a specific event, type the event number in the Event Number field and click Search button.

You can enter additional event numbers to build up the list.



3. FINISH

When you are done examining the SATA Archive drive, simply close the application. You may disconnect the drive and return it to its storage location or put it back in the recorder unit.

SECTION 10 –NETWORK CLIENT (optional)

INTRODUCTION

Congratulations on the purchase of your new JEI Digital Voice Recording Network Client Software. You have purchased a Network Client Software system that incorporates Microsoft's simple network computer technology using TCP/IP. Works on the Local Area Network by connecting the JEI Digital Voice Recording system and the client on the (same Domain/workgroup) Ethernet Network... The Client software works under Microsoft Network environment.

IF YOU NEED ASSISTANCE

Review this manual to become familiar with the content and material. If you feel you need additional assistance, please call (888) 677-2844.

INSTALLATION

This section covers the proper step-by-step installation of your Client Software.

1. SYSTEM REQUIREMENTS:

Hardware:

- Intel Dual Core or better
- 2.0 GB RAM Minimum
- Minimum 4 GB Hard Disk Space
- Network Card 10/100
- Sound Blaster 16 PCI or compatible (48 kHz sample rate or better)
- Speaker (Amplified)

OS:

- Window XP Professional
- Windows 7

Software/Drivers (Mandatory)

- DirectX 8 or greater (Windows NT)
- NPRunTime (Provided by JEI)

2. INSTALLING:

Depending on the model of your recorder, the JNCS system may need to be installed in two separate parts. Some recorders will need a special sound driver (NPRunTime) to help decode the audio. If the JNCS install CD does not include the NPRuntime folder, do not be concerned; your recorder does not require the driver, just skip to the JNCS installer section.

NPRunTime Installation: for Windows XP

1. After the regular desktop display appears insert JEI CD
2. Using Windows explorer Go to the CD Drive
3. Go to NprunTime\2000XP_602e folder
4. Double Click on Setup
5. Click the Next Button on the Welcome screen
6. Click Yes to the License agreement screen
7. Click Yes to the Read me first screen
8. Click Next to the Destination Folder (Default)
9. Uncheck Drivers for the first group of Boards
10. Uncheck Drivers for the second group of Boards
11. Leave Check on Virtual PCX components
12. Leave Check on Sentinel Driver
13. Click Next
14. Click Yes to the License agreement
15. Click Next
16. Click Next
17. Select the “Yes, I want to restart my computer now” option
18. Click the Finish button, you computer will restart

JEI Digital Recorder Network Client System (JNCS) Installation:

1. Make sure the client PC and JEI DVR-FS Recorder connected to the same Network (Workgroup or Domain and VLAN)
2. After the regular desktop display appears insert JEI CD
3. Using Windows explorer Go to the CD Drive
4. Double Click on JNCS_SETUP
5. Once the Welcome Screen appears, click the Next button
6. Choose an Installation Type and click the Next button
7. Choose a Destination Folder (or accept the default) and click the Next button
8. Choose a Program Folder for the Start menu and click the Next button
9. Choose if you want a Desktop Icon and click the Next button
10. Verify your choices and click the Next button
11. Once the installation is complete, click the Finish button
12. Restart Your Computer.



Caution: Some DVR recording systems are capable of high fidelity recordings using 48 kHz sample rates. Older sound cards may only operate up to 44.1 kHz sample rates or lower and thus playback will be inoperable. If you must playback using a lower fidelity sound card then you must adjust the recorder to record at no more than the maximum available sample rate of that sound card.

BASIC OPERATION

3. GETTING STARTED -

- a) Use the Start menu to navigate to programs and select JEI, then select JNCS or double click on the JNCS icon on your desktop. The JNCS software displays the Login screen.
- b) DVR Machine Name Drop-Down List shows available JEI Digital Recorders attached to your Network.
This will be blank the first time the software is started.



- c) Click the Network Configuration button to locate the Recorders on the network.

A warning screen will let you know that this is a process that should only be done by a network administrator. Click the proceed button to get to the settings.



- d) The Configuration screen is a little daunting but it really just has many ways to do the same operation. It builds a list of recorders on your network.
- e) The first option is to search based on the name of the Recorder. All recorders have a name that begin with the letters "DVR", but you will still have to know the full name of the recorder. Enter the name in the first field and click the Add button. If the name can be located, it will be added to the Known Recorders list on the left.
- f) If you know the IP Address assigned to the recorder, you can use the second field to locate the device. Click the Add button to check the IP Address and add the recorder to the list.



- g) If you have more than one recorder or cannot remember any of the details, a Search by Workgroup may help. Enter the name of the workgroup assigned to the recorder. JEI assigns the recorders to the workgroup named "WORKGROUPO" at the factory. Enter the workgroup name and click the Search/Add button. All the recorders in the designated workgroup will be added to the Known Recorders list.
- h) If the recorder has been added as a member of your domain, enter the domain name in the last box and click the Search/Add button. All the recorders in the designated domain will be added to the Known Recorders list.
- i) Once the Known Recorders List is populated, click the Save button. You will be returned to the Login screen.

- j) If you need to start over for some reason, click the **Clear List** button to erase the Know Recorders list.
- k) If you just want to get out of this screen without making any changes, click the **Cancel** button. This will return you to the Login screen.

NOTE: If you change the name of any recorder the list will have to be cleared that the location process will have to be repeated.

4. PASSWORD/LOGON

Once the initial setup is complete, the DVR Machine Name Drop-Down List shows available JEI Digital Recorders attached to your Network. Simply choose the recorder you would to see. If only one recorder is in the list, you do not have to do anything and can jump to the password field.

The software automatically chooses the correct username to access the recorder. It appears on the display only for informational purposes.

The password filed will be pre-loaded with the last password that was used. If you want secure password handling, so that the user must enter the password every time, give JEI a call and we will help you configure the software to disable the password memory feature.

If the password field is blank, enter the windows network password for the recorder.

Click the OK button when you are ready to connect. JNCS will attempt to connect to the recorder. If there are any problems connecting JNCS will display a message at the bottom of the screen.

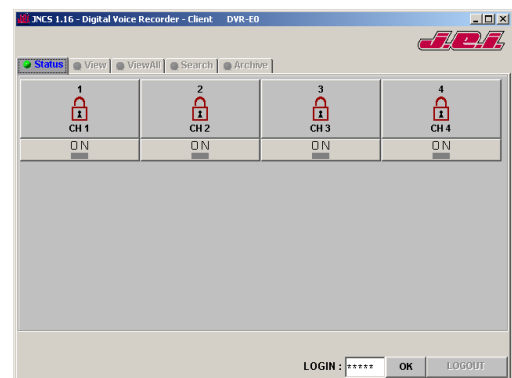


Tip: If JNCS reports the error “NetBT timed out”, make sure that your computer has NetBIOS over TCP/IP enabled.

You might also get this error if the name of the recorder has been changed.

Once the recorder verifies your windows password, JNCS will establish a persistent connection with recorder and the application window will appear. The Status tab will be displayed as the starting point for your session, you will notice that the channel icons show small padlock symbols. The padlocks indicate that you do not have access to the channel.

The login prompt at the bottom of the screen will remember your last login (this is configurable) so you just need to click the OK button. Once you have successfully logged in the status display will change - the padlocks will change and the tabs will be enabled. The features and channels available to you are controlled by your login.

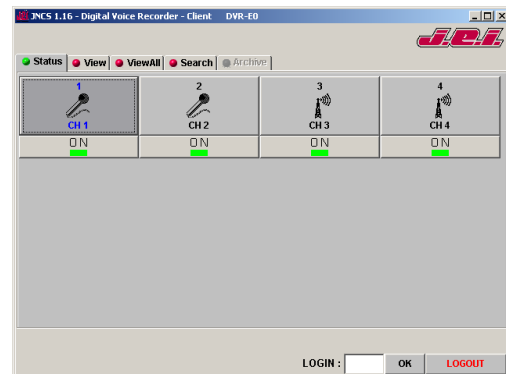


5. STATUS

The Status tab provides the foundation for using the recorder. It is similar to the status screen on the recorder.

The Status screen displays the available channels using icons that represent the channel type. If your login does not give you access to a channel the padlock icon will be shown and you will not be able to view that channel.

The (optional) On/Off button will allow you to control recording on a specific channel. Channels in the green (on) condition will record when audio is received. Channels with the red (off) condition will ignore any audio on the channel. When you click the button the display will change to indicate the current setting. The default condition is the “on” setting.



The login prompt allows the user to enter his login value. You can change users simply by entering the new login value and clicking the OK button.

The logout button resets all access setting and puts all channels into the padlock mode.

You are free to login/logout as many times as necessary without ending the JNCs session or closing the application.

You will notice that the status tab has a green icon, while the other tabs have red icons. The green icon indicates which tab is active. If you click on one of the other tabs, its icon will become green and the screen will change to reflect the contents of the new active tab.

Click on one of the channel buttons to show a view of the recordings on that channel. This will activate the View tab for that channel. You can activate the view a number of other way as well. There are four ways to enter the View Screen for a channel from the Status Screen:

- Use the Mouse to left click on the channel button;
- Use the **Tab** key to highlight the channel of interest and hit the **Enter** key;
- Use the number keys to type the channel number.
- Use the arrow keys to highlight the channel of interest and press **Enter** key

6. VIEW

The View tab displays the recordings for the selected channel. The majority of the screen is taken up by this list. You will notice that the last recording is highlighted. You can play back this recording by pressing the enter key. This gives you fast access to the latest recording.

(We call this **Instant Recall**; if you do it right it takes two keystrokes from the Status tab.)

You can scroll the selection by using the arrow keys or the page up/down keys. When you get to the top of the list the software will ask the recorder unit for the previous audio data. You can use the arrow up and page up keys to scroll the list backwards in time. As you do this, the scrollbar on the side of the list will change to reflect the amount of data currently displayed.

(The scroll bar covers only the loaded data; use the page up to get older data from the recorder.)

The system assigns a unique Event Number to each recording for your convenience. The Event Number is listed first, followed by the Start Date, Start Time and Duration of each recording.

The "CC" column contains a "C" to indicate that a recording is longer than 1 hour. If a recording reaches the one-hour duration, the DVR starts a new recording with a new time stamp. No audio data is lost. This is a safety feature to prevent run away recordings that could waste space. If a channel is full of these continued recordings, some adjustment in the settings might be necessary. In addition, a one-hour chunk of audio is easily handled by other Windows applications.

The Mark column indicates recordings that have been tagged for some special purpose. Such recordings will have the letter "M" in this column.

The Note column will display the first 20 characters of the note attached to the recording.

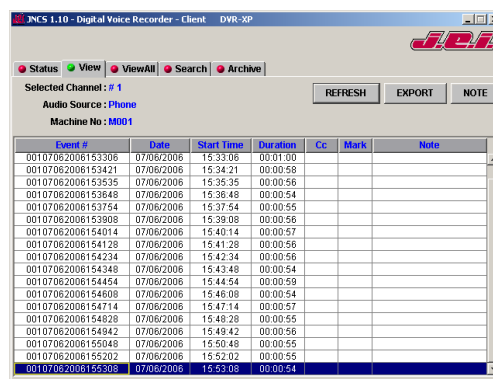
The list is scrollable and you can use the up/down arrow keys or the page up/down keys to move the list up and down. The Home key will jump to the top of the current list - it might also load older data. You might need to jump to the top many times to see all of the recordings stored on the recorder. The End key will jump to the last recording.

If a recording has "?:?:??" instead of a duration, don't worry, it just means that the recording is still under way and is still growing.

If you want to listen to a particular recording, move the blue highlight bar to the recording of interest and hit the **Enter** key. You can also double click on the recording using the mouse. Either of these actions will bring up the JEI Player. The player will be covered in the next section.

The **Refresh** button will repopulate the list with the latest recordings. Sometimes the recorder is getting so much traffic that the recordings roll up the screen at an aggressive rate. This is fairly distracting when you are just trying to check older recordings. The refresh button is equivalent to jumping back to the Status tab and choosing the same channel again.

The **Export** button makes a copy of the recording and any attached notes on the local hard drive. These files are stored in the JEIEXPORT directory on your C: Drive. From there you can email the files, or burn them to CD/DVD, or transfer them to a portable player like the iPod.



Event #	Date	Start Time	Duration	Cc	Mark	Note
00107062006153306	07/06/2006	15:33:06	00:01:00			
00107062006153421	07/06/2006	15:34:21	00:00:56			
00107062006153535	07/06/2006	15:35:35	00:00:56			
00107062006153648	07/06/2006	15:36:48	00:00:54			
00107062006153754	07/06/2006	15:37:54	00:00:55			
00107062006153908	07/06/2006	15:39:08	00:00:56			
00107062006154014	07/06/2006	15:40:14	00:00:57			
00107062006154128	07/06/2006	15:41:28	00:00:56			
00107062006154234	07/06/2006	15:42:34	00:00:56			
00107062006154348	07/06/2006	15:43:48	00:00:54			
00107062006154454	07/06/2006	15:44:54	00:00:59			
00107062006154608	07/06/2006	15:46:08	00:00:54			
00107062006154714	07/06/2006	15:47:14	00:00:57			
00107062006154828	07/06/2006	15:48:28	00:00:55			
00107062006154942	07/06/2006	15:49:42	00:00:56			
00107062006155048	07/06/2006	15:50:48	00:00:55			
00107062006155202	07/06/2006	15:52:02	00:00:55			
00107062006155308	07/06/2006	15:53:08	00:00:54			



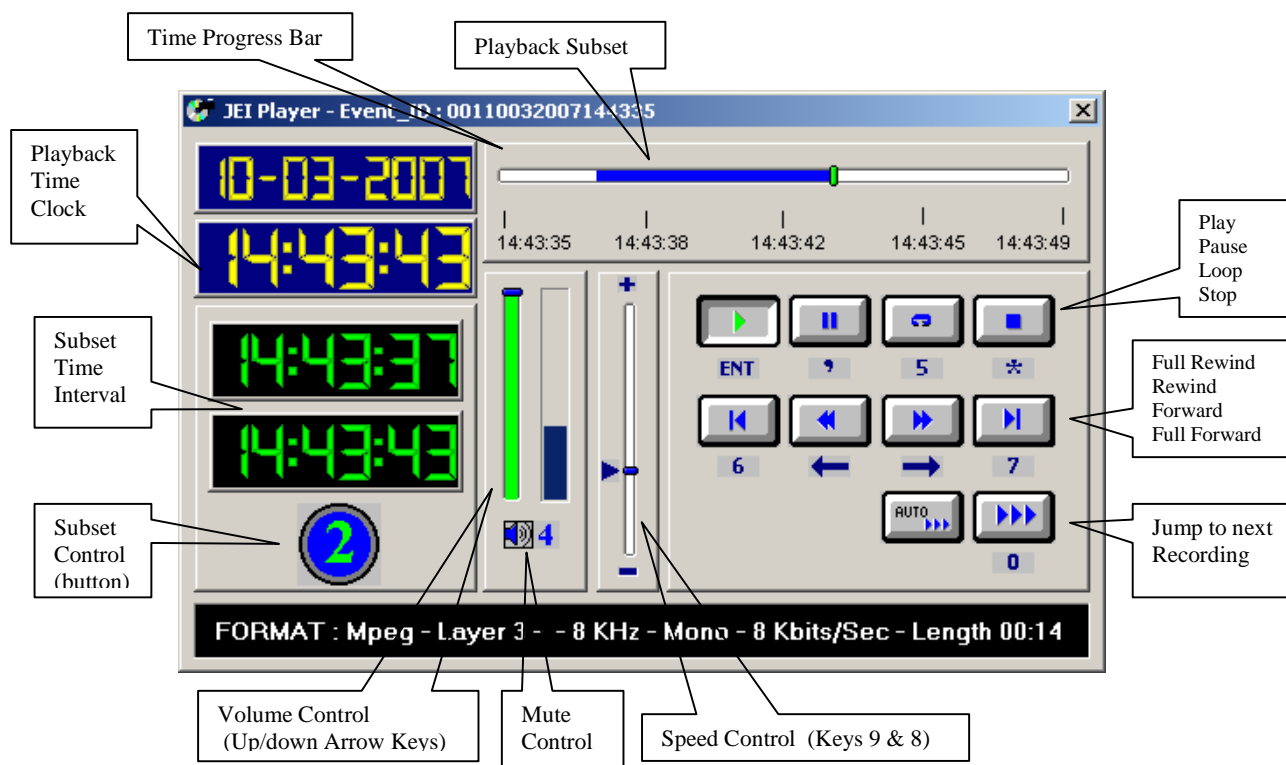
Caution: DO NOT rename or Delete this subdirectory. JEI Client program will not do any file maintenance in this subdirectory. Periodically delete the audio files from this subdirectory to avoid the risk of filling up your local drive.

The **Note** button will call up a small text editor. If the recording already has a note, it will be displayed in the editor. If the recording does not have a note, a new blank note will be created. Type in any text you want. The editor also supports cut-and-paste from other applications. Although you can enter many lines of text, only the first 20 characters will appear in the note column. You might want to put the really important stuff first, like a police report number or the caller's name.

You can return to the Status tab by pressing the Escape key until Status appears.

7. PLAYBACK CONTROLS

The JEI Player offers many features to control the playing back of a recording. You will notice that the clocks on the player are "Real" clocks - they represent the times that the audio was recorded - not just a simple run-length timer. When the player opens, it will start playback.



At any time during playback, a portion of the original audio file can be selected as a segment for repeated playback – called a **Subset**.

- Click the mouse or press 1 on the **subset control** when the playback reaches the **starting point** of the playback portion you wish to separate. The number “2” will appear on the circular digital display.
- Click the mouse or press 2 on the **subset control** again when the playback reaches the **end point** of the playback portion you’ve separated. The number “3” will appear.

- You have now marked a specific portion of the audio recording for repeated play/study.
- If you click on the **subset control again** or press the "3" key, you will reset the subset shown on the time progress bar.
- You can select the **loop control** to playback any portion of a recording over and over by click on the loop symbol or pressing the "5" key.
- The **subset time interval clock** shows the start and stop time of the subset selected.

The player can be **closed**, at any time by, pressing the **Escape** key or clicking on the exit button at the top right corner.

The Speed control can be adjusted using the 8 and 9 keys. It will decrease or increase the playback speed. This is useful if the recording capture many things at the same time and it is difficult to separate out the sounds. Playing slower makes it easier to distinguish the sounds. **Speed control is less effective when applied to files of higher sampling frequencies and bit rates.**

All functions can be accessed without a mouse via the keyboard by the items listed below each button.

ENTER	Play	7	Jump to End
ESC	Close the player	4	Mute
, (comma)	Pause	▲	Increase Volume
5	Loop	▼	Decrease Volume
*	Stop	9	Increase Speed
HOME	Jump to beginning	8	Decrease Speed
6	Jump to beginning	0	Next Recording
◀	Fast Rewind	1	Start a Subset
▶	Fast Forward	2	End a Subset
END	Jump to End	3	Clear the Subset

8. VIEW ALL

The View All tab is similar to the View tab, but it displays a recent list of all channels in chronological order.⁵ This tab is useful when you are not sure of the specific channel that contains the recording of interest. Also, this screen is useful if an incident involved recordings that were captured on many active channels.

Playback, Refresh, and Export all function the same as the View tab.

ch#	Event #	Date	Start Time	Duration	As	Arc	Cc
001	00107062006153306	07/06/2006	15:33:06	00:01:00	PHONE	*	
001	00107062006153421	07/06/2006	15:34:21	00:00:59	PHONE	*	
001	00107062006153535	07/06/2006	15:35:35	00:00:56	PHONE	*	
001	00107062006153648	07/06/2006	15:36:48	00:00:54	PHONE	*	
001	00107062006153754	07/06/2006	15:37:54	00:00:55	PHONE	*	
001	00107062006153868	07/06/2006	15:38:08	00:00:56	PHONE	*	
001	00107062006154014	07/06/2006	15:40:14	00:00:57	PHONE	*	
001	00107062006154128	07/06/2006	15:41:28	00:00:56	PHONE	*	
001	00107062006154234	07/06/2006	15:42:34	00:00:56	PHONE	*	
001	00107062006154348	07/06/2006	15:43:48	00:00:54	PHONE	*	
001	00107062006154454	07/06/2006	15:44:54	00:00:59	PHONE	*	
001	00107062006154608	07/06/2006	15:46:08	00:00:54	PHONE	*	
001	00107062006154714	07/06/2006	15:47:14	00:00:57	PHONE	*	
001	00107062006154828	07/06/2006	15:48:28	00:00:55	PHONE	*	
001	00107062006154942	07/06/2006	15:49:42	00:00:56	PHONE	*	
001	00107062006155048	07/06/2006	15:50:48	00:00:55	PHONE	*	
001	00107062006155202	07/06/2006	15:52:02	00:00:55	PHONE	*	
001	00107062006155308	07/06/2006	15:53:08	00:00:54	PHONE	*	

⁵ Only most recent recordings are displayed. More recordings may be found in the View Screen for a specific channel.

9. SEARCHING

The search tab allows the user to search for recordings by any combination of channel, date, time, or audio source. Searches can be refined to include or exclude radio, microphone or telephone channels. There are four modes of searching, use the "MODE" button to switch to the next mode. The general search locates recordings that started between two specified date/times. The Spanning search locates recordings that started before and end after a specified time. The event numbers locates specific event numbers. The text search will locate recordings base on the attached notations.

#	S Date	S Time	E Date	E Time	Duration	As	Event Number
001	11/06/2007	12:31:23	11/06/2007	13:31:23	01:00:00	RADIO	00111062007123123
001	11/06/2007	13:41:17	11/06/2007	14:17:01	00:35:43	RADIO	00111062007134117
001	11/06/2007	14:37:08	11/06/2007	14:37:48	00:00:39	RADIO	00111062007143708
001	11/06/2007	14:37:50	11/06/2007	14:37:55	00:00:04	RADIO	00111062007143750
001	11/06/2007	14:37:56	11/06/2007	14:38:08	00:00:11	RADIO	00111062007143756
001	11/06/2007	14:38:10	11/06/2007	14:38:27	00:00:16	RADIO	00111062007143810
001	11/06/2007	14:38:30	11/06/2007	14:38:35	00:00:05	RADIO	00111062007143830
001	11/06/2007	14:38:46	11/06/2007	14:39:40	00:00:53	RADIO	00111062007143846*
001	11/06/2007	14:39:42	11/06/2007	14:40:16	00:00:33	RADIO	00111062007143942
001	11/06/2007	14:40:17	11/06/2007	14:40:22	00:00:04	RADIO	00111062007144017
001	11/06/2007	14:40:25	11/06/2007	14:40:40	00:00:14	RADIO	00111062007144025
001	11/06/2007	14:40:40	11/06/2007	14:40:56	00:00:16	RADIO	00111062007144025
001	11/06/2007	14:40:59	11/06/2007	14:41:24	00:00:24	RADIO	00111062007144040
001	11/06/2007	14:41:35	11/06/2007	14:42:04	00:00:28	RADIO	00111062007144059
001	11/06/2007	14:41:35	11/06/2007	14:42:04	00:00:28	RADIO	00111062007144135

The Buttons

All of the search modes use a common set of buttons along the right edge of the Search tab. As you use the Mode button to change from one search mode to the next, these buttons will remain on the screen.

The Search button initiates the search process. Each time the search is engaged the results list will be cleared and repopulated with recordings that match the search criteria. If no recordings match your search criteria, which could happen if your date range is too far in the past, a message will let you know that no records were found.

The Clear All button erases the search results list, empties (or resets) all the search criteria fields and resets the checkboxes to the default state. Think of it as the OOPS button.

The Clear Row Button removes the selected row from the search results list; this can be used to fine-tune the list before printing a report or making a playback collection for external recording.

The Mode Button switches to the next search mode. The modes are General, Spanning, Event, and Text. Specifics of each mode will be covered in the next section.

The Print button prints a report of the entire search results list. A printer must be attached to the printer port on the back of the Recorder for this feature to function. Printing is restricted to Supervisor level access. If your access level is not high enough, the print button will never become enabled.

The Export File button will make copies of the selected files and place them in the "jeiexport" folder.

The Note button will open the note editor. When you are done editing the note simply close the edit window – the note will be saved automatically.

The General Search

The channel field allows you to specify a particular channel (1) or a list of channels (1,3,5) or a range of channels (2-6). Type in a value and use the tab key to advance to the next field. The search will be confined to the channels listed in the field.

The “Marked” search options allow a user to search based on the Marker flag on the View tab. The user can narrow a search to include just the recordings that are marked, the recordings that are not marked, or choose the ALL option to ignore the marker status of recordings

The Date and Time fields allow users to specify a starting date and time and an ending date and time. The recordings listed will only be the records that are between the two date/times. The user can skip entering the starting date/time to get the recordings that occurred before the end date/time. The user can skip entering the ending date/time to get the recording that occurred after the starting time. The time fields are optional and do not have to be entered in which case the date/time will not be a factor in the search process.

The Inputs selectors allow a user to search for records that come from a particular type of input source. The default input is “All” which really tells the search not to worry about the input source. Any combination of Radio, Mic, and Phone may be selected. The search results will be filtered to include only records that match one of the checked inputs.

The Spanning Search

The Spanning search is really more intuitive; it works much more like a brain works. Specify a date and time of interest and time period. The search results will bring back the recordings that were actually recording at the specified time.

The channel field will specifies a particular channel (1) or a list of channel numbers (1,3,5) or a range of channels (2-6). The search will be confined to the channels listed in the field. If you leave the channel field blank all channels will be included in the search.

The Date and Time fields allow users to specify a date and time of interest. Since the Spanning Search is a precision search, all of the date/time fields must be entered.

The time span selectors allow you to set the tolerance of the search. If you select the 10-minute option, the search will find recordings that start or end within 10 minutes of the specified time.

The input selectors (Radio, Mic, and Phone) allow a user to restrict the search results to recordings that come from the specified input sources.

The Marked checkbox is a special case, if it contains a check mark, the search will find ONLY the recordings that have been marked. The unmarked recordings will not appear in the search results.

The Event Search

Once the Event search is displayed the event number field will automatically be active and ready to accept your search criteria. You can enter either entire event numbers or partial event numbers. When entering partial event numbers the asterisk (*) can be used to denote a partial search. The use of the asterisk is optional. This is a precision search, it is easy to make a typo in the event number field. Don’t get discouraged – check your event number and just try the search again.

The Text Search

Once the Event search is displayed the event number field will automatically be active and ready to accept your search criteria. You can enter the text you need to find. The notes for all recordings will be examined and if your search text appears in the note the recording will be added to the search results. The text search looks for the exact phrase that you enter in the field. For example, if you have the following information on the recorder:

Recordings	
Event #	Note:
00105242006163243	123 West-Any St
00105242006164437	321 West Any St
00105242006172266	123 East Any St

Search criteria of "Any St" would return all three of these recordings. A search of "123" would find the first and third recordings. A search of "West Any" would only find the second recording. The first record is not found because the hyphen in the first note does not match the search criteria. It is a good idea to keep the search phrase as short as possible to generate the most matches. However, searching for common words is not really a good idea either. A search for "the" is likely to bring back more recordings than necessary. It may take a couple of attempts to get a handle on good search phrases for your organization.

The Results

Once you have entered the search criteria and started the search, the system will create a list of matching recordings. This might take several minutes if the recorder has been running for a long time and has stored a lot of recordings.

The Clear Row, Note and Print buttons will become enabled, if any recordings are listed in the results grid.

The search results list operates just like the View tab in regards to navigation, selection and playback. Simply highlight a recording and press Enter to open the JEI player.

10. ARCHIVE:

The JEI Network Client allows the Remote access of the recorded audio files from the SATA Archive. To access the Data from Archival device Click on the Archive button. You will be presented with the Archive Search features.

You will notice that the Search tab and the Archive Search tab look almost identical. In fact, they are nearly identical in operation as well. All of the controls and features are the same on both tabs. Refer back to the previous section.

The Archive search differs in that it can adjust for the absence of the archive drive. If you get a message that the archive is missing or search results consistently return no results, the archive drive may have been removed from the recorder.

LIMITED WARRANTY

This product is warranted by J.E.I. to the original purchaser to be free from defects in material and workmanship under normal use for a period of one year from the date of purchase. During the warranty period, the product will be repaired or replaced (with the same or similar model) at our option, without charge for either parts or labor. The warranty will not apply to this product if it has been misused, abused or altered.

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