Digital Voice Recorder
ACC's Digital Voice Recorder (DVR) is a multichannel solid-state digital audio recorder that remotely records and plays back audio through your repeater systems. It allows you to remotely record all of your repeater controller's programmable messages and offers a Touch-Tone activated voice mailbox. The DVR makes your repeater an information center, enhancing the communications through your system.

No Compromise Audio
Playback sounds "live". The DVR preserves the full audio fidelity of your repeater. Its highest quality level results in recording indistinguishable from the original. Your repeater is judged by how it sounds, and the DVR keeps it sounding first class! High quality recording is especially important when your "celebrity", or other favorite voices, record IDs and other announcements.

You Decide
The DVR allows recording and playback of a number of variable length audio "tracks". You choose the quality level of different tracks. Select the highest quality reproduction for your favorite IDs, and conserve memory by choosing a secondary level of audio quality for less frequently used messages. The DVR uses only as much memory as the length of the track, so there's no "wasted space" when you record.

Easy To Use Mailbox
Now it's easy to leave messages for other repeater users without having to remember lots of codes. Just enter a simple Touch-Tone command and talk. You're guided through the entire process of leaving a message with voice prompts, so the mailbox couldn't be easier to use. And your voice mail messages can say anything you want, since you say them!

To leave a voice message, enter a simple command and the DVR will ask who your message is for. Say who it's for (like "Tom"), then say your message. To see if there are any messages for you, ask it with a simple command and the DVR will list who has messages waiting ("Pete", "Joe", "Tom"). If you're Tom, you can retrieve your message by simply pressing 3 on your Touch-Tone pad.

For a large number of users, and more message privacy, the 100 slot "semi-private" mailbox works like Post Office Boxes. Leave messages directly for your friends and retrieve your own any time. Special "run time variable" audio tracks let your repeater automatically notify you when there is mail waiting.

The DVR Grows As Your System Grows
You can start with inexpensive and readily available computer memories from us or from your neighborhood computer store and add more a row at a time. As your needs increase, you can expand to a full megabyte, lengthening the recording time with no hardware changes.

And the DVR can be expanded to three-in-one. This means that one DVR can service three fully independent repeater systems or two repeaters and the phone line*. All three channels can be recording or playing back at the same time.

Start out with the single channel DVR - you can upgrade anytime. Or go in together with other groups that share your site to reduce the cost all around.

Synergy
Your ACC RC-850 or RC-85 Repeater Controller and the DVR work together to enhance the value of each other. Any or all of the remotely programmable messages of the controller may be made up of DVR audio tracks. That means many IDs, tail messages, bulletin board announcements, and other messages can be stored at one time. With the '850 controller, the various messages can even be scheduled. And since a message can consist of several tracks joined together, each track can be used in more than one message to make the most of the recording time available.

Reliability
Since the DVR is fully solid-state and there are no moving parts, it's ideal for use in remote locations and harsh environments - there's simply nothing to wear out.

Remember... the synthesized speech in your controller is the "voice of the repeater". The Digital Voice Recorder records your voice and your users' voices to enhance communications through your repeater system.

*Access from the telephone is achieved by connecting a DVR channel to the telephone interface of the controller.
Features/Benefits

Direct digital recording - 64K bit/second PCM
Outstanding audio quality, just like the original
3db bandwidth 150-3800 Hz, 1.5%/distortion (highest quality mode)
Selectable software data compression for extended recording time at reduced quality levels
No vocabulary restrictions of synthesized speech

Direct interface to RC-850 and RC-850 Repeater Controllers
Playback of various tracks specified with message editor allows use with IDs,
tail messages, courtesy tones, Emergency Autodial responses, etc.,
Tracks may be joined together for messages - may be used in several messages
increasing effective "playback" time

Up to three independent record/playback channels
Supports up to three independent systems for cost effective operation
Allows cross directed voice mail
Makes most efficient use of a common memory resource
Permits simultaneous record/playback operations on all three channels

Uses industry standard 64K and 256K dynamic RAM chips
Compatibility with 256K allows recording time extension
Accommodates up to 1 megabyte memory (8 megabits)
Recording time may be extended with "home computer" memory chips

Dynamic allocation of memory
Recording takes only as much memory as required for no wasted memory
No playback "dead time"
128 addressable "tracks" plus mailbox

Solid-state, fully electronic operation
High reliability in harsh environments

High reliability, low power design
All ICs socketed in gold machine contact sockets
Uses Advanced Low Power Schottky and CMOS logic families for low current drain
Easy to battery back up for audio storage during main power outage

Available in a variety of configurations
Select the configuration you need and can afford
Assembled/tested board only, or in rack mount enclosure
Choice of memory size - may be upgraded with standard memory chips at any time
Choice of one, two, or three audio channels; factory upgradeable

101 Ways To Use Your Digital Voice Recorder On Your Repeater

- Welcome a new user to your repeater.
- Congratulations a user for upgrading his license.
- Use a "ho-ho-ho" courtesy tone for Christmas.
- Provide instructions for visiting users.
- Use a "champagne cork pop" courtesy tone on New Year's.
- Remind users to drive safely.
- Announce intruder with "help, help, call the police!"
- Remind your users of an upcoming flea market.
- Provide talk-in for information for your hamfest.
- Select volunteers for your rate-a-thon.
- Record remote base memory names with QTH of system.
- Advise users of status of an emergency situation.
- Announce any technical additions to the repeater system.
- Warn users of weather advisories.
- Check out the audio on your new handheld.
- Wish a user "happy birthday."
- Use a "firecracker" courtesy tone on July 4th.
- Use a "gobble-gobble" courtesy tone on Thanksgiving.
- Feature a public service announcement.
- Custom tailor emergency automatic response messages.
- Provide instructions on how to use the repeater.
- Announce next repeater schedule.
- Distribute system information to control operators.
- Display bits of interest from the Westlink broadcast.
- Tell a friend you can't make the meeting.
- Announce the call sign slots of new users.
- Let new users introduce themselves.
- Check out the audio quality on your new mobile rig.
- Use a "cloud-chap" courtesy tone during emergency.
- Provide a brief club meeting directory.
- Congratulations a new ham for getting his license.
- Ask a friend how he likes his new rig.
- Encourage users to respond to open FCC matters.
- Remind users what to bring on field day.
- Provide directions to the field day site.
- Do a summary of what you know what to expect.
- Announce field day results.
- Provide a local net directory.
- Ibid your repeater using your favorite sexy voice.
- Remind users of your rate-a-thon.
- Provide a short "repeater directory" for your area.
- Solicit volunteers for your rate-a-thon.
- Remind users of proper repeater procedure.
- Provide info about your repeater's facilities and coverage.
- Announce availability of a new repeater in the area.
- Put a slide on the alarm message.
- Rent a DTV channel to a commercial site user.
- Offer holiday greetings to your users.
- Play an alarm clock sound when the repeater sign on.
- Remind all of the upcoming repeater coordination meeting.
- Announce the results of your rate-a-thlon.
- Welcome your new club president and cabinet.
- Remind users of ARRL sponsored events.
- Ask another repeater user to give you a call.
- Announce when club owned gear is available for loan.
- Tell a friend about a new contest you found.
- Use a "slight-bell" courtesy tone on Christmas.
- Leave a message for your wife to get over the phone.
- Include your repeater's location in its ID.
- Include the name of your repeater organization in the IDs.
- Round up a group interested in getting on ATV.
- Have our say "Brrr, it's cold up here" after snow.
- Notify users of the latest info on local packet board.
- Please your next repeater's location on ATV.
- Announce current propagation conditions.
- Remind users of the presence of a rare DX station on 20 meters.
- Remind users of an upcoming OSCAR pass.
- Remind users of the presence of a rare DX station on 20 meters.
- Direct users to other repeaters during an emergency.
- Ask a friend what he'll be on the air.
- Congratulations to a user for getting married.
- Announce your repeater's new freq, when you change.
- Describe the equipment making up your repeater.
- Tell users of other repeaters sponsored by your group.
- Announce the presence of the new VHF on your repeater.
Specifications

Audio Quality
Frequency Response 150-3800 Hz
Distortion 1.5% (highest quality level)

Recording Time
Highest Quality Level - up to 130 seconds
Intermediate Quality Level - up to 260 seconds
Lowest Quality Level - up to approximately 360 seconds [2-6 minutes depending on quality level of each track and memory installed]
Playback time is much larger since each track may each be used in many messages

Memory
Audio memory expandable from 64K byte to 1M byte
Four optional rows of memory chips, each row consisting of eight 4164 or 41256 type dynamic RAM chips*

Audio Tracks
128 variable length tracks (0-360 seconds each, total limited by memory )
Record operation initiated with Touch-Tone commands
Playback initiated with ASCII serial commands [supplied by RC-850 and RC-85 repeater controllers], or Touch-Tone commands

Voice Mailbox
User is voice prompted through the process of leaving mail
Touch-Tone activated entry and retrieval
Public and semi-private mailboxes
Public mailbox - two step entry process - say who the message is for, then say the message
Semi-private mailbox - specify one of 100 slots, then say the message
Easy message retrieval - ask who messages are stored for, then ask for your message
Remotely recordable prompting messages

Record Audio Inputs and Playback Audio Outputs
1, 2, or 3 (depending on number of channels); adjustable levels
Record operation - Touch-Tone (independent decoder per channel)
Playback operation - ASCII serial commands, Touch-Tone

Repeater Controller Interface
Five wires (record audio, playback audio, COS, command, busy)

Repeater Controller Supported Remotely Recordable Messages
ID Messages - 16 / scheduled (RC-850); 7 (RC-85)
Tail Messages - 13 / scheduled (RC-850); 3 (RC-85)
Emergency Autodial Responses - 10 (RC-850 and RC-85)
Bulletin Board Messages - 5 (RC-850); 2 (RC-85)
Alarm Messages - 4 (RC-850); 1 (RC-85)
Courtesy Tones - 12 (RC-850)
Scheduled Event Messages - 5 (RC-850)

Multichannel Option
Independent record/playback electronics, Touch-Tone command decoder, and serial interface port per channel

Power 13.8V ±10%, 1.5A max.; independent battery power input (rack mount version)
Board Size 8.5” × 12.25”
Cabinet Size 19” rack mount, 2.5” high

*The unit is designed to work with standard 200, 150, or 120 ns or faster 4164 and 41256 memory devices.
The warranty applies to memory supplied by the factory.

Prices and specifications subject to change without notice.