

Chapter 6

ACI and ACM Setup and Programming
MediaMaster Part Numbers MM-1200
and MM-1210



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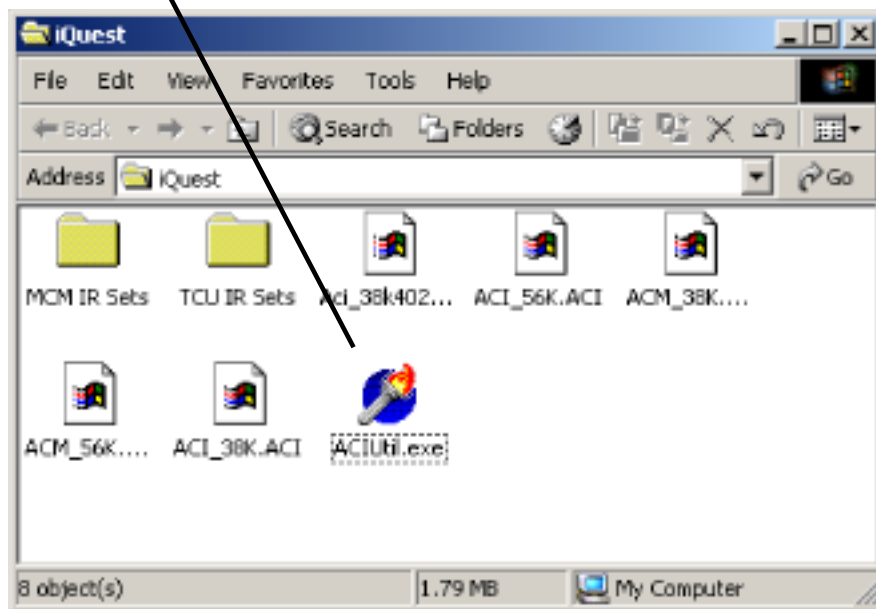
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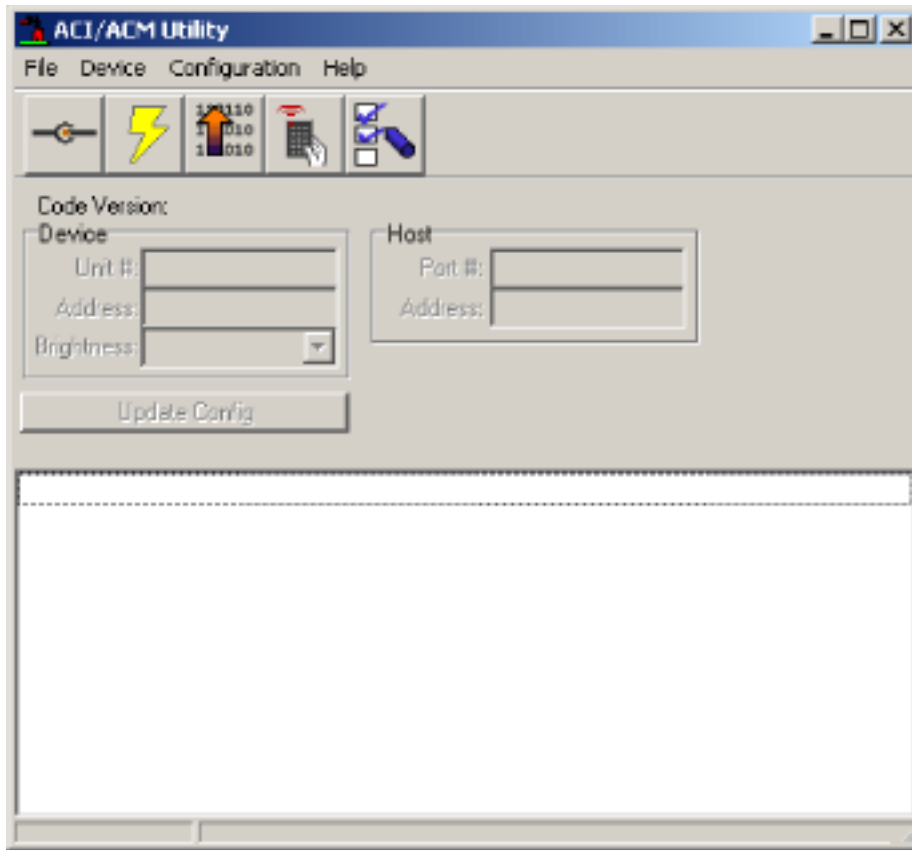
Programming the ACI

ETR provides an easy to use, graphically based programming tool for both the ACI and ACM. This program, called ACIUtil.exe.

Setting up ACIUtil.exe

1. Create a directory called C:\\MediaMaster. This directory will be used when programming ACI's and ACM's.
2. Copy ACIUtil.exe in to C:\\MediaMaster from the CD-ROM or download it from the web site.
3. Double Click on the ACIUtil.exe icon located in C:\\MediaMaster





Once the software is running you can perform the following functions:



Connect to either a ACI or ACM and Change the IP address



Reconnect the ACI or ACM to the Local Area Network



Upload new firmware to the ACI and ACM



Upload new IR commands to a ACI and ACM



Perform diagnostic testing on ACI and ACM

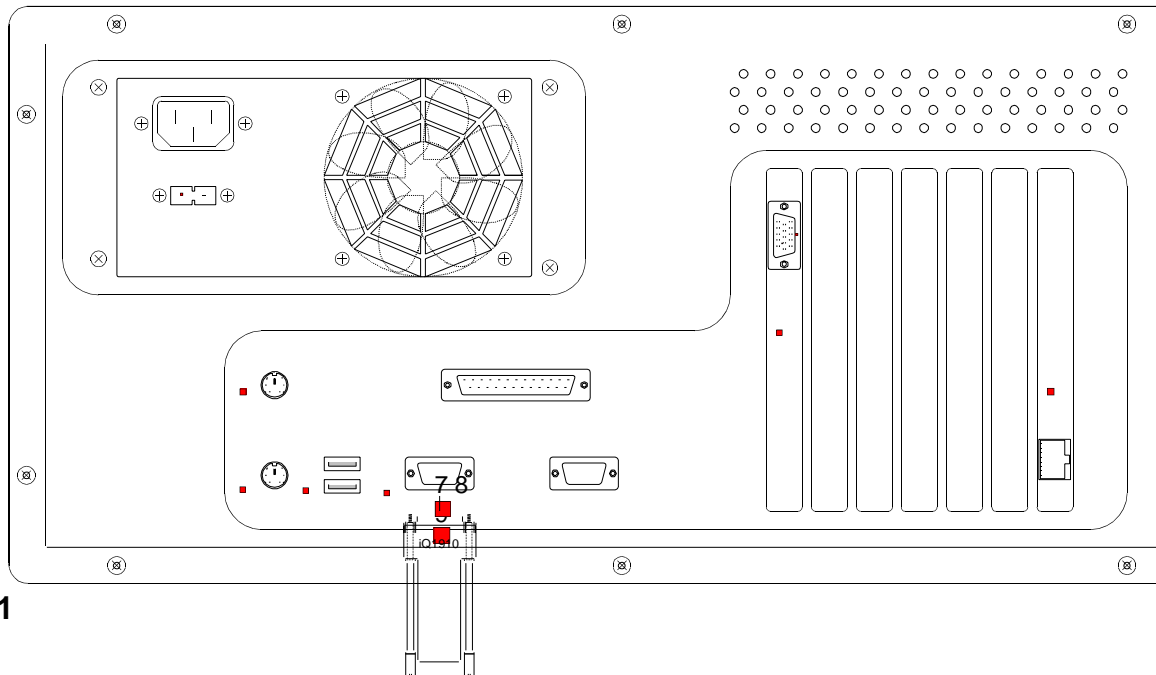


Figure 5.1

In order for the ACIUtil.exe loader program to work properly, you must first connected the MM-1203 232C connector to your PC that you are going to be running ACIUtil.exe from. As seen in figure 5.1

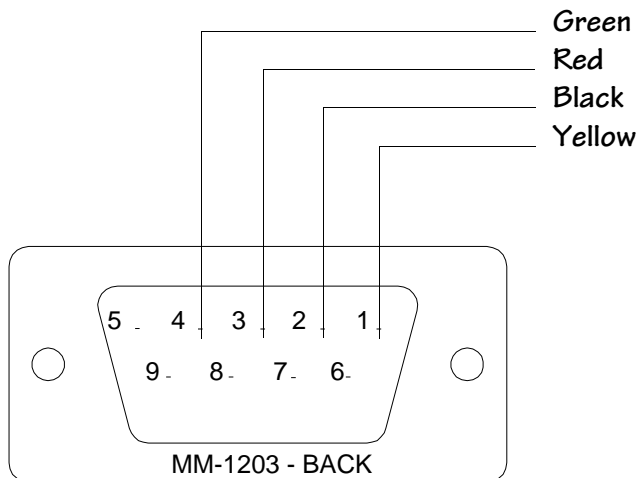


Figure 5.2

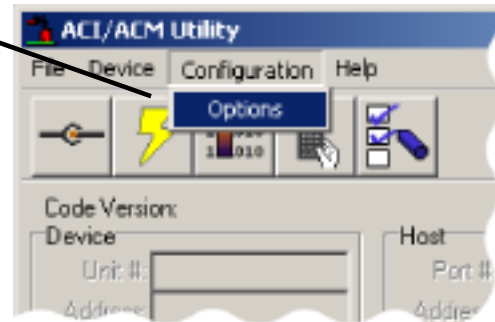
Figure 5.2 show how the MM-1203 is wired on the inside

The plug that goes in to the MM-1203 is a standard 4 conductor RJ-11 phone cable. This cable connects from the iQ1910 on the serial port of your PC, the RS-232 port on the back of the ACI or ACM.

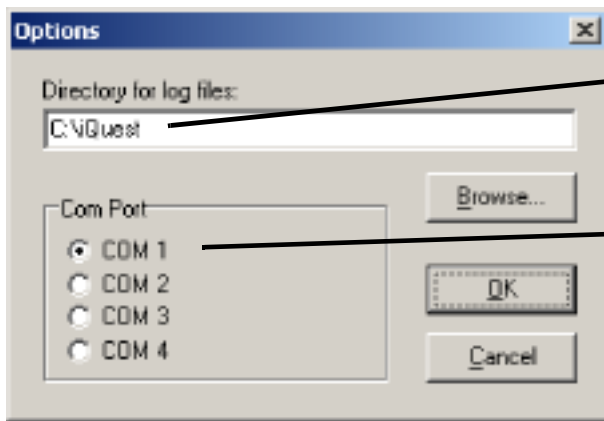
NOTE: 4 conductor RJ-11 must be used for connecting to either the ACI or ACM

Once you have connected the appropriate cables to the ACI and your computer, follow the instructions below:

Click on Options from the Configuration menu



After clicking on options, you will see the following Options window.



Make sure that the Directory for log files is set to the directory that you created and copied the ACIUtil.exe in to (C:\\MediaMaster).

Ensure that the correct COM port is selected. The COM port is the port where you connect the iQ1910 connector in to your computer.

This is all that is required to set up the admin utility program. If having problems connecting to a ACI and ACM, ensure that you have the cabling correct and that the software is configured to the correct COM port.

Connecting to a ACI



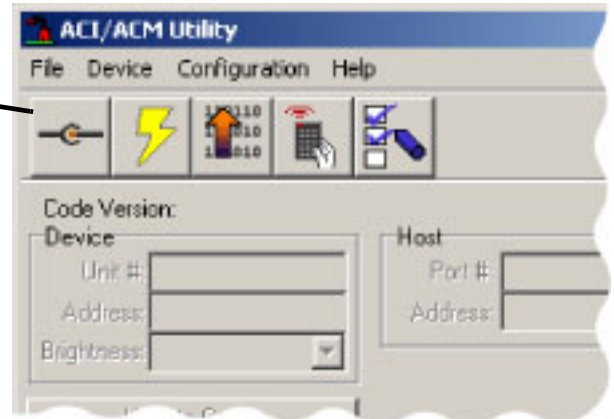
Once you have connected the appropriate cables connected to the ACI and your computer, follow the instructions below:

The first step after configuring the software and attaching the cables is connecting to the ACI:

Click on the connect icon



The ACI will display "DLConfig"



In a moment, pertinent information will be displayed about the ACI. Unit #, Address, Brightness, and a picture of ACI will be displayed.

NOTE: If you are intending on uploading new code it is a good idea to write this information down.

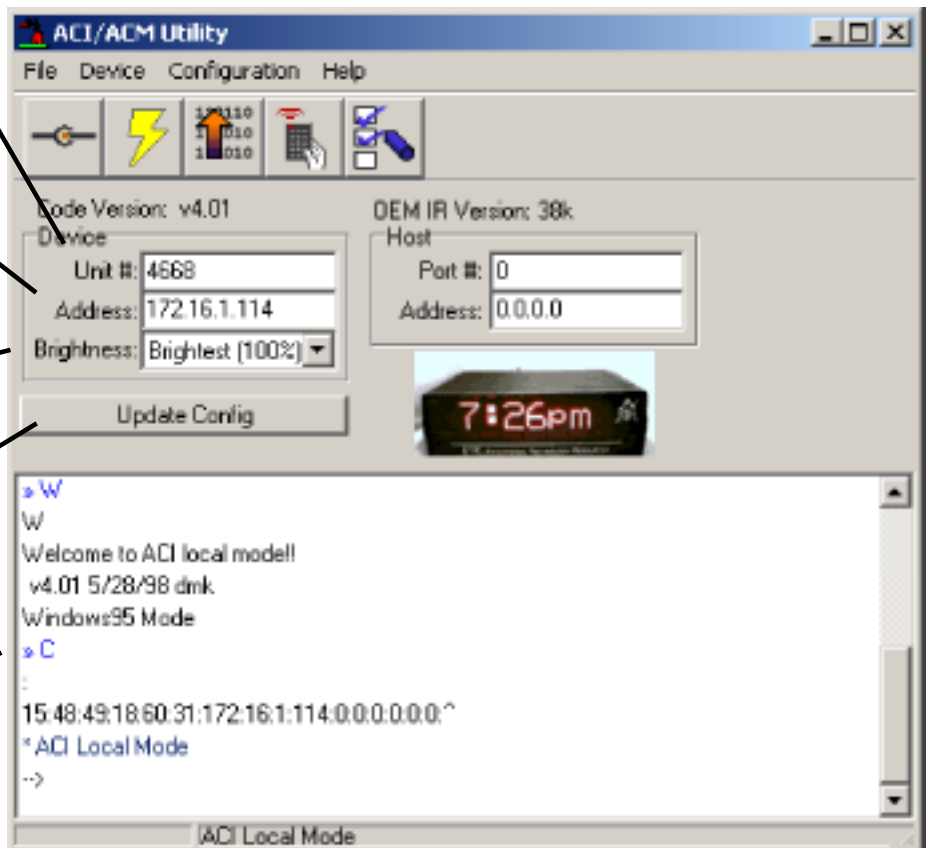
Unit #: Is the unit number designated for that device. Though Unit # can be changed it is not recommended.

Address: Is the IP address assigned to the ACI. This can be changed.

Brightness Brightness can be adjusted

Update Config: Click on this after you make any changes to the above information to update the ACI.

Log window: tracks communication with device



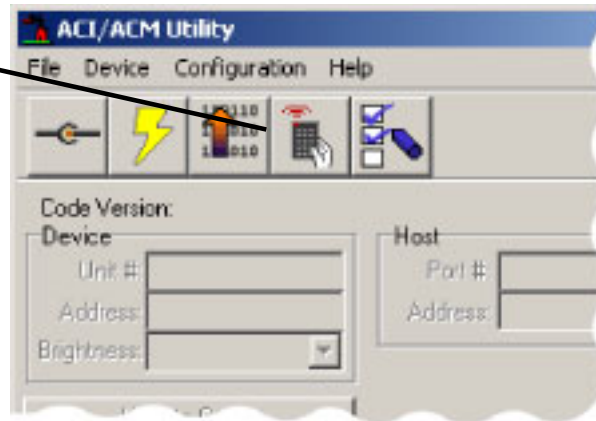


Each ACI has an IR learner located in it. Additionally, once you have learned the IR code of a particular device, you can upload that IR code to other ACI's using the ACIUtil.exe.

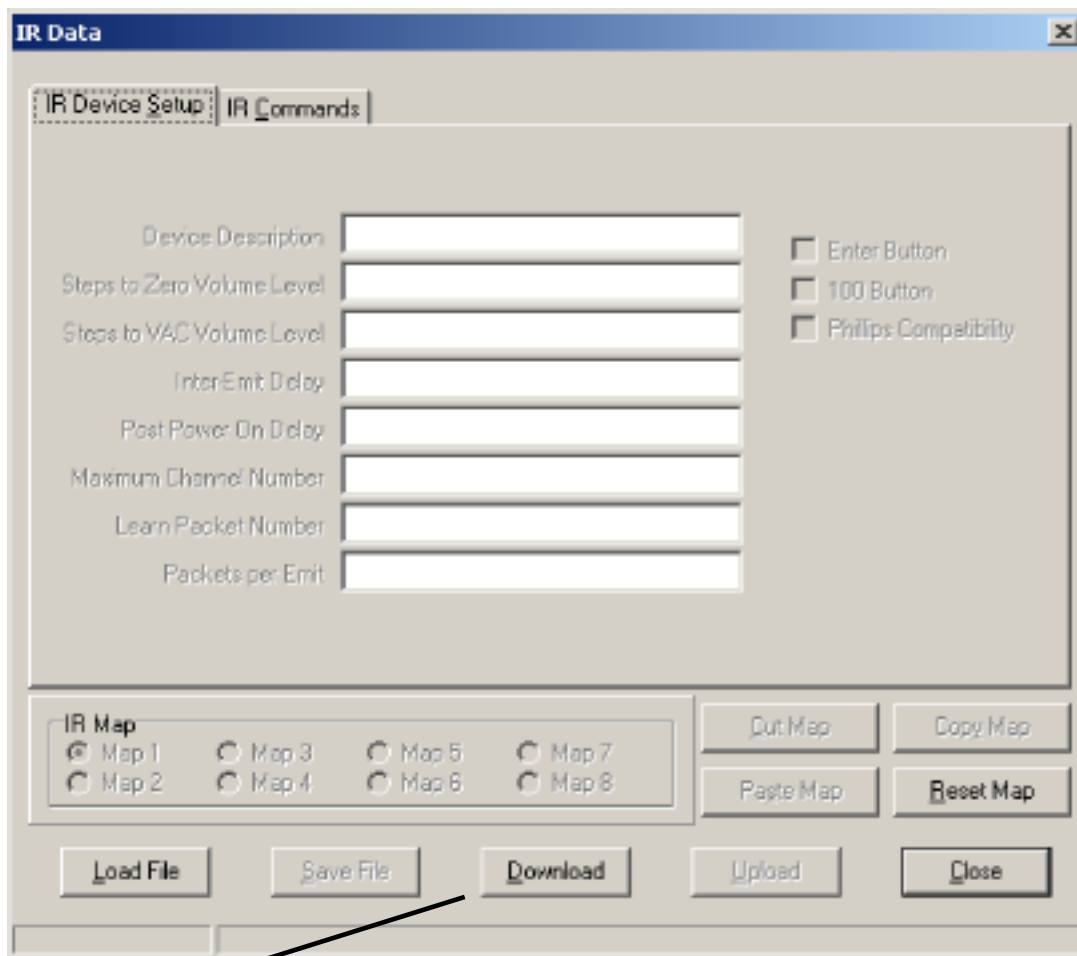
Follow the instructions below for learning, uploading, saving and loading IR codes:

How to learn a new IR codes:

Click on the Configure IR button



After clicking on the Configure IR remote button you will be presented with the IR Data window.



Click on the Download button to start the load procedure:

After clicking on the "Download" button



The ACI will show "DownIdIR" while the IR data is downloaded

This allows software to download the information in the ACI.

Enter the following information:

Device Description:
This is supplied for the model number and type of TV

Steps to Zero Volume Level and Steps to VAC Volume Level:
This is used with older TV's when placing a Video All Calls(Default 0).

Inter-Emit Delay: This is the time in milliseconds the ACI will wait between IR sends to the TV (Default 200).

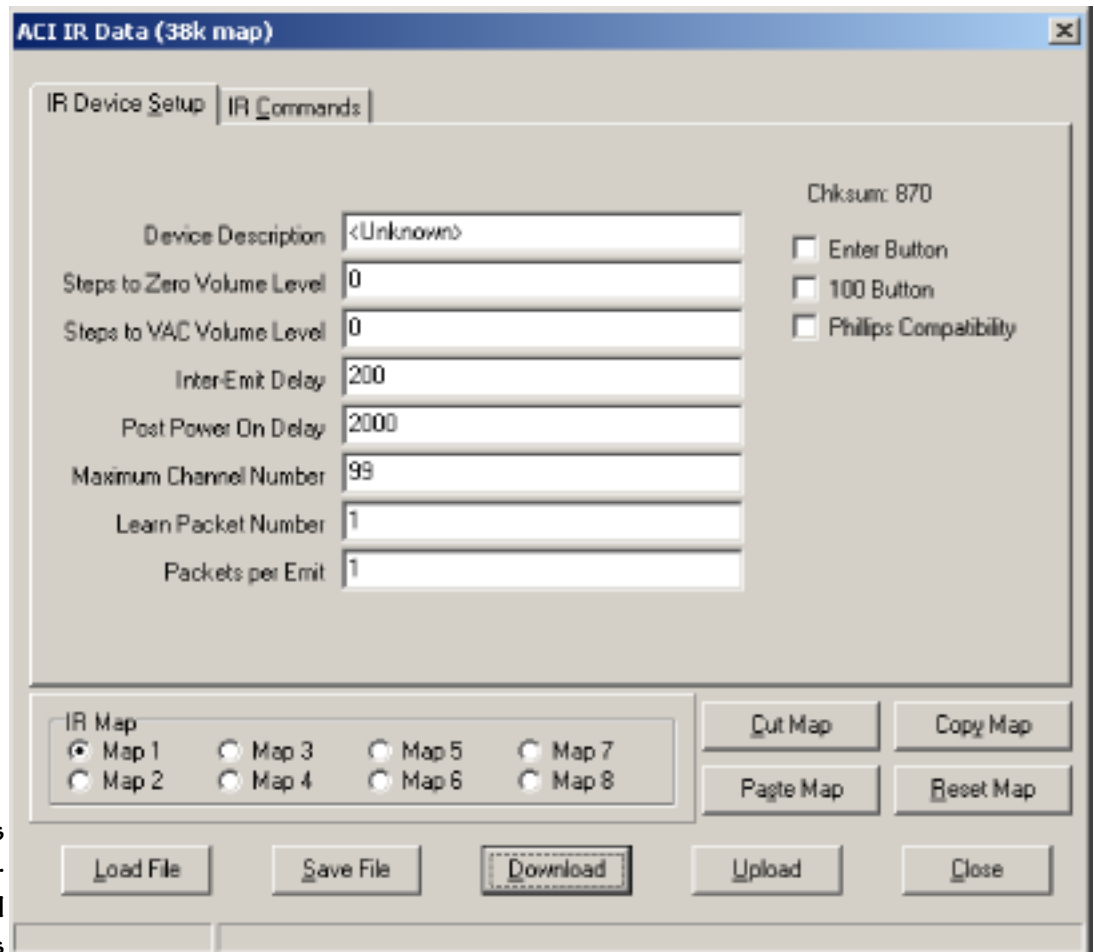
Post Power On Delay: This is used on older TV's that need time in milliseconds to warm up before being able to receive IR commands (Default 2000).

Maximum Channel Number: This is so the server know how high the TV channels can be tuned to (Default 99).

Learn Packet Number: Feature is use with old Phillips TV (Default 1).

Packets per Emit: This is the number of IR packets that the ACI sends per emit (Default 1).

IR Map: used with ACM's not ACI's (must be set to Map 1).

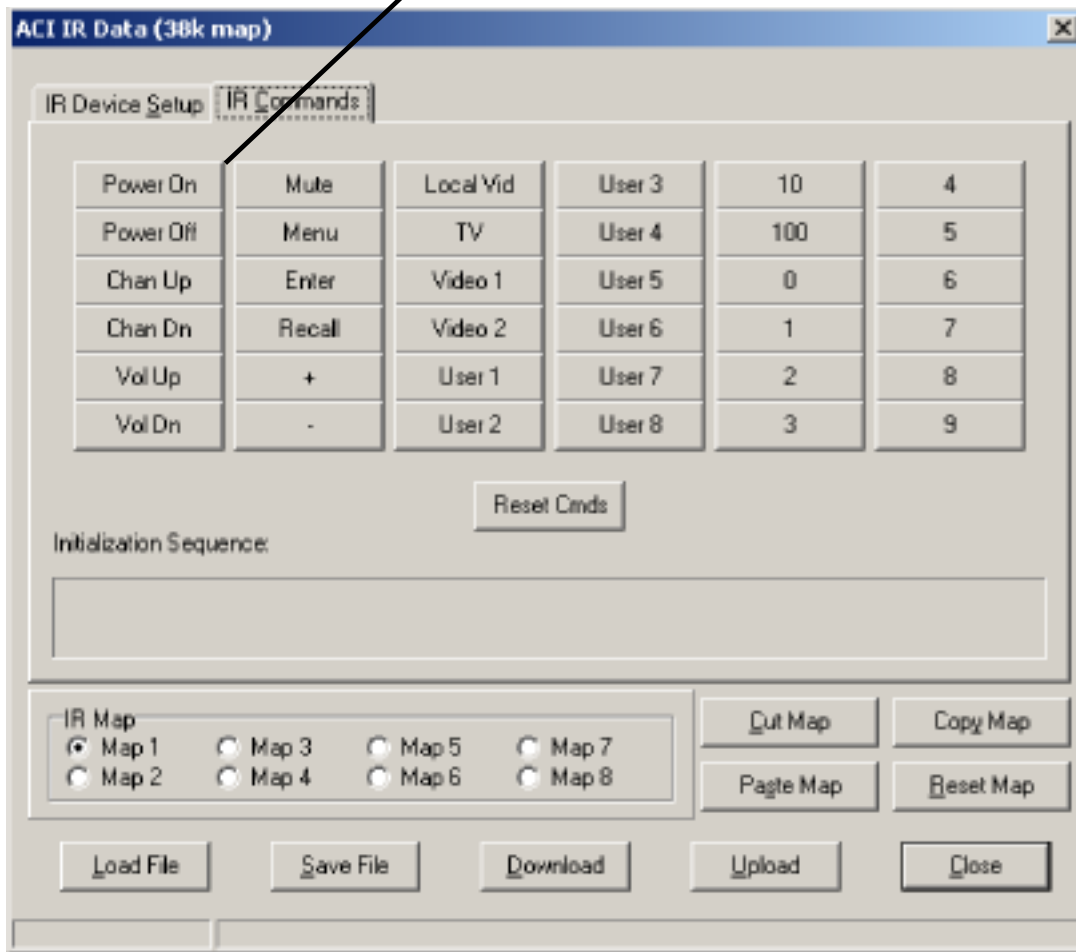


Click on the IR Commands Tab

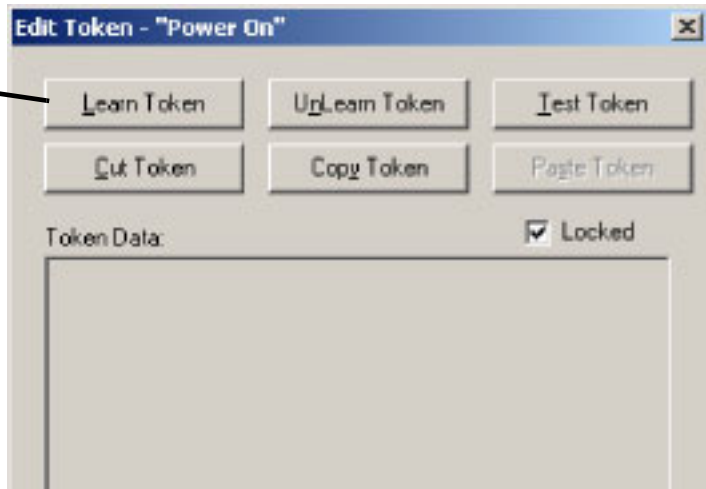


This is the screen where you Learn the various IR codes of TV/Monitor.

Click on the Command that you want to learn.

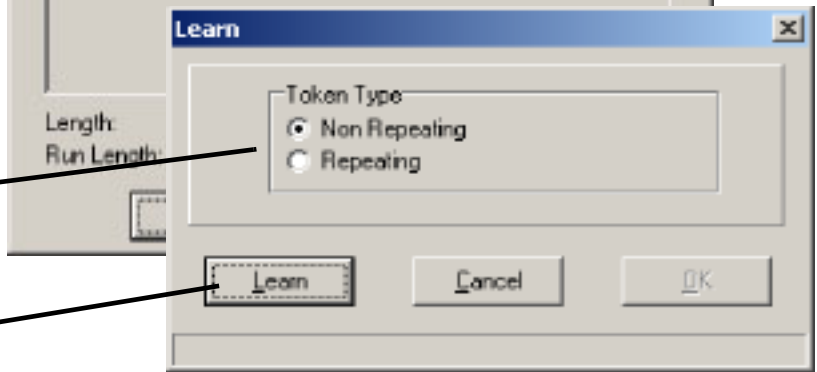


Click on Learn Token



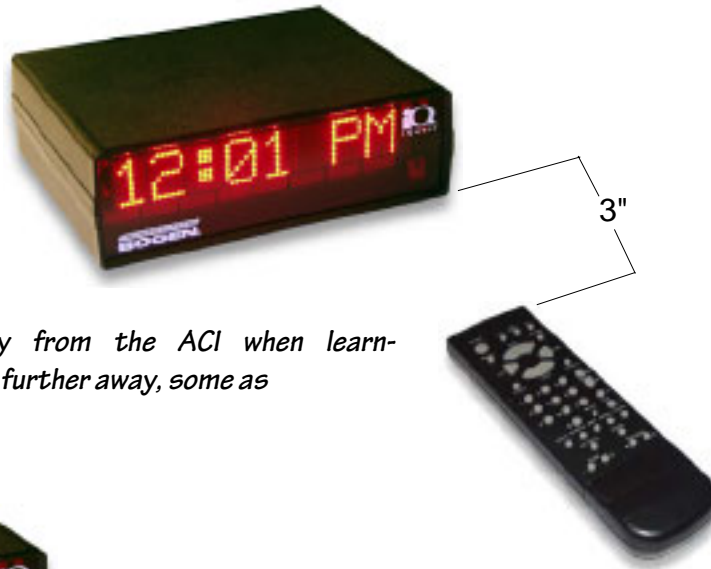
Once you click on Learn Token you will need the native remote control of the TV/Monitor you are using. Additionally, You need to check either Non-Repeating or Repeating token. Repeating tokens are usually only volume and channel up and down.

Click on one either repeating or non repeating



Click on L earn

Point the remote control at the lower right corner of the ACI and press the appropriate button on the remote control, in this case the Power On button.

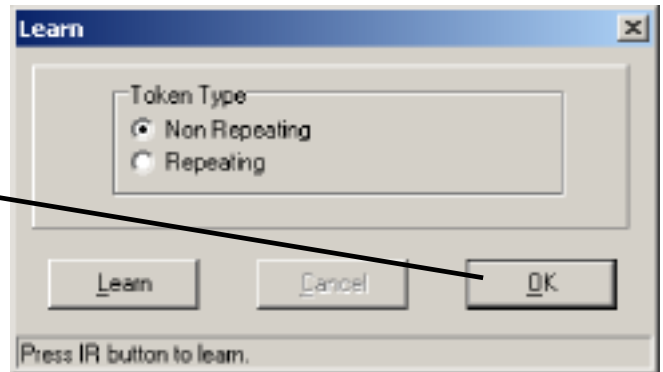


NOTE: Keep the remote about 3" away from the ACI when learning commands. Some remote's need to be further away, some as much as 5 feet



When "Learn OK" is displayed on the ACI click

OK.

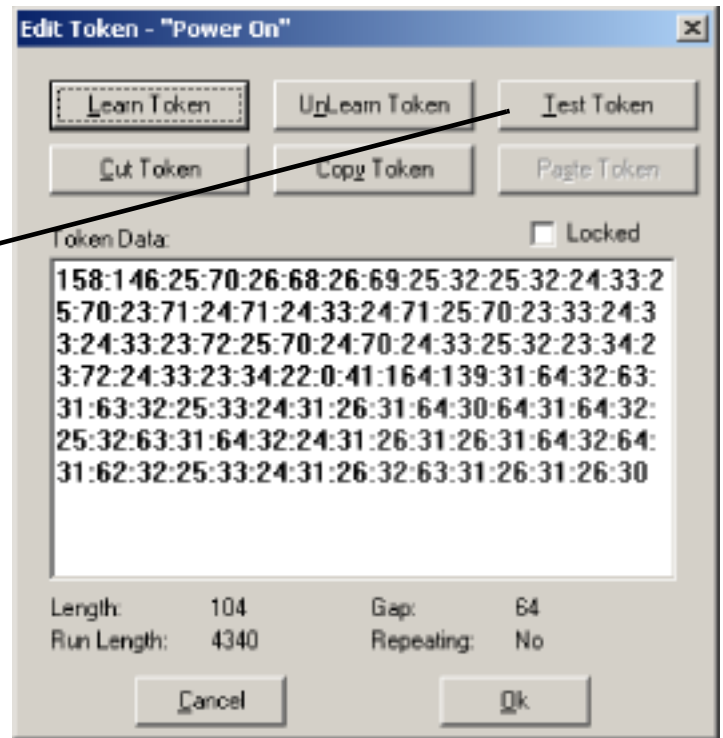


Once you've clicked OK, you will see the following window



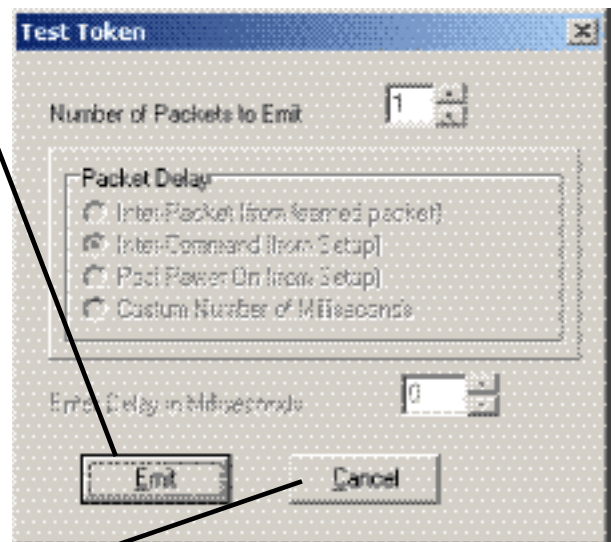
Now you need to Test the Token, the ACI needs to have an IR emitter connected to the TV/Monitor.

Click Test.



Click Emit

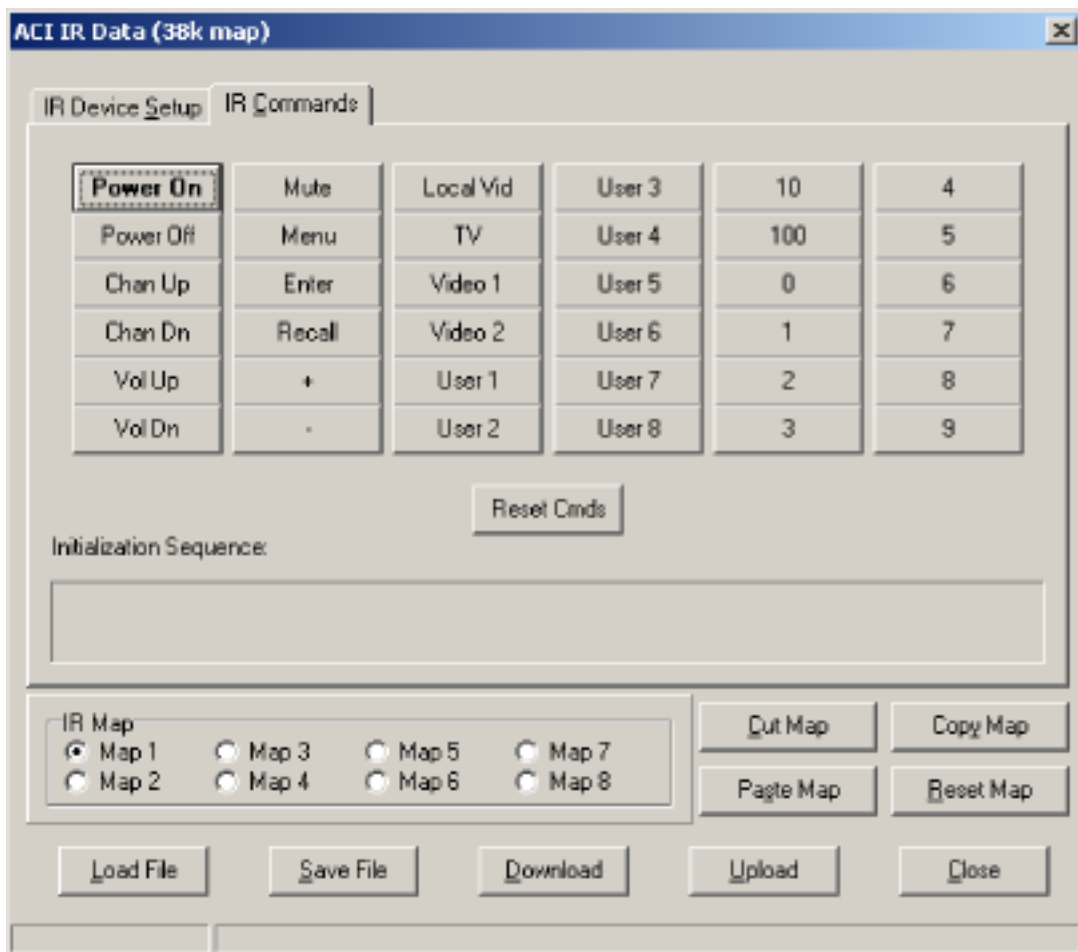
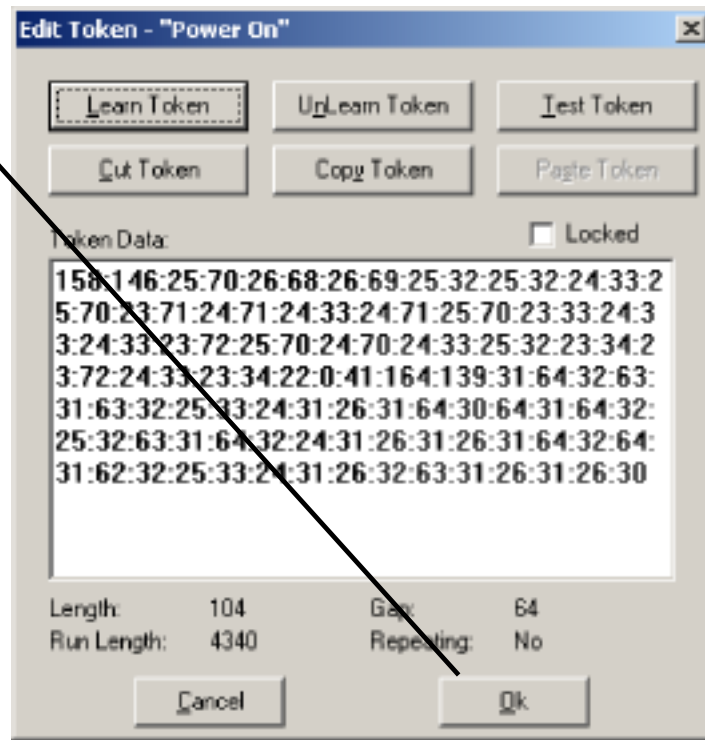
If the IR Code you learned is correct, the TV should turn on or off when you click on the Emit button.



When completed, click on Cancel to exit "Test Token".



OK button.



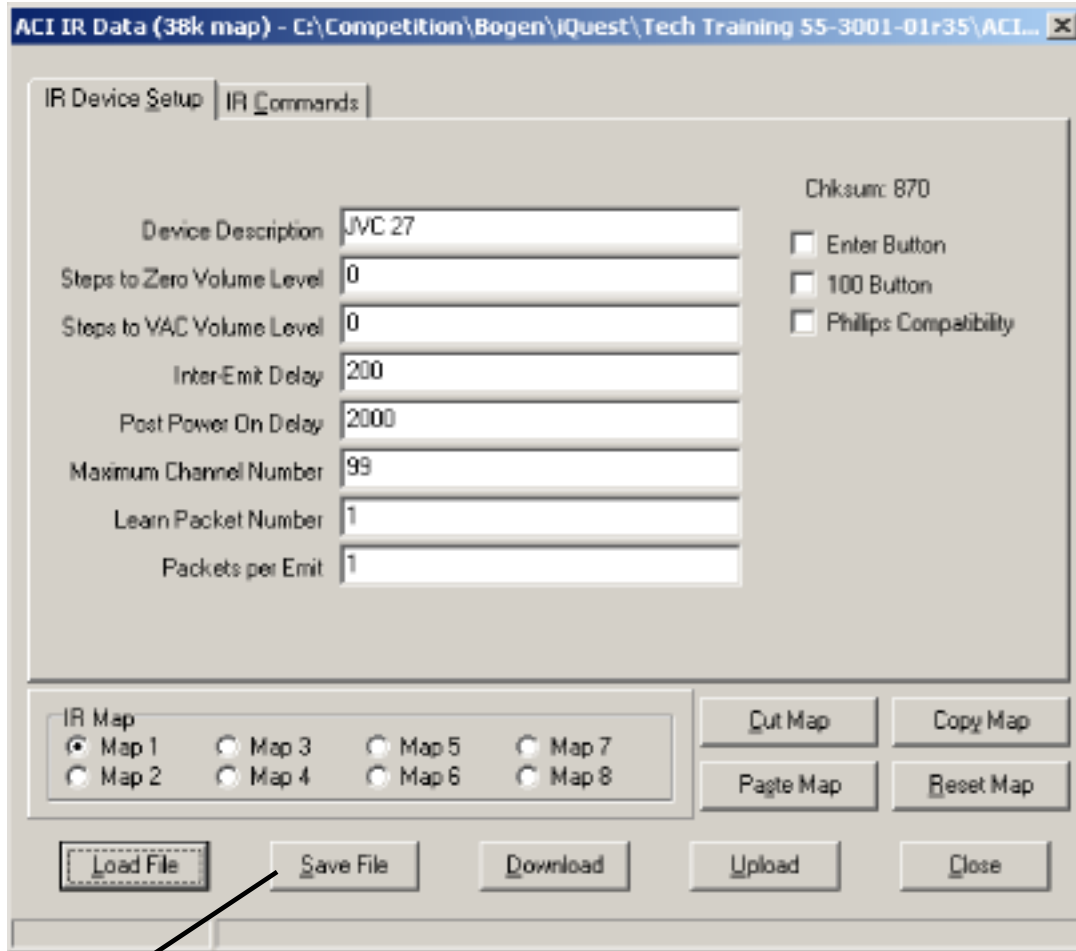
You have now learned the "Power On" IR code.

Repeat for all IR Commands required for the TV/Monitor.

Saving IR Codes



Once you create an IR file, you should save that file to your local PC. Once you have done this, you can upload the IR file to other ACI's.



Click on Save File

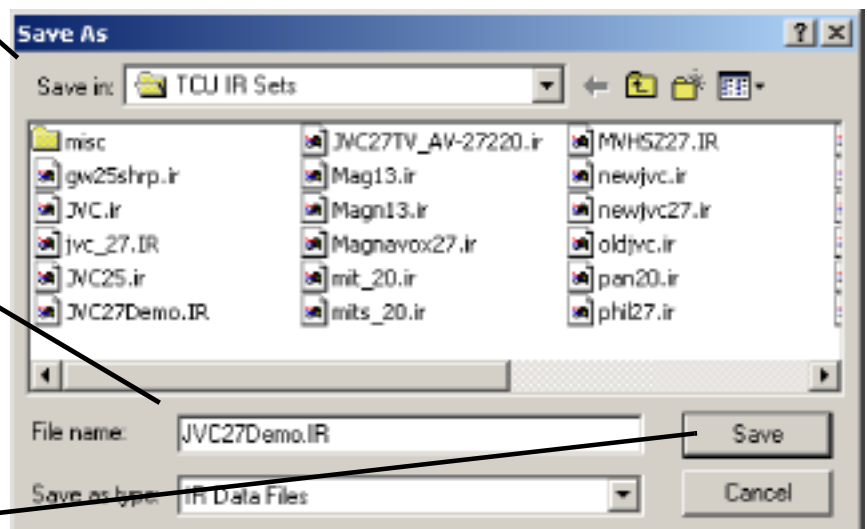
After clicking on Save File, choose the location where you want to save this file. Remember where you save this file.

Note: It is important to

Name the file. For example if the file is for a JVC27" TV Demo, name the file JVC27Demo.IR.

NOTE: Must include the .IR when saving IR codes.

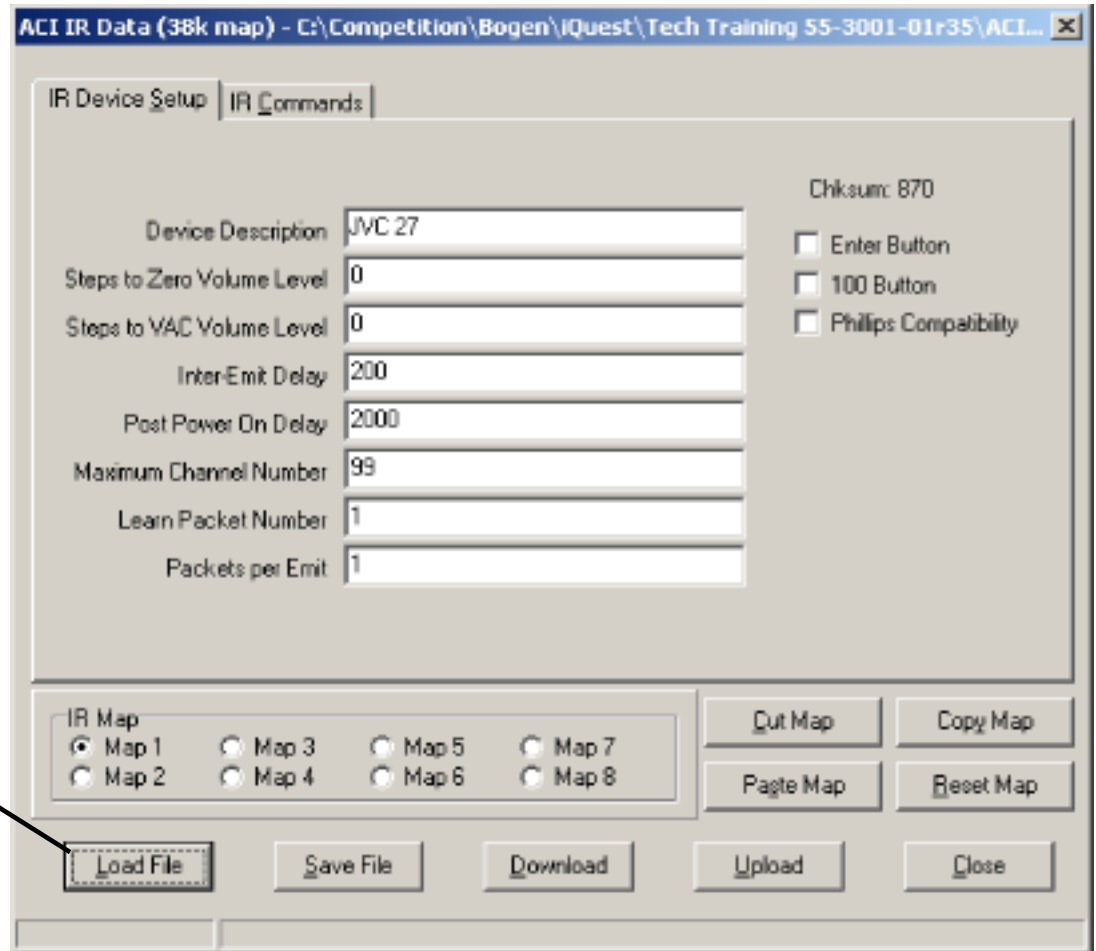
Then click Save



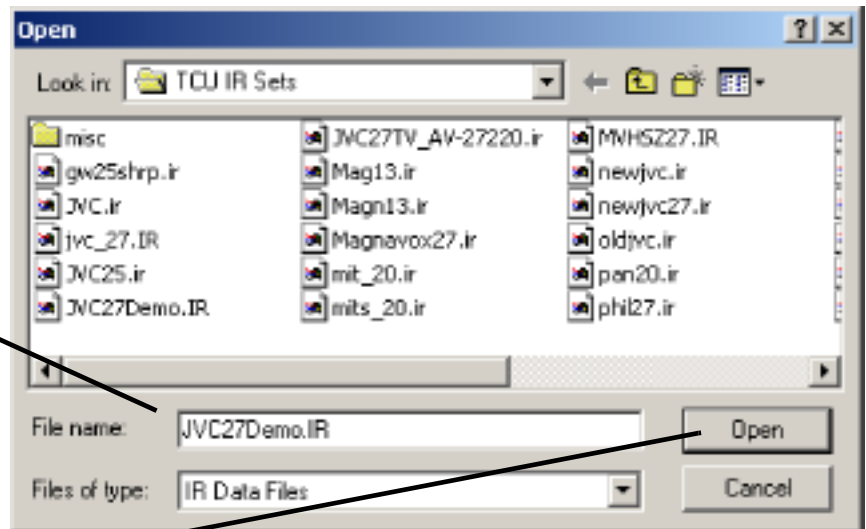
Uploading ACI IR Codes



Once you create an IR file, you should save that file to your local PC. Once you have done this, you can upload the IR file to the ACI.



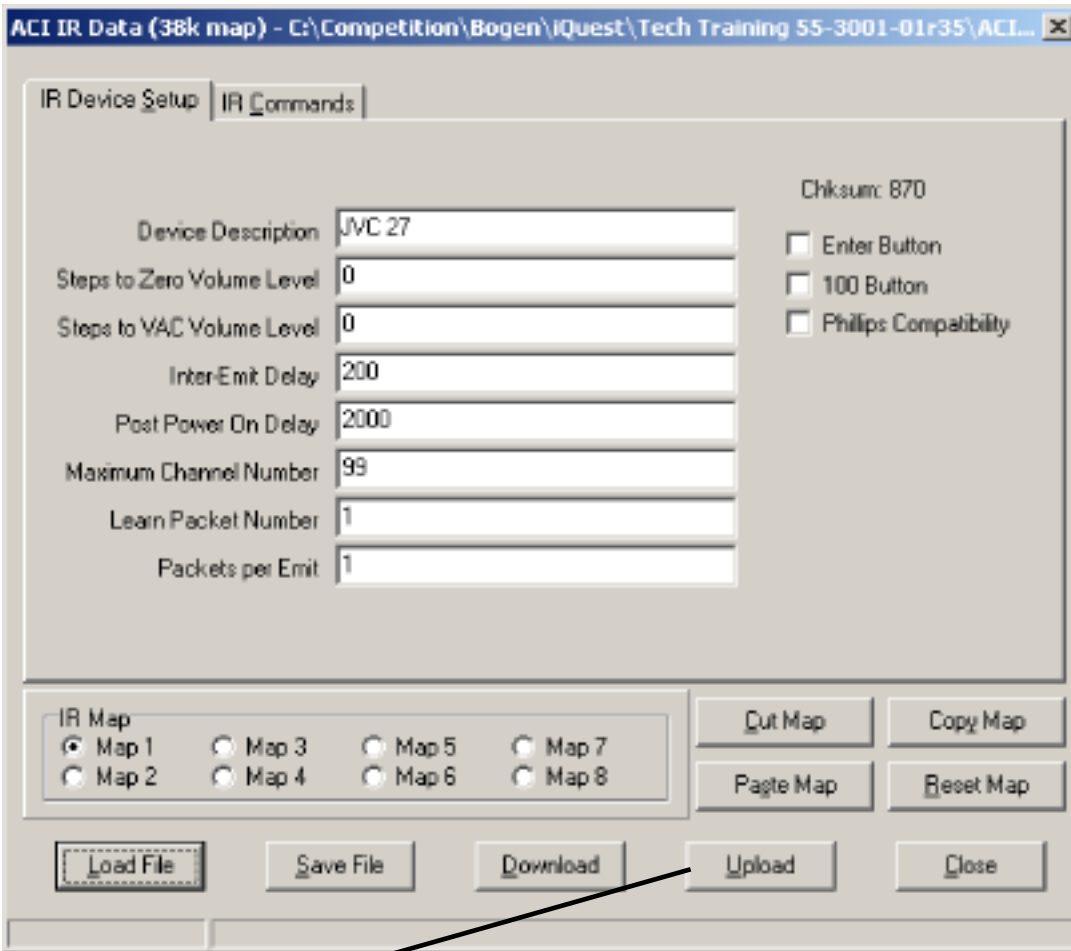
Click on Load File



Choose the file that you saved just before. This will verify that you saved the file correctly.

Click on Open

The file will load as shown above.



Click Upload

The ACI should display "UploadIR"



When the Upload is complete you can close the open window.

End of Section

Connecting to an ACM



Once you have connected the appropriate cables to the ACM and your computer, follow the instructions below:

The first step after configuring the software and attaching the cables is connecting to the ACM:

Click on the connect icon



In a moment, pertinent information will be displayed about the ACM. Unit #, Address, and a picture of ACM will be displayed.

NOTE: If you are intending on uploading new code it is a good idea to write this information down.

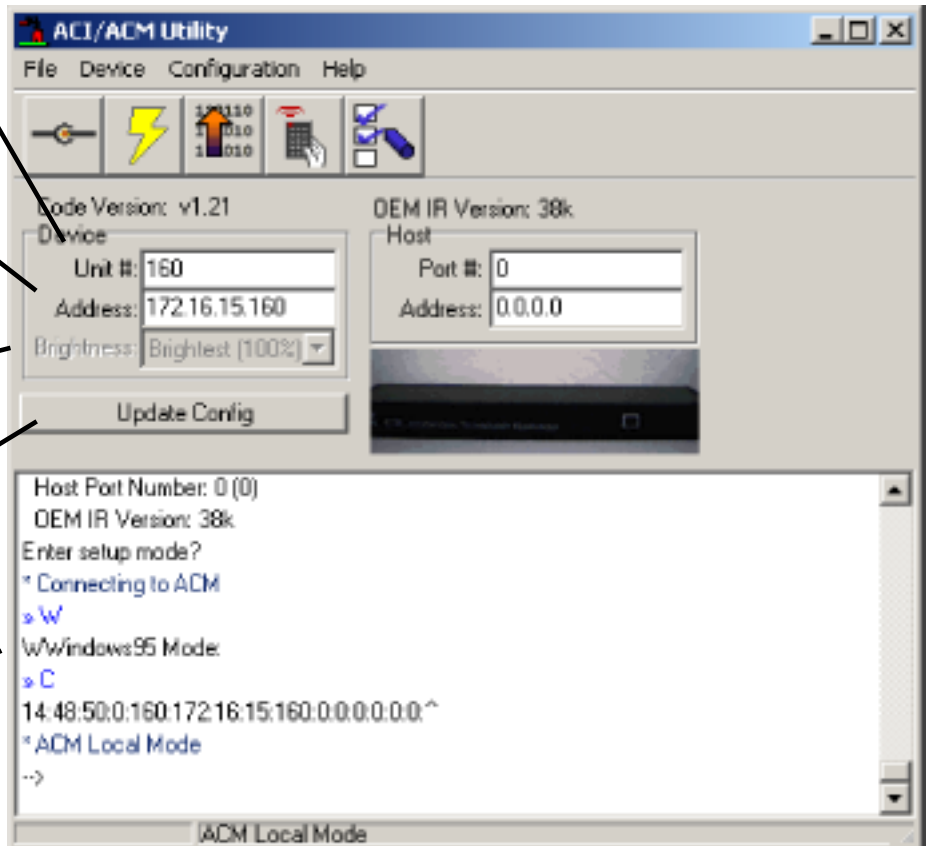
Unit #: Is the unit number designated for that device. Though Unit # can be changed it is not recommended.

Address: Is the IP address assigned to the ACM? This can be changed.

Brightness: Can't be adjusted.

Update Config: Click on this after you make any changes to the above information to update the ACM.

Log window: tracks communication with the device.

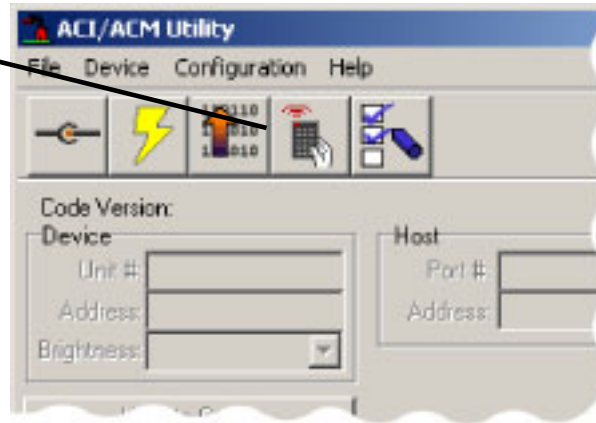




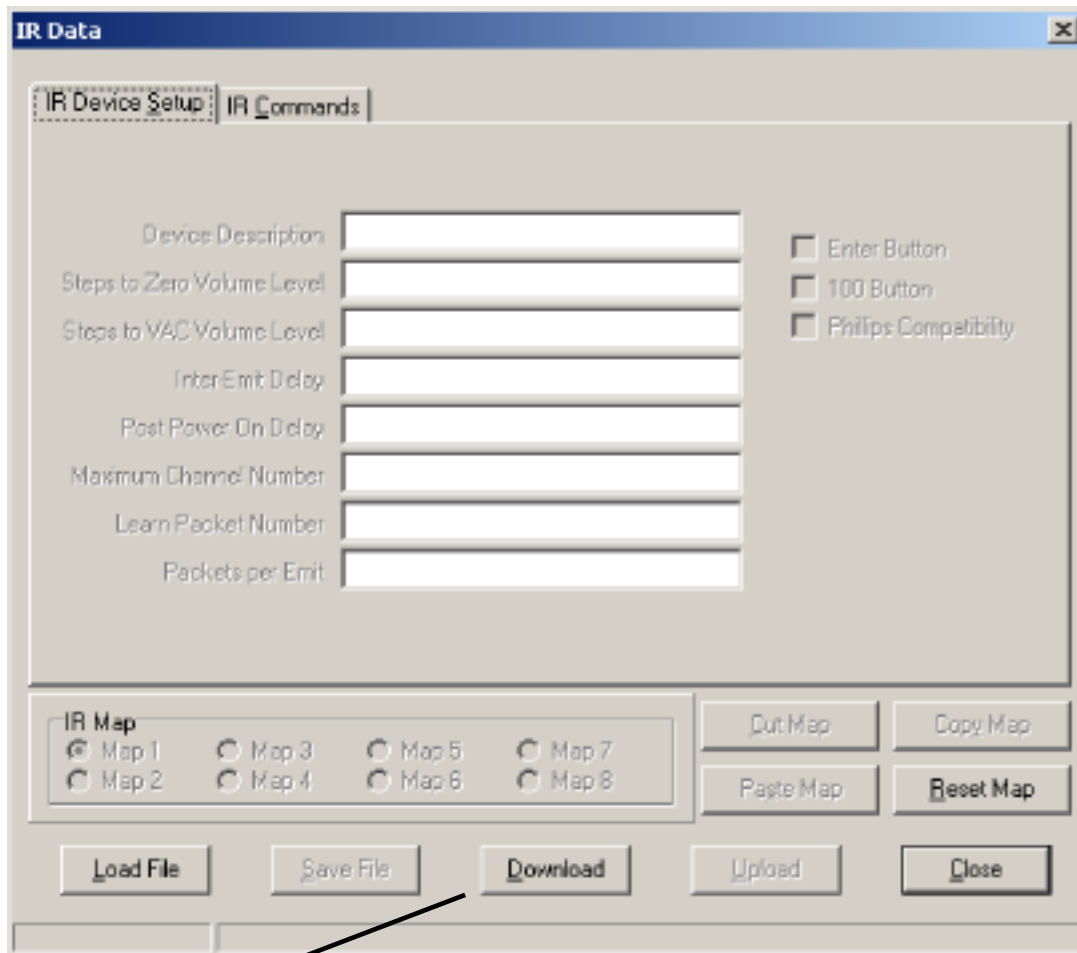
Each ACM has an IR learner located in it. Follow the instructions below for learning, uploading, saving and loading IR codes:

How to learn a new IR codes:

Click on the Configure IR button



After clicking on the Configure IR remote button you will be presented with the IR Data window.



Click on the Download button to start the load procedure:

After clicking on the "Download" button



NOTE: Downloading of the ACM will take longer than the ACI

This allows software to download the information in the ACM.

Enter the following information:

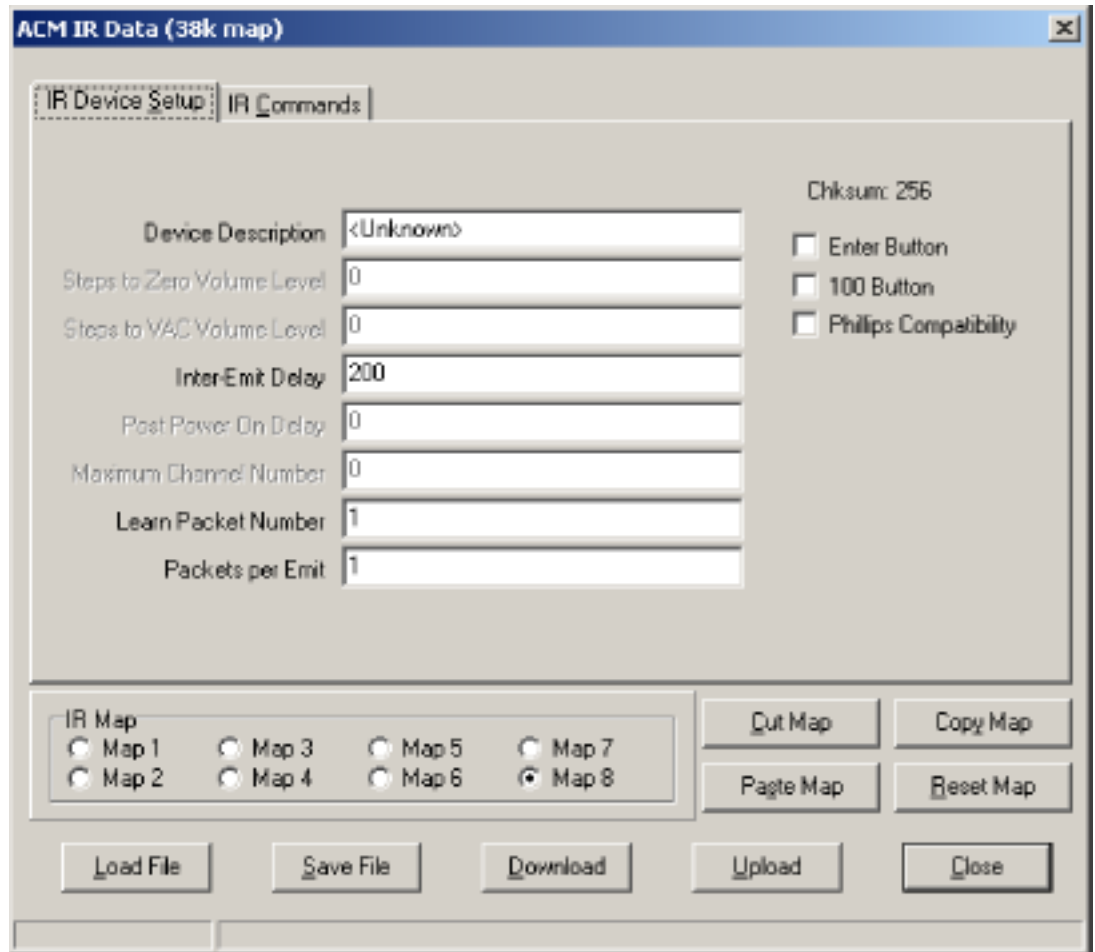
Device Description:
This is supplied for the model number and type of source.

Inter-Emit Delay: This is the time in milliseconds the ACM will wait between IR sends to the TV (Default 200).

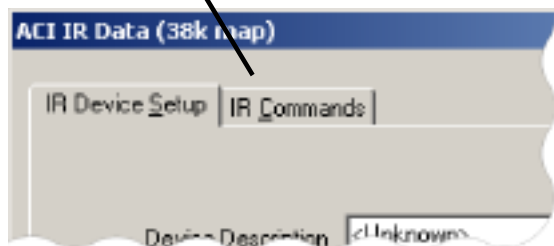
Learn Packet Number: Feature is used with old Phillips TV (Default 1).

Packets per Emit: This is the number of IR packets that the ACM sends per emit (Default 1).

IR Map: used with ACM's not ACI's (must be set to Map that you are programming).

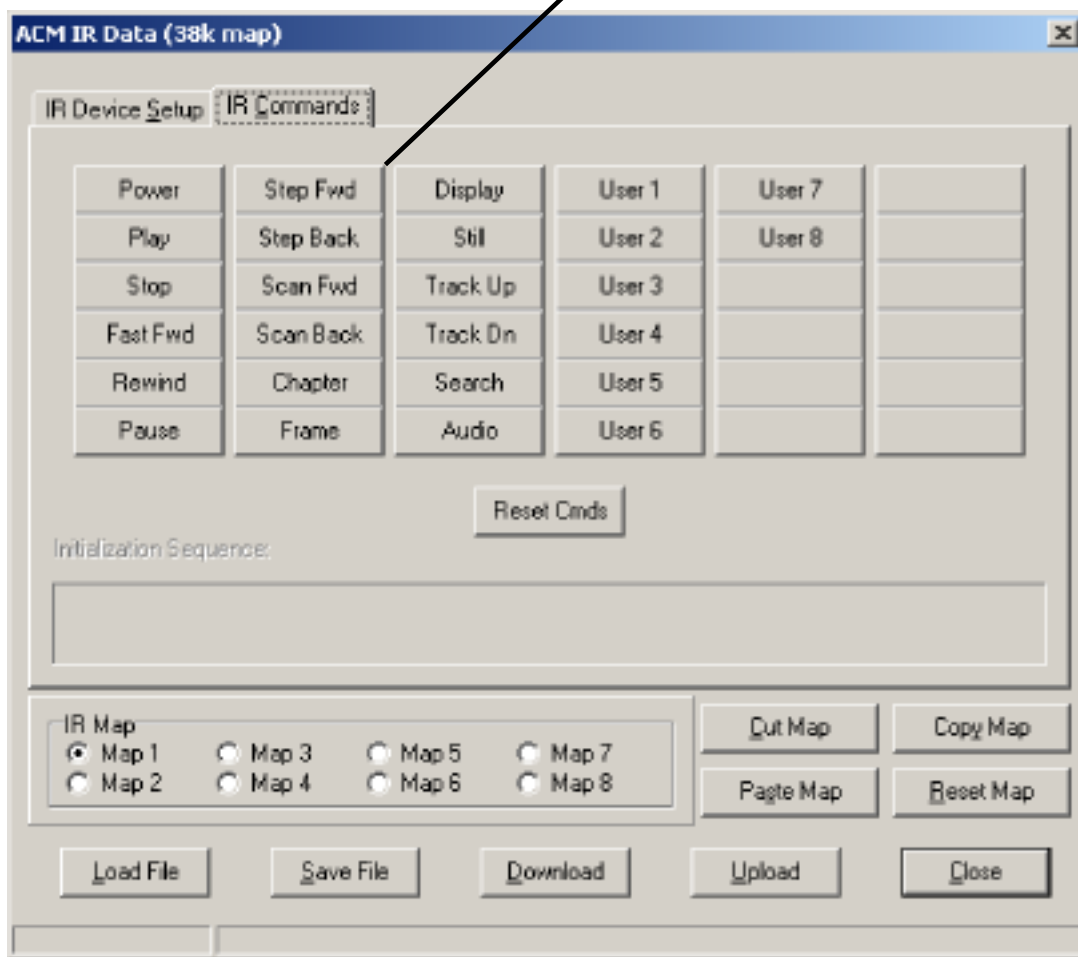


Click on the IR Commands Tab

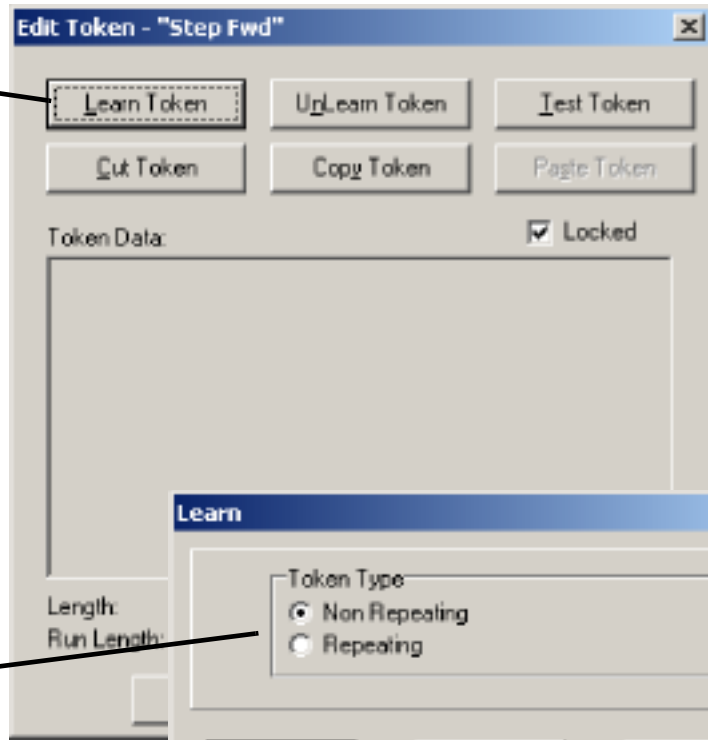


This is the screen where you Learn the various IR codes of VCR's, DVD's and the like.

Click on the Command that you want to learn.

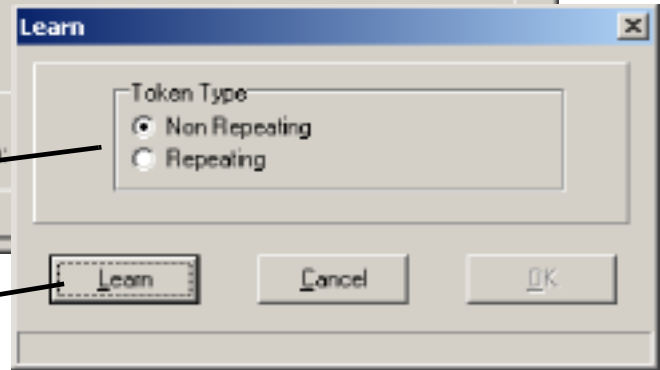


Click on Learn Token



Once you click on Learn Token you will need the native remote control of the Source you are using. Additionally, You need to check either Non-Repeating or Repeating token. Repeating tokens are usually only volume and channel up and down.

Click on one either repeating or non-repeating



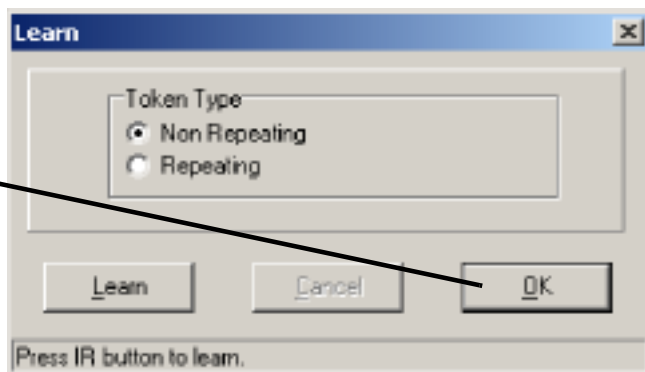
Click on Learn

Point the remote control at the lower right corner of the ACM and press the appropriate button on the remote control, in this case the "Step Fwd" button.



NOTE: Try to keep the remote about 3" away from the ACM when learning commands.

When OK is available click on it.

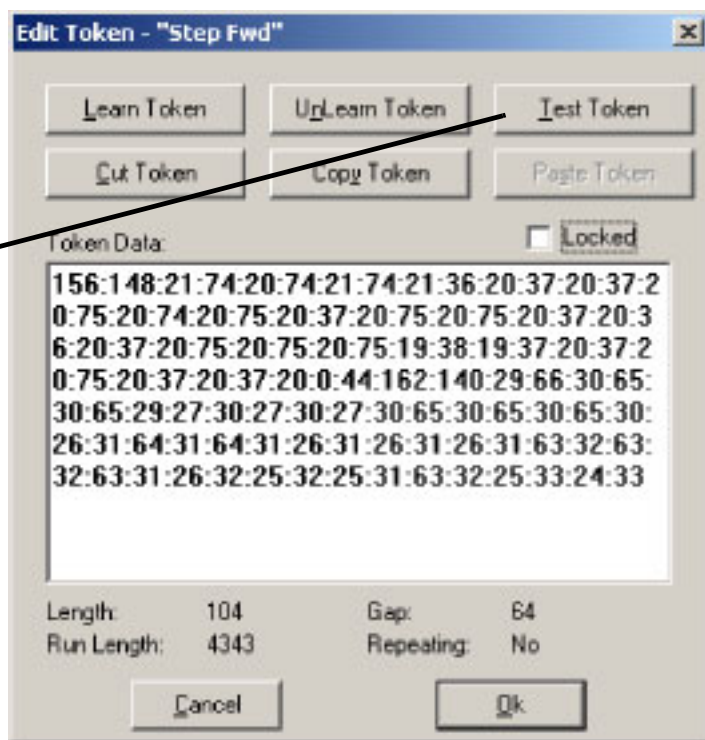


Once you've clicked OK, you will see the following window



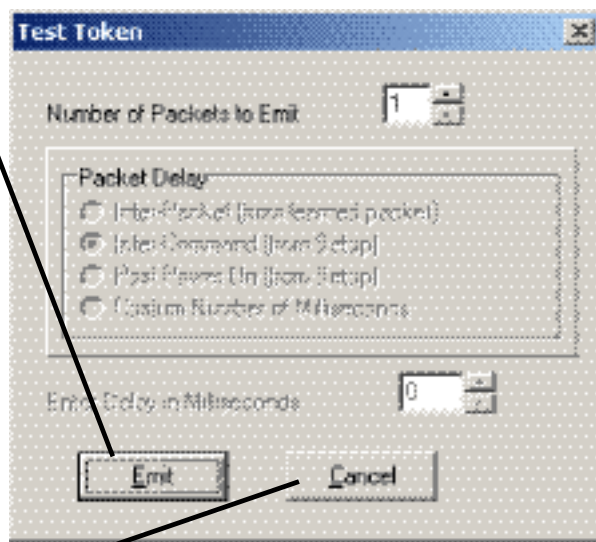
Now you need to Test the Token, the ACM needs to have an IR emitter connected to the Source to preformed the following steps.

Click Test.



Click Emit

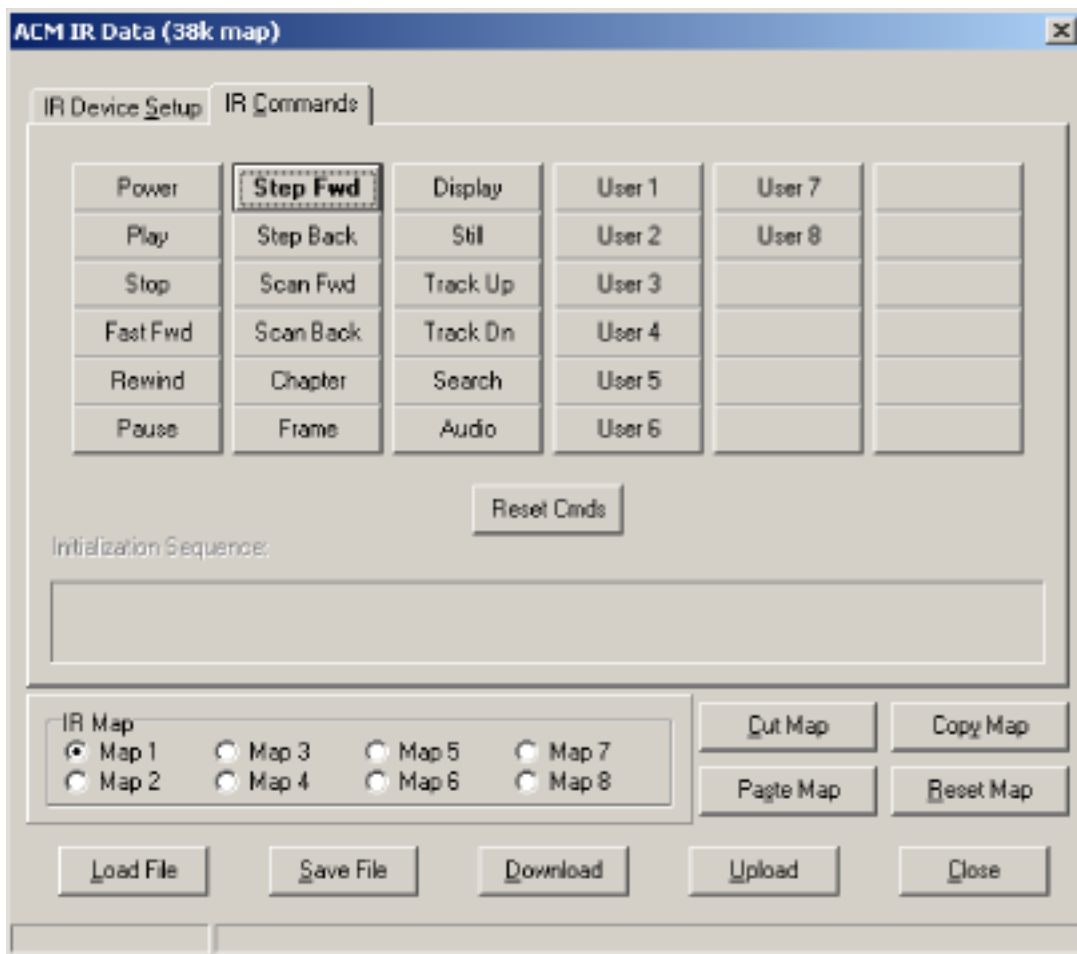
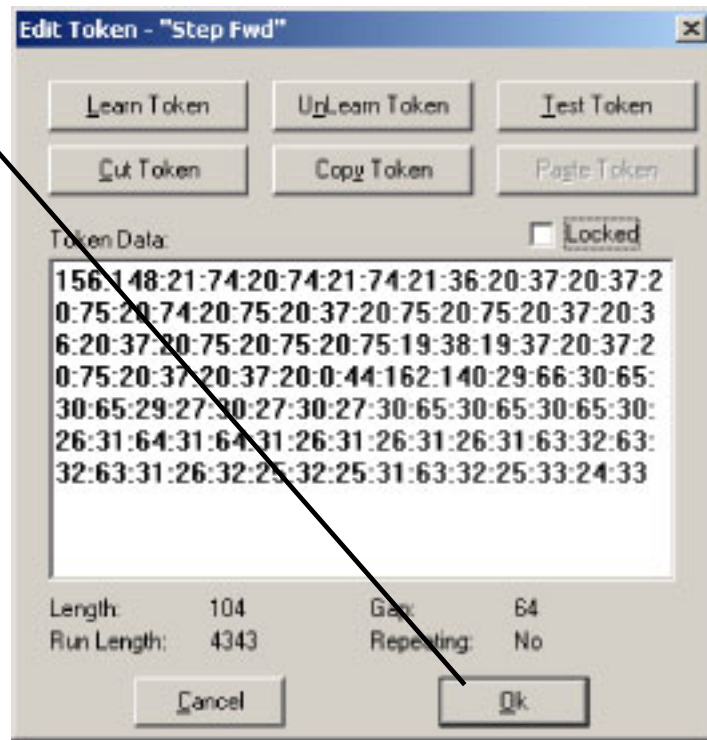
If the IR Code you learned is correct , the source should Step Fwd when you click on the Emit button.



When completed, click on Cancel to exit "Test Token".



OK button.



You have now learned the "Step Fwd" IR code.

Repeat for all IR Commands required for the Source.



Advanced DVD Programming

Programming the advanced IR codes of a DVD player that is connected to an ACM use the following mapping :

DVD COMMANDS

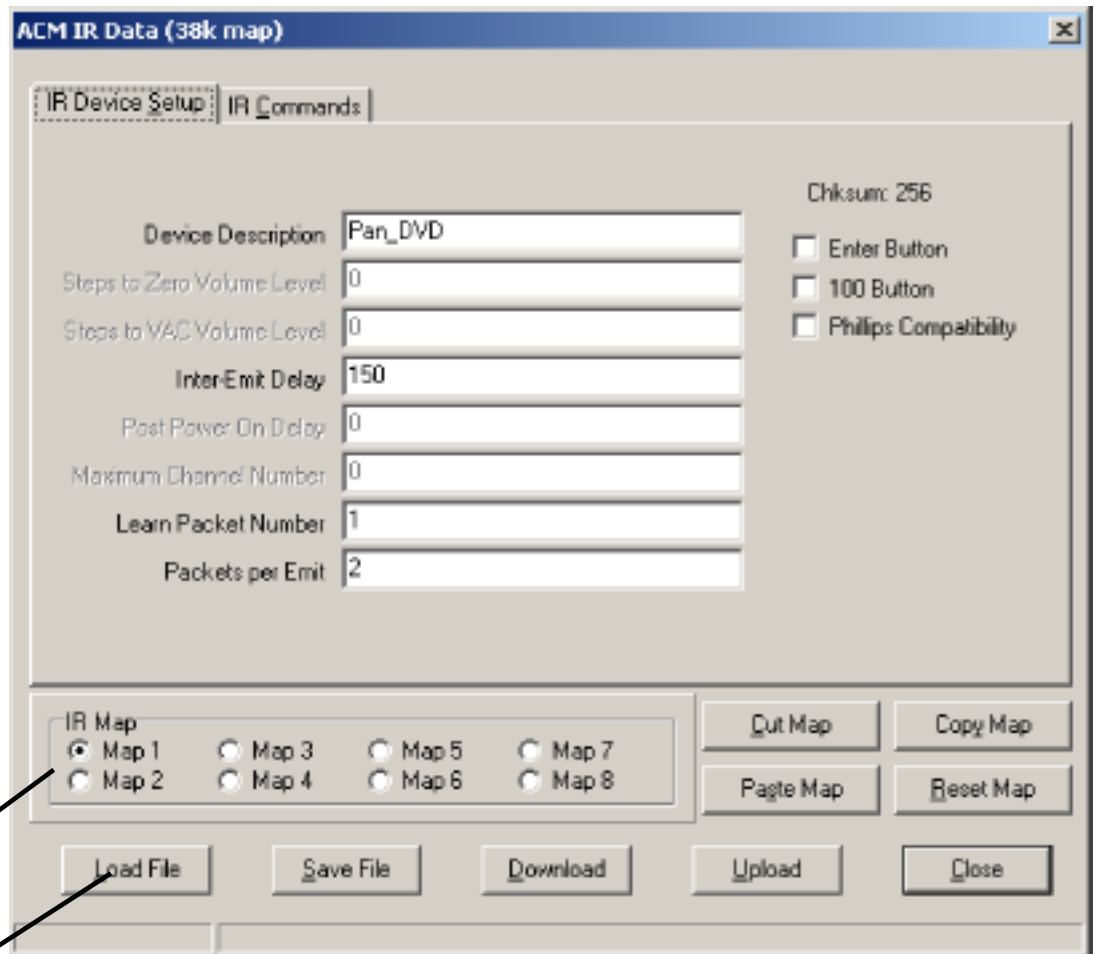
DVD REMOTE	ACM IR Command
POWER.....	Power
PLAY.....	Play
STOP.....	Stop
PAUSE.....	Pause
CHAPTER FORWARD.....	Step Forward
CHAPTER BACK.....	Step Back
SLOW (STEP) FWD.....	Scan Fwd
SLOW (STEP) BACK.....	Scan Back
FAST FORWARD.....	Fast Fwd
REVERSE.....	Rewind
DISPLAY.....	
Display	
FRAME FORWARD.....	Track Up
FRAME BACK.....	Track Down
SUBTITLE.....	Chap Search
ANGLE.....	Frame Search
AUDIO.....	Audio
SEARCH.....	
Search	
TITLE.....	User 1
MENU.....	User 2
UP ARROW.....	User 3
DOWN ARROW.....	User 4
LEFT ARROW.....	User 5
RIGHT ARROW.....	User 6
ENTER/OK.....	User 7
ZOOM.....	User 8

Note: Not all Remote's will have all of these commands.

Saving ACM IR Codes



Once you create an IR file, you should save that file to your local PC. Once you have done this, you can upload the IR file to other ACM's.



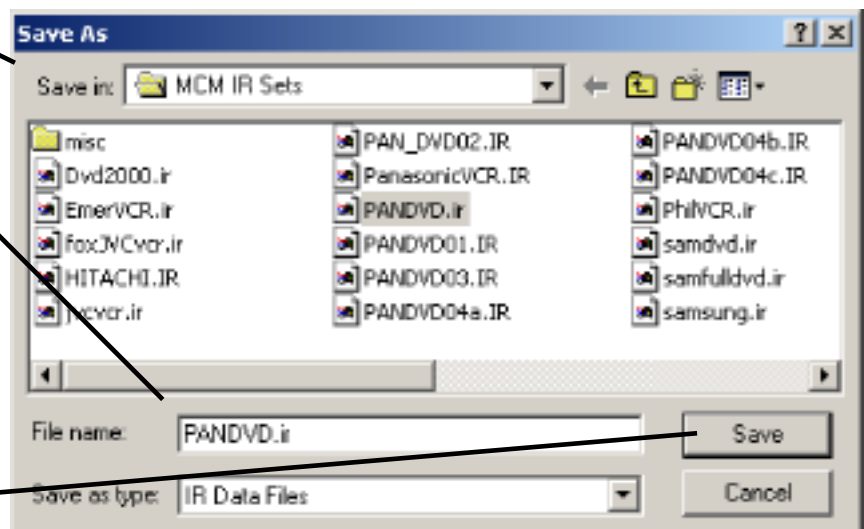
Select the Map to Load.

Click on Save File, choose the location where you want to save this file. Note: It is important to remember where you save this file.

Name the file. For example if the file is for a Panasonic DVD Player, name the file PANDVD.IR.

NOTE: Must include the .IR when saving IR codes.

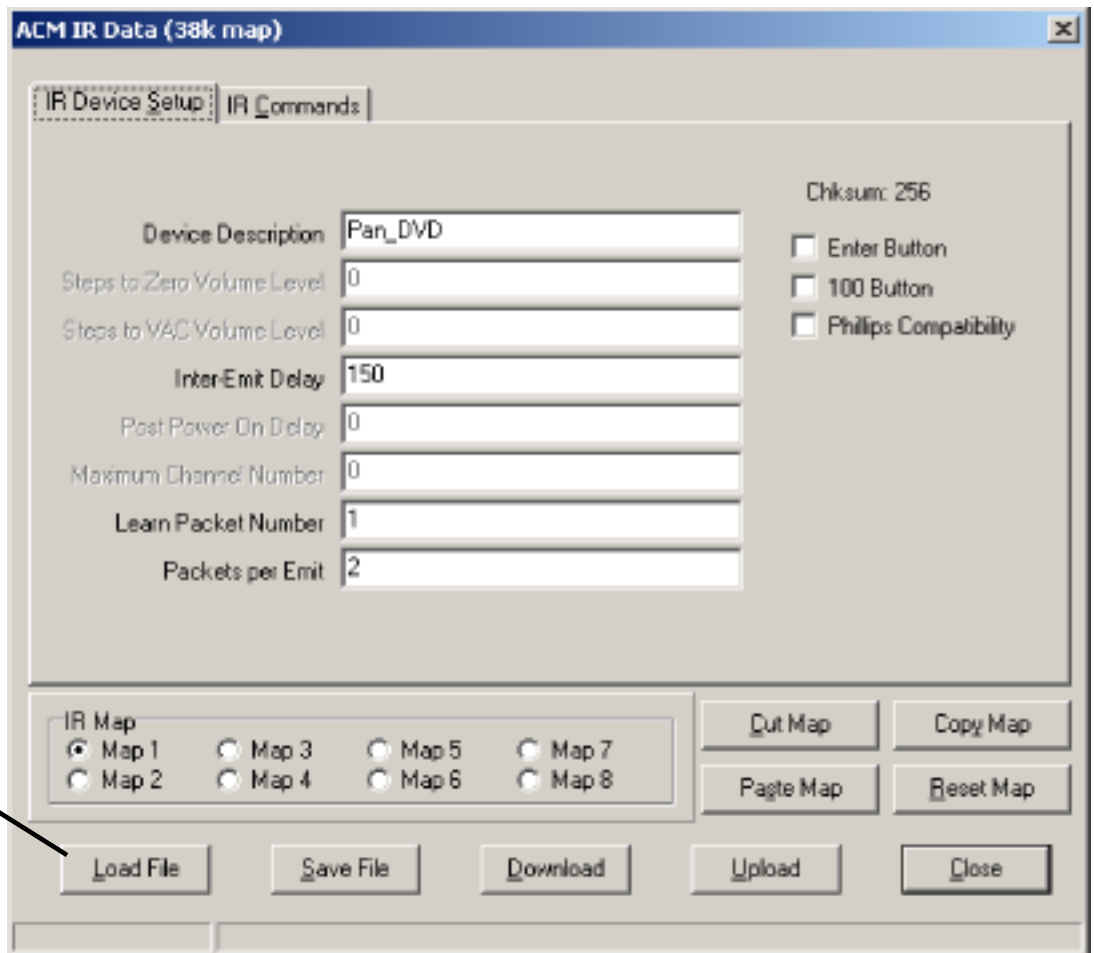
Then click Save



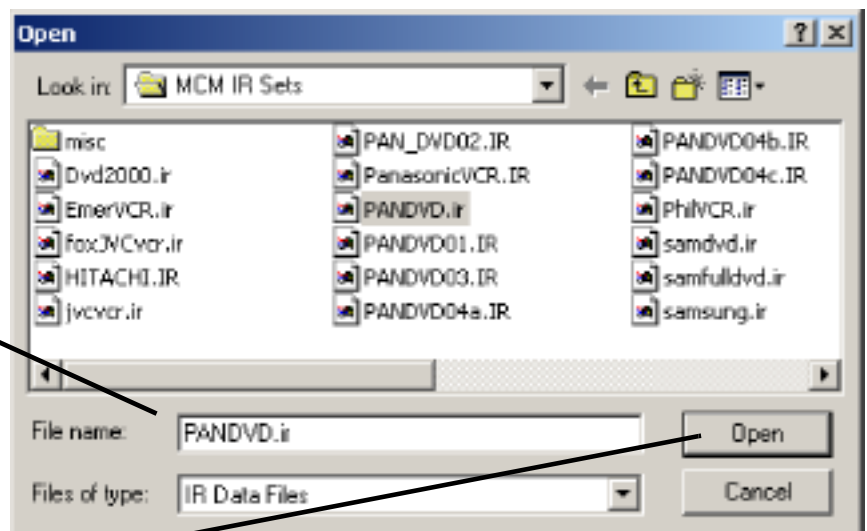
Uploading ACM IR Codes



Once you create an IR file, you should save that file to your local PC. Once you have done this, you can upload the IR file to the ACM.



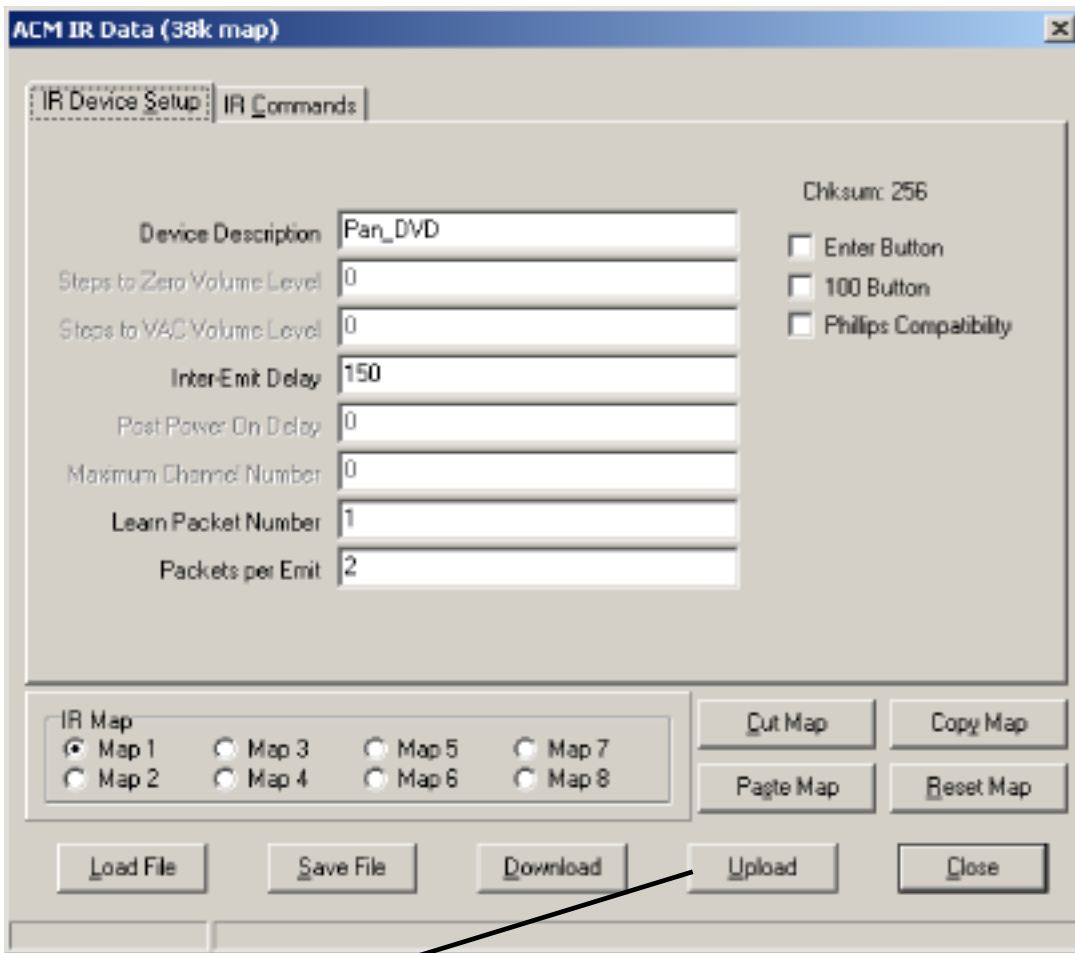
Click on Load File



Choose the file that you saved in the step just before. This will verify that you save the file correctly.

Click on Open

This should load the file as shown above.

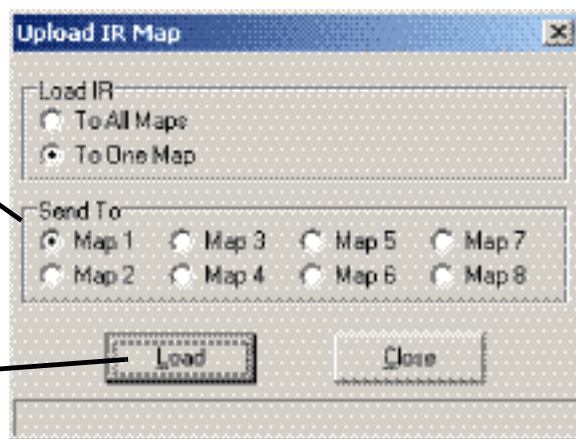


Click on Upload

Select the Map you want to upload.

NOTE: Only upload one Map at a time.

Click Load to upload the selected Map.



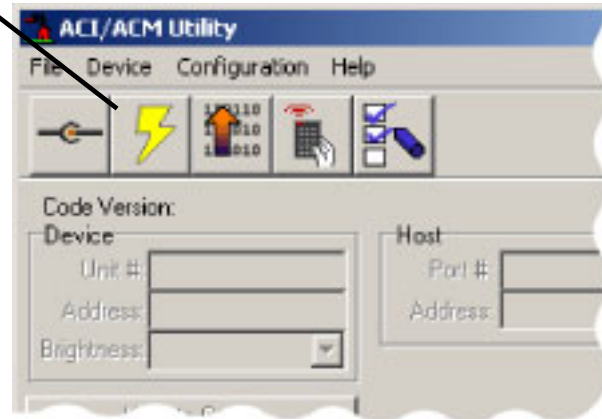
When the Upload is complete you can close the open window or upload another Map.

End of Section

Reconnecting the ACI to the Network



Click on the Connect to Network button



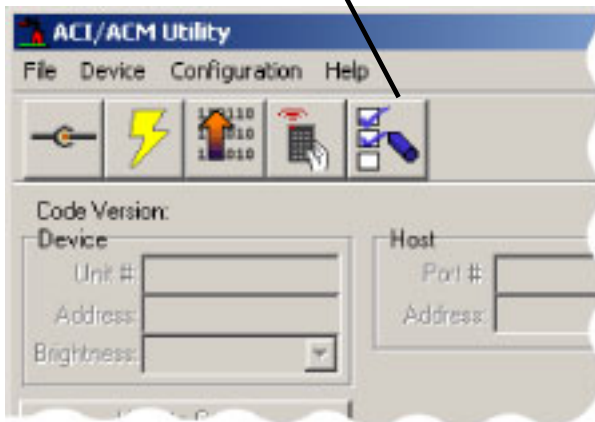
The ACI display will show "Server" after showing this it will connect to the server. Disconnect the MM-1203 Loader cable. If the ACI does not reconnect to the Network try resetting it.

End of Section

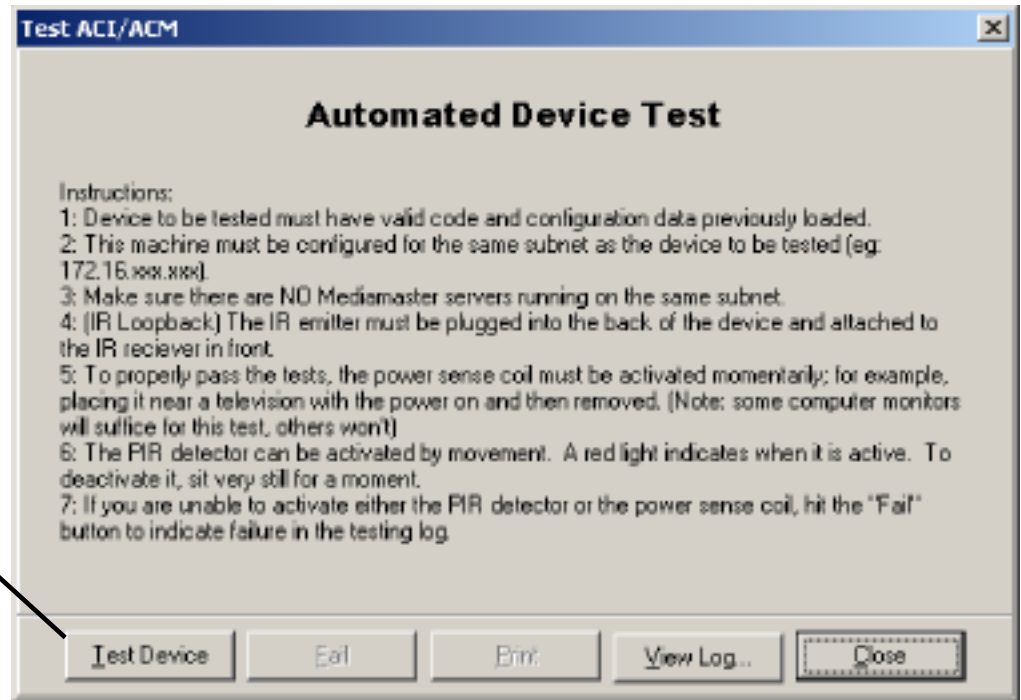
Device Testing



Click on the Test Device button



You will then see the following window



Follow the Instructions then click on **T est Device**

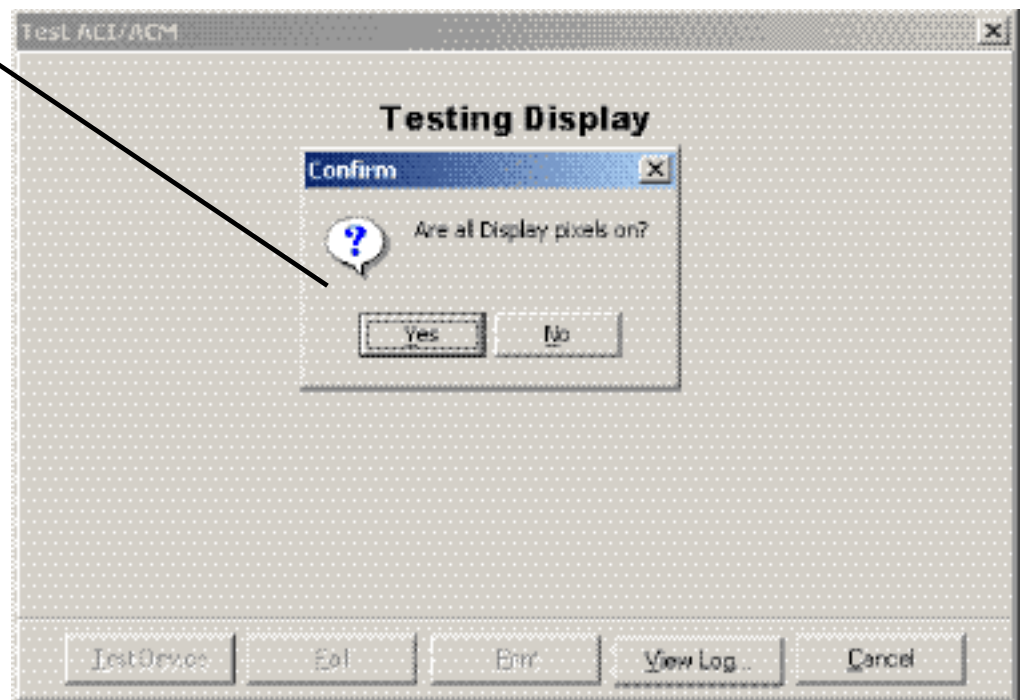
Testing Display

The software will turn on all the pixels on the display on.



Are all Display pixels on?

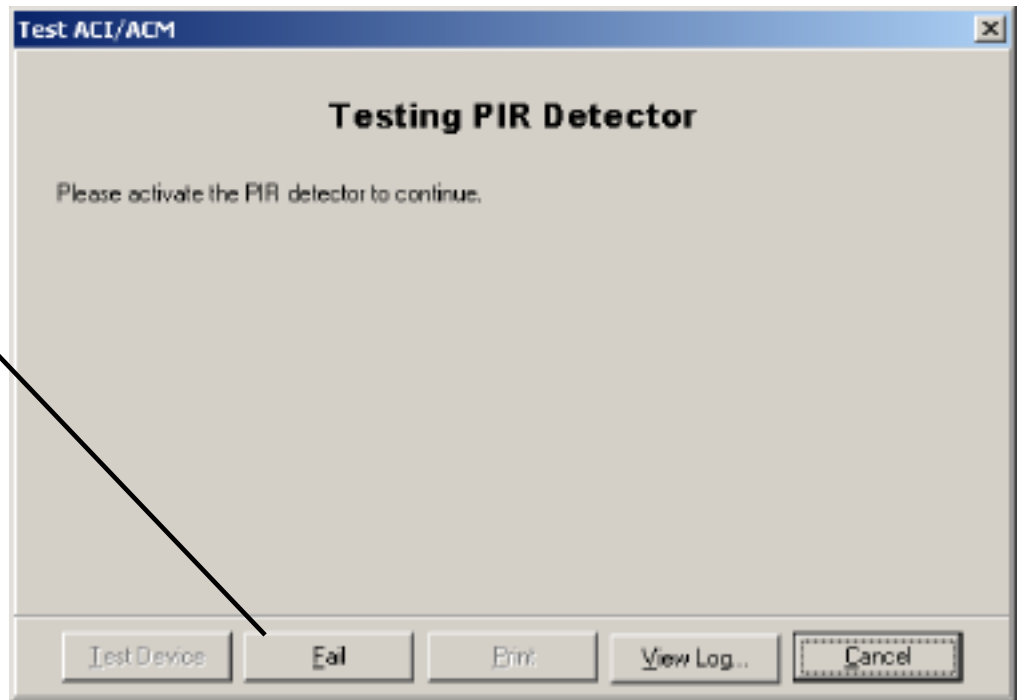
Click on Yes or No



If you have a PIR (passive infrared device i.e. motion detector) you can test the PIR now.



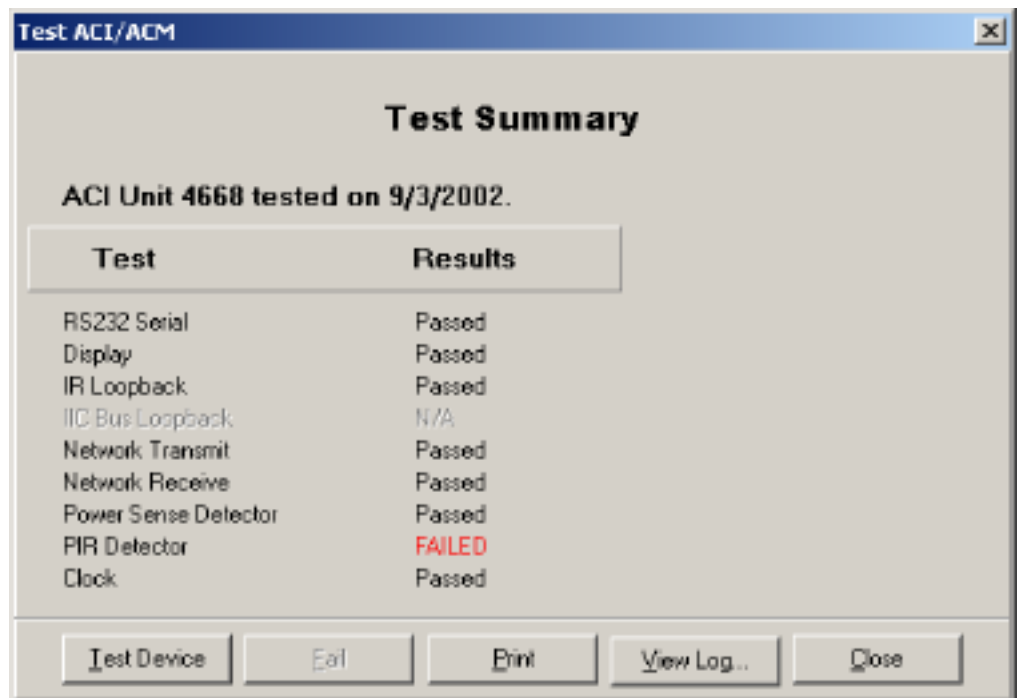
If you don't click "Fail"



The following windows show the Test Summary

Everything passed except the PIR detector it **FAILED** because we skipped or Failed that test.

Now you can print the Test Summary, test another device, or Close the window.



End of Section

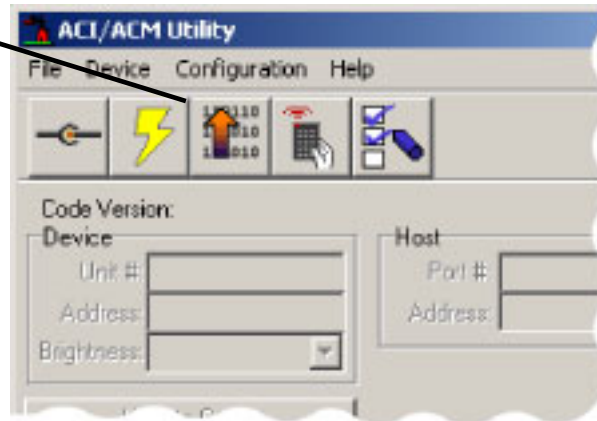
Uploading ACI Firmware



Firmware is the "software" on the main chipset of the ACI. It contains the instructions on how the ACI functions and any new features. Each ACI comes from the factory with the latest 38K code installed. However, sometimes the code needs to be updated or changed. Follow the instructions below on updating the firmware:

NOTE: Only install Firmware if needed

Click on the upload code button.



You will then be presented with the following window.

The Sequential Loader allows you to upload firmware to ACI's.

Locate the code by selecting browse.

Select Device Type

Load config info after loading code
Yes if checked No if not.

Enter in Net Mask and Net # if different

Enter Device and Host information

Click on Load.

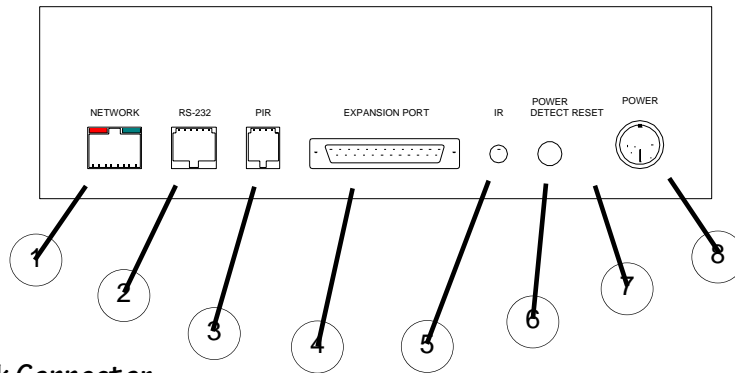
NOTE: Upon clicking Load you will see a status bar at the bottom of the main utility screen.

Once completed with the Load, click on Close.

End of Section

Connecting Cables to the ACI

Figure 1.1



1. Network Connector
2. RS-232 Programming Port
3. PIR Passive Infrared Device
4. Expansion Port (Future)
5. IR Connector
6. Power Detect Connector
7. Reset Button
8. Power Connector

The Following Steps will Describe How to Connect Your ACI to a Television.

Step 1. Locate the ACI location on the TV/Monitor. Typically the ACI is connected to the top of the television, but in some cases it can be mounted to the bottom of the television bracket.

Step 2. Connect the Network patch cable to the network port in the room to the ACI network port.
See figure 1.1 for the network connector.

Step 3. Connect the IR emitter to the IR receiver on the television using the double-sided tape included with the emitter. Then plug the emitter in the IR connector on the ACI. See figure 1.1 for the IR connector.

Step 4. Connect the Power Sense Coil to the television (See page 6-35 for additional details). Then connect the Power Sense Coil to the Power Detect connector on the ACI.
See figure 1.1 for the Power Detect connector.

Step 5. Plug the power supply into the 110V AC outlet in the room then connect the other end of the power supply into the ACI. See figure 1.1 for the Power connector.

NOTE: Items needed for the installation of the ACI: (1) Network patch cable long enough to reach from the network port on the ACI to the network port in the room, (1) IR emitter cable, (1) Power Sense Coil, (1) Power Supply.

Locating and Installing the Power Sense Coil on the Television

NOTE 1: You will need to have an ETR Remote to perform this procedure and the ACI must be installed before performing the following steps.

NOTE 2: Power Sense Coil location will be different on other makes and models.

Step 1. After ACI has been installed, connect the Power Sense Coil to the ACI.

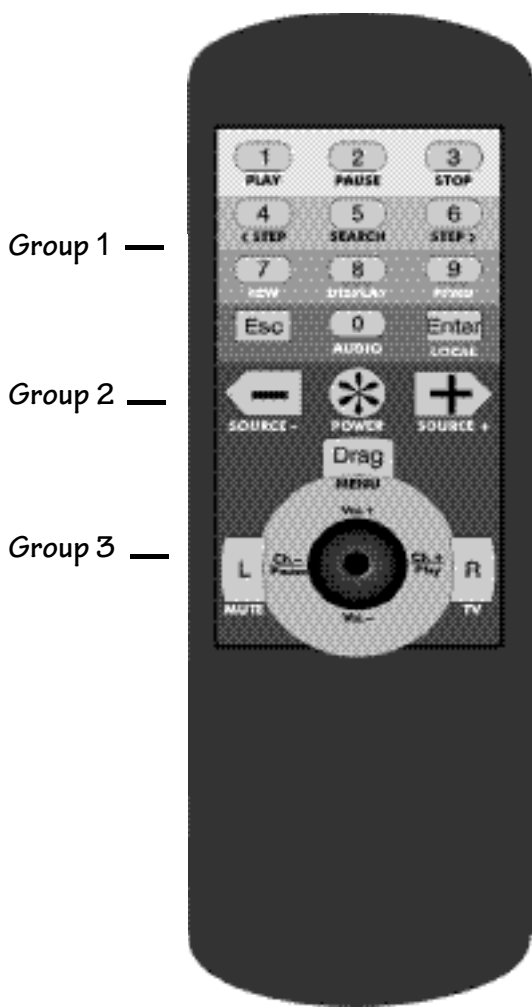
Step 2. With the Remote pointed at the front of the ACI and with the television ON, press the ESC button until the display shows command?, then press Enter button and the (2) button. Now the ACI should say either TVPowerO or TVPower1. 1=TV Power ON and O=TV Power OFF.

Step 3. Take the Power Sense Coil and move it around the back of the TV in a circular motion to find the center of the inductive field of the TV. When located, connect the Power Sense Coil to the TV and test location by turning the TV ON and OFF. This should change the ACI display between TVPowerO and TVPower1.

NOTE:If the Power Sense Coil is not connected to the ACI or not correctly located on the TV, the administrator software will show the TV as being turned OFF all the time under the zone paging section.

End of Section

Operating the iQuest Remote Control



Quick Commands

Function	Press
POWER:	*
PLAY:	1
PAUSE:	2
STOP:	3
REW:	7
FFWD:	9
MUTE:	L
VOL +:	Joystick U
VOL -:	Joystick D
Scrolling sources:	- or +
Global channels:	Esc, channel
Menu Channel:	Drag

The iQuest Infrared Remote Control is a handheld infrared control that can access and control all of the video playback devices available in your school's media center. It also allows an instructor to "browse" through available and scheduled head-end sources. The iQuest remote can be used concurrently with the Bogen iQuest software or stand-alone.

The iQuest remote functions very much like a normal TV or VCR remote. The remote is broken down into 3 main groups:

Group 1 - Consists of the number buttons 0 - 9, the ESC key, and the Enter Key. Looking at the remote on the left, you will notice that each of these keys has additional information. Each key performs two functions.

Group 2 - Consists of the - key, the * key and the + key. As with Group 1 each key serves multiple functions.

Group 3 - Consists of the Drag key, the L key, the R key, and the Joystick. These keys also serve several functions.

Selecting Sources (typical scenario):

Using Media Scheduler software, an English teacher has scheduled "Hamlet" for her 3rd period class. The teacher has scheduled a title during a specific time frame, therefore she may start the title any time during the period. Once ready, the teacher will press the * button in Group 2 to turn on the TV power. Once

the TV is on, she then needs to connect to the scheduled source. This is accomplished by pressing either the - or + buttons in Group 2. The - and + buttons allow a teacher to scroll through available and scheduled sources at the head-end. The teacher will notice that the ACI on top of the TV will display each command pressed on the remote.

PLAY, STOP, FFWD, and REW:

Once the teacher has control of the source Groups 1 and 3 are mainly used. In Group 1, the commands below each number are used. For example, if using a VCR or Laser Disc Player, a teacher presses 1 to PLAY the device. Should the teacher wish to PAUSE the title, she simply presses 2. Pressing 3 stops the device. Pressing 7 or 9 will REW or FFWD.

Volume, Mute and Joystick:

Should the teacher wish to increase or decrease the volume, she places her thumb on the Joystick (Group 3) and pushes up on the

stick to increase the volume, pushes down to decrease the volume. NOTE: The joystick takes practice to gain a sense of control. Pressing the L button MUTES the TV. Bogen has also built in the Joystick, stop, play, and pause functions. Once familiar with the joystick, a teacher may press the joystick right to PLAY the device or press the joystick left to PAUSE. This allows a teacher the added ability of not having to look at the remote for the proper commands.

NOTE: The buttons are backlit and can be seen in dark rooms.

If the teacher has multiple sources scheduled, she can go to the - or + buttons and scroll through the selected sources. As mentioned earlier, each function and source will be displayed on the ACI for teacher information. Once the teacher has finished the use of the source, she should press 7 to REWIND the media. Pressing * will turn the TV off.

The MediaMaster server automatically assigns the source to the teacher who has it scheduled next or makes the source available for others to schedule or use.

Other Functions

In many cases a teacher may want to use the remote to access cable TV channels and other "Global Channels". The iQuest remote allows a teacher to access all these channels.

Global Channels

For example, a teacher has decided that instead of watching "Hamlet" his or her class will watch a special on Discovery Channel that is highlighting the life of Shakespeare. Using the remote control, the teacher would simply enter the channel number for Discovery or she can use the joystick to scroll through the pre-set global channels by pushing the joystick L and R.

NOTE: if a teacher is using a scheduled source, then he or she must first press the ESC Key! This will tell the MediaMaster to go to Global sources

Advanced Functions

The remote provides advanced functionality to the teacher. These functions include:

Search: Press the 5 button during Laser Disc Player operation will allow a teacher to search for a specific frame number; pressing 5 again will allow the teacher to search for a chapter. Many LDP media manuals show the frame number under the bar code reader.

Local: Press the Enter button will switch the TV in the classroom to local or S-VHS mode. Many schools install scan converters in teachers workstation that displays the image from the computer to the large monitor. Pressing the Enter button toggles the TV between local and video mode.

Timer: Built into the ACI is a countdown timer. Used by many teachers as timing device to time tests, projects, and other classroom activities, the countdown timer can only be set using the iQuest remote. Press ESC, then *, and this will begin the timer mode. Press the joystick up to set minutes and the joystick L or R to set the hours. Press the + to start the countdown, press the - to PAUSE.

Other functions

Located on the back of the remote is a Command Reference list. Some of these functions include toggle clock, room information, and display brightness adjustment. Follow the instructions on the back of the remote for use.

Hints and Tips

As with all infrared devices, bright fluorescent lighting and close proximity to this type of lighting may affect the remote. Shutting some lights off or moving away from these lights may help performance. If the remote seems to be malfunctioning, stop hitting buttons, wait for the time to come back on the ACI, and then try again. Waiting for the time on the ACI to come back and put the ACI back in start mode. If the red emitter light is not on when you push a button and the remote does not seem to work, chances are the batteries are dead. The remote requires 3 AAA batteries. The joystick takes some practice getting used to, however, once comfortable with the joystick try using it to stop, play, and pause the sources. It is easier and takes less time.

End of Section