2-INSTALLING A DATA/FAX MODEM INTO A "WINDOWS.." OR "LINUX" COMPUTER by Francis Chao fchao2@yahoo.com **OMPUTER**

SUMMARY

Data/fax modems are no longer bundled into computers so you will have to procure and install one, if you want to fax using the "Windows Fax and Scan", "FaxTalk", "efax-gtk" or similar apps for sending and receiving faxes, instead of using a fax machine.

TOPICS

- Data/Fax Modems- Form Factors and Architecture
- Recommended Data/Fax Modems
- Big Steps for Installing a Data/Fax Modem
- Small Steps for Installing a Data/Fax Modem

DATA/FAX MODEMS

- Form factors:
 - Modem that is integral on the motherboard of a laptop or desktop computer
 - PCI card (older desktop computers)
 - PCIe card (newer desktop computers)
 - USB modem (both laptops and desktops)

DATA/FAX MODEMS (continued)

- Architecture Options:
- Controller-based modems
- Controllerless modems or Winmodems
- Softmodems
 (See
 <u>http://www.usr.com/education/</u>
 <u>modem2.asp</u>)



MCU=Microcontroller Unit DPU=Data Pump Unit DAA=Data Access Arrangement (http://www.usr.com/education/m odem1.asp and ..modem2.asp) RECOMMENDED DATA/FAX MODEMS

StarTech.com USB 2.0 Fax **Modem = 56K External Hardware** Dial Up V.92 Modem/ Dongle/Adapter -Computer/Laptop Fax Modem -**USB to Telephone Jack - USB Data** Modem - Network Fax/CMR/POS (USB56KEMH2) Has a Conexant "CX93010 ACF" chip set.



Roll over image to zoom in

 StarTech.com USB 2.0 Fax Modem - 56K External Hardware Dial

 Up V.92 Modem/ Dongle/Adapter - Computer/Laptop Fax Modem

 - USB to Telephone Jack - USB Data Modem - Network

 Fax/CMR/POS (USB56KEMH2)

 Visit the StarTech.com Store

 4.0 ★★★★☆ × 271 ratings | 36 answered questions

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List Price: \$64.99 **() vprime** One-Day FREE Returns ~

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RECOMMENDED DATA/FAX MODEMS (continued)

https://www.amazon.com/Star Tech-com-56K-USB-Dial-up-Modem/dp/B01MYLE06I/

RECOMMENDED DATA/FAX MODEMS (continued)

USB 56K External Dial Up Fax Data Modem Windows 10 / 8 / 7 / XP / Vista **Brand: Miyagle** Has a Conexant "CX93010 ACF" chip set.





Click image to open expanded view

USB 56K External Dial Up Fax

Data Modem Windows 10 / 8 / 7 /

 XP / Vista

 Brand: Miyagle

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Compatible Laptop, Personal Computer **Devices**

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BIG STEPS OF INSTALLING A DATA/FAX MODEM

- BIG STEP 100: Install per the manufacturer's instructions
- BIG STEP 200: Test the modem
- BIG STEP 300: Set "My Location" in "Windows.."
- BIG STEP 400: Disable "Wait for dial tone" in "Windows.."

BIG STEP 100 (Install modem..)

 If you are installing the modem into a "Windows.." computer
 Follow the manufacturer's directions for installing the modem.

If you are installing the modem into a "Linux" attach the modem to the computer

BIG STEP 100 (Install modem) (continued)

- If you are installing the modem into a "Linux" computer, attach the modem to the computer: If the modem connects via USB, it can be installed with the computer powered up.
 - If the modem connects via PCie or PCie, install the modem with the computer powered off

BIG STEP 200 (Test modem)

 Small Step 201: If you are installing a USB modem into a "Linux" computer, run Isusb

from inside the "Terminal" app to verify that the operating computer recognizes the modem

- Small Step 201 (continued): If you are installing a PCi or PCie modem into a "Linux" computer, run Ispci
 - from inside the "Terminal" app to verify that the operating computer recognizes the modem

 Small Step 201 (continued): If you are installing any type of modem into a "Windows" computer, please complete the remaining steps to run diagnostics on the modem:

 Small Step 201 (continued): Get into "Phone and Modem" from either the "Control Panel" app or the "Settings" app of "Windows..":



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 Small Step 202: Double-click on the "Modems" tab inside "Phone and Modem":

Phone and Modern X Dialing Rules Moderns Advanced The list below displays the locations you have specified. Select the location from which you are dialing. Location Location My Location New Edit Delete OK Cancel						
Dialing Rules Modems Advanced Image: Section of the section o		Phone and Mode	m			×
Image: Selection of the selec	ec	Dialing Rules Mode	ems Advanced			
Location: Area Code My Location 714 New Edit Delete OK Cancel Apply		The list below displays the locations you have specified. Select the location from which you are dialing.				
Location Area Code • My Location 714 Image: New Edit Delete OK Cancel Apply		Locations:				
•My Location 714 New Edit Delete		Location		Area Coo	de	
New Edit Delete		My Location		714		
New Edit Delete OK Cancel Apply						
New Edit Delete OK Cancel Apply						
New Edit Delete OK Cancel Apply						
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OK Cancel Apply						
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Dialing Rules Modems Advanced Image: Second Sec	Ð
Image: Select the location of the location of the location of the location of the location. Location Area Code Image: I	Ð
Locations Location Area Code My Location 714	
• My Location 714	•
New Edit Delete	
OK Cancel App	

 Small Step 203: Double-click on the newly-installed modem:

A Phone and Modem	×
Dialing Rules Modems Advanced	
The following modems are installed:	
Modem Attached To	
Conexant USB CX93010 ACF Modem #2 COM4	
Add	əs
OK Cancel Ap	ply

and Modem and Modem	×
Dialing Rules Modems Advanced	
The following modems are installed:	
Modem Attached To	
Conexant USB CX93010 ACF Modem #2 COM4	
Add Properties	
OK Cancel Apply	

• Small Step 204: Double-click on the Diagnostics tab:
IES INIOUEII	Advanced		
🥔 Conex	ant USB CX93010 AG	CF Modem #2 Properties	×
General	Modem Diagnostic	s Advanced Driver Details	Events
	Conexant USB CXS	03010 ACF Modem #2	
	Device type:	Modems	
	Manufacturer:	Conexant	
	Location:	Port_#0006.Hub_#0003	
Device	status device is working prop	erly.	
	Change settings	OK	Cancel

IES IVIOUEII	Advar	ncea						
Conexa	ant USB (X93010 AC	F Modem #2	Propert	ies			×
General	Modem	Diagnostics	s Advanced	Driver	Details	Events		
A	Conexa	nt l <i>us</i> B CX9	3010 ACF Mod	dem #2				
	Devide	type:	Modems					
	Manufa	cturer:	Conexant					
	Location	ו:	Port_#0006.H	lub_#000)3			
Drvice	status							
This	device is v	vorking prop	erly.				*	
							$\mathbf{\vee}$	
•	Change se	ettings						
							. .	
					OK		Cancel	

 Small Step 205: Click on the Query Modem button:

ules wodems Advanced	
Conexant USB CX93010 ACF Mode	em #2 Properties X
General Modem Diagnostics Adva	nced Driver Details Events
Modem Information	
Field Value Hardware ID USB\VID_0572&PID_134	·0&REV_0100
_	Oursen Mardana
	Query Modem
Logging Append to Log	View log
	OK Cancel

u	Iles Woderns Advanced	
	Conexant USB CX93010 ACF Modem #2 Properties	×
_	General Modem Diagnostics Advanced Driver Details Events	
ie	Modem Information	
	Field Value Hardware ID USB\VID_0572&PID_1340&REV_0100 Command Response	
	Query Modem	
	OK Cancel	

• Small Step 206: Read the results:

🧊 Conexant	USB CX93010 A	CF Modem #2	2 Proper	ties		×
General Mo	odem Diagnostic	Advanced	Driver	Details	Events	
Modem Inform	nation					
Field Hardware I[Value) USB\VID_05728	&PID_1340&RE	EV_0100			
Command ATQ0V1E0 AT+GMM AT+FCLAS AT#CLS=?	Response Success +GMM: V90 S=? 0,1,1.0,2,8 COMMAND I	NOT SUPPOR	TED	>		
			Qu	ery Mode	m	
Logging Append	to Log		Y	View log		

General Mod	em Diagnostics Advance	ed Driver Details Events	
Modem Informa	ation		
Field Hardware ID	√alue JSB\VID_0572&PID_1340&	REV_0100	
Command AT#CLS=? AT+GCI? AT+GCI=? ATI1	Response COMMAND NOT SUPPO +GCI: B5 +GCI: (00,07,09,0A,0F,16 Success	ORTED 6,1B,20,25,26,27,20	
		~	
		Query Modem	
Logging Append to	Log	Query Modem	

	Anceu						
🥔 Conexant USI	3 CX93010 ACF	Modem #2	Propert	ies			×
General Moder	n Diagnostics	Advanced	Driver	Details	Events	5	
Field Va Hardware ID US	alue SB\VID_0572&PI	D_1340&RE	V_0100				
Command ATI3 ATI4 ATI5 ATI6	Response CX93001-EIS_\ Success B5 Success	/0.2013-V92					
<			Que	> ery Mode	m		
Logging Append to L	og		١	/iew log			
				OK		Cancel	

 Small Step 207: Click on the OK button:

(ules modorio	Auvanceu
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General Mode	em Diagnostics	Advanced	Driver	Details	Events
Nodem Informa	ation				
Field \ Hardware ID l	√alue JSB\VID 0572&F	91D 1340&RE	EV 0100		
Command	Response			/	
ATI5	B5				
ATI6 ATI7	Success				
<				>	
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<			Qu	> ery Moder	m
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Logging	Log		Qu	> ery Moder /iew log	m
Logging) Log		Qu	> ery Moder /iew log	m
Logging Append to) Log		Qu	> ery Moder	m

 Small Step 208: Click on the OK button:







BIG STEP 300 ("My Location")

 Small Step 301 (continued): If you are installing any type of modem into a "Windows" computer, please complete the remaining steps to set or verify the area code:

BIG STEP 300 ("My Location") (continued)

 Small Step 301 (continued): Get into "Phone and Modem" from either the "Control Panel" app or the "Settings" app of "Windows..":



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BIG STEP 301 ("My Location") (continued)

Small Step 301 (continued): If no one (for your Windows.. User account in the computer) has filled in the "My Location" screen yet, the "Location Information" will open up when you click on "Phone and Modem":

Location Information

Before you can make any phone or modem connections, Windows needs the following information about your current location.

What country/region are you in now?

ited States	,

What area code (or city code) are you in now?

If you need to specify a carrier code, what is it?

If you dial a number to access an outside line, what is it?

The phone system at this location uses:

Tor	ne dialing	🚽 🔘 Pule	se dialing
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BIG STEP 300 ("My Location") (continued)

 Small Step 302: If the "Location Information" dialog box, is not being displayed, doubleclick on "My Location" inside the "Dialing Rules" tab:

Ø Phone and Modem	×
Dialing Rules Modems Advanced	
The list below displays the locations you have spe location from which you are dialing.	cified. Select the
Locations:	
Location Area (Code
New Edit	Delete
OK Cance	Apply

and Modem 🖉	×
Dialing Rules Modems Advanced	
The list below displays the locations you have specified. Select the location from which you are dialing.	
Locations:	
Location Area Code	
• My Location 714	
New Edit Delete	
	_
OK Cancel Apply	

BIG STEP 300 ("My Location") (continued)

- Small Step 303: Verify and correct the displayed information: It is critical for you to have the correct country and area code displayed in the "Location
 - Information" dialog box:

۱d	Edit Lc	ocation		×
S	General	Area Code Rules	Calling Card	
he ca		Location name:	My Location	
	Specify	the location from w	rhich you will be dialing.	
	Country	//region:		Area code:
atic	United	States	\checkmark	714
	Lialing	rules		
	Wher	n dialing from this lo	cation, use the following rules:	
	To ac	cess an outside line	e for local calls, dial:	
	To ac	cess an outside lin	e for long-distance calls, dial:	
	Use t	his carrier code to r	nake long-distance calls:	
	l leo t	his carrier code to r	make international calls:	
	0361		hake international calls.	
	🗌 To	o disable call waiting	g, dial:	\sim
	Dial u	using: 💿 Tone	○ Pulse	
			OK Cance	Apply

nd	🥔 Edit Lo	cation		
S	General	Area Code Rules Calling Car	d	
he ca		Location name: My Locati	on	
	Specify	the location from which you will	be dialing.	
	Country	region:		Area code:
atic	United 3	States	~	714
_	Dialing When To ac To ac Use t	rules dialing from this location, use th cess an outside line for local cal cess an outside line for long-dis his currier code to make long-dis his carrier code to make internat	is, dial: ls, dial: tance calls, dial: stance calls: ional calls:	
	Tc	disable call waiting, dial:		\sim
	Dial u	sing:	ulse	
		OK	Cance	Apply

rd	/ Edit La	cation			×
		cation			~
S	General	Area Code Rules	Calling Card		
he ca	23	Location name:	My Location		
	Specify	the location from wh	ich you will be dialing.		
	Country	/region:		Area code:	
itic	United 3	States	\checkmark	714	
	Dialing When To ac Use th Use th Dial u	rules dialing from this loc cess an outside line cess an outside line his carrier code to m his carrier code to m disable call waiting sing: Tone	ation, use the following rules: for local calls, dial: for long-distance calls, dial: ake long-distance calls: ake international calls: , dial:		
			OK Cano	cel Apply	
BIG STEP 300 ("My Location") (continued)

 Small Step 304: Click on the OK button:

nd	a Edit Location	
S	General Area Code Rules Calling Card	
he ca	Location name: My Location	
_	Specify the location from which you will be dialing.	
atic	Country/region: Area code:	
	United States /14	
	Dialing rules	
	When dialing from this location, use the following rules:	
	To access an outside line for local calls, dial:	
	To access an outside line for long-distance calls, dial:	
	Lise this carrier code to make long distance calls:	
_		
	Use this carrier code to make international calls:	
	To disable call waiting, dial:	\sim
	Dial using: Tone Pulse 	
	OK Cancel Ar	oply

BIG STEP 400 (Disable "Wait for dial tone") Small Step 401 (continued): If you are installing any type of modem into a "Windows" computer, please complete the remaining steps to disable "Wait for dial tone":

BIG STEP 400 (Disable "Wait for dial tone") (continued) Small Step 401 (continued): Get into "Phone and Modem" from either the "Control Panel" app or the "Settings" app of "Windows..":



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Dialing Rules Modems Advanced	
The list below displays the locations you have specified. Select the location from which you are dialing.	e
Locations:	
Location Area Code	
• My Location 714	
New Edit Delete	
OK Cancel App	bly

	Phone and Modem			×
e	Dialing Rules Modems	Advanced		
	The list below dis location from whi	splays the location ich you are dialing	s you have specified.	Select the
	Locations			
	Location		Area Code 714	
		New	Edit	Delete
		ОК	Cancel	Apply

BIG STEP 400 (Disable "Wait for dial tone") (continued) Small Step 403: Double-click on the newly-installed modem:

i Phone and Modem						
Dialing Rules Modems Advanced						
The following modems are installed:						
Modem Attached To						
Conexant USB CX93010 ACF Modem #2 COM4						
Add Properties						
OK Cancel Apply						

A Phone and Modem	×
Dialing Rules Modems Advanced	
The following modems are installed:	
Modem Attached To	
Conexant USB CX93010 ACF Modem #2 COM4	
Add Properties	
OK Cancel Apply	

BIG STEP 200 (Disable "Wait for dial tone") (continued)

Small Step 404: Double-click on the "Modem" tab:

Ies Moden	Advanced								
🥔 Conexa	Conexant USB CX93010 ACF Modem #2 Properties								
General	Modem Diagnostic	s Advanced	Driver	Details	Events				
\$	Conexant USB CX9	3010 ACF Mode	əm #2						
	Device type:	Modems							
	Manufacturer:	Conexant							
	Location:	Port_#0006.Ht	ub_#000)3					
Device	status device is working prop	erly.				< >			
	nange settings								
				ОК	С	ancel			

	IES INIQUEI	ns Advai	ncea						
	Conexant USB CX93010 ACF Modem #2 Properties								×
	General	Modem	Diagnostics	Advanced	Driver	Details	Events		
	<i>.</i>	Conexa	nt USB CX9	3010 ACF Mod	lem #2				
	Device type: Modems Manufacturer: Conexant								
Location: Port_#0006.Hub_#0003									
	Device	status							
	This	device is v	working prop	ərly.				~	
								*	
		Change se	ettings						
						OK	C	ancel	

BIG STEP 400 (Disable "Wait for dial tone") (continued)

Small Step 405: If you find a checkmark in the check box for "Wait for dial tone before dialing", click on it to remove it:

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	🥔 Conex	ant USB (CX93010 ACF	Modem #2	Propert	ies		×
M	General	Modem	Diagnostics	Advanced	Driver	Details	Events	
•	Port:	COM4						
	Speak	ker volume						
		Off			Dn			
	Maxin	num Port S	peed					
		1152	00		\sim			
-	Dial C	Control						
		W	ait for dial tone	before dialin	g			
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🤹 Conexant USB CX93010 ACF Modem #2 Properties	×
M General Modem Diagnostics Advanced Driver Details Events	
Bort: COM4	
FOIL COM4	
Speaker volume	
Off On	
Maximum Port Speed	
145000	
115200	
Dial Control	
Wait for dial tone before dialing	
OK C	ancel

BIG STEP 400 (Disable "Wait for dial tone") (continued) Small Step 406: Click on the "OK" button:

aling Rules	NUCUUTIN	Advanced
anng raies		Auvanceu

	Conexant USB CX93010 ACF Modem #2 Properties	×
Ŵ	General Modem Diagnostics Advanced Driver Details Events	
•	Port: COM4	
	Off On	
	Maximum Port Speed	
	Dial Control	
	OK Cancel	

N	General	Modem	Diagnostics	Advanced	Driver	Details	Events
•	Port:	COM4					
	Speak	er volume					
		Off			On		
	Maxim	ium Port S	peed				
		1152	00		\sim		
_	Dial C	ontrol					
_	Dial C	ontrol	ait for dial tone	e before dialir	na		
	⁻Dial C	ontrol	ait for dial tone	e before dialir	ng		
	Dial C	ontrol	ait for dial tone	e before dialir	ng		
	Dial C	ontrol	ait for dial tone	e before dialir	ıg		

BIG STEP 400 (Disable "Wait for dial tone") (continued) Small Step 407: Click on the "OK" button:

🚳 Phone and Modem	×
Dialing Rules Modems Advanced	
The following modems are installed:	
Modem Attached To	
Conexant USB CX93010 ACF Modem #2 COM4	
Add Properties	
OK Cancel Apply	

A Phone and Modem	×
Dialing Rules Modems Advanced	
The following modems are installed:	
Modem Attached To	
Conexant USB CX93010 ACF Modem #2 COM4	
Add Properties	
OK Cancel Apply	







