11B: MISCELLANEOUS HARDWARE RELATED INFORMATION

11.1 Icom HF Radio Hex Addresses

Each Icom radio can be programmed with its own unique hexadecimal address ranging from 00(H) to FF(H). Airmail uses this address to communicate with Icom radio, and it must be entered correctly if Airmail is to communicate with the radio. Tables 7-1A and 7-1B list the factory default addresses for Icom HF Amateur and Marine radios. "Auto" in the baud rate column means the radio should accept any baud rate setting you choose when configuring Airmail. We recommend that you choose 1200 baud.

Table 7-1a
Factory Default Hex Addresses and Baud Rates
ICOM HF AMATEUR RADIOS

RADIO MODEL	HEX ADDRESS*	BAUD RATE
703	68	Auto
706	48	Auto
706MKII	4E	Auto
706MKIIG	58	Auto
718	5E	Auto
725	28	1200
726	30	1200
728	38	1200
729	3A	1200
735	04	1200
736	40	1200
737/737A	3C	1200
738	44	1200
746	56	Auto
746Pro	66	Auto
751/751A	1C	1200
756	50	Auto
756PRO	5C	Auto
756PRO-II	64	Auto
756PRO-111	6E	Auto
761	1E	1200
765	2C	1200
775/775DSP	46	Auto
781	26	1200
7000	70	Auto
7200	76	Auto
7600	7A	Auto
7700	74	Auto
7800	6A	Auto

*Note: 00(H) will work as a "wildcard/general broadcast" for mostlate model Icom radios.

Table 7-1b Factory Default Hex Addresses and Baud Rates		
Icom Marine SSB Radios		
RADIO MODEL	HEX ADDRESS*	BAUD RATE
M802	08	4800
M700Pro	02	4800
M710	01	4800
M710RT	03	4800
*Note: 00(H) works as a "wildcard/general broadcast" address for these models		

11.2 Connecting Modem Cables to Icom, Kenwood, or Yaesu Radios.

One or more cables are required to connect PTC-II/III modems to Icom. Kenwood, or Yaesu radios; an Audio cable, and a Frequency Control Cable. The Audio Cable provides Push to Talk (PTT) Transmit/Receive keying. Audio In/Out, and in the case of Icom radios. 13.8 VDC to power the modem. The Frequency Control Cable carries the frequency setting data from the modem to the radio.

The radio-to-modem interface presented by these branded radios are not standardized within the brand and vary significantly from radio model to radio model, and even within the same model group. For example, the radio to modem interface of the Yaesu FT-1000 MP and FT-1000 MP-MkV are so different that they require different cables.

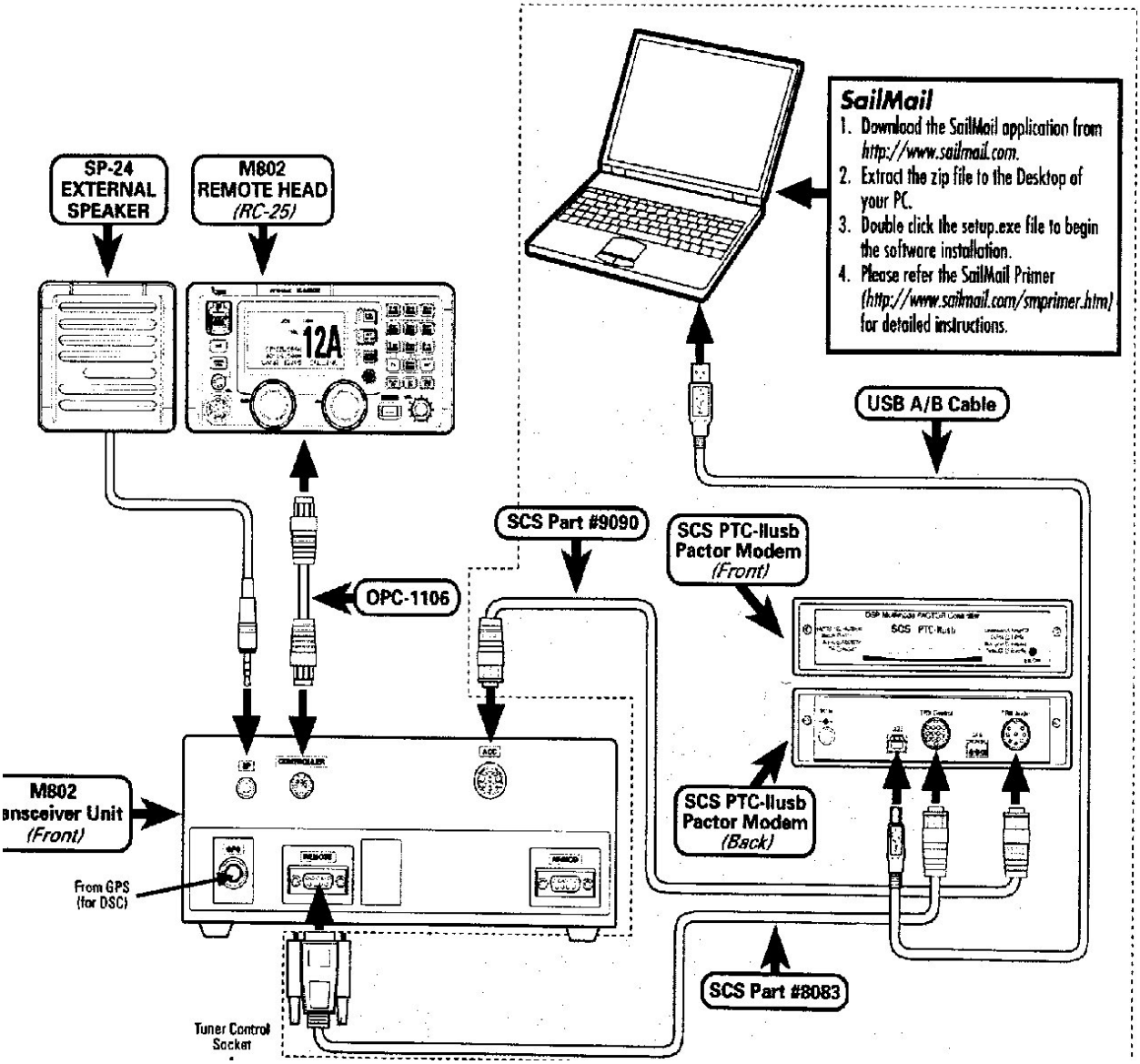
We can make up cables for these models but we require the customer to procure the connectors for their radio model and related schematic diagram. Finding the right connectors / technical information can be time consuming work and at radio tech charge out time of $80 per hour we suggest that this is "leg work" best done by the customer. Of course if you are happy to pay our hourly rate and acknowledge that it can potentially takes hours of net research time then we are happy to take on the work.

At the end of the day, although you may save a few dollars on buying a used Codan / Barrett HF radio - your upfront saving will be quickly diminished by the messing around that is required to connect other devices to these units. Icom is the leading brand in HF marine radios and we recommend that you stick to the Icom brand for your HF radio needs.

11.2.1 How to Connect PTC-II/III Pactor to Icom Radios.

All PTC-II/III modems use either a 9090 or 9095* "Audio" cable to provide switched 13.8 VDC power and control signals to the modem. A separate I3.8 VDC supply line is not required. The PTC-IIPro and PTC-llusb also use an 8081.8083 or 8086 cable to control the HF radio's transmit and receive frequency. These ready-made cables are available from www.radios.net.au

Referring to Figure 7-1 below for the Icom 802 model, connect your PTC modem as follows:



1	Turn off the radio and the computer.
2	Plug the end of the 9090/9095 interconnecting audio cable labeled AUDIO (or PTC) into the connector labeled AUDIO on the back of your PTC-llusb or PTC-IIex
3	Plug the end of the 9090/9095 interconnecting audio cable labeled ICOM into the ACC-1 connector of your Icom.
4	PTC-IIUSB only - Plug the end of the 8081 / 8083 or 8086 frequency control cable labeled PTC CONTROL into the connector labeled CONTROL or TRX Control on **the** back of your modem,

1	M-700Pro. M-710 / M710RT: Plug the end of the 8086 frequency control cable with the 9-pin DB-9 connector into the REMOTE connector on your Icom.
2	Icom M-802: Plug the end of the 8083 frequency control cable with the 9-pin DB-9 connector into the REMOTE connector on your Icom.
3	Icom 706MK1IG, 718, 7000, etc.: Plug the end of the 8081 frequency control cable with the 3-5 mm jack into the CIV connector on your Icom radio.

5	PTC-ll-ex Model: With your computer and the modem still turned off, connect one end of the computer serial cable to the DB-9 serial port connector on your computer, and the other end to the DB-9 serial (RS-232) connector to your PTC-IIex Modem.
6	PTC-llusb Models: USB ports are "hot pluggable", and the USB cable that came with your modem can be connected to your computer at any time after the driver is installed.
7	Turn the ON/OFF switch (located on the back of your PTC-IIPro/PTC-llex. and the front of the PTC-llusb} to ON. * The 9090 cable fits most Icom transceivers including the Icom M700Pro. M710, 710RT, M802, 725, 735, and other Icom radios that use an 8-pin Din connector for the Acc-1 socket. The 9095 fits the Icom 706MKIIG, 718. 7000 and other Icom radios that use a 13-Pin DIN connector for the Accessory socket.