GD77 .dat file Memory Map For Firmware 3.0.6

Offset	Function	bytes per entry	Number of entries
17620	Contacts	24	1024
1D620	Rx Groups	48	128
08010	Zones	48	250
01790	Scan Lists	88	64
03780	Channels (first 128)	56	128
B1B0	Channels (remainder)	56	896
01588	Emergency Systems	16	32

Contacts (24 bytes per entry)

Byte	function
0-15	Name 1 byte per character. FF as fillers, all FFs if blank
16	ID BCD coded 1st and 2nd digits 00 if blank
17	ID BCD coded 3rd and 4th digits 00 if blank
18	ID BCD coded 5th and 6th digits 00 if blank
19	ID BCD coded 7th and 8th digits 00 if blank
20	Contact Type 0=Group 1=Private 2=AllCall
21	Contact Receive Tone 0=Off 1=On
22	Contact Ring Style 0-10
23	Unknown 'FF' for used contact '00' for blank entry

Rx Groups (48 bytes per entry)

First 128 bytes is a byte array containing the number of members+1 in each of the 16 receive groups

00=Group invalid. 01=active but no members 02=1 member.....

Followed by 128 RX Groups.

Byte	function
0-15	Name 1 byte per character. 00 as fillers, all 00s if blank
16	Low byte of Contact Index (01 is first conatct. 00 is unused)
17	High Byte of Contact Index
18-47	Index numbers of remaining Contacts (up to 16 entries 2 bytes per entry)

Zones (48 Bytes per Entry)
First 32 bytes are a bit array indicating the active zones. 0=inactive 1=active
Followed by 250 zones.

Byte	function
0-15	Name 1 byte per character. FF as fillers, all 00s if blank
16	Low byte of channel Index (First Channel is 01. 00 if unused)
17	High byte of channel Index
18-47	Remaining Channels up to (16 entries 2 bytes per entry)

Scan Lists

Byte	function

First 64 bytes are byte array 00= unused 01=active
Followed by

0-14	Name 1 byte per character. FF as fillers, all FFs if blank
15	Flags. Talkback/PL1/PL2/Channelmark/0/0/0/0
16-79	Channel Indexes. 2 bytes per channel. Low High. 00= empty 01=current chan 02=channel1
80	Priority 1 channel 2 bytes
82	Priority 2 Channel 2 bytes
84	Transmit channel 2 bytes 00=last 01=selected 02=chan.
86	Signalling hold time 25ms increments
87	Priority Sample Time 250ms increments

Channels (56 Bytes per Entry)
Arranged in banks of 128 channels. The first 16 bytes of each bank is a bit array indicating the active channels. 1=active 0=inactive.
Followed by 128 channels...

Byte	function
0-15	Name 1 byte per character. FF as fillers, all 00s if blank
16	Rx Frequency BCD 100Hz and 10 Hz digits
17	Rx Frequency BCD 10KHz and 1KHz digits
18	Rx Frequency BCD 1MHz and 100KHz digits
19	Rx Frequency BCD 100MHz and 10MHz digits
20	Tx Frequency BCD 100Hz and 10 Hz digits
21	Tx Frequency BCD 10KHz and 1KHz digits
22	Tx Frequency BCD 1MHz and 100KHz digits
23	Tx Frequency BCD 100MHz and 10MHz digits
24	Channel Type 00=Digital 01=Analogue
25	Unknown 00
26	Unknown 00
27	TOT 00=infinite 01=15Secs --- 21=495 Secs (15 second Increments)
28	TOT Rekey Time 0-255 Secs
29	Admit Criteria 00=always 01= Ch Free 02=Color Code Free
30	Unknown 0x50
31	Scanlist Index
32	RX CTCSS BCD Coded 1Hz and .1 Hz digits FF = off
33	RX CTCSS BCD Coded 100Hz and 10Hz digits FF = off DCS uses top 2 bits
34	TX CTCSS BCD Coded 1Hz and .1 Hz digits FF = off
35	TX CTCSS BCD Coded 100Hz and 10Hz digits FF = off DCS uses top 2 bits
36	Unknown 00
37	TX Signaling system
38	Unknown 00
39	RX Signaling system
40	Unknown 0x16
41	Privacy group
42	Color Code 00-0F
43	Rx Group Index
44	Color Code 00-0F (duplicate of 42? maybe TX and RX?)
45	Emergency System Index
46	Contact Index
47	Unknown 00 (high byte of contact?)
48	Flags 1 See later
49	Flags 2 See later
50	Flags 3 See later
51	Flags 4 See later
52	Unknown 00
53	Unknown 00
54	Unknown 00
55	Unknown 00

	Bit 7	Bit 6	Bit 5	Bit 4	Bit 3	Bit 2	Bit 1	Bit 0
Flags 1 (48)	Data call Conf	Emerg Ack					ARTS RX	ARTS TX
Flags 2 (49)		Timeslot		Privatacy On				Private Call Cf
Flags 3 (50)	STE 180 degs	STE 120 degs	Non STE FRQ		PTTID Post	PTTID Front		DCDM
Flags 4 (51)	Hi Power	Vox on	Auto Scan	Lone worker	Allow T/A	Rx Only	25Khz	Tight SQL