

**CAN Filter Calculation for LAWICEL CANUSB & CAN232**  
**Standard ID (11bit) - Dual Filter Mode**

Input:																					
Filter 1	ID.10	ID.9	ID.8	ID.7	ID.6	ID.5	ID.4	ID.3	ID.2	ID.1	ID.0	RTR	DB.7	DB.6	DB.5	DB.4	DB.3	DB.2	DB.1	DB.0	
	1	1	0	0	0	0	0	0	0	0	1	X	X	X	X	X	X	X	X	X	
Filter 2	ID.10	ID.9	ID.8	ID.7	ID.6	ID.5	ID.4	ID.3	ID.2	ID.1	ID.0	RTR									
	1	1	0	0	0	0	0	0	0	0	1	X									

Result:										
	B.7	B.6	B.5	B.4	B.3	B.2	B.1	B.0	HEX	
ACR0	1	1	0	0	0	0	0	0	C0	
AMR0	0	0	0	0	0	0	0	0	0	
	B.7	B.6	B.5	B.4	B.3	B.2	B.1	B.0	HEX	
ACR1	0	0	1	1	1	1	1	1	3F	
AMR1	0	0	0	1	1	1	1	1	1F	
	B.7	B.6	B.5	B.4	B.3	B.2	B.1	B.0	HEX	
ACR2	1	1	0	0	0	0	0	0	C0	
AMR2	0	0	0	0	0	0	0	0	0	
	B.7	B.6	B.5	B.4	B.3	B.2	B.1	B.0	HEX	
ACR3	0	0	1	1	1	1	1	1	3F	
AMR3	0	0	0	1	1	1	1	1	1F	
	<u>32bit Value</u>		<u>ASCII command</u>							
ACR	0x3FC03FC0		MC03FC03F[CR]							
AMR	0x1F001F00		m001f001f[CR]							

This demo shows how to set up filters so that only ID=0x601 passes through and all others are blocked. Note that both filters must be set otherwise ID's passes through the other.

Rules for bit calculation
<b>Input:</b>
0 = Bit must be set to zero
1 = Bit must be set to one
X = Bit is don't care
<b>Output:</b>
0-> ACRn = 0 and AMRn = 0
1-> ACRn = 1 and AMRn = 0
X-> ACRn = 1 and AMRn = 1