7) Alice selects n bits from this string and announces the position and value of these bits. Bob compares the value of these n check bits with the values of the bits that he has measured. If more than an acceptable number disagree, then they abort the protocol.

8) Alice and Bob extract from the remaining n common bits a common key using information reconciliation and privacy amplification methods.

The purpose of the last step is to take into account that the state of some photons might have been disturbed by some imperfection of the communication channel. We will ignore the technical details of this last step for the time being. The following example illustrates the protocol: