$$\dfrac{\dfrac{\dfrac{}{\Gamma \vdash \neg P \vee \neg Q}\, ax \qquad \dfrac{\dfrac{\dfrac{\dfrac{}{\neg P, \Gamma \vdash P \wedge Q}\, ax}{\neg P, \Gamma \vdash P}\, \wedge_{eg} \qquad \dfrac{}{\neg P, \Gamma \vdash \neg P}\, ax}{\neg P, \Gamma \vdash \bot}\, \neg_e \qquad \dfrac{\dfrac{\dfrac{}{\neg Q, \Gamma \vdash P \wedge Q}\, ax}{\neg Q, \Gamma \vdash Q}\, \wedge_{ed} \qquad \dfrac{}{\neg Q, \Gamma \vdash \neg Q}\, ax}{\neg Q, \Gamma \vdash \bot}\, \neg_e}{\Gamma = P \wedge Q, \neg P \vee \neg Q \vdash \bot}\, \vee_e}{\neg P \vee \neg Q \vdash \neg(P \wedge Q)}\, \neg_i$$