$$(*) \quad 0 \longrightarrow \mathrm{Ext}^1(S;\ \mathcal{J}_{P_0}(L), \Omega^2) \longrightarrow \mathrm{Ext}^1(S: \mathcal{J}(L), \Omega^2) \xrightarrow{\rho} \mathrm{Ext}\,(S: \mathcal{O}_p(L), \Omega^2).$$

⌈ By ⊛ on P 706 & P686, we have

$$\underset{\overset{\|}{0}}{\mathrm{Ext}^1(S;\ \mathcal{O}_p(L), \Omega^2)} \longrightarrow \mathrm{Ext}^1(S;\ \mathcal{J}_{P_0}(L), \Omega^2) \longrightarrow \mathrm{Ext}^1(S; \mathcal{J}(L), \Omega^2) \xrightarrow{\rho} \mathrm{Ext}^2(S; \mathcal{O}_p(L), \Omega^2) \to \cdots$$

⌋

For the middle term we use the second exact sheaf sequence, noting that $\mathrm{Ext}^1(S: \mathcal{O}\oplus\mathcal{O}, \Omega^2) \cong H^1(S;\ \Omega^2\oplus\Omega^2) = 0$ since S is regular, and also that

$$\left|\begin{array}{l} \mathrm{Ext}^0(S;\ \mathcal{O}(L^*), \Omega^2) \cong H^0(\mathcal{O}(K+L)), \\ \mathrm{Ext}^0(S;\ \mathcal{O}\oplus\mathcal{O}, \Omega^2) \cong H^0(\mathcal{O}(K)) \oplus H^0(\mathcal{O}(K)), \\ \mathrm{Ext}^0(S;\ \mathcal{J}(L), \Omega^2) \cong H^0(\underline{Hom}(\mathcal{J}(L), \Omega^2)) \cong H^0(\mathcal{O}(K-L)) \end{array}\right.$$

to obtain

$$\begin{aligned} 0 &\longrightarrow H^0(\mathcal{O}(K-L)) \to H^0(\mathcal{O}(K)) \oplus H^0(\mathcal{O}(K)) \\ &\longrightarrow H^0(\mathcal{O}(K+L)) \to \mathrm{Ext}^1(S;\ \mathcal{J}(L), \Omega^2) \longrightarrow 0. \end{aligned}$$

⌈ By the note P 644 and the first property on P 706, since $\mathcal{O}\oplus\mathcal{O}$ is locally free,

$$\mathrm{Ext}^1(S;\ \mathcal{O}\oplus\mathcal{O}, \Omega^2) = H^1(S,\ (\mathcal{O}^*\oplus\mathcal{O}^*)\otimes_{\mathcal{O}}\Omega^2)$$
$$= H^1(S,\ (\mathcal{O}^*\otimes_{\mathcal{O}}\Omega^2)\oplus(\mathcal{O}^*\otimes_{\mathcal{O}}\Omega^2)) = H^1(S,\ \Omega^2\oplus\Omega^2)$$
$(\because \quad \mathcal{O}^*\otimes_{\mathcal{O}}\mathcal{F} \cong \mathcal{F}. \quad)$
$= H^1(S,\ \Omega^2) \oplus H^1(S, \Omega^2) \Rightarrow$ By regularity of S,
$0 = h^{2,1}(S) = \dim H^1(S, \Omega^2). \Rightarrow \mathrm{Ext}^1(S;\ \mathcal{O}\oplus\mathcal{O}, \Omega^2) = 0.$