$$\underset{i}{\boxed{\text{F:}}} \underset{\text{motion}}{=} \underset{\mu\overline{\qquad}}{\overset{\mu}{\underset{i}{\boxed{\text{F:}}}}}$$

$$\text{F} \in \overset{0}{\Delta}\mathbb{R}^d \text{ vanish at } \infty \Rightarrow \int\limits_{dx} {}^{x}_{\mu}\underline{\text{F}}\, \text{L} = -\int\limits_{dx} \text{F}\, \underset{\mu}{\text{L}}$$

$$\text{F}\, \underset{\text{F}}{\overline{\mathcal{L}}} = \text{F}\, \underset{i}{\boxed{x\text{:F:}\underline{\text{F}}}} + {}^{i}_{\mu}\underline{\text{F}}\, \underset{i}{\overset{\mu}{\boxed{x\text{:F:}\underline{\text{F}}}}} = \text{F}\, \underset{i}{\boxed{\text{F:}}} + {}^{i}_{\mu}\underline{\text{F}}\, \underset{i}{\overset{\mu}{\boxed{\text{F:}}}} \Rightarrow$$

$$\text{F}\, \underset{\text{F}}{\overline{\int\limits_{dx} \mathcal{L}}} = \int\limits_{dx} \text{F}\, \underset{\text{F}}{\overline{\mathcal{L}}} = \int\limits_{dx} \text{F}\, \underset{i}{\boxed{\text{F:}}} + {}^{i}_{\mu}\underline{\text{F}}\, \underset{i}{\overset{\mu}{\boxed{\text{F:}}}} = \int\limits_{dx} \text{F}\, \underset{i}{\boxed{\text{F:}}} - \text{F}\, \underset{\mu\overline{\qquad}}{\overset{}{\underset{i}{\boxed{\text{F:}}}}} = \int\limits_{dx} \text{F}\, \overbrace{\underset{i}{\boxed{\text{F:}}} - \underset{\mu\overline{\qquad}}{\overset{\mu}{\underset{i}{\boxed{\text{F:}}}}}}^{= 0}$$

$$\underset{\mu\overline{\qquad\qquad\qquad}}{{}_{\nu}\delta^{\mu}\underset{i}{\boxed{\text{F:}}} - {}^{i}_{\nu}\underline{\text{F}}\, \underset{i}{\overset{\mu}{\boxed{\text{F:}}}}} = {}_{\nu}\underset{i}{\boxed{\text{F:}}}$$

$$\underset{\nu\overline{\qquad}}{\underset{i}{\boxed{\text{F:}}}} = {}_{\nu}\underset{i}{\boxed{\text{F:}}} + {}^{i}_{\nu}\underline{\text{F}}\, \underset{i}{\boxed{\text{F:}}} + {}^{i}_{\nu\mu}\underline{\text{F}}\, \underset{i}{\overset{\mu}{\boxed{\text{F:}}}}$$

$$\Rightarrow \text{LHS} = \underset{\nu\overline{\qquad}}{\underset{i}{\boxed{\text{F:}}}} - \overbrace{{}^{i}_{\mu\nu}\underline{\text{F}}\, \underset{i}{\overset{\mu}{\boxed{\text{F:}}}} + {}^{i}_{\nu}\underline{\text{F}}\, \underset{\mu\overline{\qquad}}{\overset{\mu}{\underset{i}{\boxed{\text{F:}}}}}}^{*}$$

$$= {}_{\nu}\underset{i}{\boxed{\text{F:}}} + {}^{i}_{\nu}\underline{\text{F}}\, \underset{i}{\boxed{\text{F:}}} + {}^{i}_{\nu\mu}\underline{\text{F}}\, \underset{i}{\overset{\mu}{\boxed{\text{F:}}}} - {}^{i}_{\mu\nu}\underline{\text{F}}\, \underset{i}{\overset{\mu}{\boxed{\text{F:}}}} - {}^{i}_{\nu}\underline{\text{F}}\, \underset{i}{\overset{*}{\boxed{\text{F:}}}} = {}_{\nu}\underset{i}{\boxed{\text{F:}}}$$