Lagrangian density

$$\gamma\,\mathcal{B}_\alpha\,\mathcal{B}^\alpha + \mathcal{B}^\alpha\,\mathcal{J}_\alpha + \beta\,\partial_\alpha\mathcal{B}^\alpha\,\partial_\beta\mathcal{B}^\beta + \alpha\,\partial_\beta\mathcal{B}_\alpha\,\partial^\beta\mathcal{B}^\alpha$$
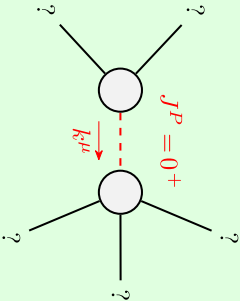
(No source constraints)

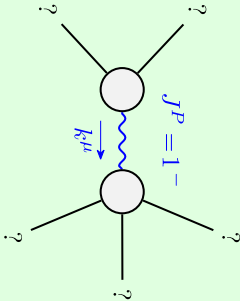$$\mathcal{B}_{0^+}^{\#1}\dagger\ \boxed{\gamma + (\alpha+\beta)\,k^2}\ \mathcal{B}_{0^+}^{\#1}$$

$$\mathcal{J}_{0^+}^{\#1}\dagger\ \boxed{\dfrac{1}{\gamma+(\alpha+\beta)\,k^2}}\ \mathcal{J}_{0^+}^{\#1}$$

$$\mathcal{B}_{1^-}^{\#1}\dagger^{\alpha}\ \boxed{\gamma+\alpha\,k^2}\ \mathcal{B}_{1^-\ \alpha}^{\#1}$$

$$\mathcal{J}_{1^-}^{\#1}\dagger^{\alpha}\ \boxed{\dfrac{1}{\gamma+\alpha\,k^2}}\ \mathcal{J}_{1^-\ \alpha}^{\#1}$$

Unitarity conditions
(Unitarity is demonstrably impossible)

Massive particle	
Pole residue:	$\dfrac{1}{\alpha+\beta} > 0$
Polarisations:	1
Square mass:	$-\dfrac{\gamma}{\alpha+\beta} > 0$
Spin:	0
Parity:	Even

$J^P = 0^+$, k^μ

Massive particle	
Pole residue:	$-\dfrac{1}{\alpha} > 0$
Polarisations:	3
Square mass:	$-\dfrac{\gamma}{\alpha} > 0$
Spin:	1
Parity:	Odd

$J^P = 1^-$, k^μ

(No massless particles)