```
Block[{Print}, << xAct`xTras`; << VariationalMethods`]

$PrePrint = ScreenDollarIndices;

$DefInfoQ = $UndefInfoQ = False;

DefManifold[M, 4, IndexRange[a, l]]
DefMetric[-1, metricg[-a, -b], CD, PrintAs → "g"]
DefChart[chartFRW, M, {0, 1, 2, 3}, {t[], x[], y[], z[]}]
DefScalarFunction /@ {afunc, H};
matrixg = {{-1, 0, 0, 0}, {0, afunc[t[]]^2, 0, 0}, {0, 0, afunc[t[]]^2, 0}, {0, 0, 0, afunc[t[]]^2}};
MetricInBasis[metricg, -chartFRW, matrixg];
MetricInBasis[metricg, chartFRW, Inverse[matrixg]];

MetricCompute[metricg, chartFRW, All, CVSimplify → Simplify, Parallelize → True]

changeIndex = {a → {a, chartFRW}, b → {b, chartFRW}, c → {c, chartFRW}, d → {d, chartFRW}, e → {e, chartFRW}, f → {f, chartFRW}, g → {g, chartFRW}, h → {h, chartFRW},
   i → {i, chartFRW}, j → {j, chartFRW}, k → {k, chartFRW}, l → {l, chartFRW}};
DefTensor[ϕ[], M]
DefScalarFunction /@ {V, φ};
DefTensor[T[-a, -b], M]
DefTensor[Θ[-a, -b], M]
ComponentValue[ComponentArray[T[-{a, chartFRW}, {b, chartFRW}]],
  {{-D[φ[t[]], t[]]^2/2 - V[φ[t[]]], 0, 0, 0}, {0, D[φ[t[]], t[]]^2/2 - V[φ[t[]]], 0, 0}, {0, 0, D[φ[t[]], t[]]^2/2 - V[φ[t[]]], 0}, {0, 0, 0, D[φ[t[]], t[]]^2/2 - V[φ[t[]]]}}];

ComponentValue[ComponentArray[T[-{a, chartFRW}, -{b, chartFRW}]],
  {{D[φ[t[]], t[]]^2/2 + V[φ[t[]]], 0, 0, 0}, {0, afunc[t[]]^2*(D[φ[t[]], t[]]^2/2 - V[φ[t[]]]), 0, 0}, {0, 0, afunc[t[]]^2*(D[φ[t[]], t[]]^2/2 - V[φ[t[]]]), 0},
   {0, 0, 0, afunc[t[]]^2*(D[φ[t[]], t[]]^2/2 - V[φ[t[]]])}}];

ComponentValue[ComponentArray[T[{a, chartFRW}, {b, chartFRW}]],
  {{D[φ[t[]], t[]]^2/2 + V[φ[t[]]], 0, 0, 0}, {0, afunc[t[]]^(-2)*(D[φ[t[]], t[]]^2/2 - V[φ[t[]]]), 0, 0}, {0, 0, afunc[t[]]^(-2)*(D[φ[t[]], t[]]^2/2 - V[φ[t[]]]), 0},
   {0, 0, 0, afunc[t[]]^(-2)*(D[φ[t[]], t[]]^2/2 - V[φ[t[]]])}}];

ComponentValue[ComponentArray[Θ[-{a, chartFRW}, -{b, chartFRW}]],
  {{-3*D[φ[t[]], t[]]^2/2 - V[φ[t[]]], 0, 0, 0}, {0, -afunc[t[]]^2*(D[φ[t[]], t[]]^2/2 - V[φ[t[]]]), 0, 0}, {0, 0, -afunc[t[]]^2*(D[φ[t[]], t[]]^2/2 - V[φ[t[]]]), 0},
   {0, 0, 0, -afunc[t[]]^2*(D[φ[t[]], t[]]^2/2 - V[φ[t[]]])}}];
```