```
no_repeats_inj  THM

⊢  ∀T:Type, s:T List.
|  no_repeats(T;s) ⇒ (∃f:(ℕ||s||→T). Inj(ℕ||s||; T; f))
| by (Unfolds [‘inject‘;‘no_repeats‘] 0) THEN (InstConcl [λi.s[i]])
|    THEN
|    (Reduce 0)
|    THEN
|    SupposeNot
|
1. T : Type
2. s : T List
3. ∀i,j:ℕ. i<||s|| ⇒ j<||s|| ⇒ ¬i = j ⇒ ¬s[i] = s[j]
4. a1 : ℕ||s||
5. a2 : ℕ||s||
6. s[a1] = s[a2]
7. ¬a1 = a2
⊢  a1 = a2  by InstHyp [a1;a2] -5
END
```