

= Hi @-@ Level =

The Hi @-@ Level is a type of bilevel intercity railroad passenger car built by the Budd Company for the Atchison , Topeka and Santa Fe Railway (" Santa Fe ") in the 1950s and 1960s . The first two coaches entered service on the El Capitan in 1954 and found immediate success . Budd built sufficient coaches , dining cars , and lounge cars to fully reequip the El Capitan , with additional coaches seeing use on the San Francisco Chief . Amtrak inherited the entire fleet in 1971 and continued to use the equipment on its western routes . In 1979 , the first Superliners , based on the Hi @-@ Level concept , although built by Pullman @-@ Standard , began entering service . As of 2013 Amtrak continues to operate five Hi @-@ Level lounges , which it calls the " Pacific Parlour Cars " , on the Coast Starlight .

= = Background = =

The Santa Fe introduced the El Capitan in 1938 . The train ran on the Santa Fe 's main line between Chicago and Los Angeles . Unusually for streamliners of the period , the El Capitan carried coaches only , and had no sleeping cars . Passengers flocked to the new train , and the Santa Fe added cars to meet the demand . The train grew from five cars in 1938 to fourteen in 1952 . Sometimes demand was high enough to justify running a second instance (" section ") of the train on the same day . The Santa Fe sought a solution to increase the capacity of the train without lengthening it further . Two popular innovations by the Chicago , Burlington and Quincy Railroad (CB & Q) suggested a solution . First , in 1945 , the CB & Q introduced the first dome car , in which passengers rode on a second level high above the tracks , affording better views . Second , in 1950 , it placed bilevel rail cars in commuter service in the Chicago area . Taken together , these innovations suggested a new possibility : a long @-@ distance bilevel coach , with greater capacity than single @-@ level cars , and the panoramic views of a dome .

= = Design = =

The Hi @-@ Levels stood 15 @. @ 5 feet (4 @. @ 7 m) high , 2 feet (0 @. @ 61 m) taller than most conventional equipment . Seating occupied the entire upper level , with restrooms , baggage , and other non @-@ revenue areas on the lower level . In most cars , vestibules connected the upper levels only . A central staircase linked the two levels . Hi @-@ Levels featured a row of windows across the upper level ; on the prototype coaches , this row slanted inwards . The two @-@ level design offered several advantages over conventional single @-@ level equipment . Budd and the Santa Fe expected the upper level , located 8 feet 7 inches (2 @. @ 62 m) above the rails , to provide a smoother , quieter ride for passengers . With the lower level free of passengers , designers could provide larger restrooms and baggage areas . Finally , the lower level contained all the electrical equipment , away from the passengers , and with easy access for maintenance . The cars cost US \$ 275 @, @ 000 apiece .

Originally , Budd built the Hi @-@ Levels with steam heating . When Amtrak began converting its inherited fleet to head @-@ end power in 1970s , the Santa Fe handled the conversion of the Hi @-@ Levels in its Topeka , Kansas , shops . Of the 73 Hi @-@ Levels , all but three underwent the conversion .

= = = Coaches = = =

The 61 coaches could carry either 68 or 72 passengers , half again more than the 44 of comparable single @-@ level long @-@ distance coaches . This increased capacity permitted the Santa Fe to run the El Capitan with fewer cars , while increasing the total number of passengers carried . The 68 @-@ seat coaches featured " step down " stairs at one end to permit access to standard @-@ height equipment ; that space was given over to four additional seats on the 72 @-@ seat coaches . The prototypes also featured step @-@ down stairs , but carried one fewer passenger . In the

prototypes the upper level had no restrooms ; in response to passenger feedback , Budd added a restroom to the upper level in the production models . The prototypes also included a " step up " from the aisle to the coach seats ; in the production cars , the seats rested flush with the aisle . Each coach weighed 80 short tons (73 t) .

== Lounges ==

Each of the six lounges could seat 60 on the upper level , with additional seating on the lower level . Nicknames for these cars included " Top of the Cap " and " Sky Lounges " . A glass top across two @-@ thirds of the car distinguished it from the rest of the Hi @-@ Levels . The lower level featured the " Kachina Coffee Shop " and a lounge area with seating for 26 . The lounge cars weighed 83 short tons (75 t) .

== Dining cars ==

Six dining cars were built . Each dining car seated 80 (all on the upper level) , compared to 36 in a single @-@ level diner . The lower level housed the kitchen ; dumbwaiters carried food to the upper level . The dining cars , the largest single @-@ unit dining cars ever built , weighed 97 short tons (88 t) and rode on six @-@ wheel trucks .

== History ==

== Santa Fe ==

The Budd Company delivered the Hi @-@ Levels to the Santa Fe in three batches . The original two prototype coaches (Nos. 526 ? 527) entered service on the El Capitan in 1954 . Following a positive customer response , the Santa Fe ordered 47 more cars , sufficient to completely re @-@ equip the El Capitan :

10 68 @-@ seat " step down " coaches (Nos. 528 ? 537)

25 72 @-@ seat coaches (Nos. 700 ? 724)

6 lounges (Nos. 575 ? 580)

6 dining cars (Nos. 650 ? 655)

These constituted five equipment sets (" consists ") , sufficient for daily service on the El Capitan beginning on July 8 , 1956 . A typical train comprised two step @-@ down coaches , five standard coaches , a lounge and a dining car . The Hi @-@ Level cars continued in service after the Santa Fe combined the El Capitan and Super Chief in 1958 . The Santa Fe also converted six single @-@ level baggage cars to baggage @-@ dormitories (3477 ? 3482) , with a spoiler at one end to create a visual transition .

By the 1960s , the Santa Fe encountered capacity problems on the San Francisco Chief , which ran between Chicago and San Francisco . Unlike the El Capitan , the Chief carried a mix of sleeping cars and coaches . To augment capacity , the Santa Fe ordered an additional 24 coaches in 1963 ? 1964 ; 12 step @-@ down (538 ? 549) and 12 standard (725 ? 736) . Each San Francisco Chief carried four Hi @-@ Level coaches , displacing six single @-@ level coaches .

== Amtrak ==

Amtrak took over operation of most intercity passenger service in the United States in 1971 , including the Santa Fe 's remaining trains . It acquired the entire Hi @-@ Level fleet and continued to operate them . Amtrak used the Hi @-@ Levels as the basis for the design of the Superliners it ordered from Pullman @-@ Standard , which began arriving in 1978 . In the 1980s , Amtrak rebuilt many of the coaches as dormitory @-@ coaches , with half of the car given over to crew space . Several Hi @-@ Level coaches remained in service into the 2000s on the Heartland Flyer . Amtrak

refurbished five of the six lounges for use on the Coast Starlight as sleeping car passenger @-@ only lounges , branded as the " Pacific Parlour Car . " As of 2016 , they are the last Hi @-@ Levels in regular service .