

NEC IPS PRI

For this example we will be using trunk route 10 for the B channels and trunk route 11 for the D channel. The trunk numbers will be 100 ~ 123. The protocol will be Ni-2. We will be using the lower highway. The basic software loaded on to the CPU provides licensing for up to 5 PRI/T-1 circuits. Additional licensing is available and will be required to expand beyond 5 circuits. Use command **F88> 01>** to read the licensing. As you step through the command additional license options will appear.

Programming syntax: > = de, => = change to.... EX: 050>04>15: =>12 EXE. In command 050, first data 04 there is a default setting of 15. Change that to 12 to set it for a PRI card function.

NOTE: The sense wheel setting and the program setting do not relate to the actual card slot location.

24 PRT-A Switch Settings

Use CMD **050> 04>** -- to step through it looking for an unused setting (15 or none). In our example we will use 04.

SENSE WHEEL setting = 4

Switch 0, 1=on, 2,3,4 = off, 5,6,7 = on, 8 = off. Positions 1 and 2 are to determine which PRI/T-1 card extracts clocking from the CO. The first installed PRI card extracting clock signals must be in PIM 0 set to 1 = on and 2 = off. All additional PRI/T-1 cards should be 1 and 2 off, unless you are using the second PRI/T-1 card for a back up clock source. In this case, 1 = off and 2 = on. It too must be installed in PIM 0. Should the clock source on the first PRI card fail, the second card will then extract the clock from the CO.

Switch 1, 1 = off (PRI function), 2, 3 = off, 4 = on (lower highway).

Switch 2, All off, except 2 = on to delete 011 in international calls. This may or may not be necessary. Testing after installation will determine its proper setting.

Jumpers, all should be left at the default settings.

Set the busy switch to the up position. Plug the card into an available AP card slot. Set the busy switch to the down position.

NOTE: Refer to the installation manual for further definitions.

DTA/B (CCT/DTI/PRT) Switch Settings

SENSE WHEEL setting = 04

Switch 1, 1,2 = off, 3 on = built in CSU active, off = CSU not active (use this only if no external CSU is used. 4 = on for lower highway.

Switch 2, 1 = on, 2,3,4 = off, 5,6,7 = on, 8 = off

Switch 3, 1= on for T-1 (off = E1), 2 = on for PRI (off for T-1), 3,4,5,6,7,8 = off. (Transmission speed is used for CCIS functions).

Jumpers, all should be left at the default settings.

Set the busy switch to the up position. Plug the card into an available AP card slot. Set the busy switch to the down position.

Programming Procedure

COMMAND>FIRST DATA>SECOND DATA

050> 04> 12 EXE = assigns sense wheel 4 as a PRI card.

0608> 0> 04 EXE = assigns PRI circuit 0 to the PRI card with sense wheel set to 4.

0701> 0400> D100 EXE = assign all 24 trunks to PRI card. Do not assign more than 24 trunks to the card (E1). Do not assign less than 24 trunks to the card (wastes time slots).

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0701> 0423> D123 EXE

EC6>0>0 EXE = **Back up to flash ROM. WAIT for the back up to complete. To verify, go back to CMD EC6>0>1 = back up in progress. 3 = Back up completed. RESET PBX.**

08> 028> 0 EXE = allow trunk to trunk transfer.

08> 253> 0 EXE = allow ring transfers.

08> 400> 0 EXE = send calling party sub address to ISDN.

3500> 10> 00 EXE = define B channel trunk route.

3504> 10> 2 EXE = answer supervision is provided.

3509> 10> 08 EXE = incoming signaling is ISDN.

3518> 10> 1=> 0 = allow for digit conversion. Refer to command 76XX for DID conversion tables if digit conversion is required.

3512> 10> 3 = 4 digits received on DID calls (2 = 3 digits, 1 = 2 digits).

3521> 10> 01 EXE = shorten sender pre pause timing to speed up dialing.

3546> 10> 1 EXE = shorten register release timing to speed up dialing.

3590> 10> 3 EXE = special facilities, ISDN (B channel).

3590> 11> 3 EXE = special facilities, ISDN (D channel).

3593> 10> 00 EXE = D channel handler of PRI circuit 0 to trunk route.

410> 50, 57> NONE=>05 EXE = PRI timing.

360> 1010> 0 EXE = allow all incoming route (10) to outgoing route (10) connections.

360> 1020> 0 EXE { { { (20)

360> 2020> 0 EXE { { {

360> 2010> 0 EXE { { {

3000> 100 ~ 122> 10 EXE = assign B channel trunks to B channel trunk route.

3000> 123> 11 EXE = assign D channel trunk to D channel route.

3002> 100 ~ 122> 18 EXE = assign day mode termination as ISDN. **Do not assign D channel trunk.**

3003> 100 ~ 122> 18 EXE = assign night mode termination as ISDN.

Optional Modes A and B, 3040 + 3041>100 ~ 122>18 EXE

3007> 100> 000 EXE = assign all voice trunks a CIC code starting with 000.

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3007> 122> 022 EXE **NOTE: Do not assign a CIC code for the D channel trunk.**

Optional CMD 3019 assigns a 4 digit trunk ID to each channel.

EX: **3019> 100> 0400 EXE**, **3019> 101> 0401 EXE**, etc. This information will appear on the LCD of an extension. It can assist with troubleshooting issues. Ask the user to make a note of the LCD information. It can be used to track which PRI/channel is at fault.

AA00> 04> 0 EXE = AT&T SPECS. There is no other option. This must be set to 0.

AA06> 04> 28 EXE = Ni2 protocol. (20 = AT&T, 21 = NT DMS 100/250).

AA14> 04> 0 EXE = Combined T-1 and D channel card (PRT or DTA with PRI flash loaded).

RESET the **PRI** card. Turn the toggle switch up then down. Command AA requires a card reset.

A900> 0> 123 EXE = assigns D channel trunk to PRI circuit 0.

EC6>0>0 EXE = **Back up to flash ROM. WAIT for the back up to complete. To verify, go back to CMD EC6>0>1 = back up in progress. 3 = Back up completed.**

RESET PBX. In some cases a card reset is all that is needed, however the system will clock off of the CO upon a system reset. For the first installed PRI/T-1 card this is highly recommended. After the reset and the cross connects are done, the card should come on line with a green RUN light at 120 IPM flash rate. On the CPU card you should see a solid green CLK IN LED.

Refer to the installation manual for cross connects locations. Card slot 9 is the easiest to use. The cross connects go to the first two pairs on LTC3. WH/BL BL/WH = RCV, WH/OR OR/WH = TX. If these are reversed you will get a RED PLO alarm on the card.

Outbound CID

There are three options for outbound CID. Send no number, send a specified main number or send the extension DID number. We will use extension 2000 as our example.

Send no number – No assignment needs to be done.

Send specified main number – command 5005 provides tables 00-14 for customization.

5005> 00> NONE=> 2145551234 EXE = specified number.

1213> 2000> 15=> 00 EXE = extension number 2000 will send out the specified number found in command 5005 table number 00.

Send out extension DID

5005> 01> NONE=> 214555 EXE = first 6 digits of the specified number.

1212> 2000> NONE=> 2000 EXE = add 2000 after the specified digits in 5005.

1213> 2000> NONE=> 01 EXE = add 2000 after the specified digits in table 01.

Testing

Assign an access code for direct route selection. EX: 200>*0>110 EXE. Dial locally provided test numbers.

7 digit local, EX: 555-1212

10 digit, EX: 214-555-1212

11 digit, EX: 1-214-555-1212

EX: 1-800-555-1212

International test number, EX: 011-613-966-949-16

The response you get determines if Telco is looking for 7, 10 or 11 digits for local and long distance calls. It also will determine if you need to test with LCR and additional program steps within the LCR tables.

Ask Telco to pulse in a test number matching an existing station number. This will determine if you need to set the trunk route up for 3 or 4 digits on incoming DID calls.

REFER TO LCR GUIDE FOR ADDITIONAL INFORMATION.

Every effort was made to ensure content accuracy. If you detect any errors in this guide, please use the contact us button on the main page and inform us so we may verify and make corrections. This guide is intended to be just that, a guide. It is not intended to teach the novice how to program the system. There is no substitute for a trained experienced technician. If you have any reservations about using this guide then please contact an authorized NEC vender for assistance.