



iCCU-S2 in BIU Mode – BIU Assignment Information

Polara’s Central Control Unit (iCCU-S2) APS can be used as a stand-alone BIU in a TS2 environment (**cabinet must operate in TS2 mode with a MMU**). The iCCU-S2 can be configured to operate as one of the four (NEMA TS 2 defined) Detector Rack BIUs for the purpose of placing pedestrian calls. While there are more BIU addresses available in a TS2 environment, it can only operate via one of Detector Rack addresses.

The main function of the NEMA TS2 Bus Interface Unit (BIU) is to provide the Controller Unit (CU) access to the Terminals and Facilities and the Detector Racks via the Port 1 SDLC link. Its normal operations include controlling load switch outputs, providing dimming, providing detector resets, and the conditioning/conversion of TF and Loop Detector call inputs for the CU.

The BIU is a simple unit that requires minimal attention. **The BIU determines whether it should operate as a Detector BIU or Terminals Facilities (TF) BIU based upon the selected address.** Since the selected address is pre-wired in each BIU rack, the BIU immediately starts operating in the correct mode as soon as it is placed in the card rack. Each BIU can operate in eight positions. **There are four defined Terminal and Facilities BIUs and four defined Detector BIUs. There are four other Detector BIUs, but they are not defined in TS2 Spec. Controller Manufacturer controlled.** The function each BIU takes is dependent upon the address selected via the address selection pins.

Address	Usage	Description	McCain Controller
0	Defined by TS 2	TF BIU #1	BIU 1
1	Defined by TS 2	TF BIU #2	BIU 2
2	Defined by TS 2	TF BIU #3	BIU 3
3	Defined by TS 2	TF BIU #4	BIU 4
4	Reserved for TS 2	TF BIU #5	BIU 5
5	Reserved for TS 2	TF BIU #6	BIU 6
6	Manufacturers Use	TF BIU #7	BIU 7
7	Manufacturers Use	TF BIU #8	BIU 8
8	Defined by TS 2	DET BIU #1	BIU 9
9	Defined by TS 2	DET BIU #2	BIU 10
10	Defined by TS 2	DET BIU #3	BIU 11
11	Defined by TS 2	DET BIU #4	BIU 12
12	Reserved for TS 2	DET BIU #5	BIU 13
13	Reserved for TS 2	DET BIU #6	BIU 14
14	Manufacturers Use	DET BIU #7	BIU 15
15	Manufacturers Use	DET BIU #8	BIU 16

BIU Function

Detector BIU 1 – handles up to 16 Detector channels

Detector BIU 2– handles up to 16 Detector channels

Detector BIU 3– handles up to 16 Detector channels

Detector BIU 4– handles up to 16 Detector channels **Detector BIUs = 64 channels total**

If Polara’s iCCU-S2 is used as a Detector BIU (1-4), it will reduce total channels by 16 = 48 channels left. By virtue of TS2 definitions/standards, you cannot try to re-assign any of the Polara iCCU-S2 BIU 16 channels to be used for other detection, so they stay with the iCCU-S2 BIU. (If all 64 detection channels are needed, you can use iCCU-S2 in a TS2 “hybrid” mode – receive Ped interval timing over SDLC, but place ped calls via the Cable C Ped Input - hard wire input – Polara supplied – cable C)

You cannot address Polara iCCU-S2 as a Terminal & Facilities BIU, because when SDLC is unplugged/disconnected the cabinet goes into flash.