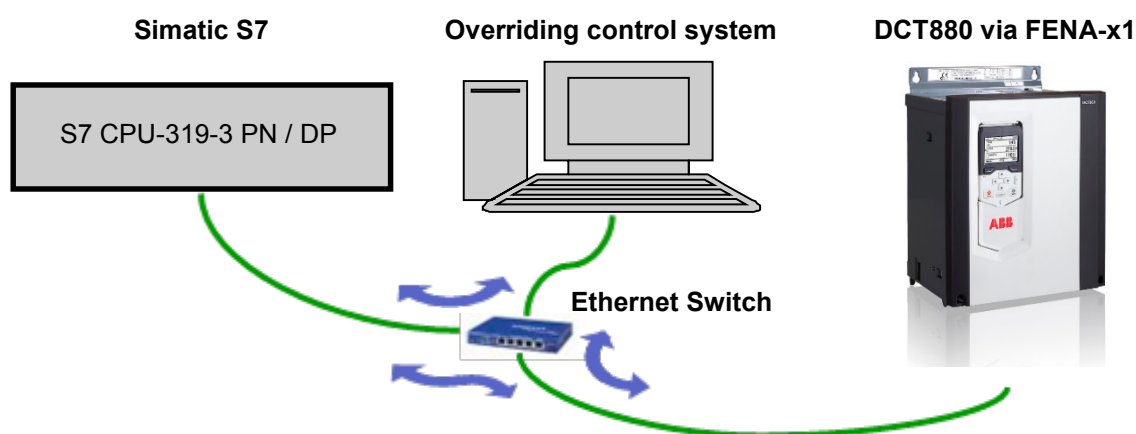


Productinformation DCT880 via FENA-01

Connection of DCT880 via FENA-x1 at Profinet

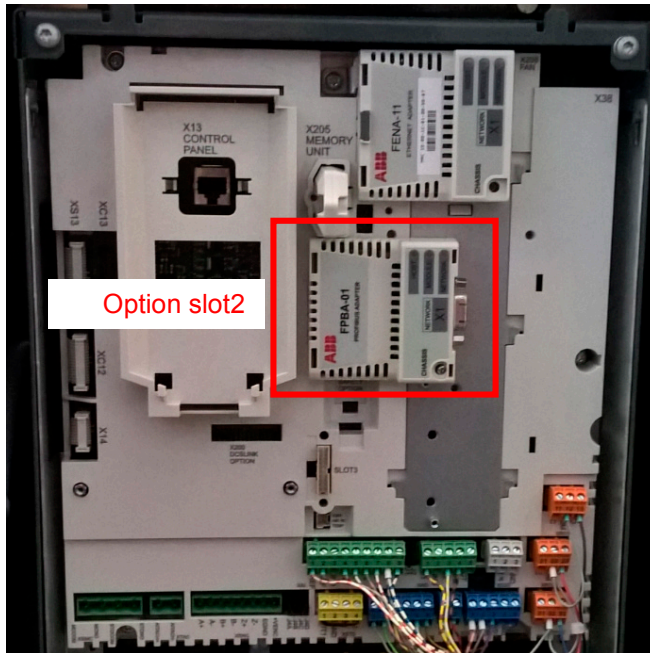


Patch Cable:
RJ45-Stecker, Harting RJ Industrial10G.

DCT880 Configuration as fieldbus device

To connect the DCT880 as fieldbus device, the following parameters need to be set:

Parameter	Setting
50.01 FBA A Enable	0: Disable; 1: Option slot1; 2: Option slot2; recommended. 3: Option slot3;
50.02 FBA A comm loss func	0: No action; 1: Fault; only for profiles ABB DRIVES and PROFIdrive. 2: Warning; 4: Fault always; also for transparent 16. 5: Warning always; also for transparent 16.
50.03 FBA A comm loss t out	0.3 6553.5 seconds.



GSDML-File

The GSDML-file can be found in the internet.

<http://new.abb.com/drives/connectivity/fieldbus-connectivity/profinet>

Adapters

FENA-21 The adapter module supports PROFINET IO DP-V1 communication	FENA-01 The adapter module for Ethernet/IP, Modbus TCP and Profinet.
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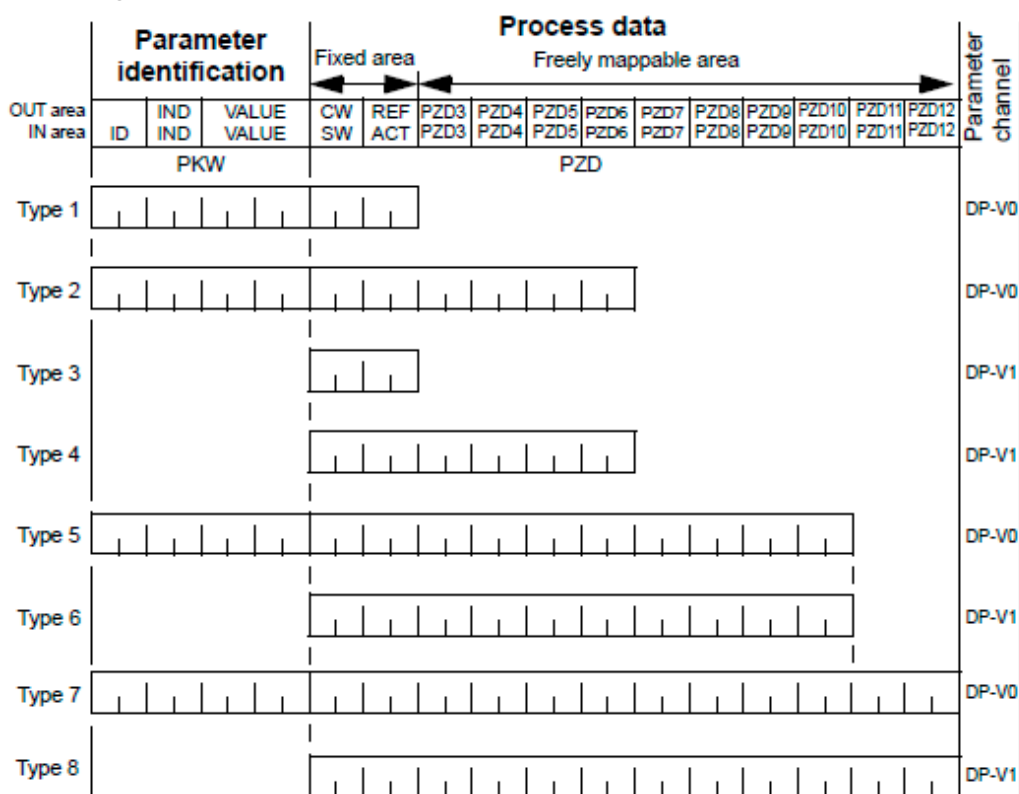
FENA-11 The adapter module for Ethernet/IP, Modbus TCP and Profinet

Links and downloads

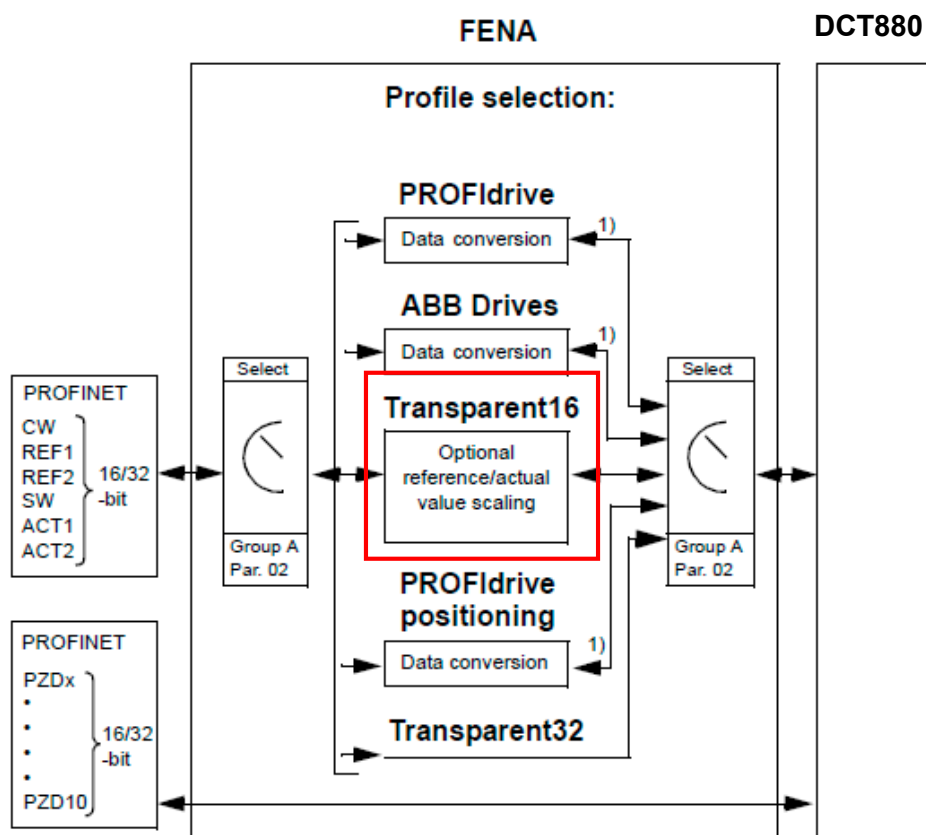
then

FENA-21 user manual	PROFINET GSDML file

PPO Types



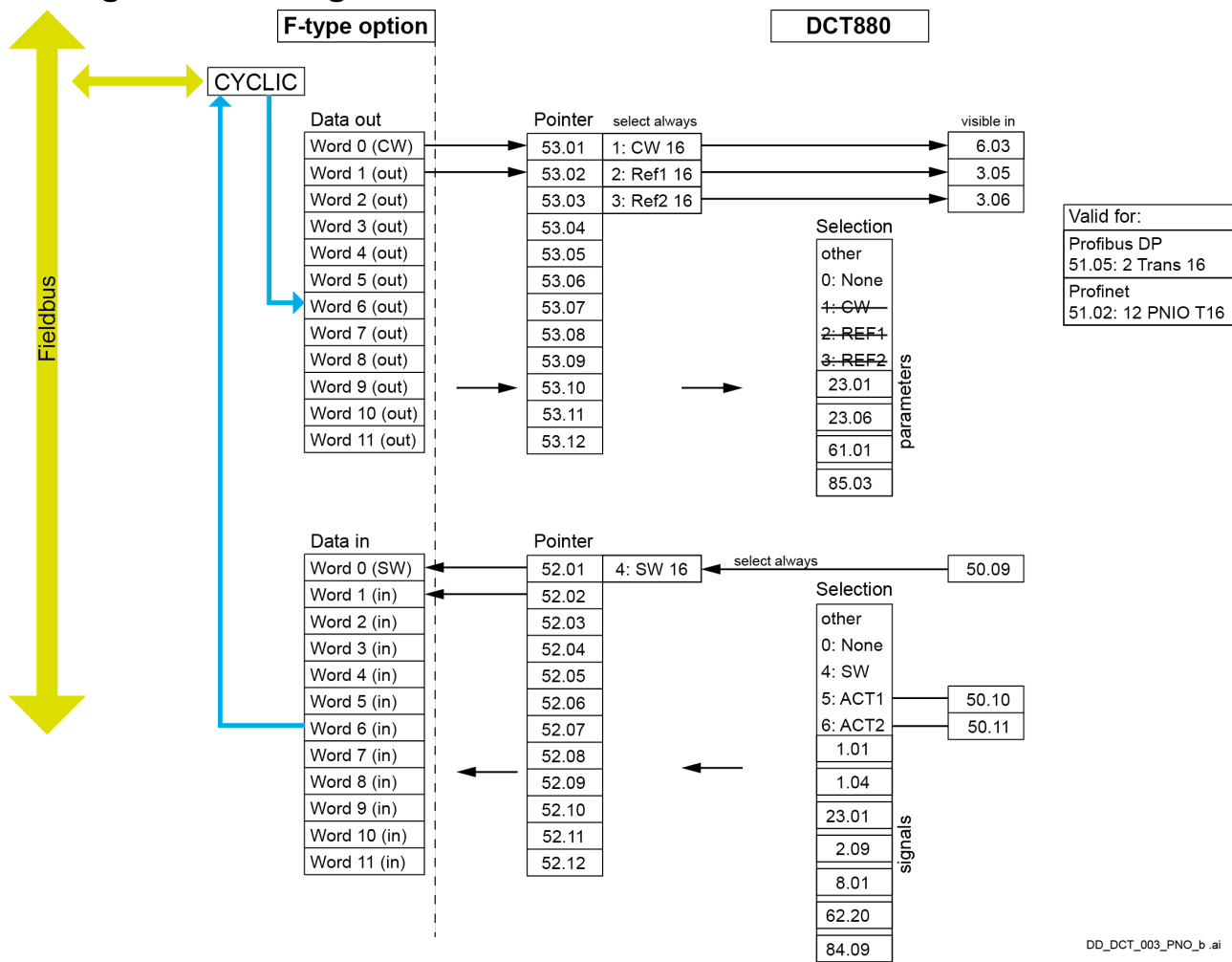
Communication Profiles




Parameter Group 51

Parameter	Setting																																		
51.01 FBA A type	128: Ethernet ; This parameter is read-only.																																		
51.02 Protocol/Profile	10 ... 14 for PROFINET IO using: 10: PNIO Pdrive; profile speed. 11: PNIO ABB Pro; ABB drives profile. 12: PNIO T16 ; Transparent 16 profile. 13: PNIO T32; Transparent 32 profile. 14: PNIO PdriveM; profile positioning. 0 ... 7 for Modbus TCP. 100 ... 103 for Ethernet/IP.																																		
51.03 Comtrate	0: Auto ; Sets the bit rate for the Ethernet interface.																																		
51.04 IP configuration	0: Static IP ; example. 1: Dyn IP DHCP;																																		
51.05 IP address 1	192 ; example.																																		
51.06 IP address 2	168 ; example.																																		
51.07 IP address 3	1 ; example.																																		
51.08 IP address 4	10 ; example.																																		
51.08 Subnet CIDR	24 ; example. <table border="1"> <thead> <tr> <th>Dotted decimal</th> <th>CIDR</th> </tr> </thead> <tbody> <tr><td>255.255.255.254</td><td>31</td></tr> <tr><td>255.255.255.252</td><td>30</td></tr> <tr><td>255.255.255.248</td><td>29</td></tr> <tr><td>255.255.255.240</td><td>28</td></tr> <tr><td>255.255.255.224</td><td>27</td></tr> <tr><td>255.255.255.192</td><td>26</td></tr> <tr><td>255.255.255.128</td><td>25</td></tr> <tr><td>255.255.255.0</td><td>24</td></tr> <tr><td>255.255.254.0</td><td>23</td></tr> <tr><td>255.255.252.0</td><td>22</td></tr> <tr><td>255.255.248.0</td><td>21</td></tr> <tr><td>255.255.240.0</td><td>20</td></tr> <tr><td>255.255.224.0</td><td>19</td></tr> <tr><td>255.255.192.0</td><td>18</td></tr> <tr><td>255.255.128.0</td><td>17</td></tr> <tr><td>255.255.0.0</td><td>16</td></tr> </tbody> </table>	Dotted decimal	CIDR	255.255.255.254	31	255.255.255.252	30	255.255.255.248	29	255.255.255.240	28	255.255.255.224	27	255.255.255.192	26	255.255.255.128	25	255.255.255.0	24	255.255.254.0	23	255.255.252.0	22	255.255.248.0	21	255.255.240.0	20	255.255.224.0	19	255.255.192.0	18	255.255.128.0	17	255.255.0.0	16
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51.19 T16 scale	0 ; Scaling: 10,000 == 100.00 %.																																		

Configuration using Ref1 and Ref2



DD_DCT_003_PNO_b.ai

	<p>Setting of parameters 53.01 ... 53.03 see above drawing.</p> <p>For parameters 53.04 ... 53.12 use Other; source selection.</p> <p>Mappings</p> <p>1: CW 16bit;</p> <p>2: Ref1 16bit;</p> <p>3: Ref2 16bit;</p> <p>are not allowed.</p>
---	--

Parameter Group 53

Defining the reference values in group 53: PLC ⇒ DCT880.			
PZD	Pointer	Setting	Remarks
1	53.01	1: CW 16bit;	Control Word; visible in 6.03 FBA A CW.
2	53.02	2: Ref1 16bit;	Reference value 1; visible in 3.05 FB A reference 1. Scaling: 10,000 == 100.00 %.
3	53.03	3: Ref2 16bit;	Reference value 2; visible in 3.06 FB A reference 2. Scaling: 10,000 == 100.00 %.
4	53.04	Other; e.g. 21.11	Reference value 3; visible in 21.11 Ext reference 1. Scaling: 10,000 == 100.00 %.
	...		
12	53.12	...	Reference value 12; ... Scaling: 10,000 == 100.00 %.

01	02	03	04	05	06	...	23	24
Control Word		Reference 1		Reference 2		

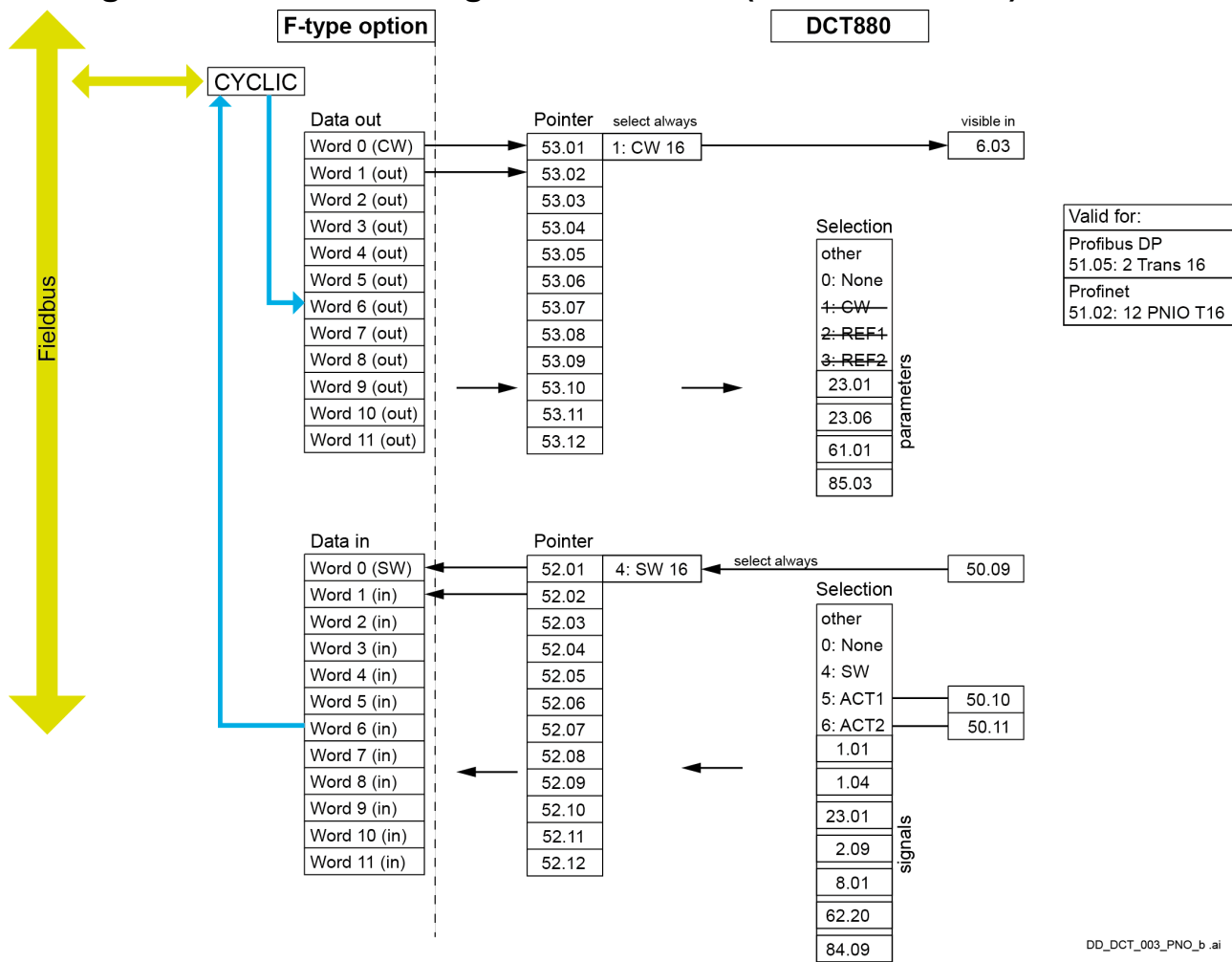
Defining the actual values in group 53: PLC ⇐ DCT880.			
PZD	Pointer	Setting	Remarks
1	52.01	4: SW 16bit;	50.09 FBA A SW transparent source = Other; e.g. 06.13 Global Status Word.
2	52.02	Other; e.g. 01.53	Actual value1; e.g. 01.53 Leg 1 Power relative actual. Scaling: 10,000 == 100.00 %.
3	52.03	Other; e.g. 01.54	Actual value 2; e.g. 01.54 Leg 2 Power relative actual. Scaling: 10,000 == 100.00 %.
4	52.04	Other; e.g. 01.55	Actual value 3; e.g. 01.55 Leg 3 Power relative actual. Scaling: 10,000 == 100.00 %.
	...		
12	52.12	...	Actual value12; ... Scaling: 10,000 == 100.00 %.


01	02	03	04	05	06	07	08	23	24
Status Word		Power Leg 1		Power Leg 2		Power Leg 3		



Each change in parameter groups 50, 51, 52 and 53 must be validated using 51.27 FBA A par refresh = Refresh.

Configuration without using Ref1 and Ref2 (for information)



	<p>Setting of parameter 53.01 see above drawing.</p> <p>For parameters 53.02 ... 53.12 use Other; source selection.</p> <p>Mappings</p> <p>1: CW 16bit;</p> <p>2: Ref1 16bit;</p> <p>3: Ref2 16bit;</p> <p>are not allowed.</p>
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Scaling the reference values

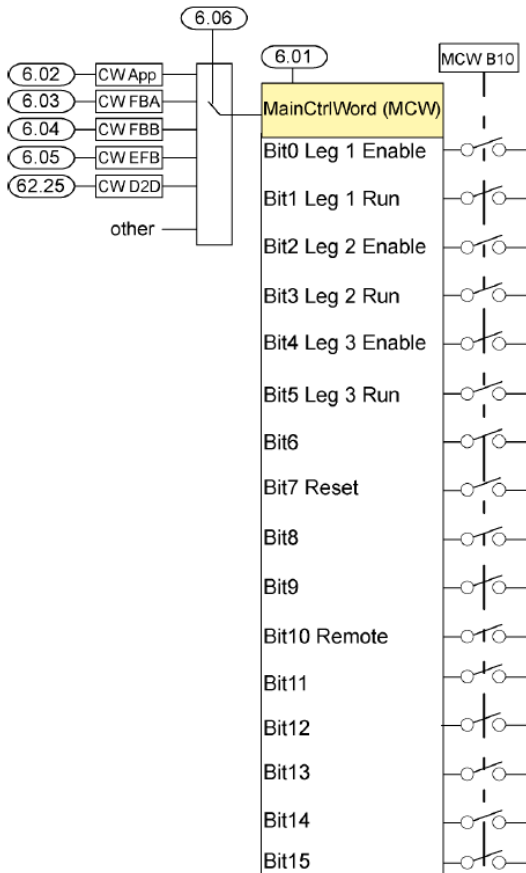
The reference values are scaled to $\pm 10,000$ (decimal), this equals $\pm 100.00\%$.

Additional Parameters

Start / Stop

Parameter	Setting
06.06 MCW Source	1: FBA A (6.03);
19.10 Leg 1 Command Location Selector	0: MCW 6.01;
19.11 Leg 2 Command Location Selector	0: MCW 6.01;
19.12 Leg 3 Command Location Selector	0: MCW 6.01;

06.01 Main Control Word active



Reference Chain

Parameter	Setting
22.15 Leg 1 Cha A Main Ref Selector	4: FB A reference 1 (3.05);
24.15 Leg 2 Cha A Main Ref Selector	5: FB A reference 2 (3.06);
26.15 Leg 3 Cha A Main Ref Selector	Other; e.g. 21.11 Ext reference 1.

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