Replace Allen Bradley 1770-KF3 or 1747-UIC-USB with Equustek DL3500 DF1 to DH485 using RSLINX DF1 Driver



To configure the DL3500 start DL32 configuration software and Select DL3500 Models.

Click on Yes for Serial number

ICHECK DL3500 Rev2 SERIAL NUMBERI	-	×
Is the serial number of the REVISION 2 February 2004	2 DL3500 Greater or Equal to 3500	0 starting
	<u>Y</u> es	No

Click on DF1 to DH+/DH485 (1770-KF2/KF3)



If you are not using the RS232 connection, find the USB Com Port the PC is using to communicate with the DL3500, look under device manager and select it from the drop menu in DL32 as shown.



SET/CHANGE CHANNEL SERIAL PARAMETERS

RETURN to Main Menu

SET ADVANCED DF1 PROTOCOL PARAMETERS

DOWNLOAD to DL

Click on " DOWNLOAD to DL" to download these parameters.

CHANNEL SERIAL SPEED

STATUS

CONFIGURATION Settings

9600

- Baud

ADVANCED DF1 PROTOCOL PARAMETERS

Keep operating mode selection on DF1 Via USB/Serial, then select AB-DH485.

Configuration of [DL3500-DF1]	- MAIN MENU	
 OPERATING MODE SELECTI O DF1 via USB/Serial t 	ON IDD DH485 OBRID	GING (DF1 to DH-485)
-AB DH-485 NETWORK PARA O A-B - DH+	METERS	• A-B - DH-485
Network Address	Octal Network Spectrum Decimal	cd 19.2 V KBaud
DF1 SERIAL/USB COMMUNI CHANNEL SERIAL SPEED 9600 Baud Baud	CATION PROTOCOL SET/CHANGE CHANNEL	L SERIAL PARAMETERS
ADVANCED DF1 PROTOCOL	PARAMETERS	GTEPS
STATUS Click	on " DOWNLOAD to DL" to dow	nload these parameters.
CONFIGURATION Settings	DOWNLOAD to DL	RETURN to Main Menu

Form Network Address Drop Menu, select the node address number for the DL3500 on DH485 Network, to avoid duplicate node or address conflict, make sure not to select a node that already exist on the DH485 network.

 Configuration of [DL350 OPERATING MODE SET DF1 via USB/S0 	0-DF1] - MAI LECTION erial to DH	185 O BRI	DGING (DF1 to DH-485)
-AB DH-485 NETWORK O A-B - DH+ Network Address	PARAMETII	RS Octal <u>Network Sp</u>	⊙ A-B - DH-485
DF1 SERIAL/USB COM CHANNEL SERIAL SE 9600 V Bau	1 2 3 1 4 5 2 6 6 7 10 7	Decimal N PROTOCOL SET/CHANGE CHANN	EL SERIAL PARAMETERS
- ADVANCED DF1 PROT	OCOL PARA	METERS DF1 PROTOCOL PARA	METERS
STATUS CONFIGURATION Setti	Click on " DO	DWNLOAD to DL" to do	wnload these parameters. <u>R</u> ETURN to Main Menu

Select the DH485 baud rate from the drop menu of the Network speed.

Configuration of [DL3500-DF1] - MAIN MENU	
 OPERATING MODE SELECTION DF1 via USB/Serial 	ION to DH485 O BR	IDGING (DF1 to DH-485)
- AB DH-485 NETWORK PARA O A-B - DH+	AMETERS	⊙ A-B - DH-485
Network.Address	✓ Octal <u>NetworkS</u> 1 Decimal	Need 19.2 KBaud 4800 9600 19.2
DFI SERIAL/USB COMMUNI CHANNEL SERIAL SPEED 9600 Baud Baud	CATION PROTOCOL SET/CHANGE CHANN	EL SERIAL PARAMITERS
ADVANCED DF1 PROTOCOL	PARAMETERS	
<u>SET ADV</u>	ANCED DF1 PROTOCOL PAR	AMETERS
STATUS Click	on "DOWNLOAD to DL" to do	ownload these parameters.
CONFIGURATION Settings	DOWNLOAD to DL	RETURN to Main Menu

From Channel Serial Speed drop menu select 115.2 K Baud or any other desired serial baud rate.

🚱 Configurat	ion of [DL3500-DF1] -	MAIN MENU		×
OPERATIN O DF1	G MODE SELECTIO via USB/Serial to	N DH485		G (DF1 to DH-485)
AB DH-485 O A-B	NETWORK PARAM	IETIRS	•	A-B - DH-485
Networt	k Address 1	✓ Octal No Decimal	twork Speed	19.2 V KBaud
DF1 SERIA	L/USB COMMUNIC.	ATION PROTOCOL	-	
9600	Baud	SET/CHANGE	CHANNEL SERI	AL PARAMETERS
1200 2400 4800	^			
9600 19.2 38.4	E ROTOCOL F	PARAMETERS	OL PARAMETER	s
115.2	- Click on	" DOWNLOAD to I	DL" to download	these parameters.
CONFIGUR	ATION Settings	DOWNLOAD	to DL	RETURN to Main Menu

Click on Set/Change Channel Serial Parameters.

Configuration of [DL3500-DF1] - MAIN	MENU	
OPERATING MODE SELECTION O DF1 via USB/Serial to DH4	85 O BRID	DGING (DF1 to DH-485)
- AB DH-485 NETWORK PARAMETERS O A-B - DH+	S	⊙ A-B - DH-485
Network Address 1 v 0	etal <mark>Network Spe</mark> Jecimal	ked 19.2 v KBaud
DF1 SERIAL/USB COMMUNICATION	PROTOCOL	
CHANNEL SERIAL SPEED	SET/CHANGE CHANNE	L SERIAL PARAMETERS
- ADVANCED DF1 PROTOCOL PARAM	IETERS	
SET ADVANCED D	FI PROTOCOL PARA	METERS
STATUS Click on " DO	WNLOAD to DL" to dow	vnload these parameters.
CONFIGURATION Settings	OWNLOAD to DL	RETURN to Main Menu

Select settings as shown below, or any other desired settings, and click on Accept.

• NONI	O YES
ATA BITS	0.7
STOP BITS	0 2
ANDSHAKING • IGNORE	C ACTIVE
ERIAL CONNECT • RS-232C	TION RS422/485

Click Set Advanced DF1 Protocol Parameters.

Configuration of [DL3500-DF1] - MAIN MENU	Street States	
 OPERATING MODE SELECTI O DF1 via USB/Serial 	ON to DH485	O BRIDGI	NG (DF1 to DH-485)
- AB DH-485 NETWORK PARA O A-B - DH+	METERS	0) A-B - DH-485
Network Address	▼ Octal 1 Decimal	Network Speed	19.2 KBaud
DF1 SERIAL/USB COMMUNI CHANNEL SERIAL SPEED 115.2 Kbaud	CATION PROTO	COL INGE CHANNEL SE	RIAL PARAMETERS
ADVANCED DF1 PROTOCOL	PARAMETERS		
<u>SET ADV</u>	ANCED DF1 PRO	TOCOL PARAMET	ERS
STATUS Click	on "DOWNLOA	D to DL" to downloa	d these parameters.
CONFIGURATION Settings	DOWNLO	DAD to DL	RETURN to Main Menu

Select these settings shown below or your desired settings and click on accept.



Click on Download to DL

Configuration of [DL3500-DF1]	- MAIN MENU	
 OPERATING MODE SELECTI DF1 via USB/Serial 	ON to DH485 O BF	RIDGING (DF1 to DH-485)
AB DH-485 NETWORK PARA O A-B - DH+	METERS	⊙ A-B - DH-485
Network Address 1	Octal Network S Decimal	peed 19.2 V KBaud
DF1 SERIAL/USB COMMUNI CHANNEL SERIAL SPEED 115.2 Kbaud	CATION PROTOCOL SET/CHANGE CHAN	NEL SERIAL PARAMETERS
ADVANCED DF1 PROTOCOL	PARAMETERS	ugrano (
STATUS Click	on "DOWNLOAD to DL" to o	download these parameters.
CONFIGURATION Settings	DOWNLOAD to DL	RETURN to Main Menu

Press the Configure Push Button Switch on right hand side of the DL3500 then click on OK.



Once the file is downloaded click on Ok, then press the RESET Push button switch on the left hand side of the DL3500.



Start Allen Bradley RSLINX and click on Configure Driver icon.

Return to Product Selection

RSLinx Cla	ssic Gat	eway							-	*
Eile Edit y	liew 9	Communica	tions	Station	DDE/OPC	Security	Window	Help		
	S 🛛	B 12	k ?							
				a						
For Help, pres	s F1								NUM	08

Exit DL32

From the drop menu of Available Drivers Types, Select RS232 DF1 devices.

vasaule onven types.	✓ Add New	Glose
1784-U2DHP for DH+ devices		Halp
Ethernet devices		
EtherNet/IP Driver 1784-PKTX(D)/PCMK for DH+/DH-485 devices	Statur	
DF1 Polling Master Driver 1784-PCIC(S) for ControlNet devices	Running Running	Configure
DH485 UIC devices		Starjup.
Virtual Backplane (SoftLogix58xx, USB) DeviceNet Drivers (1770-KFD,SDNPT drivers) SLC 500 (DH495) Emulator driver		<u>S</u> tart
Remote Devicto via Linx Gateway		Stop
		Delete

Click on Add New

Available Driver Types:	Add Nam	Close
HS9232 DF1 devices	- Bon wew.	Help
Configured Drive s.		-
Name and Description	Statu:	
AB_ETH-1 A-8 Ethernet RUNNING AB_ETHIP-1 A-8 Ethernet RUNNING	Running Running	Configure
		Starjup
		Start
		Stop
		Delete

Type a name for the driver.

hoose a name or the new driver. 15 characters maximum)	OK
40.0511	Cancel

Click on OK.

27 2002 N.S.I	
Choose a name for the new driver.	OK
15 characters maximum)	
	Cancel

Select the Comm Port, remember this is the same Com port you used to configure the DL3500, found under Device manager earlier.

		Device Nan	ne:)L3500_DF*		
Comm Port	COM1 COM3	•	Device: PLC-CH0		•
Baud R	COM5		Station Number: (Octal)	00	
Pa	nity: None	•	Error Checking	BCC	•
Stop I	Bits: 1	•	Protocol	Full Duplex	•
Auto-Co	nligure				
	□ Use	Modern Dialer	Configure Di	aler	

Click on Auto-Configure

		Device Nam	e:)L3500_DF*		
Comm Port:)M4	• 0	evice: PLC-CH0		•
Baud Fate:	19200	•	Station Number: (Octal)	00	
Parity:	None	•	Error Checking:	BCC	•
Stop Bits:	1	•	Protocol:	Full Duplex	•
Auto-Configu	ue				_
	∏ Use M	lodem Dialer	Configure Di	aler	

Once you see Auto Configuration Successful Click on Ok.

	Device Nan	ne:)L3500_DF ⁻		
Comm Port CDM4	• (Device: 1770-KF3/	747-KE	•
Baud Fate: 11520	0 💌	Station Number: (Decimal)	01	
Parity: None	•	Error Checking:	BCC	•
Stop Bits: 1	•	Protocol:	Full Duplex	•
Auto-Configure	Auto Configura	tion Successful!		
L n	e Modern Dialer	Configure Di	aler	
	Current 1	Delete		1

Click on Close.

nfigure Drivers		8
Available Driver Types:		Chre
RS-232 DF1 devices	▼ [Add New]	<u>H</u> elp
Configured Drivers:		
Name and Description	Status]
AB_ETH-1 A-B Ethernet RUNNING	Running	Configure.
AB ETHIP-LA-B Ethernet BUNNING DL3500 DE1 DH485 Star 1 COM4: BUNNING	Bunning	Charles
		Starjup
		<u>S</u> tart
		Stop
		Delete

Click on RSWHO icon to open RSWHO.



Click on the Driver that was just created and check mark auto brows to see all the DH485 nodes on the DH485 network.



To display Data file from any of the PLCs just right click on it, then click on Data Monitor.



From Data Table Monitor windows double click on the file you want to monitor or display the data from.

rine	Type	Elements	Length	-						
00	Output	1	2							
11	Input	1	2							
\$2	Status	83	166							
B3	Binary	32	64	#						
T4	Timer	1	6							
C5	Counter	4	24							
R6	Control	1	6							
N7	Integer	150	300							
F8	Float	150	600							
N9	Integer	14	28							
N10	Integer	100	200							
F11	Float	10	40							
ST12	String	50	4200							
	Integer	50	100							
N13	miceger									
N13 ST14	String	10	840							
N13 ST14 B15	String Binary	10 10	840 20							
N13 ST14 B15	String Binary	10 10	840 20							
NI3 ST14 B15 Found 1	String Binary 51 of 151	10 10	840 20	•						
N13 ST14 B15 Found 1	String Binary 51 of 151	10 10	840 20	•	1			_	(CO)	•
N13 ST14 B15 Found 1	String Binary 51 of 151	10 10 a File N7	840 20	-	4	5	6	7	8	9
N13 ST14 B15 Found 1 SLC	String Binary 51 of 151 -5/05 (9): Dat 0 123	10 10 a File N7 1 708	840 20 2 1062	3	4	5	6	7	8	9
N13 ST14 B15 Found 1 SLC N7:0 N7:10	String Binary 51 of 151 -5/05 (9): Dat 0 123 1060	10 10 a File N7 1 708 2120	840 20 20 20 20 20 20 20 20 20 20 20 20 20	- 3 0	4	5 0 0	6 0	7 0	8 0 0	9
N13 ST14 B15 Ound 1 SLC N7:0 N7:10 N7:20	0 0 123 1060 0	10 10 a File N7 1 708 2120 0	840 20 20 20 20 20 20 20 20 20 20 20 20 20	- 3 0 0	4 0 0	5 0 0	6 0 0	7 0 0	8 0 0	9
N13 ST14 B15 Found 1 SLC N7:0 N7:10 N7:20 N7:30	String Binary 51 of 151 -5/05 (9): Dat 0 123 1060 0 0 0	10 10 a File N7 1 708 2120 0 0	840 20 20 20 20 20 20 20 20 20 20 20 20 20	3 0 0 0 0 0 0	4 0 0 0	5 0 0 0	6 0 0 0	7 0 0 0	8 0 0 0	9
N13 ST14 B15 Found 1 SLC N7:0 N7:10 N7:20 N7:30 N7:40	String Binary 51 of 151 -5/05 (9): Dat 0 1223 1060 0 0 0 0	10 10 	840 20 20 20 20 20 20 20 20 20 20 20 20 20	3 0 0 0 0	4 0 0 0 0 0 0	5 0 0 0 0 0	6 0 0 0 0 0	7 0 0 0 0 0 0	8 0 0 0 0 0	9
NL3 ST14 B15 Found 1 SLC N7:0 N7:10 N7:20 N7:30 N7:40 N7:50	String Binary Sti of 151 O 123 1060 0 0 0 0 0 0	10 10 a File N7 1 708 2120 0 0 0 0 0	20 20 20 20 20 20 20 20 20 20 20 20 20 2	3 0 0 0 0 0 0	4 0 0 0 0 0 0	5 0 0 0 0 0 0	6 0 0 0 0 0 0	7 0 0 0 0 0 0 0	8 0 0 0 0 0 0	9
NL3 ST14 B15 Found 1 SLC N7:0 N7:10 N7:20 N7:30 N7:40 N7:50 N7:60	String Binary S1 of 151 O 123 1060 0 0 0 0 0 0 0 0 0 0 0 0	10 10 a File N7 1 708 2120 0 0 0 0 0 0 0 0 0	20 20 20 20 20 20 20 20 20 20 20 20 20 2	3 0 0 0 0 0 0 0 0	4 0 0 0 0 0 0 0 0	5 0 0 0 0 0 0 0 0	6 0 0 0 0 0 0 0 0	7 0 0 0 0 0 0 0 0 0	8 0 0 0 0 0 0 0 0	9
NL3 ST14 B15 Cound 1 SLC N7:0 N7:10 N7:20 N7:30 N7:40 N7:50 N7:60 N7:70	0 51 of 151 -5/05 (9): Dat 0 123 1060 0 0 0 0 0 0 0 0 0 0 0 0 0	10 10 a File N7 1 708 2120 0 0 0 0 0 0 0 0	20 20 20 20 20 20 20 20 20 20 20 20 20 2	3 0 0 0 0 0 0 0 0 0 0 0 0	4 0 0 0 0 0 0 0 0 0 0 0 0	5 0 0 0 0 0 0 0 0 0 0 0	6 0 0 0 0 0 0 0 0 0 0 0	7 0 0 0 0 0 0 0 0 0 0 0	8 0 0 0 0 0 0 0 0 0 0	9

To go online with any of the SLCs or the Micrologix start RSLOGIX 500 and click on System Comms under Comms tab as shown below.



Click on the DF1 driver that was created in RSLINX to display all nodes, then click on the PLC that you need to go online with, and click on Online.

