

Configuring MTG-3901 and CSD-3901/3902 DST Settings Using Manual DST Mode

About this Document

This document provides information about configuring DST settings on the MTG-3901 Master Time Generator and CSD-3901/3902 Master Clock Driver modules using Manual DST Mode. It also provides information regarding the recent changes to North American Daylight Saving Time (DST). Beginning in 2007, the United States and parts of Canada are extending the period of DST. See [Table 1-2 on page 5](#) for these recent DST period changes.

Configuring DST Changes Using Manual DST Mode

Using Manual DST Mode, you can manually set rules for when you want your module's system time to output DST-corrected time. Since DST cannot be set using an absolute date, the DST rule string specifies a relative date such as the second Sunday in March or the first Sunday in November. For example, to enable DST on the second Sunday of March, the string for the **MnDSTOnRul** parameter is **W2D7M03**.

Table 1-2 describes each string character.

Table 1-1. Example String For Manual DST Rule

String Characters	Value Descriptions for W2D7M03
W2	<p>W2 specifies the second week of the month where:</p> <ul style="list-style-type: none"> • W- Represents week (There are no other options). • 2- Represents second, as in the second week of the month. You can choose between the following options to specify the other weeks of the month: • F represents the first, 3 represents the third, 4 represents the fourth, and L represents the last week of the month.
D7	<p>D7 specifies day seven of the week (Sunday) where:</p> <ul style="list-style-type: none"> • D- Represents day (There are no other options). • 7- Represents the seventh day of the week, Sunday. You can choose between the following options to specify the other days of the week: • 1 represents Monday, 2 represents Tuesday, 3 represents Wednesday, 4 represents Thursday, 5 represents Friday, and 6 represents Saturday.
M03	<p>M03 specifies the third month of the year (March) where:</p> <ul style="list-style-type: none"> • M- Represents month. • 03- Represents the third month of the year. You can specify all the other 12 months of the year by using 01 (January) through to 12 (December).

You can also immediately enable or disable DST-corrected time by setting the **MnDSTEn** parameter. For more information, see [“Immediately Enabling DST” on page 4](#).

Setting Up Manual DST Rules

The following sections describe how to configure your MTG-3901 and CSD-3901/3902 module using the module’s Tree View menu.

To manually set up DST enable and disable rules, follow these steps:

1. To set a manual DST rule to enable DST at a specified relative date, use your module’s card-edge controls to make the following selections:

Setting Description	Tree View Navigation			
	Processing	Clock	DSTMode	ManualDST
Select Manual DST mode.			MnDSTOnTim	HH:MM:SS
Set the time you want the DST enabled.			MnDSTOnRul	W2D7M03
Set the manual DST rule. See Table 1-2 on page 4 for a description of string character values. Note The example parameter provided here enables DST on the second Sunday of March.				

2. To set a manual DST rule to disable DST at a specified relative date, make the following selections:

Setting Description	Tree View Navigation			
	Processing	Clock	DSTMode	ManualDST
Select Manual DST mode.				
Set the time you want the DST disabled.			MnDSTOffTim	HH:MM:SS
Set the manual DST rule. See Table 1-2 on page 4 for a description of string character values. Note The example parameter provided here disables DST on the first Sunday of November.			MnDSTOffRul	WFD7M11

3. Depending on your input source, do one of the following:
- If your input source is a GPS receiver or another input source that provides UTC time, then set the DST detection and input DST parameters to **Off**. To do this make the following selections:

Setting Description	Tree View Navigation			
	Input	Clock		
Set DST detection control parameter to Off .			<ul style="list-style-type: none"> • ModAutoDST • TcAutoDST • RadAutoDST • SerAutoDST 	Off
Set the input DST control parameter to Off .			<ul style="list-style-type: none"> • ModDSTOn • TcDSTOn • RadDSTOn • SerDSTOn 	Off

- If your input source provides local time, set the DST detection to **On** and input DST parameter to the appropriate setting. To do this make the following selections:

Setting Description	Tree View Navigation			
	Input	Clock		
Set the DST detection control parameter to On . Note This parameter is not applicable to GPS input sources or if your input source provides UTC time.			<ul style="list-style-type: none"> • ModAutoDST • TcAutoDST • RadAutoDST • SerAutoDST 	On
Set the input DST control parameter for DST-corrected input sources. Set this parameter to Off if the current time is not in the DST period (not DST-corrected), and On if the current time is in the DST period (DST-corrected). Note This parameter is not applicable to GPS input sources, or if your input source provides UTC time.			<ul style="list-style-type: none"> • ModDSTOn • TcDSTOn • RadDSTOn • SerDSTOn 	<ul style="list-style-type: none"> • Off (if current time is not DST-corrected) • On (if current time is DST-corrected)

4. To set the trigger to enable your manual DST rules, make the following selection:

Setting Description	Tree View Navigation			
Set the trigger to enable your manual DST rules.	Processing	Clock	MnDSTEdgTr	On

Immediately Enabling DST

As an alternative to manually defining DST enable and disable rules, you can immediately enable or disable DST using the **MnDSTEn** parameter.



Note

To use the **MnDSTEn** parameter, the **MnDSTEdgTr** parameter must be set to **Off**.

To immediately enable DST, follow these steps.

1. Set up your parameter settings as described in step 3 on [page 3](#).
2. To enable DST immediately, make the following selections:

Setting Description	Tree View Navigation			
Select Manual DST mode.	Processing	Clock	DSTMode	ManualDST
Enable DST.			MnDSTEn	On

Locale Settings Updates for 2007

Table 1-2 replaces “Table D-1 MTG-3901 Available Locale Settings” on page 283 of the MTG-3901 and CSD-3902 Installation and Operation Manual, *Edition D* and “Table G-1. Locale Settings” on page 206 of the *CSD-3901 Clock System Driver Installation and Operation Manual, Edition F*.

The new table updates daylight saving time (DST) periods that came in to affect January 1, 2007 for some locales. These DST period changes may affect your Manual DST On Time (**MnDSTOnRul**) and Manual DST Off Time (**MnDSTOffRul**) parameter options.

Table 1-2. MTG-3901 Available Locale Settings

Locale Name	Details	Time Zone	DST Enable Rule	DST Disable Rule
NoLocale	No Locale	UTC	None	None
Greenwich	Greenwich Mean Time; Dublin; Edinburgh; London; Lisbon	UTC	Last Sunday in March at 1:00 a.m.	Last Sunday in October at 1:00 a.m.
MonorCasab	Monorovia; Casablanca	UTC	None	None
WEurope+1	Berlin; Stockholm; Rome; Bern; Brussels; Vienna; Amsterdam	UTC+1:00	Last Sunday in March at 1:00 a.m.	Last Sunday in October at 1:00 a.m.
Romance+1	Paris; Madrid	UTC+1:00	Last Sunday in March at 1:00 a.m.	Last Sunday in October at 1:00 a.m.
PragBra+1	Prague; Bratislava	UTC+1:00	Last Sunday in March at 1:00 a.m.	Last Sunday in October at 1:00 a.m.
Warsaw +1	Warsaw	UTC+1:00	Last Sunday in March at 1:00 a.m.	Last Sunday in October at 1:00 a.m.
GrFinTu+2	Athens; Helsinki; Istanbul	UTC+2:00	Last Sunday in March at 1:00 a.m.	Last Sunday in October at 1:00 a.m.
Egypt +2	Cairo	UTC+2:00	Last Friday in April at 12:00 a.m.	Last Thursday in September at 11:00 p.m.
EEurope+2	Eastern Europe	UTC+2:00	Last Sunday in March at 1:00 a.m.	Last Sunday in October at 1:00 a.m.
SAfrica+2	Harare; Pretoria	UTC+2:00	None	None
Israel +2	Israel	UTC+2:00	Last Friday in March at 2:00 a.m.	Third Sunday in September at 2:00 a.m.
SaudArb+3	Baghdad; Kuwait; Nairobi; Riyadh	UTC+3:00	None	None
Russia +3	Moscow; St. Petersburg	UTC+3:00	Last Sunday in March at 2:00 a.m.	Last Sunday in October at 2:00 a.m.
Iran +3.5	Tehran	UTC+3:30	None	None
Arabia +4	Abu Dhabi; Muscal; Tbilisi; Kazan	UTC+4:00	None	None

Table 1-2. MTG-3901 Available Locale Settings (Continued)

Locale Name	Details	Time Zone	DST Enable Rule	DST Disable Rule
Afghn+4.5	Kabul	UTC+4:30	None	None
WAsia +5	Islamabad; Karachi; Tashkent	UTC+5:00	None	None
India+5.5	Bombay; Calcutta; Madras; New Delhi; Colombo	UTC+5:30	None	None
CAAsia +6	Almaty; Dhaka	UTC+6:00	None	None
Bangkok+7	Bangkok; Jakarta; Hanoi	UTC+7:00	None	None
Beijing+8	Beijing; Chongqing; Urumqi	UTC+8:00	None	None
Taipei +8	Hong Kong; Singapore; Taipei	UTC+8:00	None	None
Tokyo +9	Tokyo; Osaka; Sapporo; Seoul	UTC+9:00	None	None
Adeld+9.5	Adelaide	UTC+9:30	Last Sunday in October at 2:00 a.m.	Last Sunday in March at 2:00 a.m.
Darwn+9.5	Darwin	UTC+9:30	None	None
Brisbn+10	Brisbane	UTC+10:00	None	None
EAustl+10	Canberra; Melbourne; Sydney	UTC+10:00	Last Sunday in October at 2:00 a.m.	Last Sunday in March at 2:00 a.m.
WPacif+10	Guam; Port Moresby	UTC+10:00	None	None
Tasman+10	Hobart	UTC+10:00	First Sunday in October at 2:00 a.m.	Last Sunday in March at 2:00 a.m.
CPacif+11	Solomon Is.; New Caledonia	UTC+11:00	None	None
Fiji +12	Fiji; Marshall Is.	UTC+12:00	None	None
NewZld+12	Wellington; Auckland	UTC+12:00	First Sunday in October at 2:00 a.m.	Third Sunday in March at 2:00 a.m.
Azores -1	Azores	UTC-1:00	Last Sunday in March at 1:00 a.m.	Last Sunday in October at 1:00 a.m.
MidAtln-2	Mid-Atlantic	UTC-2:00	Last Sunday in March at 2:00 a.m.	Last Sunday in September at 2:00 a.m.
Brasili-3	Brasilia	UTC-3:00	First Sunday in November at 2:00 a.m.	Last Sunday in February at 2:00 a.m.
SAMeast-3	Buenos Aires; Georgetown	UTC-3:00	None	None
Nfld -3.5	Newfoundland	UTC-3:30	Second Sunday in March at 2:00 a.m.	First Sunday in November at 2:00 a.m.
Atlanti-4	Atlantic Time (Canada)	UTC-4:00	Second Sunday in March at 2:00 a.m.	First Sunday in November at 2:00 a.m.
SAMWest-4	Caracas; La Paz	UTC-4:00	None	None
SAMPac-4	Bogota; Lima	UTC-4:00	None	None

Table 1-2. MTG-3901 Available Locale Settings (Continued)

Locale Name	Details	Time Zone	DST Enable Rule	DST Disable Rule
Eastern-5	Eastern Time (US & Canada)	UTC-5:00	Second Sunday in March at 2:00 a.m.	First Sunday in November at 2:00 a.m.
EIndian-5	Indiana (East)	UTC-5:00	Second Sunday in March at 2:00 a.m.	First Sunday in November at 2:00 a.m.
Central-6	Central Time (US & Canada)	UTC-6:00	Second Sunday in March at 2:00 a.m.	First Sunday in November at 2:00 a.m.
Mexico -6	Mexico City	UTC-6:00	First Sunday in April at 2:00 a.m.	Last Sunday in October at 2:00 a.m.
Sasktch-6	Saskatchewan	UTC-6:00	None	None
Arizona-7	Arizona	UTC-7:00	None	None
Mountai-7	Mountain Time (US & Canada)	UTC-7:00	Second Sunday in March at 2:00 a.m.	First Sunday in November at 2:00 a.m.
Pacific-8	Pacific Time (US & Canada)	UTC-8:00	Second Sunday in March at 2:00 a.m.	First Sunday in November at 2:00 a.m.
Alaska -9	Alaska	UTC-9:00	Second Sunday in March at 2:00 a.m.	First Sunday in November at 2:00 a.m.
Hawaii-10	Hawaii	UTC-10:00	None	None
Samoa -11	Midway Island; Samoa	UTC-11:00	None	None
Dateln-12	Eniwetok; Kwajalein	UTC-12:00	None	None