KINGFISHER
INTERNATIONAL

QUICK REFERENCE GUIDE

KI7010B Series Automated Variable Optical Attenuator
KI7400C / 7800C Series Optical Light Source
KI7300C / 7700C Series Optical Loss Test Set
KI7340C / 7740C Series Optical Two Way Loss Test Set
KI7600C Series Optical Power Meter
This guide in languages other than English (Japanese, Simplified Chinese, Traditional Chinese, French, Russian, Dutch, German, Spanish, Arabic) is available on our website www.kingfisher.com.au

QUICK REFERENCE GUIDE - KI7010B SERIES AUTOMATED VARIABLE OPTICAL ATTENUATOR

- To install a connector adaptor, align the locating slot on the side of the adaptor with that on the instrument connector, and press it on.
- To remove an adaptor, press the release button on the back of the instrument and then pull off the adaptor. It may be easier with a test lead in place.
- To turn on the instrument for permanent operation, press [POWER] for 3 seconds until 'Perm' is displayed at the top of the LCD.
- To select calibration wavelength, press [λ] [-/+] [SET].
- To set attenuation level, press [-/+].
- Low battery is indicated with a battery symbol.

STEP MODE

- To operate in the step mode, simply press the [STEP] button. Pressing the [-/+] button will now increment attenuation according to the previously set step size.
- To view the current step size, press [SET STEP].
  To adjust the step size, press [SET STEP] [-/+] [SET]. The unit will now operate in step mode using the new step value
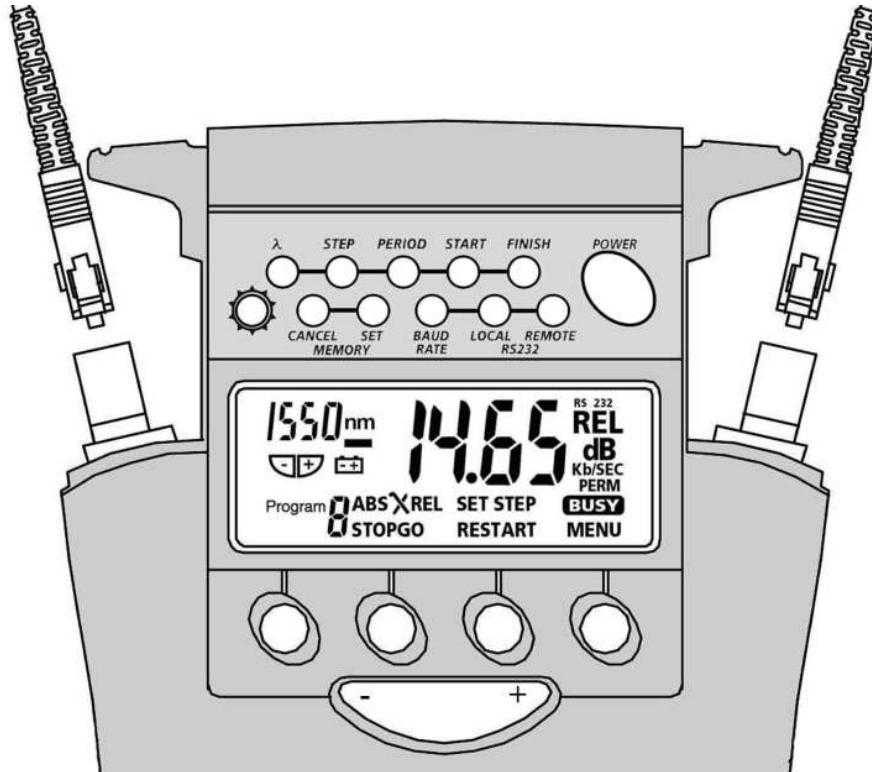
ABSOLUTE / RELATIVE DISPLAY MODE

- To enter Absolute/Relative display mode, set the attenuation level as required and press [ABS/REL].
- To zero the display, press [REL].
- To set the display to an arbitrary value, adjust the attenuation with the [-/+] button, then press [SET].
- To exit this mode, press [ABS/REL] or [MENU].

PROGRAM MODE

- To use a previously set up program, press [PROGRAM] [-/+] [SET] and [GO].
- To halt the program, press [STOP]. Press [GO] to continue.
- Press [RESTART] to restart the program
- To exit this mode, press [STOP] then [MENU].

KI7010B SERIES AUTOMATED VARIABLE OPTICAL ATTENUATOR

QUICK REFERENCE GUIDE - KI7400C / 7800C SERIES OPTICAL LIGHT SOURCE

MANUAL OPERATION

- To remove interchangeable connector adaptor, press button on rear of case and pull off adaptor. This may be easier with a test lead attached.
- To defeat auto power-off, hold down [POWER] for 3 seconds at turn on until 'On' and 'Perm' are displayed.
- Low battery is indicated with a battery symbol.
- To enable source, select [POWER], [Source].
- To change wavelength, press [-/+].
- To activate modulation, press [Mod].
- To change modulation frequency, while source is active press [↱] [KHz] [-/+] [Set] or [Menu].
- To change laser power level, while source is active press [↱] [Level] [-/+] [Set] or [Menu].
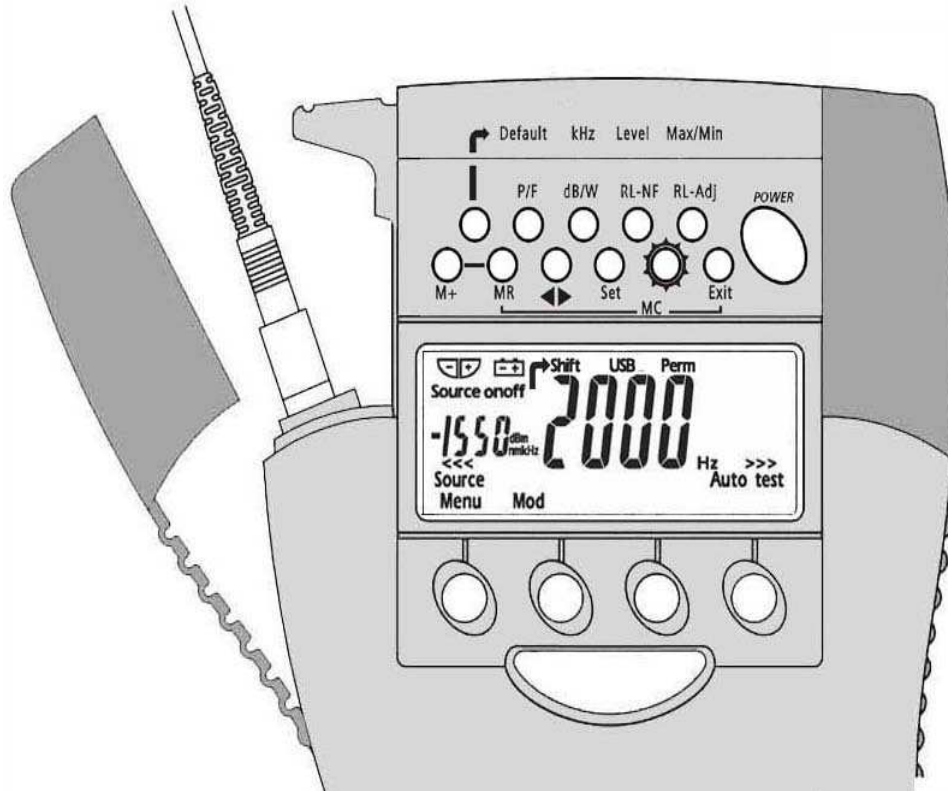
AUTOTEST OPERATION

- To initiate Autotest, connect Power Meter to Light Source and press [Autotest] on Light Source
- Autotest remains for 8 seconds after signal loss, to allow quick connection change.
- To exit Autotest, remove test lead for > 8 seconds, or press [MENU].

MEMORY OPERATION

- Data can be stored in Source and Autotest modes, however, memory recall and cancel functions are not available in Autotest.
- To clear all memory, press both [MR] and [Exit] simultaneously for 3 seconds. 'clr' will display.
- To store in next default location, press [M+].
- To change next store location, press [◄ ►] [-/+] [Set] or [Menu].
- To recall, press [MR] and [-/+] to scroll memory.
- Exit Autotest and enter Source mode to read or cancel memory.
- Autotest memory recall: use [-/+] to scroll wavelengths.
- To exit memory display, press [Menu].

KI7400C / 7800C SERIES OPTICAL LIGHT SOURCE

QUICK REFERENCE GUIDE - KI7300C / 7700C SERIES OPTICAL LOSS TEST SET

MANUAL OPERATION

- To remove interchangeable connector adaptor, press button on rear of case and pull off adaptor. This may be easier with a test lead attached.
- To defeat auto power-off, hold [POWER] for 3 seconds at turn on until 'ON' and 'Perm' are displayed.
- Low battery is indicated with a battery symbol.

Power Meter Mode:

- To enter, press [POWER METER].
- To select operational wavelength, press [-/+].
- To set reference, press [ABS/REL] and hold [SET REF] for 3 seconds. Meter displays about 0.00 dB R.
- To stop / start display update, press [HOLD].
- If a test tone is detected, meter will display 'Hz'.
- To toggle log / linear display mode, press [dB/W].
- To display minimum and maximum recorded power for selected wavelength, press [↱] and [Max/Min]. Press [↱] [Max/Min] and hold for 3 seconds to re-start recording.

Light Source Mode:

- To enable source, select [Source].
- To change wavelength, press [-/+].
- To activate modulation, press [Mod].
- To change modulation frequency, while source is active press [↱] [KHz] [-/+] [Set] or [Menu].
- To change laser power level, while source is active press [↱] [Level] [-/+] [Set] or [Menu].

AUTOTEST OPERATION

- To initiate Autotest, connect Power Meter section to Light Source section and press [Autotest].
- To show one wavelength only, scroll [-/+]. Press [Menu] to exit.
- Press [Hold] to hold / resume display update.
- Autotest remains for 8 seconds after signal loss, to allow quick connection change.
- To exit Autotest, remove test lead for >8 seconds, or on the Light Source, press [MENU].

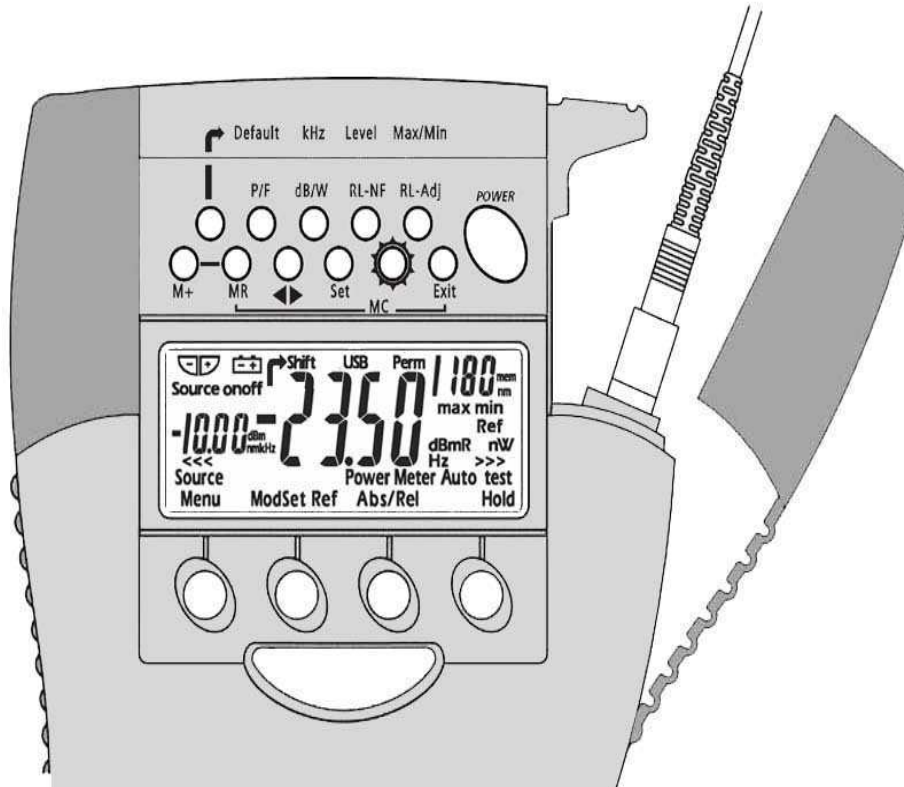# QUICK REFERENCE GUIDE - KI7300C / 7700C SERIES OPTICAL LOSS TEST SET

Measuring One Way Loss in Autotest

- **Reference:** connect Source port to a Power Meter port. Select [Autotest], [Abs/Rel]. Press [Set Ref] for 3 seconds. Meter displays about 0.00 dB R.

  Loss testing: after referencing, connect test system to Source and Power Meter ports. Loss will be automatically displayed. Use [-/+] to show one wavelength only.

MEMORY OPERATION

- Data can be stored in all modes, however, memory recall and cancel functions are not available in Autotest and only work in Light Source or Power Meter modes
- To clear all memory, press both [MR] and [Exit] simultaneously for 3 seconds. 'clr' will display.
- To store in next default location, press [M+].
- To change next store location, press [◄ ►] [-/+] [Set] or [Menu].
- To recall, press [MR] and [-/+] to scroll memory.
- Exit Autotest and enter Source or Power Meter mode to read or cancel memory.
- Autotest memory recall: use [-/+] to scroll wavelengths.
- To exit memory display, press [Menu].

MANUAL OPERATION

- To remove interchangeable connector adaptor, press button on rear of case and pull off adaptor. This may be easier with a test lead attached.
- To defeat auto power-off, hold down [POWER] for 3 seconds at turn on until 'On' and 'Perm' are displayed.
- Low battery is indicated with a battery symbol.
- To access the hidden key pad, pull up display cover.

Light Source Mode:

Select [POWER], [Source], then:
- To change wavelength, or turn off, press [-/+].
- To activate modulation, press [Mod]. Modulation is cancelled in Power Meter mode.
  To change modulation frequency, while source is active press [↪] [KHz] [-/+] [Set] or [Menu].
- To change laser power level, while source is active press [↪] [Level] [-/+] [Set] or [Menu].

Power Meter Mode:

- To turn on and select wavelength, press: [POWER] [Power Meter] [-/+].If source is on, power meter wavelength tracks source wavelength.
- To set reference, press [Abs/Rel] and hold [Set Ref] for 3 seconds. Meter displays about 0.00 dB R.
- To stop / start display update, press [Hold].
- If a test tone is detected, meter will display 'Hz'.
- To display linear mode, press [dB/W].
- To display MAX/MIN values, press [↪] and [Max/Min] repeatedly. Hold [Max/Min] to reset (3 buzzer sounds).

Return Loss Meter (KI 7340C Series only):

- To display ORL, select: [POWER] [Return Loss] [-/+] to set the wavelength.
- Set up the residual ORL optical condition. On the hidden keypad, select [RL-NF] and [-/+] to adjust if needed, then [MENU]. To display stored residual reference, hold [RL- NF] key.
- Set up the reference optical condition, on the hidden keypad select [RL-Adj] and [-/+] to adjust the display to the required value, then [Menu]. Offset value is shown on left of display.
- To re-set the residual and reference conditions to default values, select [↪] and [Default].

QUICK REFERENCE GUIDE - KI7340C / 7740C SERIES OPTICAL TWO WAY LOSS TEST SET

AUTOTEST OPERATION

- To initiate Autotest, connect Power Meter section to Light Source section and press [Autotest]
- To show one wavelength only, scroll [-/+]. Press [Menu] to exit.
- Press [Hold] to hold / resume display update.
- Autotest remains for 8 seconds after signal loss, to allow quick connection change.

Measuring Two Way Loss in Autotest

- **Remote reference:** on each instrument, connect two way port to power meter port. Select [Autotest], [Abs/Rel]. Press [Set Ref] for 3 seconds. Meters display about 0.00 dB.
- **Local reference:** connect two way ports of two instruments. Select [Autotest] and [Set Ref]. Meters display about 0.00 dB.
- **Loss testing:** after referencing, connect two way ports of both instruments to test system. Select [Autotest] on one unit. 'Auto' shows while synchronising, then average loss.
- To show dBm/dB results for each direction, press [◄►] successively on hidden keypad. Press [Menu] to exit.
- **Two Way Communication:** press [Hold] to make remote end beep and flash [Hold]. Then at Remote end, press [Hold] to resume display update. Local end beeps and stops [Hold] flashing.
- To exit Autotest, remove connection, or press [Menu].
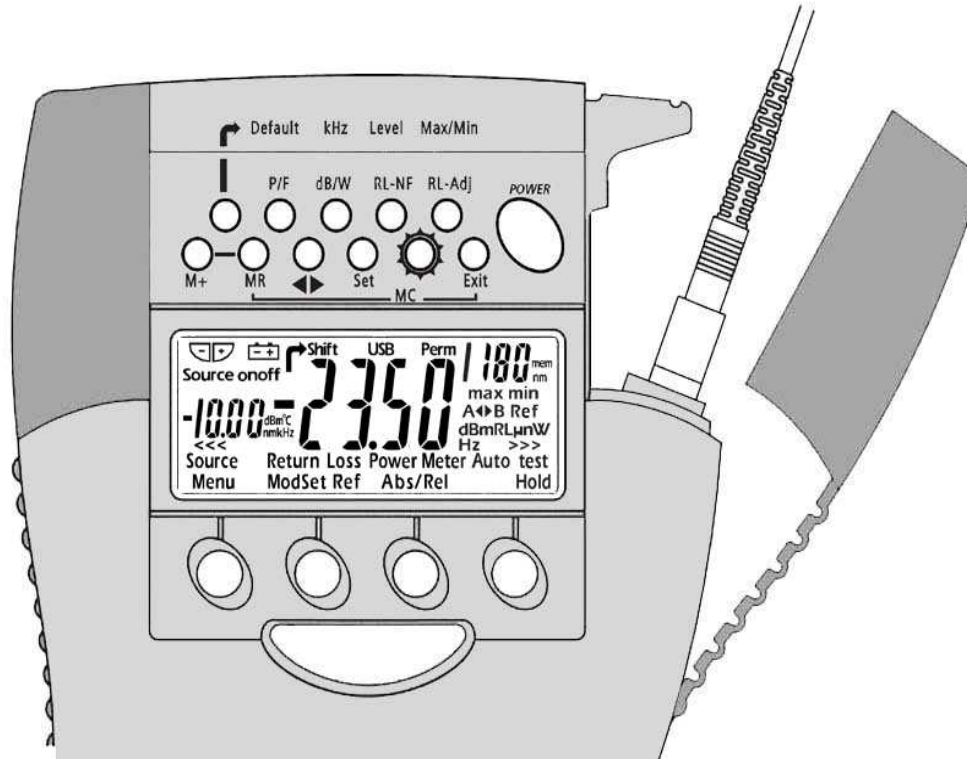
Measuring One Way Loss in Autotest

- **Reference:** connect a two way/source port to a power meter port. Select [Autotest], [Abs/Rel]. Press [Set Ref] for 3 seconds. Meter displays about 0.00 dB R.
- **Loss testing:** after referencing, connect test system to two way / source and meter ports. Loss will be automatically displayed.
- To exit Autotest, remove test lead for more than 8 seconds or turn off source

MEMORY OPERATION:

- Data can be stored in all modes, however, memory recall and cancel functions are not available in Autotest and only work in Light Source, Power Meter or Return Loss modes.
- **Clear all memory:** press both [MR] and [Exit] simultaneously for 3 seconds. 'clr' will display.
- To store in next location, press [M+].
- To change next store location, press [◄►] [-/+] [Set] or [Menu].
- To recall, press [MR] and [-/+] to scroll memory. Use [Abs / Rel] to see dB/dBm values. Hold down [Abs/Rel] to see reference level.
- Autotest memory recall: use [-/+] to select next wavelength.
- Two way test only: press [◄►] repeatedly to scroll details.
- To exit memory display, press [Menu].

QUICK REFERENCE GUIDE - KI7600C SERIES OPTICAL POWER METER

MANUAL OPERATION

- To remove interchangeable connector adaptor, press button on rear of case and pull off adaptor. This may be easier with a test lead attached.
- To defeat auto power-off, hold [POWER] for 3 seconds at turn on until 'ON' and 'Perm' are displayed.
- Low battery is indicated with a battery symbol.
- To select operational wavelength, press [Power Meter], [- /+].
- To set reference, press [ABS/REL] and hold [SET REF] for 3 seconds. Meter displays about 0.00 dB R.
- To stop / start display update, press [HOLD].
- If a test tone is detected, meter will display 'Hz'.
- To toggle log / linear display mode, press [dB/W].
- To display minimum and maximum recorded power for selected wavelength, press [↪] and [Max/Min]. Press [↪] [Max/Min] and hold for 3 seconds to re-start recording.

AUTOTEST OPERATION

- To initiate Autotest, connect Power Meter to Light Source and press [Autotest] on Light Source.
- To show one wavelength only, scroll [-/+]. Press [Menu] to exit.
- Autotest remains for 8 seconds after signal loss, to allow quick connection change.

- To exit Autotest, remove test lead for >8 seconds, or on the Light Source, press [MENU].

MEMORY OPERATION

- Data can be stored in Power Meter and Autotest modes, however, memory recall and cancel functions are not available in Autotest.
- To clear all memory, press both [MR] and [Exit] simultaneously for 3 seconds. 'clr' will display.
- To store in next default location, press [M+].
- To change next store location, press [◄►] [-/+] [Set] or [Menu].
- To recall, press [MR] and [-/+] to scroll memory.
- Exit Autotest and enter Power Meter mode to read or cancel memory.
- Autotest memory recall: use [-/+] to scroll wavelengths.
- To exit memory display, press [Menu].

VISIBLE LASER OPTION

- Select [POWER], [SOURCE]
- To stop modulation, press [MOD]. To change modulation frequency, press [↪] and [KHz] on the hidden keypad. Use [+/-] to scroll modulation frequencies, then press [Set] to store.
- To turn off laser, press [-/+].

KI7600C SERIES OPTICAL POWER METER