

Pulsers and Preamplifiers

TRPP 5810™ Pulser/Preamplifier for TOFD Inspection



The TRPP 5810™ unit is a high-performance remote pulser/preamplifier dedicated to TOFD inspections and compatible with Olympus scanners.

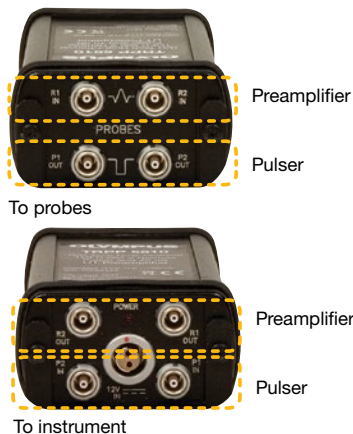
This remote pulser/preamplifier provides an optimum signal-to-noise ratio for TOFD inspections by combining a 40 dB preamplifier with a remote high-voltage (200 V) pulse repeater in a single, small enclosure. The TRPP 5810 unit supports two UT channels, enabling simultaneous inspection with one or two pairs of TOFD probes. The TRPP 5810 unit can be used as a pulser and/or preamplifier.

TRPP 5810 Unit as a Pulser

- Provides an additional pulse gain to generate a stronger signal, as needed, to reveal difficult-to-detect flaws.

TRPP 5810 Unit as a Preamplifier

- Provides the additional gain or broadband signal-to-noise enhancement necessary for optimum signal acquisition on thick sections of material exhibiting high ultrasonic attenuation.
- Enables long cables to be driven from remotely located sensors.



Features

- Dimensions (W × H × L): 57 mm × 32 mm × 90 mm (2.5 in. × 1.3 in. × 3.5 in.).
- Weight: 300 g.
- UT connectors: 8 × LEMO 00 female.
- Water/moisture resistance: NEMA 4-IP66. Rustproof.
- Powered by an external 12 VDC source or from the instrument.
- Power connector: Compatible with standard Olympus umbilical cables (male Fisher 103 type).
- A red power-on LED indicator.
- Operating temperature range: -10°C to 60°C (14°F to 140°F).

Specifications

Pulser

- A remote, high-voltage (200 V) pulse repeater.
- PRF of up to 10 kHz at 100 ns per channel, and up to 20 kHz at 50 ns for a single channel.
- Pulser-side outputs which protect against misuse and improper connection from the instrument outputs.

Preamplifier (Receiver)

- 40 dB preamplifier.
- Accommodates probe frequency ranges from 1 MHz to 15 MHz.
- Preamplifier side inputs and outputs are protected against misuse and improper connection from the instrument outputs.

Options

Power Cable

(from TomoScan FOCUS LT)

One 5 m power supply cable linking to the TomoScan FOCUS LT™ instrument..

P/N: TRPP-5810-A-01 [U8800488]

Power Cable (from OmniScan)

10 m power supply cable linking to the OmniScan® flaw detector.

P/N: TRPP-A-PWRC-OM-10M [U8775118]

Transformer and Cable

Transformer (120 VAC to 240 VAC input to 12 VDC output) with a 10 m power supply cable.

P/N: TRPP-A-PWRC-AC-10M [U8779168]

Ordering Information

Part Number	Item Number	Package Contents
TRPP-5810	U8120042	Pulser/preamplifier, one 5 m power supply cable (120 VAC to 240 VAC input to 12 VDC output), one 5 m power supply cable linking to an OmniScan® flaw detector, and carrying case.
TRPP-5810-KIT01	U8120043	Same as P/N TRPP-5810, plus: Four 0.6 m UT probe cables (LEMO® 00 to Microdot™), and brackets to attach the TRPP 5810 unit to a HSMT-type scanner. (P/N: HSMT-A-BRK5810 [U8779088])
TRPP-5810-INST	U8775114	Same as P/N TRPP-5810-KIT01, plus: Four 5 m UT cables (LEMO 00 to LEMO 00) linking the TRPP 5810 unit to the instrument.
TRPP-5810-UMB	U8775113	Same as P/N TRPP-5810-KIT01, plus: Four 0.6 m UT cables (LEMO 00 to LEMO 00) linking the TRPP 5810 unit to the umbilical.

5682 Preamp for TOFD Inspection

The 5682 ultrasonic preamplifier provides low-noise amplification of ultrasonic signals (for one probe) ranging from 500 kHz to 25 MHz. The preamplifier, which is housed in a rugged splashproof enclosure, is very small and lightweight, making it ideally suited to remote applications. The preamplifier can be powered with either a single 9 V battery (included) for up to 50 hours of continuous operation or an optional 9 V to 13 V DC supply. When battery operated, a multicolored LED provides battery feedback status. This preamplifier is ideal for TOFD inspections.

Specifications

- 26 dB gain
- 50 hours of battery life (continuous discharge)
- A continuous power-level indicator
- 67 dB signal-to-noise ratio
- Weight: 180 g with battery



5682-KIT01

Ordering Information

Part Number	Item Number	Package Contents
5682	U8120006	5682 preamplifier and 9 V battery
5682-KIT01	U8120038	5682 preamplifier, one 2.5 m UT probe cable (LEMO® 00 to LEMO 00), one 2.5 m power supply cable linking to the OmniScan® flaw detector, and a belt case.
5682-KIT02	U8779091	5682 preamplifier, one 5 m UT probe cable (LEMO 00 to LEMO 00), one 5 m UT probe cable (LEMO 00 to Microdot), one 0.6 m UT probe cable (LEMO 00 to Microdot™), one 5 m power supply cable linking to the OmniScan® flaw detector, a belt case, and a bracket to attach the 5682 to HSMT-type scanners, the HST-Lite scanner, or the ChainSCANNER™ scanner (P/N: HSMT-A-BRK5682 [U8779089]).
5682-A-PWRC-OM-5M	U8775119	One 5 m power supply cable linking to the OmniScan flaw detector.
5682-A-PWRC-UMB-0.15M	U8779092	Power cable adaptor linking the 5682 preamplifier to the umbilical cable.

PR-06-04 Pulser/Preamplifier for Pulse-Echo Inspection

The PR-06-04 four-channel pulser/preamplifier is used for pulse-echo. Each channel can drive a conventional UT probe for a higher gain pulse and boost the return signal, improving detection and the signal-to-noise ratio. The PR-06-04 unit can also be used as a pulser or a receiver only.

Specifications

Pulser

- -45 V to -220 V input level (min-max)
- -160 V to -190 V output amplitude (pulser at 100 ns)
- 4 ns to 10 ns rise time and fall time

Receiver

- 40 dB gain
- 8 dBm to 12 dBm input level (max.)
- 8 dBm to 12 dBm output level operation
- 550 kHz to 30 MHz bandwidth at -3 dB



Ordering Information

Part Number	Item Number	Package Contents
PR-06-04	U8750028	PR-06-04 pulser/preamplifier
OPTX667	U8775012	PR-06-04 pulser/preamplifier, four 0.6 m UT probe cables (LEMO® 00 to 90° Microdot™), and a bracket to attach the unit to an HSMT-type scanner. (P/N: HSMT-A-BRKEX [U8779090]).

Note: These packages have been created to be used that has an umbilical cable with an integrated power cable. If no such umbilical is used, an optional power cable must be ordered. Due to power requirements, the PR-06-04 cannot be connected to the OmniScan power output. Please note that product availability varies by region. Contact your local Olympus sales office for more information.

Options

Transformer and Cable

Transformer (120 VAC to 240 VAC input to 12 VDC output) with a 5 m power supply cable. **P/N:** TRPP-5810-A-03 [U8800490]

Transformer (120 VAC to 240 VAC input to 12 VDC output) with a 10 m power supply cable. **P/N:** TRPP-A-PWRC-AC-10M [U8779168]