



QUICK REFERENCE GUIDE

ZYE® YAG/ALX

REVIEW 1.1 | SEPTEMBER 2019



| ZYE® ALX PERMANENT HAIR REDUCTION | | | | | | |
|-----------------------------------|-----------------|-----------------|--|--|-------------|---------|
| FITZPATRICK | HAIR PHYSIOLOGY | | FLUENCE | HANDPIECE SPOT SIZE | PULSE WIDTH | COOLING |
| | COLOR | THICKNESS | | | | |
| I and II | dark, black | black and thick | 30-40 J/cm ² 26-36 J/cm ² 24-26 J/cm ² 16-24 J/cm ² 14-18 J/cm ² 11-14 J/cm ² | 8-18; 08 mm 8-18; 10 mm 8-18; 12 mm 8-18; 14 mm 8-18; 16 mm 8-18; 18 mm | 3-20 ms | Maximum |
| III | dark, black | black and thick | 26-36 J/cm ² 20-30 J/cm ² 22-26 J/cm ² 16-22 J/cm ² 11-17 J/cm ² 10-14 J/cm ² | 8-18; 08 mm 8-18; 10 mm 8-18; 12 mm 8-18; 14 mm 8-18; 16 mm 8-18; 18 mm | 3-20 ms | Maximum |
| IV | dark, black | black and thick | 20-26 J/cm ² 18-24 J/cm ² 16-18 J/cm ² 14-16 J/cm ² 11-14 J/cm ² 10-12 J/cm ² | 8-18; 08 mm 8-18; 10 mm 8-18; 12 mm 8-18; 14 mm 8-18; 16 mm 8-18; 18 mm | 30-40 ms | Maximum |
| V | dark, black | black and thick | 18-22 J/cm ² 16-18 J/cm ² 14-18 J/cm ² 13-16 J/cm ² 10-13J/cm ² 10-12 J/cm ² | 8-18; 08 mm 8-18; 10 mm 8-18; 12 mm 8-18; 14 mm 8-18; 16 mm 8-18; 18 mm | 40 ms | Maximum |
| VI | dark, black | black and thick | 12-18 J/cm ² 12-16 J/cm ² 6-10 J/cm ² 6-10 J/cm ² 6-10 J/cm ² 6-10 J/cm ² | 8-18; 08 mm 8-18; 10 mm 8-18; 12 mm 8-18; 14 mm 8-18; 16 mm 8-18; 18 mm | 40 ms | Maximum |

| ZYE® ALX VASCULAR LESIONS | | | | |
|--------------------------------------|-------------|------------------------------|-------------|-------------------------|
| VESSEL TYPE | FITZPATRICK | HANDPIECE 3-10 OR 3-24*** | PULSE WIDTH | FLUENCE |
| Telangiectasias in the lower limbs | I-III | 3 mm | 15-20 ms | 100 J/cm ² |
| Telangiectasias in the facial region | I-III | 3 mm | 20-30 ms | 100 J/cm ² |
| Hemangiomas | I-III | 3, 6, 8 mm | 10-40 ms | 60-70 J/cm ² |

*for telangiectasias; **for venulectasias; ***use sapphire cooling of the 3-10 handpiece at the maximum level and use guide LASER intensity control for thinner veins and vessels; the 3-24 handpiece requires the use of external cooling;

| ZYE® ALX ALEXANDRITA LASER PEEL | | | | |
|-------------------------------------|-------------|------------------------------|------------------------|--|
| TREATMENT INDICATION | FITZPATRICK | HANDPIECE 8-18/3-10/3-24* | PULSE WIDTH | FLUENCE |
| seborrheic keratosis or similar | I-IV | Ø 5 mm | 3 ms LONGPULSE | 60-200 J/cm ² |
| mild pigmentation light pigments | I-III | Ø 5 mm Ø 8 mm | 3 ms LONGPULSE | 50-80 J/cm ² 30-50 J/cm ² |
| moderate pigmentation, brown | I-IV | Ø 5 mm Ø 8 mm | 10-20 ms LONGPULSE | 30-50 J/cm ² 20-40 J/cm ² |
| dense pigmentation very dark | I-IV | Ø 5 mm Ø 8 mm | 10-30 ms LONGPULSE | 20-30 J/cm ² 10-20 J/cm ² |
| dynamic peeling superficial | I-III | Ø 5 mm | 300-600 us DYNAMICS | 8-10 J/cm ² 10-15 Hz |

use sapphire cooling of the 3-10 or 8-18 handpiece at the maximum level; the 3-24 handpiece requires the use of external cooling;

| ZYE® YAG VASCULAR LESIONS OF THE LOWER LIMBS | | | |
|--|------------------------------|-------------|---------------------------|
| DIAMETER | HANDPIECE 3-10 OR 3-24*** | PULSE WIDTH | FLUENCE |
| 0.5 to 1.0 mm | 3 mm | 10-20 ms | 100-300 J/cm ² |
| up to 1.0 mm* | 3 mm | 15-20 ms | 125-250 J/cm ² |
| up to 1.0 mm** | 3, 5 mm | 20-30 ms | 125-175 J/cm ² |
| 1.0 to 2.0 mm | 5, 6 mm | 30-40 ms | 70-120 J/cm ² |
| 2.1 to 4.0 mm | 5, 6, 8 mm | 30-60 ms | 80-140 J/cm ² |

*for telangiectasias; **for venulectasias; ***use sapphire cooling of the 3-10 handpiece at the maximum level and use guide LASER intensity control for thinner veins and vessels; the 3-24 handpiece requires the use of external cooling;

| ZYE® YAG VASCULAR LESIONS OF THE FACE | | | |
|--|---------------------------------------|--------------------|---------------------------|
| DIAMETER | HANDPIECE 3-10, 5-15, 3-24* | PULSE WIDTH | FLUENCE |
| up to 0.5 mm | 3 mm | 10 ms | 100-200 J/cm ² |
| 0.5 to 1.0 mm | 3 mm | 10-20 ms | 150-275 J/cm ² |
| up to 1.0 mm | 3 mm | 15-20 ms | 100-150 J/cm ² |
| up to 1.0 mm | 3, 5, 6 mm | 650 us 5-10 Hz | 20-100 J/cm ² |
| up to 0.5 mm | 3 mm | 650 us 5-10 Hz | 10-50 J/cm ² |

*use sapphire cooling of the 3-10 handpiece at the maximum level and use guide LASER intensity control for thinner veins and vessels; the 3-24 handpiece requires the use of external cooling;

| ZYE® YAG NEVUS RUBI | | |
|-----------------------------------|--------------------|---------------------------|
| HANDPIECE 3-10 OR 3-24* | PULSE WIDTH | FLUENCE |
| 3 mm | 20 ms | 100-250 J/cm ² |
| 3, 5 mm | 20-30 ms | 100-125 J/cm ² |

*use sapphire cooling of the 3-10 handpiece at the maximum level and use guide LASER intensity control for thinner veins and vessels; the 3-24 handpiece requires the use of external cooling;

| ZYE® YAG REJUVENATION | | | |
|------------------------------|---------------------------------------|--------------------|--------------------------|
| TREATMENT | HANDPIECE 8-18, 3-10, 3-24* | PULSE WIDTH | FLUENCE |
| fine lines and wrinkles | 6, 8, 10 mm | 50-100 ms | 10-80 J/cm ² |
| skin toning | 6, 8, 10 mm | 60-100 ms | 20-100 J/cm ² |

*use the handpieces in the LONGPULSE mode with cooling (by air, through an external cooler, or by the sapphire window); note that the larger the spot, the better the treatment coverage area, but the greater the risk of adverse effects due to the use of excessive energy or pulse time;

| ZYE® YAG HAIR REMOVAL | | | | |
|------------------------------|------------------|-------------------------------------|--------------------|-------------------------|
| TREATMENT AREA | SKIN TYPE | HANDPIECE 8-18/3-10/3-24* | PULSE WIDTH | FLUENCE |
| face | I-III | 8 to 18 mm | 30 ms | 35-50 J/cm ² |
| face | IV | 8 to 18 mm | 30-40 ms | 35-45 J/cm ² |
| face | V | 8 to 18 mm | 40 ms | 35-45 J/cm ² |
| face | VI | 8 to 18 mm | 40 ms | 30-40 J/cm ² |
| face | I-III | 6 to 16 mm | 30 ms | 40-60 J/cm ² |
| face | IV | 6 to 16 mm | 30-40 ms | 40-50 J/cm ² |
| face | V | 6 to 16 mm | 40 ms | 40-50 J/cm ² |
| face | VI | 6 to 16 mm | 40 ms | 40-50 J/cm ² |
| body | I-III | 8 to 18 mm | 30 ms | 40-50 J/cm ² |
| body | IV | 8 to 18 mm | 30-40 ms | 35-45 J/cm ² |
| body | V | 8 to 18 mm | 30-40 ms | 35-45 J/cm ² |
| body | VI | 8 to 18 mm | 30-40 ms | 30-40 J/cm ² |
| body | I-III | 6 to 16 mm | 30 ms | 50-70 J/cm ² |
| body | IV | 6 to 16 mm | 30-40 ms | 40-60 J/cm ² |
| body | V | 6 to 16 mm | 30-40 ms | 40-60 J/cm ² |
| body | VI | 6 to 16 mm | 30-40 ms | 40-60 J/cm ² |

*use the handpieces in the LONGPULSE mode with cooling (by air, through an external cooler, or by the sapphire window); note that the larger the spot, the better the treatment coverage area, but the greater the risk of adverse effects due to the use of excessive energy or pulse time;

| ZYE® YAG THERMAL PEELING | | | | |
|--|--------------------------------------|--------------------|-----------------|-------------------------|
| INDICATION | HANDPIECE 3-24, 5-15, 3-10 | PULSE WIDTH | REP RATE | FLUENCE |
| flushing from rosacea and poikiloderma | 3, 5 mm | 200, 300 µs | 3-10 Hz | 10-40 J/cm ² |
| closing of pores | 5, 6, 8, 10 mm | 650 µs | 3-10 Hz | 8-20 J/cm ² |
| fine lines and wrinkles | 5, 6, 8, 10 mm | 650 µs | 3-10 Hz | 8-20 J/cm ² |

| ZYE® YAG ONYCHOMYCOSIS | | | | |
|------------------------|-------------|----------------|----------|-------------------------|
| HANDPIECE | PULSE WIDTH | OPERATION MODE | REP RATE | FLUENCE |
| 3-24,5-15*,3-10 | | | | |
| 3, 5 mm | 300 µs | DYNAMICS | 3-10 Hz | 10-40 J/cm ² |
| 5, 6 mm | 40 ms | LONGPULSE | 1 Hz | 40-80 J/cm ² |

*use the handpieces in the LONGPULSE mode with cooling (by air, through an external cooler, or by the sapphire window); note that the larger the spot, the better the treatment coverage area, but the greater the risk of adverse effects due to the use of excessive energy or pulse time;

| ZYE® YAG LASER TIGHTENING | | | | |
|---------------------------|-----------|-----------|-----------------------------|---------|
| TREATMENT AREA | HANDPIECE | TIME SHOT | TOTAL ENERGY | POWER |
| region of the face | 5-15 | | | |
| | 10, 15 mm | 15 s | 5.44 - 7.16 KJ HEMIFACE | 20-30 W |
| chest, neck and jowl | 10, 15 mm | 15 s | 7.16 - 10.1 KJ QUADRANT | 20-30 W |
| arms | 15 mm | 15 s | 7.16 – 14.3 KJ/ ARM | 30-40 W |
| abdomen | 15 mm | 15 s | 10.1 – 14.3 KJ/ QUADRANT | 30-50 W |

Attention : the temperature of the treated tissue should be increased to 42°C for intense collagen stimulation. After reaching it evenly throughout the quadrant, continue heating for at least 2 minutes.

| IPL-SQ® DYNAMICS | | | | | |
|------------------|-----------------|-----------------------|-------------------------|-------------|---------|
| SKIN TYPE | PASSES | FLUENCE | λ | PULSE WIDTH | COOLING |
| I-IV | until erythema* | 4-8 J/cm ² | <i>except</i> 390 nm | 10-15 ms | 2°C |

*a thin layer of gel may be needed to make passing the handpiece easier;

*the 390 nm filter is the only one that does not allow this operating mode.

| IPL-SQ® ACTIVE ACNE | | | | | | |
|---------------------|---------------------------------|--------|-------------------------|-----------|-------------|---------|
| SKIN TYPE | LESION TYPE | PASSES | FLUENCE | λ | PULSE WIDTH | COOLING |
| I-II | <i>pustular or inflammatory</i> | 1-2x | 10-16 J/cm ² | 390 nm | 30-40 ms | 2°C |
| III-IV | <i>pustular or inflammatory</i> | 1-2x | 10-14 J/cm ² | 390 nm | 40-60 ms | 2°C |
| V-VI | <i>pustular or inflammatory</i> | 1-2x | 9-12 J/cm ² | 390 nm | 100 ms | 2°C |

Associating topical retinoids is critical to the total success of the treatment. IPL-SQ® technology, when used alone, relieves but does not permanently eliminate symptoms and the disease itself;

Sessions should not exceed the 2-week limit;

It is critical that the patient is not tanned for active acne treatment in particular. The 390 nm filter, despite adequate UV protection, has a greater predisposition to induce hyperchromia formation. If hyperchromia occurs in any case, lower energy levels to an acceptable minimum or even discontinue treatment. Greater care must be taken with higher phototypes;

| IPL-SQ® VITILIGO | | | | | | |
|------------------|-----------------------|---------------------|------------------------|-----------|-------------|---------|
| SKIN TYPE | LESION TYPE | PASSES | FLUENCE | λ | PULSE WIDTH | COOLING |
| I-IV | <i>recent lesions</i> | including erythema* | 8-16 J/cm ² | 390 nm | 30-40ms | 2°C |

*achieve minimum desired erythematous dose over the lesion;

| IPL-SQ® PSORIASIS | | | | | | |
|-------------------|-----------------|--------|-------------------------|-----------|-------------|---------|
| SKIN TYPE | LESION TYPE | PASSES | FLUENCE | λ | PULSE WIDTH | COOLING |
| I-III | <i>no crust</i> | 1-2x | 10-16 J/cm ² | 390 nm | 30-40 ms | 2°C |
| III-IV | <i>no crust</i> | 1-2x | 10-14 J/cm ² | 390 nm | 40-60 ms | 2°C |

| IPL-SQ® PIGMENTED LESIONS | | | | | | |
|---------------------------|----------|--------------------|-------------------------|-----------|-------------|---------|
| SKIN TYPE | SPOT | LESION TYPE | FLUENCE | λ | PULSE WIDTH | COOLING |
| I-II | 40x12 mm | <i>superficial</i> | 13-17 J/cm ² | 540 nm | 10 ms | 2°C |
| I-II | 40x12 mm | <i>superficial</i> | 13-19 J/cm ² | 540 nm | 15 ms | 2°C |
| III | 40x12 mm | <i>superficial</i> | 12-17 J/cm ² | 540 nm | 15 ms | 2°C |
| IV | 40x12 mm | <i>superficial</i> | 10-16 J/cm ² | 580 nm | 20 ms | 2°C |
| V | 40x12 mm | <i>superficial</i> | 10-15 J/cm ² | 580 nm | 20 ms | 2°C |

*for darker lesions, use even more moderate parameters than those shown here;

| IPL-SQ® VASCULAR LESIONS | | | | | | |
|--------------------------|-------------------------|---------------|-------------------------|-----------|-------------|---------|
| SKIN TYPE | SPOT | \varnothing | FLUENCE | λ | PULSE WIDTH | COOLING |
| I-III | <i>poikiloderma</i> | | 10-15 J/cm ² | 540 nm | 15 ms | 2°C |
| I-III | <i>poikiloderma</i> | | 10-15 J/cm ² | 540 nm | 20 ms | 2°C |
| I-III | <i>rosacea flushing</i> | | 12-16 J/cm ² | 540 nm | 10-15 ms | 2°C |

*proceed carefully and cautiously for higher phototypes

POIKILODERMA: be careful when treating the chest and, above all else, in higher phototypes. Diffuse erythema and small vessel vasoconstriction or pigment darkening are indicative of a good response. Use more conservative parameters during the first session.

ROSACEA: analyze the phototype for correct fluence parameterization. In the event of purpura, decrease the fluence or increase the pulse time to 15 ms to generate treatment continuity.

| LONGPULSE® THERMAL PEELING | | | | |
|----------------------------|-----------|-------------|----------|-------------------------|
| INDICATION | SPOT SIZE | PULSE WIDTH | REP RATE | FLUENCE |
| rosacea flushing | 3 mm | 300 μ s | 3-10 Hz | 10-17 J/cm ² |
| closing of pores | 3, 6 mm | 650 μ s | 3-10 Hz | 20-45 J/cm ² |
| fine lines and wrinkles | 3, 6 mm | 650 μ s | 3-10 Hz | 20-45 J/cm ² |

| DUALMODE® SUPERFICIAL DYNAMIC PEELING | | | | |
|---------------------------------------|-------------|-----------|----------|-----------|
| FLUENCE | PULSE WIDTH | SPOT SIZE | REP RATE | SKIN TYPE |
| 0.25-0.55 J/cm ² | 200 μs | 12 mm | 10 Hz | I-IV |

| DUALMODE® EYELIFT® | | | | |
|--------------------|-------------|---|----------|-----------|
| FLUENCE | PULSE WIDTH | SPOT SIZE | REP RATE | SKIN TYPE |
| 15 to 25 mJ/mtz | inLift® | 8/100 mtz/cm ² <i>eyeLift</i> | 1 Hz | I-IV |

| TREATMENT PROGRAM 1 ZYE YOURSELF® | | | | | |
|---|-----------------------------|-------------------|----------|----------------------------|---|
| HANDPIECE & SPOT | FLUENCE ENERGY | PULSE WIDTH | REP RATE | TOTAL SHOTS | INDICATION |
| DualMode® <i>fractionalInLift®</i> | 30-40 mJ/mtz | N/A | N/A | 50-100 | intraoral LASER lifting & volumizing effect |
| ZYE YAG® DYNAMICS® 5, 6, 8, 10 mm | 8-20 J/cm ² | 200-650 us | 3-10 Hz | treatment by quadrant | thermal peeling, for pores and fine lines |
| DualMode® 12 mm <i>collimated</i> | 0.25-0.55 J/cm ² | 200 us | 1 Hz | entire face | lightening and drug delivery association |
| ZYE® YAG INTENSE® 5-15 10, 15 mm | 20-30 W | 15 s shot time | - | 7.16 - 10.1 KJ QUADRANT | tightening in the neck, jowl and chest |

| TREATMENT PROGRAM 2 ZYE YOURSELF® | | | | | |
|---|-----------------------------|-------------|----------|---------------------------------------|---|
| HANDPIECE & SPOT | FLUENCE ENERGY | PULSE WIDTH | REP RATE | TOTAL SHOTS | INDICATION |
| DualMode® <i>fractional inLift®</i> | 30-40 mJ/mtz | N/A | N/A | 50-100 | intraoral LASER lifting & volumizing effect |
| ZYE YAG® DYNAMICS® 5, 6, 8, 10 mm | 8-20 J/cm ² | 200-650 us | 3-10 Hz | treatment by quadrant | thermal peeling, for pores and fine lines |
| DualMode® eyeLift® | 30-40 mJ/mtz | N/A | N/A | 30-50 | Eyelid flaccidity |
| DualMode® 12 mm <i>collimated</i> | 0.25-0.55 J/cm ² | 200 us | 10 Hz | average of 500 to 2000/quadrant | lightening and drug delivery association |

| TREATMENT PROGRAM 3 ZYE YOURSELF® | | | | | |
|--------------------------------------|-----------------------|-------------|----------|-----------------------|-------------------------------|
| HANDPIECE & SPOT | FLUENCE ENERGY | PULSE WIDTH | REP RATE | TOTAL SHOTS | INDICATION |
| IPL-Sq® DYNAMICS® 540/580 nm | 4-8 J/cm ² | 10–15 ms | 3 Hz | N/A | pigmented lesions |
| ACROMA-QS® 7 mm | 900 – 1200 mJ | 20 ns | 5 Hz | treatment per area | LASER toning |
| DualMode® 8/400 mtz | 2-3 mJ/mtz | 300 us | 3 HZ | cover the area | pigments and drug delivery |

| TREATMENT PROGRAM 4 ZYE YOURSELF® | | | | | |
|---|-----------------------------|-------------|----------|------------------------------|---|
| HANDPIECE & SPOT | FLUENCE ENERGY | PULSE WIDTH | REP RATE | TOTAL SHOTS | INDICATION |
| DualMode® <i>fractionalLift®</i> | 30-40 mJ/mtz | N/A | N/A | 50-100 | intraoral LASER lifting & volumizing effect |
| IPL-Sq® DYNAMICS® 695 nm | 4-8 J/cm ² | 10–15 ms | 3 Hz | N/D | skin toning and enlarged pore closure |
| DualMode® eyeLift® | 30-40 mJ/mtz | N/A | N/A | 30-50 | eyelid flaccidity |
| DualMode® 12 mm <i>collimated</i> | 0.25-0.55 J/cm ² | 200 us | 10 Hz | ~500 to 2,000 by quadrant | lightening and drug delivery association |

| TREATMENT PROGRAM 4 ZYE YOURSELF® | | | | | |
|---|--|-------------|----------|------------------------------|--|
| HANDPIECE & SPOT | FLUENCE ENERGY | PULSE WIDTH | REP RATE | TOTAL SHOTS | INDICATION |
| ZYE ALX® LONGPULSE® 5, 8 mm | 20-30 J/cm ² 10-20 J/cm ² | 10-30 ms | N/A | N/A | pigmented lesions |
| ACROMA-QS® 7 mm | 900-1200 mJ | 20 ns | 5 Hz | treatment per area | LASER toning |
| DualMode® 12 mm <i>collimated</i> | 0.25-0.55 J/cm ² | 200 us | 10 Hz | ~500 to 2,000 by quadrant | lightening and drug delivery association |

| TREATMENT PROGRAM 5 ZYE YOURSELF® | | | | | |
|---|-----------------------------|-------------|----------|------------------------------|---|
| HANDPIECE & SPOT | FLUENCE ENERGY | PULSE WIDTH | REP RATE | TOTAL SHOTS | INDICATION |
| DualMode® <i>fractional inLift®</i> | 30-40 mJ/mtz | N/A | N/A | 50-100 | intraoral LASER lifting & volumizing effect |
| ProDeep 10/100 mtz | 90-100 mJ/mtz | 3 ms | 1 Hz | N/A | skin tone and fine lines |
| DualMode® 12 mm <i>collimated</i> | 0.25-0.55 J/cm ² | 200 us | 10 Hz | ~500 to 2,000 by quadrant | lightening and drug delivery association |

| TREATMENT PROGRAM 6 ZYE YOURSELF® | | | | | |
|--------------------------------------|------------------------|-------------|----------|--------------------------|---|
| HANDPIECE & SPOT | FLUENCE ENERGY | PULSE WIDTH | REP RATE | TOTAL SHOTS | INDICATION |
| IPL-Sq® DYNAMICS® 540/580 nm | 4-8 J/cm ² | 10-15ms | 3 Hz | N/A | vascular lesions |
| ZYE YAG® DYNAMICS® 5 mm | 8-10 J/cm ² | 300 us | 10 Hz | treatment by quadrant | flushing and superficial vascular lesions |

| Preparation | Review | Approval |
|------------------------------------|-------------------|--------------|
| Antonio Olivatto Giovana Milani | Francisco Pereira | Eduardo Nico |

| Review | Date | Description | Person in charge |
|--------|------------|--------------------------|------------------|
| 1.0 | 07/17/19 | Document issuance | Antonio Olivatto |
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